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BCCDC Toolkit: Responding to Opioid Overdose for BC service providers

2020

Provincial Health Services Authority
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1.0 ACKNOWLEDGEMENTS

The bulk of this document was created on the ancestral, traditional and unceded territories of the xʷməθkwəy̓əm (Musqueam), Skwxwú7mesh (Squamish), and sel̓íl̓witulh (Tsleil-waututh) Nations. For additional occupied territories involved in the creation of this guideline, see Section 1.3: Contributors.

Many of us have made or heard land acknowledgements with intentions of allyship or decolonizing. Oftentimes we say or listen to words without knowing what they really mean. For example, this document was written on the ancestral, traditional and unceded territories of the Coast Salish Peoples, and more specifically of the xʷməθkwəy̓əm (Musqueam), Skwxwú7mesh (Squamish), and sel̓íl̓witulh (Tsleil-waututh) Nations. What we mean when we say 'ancestral, traditional and unceded' is that, the land that this document was created on was stolen from the xʷməθkwəy̓əm (Musqueam), Skwxwú7mesh (Squamish), and sel̓íl̓witulh (Tsleil-waututh) Nations. There were/are no treaties, signed or negotiated, and the land that is occupied was taken from local Nations.

Therefore, despite our own lived and living experiences of colonialism, displacement and oppression we have a responsibility to respect the values, culture and self-determination of Indigenous Peoples. PHSA/BCCDC has signed the Declaration of Commitment on Cultural Safety and Humility in Health Services, and made a commitment to implementing the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) and the Calls to Action of the Truth and Reconciliation Commission of Canada (TRC). These documents seek to ensure self-determination and meaningful decision-making while also ensuring that Indigenous Peoples can exercise their inherent right to quality health care.

We have a responsibility to give back to this land and to the Peoples who are stewards of the land who so generously allow us to be here. We have a responsibility to show respect and to ensure we do everything possible to work toward a better future together. This responsibility extends across sectors and is especially true within current public health contexts where the impacts from prohibition, poverty and racism experienced by First Nations, Inuit, and Métis Peoples are exacerbated by the continued criminalization of people who use drugs.

1.2 Dedication

The provincial working group for BC's Responding to Opioid Overdose Toolkit would like to acknowledge the immense and profound experiences of grief and loss that have filled communities from living and working with people who have succumbed to the drug war. We would like to express our deepest gratitude to the people whose lives are on the line, to the thousands who have died, and to the hundreds of thousands of people working within the various levels to prevent more deaths. It is because of their persistent efforts that this document is possible, and as these feeling persist they will provide fuel for years to come.

1.3 Contributors

Occupied Territories	Provincial Working Group Members
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2.0 Disclaimers

This toolkit is intended for all service providers, including regulated and non-regulated service providers and paramedics, who are responding to opioid overdoses across British Columbia (BC). There is an extensive glossary[1] of terms at the end of this document to assist with an understanding of terminology used throughout.

This toolkit does not replace workplace or employer overdose response (e.g., naloxone) policies and procedures; and does not apply to naloxone dispensation. Additionally, this guideline's primary focus is on opioid overdoses, with other toxidromes included in APPENDIX E: Responding to Other Types of Overdoses.

Activities in responding to opioid overdoses are the same in every setting (e.g., airway management or ventilation and naloxone). In workplace settings, it is important to have an understanding of what one can and cannot do when responding to an opioid overdose. How people can respond (i.e., what activity or skill one can perform) is based on scope of practice, additional training, professional regulations and employer procedures and is determined by the following:

- For **regulated service providers**: The Health Professions Act, regulatory bodies, and employer restrictions
- For **non-regulated service providers**: Job descriptions and employer restrictions (e.g., workplace policies and procedures).

[1] See Section 14: Glossary

3.0 INTRODUCTION

This British Columbia (BC) toolkit is for all service providers[2] to respond to opioid overdoses in a timely and effective way, informed by evidence, expert opinion and wise practices. It is important that those most likely to respond to an overdose feel prepared and well-equipped to respond to any severity of overdose. *Opioid overdose training must ensure that people responding to opioid overdoses know what to do in the moment and after*.

Accompanied by a comprehensive Section 14.0: Glossary the overall aim of this toolkit is to:

1. Create options for all service providers to better support people who use drugs and alcohol;
2. Provide all service providers responding to opioid overdoses with the tools needed to respond as quickly as possible, based on job title, employment setting[3], level of training, and scope of practice; and
3. Encourage policy- and decision- makers across the province to continue enhancing and/or creating harm reduction, naloxone and opioid overdose response (including episodic-Overdose Prevention Service) protocols and procedures for local settings.

Initial steps in a witnessed or suspected opioid overdose is to seek emergency medical help and give rescue breaths. Signs and symptoms of opioid overdose include sedation, miosis (tiny pupils), cyanosis (pale, blue or gray skin) and respiratory depression (decreased, shallow, or absent respirations). Early identification and intervention can limit progression of the overdose and decrease the likelihood of complications. Slowed breathing can cause the lungs to rapidly fill with excess fluid and may lead to non-cardiogenic pulmonary edema or acute lung injury. Other complications may include hypothermia, renal damage or failure, compartment syndrome, aspiration pneumonia, and post-hypoxic leukoencephalopathies. These all require immediate medical intervention to prevent long-term damage.

While there may be reasonable hesitation and fears about calling 911 (e.g. criminalization and stigma, assumption that naloxone is adequate, lack of access to phone, etc.), initiating a call to emergency services will help prevent brain injury or death, and efficiently identify any complications that may allow for intervention if the signs and symptoms are not solely caused by opioid overdose. If you call 911, British Columbia Emergency Health Services (BCEHS) no longer routinely calls police to respond to a suspected opioid overdose, except under specific circumstances (e.g. existing safety concerns). Also, the Good Samaritan Drug Overdose Act (GSDOA) provides some protection to people responding to overdoses, see APPENDIX H for more information.

[2] Throughout this document *all service providers* refers to all non-regulated and regulated service providers including paramedics, peer supports, and people working in non-profit community-based organizations
[3] Refer to Section 5.0: Opioid Overdose Settings

3.1 Overdose Response in the context of COVID-19

The dual public health emergencies of the overdose crisis and COVID-19 present unprecedented risks for people who use substances. It is essential that effective overdose response activities continue given an increasingly toxic drug supply. While there is a risk of COVID-19 infection to the responder during an overdose response, there are a number of precautions such as the use of personal protective equipment that will reduce the risk of infection. The risk of infection from COVID-19 is low relative to the high risk of brain injury or death during an overdose. Taking basic precautions will minimize the risk of infection of both the person experiencing the overdose and the responder.

For guidance related to COVID-19 and opioid overdose response, refer to the BCCDC People Who Use Substances[4] and Toward the Heart COVID-19 documents[5].

3.2 Background

Illicit drug overdose continues to be the leading cause of unnatural deaths in BC. On April 14, 2016, BC's Provincial Health Officer declared a public health emergency in response to the increase in illicit drug overdose deaths[6]. The spike in overdose deaths has been largely attributed to the increased presence of fentanyl and its analogues in the illicit drug supply. Similarly, contamination with benzodiazepines and other CNS depressants are resulting in more severe overdose presentations that render naloxone less effective.

With the introduction of higher-potency opioids, alone or mixed with benzos in the illicit drug supply, people responding to overdoses have noticed changes in the way people are presenting. Unusual or complex presentations may make it more challenging to identify as an overdose, which can result in delayed response[7].

In response to the rise in opioid overdoses, several key measures have been undertaken to prevent overdoses and save lives. This includes changes in naloxone scheduling and practice, and expansion of: community naloxone distribution, overdose prevention services, drug checking services, peer-based and peer-run initiatives, and pharmacological treatment options[8]. While there is a long way to go to bring cohesion to the provincial response, these changes have made it easier for anyone in any setting to respond to an opioid overdose. However, the unpredictability of the illicit drug supply presents ongoing risk of overdose for people who use drugs until there is improved access to pharmacological treatments and a safer supply.

[4] http://www.bccdc.ca/health-info/diseases-conditions/covid-19/priority-populations/people-who-use-substances
[5] https://towardtheheart.com/covid-19-resources
[6] http://www.bccdc.ca/health-professionals/data-reports/overdose-response-reports
[7] Kinshella, M-L. W. (2017). Report: Unusual Opioid overdose presentations at Insite October 2017 to April 2017. Submitted to Vancouver Coastal Health.
[8] Please refer to the Best Practice Recommendations for Canadian Harm Reduction Programs: http://www.catie.ca/sites/default/files/BestPracticeRecommendations_HarmReductionProgramsCanada_Part1_August_15_2013.pdf).

3.3 Indigenous-Specific Consideration

A special thanks to Jillian Jones and Stephen Thompson with Métis Nation British Columbia; and Dawn Tisdale, Anne Cochran, and Nacy Laliberte with PHSA's Indigenous Health team for helping create this section.

We respect the values, culture and self-determination of Indigenous Peoples; as per the Declaration of Commitment on Cultural Safety and Humility in Health Services, and made a commitment to implementing the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) and the Calls to Action of the Truth and Reconciliation Commission of Canada (TRC). These documents seek to ensure self-determination and meaningful decision-making while also ensuring that Indigenous Peoples can exercise their inherent right to quality health care. We strive for the application of equity and cultural safety to all policies and processes in order to address and decrease health inequities for Indigenous Peoples. Wise Practices, the inclusion of diverse Indigenous knowledge and health practices that contribute to sustainable and equitable conditions, are given equal space and weight with Best Practices, a Western evidence-based approach to care reflecting current medical perspectives on standards or points of view.

In the current public health overdose emergency, ethical and equity-oriented approaches are of utmost importance. Our approach must be informed by local First Nations, Inuit and Métis communities, ensuring these communities benefit. Indigenous-informed approaches are exemplified in the practice of examining and taking into account the Indigenous determinants of health when working with First Nations, Inuit, and Métis Peoples in BC. It is important to keep in mind that Indigenous communities have rich histories of wellness and wellness systems which were, and continue to be, disrupted by colonialism. The ongoing experiences of trauma, loss, poverty, family separation, land displacement, and structural racism directly contribute to the overrepresentation of Indigenous people affected by the overdose public health emergency[9]. With this in mind, it is incumbent on all service providers to understand the context of substance use and direct links to the historical and ongoing harms of colonialism for First Nation, Inuit, and Métis Peoples[11].

Service providers must also recognize the imbalance of power and privilege that exists between service providers and those they serve, and the implications for service delivery. Inclusive and effective approaches to service provision for Indigenous Peoples are rendered meaningful[10] when based on equitable access and are trauma-and-violence informed[11]. These principles are the foundation to service provision and when put into practice, people accessing services have: positive experiences with health and social services; higher levels of comfort and confidence in care; increased opportunities for early intervention; greater access to relevant services; and more experiences of connection. Overall, services that are rooted in the above principles will decrease stigma over time. If we do this together, we can do it for everyone.

[9] Canadian Aboriginal AIDS Network and Interagency Coalition on AIDS and Development (2019). Indigenous harm reduction = reducing the harms of colonialism. Retrieved from: http://www.icad-cisd.com/pdf/Publications/Indigenous-Harm-Reduction-Policy-Brief.pdf
[10] https://towardtheheart.com/resource/how-to-involve-people-who-use-drugs/open
[11] https://equiphealthcare.ca/toolkit/

3.4 Legislation and Regulation

Legislation

Liability related to responding to overdoses is a common concern. In Canada, there are no known cases of legal action against someone responding to an overdose. A bystander who provides emergency first aid, including administration of naloxone is protected from liability by the BC Good Samaritan Act. Further, the Federal Good Samaritan Drug Overdose Act also provides some protection against criminal charges for simple possession when responding to or at the scene of a drug overdose. See APPENDIX H for more information.

Regulation

Practice considerations for most regulated service providers are under the Health Professions Act (HPA) and include knowing and understanding what is within the scope of practice, as set out by the various regulatory bodies in BC. This is because regulatory bodies are informed of the best- and most-recent evidence and practicing ethics. As such, in accordance with the HPA, regulatory bodies have limits and conditions that must be adhered to by regulated service providers. You can find those limits and conditions on College websites. Below is a list of the regulatory bodies with opioid overdose or naloxone specific postings to their members:

- Massage Therapy: CMTBC[12]
- Nursing: BCCNM[13]
- Emergency Health Services: BCEHS[14]
- Occupational Therapy: COTBC[15]
- Pharmacy: CPBC[16]
- Physical therapy: CPTBC[17]
- Physicians and Surgeons: CPSBC[18]
- Speech and Hearing: CSHBC[19]
- Social Work: BCCSW[20]

[12] https://www.cmtbc.ca/2016/10/26/minister-health-permits-emergency-administration-naloxone/
[13] https://www.bccnp.ca/Standards/all_nurses/resources/Pages/opioids.aspx
[14] http://www.bcehs.ca/health-info/public-health/responding-to-an-overdose
[15] https://cotbc.org/?s=OVERDOSE
[16] https://www.cmtbc.ca/2016/10/26/minister-health-permits-emergency-administration-naloxone/
[17] https://cptbc.org/physical-therapists/practice-resources/advice-to-consider/administration-and-distribution-of-naloxone-by-physical-therapists/
[18] https://www.cpsbc.ca/site-search?search_api_multi_fulltext=OVERDOSE
[19] https://www.cshbc.ca/2017/12/05/use-of-naloxone-for-opioid-overdose/
[20] http://www.bccollegeofsocialworkers.ca/registrants/practice-guidance/

4.0 ETHICS & PRINCIPLES

This section was written by Alice Virani whose contributions give language to ethical decision-making and reminds us of the ethics that are meant to govern public health practices.

4.1 Ethics

There are many ethical dimensions to providing services in the context of opioid overdose, which include individual, systems, and/or professional/regulated approaches. These ethical dimensions differ based on the specific situation being addressed and can roughly be broken down as follows:

Clinical Ethics

- Enables all service providers to identify ethical issues related to their work and setting
- Fosters a culture of ethics in order to improve client care and outcomes
- Supports clients and families through difficult ethical decisions
- Empowers all service providers to make confident, ethical decisions that align with organizational values and ethical principles
- Assists service providers to critically think and resolve ethical dilemmas or issues via a step-by-step, fair process

Organizational Ethics

Organizational ethics examines the ethical dimensions of decision-making in health organizations. This includes enabling people to utilize shared values to set goals and direct actions as well as to clarify and evaluate policies and practices. An organizational ethics consultation process encourages the application of an ethics "lens" to decisions made at all levels of an organization to empower all service providers to make confident, ethical decisions that align with organizational values and ethical principles.

Professional Ethics

Ethical principles, roles, and responsibilities within a profession are often outlined in a code of ethics that provides guidance to the professional for addressing common ethical questions.

4.2 Principles of Health Care Ethics Relevant to Overdose Response[21]

Four principles of health care ethics that are fundamental to an ethical decision-making process related to overdose response in BC are beneficence, non-maleficence, respect and justice/fairness. Below is more information on each of these principles.

Beneficence

One should promote good health/well-being, and prevent harm for all stakeholders, including: clients, service providers, health care organizations, community-based organizations, and the peoples they serve. In decision-making consider the following:

[21] Taken from: 'Responding to British Columbia's Overdose Public Health Emergency - An Ethics Framework' written by a subgroup of the Provincial Forum on Clinical Ethics Support and Coordination who created and shaped the framework in collaboration with the Health System Steering Committee on Overdose Prevention and Response, including David Unger (Providence Health Care/BCCDC), Bethan Everett (VCH), Terrence Anderson (VCH), Judy Nicol (IHA), and Jenny Young (Providence Health Care) and Bonnie Henry (Deputy Provincial Health Officer).

Excellence: Provide the best possible evidence-informed care and ensure service providers are equipped to provide this care. For Indigenous Peoples, this would include the incorporation of Wise Practices into service provision.

Prevention: Make every effort to address fundamental causes of harm and reduce health inequities. Effective solutions must address both immediate and long-term needs and incorporate preventive measures.

Accountability: Incorporate methods of measuring and reporting outcomes and results as well as for correcting wrongs and managing grievances.

Non-maleficence

One should do no harm (immediate or long-term) to any stakeholder, including: clients, service providers, health care organizations, community-based organizations, and the peoples they serve. In decision-making consider the following:

Harm reduction: A primary objective is to reduce overdoses and deaths regardless of continued or future use of substances.

Respect

One should respect the dignity and worth of others. In decision-making consider the following:

Respect for Autonomy: Ensure informed consent is obtained and whenever possible, patient's/client's choices are respected.

Transparency: Provide clear and accurate information about decisions and the rationale for them, especially to all who are most affected. Communicate this information throughout the process.

Cultural/ Religious Awareness, Sensitivity and Safety: Learn about the ways your personal cultural and religious values and beliefs interact with those of the people you work with. Consideration for clients and colleagues will create a more culturally safe interaction/environment.

Fidelity: Keep promises and nurture relationships so that others can trust.

Trust: Seek to foster mutual respect and trust between all parties. Avoid measures that erode trust as these can generate significant harm.

Veracity: One should tell the truth.

Confidentiality/Privacy of Clients: One should, with very limited exceptions, respect the privacy rights of clients.

Confidentiality/Privacy of Service Providers: One should, with very limited exceptions, respect the right of individuals who approach leaders with concerns or for consultation, to determine to what extent information about this should be communicated to others.[22]

Justice/ Fairness

One should uphold and pursue all aspects of justice/fairness. In decision-making consider the following:

Equity/ Distributive Justice: This is the principle of "similar treatment for similar cases." The goods and services (e.g., prevention, diagnosis, treatment, and care) and the burdens (e.g., shortages, rationing) for services should be distributed to persons according to their need rather than according to ability to pay, merit ("worthiness"), abstinence from substances, contribution to society, power or influence, etc. Where this is not the case, consider:

- Promise Keeping – Recognize agreements and commitments that funders have already made to the area of service and/or constituency group.
- Appropriateness – Serve the mission and goals and assess whether the service is related to some exceptional responsibility.
- Emergency Needs – Determine if the service meets an emergency or crisis situation that must be addressed immediately, or it will be too late to be of assistance.

Procedural Justice: The process of decision-making should be fair.

- Those most affected by the decisions have good opportunity to participate in meaningful ways in the process (taking into account language, culture, and formal education of affected groups).
- The criteria used for allocating resources are available to all.
- Decision-makers have adequate and relevant information to make a fair decision.

Administrative Justice: Policies and programs should be enacted, carried out, and administered fairly.

Compensatory Justice: Compensation for labour and services rendered should be fair, and in turn, services provided should also be fair.

Social Justice: A just society is one that takes care of its most vulnerable and those who have suffered systemic discrimination.

Sustainability: Resources should be allocated fairly and strategies that are sustainable over the long-term should be prioritized.

Efficacy: Policies and programs should be justified by good outcome data. Maintain plans of proven efficacy and improve or modify those that fall short or fail.

Reciprocity: Every means possible should be sought to aid stakeholders in adhering to policies and practices, and to the extent possible, compensation built into the program for burdens and sacrifices.

Wise Practices: The inclusion of diverse Indigenous knowledge and health practices that contribute to sustainable and equitable conditions.

5.0 OPIOID OVERDOSE SETTINGS

Overdoses can happen anywhere that people use substances, which includes inside and outside of health facilities. All health and social service settings in BC are encouraged to consider overdose prevention and overdose response in their policies, protocols, and physical services. See the VCH Policy and Protocol recommendations for a guide.[23]

The majority of overdose deaths occur inside residences, where people live and are often alone while using.[24] Overdose risk should therefore be considered not only for housing services but also inpatient facilities discharging people into community. To reduce unobserved substance use and fatal overdoses specific considerations include: ensuring clients who may use, or observe others using illicit substances, have overdose training and naloxone; and that every setting is encouraged to offer services related to harm reduction and overdose prevention, including supervised consumption sites (SCS), overdose prevention services (OPS) and episodic-overdose prevention services (e-OPS).

5.1 Community

Defined as any site or facility (including a private residence) outside of a hospital setting, which are not governed by the Hospital Act. To initiate emergency services, call 911 or the usual emergency response if 911 is not available. Community settings include:

- Community health clinics/centres
- Observed Consumption Services[25] (SCS, OPS and e-OPS), including:
    - Fixed site: single address location set up for observed substance use
    - Outreach from a fixed site (see below)
    - Leaving a fixed site to respond to an OD (see below)
    - Pop-Up OPS[26]: short-term site for observed substance use, common for events, meetings, conferences, or pop-up community sites without a fixed address
- Emergency Medical Service (EMS) Locations
- Public areas on hospital grounds including washrooms, gardens, cafeteria
- Community partners: housing/residential, drop-ins, shelters, emergency shelters, group homes
- Washrooms are a frequent setting for overdose. See the VCH safer washroom recommendations for an example of how to assess and reduce risk in washrooms[27]
- Outreach, including therapeutic outings

[23] http://www.vch.ca/Documents/Overdose-Prevention-Checklist.pdf
[24] BC Coroners Service (2020). Illicit Drug Toxicity Deaths, January 1, 2010 to June 20, 2020. Retrieved from: https://www2.gov.bc.ca/assets/gov/birth-adoption-death-marriage-and-divorce/deaths/coroners-service/statistical/illicit-drug.pdf
[25] http://www.bccdc.ca/resource-gallery/Documents/Statistics%20and%20Research/Statistics%20and%20Reports/Overdose/Final_OCSStatement_June2019.pdf
[26] https://towardtheheart.com/resource/recommendations-for-overdose-prevention-at-meetings-and-events/open
[27] http://www.vch.ca/Documents/Washroom-Checklist-Service-Settings.pdf

Outreach

Service providers working in outreach settings may witness or be notified of a drug related medical emergency outside of their outreach duties. Staff are able to respond outside their outreach duties to any member of the community, even if they are not clients of the service. Staff are not required to provide emergency care; however, safety is paramount. If staff decide to proceed, it is the responsibility of the provider to do an immediate assessment of the situation to determine whether it is safe to provide such care. Service providers will only provide a level of intervention that is within their level of training, knowledge and competence. Refer to the VCH Risk Assessment for Intervening in a Suspected Opioid Overdose in an Outreach Setting[28] for examples of this type of policy.

Leaving a Fixed Site for Overdose Response

Service providers may witness or be notified of a client outside their setting who requires immediate assistance with a drug related medical emergency. Service providers are not required, but are able, to leave their work setting to provide care to anyone, even if they are not clients of the service. If the service provider decides to do so, it is the responsibility of the staff involved to do an immediate assessment of the situation to determine whether it is safe to respond. Service providers will provide a level of intervention that is within their training (e.g. scope of practice), knowledge and competence. Service providers must ensure the safety of the clients within their service setting prior to attending to an individual outside their service setting.

Refer to VCH Standard Operating Procedure: Risk Assessment for Leaving a Fixed Site to intervene in a Suspected Opioid Overdose[29] for examples of this type of policy.

5.2 Acute Facility

Defined as any facility governed by the Hospital Act and are known as hospitals. To initiate emergency services, call the Code team or usual emergency response (e.g. 7111).

5.3 Non-Acute Facility

Defined as any non-acute care setting that is governed by the Hospital Act. To initiate emergency services, call the code team, 911 or the usual emergency response. Non-acute facilities include:

- Corrections: federal or provincial penitentiaries
- Forensic Psychiatric Services
- Community health clinic
- Mental Health and Substance Use services: treatment facilities, detox, medical withdrawal services
- Residential services, long-term and hospice care

[28] http://shop.healthcarebc.ca/vch/VCHDSTs/D-00-16-30117.pdf
[29] http://shop.healthcarebc.ca/vch/VCHDSTs/D-00-16-30116.pdf

5.4 Episodic Overdose Prevention Services (e-OPS)

With consideration for site-specific policies and procedures, episodic overdose prevention services (e-OPS) may occur within any health and social setting where an on-duty service provider interacts with clients. Excluding formally designated fixed-location overdose prevention sites or SCS, this includes all settings listed above.

In any situation where service providers may encounter a client who intends to use illicit drugs imminently, monitoring consumption is the most effective way to ensure client safety in the short term. This means supporting the client to consume their drugs in the most private and suitable environment that is immediately available to them, and to have the service provider monitoring them to ensue a timely response if an overdose occurs.

Outside of a formal overdose prevention site or SCS, and as the need arises, service providers with appropriate training[30] can observe consumption of illicit substances by clients. This can occur in any controlled environment (e.g. bedside, washroom, empty exam room) for the primary purpose of preparing for, and responding to, an overdose that may occur. If staff do not feel supported to provide this service and the service has been requested by the client, it is important to find someone who is able to provide this life-saving service; additionally the client is free to decline any element of the above services which should not affect their access to other medical services available to them.

Refer to Provincial Episodic OPS Protocol

5.5 Rural and Remote

Rural and remote communities may need to consider the following additional factors in overdose training, prevention and response[31]:

Emergency services may take a longer time to arrive on scene

- First responder(s) may need additional supplies of naloxone as well as oxygen and bag-valve masks to manage an overdose while waiting for emergency services to arrive
- Overdose training should include discussion of how to reach emergency services in each community (not always 911)
- Emergency response services can have difficulty finding rural and remote callers if addresses and locations are not well-marked or do not appear on GPS. First responder(s) should be prepared to direct Emergency Services to their locations
- Emergency response may include RCMP or law enforcement. Responder(s) should be aware that the Good Samaritan Drug Overdose Act protects against arrest for simple drug possession at the scene of an overdose

[30] See APPENDIX F: Training options for responding to opioid overdose response
[31] http://www.bccdc.ca/health-professionals/data-reports/overdose-response-reports

6.0 EQUIPMENT & SUPPLIES

Supplies and equipment available for response vary based on setting. Below are some that may be available:

Table 1: Equipment and Supplies

Basic Opioid OD Response	• THN Face Shield • Naloxone (injectable or intranasal) • Gloves • Safety syringes (vanish point) • Sharps disposal container • Alcohol swabs • Timekeeper such as a watch or phone • Supplies to restock after response (e.g. naloxone replacement)

Advanced Opioid OD Response	• **All items in Basic Opioid OD Response, and:**
	• Pulse oximeter
	• Oxygen
	  ◦ Oxygen can be administered via nasal prongs, simple face mask, non-rebreather mask or BVM
	• Bag-valve-mask (BVM)/ambu-bag
	  ◦ BVM can be use both with or without supplemental oxygen
	• Oral airway
	• Automated external defibrillator (AED)
	• Nasopharyngeal airway
	• Oral Suction
	• Stethoscope
	• Sphygmomanometer
	• Glucose monitor and test strips
	• Thermometer

For COVID-19 Interim guidance, see additional equipment in the context COVID-19[32]; for people working in Emergency Response Centres (ERC)[33]

[32] http://www.bccdc.ca/health-professionals/clinical-resources/covid-19-care/infection-control/personal-protective-equipment
[33] https://www2.gov.bc.ca/assets/gov/health/about-bc-s-health-care-system/office-of-the-provincial-health-officer/covid-19/covid-19-pho-guidance-joint-povincial-program-framework-for-ercs.pdf

7.0 OPIOID OVERDOSE RESPONSE

Anyone in any setting can assist someone experiencing an opioid overdose. If there is a high clinical suspicion of opioid overdose, part of *every response* is to initiate usual emergency response, to ventilate (e.g. give rescue breaths), and naloxone may also be required; indications for naloxone can be found in APPENDIX A: Naloxone.

Responders to overdose can follow the SAVE ME steps, and while they are often presented in a sequence of steps it's important to remember the iterative nature of these lifesaving measures. The number of responders, their training, and available resources will determine how to delegate activities[34].

7.1 Clinical Presentation

It can sometimes be hard to discern symptoms of being high or overdose. Onset of opioid overdose symptoms is dependent on the type of substance(s) used (e.g. short vs. long-acting), and how the substance(s) were consumed (e.g., injected vs. snorted or smoked). If a client is intoxicated, they may appear sedated but will respond to stimulation. While sedation is not the most reliable way to identify an opioid overdose, sedation can be an early sign of overdose. The most common symptoms include:

Table 2: Symptoms and Presentations of Opioid Overdose

Symptom	Presentation
Respiratory Depression	Decreased or absence of respirations (less than (<) 12 breaths per minute) Oxygen saturation levels less than 92% on room air
Miosis	Small or "pinpoint" pupils
Depressed Consciousness	Client can't stay awake, walk or talk
Cyanosis and Pallor	Skin looks pale, blue, grayish or ashen
Responsive to Naloxone	Symptoms improve with administration of naloxone
NOTE: Some opioid overdoses are harder to identify when additional substances (e.g. alcohol, stimulants or benzos) are involved, which can delay response. Symptoms will subside when the client is given naloxone. When in doubt, give naloxone[35].	

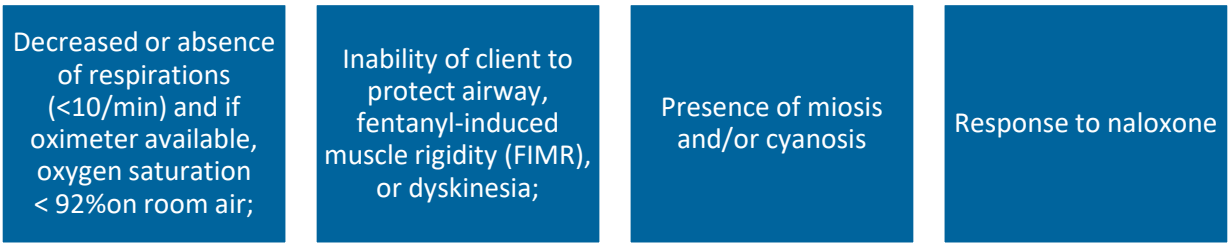
[34] https://towardtheheart.com/resource/forb-instruction-cards/open
[35] Naloxone will not cause harm, even if the overdose is not associated with an opioid

7.2 Assessment

Early identification is imperative to prevent complications. Assessments tools are a helpful way: to identify and secure safety as you approach the scene; confirm opioid overdose, including severity of overdose; and identify other conditions requiring treatment[36]

The following assessments will ensure prompt response, and see **APPENDIX B: Assessment Tools**:

Opioid overdose can be diagnosed based on the following outcomes:



7.3 Basic Opioid Overdose Response

For an algorithm of standard or basic management of witnessed or suspected opioid overdose, see below. Anyone, in any setting can respond to an overdose using naloxone. More information on each activity in the algorithm can be found in Section 10.0: Key Points for Activities in Opioid Overdose Response

For additional activities in opioid overdose response, see Table 3: Additional Activities in Responding to Opioid Overdose; and for aftercare procedures, see APPENDIX D.

For guidance related to COVID-19 and opioid overdose response, refer to the BCCDC People Who Uses Substances[37] and Toward the Heart COVID-19 documents[38]

Abbreviations in Algorithm

IM: Intramuscular injection
IN: Intranasal administration
IV: Intravenous administration
LPM: Litres per minute, for oxygen
RR: Respiratory rate
SC: Subcutaneous injection
Sp02: Oxygen saturation level, measured by oximeter
> : Above
< : less than

[36] See Section 9.0: Other Considerations
[37] http://www.bccdc.ca/health-info/diseases-conditions/covid-19/priority-populations/people-who-use-substances
[38] https://towardtheheart.com/covid-19-resources

BC Centre for Disease Control
Provincial Health Services Authority

MANAGEMENT OF SUSPECTED OR WITNESSED OPIOID OVERDOSE

S A V E M E

STIMULATE & IDENTIFY OPIOID OVERDOSE[1]
1. Scene Assessment
2. Assessments: RR & Sp02[2], pupil size, skin colour, and responsiveness
3. **STIMULATE**: Encourage them to breathe and to take big breaths

RR < 10/min

RR > 10/min

AIRWAY
- Secure Airway: check mouth for obstructions and check for breathing
- Open airway: head-tilt-chin-lift or Jaw-thrust

MONITOR
- Observe as per organization policy
- If no improvements OR status worsens, begin SAVE ME steps

VENTILATE
IF client is unconscious AND RR < 10/min
- **CALL 911** or initiate usual emergency response (e.g. 7111, code blue, etc.)
- Give rescue breaths (1 breath every 5 seconds, mouth to mask). **Continue until spontaneous RR > 10/min, client regains consciousness OR emergency services arrive**

MONITOR
- If unconscious, continue ventilations regardless of Sp02 > 92%

EVALUATE
After a few breaths, assess for changes in client status and continue trying to wake them
If **NOT** breathing and **NO** pulse, start hands-only CPR (AED if available) and if possible, administer 2mg naloxone (IV/IM/SC), OR
If **NOT** breathing and **HAS** pulse, continue ventilation

MEDICATION
IF no improvement with rescue breaths OR if client has not regained adequate ventilation
- Administer Naloxone (IM/SC/IV/IN) as per site recommendations
- If no response in 3 mins, repeat dose as indicated

RE-**EVALUATE**
Re-assess for changes in client status from previous assessments and efficacy of naloxone (may take 3-5 mins, or 30-40 rescue breaths to see full effect)
IF no improvement with ongoing rescue breaths and first dose of naloxone
- Continue to protect airway/ventilation and efforts to wake the person up
- Give subsequent doses of naloxone as indicated
- WAIT 3-5 mins (30-40 breaths) before additional naloxone doses
- Continue to monitor client status for improvements
- If there is no response, consider other causes of sedation and respiratory depression

Repeat steps until spontaneous RR > 10/min, client regains consciousness OR escalated emergency services arrive

MONITOR
IF the client is responsive AND has adequate ventilation stop rescue breaths, provide aftercare, and monitor for further changes in client status, OR
IF the person is unresponsive AND has adequate ventilation stop rescue breaths, place in recovery position, and monitor for further changes in client status

If no improvements OR status worsens, re-start SAVE ME steps

[1] Always say what you are going to do before you touch someone, even if they are not responsive
[2] if oximeter is not available, cyanosis is a clinical sign of hypoxia
Adapted from VCH, FHA, VIHA, NHA, PHC, PHSA algorithms and tools for responding to overdose in different settings

7.4 Advanced Opioid Overdose Response

Core activities for basic opioid overdose response[39] are recommended for all overdoses, including advanced opioid overdose response. Advanced response provides additional activities for airway management and ventilation that are dependent on: setting; level of training and scope of practice of responder(s); and employer policies and protocols.

7.4.1 Scope

With consideration for restrictions set out by employer(s), the majority of activities involved in advanced opioid overdose response can be performed by anyone with training[40]. Table 3 outlines considerations for each of the additional activities.

For an algorithm of advanced management of witnessed or suspected opioid overdose and a table in opioid overdose staging, see below. More information on each activity can be found in Section 10.0: Key Points for Activities in Opioid Overdose Response; and for aftercare procedures, see APPENDIX D.

Abbreviations in Algorithm

IM: Intramuscular injection
IN: Intranasal administration
IV: Intravenous administration
LPM: Litres per minute, for oxygen
RR: Respiratory rate
SC: Subcutaneous injection
Sp02: Oxygen saturation level, measured by oximeter
> : Above
< : less than

[39] See Section 7.3: Basic Opioid Overdose Response
[40] If not used properly these interventions may be ineffective and cause unintended consequences or harm. For more information on additional training see APPENDIX F; for more information on activities opioid overdose response, see Section 10.0: Key Points for Activities

Table 3: Additional Activities in Responding to Opioid Overdose

Activity	Restricted Activity[41]	Designation	Additional Training Available	Considerations[42]
Oxygen Administration (Low flow and BVM)[43]	Yes[44]	Regulated and Non-regulated Service Providers	•	Appropriate training, ongoing clinical oversight, and to follow a specific, approved, and straightforward operating procedure under delegation is recommended
Bag Valve Mask (BVM)[45]	No	Regulated and Non-regulated Service Providers	•	Appropriate training, ongoing clinical oversight, and to follow a specific, approved, and straightforward operating procedure is recommended to ensure safety of the client and prevent over-inflation
Oral Airway	No	Regulated and Non-regulated Service Providers	•	Appropriate training, ongoing clinical oversight, and to follow a specific, approved, and straightforward operating procedure is recommended to ensure safety of the client and prevent choking
Nasopharyngeal Airway	Yes	Regulated service providers	N/A	Additional training available for regulated service providers as permitted by HPA
Suction – Oral[46]	Yes	Regulated and Non-regulated Service Providers	•	Appropriate training, ongoing clinical oversight, and to follow a specific, approved, and straightforward operating procedure is recommended
NOTE: The use of Bag-Valve-Mask (BVM) is an aerosol generating medical procedure (AGMP) and requires airborne precautions in the context of COVID-19. See BCCDC's Personal Protective Equipment (PPE) webpage[47] for more information For nursing specific practice considerations, see APPENDIX J				

[41] By the Health Professions Act (HPA)
[42] including directions for performing skill and maintaining/ continuing competence
[43] Oxygen administration procedures will vary based on site
[44] Legally restricted under HPA, but some First Aid Courses are still able to provide this training to the public
[45] Also known as Ambu Bag, w ventilation without supplemental oxygen (as supplemental oxygen is a restricted activity and additional training is available/required)
[46] Nasopharyngeal suctioning (Suctioning beyond the narrowing of nasal passages or beyond the pharynx) is a restricted activity as per HPA
[47] http://www.bccdc.ca/health-professionals/clinical-resources/covid-19-care/infection-control/personal-protective-equipment

MANAGEMENT OF SUSPECTED OR WITNESSED OPIOID OVERDOSE with AIRWAY, O2 and BVM

STIMULATE & IDENTIFY OPIOID OVERDOSE[1]

1. Scene Assessment
2. Assessments: RR & Sp02[2], pupil size, skin colour, and responsiveness
3. **STIMULATE:** Encourage them to breathe and to take big breaths

RR < 10/min

RR > 10/min

AIRWAY

- Secure Airway: check for obstructions and breathing; Open airway (head-tilt-chin-lift or Jaw-thrust)
- **CALL 911** or initiate usual emergency response (e.g. 7111, code blue, etc.)
- Suction orally, if available, to clear airway of vomitus or excess secretions
- IF client is conscious, RR > 10/min with Sp02 < 92%, apply oxygen 10-15 LPM and encourage deep breaths[3]

MONITOR

- Observe as per organization policy
- If no improvements OR status worsens, begin SAVE ME steps

VENTILATE

IF client is unconscious AND RR < 10/min

- Insert oral or nasopharyngeal[4] airway (deeply unconscious clients will tolerate airway)
- Give rescue breaths (1 breath every 5 seconds, mouth to mask) OR provide oxygen at 10-15 LPM with assisted ventilation (BVM), if available. **Continue until spontaneous RR > 10/min, client regains consciousness OR emergency services arrive**

MONITOR

- If unconscious, continue assisted ventilations with oxygen regardless of Sp02 > 92%

EVALUATE

After a few breaths, assess for changes in client status and continue trying to wake them

If **NOT** breathing and **NO** pulse, start hands-only CPR (AED if available), and if possible 2mg naloxone (IM/SC/IV)

If **NOT** breathing and **HAS** pulse, continue ventilation

MEDICATION

IF no improvement with rescue breaths OR if client has not regained adequate ventilation

- Administer Naloxone (IM/SC/IV/IN) as per site recommendations
- If no response in 3 mins, repeat dose as indicated
- For complex or severe opioid overdose: if no response in 2 mins, repeat dose as needed

RE-EVALUATE

Re-assess for changes in client status from previous assessments and efficacy of naloxone (may take 3-5 mins, or 30-40 rescue breaths to see full effect)

IF no improvement with ongoing rescue breaths and first dose of naloxone

- Continue to protect airway/ventilation and efforts to wake the person up
- Give subsequent doses of naloxone as indicated
- WAIT 3-5 mins (30-40 breaths) before additional naloxone doses
- For complex or severe opioid overdose WAIT 2 minutes before additional naloxone doses
- Continue to monitor client status for improvements
- If there is no response, consider other causes of sedation and respiratory depression

Repeat steps until spontaneous RR > 10/min OR escalated emergency services arrive

MONITOR

IF the client is responsive AND has adequate ventilation stop rescue breaths, provide aftercare, and monitor for further changes in client status, OR

IF the person is unresponsive AND has adequate ventilation stop rescue breaths, place in recovery position, and monitor for further changes in client status

If no improvements OR status worsens, re-start SAVE ME steps

[1] Always say what you are going to do before you touch someone, even if they are not responsive

[2] If pulse oximetry is not available, cyanosis is a clinical sign of hypoxia

[3] If the person is conscious with a low Sp02, it is likely due to decreased respiratory rate from an opioid. Focus on stimulating the person to breathe or administer naloxone

[4] Nasopharyngeal airway is appropriate if within scope of practice

Adapted from VCH. FHA. VIHA. NHA. PHC. PHSA algorithms and tools for responding to opioid overdose in different settings

Table 4: Staging for Advanced Opioid Overdose Response

Assessment	Mild Opioid OD	Moderate Opioid OD *Any or all of the following*	Severe Opioid OD *Any or all of the following*	Complex Opioid OD *Any or all of the following*
Appearance (Subjective)	**Drowsy**	**Nodding** **Intermittently falling asleep** **Nodding with RR < 12/min**	**Unresponsive** **Cyanosis**	**Fentanyl-Induced Muscle Rigidity** • Jaw clenching • Clenched fists • Decorticate posturing • Wooden chest syndrome • Seizures **Dyskinesia and/or unusual movement of the arms and legs may also include** • Staring gaze • Walking or Awake without sufficient oxygen **Bradycardia or arrhythmia** **Vomiting** **Delirium/Confusion and transient receptive or expressive aphasia** **Unresponsive with RR >12/minute**[48]
Stage of Opioid Intoxication	I	II & III	IV	
POSS[49] score	2-3	3	4	
GCS[50] score	14-15	10-13	<10	
AVPU[51]	Alert	Responds to verbal and physical stimuli	Responds only to physical pain OR unresponsive	
Respiratory Rate (RR)	>12/minute	<12/minute	Apneic: No spontaneous respirations OR Gasping/gurgling	
Oxygen Saturation (SpO2 - on room air)	>90%	81-90%	<80% Central cyanosis[52] (pale ashen skin, blue/gray lips) is approximately SpO2 ≤85%[53]	
Initiate Emergency Response	No	Yes	Yes	

[48] If a client is unresponsive with RR >10/minute, consider the possibility of a benzodiazepine overdose. Naloxone is not effective for these overdoses. It is important to keep monitoring RR and SpO_2 in case the client progresses to a state of opioid overdose

[49] Pasero Opioid Induced Sedation Scale (see APPENDIX B)

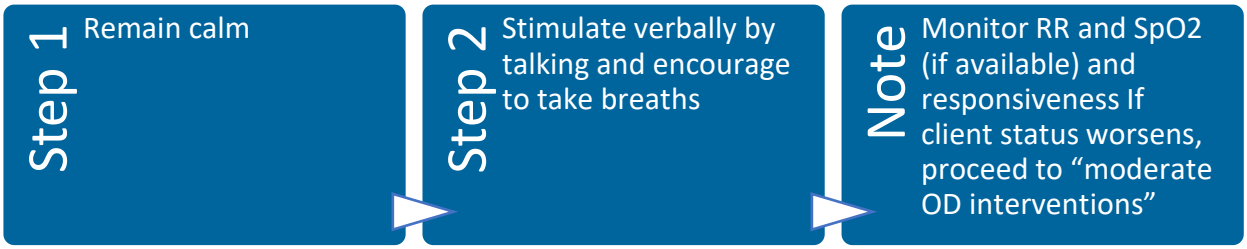
[50] Glascow Coma Scale (see APPENDIX B)

[51] Alert, Verbal, Pain, Unresponsive (see APPENDIX B)

[52] Cyanosis correlates with concentration of deoxygenated hemoglobin and may not be readily detectable in people with severe anemia

[53] In a client with normal hemoglobin levels and no dark skin pigmentation

Mild Opioid OD Management



Moderate Opioid OD Management

Step 1

- **Remain calm**

Step 2

- **Stimulate verbally by talking:** Encourage them to take breaths, open their eyes, to talk or walk around (if responsive).
- **If no response:** CALL 911. Physically stimulate by squeezing trapezius or nailbed. If within 1 minute of verbal or painful stimuli alertness does not improve, or RR remains <10/min AND SpO2 remains <90%

Step 3

- **Give Rescue Breaths:**
  - **Ventilate by giving rescue breaths** *OR If available*
  - **Apply O2 at 6-10 L/min via simple face mask** or non-rebreather with high flow O2 OR Give 15-25 L/min via BVM attached to supplemental O2 with ventilation if needed

Step 4

- **Administer naloxone** as per setting (usual initial dose: 0.4mg IV/IM/SC or 4mg IN). If needed, give two (2) doses to start.
- **If no response within 3-5 mins** or clinical status deteriorates.

Step 5

- **Continue to ventilate and repeat naloxone dose** as per site recommendations (usual 0.4 mg IV/IM/SC or 4mg IN) until RR over 10/min and SpO2 over 90%, and GCS over 14 or Emergency Services arrives.
- If oxygen saturation monitor available, **monitor respiratory status** and heart rate (if possible) ongoing until SpO2 >92%. If SpO2 decreases to <80%, RR decreases to <10/min, or client appears cyanotic, proceed to "Severe OD interventions"

Step 6

- **Observe:** If ≤ 0.8mg naloxone given: every 5 mins x3 then every 10 mins x3; then every 15 mins for two (2)hours after last naloxone dose.
- If unable to provide this level of monitoring consult with site leaders to discuss alternative care location or transfer to hospital

Severe Opioid OD & Complex Opioid OD Management

Step 1

- **Remain calm**

Step 2

- **Airway/Oxygen:** Open airway using head/tilt chin lift or jaw thrust. Insert oral (autonomous practice for all nurses) or nasopharyngeal airway (within RN/NP autonomous practice) to prevent tongue from occluding airway. Give 15-25 L/min via BVM attached to supplemental O2 with ventilation as per setting procedures. Watch for chest to rise to ensure a good mask seal. Re-adjust head position if needed.
- NOTE: With chest rigidity, chest may not rise

Step 3

- **Administer naloxone as per setting (usual initial dose: 0.4mg IV/IM/SC or 4mg IN) OR if complex symptoms present, administer 0.4 IM *If SpO2 and RR increase within 2 min***, continue to monitor for additional 1-3 minutes. Repeat naloxone based on setting (usual dose 0.4 mg IV/IM/SC or 4mg IN) every 3 min until RR is over 12/min, SpO2 is over 90%, and GCS over 14.
- ***If SpO2 and RR do NOT increase within 2 min***, administer naloxone as per setting (usual dose0.4 IM) every 3 min until SpO2 and RR improve.
- ***If client loses pulse***, continue to assist ventilation, begin CPR/initiate AED, and administer 2mg IV/IM/SC naloxone immediately.
- ***If SpO2 is over 90% and RR is over 10/min,*** do not continue to administer naloxone. Continue to monitor until Emergency Services arrives

In the event of

- **Vomiting:** turn body to side, with a gloved hand clear out airway, and use suction if available. NOTE: there is an increased risk of vomiting when higher doses of naloxone are administered
- **Delirium:** Provide reassurance and re-orientation to time and place. Allow space to avoid panic

Note

- **If status does not improve ⇨ Assess for other etiologies and transfer to hospital.**

8.0 UNUSUAL CLINICAL PRESENTATIONS IN OPIOID OVERDOSE RESPONSE

The presence of fentanyl and its analogues into the illicit drug supply has changed the clinical presentations of opioid overdoses.For other types of overdoses, including overdoses see APPENDIX E: Responding to other types of overdoses

8.1 Clinical Presentations

Table 5: Unusual/Complex Symptoms and Presentations of Opioid Overdose

Symptom	Presentation
Muscle rigidity	• Jaw clenching • Clenched fists • Decorticate posturing (inwardly flexed at wrists, elbows, and feet) • Overall stiffness in particular abdominal and thoracic muscles • Seizures
Dyskinesia[54]	• Involuntary, spontaneous or uncoordinated movements of the body • Laryngospasm or incoherent verbalizations **The following features have been noted as concurrent symptoms may include:** • Staring gaze • Walking or awake opioid overdoses where the client is able to follow simple commands but is still not getting enough oxygen (e.g., blue lips, greyish colouring, cool skin)
Low or irregular heart rate[55]	**This symptom is often concurrent with the following features:** • Cyanosis and pallor, Respiratory depression • Unresponsive to verbal and physical stimulation, including painful stimuli and less commonly accompanied by vomiting
Vomiting	
Confusion[56] & transient receptive or expressive aphasia	**This complex symptom is often concurrent with the following features:** • Cyanosis and pallor • Respiratory depression NOTE: Confusion is more likely to present with slowed breathing than any other complex overdose symptoms. In more typical opioid overdose confusion occurs with lower SpO2.

Fentanyl-Induced Muscle Rigidity

The cause of muscle rigidity from opioids is not well understood but is one of the more commonly seen complex presentations. The sudden onset of chest wall rigidity has been linked to the increased number of overdoses and deaths. This is because muscle rigidity of the chest wall speeds up respiratory failure,

[54] also referred to as unusual movement of the arms and legs
[55] Within the current illicit drug supply, decreased heart rate in early stages of opioid overdose may occur. Previously, increased heart rate during early stages of overdose was more common to compensate for lower respirations, and a decreased heart rate as respiratory depression progressed.
[56] Also referred to as delirium, can occur with relatively high levels of SpO2, but the client may have difficulty following verbal commands.

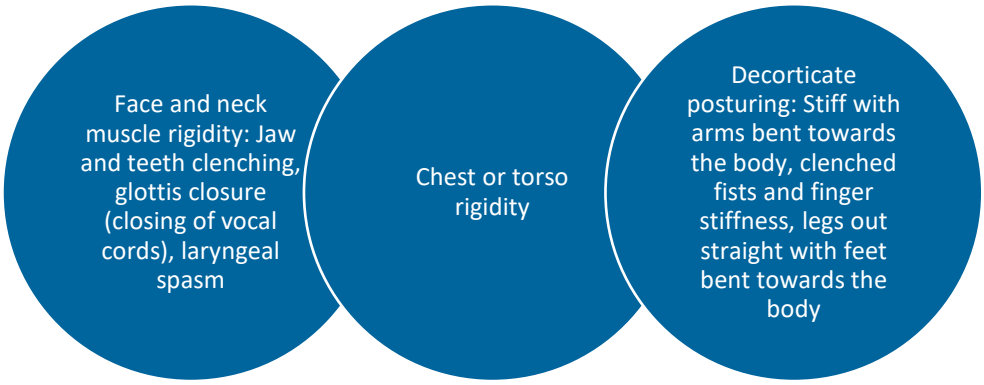
independent from the respiratory depressant effects of opioids. Muscle rigidity is relieved with ventilation and naloxone.

Factors that increase likelihood of muscle rigidity include:

- Neurological conditions that affect dopamine (e.g., Parkinson's)
- Medications that increase serotonin or norepinephrine (e.g., antidepressants or antipsychotics)
- Age (over 60 years)
- Route of use[57]

Assessment and Diagnosis

Symptoms can happen alone or simultaneously. While some occur within minutes after administration, others can take longer (hours) befor symptoms appear. **The most common symptoms are listed in the figure to the right.**



Symptoms often include the following features:

A less common symptom is seizures or seizure-like activity, preceding muscle rigidity. The clinical features of this symptom include rhythmic contraction or rigid shaking of limbs, or bilateral (on both sides) limb tremors combined with decreased breathing.

Management

In community or non-acute facilities, see BCCDC's Fentanyl-Induced Muscle Rigidity[58]

In Acute settings, follow site specific protocols or nurse-initiated activities (NIA); Response may include neuromuscular blockage and/or naloxone infusion to supplement assisted ventilation efforts. May require intubation.

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[57] Injection poses the most immediate overdose risk; Ingestion of long-acting opioids poses secondary overdose risk, and longer monitoring and aftercare post-OD may be required.

[58] https://towardtheheart.com/resource/fentanyl-induced-muscle-rigidity/open

Specific Considerations

- The amount of naloxone needed to reverse muscle rigidity is unknown and may vary from one situation to another. Be aware that high doses of naloxone can cause precipitated withdrawal and vomiting which can aggravate the situation.
- Jaw and teeth clenching may cause difficulty in airway insertion
- Fist and finger stiffness may interfere with oxygen saturation monitoring
- Body stiffness may interfere with lowering client to the floor
- Eyes may be open or closed
- Jaw clenching may occur in typical opioid overdoses as central nervous system and respiratory depression progresses; it is unusual for it to occur at or near onset of an opioid overdose. The use of a triangle breathing mask may help by bypassing the mouth and getting the oxygen through the nose.

Dyskinesia

The second more commonly seen complex presentation is opioid overdose is dyskinesia. The sudden onset of restlessness or involuntary movements can make the more typical opioid overdose symptoms (miosis, cyanosis, respiratory depression and sedation) harder to identify. The client may be alert, responsive, not have any other cardinal symptoms and have awareness of involuntary body movements. These symptoms may be initial indicators that an overdose is coming and can be distressing for everyone. When evaluating potential harm, take this into consideration when movements are powerful, unpredictable and restless.

Assessment and Diagnosis

Symptoms can happen alone or simultaneously, and commonly occurs within minutes after fentanyl administration, but can take longer (hours). In addition to typical overdose symptoms, common presentations with dyskinesia may include:

- Involuntary, spontaneous or uncoordinated movements of the body
- Laryngospasm or incoherent verbalizations, sound similar to a growl
- Diaphoresis (profuse sweating)

Management[59]

Table 6: Management of Dyskinesia

Safety Assessment	Predictability and strength of movement Responsiveness to verbal commands Environment (surrounding area)	
	Client is…	
Intervention & Response	Able to follow simple verbal commands or their movements would not cause harm while performing activities in opioid	Unable to follow verbal commands, is combative or is likely able to cause physical injury to themselves or others:

[59] Adapted from VCH's Opioid Overdose: Management of Dyskinesia in Suspected Opioid Overdose. Retrieved from: http://shop.healthcarebc.ca/vch/VCHDSTs/D-00-12-30375.pdf

	overdose response, continue with opioid overdose management[60].	**1) Create immediate safety:** have everyone (clients and staff) leave the area, remove any chairs, tables or other equipment that may get in the way. **2) Monitor at a safe distance.**
	If needed call emergency services or other crisis supports. Be sure to let responder(s) know: • The client is in medical distress • They are highly likely to cause harm to themselves or others • If they are also showing signs of opioid overdose (respiratory depression or shortness of breath, confusion, etc.) **If the client's status becomes less combative or they lose consciousness, overdose intervention may be possible**	
BCCDC OPS Guide[61]: Appendix H – responding to specific client behaviours		

Specific considerations

- People experiencing dyskinesia may also be experiencing:
  - Other serious medical issues such as hypoxia, which could cause seizures
  - Fentanyl or opioid withdrawal symptoms.
- Flailing or involuntary movements can be associated with stimulant use, cyanosis or pallor are not, and could be an indicator that opioids are involved.
- Fluctuations between incoherent vocalizations or not responding to simple directions and lucidity or awareness can occur simultaneously.

[60] See Section 7.0 Opioid Overdose Response
[61] https://towardtheheart.com/resource/bc-overdose-prevention-services-guide/open

9.0 OTHER CONSIDERATIONS FOR OPIOID OVERDOSE SYMPTOMS

Several bodies of evidence suggest there is no maximum dose of naloxone that can be administered. However, other causes of altered mental status/loss of consciousness should be considered if there is no clinical response following multiple doses of naloxone. It is important to consider other reasons why someone may have decreased respirations or loss of consciousness.

There are many other medical conditions that cause someone to lose consciousness, similar to opioid overdoses. These medical conditions can occur separately, or the same time, as opioid overdoses. Other conditions that should be considered include:

- Substances other than opioids complicating symptomatology
    - Benzodiazepines (e.g. etizolam)
    - Alcohol
    - Gamma Hydroxybutyrate (GHB)
    - Marijuana
    - Sedative-hypnotics (e.g. barbiturates)
    - Clonidine
    - Hypoglycemic medications
    - Carbon monoxide
- Myocardial Infarction (Heart attack) or CVA (stroke)
- Metabolic causes: hypoglycemia and electrolyte imbalances
- Sepsis
- Structural causes: head trauma or intracranial hemorrhage (head injury or bleeding inside the skull)
- Acute neurological presentations of opportunistic infections (e.g. syphilis)
- Client is dying from another, unknown etiology

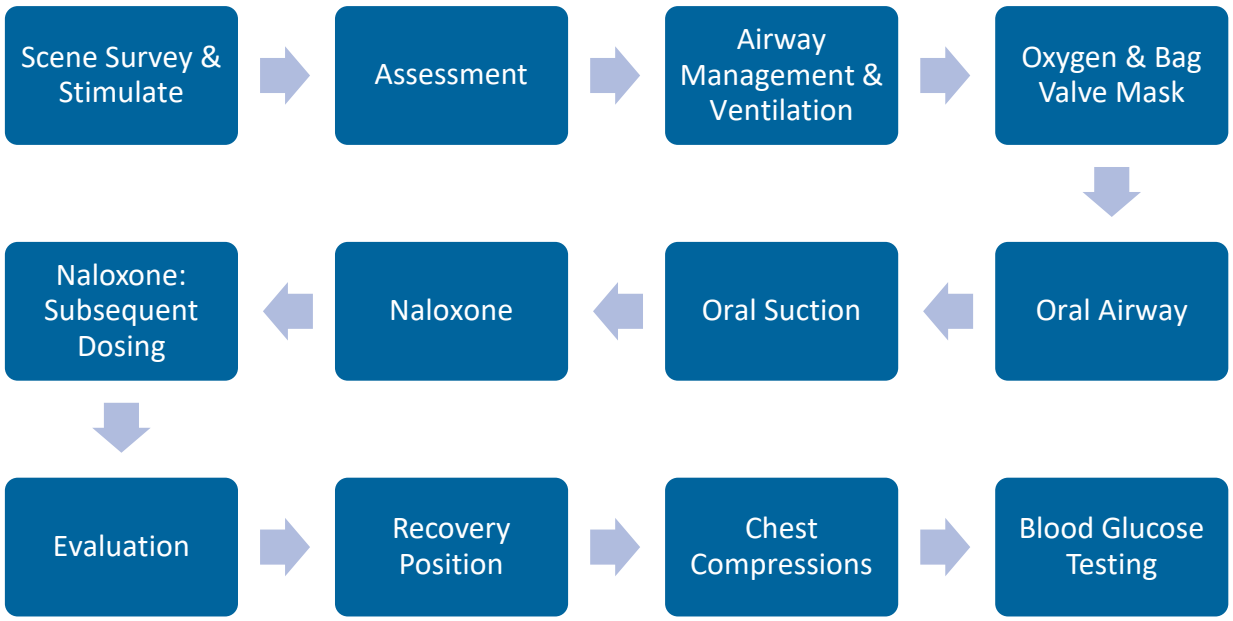
While it safe to continue administering naloxone for a suspected opioid overdose, first responders who are trained in assessing for and responding to other medical emergencies should also do so if there is no clinical response after administering multiple doses of naloxone. This may include using the equipment and supplies for *Advanced Opioid OD Response* listed in Table 1 of Section 6.0: Equipment and Supplies.

10.0 KEY POINTS FOR ACTIVITIES IN RESPONDING TO OPIOID OVERDOSE

Table 7 below is a key points table for the various activities in responding to opioid overdoses. To note, not all activities will be used in every overdose event, and it is up to the responder(s) to know which activities are available to them based on their setting, employer procedures, level of training, and scope of practice. The Facility Overdose Response Box (FORB) has instruction cards[62] that give a summary of steps in overdose response, including a helpful section on delegating tasks in the event there is more than one responder.

In the context COVID-19, please see the Interim guidance on additional equipment[63]; and for people working in Emergency Response Centres (ERC)[64]

Table 7 will cover the following actions.



[62] https://towardtheheart.com/resource/forb-instruction-cards/open
[63] http://www.bccdc.ca/health-professionals/clinical-resources/covid-19-care/infection-control/personal-protective-equipment
[64] https://www2.gov.bc.ca/assets/gov/health/about-bc-s-health-care-system/office-of-the-provincial-health-officer/covid-19/covid-19-pho-guidance-joint-povincial-program-framework-for-ercs.pdf

Table 7: Key Points for Activities in Responding to Opioid Overdose

Scene Survey & Stimulate	
Expected Outcomes	Client is safe to receive services Risk has been considered and ethical decisions made Identify level of consciousness
Key Points	With direct contact with another client, transmission of infection has always been possible. Whenever CPR is carried out, there is a risk of infection, particularly if rescue breaths are given without protective equipment and hand washing. However, the risk of infection is low relative to the very high risk of brain injury or death during an overdose event. Taking basic precautions will minimize risk of infection to the client and the responder. **The following steps are examples of how to safely approach a suspected or witnessed opioid overdose event.** 1. **Put on gloves while approaching the immediate area** 2. **Look around** • Remove hazardous/potentially hazardous materials that may interfere with response (e.g. on or within immediate area of client) • Relocate pets or other animals to another area, for duration of response (e.g. client's dog) • Try to find out what happened from people nearby. 3. **Try to rouse the client, encourage them to take big breaths** Monitor safety throughout overdose response and adapt as needed
Unintended Outcomes	Harms to client and responder(s) Delayed opioid overdose identification resulting in delayed or inadequate treatments leading to potential longer-term complications or death

Assessment

Identify Opioid Overdose | Initiate Emergency Services

Expected Outcomes	Early opioid overdose identification and prompt emergency response No long-term consequences anticipated
Key Points	Respiratory depression is a prominent symptom of opioid overdose and requires prompt ventilation. *See Airway Management and Ventilation (below).* The onset of opioid overdose symptoms is dependent on the type of substance (e.g. short- vs. long-acting) and how they were consumed (e.g. injection and inhalation vs. ingestion). • Early symptoms include: Sedation, miosis (tiny pupils), cyanosis (pale, blue or gray skin) and may progress to respiratory depression • Severe or complex opioid overdose presentations may also include: jaw or fist clenching, muscle rigidity, seizures, unusual movements (dyskinesia), vomiting, and confusion **If opioid overdose is suspected, initiate emergency health service response (e.g. 911, code team)** **If calling 911:** • Dispatch will ask as series of questions, that you may not have the answer to. It's ok to only share what you know • Say it is a medical emergency (not responsive, not breathing) requiring an ambulance • Send someone to meet emergency responder(s) at main entrance or street and to direct them where to go • Note: Cardiac arrest may present with agonal respirations. 911 dispatch may recommend providing chest compressions in certain circumstances. **Once escalated emergency services arrives, tell them:** • Information about client • Context, which substances were ingested • Suspected recent opioid overdose, current status (e.g. unresponsive), what you have done so far (# naloxone injections given) If you are arriving at an opioid overdose after the response is initiated, it is important to be respectful and affirming while changeover happens. And recognize there are many ways to offer the same service, and diversity in response approaches will only work to enhance event for the client. **To Note:** BC Emergency Health Services no longer routinely calls police to respond to a suspected opioid overdose, except under specific circumstances (e.g. existing safety concerns). And if you call 911 you are protected by the GSDOA[65] which provides protection from charges for: • Simple possession or for violation of pre-trial release • Probation order • Conditional sentence or parole related to simple possession
Unintended Outcomes	Delayed opioid overdose identification resulting in delayed or inadequate treatments leading to potential longer-term complications or death

[65] See APPENDIX H: Good Samaritan Drug Overdose Act

Airway Management and Ventilation[66]

Expected Outcomes

Open airway without obstruction
Restore breathing
Get oxygen to the blood and keep the brain alive
Airway remains patent (e.g. open with no obstructions)
Adequate artificial or spontaneous ventilation remains possible

Key Points

Airway management and ventilation is a crucial component of opioid overdose response. Sometimes giving breaths is enough for the client to regain consciousness. Maintaining an open airway will ensure optimal oxygenation to the brain and other vital organs.

In a witnessed or suspected opioid overdose, unless the client goes into cardiac arrest, responder(s) are encouraged to focus on ventilation over chest compressions (See below for more information on when to initiate chest compressions).

Decreased respiratory function resulting in inadequate ventilation can be difficult to identify for all levels of responder(s). A more targeted way to identify respiratory depression is looking at for respiratory effort: chest wall movement (rate, pattern, and depth of breathing), use of accessory muscles, and abnormal sounds.

Supine Position, place client on their back for following steps:

1. **Check Mouth:** Check the client's mouth for any items or obstructions (e.g. gum, needle caps, food, vomit, dentures) that could be preventing breathing. If there is an obstruction:
   - DO NOT put your fingers inside the client's mouth
   - Turn their head and/or use an object to remove items if possible

2. **Open Airway:** If mouth is clear, open the airway with head-tilt chin-lift / jaw thrust maneuver. Regardless of C-spine concerns, the jaw thrust method is preferred for correcting a functional obstruction.

3. **Check for Breathing:** Place your cheek close to their mouth (3-5 cm) while looking at their chest.
   - Look: does their chest rise and fall?
   - Listen: any air movement?
   - Feel: is air coming from their mouth/nose?

4. **Ventilate:** If the client is not breathing, breathing less than 12 breaths per minute, or breathing in a way that decreased oxygenation is evident, start giving breaths:
   1. Keeping airway open, place available barrier device (e.g. THN Face Shield, pocket mask etc.)
   2. Pinch the nose and ensure an airtight seal
   3. Give two (2) breaths
   4. Exhale slowly and steadily with some force. You should be able to see their chest rise with each breath.
   5. Let the air exit before giving another breath

5. **Continue** giving 1 breath every 5 seconds throughout all other activities, until:
   - The client resumes breathing effectively on their own (spontaneous ventilation)
   - emergency health services arrive

Continued on next page…

[66] https://vimeo.com/331469809

Unintended Outcomes	**Over-inflation:** Stomach distention (from over or improper ventilation) can lead to vomiting, aspiration, and potential for compromised airway. • Signs: distension of cheeks, air leaking around mask • What to do: check positioning (head tilt/chin lift) and potentially decrease pressure and volume of ventilation **Aspiration:** when air enters the stomach, its contents can move into the airway and the lungs, compromising oxygenation and increasing the risk of pneumonia **Obstructed airway** (vomitus, tongue, dentures) What to do: check the mouth obstructions, check airway positioning

Oxygen and Bag Valve Mask	
Expected Outcomes	Oxygen saturation >90%
Key Points	Within scope of practice of some service providers, additional training recommended to perform this skill. *Refer to BCCDC OPS Guide*[67] *for more information on the use of oxygen and BVM.* Common pitfalls occur with the improper use of BVM ventilation, including inadequate positioning, poor mask seal, overventilation (rate and volume) and failure to use an oral or nasopharyngeal airway. Squeeze approximately one third of the bag in an adult BVM for appropriate volume (6-7 ml/kg). The use of oxygen <6-10L/min through simple face mask is NOT considered an AGMP
Unintended Outcomes	**Hyperventilation:** increasing intra-thoracic pressure decreasing venous return to the heart, and subsequently decreases cerebral and coronary perfusion

Oral Airway[68,69]	
Expected Outcomes	Airway is patent

Key Points	Within scope of practice of some service providers, additional training recommended to perform this skill
	
	Oral Airways help to maintain a patent airway when client is unconscious.
	• Inserted into the mouth towards the throat
	• Prevents tongue from making contact with the back of the throat and prevents mouth and teeth from closing during ventilation
	• Before inserting, ensure:
	  ○ Client is unconscious (otherwise the gag-reflex can lead to vomiting/aspiration)
	  ○ No suspected or confirmed oral trauma
	  ○ The oral airway is the correct size for the client, and
	  ○ Head position (head-tilt, chin-lift / jaw thrust / jaw thrust)
	• Jaw clenching prevents oral airway insertion. If within scope of practice, attempt placement of nasopharyngeal airway.

[67] https://towardtheheart.com/resource/bc-overdose-prevention-services-guide/open

[68] Oral and nasal airways are used to maintain patency of the upper airway to the pharynx. If jaw rigidity prevents airway insertion, triangular pocket masks and bag-valve masks allow air to flow through the unblocked passage, oral and nasal airways do not extend past the pharynx and will not establish patency in the event of muscle rigidity where vocal chords closure occurs.

[69] In case of jaw rigidity, the client's jaw may loosen after the first dose of naloxone has taken effect (approx. 2 minutes). Provide oxygen via simple facemask then reattempt insertion of oral airway.

Nasopharyngeal Airway

Expected Outcomes	Airway is patent

Key Points	**Within scope of practice of some service providers.**
	Indicated for conscious or unconscious people who may have jaw clenching, making it difficult for an oral airway to be inserted.
	• **Inserted into the nares**
	• **Works with the hard plastic, over-the-nose-and-mouth face masks**
	• **Before inserting, ensure**:
	  ○ Client is unconscious or semi-conscious
	  ○ No suspected or confirmed head or skull trauma
	  ○ Nasal airway is lubricated with water or gel, and
	  ○ Correct size, and head position (head-tilt, chin-lift / jaw thrust)

Oral Suction

Expected Outcomes	Obstructing fluid is removed
Key Points	Within scope of practice of some service providers, additional training recommended to perform this skill. Indicated to remove visible fluid (e.g. vomitus) from oral cavity to prevent obstruction and loss of airway patency.

Naloxone[70]

Expected Outcomes	• Identify need for naloxone • Increase breathing rate • Administer the minimum amount required to increase or resume breathing (RR ≥ 12/min) and SpO2 above 92%without signs of acute withdrawal
Key Points	**Naloxone is NOT indicated when there are no signs of opioid overdose, or if the client is presenting with withdrawal symptoms.** **If an overdose is due to a mix of substances, naloxone will temporarily block the opioid effect.** • In the absence of an opioid, naloxone has no effect and is not harmful. • Start dosing cautiously (e.g. 0.4 mg) to improve breathing and prevent precipitated withdrawal. • If the only naloxone available is in pre-loaded syringes, expired or exposed to extreme temperatures, still give it; it just may not be as effective. • If naloxone is not readily available, give rescue breaths until emergency services arrive
Unintended Outcomes	**Precipitated withdrawal:** Central Nervous System excitation **Signs**: Confusion; Sweating; Dilated pupils; Nausea, vomiting, diarrhea; Tremors or shaking; Tachycardia (Fast heart rate) or arrhythmias (irregular heart rate); Hypertension (high blood pressure); Pulmonary edema; Cardiovascular collapse or arrest **Symptoms**: Feeling startled, anxious, irritable, aggressive; Stomach cramping; Pain/pain crisis; **What to do:** • Reassure client symptoms are temporary and as the naloxone wears off, so will their symptoms. • Encourage client to remain on site or go with emergency services in case OD returns. • Remind client using more opioids could result in another OD and will not provide desired relief.

Naloxone

Subsequent Dosing

[70] https://towardtheheart.com/resource/naloxone-faq/open

Key Points	Subsequent dosing should be considered 3 minutes after initial dose, if there is an insufficient response to the initial dose (e.g. no change in ventilation). Many opioid overdoses require 2 doses of naloxone (BCCDC THN data). Giving 30-40 breaths (1 breath every 5 seconds) between doses will ensure you are waiting 3 minutes before giving another dose. The need for subsequent dosing can be anticipated with severe or complex opioid overdose presentations, higher potency opioids (e.g. fentanyl), or longer-acting opioids (e.g. methadone, slow release oral morphine, etc.). Clinical judgement to discontinue naloxone administration needs to be weighed against the number of doses of naloxone given, time elapsed since administration of first dose, client responsiveness to treatment and presenting scenario

Evaluation

Expected Outcomes	Clarity on client's status – remains the same? Improves? Declines? Improved client status
Key Points	**Ongoing assessment of opioid intoxication should focus on respiratory rate and ventilation.** • Part of the overdose response is to continually evaluate for change in client status. It is recommended to check for improvement in client status after a series of rescue breaths, before giving naloxone. Sometimes giving rescue breaths is enough to improve respiratory function. • Assess client's status for symptoms and any changes from previous assessments: respiratory rate, responsiveness, pupil size, and skin colour). Even if the client is taking more than 12 breaths per minute, it is important to ensure they are getting enough oxygen. Continually assess for blue fingernails, lips, oxygen saturation levels, etc. • Assess for efficacy of Naloxone: If the client has not regained adequate ventilation within 3 minutes (or 30-40 breaths), give a second dose of naloxone. ○ Monitor the client after each subsequent dose, for 3 minutes (30-40 breaths) before giving additional doses. Continue to give rescue breaths (30-40 breaths, 1 breath every 5 seconds for 3 minutes) to ensure the client is still getting enough oxygen. This can be a lifesaving intervention.
Unintended Outcomes	Declining health status of client Consider other substances involved: Benzodiazepine overdoses take a long time before the client regains consciousness and naloxone is not effective in reversing Benzodiazepine overdose. What to do: keep monitoring oxygen saturation (as equipment is available) and respiratory rate in the event the client returns to a state of opioid overdose

Recovery Position[71]

Expected Outcomes	Keep the airway clear from their tongue or vomit allowing them to breathe properly.
Key Points	As a part of routine first aid, the recovery position is recommended for an unconscious, breathing client, to keep the airway clear and open. Put client in the recovery position if you are not actively giving breaths, administering naloxone, or if you have to leave them at any point.

Chest Compressions

Key Points

During an opioid overdose, first breathing is affected and then, without oxygen, eventually the heart will stop beating (cardiac arrest).

Cardiac arrest requires CPR. In CPR, rescue breaths reoxygenate the blood and compressions help circulate the blood if the heart stops beating or is beating irregularly.

1. **Call for help:** Ask bystander(s) to call 911/code team and obtain an automated external defibrillator (AED)

   If unsure what to do:
   - Follow the lead of 911, they can tell you what to do (also, see above: Initiate Emergency Services section of this table)
   - Once the AED is applied, it will tell you what to do

   If trained, assess circulation: palpate carotid pulse.
   - If their pulse is present: only rescue breathing is necessary
   - If pulse is absent or you are unable to feel their pulse, and you have been trained in CPR, begin chest compressions in addition to breaths. Call for help from trained bystanders to take turns administering chest compressions every two minutes

2. **Continue to assess airway patency and breathing**

3. **Chest compressions:**
   - Position client on their back
   - Place hands, one on top of the other, in the middle of the chest (sternum). Lean your shoulders over client and lock your elbows
   - Compressions must be at least 5cm deep, at 100 compressions per minute. Move from your hips to use your body weight when giving compressions

4. **Repeat:** 30 compressions then 2 breaths until AED arrives. Then follow AED instructions while continuing to administer compressions and rescue breaths

Unintended Outcomes	Rib and sternal fractures (or refracture) Reluctance to address pain appropriately, opioid induced hyperalgesia, risk of precipitating withdrawal by initiating sympathetic storm during simulation of chest compressions

Blood Glucose Testing

[71] https://www.youtube.com/watch?v=ZEfK_hauyXU

Expected Outcomes	Blood sugar is within normal range.
Key Points	Within scope of practice of some service providers. Indicated to determine if hypoglycemia (low blood sugar) is contributing to unresponsiveness. Consider if client is not responding to naloxone or other interventions. Use a capillary glucometer to test a small blood sample for concentration of glucose in the blood. • Hypoglycemia: Blood Glucose level is less than 3.3 mmol/L; ○ Give glucagon (if available) as intramuscular injection to large muscle (e.g., upper arm or thigh) or a nasal spray. Note: people with diabetes mellitus may experience symptoms of hypoglycemia with blood glucose levels greater than 3.3mmol/L. Patients with diabetes may have their own glucagon to administer.
Unintended Outcomes	If client is hypoglycemic and does not respond to glucagon, administer a second dose of glucagon.

11.0 DOCUMENTATION & REPORTING

Documentation and reporting recommendations include observed consumption services, overdose event, overdose response including the administration of naloxone, and THN Kit dispensation. Each regulatory body and each workplace, or Health Authority, has documentation and reporting structures. Above all, follow professional and employer policies and procedures for your documentation and reporting protocols.

11.1 Workplace Documentation

Documentation

In addition to professional and employer requirements, fill out your organization's Critical Incident Form[72]. You can ask your colleagues or managers for site-specific documentation standards.

In the event your organization does not have documentation standards in place, documentation should include the following:

- Date and time of overdose event
- Observations, including initial and ongoing assessments
- Activities performed (e.g. ventilation or naloxone) and clinical response to interventions

  For example: response to naloxone administration, particularly changes oxygen saturation, respiratory rate in those spontaneously breathing and level of consciousness. Also make note of cyanosis, changes to pupil size, and transportation to hospital/other monitoring activities.
- Total number of naloxone doses required to achieve desired clinical effect
- All outcomes (intended and unintended outcomes, including precipitated withdrawal)

For inpatients, in addition to appropriate documentation inform the clients' physician of the care provided.

For settings with client records, document all actions taken including observed consumption services, overdose event, overdose response including the administration of naloxone, and THN Kit dispensation.

Reporting

Direct regional reporting to local Health Authorities who can monitor episodic witnessed consumption interactions, THN kit distribution, visits, overdose events, and naloxone administration in many settings. Your community may have a shared reporting tool to track local overdose trends, visit your Health Authority's Overdose webpage to find out. .

11.2 BCCDC Documentation and Reporting

The BCCDC oversees both the Take Home Naloxone (THN program) and Facility Overdose Response Box (FORB) programs. Please refer to APPENDIX A for more information on these provincial programs

Prioritizing documentation and reporting to the BCCDC after using a kit, distributing new kits or providing refill supplies has big impacts. It can help your organization manage site inventory needs, identify site-specific opportunities for growth; and also helps keep BCCDC's THN and FORB programs appropriately informed, with continued opportunities for reporting utilization, program evaluation and funding. These

[72] The BC Patient Safety & Learning System (PSLS) is used by the healthcare system to identify or report a patient safety issue. For any overdose events, whether or not naloxone was required (e.g. use stimulation to maintain alertness), use PSLS to document accordingly with keywords including overdose and supervised consumption

data also highlight the lifesaving work being done by communities across the province and help to identify areas where low or no access to naloxone remains a barrier.

11.2.1 Forms

There are four types of forms collected by the BCCDC Take Home Naloxone and Provincial Naloxone programs (THN and FORB):

Take Home Naloxone Opioid Overdose Response Form

The overdose response forms[73] are for people who have responded to an overdose using a kit from the Take Home Naloxone program. The opioid overdose response information form is online and also included inside every THN kit. This form has questions about the overdose event including how many doses of naloxone were required, and whether emergency services were called to the scene.

Individuals may complete the form themselves, with the help of a trusted friend, or can request assistance from a registered THN site when they received a replacement kit or supplies. Forms can be emailed or faxed to the program.

These forms are not mandatory, and no personal information is collected, however sites are encouraged to support individuals in providing as much information as possible.

For further information about how these forms have directly impacted the program see the infographic[74]

Take Home Naloxone Distribution Records

Distribution Records[75] are for distribution sites (THN sites) are submitted to BCCDC monthly to keep track of how many naloxone kits were distributed. Sites (THN sites) are required to complete a distribution record when a kit is given to someone eligible for the program (likely to experience or witness an opioid overdose). On the distribution, for people who do not want to provide and name or alias, a record of the date the kit was distributed, and whether or not it was a first kit or replacement kit, will suffice.

For further information about the importance of Distribution records see the infographic[76]

Take Home Naloxone Transfer Record

Transfer records[77] are only for THN sites that are registered as a 'Parent Site'. A parent site is a distribution site that orders THN kits for smaller, local 'Satellite Sites'. Transfer records can be completed and sent to the BCCDC regularly to assist in ensuring accurate assignment of inventory.

Facility Overdose Response Box (FORB) Naloxone Administration Forms

The naloxone administration forms[78] are for FORB sites when naloxone has been administered from the box. These forms are a required by the FORB program whether complete or incomplete, forms are still accepted.

[73] https://towardtheheart.com/resource/overdose-response-information-form/open
[74] https://towardtheheart.com/resource/the-importance-of-overdose-response-reporting/open
[75] https://towardtheheart.com/resource/distribution-record/open
[76] https://towardtheheart.com/resource/the-importance-of-distribution-records/open
[77] https://towardtheheart.com/resource/kit-transfer-form/open
[78] https://towardtheheart.com/resource/forb-naloxone-administration-form/open

12.0 SUPPORTING DOCUMENTS

- Public facing regional health authority policies and procedures on naloxone administration and opioid overdose response:
    - First Nations Health Authority[79]
    - Provincial Health Services Authority SHOP[80]
    - Providence Health Care SHOP[81]
    - Vancouver Coastal Health SHOP[82]
    - Fraser Health Pulse[83]
- Policy Brief: Indigenous Harm Reduction = Reducing the Harms of Colonialism[84]
- BC Overdose Prevention Services Guide[85]
- BCCDC Provincial Overdose Cohort Knowledge Updates[86]
- BCCDC Naloxone Training Manual[87]
- BCCDC Online Naloxone Training[88]
    - PHSA Learning Hub[89]
    - Toward the Heart Quicklearn[90]
- BCCSU Supervised Consumption Services: Operational Guidance[91]

[79] https://www.fnha.ca/what-we-do/mental-wellness-and-substance-use/overdose-information
[80] http://shop.healthcarebc.ca/phsa
[81] http://shop.healthcarebc.ca/phc
[82] http://shop.healthcarebc.ca/vch
[83] http://fhpulse/Pages/default.aspx
[84] http://www.icad-cisd.com/pdf/Publications/Indigenous-Harm-Reduction-Policy-Brief.pdf
[85] https://towardtheheart.com/resource/bc-overdose-prevention-services-guide/open
[86] http://www.bccdc.ca/our-research/projects/overdose-cohort-data
[87] https://towardtheheart.com/resource/take-home-naloxone-training-manual/open
[88] http://www.naloxonetraining.com/
[89] https://learninghub.phsa.ca/Courses/8458
[90] https://towardtheheart.com/naloxone-course
[91] https://www.bccsu.ca/blog/news-release/bc-centre-on-substance-use-releases-new-provincial-guidelines-for-operating-supervised-consumption-services/

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14.0 GLOSSARY

TERM	DEFINITION
Accessory Muscles	Smaller muscles of the neck and chest, can be seen in respiratory distress as an indrawing of intercostal spaces
Administer (naloxone)	A medication means giving/applying/injecting a medication to a client for immediate use, such as injecting a client with naloxone when they are experiencing an opioid overdose
Advanced Opioid Overdose Response	The core activities for basic opioid overdose response are recommended for all overdoses, including severe and complex overdoses. The difference between core activities and advanced response are the additional activities one may perform in the event escalated responses are needed. These additional activities are dependent on setting, responder level of training and scope of practice, and employer procedures. These additional activities may include: bag valve mask, oxygen, oral airways, nasopharyngeal airway, and oral suction
Analogue	Drugs which are “substantially similar” to controlled substances listed in the Controlled Drugs and Substances Act (CDSA)
Antidote	A drug or a chemical that counteracts (neutralizes) the effects of another drug or a poison
Atypical	Unusual or different than what’s more commonly seen (e.g. presentation of symptoms)
Autonomy	Respect for individuals and their ability to make decisions with regard to own health and future; right to self-determination
Basic Opioid Overdose Response	Anyone in any setting can initiate emergency services, give rescue breaths and administer naloxone to someone experiencing a suspected or witnessed opioid overdose. If there is a high clinical suspicion of opioid overdose, part of every response is to initiate usual emergency response and to ventilate (give rescue breaths). Naloxone may be required if there are no improvements with ventilation, and indications for naloxone administration include: 1) Decreased or absence of respirations (<12/min) AND oxygen saturation < 92%on room air if oximeter available, 2) Inability of client to protect airway
Beneficence	The act of doing and/or promoting good; preventing and removing harm
Complex Opioid Overdose	Overdose caused by opioids, resulting in muscle rigidity, dyskinesia (involuntary muscle movements), low or irregular heart rate, vomiting, confusion, and transient receptive or expressive aphasia (impairment of language).
Decision Support Tool	A resource created to aid in the provision of medical assistance; nurses require decision support tools that clarify their roles and responsibilities related to the procedure and outline the expectations of their organization.
Delegation	Assignment of activities from one authority to another, as in the case of delegating activities within health care
Distribute (naloxone)	The act of handing out naloxone kits to anyone with a possibility of witnessing or experiencing an opioid overdose.

TERM	DEFINITION
Dyskinesia	Also known as flailing, the sudden onset of restlessness or involuntary movements
Emergency Health Services Act[92] [RSBC 1996] Chapter 182	Allows all healthcare professionals (regulated and non-regulated), first responder(s) (e.g. security personnel), and citizens to administer naloxone in a non-hospital setting.
First Responder(s)	Any person(s) who are the first on the scene with someone experiencing an opioid overdose. They are often first to start breaths and naloxone and call 911.
Fixed site	Single address location set up for observed substance use
Harm reduction	Minimizing the harm associated with substance use. It is also a movement for social justice built on a belief in, and respect for, the rights of people who use drugs.
Health Professions Act[93] [RSBC 1996] Chapter 183	Started in 1990, provides a legal framework for all self-governing health professions in BC. The act sets out higher-level duties and objects for the different regulatory colleges across the province. There are 26 regulated health professions, of which 25 are governed by 20 regulatory colleges under the act. General Regulation (as of January 27, 2017) allows any client in any setting, including those who are not otherwise authorized, to assess for suspected opioid overdose and treat with first aid and naloxone.
Hospital Act[94] [RSBC 1996] Chapter 200	Provides a legal framework for all locations designated as a hospital. Defined as a non-profit institution that has been designated as a hospital by the Minister.
Hypothermia	Medical emergency that occurs when your body loses heat faster than it can produce heat, causing a dangerously low body temperature. Normal body temperature is around 98.6 F (37 C). Hypothermia occurs as your body temperature falls below 95 F (35 C)
Hypoxic brain injuries:	Brain injuries that form due to a restriction on the oxygen being supplied to the brain. The restricted flow of oxygen causes the gradual death and impairment of brain cells.
Intoxication	When a client has accumulated too much of a drug in their bloodstream, leading to temporary adverse effects on the body
Justice	Maximizing benefit to individuals and society while emphasizing equality, fairness, and impartiality.
Laryngospasm	Spasm of laryngeal muscle in the throat
Meaningful engagement	Where the needs of both parties are met in a sustainable way
Naloxone	Pure opioid agonist that temporarily reverses the effects of opioids by competing for the same oxygen receptor sites as opioids
Non-cardiogenic pulmonary edema or acute lung injury	disorder of acute inflammation that causes disruption of the lung endothelial and epithelial barriers. The alveolar–capillary membrane is comprised of the microvascular endothelium, interstitium, and alveolar epithelium
TERM	DEFINITION
Non-maleficence	Doing no harm; avoiding harm

[92] https://www.bclaws.ca/civix/document/id/complete/statreg/96182_01
[93] https://www.bclaws.ca/civix/document/id/complete/statreg/96183_01
[94] https://www.bclaws.ca/civix/document/id/complete/statreg/96200_01

Non-regulated Service Provider	Harm reduction worker, housing worker, peers or experiential workers, security personnel, respiratory therapists, Community Liaison Worker, Harm Reduction Worker, Outreach Worker, Experiential Worker, cleaning staff
Objective Assessment	Assessments that can be definitively measured
Observed Consumption Services[95] (Supervised Consumption Sites (SCS) and Overdose Prevention Services)	Safe, health-focused places where people can inject drugs under the care of service providers
Opioid	Medication that is either natural or synthetic that acts as a strong and effective form of pain control. It is a central nervous system depressant, which constricts pupils and slows breathing.
Opioid antagonist	A drug that blocks opioids by attaching to the opioid receptors without activating them. Antagonists cause no opioid effect and block full opioid agonists.
Overdose	A biological response when a toxic amount of a drug, or combination of drugs overwhelm the body to the point it is unable to maintain or monitor functions necessary for life.
Oxygenation	The addition of oxygen to the human body. Oxygenation may also refer to the process of treating a patient with oxygen, or of combining a medication or other substance with oxygen.
Oxygen saturation (SpO2)	Refers to the extent to which hemoglobin is saturated with oxygen. Hemoglobin is an element in the blood that binds with oxygen to carry it through the bloodstream to the organs, tissues and cells of the body. Normal oxygen saturation is usually between 95% and 100%.
Pallor	Unhealthy, pale appearance
Pulse oximeter	A device, usually attached to the earlobe or fingertip that measures the oxygen saturation of arterial blood by sensing and recording capillary pulsations.
Pharmacokinetics	Pharmacological effects as they pertain to the movement of drugs within the body.
Physical Assessment	The process of evaluating objective anatomic findings through the use of observation, palpation, percussion, and auscultation.

[95] http://www.bccdc.ca/resource-gallery/Documents/Statistics%20and%20Research/Statistics%20and%20Reports/Overdose/Final_OCSStatement_June2019.pdf

TERM	DEFINITION
Public Health Act [SBC 2008] Chapter 28	The act enhances the ability of public officials to respond to the threat or reality of major health hazards. On April 14th, 2016, BC's provincial health officer declared a public health emergency due to the significant increase in overdose events and deaths. The emergency will last as long as deemed necessary by the provincial health officer.
Reclamation	The process of claiming something back or of reasserting a right
Regulatory bodies	A public organization or government agency that is set up to oversee specific industries and practices
Regulated Service Provider	Any service provider working under a regulatory body (e.g. nurse, massage therapist, paramedic, social worker, etc.)
Renal damage or failure	Occurs when your kidneys suddenly become unable to filter waste products from your blood. When your kidneys lose their filtering ability, dangerous levels of wastes may accumulate, and your blood's chemical makeup may get out of balance
Respiratory Depression	Respiratory rate less than 12 breaths per minute (include sedation scale assessment numbers as well)
Royal Assent	Approval by the Sovereign (currently, "the Queen") of a bill that has passed both houses of Parliament in identical form. It is the process by which a bill becomes an act of Parliament and part of the law of Canada.
Scene	The physical space in which a health event occurs
Self-Determination	Allowing individuals, communities and Nations to decide specifically for themselves what works best for them.
Setting	Non-hospital setting (includes hospital bathroom hospital cafeteria, hospital parking lot, community clinic, community outreach)
Secondary Overdose	Naloxone's effects may wane before opioids are fully eliminated from the client's body, particularly for large doses, long-acting opioids, or if the client has compromised liver function. This can lead to recurrence of respiratory depression. Thus, Emergency Health Services (911) should be called and the client must be monitored for at least two hours after last naloxone dose for changes in respiratory status.
Sovereignty	The full right and power of a governing body over itself, without any interference from outside sources or bodies. Principles like non-interference teach us to support people and meet them halfway (i.e. not forcing treatment)
Subjective Assessment	Includes collecting information regarding age, race, gender, working status, stress levels and a current and past medical and family history.
Toxidromes	Group of signs and symptoms constituting the basis for a diagnosis of poisoning
Trauma-and-violence informed care	Policies and practices that recognize the connections between violence, trauma, negative health outcomes and behaviours. These approaches increase safety, control and resilience for people who are seeking services in relation to experiences of violence and/or have a history of experiencing violence
Typical Opioid Overdose	Symptoms may include miosis, cyanosis, respiratory depression and sedation
Ventilation	Provision of fresh air into the lungs through rescue breathing or a ventilator

APPENDIX A: Naloxone

In combination with rescue breathing or supplemental oxygenation, naloxone can be given in appropriate doses to restore breathing and prevent longer-term complications from opioid overdose (e.g. brain injury from lack of oxygen).

Naloxone is a pure synthetic opioid antagonist (antidote to opioids), whereby it temporarily reverses effects of an opioid overdose. In BC, there are no limits or conditions[96] on dispensing or administering naloxone via intramuscular (IM), subcutaneous (SC) or intranasal (IN) routes. Under BC law, anyone (including all service providers) can administer naloxone to someone experiencing an opioid overdose in any setting.

Other considerations for naloxone include:

- Multiple doses of naloxone may be required
    - BCCDC's Take Home Naloxone (THN) kits include 3 doses
    - FHNA's Nasal Naloxone kits include 2 doses
- Naloxone has a temporary effect; overdose may return when effect of naloxone wears off resulting in secondary overdose[97]
- Overdose with Multiple Substances: Naloxone is safe to administer if opioids are not present. Naloxone has no effect on non-opioid overdoses (e.g. cocaine, ecstasy, GHB, alcohol). However, if an overdose includes opioids, naloxone will temporarily reverse the effects of opioids

The tables below provide options for naloxone dosing based on administration routes and considerations for each. To note there are some differences in what's available, based on eligibility or setting. Knowing your setting's policies and procedures will determine what is available for use.

[96] There are limits and conditions on intravenous (IV) use of naloxone in employment settings
[97] See APPENDIX D: Aftercare

Table 8: Pharmacodynamics and Pharmacokinetics of Naloxone

Classification	Pure Synthetic Opioid Antagonist					
Mechanism	**Temporarily reverses effects of opioids by competing for, and displacing opioids from the same receptor sites.** Naloxone has no pharmacological effect if administered in the absence of opioids.					
Indications	**Decreased or absence of respirations (<12 per minute)** ***AND*** oxygen saturation levels < 92%on room air, if oximeter available ***OR*** inability of client to protect their airway ***OR*** presence of other unusual or complex opioid overdose presentations					
Contraindications	While uncommon, hypersensitivity to naloxone or to any ingredient in the formulation or component of the container. See Injection Product Monograph[98] and nasal Product Monograph[99] for more information.					
Route of Administration	**Injection** (into a muscle, vein, or subcutaneous tissue) or by **nasal spray** (in the nose/nostril). **Intramuscular** (IM), **subcutaneous** (SC) or **intranasal** (IN) is the preferred route of administration in the community setting **Intravenous** (IV) is the preferred route of administration in acute facility settings or if IV access is available and within provider scope of practice					
Elimination	Metabolized in the liver; excreted in urine					
Side Effects	**In someone with a developed opioid tolerance, abrupt reversal of opioid overdose may result in:**					
	GI	**CNS**	**CVS**	**Skin**	**Emotional state**	**Other**
	Nausea	Excitation	Tachycardia	Sweating	Irritable	Pain/pain crisis
	Vomiting	**Resp**	Hypertension	Tremulousness Hot flashes (flushing)	Agitated	*(If opioid used for pain management)*
	Diarrhea	Pulmonary edema	Arrhythmias		Confused/startled	
	Cramping	Hyperventilation		Shivering	Nervousness	
Storage	**Naloxone is light-sensitive:** Avoid pre-loading syringes[100], keep stored in dark case/room Store between 15 degree C and 30 degrees C (room temperature, indoors), for more information on temperature, see Toward the Heart's Naloxone and Temperature resource[101]					
Expiry	Can be stored for approximately 2 years from production. Check expiry THN kit or FORB: if naloxone is close to expiry, you can return it to a local THN site for replacement. The expiry date can be found on a sticker on the outside of the THN kit or on the ampule					
For more general information on naloxone, refer to Naloxone FAQ[102]						

[98] https://towardtheheart.com/resource/product-monography-naloxone/open
[99] https://www.narcannasalspray.ca/pdf/en/product_monograph.pdf
[100] https://towardtheheart.com/resource/naloxone-pre-loading-concerns/open
[101] https://towardtheheart.com/resource/naloxone-and-temperature/open
[102] https://towardtheheart.com/resource/naloxone-faq/open

Table 9: Naloxone Dosing Options

		Intramuscular (IM) or Subcutaneous (SC)	Intranasal (IN)	Intravenous (IV)	IV Infusion
Dose	Initial	**0.4-2 mg** For children ≤ 20 kg, 0.1 mg/kg; maximum dose: 2 mg	**4 mg**	**0.1-2 mg** For children ≤ 20 kg, 0.1 mg/kg; max dose: 2 mg	Bolus: follow site-specific recommendations for dose
	Subsequent	**Administer 3 minutes apart**	**Administer 3 minutes apart**	**Administer 2 minutes apart**	Following initial bolus (sufficient to reverse opioid effect), administer: Pediatric: 0.04-0.16mg/kg/hr titrated to clinical effect Adult: 0.4-0.8mg/hr titrated to clinical effect while supporting ventilation/airway Support ventilation/airway CPR/AED if client arrests Alternatively administer two-thirds of the initial effective bolus dose per hour to keep client alert
		Support ventilation/airway ⇨ If client arrests: CPR/AED & 2mg of naloxone			
		With severe or complex opioid overdoses (e.g. muscle rigidity, dyskinesia, etc.): Administer 0.4 mg 3 minutes apart Support ventilation/airway If client arrests: CPR/AED & 2mg of naloxone If no response to naloxone with high clinical suspicion of opioid intoxication, titration of subsequent doses can include: 0.4 mg, 0.4 mg, 0.8mg, 2 mg, 4mg, and then 10 mg	**For community settings:** Repeat doses until RR > 12/min, SpO2 > 90%, and responsiveness improves, OR until emergency medical services arrive	**For community settings:** Repeat doses until RR > 12/min, SpO2 > 90%, and responsiveness improves, OR until emergency medical services arrive For acute or non-acute facility settings, repeat doses as per site recommendations	
	Repeat doses until	Community settings: RR > 12/min, SpO2 > 90%, and responsiveness improves, OR until emergency medical services arrive For acute or non-acute facility settings: as per site recommendations	After second dose, if status does not improve (RR > 12/min, SpO2 > 90%) switch to IM or SC dosing, if more is needed	As per site recommendations	As per site recommendations
Duration of Action[103]		**20-90 minutes**	**120 minutes**	**20-45 minutes**	
Notes		IM injection is recommended, over SC injection, as it absorbs faster through the muscle than through SC tissue SC injections may be preferred in some contexts. In community settings: Standard dose is 0.4mg IM. Three doses of 0.4 mg IM given 3 minutes apart should provide enough time for emergency services to arrive.	IN route leads to higher blood levels of naloxone, so it is more likely to precipitate withdrawal in people with opioid dependency. If no response after two (2) intranasal doses with high clinical suspicion of opioid intoxication, use injectable naloxone	Can be a Nursing Initiated Activity (NIA) in acute or non-acute facility settings	Requires advanced monitoring and is often only used in acute facility and critical care settings, either by physicians or nurses with NIAs. Consider if there is recurrence of symptoms following initial successful reversal with naloxone Common formulation is 4mg naloxone in 250mL D5W (16mg/L) run at 0.4-0.8 mg/hr (25-50 mL/hr) 2mg of naloxone to 500ml of normal saline (0.9%) or to 500ml of 5% dextrose in water or in saline will provide a concentration of 4 micrograms/ml (0.004mg/ml). After 24 hours, any unused solution should be discarded. The rate of infusion should be titrated according to the client's response to the infused naloxone and to any previously administered bolus doses

[103] These characteristics will change with subsequent dosing

Where Can You Get Naloxone in BC?

In BC there are no restrictions on where naloxone can be distributed or sold, and personal information is not required to obtain a THN kit. Individuals purchasing or receiving non-THN program naloxone may be required to provide personal information. Anyone can purchase naloxone from a pharmacy or other provider:

- In order to receive an injectable naloxone kit at no charge from a BCCDC-approved THN site, a client needs to complete the THN training and report a likelihood of witnessing or experiencing an overdose themselves.

  The public can identify their nearest THN site, location including community pharmacies through the Toward the Heart's site finder[104]

- Intranasal naloxone is available to anyone for purchase at a local pharmacy. For people covered under First Nations Health Benefits[105] (FNHB) or Disability Assistance, intranasal naloxone costs are covered.

- In workplace settings, employers are responsible for providing naloxone to their staff for use at work. Not all workplace settings are eligible for BCCDC's Provincial Naloxone program. The following bullets include options for employers in different workplace settings:

  - Non-profit community-based organizations where people who use substances, including opioids, attend or reside may be eligible for the BCCDC FORB program.
  - Private businesses, such as clubs, bars and other for-profit organizations are not eligible for THN or FORB programs. They can purchase injectable or intranasal naloxone to administer to clients and/or customers from a local pharmacy.
  - Medical or other therapeutic clinics (e.g. private) seeking naloxone to have on site to respond to an opioid overdose should, purchase naloxone at a community pharmacy.
  - Healthcare professionals seeking naloxone to have in the workplace, can access through regional health authorities.

BCCDC's Take Home Naloxone and Provincial Naloxone Program

THN kits are intended for distribution to clients who are at risk of overdose, or the friends and family of those at risk. Sites interested in registering as a THN site can find further information[106]

FORB boxes are intended for use by not-for profit, community-based and non-government organizations. Eligible sites can find further information on the Toward the Heart website[107]

Toward the Heart has a timeline[1] on how access to community naloxone has changed over the years

[104] www.towardtheheart.com/site-finder
[105] https://www.fnha.ca/benefits/benefits-information
[106] https://towardtheheart.com/thn-sites
[107] https://towardtheheart.com/forb-sites

Administration of Naloxone

For intramuscular injection using an ampule follow these steps.

1) Wash hands or cleanse with a sanitizer

2) Prepare Ablule Contents

- Gently swirl or tap the ampule to bring all the contents to the lower part of the ampule

3) Open the Ampule

- Use an ampule snapper or cover to protect your fingers when opening
- Hold the ampule with both hands, one at the top and one at the bottom
- Snap the neck gently and away from yourself

4) Prepare the Injection

- Withdraw the contents into the syringe (pushing air out before withdrawing could cause the needle to retract)
- Once all contents from ampule are in the syringe, point the needle to the sky and try to remove most of the air bubble. A little air is ok with intramuscular injections.

5) Give the Injection

- Push the plunger until you hear it click (the needle retracts)

6) Discard Needle

- Discard the needle into a sharps container or safe place. Do not reuse needles for subsequent injections.

For nasal naloxone administration[108]

For access to nasal naloxone through First Nations Health Benefits (FNHB)[109]

APPENDIX B: Assessment Tools

[108] https://www.youtube.com/watch?v=JLAWvNU7tjY&t=15s
[109] https://www.youtube.com/watch?v=4MSWAXqfN9k&t=10s

Assessment tool options to assist in rapid response for opioid overdose events.

Table 10: Assessment Tools

Assessments	Tools	Scale	Notes
Level of Consciousness	Glasgow Coma Scale (GCS)	3-15	General assessment for level of consciousness
Responsiveness	Alert-Verbal-Pain-Unresponsive (AVPU) Scale	n/a	Simplified adaptation of GCS
	Pasero Opioid-Induced Sedation Scale (POSS)	1-4	Opioid-Specific
	Stage of Intoxication Scale	3 levels	Opioid-Specific
Withdrawal Symptoms	Clinical Opioid Withdrawal Scale (COWS)	0-48	Opioid-Specific

Table 11: Glasgow Coma Scale

Component	Score	Description
Eye Opening	4	Eyes open spontaneously
	3	Open in response to speech
	2	Open in response to painful stimuli
	1	Does not open eyes in response to any stimulation
Verbal Response	5	Oriented to client, place, and time
	4	Converses, but confused
	3	Replies with inappropriate words
	2	Makes incomprehensible sounds
	1	Makes no response
Motor Response	6	Follows commands
	5	Makes localized movement in response to painful stimulation
	4	Makes nonpurposeful movement in response to painful stimulation
	3	Flexes upper extremities/extends lower extremities in response to pain
	2	Extends all extremities in response to pain
	1	Makes no response to painful stimuli

Table 12: AVPU scale

	Scale	Description
A	Alert	Fully awake, opens eyes spontaneously, responsive to verbal stimuli, and has bodily motor function.
V	Verbal	Responsive to verbal stimuli
P	Pain	Responsive to painful stimuli
U	Unresponsive	Unconscious, does not respond to stimuli

Adapted from Glasgow Coma Scale

Table 13: Pasero Opioid-Induced Sedation Scale (POSS)

	Scale Description	Intervention
S	Sleep, easy to rouse	No action necessary
1	Awake and alert	No action necessary
2	Slightly drowsy, easily roused	No action necessary
3	Frequently drowsy, rousable, drifts off to sleep during conversation	Action necessary Monitor respiratory status and sedation level closely until sedation level is stable (POSS<3) and respiratory status is satisfactory.
4	Somnolent, minimal or no response to verbal or physical stimulation	Action necessary Assess airway/breathing/circulation. Call for help. If opioid overdose suspected, administer naloxone according to dose guidelines. Monitor respiratory status and sedation level closely until sedation stable (POSS<3) and respiratory status is satisfactory.

Table 14: Stages of Opioid Intoxication

Stage	Indicators
Drowsy	RR >12/min SaO2 >92%on Room Air or no clinical sign of hypoxia. Glasgow Coma Scale (GCS) 14-16
Nodding	Spontaneous Respirations <12/min SaO2 81-92%on room air. Clinical signs of hypoxia may not be present. GCS 10-13
Unresponsive	Apneic – no spontaneous respirations or gasping SaO2 <81% on Room Air or clinical signs of hypoxia GCS <10

APPENDIX C: Opioid Classifications

The term opioid refers to natural and synthetic substances (drugs) that are active at the opioid receptors in the central nervous system (CNS). They are most commonly prescribed for pain and substance use treatment and less frequently as a cough suppressant or antidiarrheal. The pharmacological effects include sedation, respiratory depression and analgesia as well as intoxication, withdrawal, euphoria, and CNS depressant effects. The time to peak blood concentration and half-life depends on the specific opioid and will affect the length of time of intoxication.

Opioid drug class includes:

- Substances directly derived from the opium poppy (such as opium, morphine, and codeine),
- The semi-synthetic opioids (such as heroin), and
- The purely synthetic opioids (such as methadone and fentanyl).

Commonly used opioids:

- Codeine
- Heroin
- Morphine
- Meperidine (Demerol)
- Anileridine (Leritine)
- Methadone
- Hydromorphone (Dilaudid)
- Fentanyl and its analogues (e.g. carfentanil, furanylfentanyl, acetylfentanyl, W-18)
- Opium
- Pentazocine (Talwin)
- Oxycodone
- Percocet (Percodan)

APPENDIX D: Aftercare

After successful overdose reversal, the client will breathe independently (with a rate greater than 12 breaths per minute). They may not be aware of the overdose. Initial steps are:

- Inform them of who you are; and
- Inform them of their opioid overdose, clinical status, and any treatments received.

If the client is experiencing any withdrawal symptoms, affirm that these symptoms are temporary and will subside as the effect of naloxone wears off. Encourage them to avoid using more substances at this time. Using substances after naloxone:

- Will not diminish withdrawal symptoms,
- Will not produce any feelings of euphoria, and
- Could lead to a return of overdose symptoms once the effects of naloxone wear off.

While respecting the client's autonomy, encourage them to accompany emergency service staff to the emergency department. They will receive further assessment of complications due to opioid overdose or recurrence of respiratory depression (i.e. if opioids persist when naloxone wears off).

- Replace Take Home Naloxone kit
- If the client cannot go to the emergency department, it is recommended that they stay onsite or with other people and are monitored for a duration based on several factors.

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Table 15: Aftercare Monitoring Recommendations for Opioid Overdose

Type of Opioid OD	Criteria or recommendations	Observe for
Low possibility of secondary overdose	Less than 0.8 mg of naloxone required for initial overdose reversal, AND Less than 0.8 mg of naloxone required after the initial overdose reversal, AND Smoked, snorted or injected an opioid	at least 2 hours
High possibility of secondary overdose	More than 0.8 mg of naloxone required for initial overdose reversal, OR Oral ingestion of an opioid	at least 6 hours
High possibility of coingestants	Polysubstance involvement	4 to 6 hours
Methadone overdose		at least 12 hours
buprenorphine, pediatric, fentanyl patch ingestion, and ingestion for the purpose of concealment	Naloxone should be administered in accord with the dosing guidelines, and The Drug and Poison Information Centre (DPIC)[110] should be contacted	Transfer to hospital

APPENDIX E: Responding to Other Types of Overdoses

[110] https://www.dpic.org/contact

Opioid and Non-Opioid Downer Mix

Combinations of opioids and benzos are becoming increasingly common[111,112,113,114,115.] When non-opioid downers are mixed with opioids, response time may be delayed due to ability to identify overdose; and alternatively, can result in higher doses of naloxone when subsequent doses are given based on level on consciousness, rather than respiratory function. Therefore, ventilation is imperative to maintain oxygenation and naloxone should be dosed based on respirations and SpO2, rather than level of consciousness.

Additionally, transfer to hospital for further support is recommended to ensure appropriate aftercare support is provided. With non-opioid downers (e.g. benzos), people can remain sedated for many hours despite having adequate naloxone to reverse opioid OD.

See Table 17 on next page for steps.

[111] https://www.albertahealthservices.ca/assets/info/hrs/if-hrs-etizolam-public-notice.pdf
[112] https://www.stopoverdose.gov.bc.ca/theweekly/benzos-and-overdose-be-aware-risks-and-signs
[113] http://www.ohrn.org/wp-content/uploads/2020/03/Benzodiazepines-in-the-unregulated-drug-supply-in-Ontario_OHRN_-March-2020.pdf
[114] http://www.mvaec.ca/downloads/benzo-info.pdf
[115] https://www.northernhealth.ca/newsroom/overdose-alert-illicit-benzodiazepines-or-benzos-contaminating-street-drugs

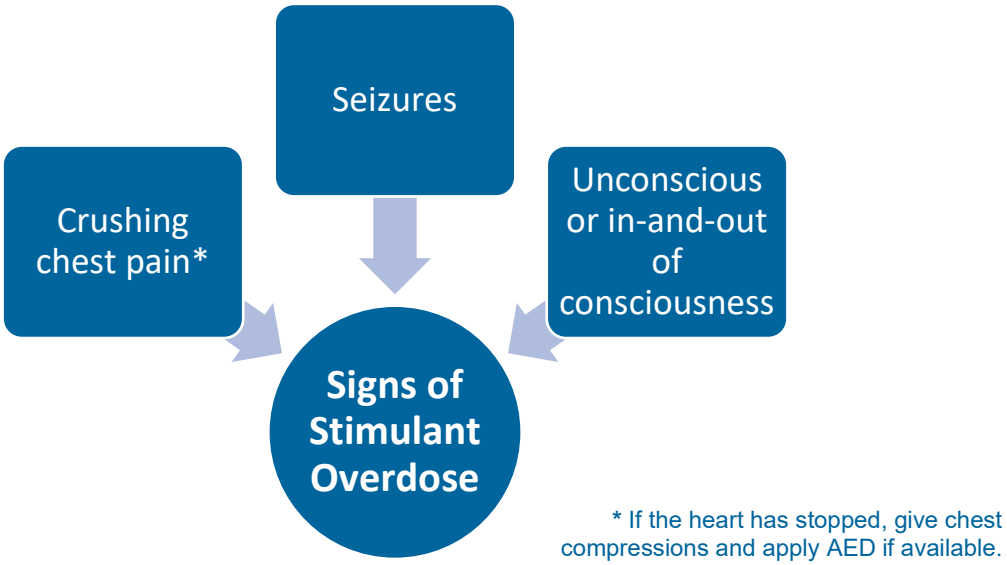
Table 17: Responding to Opioid and Non-Opioid Downer (e.g. benzo) Overdoses

Try to wake the client	If the client is unconscious or not responsive to painful stimuli, initiate usual emergency response immediately (e.g. 911, 7111) and communicate to response team that OD is related to suspected/confirmed opioid and benzodiazepine use
Check their airway	Check airway for obstructions and assess breathing If the client is breathing <12 /min AND SpO2 <92%(if oximeter available) OR if signs of cyanosis are visible, proceed to next step Otherwise place the client in the recovery position, monitor breathing and stay with them until help arrives
Ventilate	Attempt to ventilate with the technique you are most comfortable using If airway support equipment and trained individuals are available, use a two person bag-valve mask technique[116] Otherwise, give breaths with barrier as possible and available
Evaluate	Assess for changes in client status and continue trying to wake them and encouraging them to breathe If NOT breathing and NO pulse, START CPR.[117] Do not delay CPR for naloxone administration. If NOT breathing and HAS pulse, continue ventilation
Medication	IF no improvement with rescue breaths OR if client has not regained adequate ventilation Administer naloxone (IM/IN/SC/IV) as per setting recommendations If no response in 3 mins (30-40 breaths), repeat dose as needed
Re-Evaluate	Re-assess for changes in client status and naloxone effect IF the client is breathing >12 /minute: stop ventilation, place in recovery position and provide aftercare[118] while you wait for emergency services to arrive IF no improvement with ongoing rescue breaths and first dose of naloxone Give subsequent doses of naloxone as indicated Continue to monitor client status for improvements Continue to protect airway/ventilation and efforts to wake client up WAIT 3 minutes (approx. 30-40 breaths) before additional naloxone doses Repeat steps until client status improves OR until Emergency Services arrives
NOTE: administer naloxone based on respiratory rate and SpO2 if opioid OD is also suspected. Breathing may return despite changes in consciousness	

[116] A two person bagging technique: one rescuer uses both hands to form a tight seal with the mask around the mouth and nose of the client and a second rescuer operates the bag
[117] See Section 10.0: Key Points Table for more information on chest compressions
[118] See APPENDIX D: Aftercare

Stimulants

Stimulant use has been increasing, and with it increasing illicit drug overdose deaths where stimulants were involved[119]. Stimulants[120] or "uppers" are a class of drugs that stimulate the body's central nervous system (CNS), which includes the brain and spinal cord. Stimulants can temporarily increase energy levels and alertness. Stimulants can cause over-amping, as well as overdose. A stimulant overdose can lead to seizure, respiratory arrest, heart attack, or stroke as a result of elevated body temperature (hyperthermia), heart rate, blood pressure, and dehydration. There is no antidote for stimulant overdose, and harmful effects of a stimulant can be precipitated by lack of sleep, disrupted eating or hydration, and using in a place that is unfamiliar or feels unsafe. For information on stimulant over-amping see the Toward the Heart website[121,122,123] and the harm reduction coalition[124]



Remember that most altered states are temporary. People can appear to be extremely agitated or in a psychosis-like state. People react to stimulants differently and differ in what feels supportive. People who use stimulants face stigma and are often turned away from medical, social or housing services for seeming high. Regardless of why someone is in an altered state, they should be provided with appropriate care and access to services.

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[119] https://www2.gov.bc.ca/assets/gov/birth-adoption-death-marriage-and-divorce/deaths/coroners-service/statistical/methamphetamine.pdf
[120] https://towardtheheart.com/resource/stimulants-101/open
[121] https://towardtheheart.com/resource/responding-to-stimulant-over-use-and-overdose/open
[122] https://towardtheheart.com/stimulant-od-awareness
[123] https://towardtheheart.com/resource/overdose-awareness-stimulants/open
[124] https://harmreduction.org/issues/overdose-prevention/overview/stimulant-overamping-basics/

Ways to prevent escalating the situation may include:

- Awareness of judgements and assumptions interfering with ethical and professional duty to provide trauma- and -violence informed care.
- Keep your voice low, calm and steady
- Let them speak without interruption
- Ask them what might be helpful right now
- Let them speak at their own pace
- Offer them a quiet space and time to recover, if possible
- Behaviours like rocking or repeating themselves are self-soothing. Don't discourage unless they are harming themselves
- Encourage them to drink some water or electrolyte juice
- Be supportive by reassuring them they will be okay and what they are experiencing will pass
- If the client poses imminent harm to themselves or others, call 911

Table 18: Responding to Stimulant Overdose

Initiate usual emergency response (e.g. 911, 711)	• There is no antidote for a stimulant overdose, escalating emergency services will ensure the client receives medical attention required • Naloxone can help if a client has taken a mix of drugs, including when the primary substance is a stimulant. When in doubt, administer naloxone, it is safe
Keep the client comfortable, conscious, hydrated, and cool	• Try to stay calm and talk to them using a gentle approach • Remove objects nearby that could cause harm • Do not restrain or put anything in their mouth • Encourage them to not use any more substances • Move them away from activity and noise • Give them water or electrolytes but don't over-hydrate • With caution, place cool, wet cloths on their forehead, back of neck, back of legs or underarms
Evaluate and monitor	• Assess for changes in client status • If client's heart stops, and if you are trained in CPR initiate CPR • Stay with them until escalated emergency services arrive

Alcohol

Alcohol overdose or poisoning can include the following symptoms:

- Slow breathing (fewer than 8 breaths per minute), irregular breathing (10 seconds or more between breaths) or trouble breathing
- Unusual snoring or gurgling breathes.
- Slow heart rate
- Cold (low body temperature) and clammy skin
- Blue or ashen skin and nail beds
- Dulled coordination and fine motor skills
- Dulled responses of the body (e.g. gag reflex – which prevents choking)
- Confusion or stupor
- Changes in consciousness including difficulty staying awake, or inability to wake up
- Vomiting
- Seizure

Table 19: Responding to Alcohol Overdose

Initiate usual emergency response (e.g. 911, 711)	If the client is unresponsive place the client in the recovery position. If awake keep the client on the ground in a sitting or partially upright position rather than in a chair, this will prevent falling. Call 911 or delegate calling to someone else Be prepared to provide information to the responder(s), including the type and amount of alcohol the client drank and if other drugs are involved
Keep the client comfortable, conscious, and calm	If possible, stay with the client until paramedics arrive. If you cannot stay find someone who can. When left alone the client may get injured from falling or choking.
Evaluate and monitor	Until escalated emergency services arrive

APPENDIX F: Training Options for Responding to Opioid Overdose

A special thanks to Sebastien Payan with VCH's Overdose Emergency Response team for helping create this section.

To ensure the best possible outcomes, it is important to be adequately trained to identify and respond to an opioid overdose. There are a variety of places people can access opioid overdose recognition and response training (naloxone administration); and additional training is available for the use of Bag Valve Mask, oxygen administration, CPR, naloxone dispensing and distributing, airway insertion, oral suction and glucose testing. If not used properly these interventions may be ineffective and cause unintended consequences or harm

Follow your job descriptions, scope of practice, regulatory bodies, and regional policies and procedures for a list of recommended and available trainings near you. After responding to an opioid overdose, don't hesitate to debrief with someone on what you think went well, if there is anything you think can be done differently or what you can do to feel even more prepared for the next time an opioid overdose happens.

Options for training include:

Opioid overdose identification and response, including naloxone administration

- Local harm reduction and overdose prevention sites, including peer to peer or train the trainer options
- Online: Toward the Heart[125] and Learning Hub[126]

General First Aid with rescue breathing and CPR

- Local St. John Ambulance[127] and Red Cross[128]
- Health care provider level CPR course

Additional training or education for advanced opioid overdose response activities

- Go to your health authority web site to know more about training opportunities

Continuing competence:

It is recommended to review skills and activities relevant to your workplace setting. If you cannot recall how to perform all parts of skill properly or have not used a particular skill for 6 months, it is recommended to re-read this guideline and practice related skills as per training recommendations

APPENDIX G: Opioid Overdose Prevention

Anyone can overdose regardless of their substance use history (including prescription substances) and determining likelihood of overdose is complicated and depends on several factors, see below for more information:

[125] https://towardtheheart.com/naloxone-course
[126] http://www.bccdc.ca/health-professionals/education-development/naloxone-administration
[127] https://go.sja.ca/
[128] https://www.redcross.ca/in-your-community/british-columbia-and-yukon

Table 20: Opioid Overdose Prevention

Factors (related to increased possibility of opioid overdose)		Definition or Impact
Environment or Setting	Using Alone	Using alone or in an unfamiliar place can increase the likelihood of fatal or serious outcomes from overdose. In addition to the physical environment, other determinants such as, prohibition, criminalization, poverty, homelessness, lack of access to the overdose prevention services and public support can lead to an overdose.
Substance (e.g., illicit and licit substances including drugs and alcohol)	Amount (e.g., quantity, dose or delayed release)	Factors such as dose, frequency and time-release mechanisms influence the way a substance is broken down or processed in the body
	Strength (e.g., potency)	The unregulated drug supply makes it impossible to know the true strength of a substance, as other substances are added to enhance effects or increase sales. Sometimes analogues of substances (e.g. carfentanil) are also sold
	Polysubstance Use	Many unintentional fatal overdoses occurred when using both alcohol and other substances together. Using more than one downer at a time can reduce the breathing rate and increase the possibility of an overdose; and adding stimulants can cause the body to use more oxygen. Speedballs (i.e. upper and downer mix) can increase the possibility of an overdose due to the contradicting effects of the two types of drugs
	Public Health Trends	Knowing peak periods of community drug use or what substances are being used within your area can identify if people are buying from same dealers with rapid succession of ODs, or how often to check on someone while they're using
Other Characteristics	Age	Age affects the way substances get processed by the body. As we age, substances build up in the body making smaller doses more potent
	Health Status	The possibility of an overdose can increase when all parts of the body are not functioning optimally, in particular: heart, immune system, liver, kidney, and respiratory function. Individuals with high blood pressure, heart disease, diabetes, infection, sleep deprivation, dehydration, malnourishment, fluctuations in mental wellness, and recent overdose
	Tolerance	Lower tolerance levels can increase possibility of overdose. A decrease in tolerance can result from a recent period of abstinence or decrease in the frequency or amount of drug use (e.g., recent treatment or period of abstinence, incarceration, or hospitalization)
	Route of Use	Some methods, such as injecting, or smoking are more likely to lead to an overdose than others. The faster a substance gets into the blood stream the more potent its effect.

Knowledge Sharing Points

- If you are using alone, let someone know where you are or how you're using
- Make a safety plan trusted people to prevent, identify and respond if an overdose occurs
- Not all opioids are created equal. Be cautious when trying a new drug or dealer

- Wait before taking more. It can sometimes take longer to feel full effect (e.g. delayed-release)
- Use one drug a time. If using more than one substance over a short period of time, use less of each and let someone know. If possible, avoid mixing alcohol or benzos with opioids
- Be aware of the drug supply in your area by connecting with your community members.
- Test drugs using test strips or spectrometer
- Get drug checking alerts
- Know your personal health and wellness, across your lifespan to know likelihood of overdose
- If there has been recent weight loss or if you're not feeling well, if possible, use less
- If on HCV treatment, use less than you normally would
- When possible, eat for nutrients and drink clear fluids to help stay hydrated
- injecting or smoking are more likely to lead to an overdose
- Additional items could include:
- Know when to initiate the overdose response
- When to phone 911? Who else should be called at the scene?
- While the client seeks further medical help, who would be responsible for their belongings

APPENDIX H: The Good Samaritan Drug Overdose Act

The Good Samaritan Drug Overdose (GSDO) Act received Royal Assent on May 4th, 2017. This enactment amends the Controlled Drugs and Substances Act (CDSA) to exempt persons seeking emergency medical or law enforcement assistance for themselves or for others at an overdose event from being charged if the evidence in support of that offence was obtained or discovered as a result of seeking assistance or remaining at the scene. The **law provides protection from charges for simple possession of drugs in the following scenarios**:

- Violation of pre-trial release
- Probation order
- Conditional sentence or parole

This applies to any client at the scene upon arrival of assistance, including the client who overdosed. The **law does not provide protection from charges for**:

- Producing or selling illegal drugs (trafficking)
- Offences other than drug possession
- Any outstanding warrants or arrests, probation order, conditional sentence or parole for an offence other than simple possession

Please refer to Bill C-224[129] for details.

In April 2019, GSDOA Act wallet cards containing information about the act were available for ordering by registered Take Home Naloxone sites through the supply order form.

[129] https://www.parl.ca/DocumentViewer/en/42-1/bill/C-224/royal-assent#enH39

APPENDIX I: Debriefing and Resources

People responding to overdoses, families and friends of those that overdose, and communities require sufficient support to avoid further trauma. Support can be implemented at three levels:

1. **Peer to Peer. People with lived or living experience are in the best position to support those most impacted by overdose. To do so:**
   - Peers must be adequately resourced for support work
   - People impacted should be triaged by peers to other support services as required
   - Nurture self-care and self-assessment at work
2. **Organization/Agency for Peer Organizations can foster peer resiliency by creating environments that promote self-care by:**
   - Acknowledge the value of peer work
   - Allocate time and resources to ensure peers are supported
   - Pay a living wage and provide vacation and sick time
   - Prioritize peer debriefing following critical incidents such as overdose
   - Promote de-briefing and self-care for peers and other workers
3. **Community Initiatives for Peer Support. Community initiatives may bring people together to provide additional support, including:**
   - Memorials and vigils
   - Information meetings, knowledge translation exchanges about overdose events
   - Grief and loss support groups

Additional Resources:

- Peer Engagement Principles and Best Practices[130]
- Peer2Peer (P2P) Project Resources[131]
- Peerology[132]
- Provincial Mobile Response Team (MRT)
- Pacific AIDS Network (PAN)[134]
- Resisting Burnout by Vikki Reynolds[135]
- BC Centre on Substance Use (BCCSU) resources on grief[136]

[130] https://towardtheheart.com/resource/peer-engagement-principles-and-best-practices/open
[131] https://towardtheheart.com/peer-engagement
[132] http://library.catie.ca/pdf/ATI-20000s/26521E.pdf
[133] http://www.phsa.ca/our-services/programs-services/health-emergency-management-bc/provincial-overdose-mobile-response-team
[134] https://pacificaidsnetwork.org/resources-2/drug-use-and-overdose-response/
[135] https://vikkireynoldsdotca.files.wordpress.com/2019/09/2019-context-uk-zone-of-fabulousness-reynolds.pdf
[136] https://www.bccsu.ca/blog/news-release/new-resources-to-support-bc-families-impacted-by-substance-use/

APPENDIX J: Nursing Specific Considerations

Stigma continues to act as a barrier to health care and social service settings, and nurses can play a pivotal role and anti-stigma efforts in clinical decision-making. For more information, visit Toward the Heart reducing stigma[137] and Compassionate Action: An Anti-Stigma Campaign[138]

Under BC law (Pharmacy Operations and Drug Scheduling Act), anyone (including non-regulated service providers) can distribute and administer naloxone to someone who may experience or witness an opioid overdose. Because naloxone is an unscheduled medication in BC, nurses can distribute and administer naloxone to people who are neither their clients nor their client's delegate, but to anyone who may witness or experience an opioid overdose.

Note: acute and non-acute facility settings written orders take precedence over site procedures and/or nursing initiated activities (NIA)[139]; even when a decision support tool is in place (i.e. prescriber orders override acting without an order)

Ethical Considerations

Expanding on to the principles listed in Section 4.0: Principles and Ethics the nursing code of ethics as set out by the Canadian Nursing Association (2017) includes:

Supporting Documents

- Province of British Columbia Ministerial Order (M488) to support broadening of services for people at risk of overdose[140]

[137] https://towardtheheart.com/reducing-stigma
[138] https://towardtheheart.com/peer-engagement *Scroll down to Compassionate Action: An Anti-Stigma Campaign* for anti-stigma videos and accompanying learning modules
[139] used in the context of HPA restricted activities and is considered autonomous practice for nurses (and others - delegation/assignment) - NIA DST to support the work without an MD order
[140] https://www.bclaws.ca/civix/document/id/mo/hmo/m0488_2016

- Public Health Emergency declared in 2016[141]
- Provincial Episodic Overdose Prevention Services (e-OPS) Protocol[142]
- Order of the Provincial Health Officer: Registered Nurse and Registeres Psychiatric Nurse Public Health Pharmacotherapy[143]
- Canadian Nurses Association (CNA) Harm Reduction[144] landing page
- British Columbia College of Nursing Professionals (BCCNP) Overdose Crisis Resource Centre[145]
- Harm Reduction Nurses Association[146]

[141] http://www.bccdc.ca/about/news-stories/stories/public-health-emergency-in-bc
[142] http://www.bccdc.ca/Health-Professionals-Site/Documents/COVID19_EpisodicOPSProtocolGuidelines.pdf
[143] https://www2.gov.bc.ca/assets/gov/health/about-bc-s-health-care-system/office-of-the-provincial-health-officer/covid-19/covid-pho-order-rn-pharmacotherapy.pdf
[144] https://www.cna-aiic.ca/en/policy-advocacy/harm-reduction
[145] https://www.bccnp.ca/Standards/all_nurses/resources/Pages/opioids.aspx
[146] https://www.hrna-aiirm.ca/

Table 21: Nursing practice considerations for activities in responding to opioid overdoses

Skill	Restricted Activity	Designation	Practice Level[147]		Notes
			Additional Training[148]	**Autonomous Practice [149]**	
Oxygen	Yes[150]	Nurse (NP, RN, RPN)		•	
		Nurse (LPN)	•		BCCNP Condition: additional education and to follow a DST Refer to page 11 in Scope of Practice for LPNs
Bag Valve Mask (BVM)[151]	No	Nurse (NP, RN, RPN, LPN)		•	
Oral Airway	No	Nurse (NP, RN, RPN, LPN)		•	
Nasopharyngeal Airway	Yes	Nurse (NP, RN)		•	
		Nurse (RPN, LPN)			Current limits for RPNs and LPNs performing activities and skills in the nasopharynx
Glucometer Testing	Yes	Nurse (NP, RN, RPN)		•	BCCNP Condition: additional education and to follow a DST to autonomously treat hypoglycemia
		Nurse (LPN)	•		BCCNP Condition: additional education and to follow a DST to autonomously treat hypoglycemia and are limited to administering glucagon in these instances Refer to page 14 in Scope of Practice for LPNs
Suction – oral[152]	Yes	Nurse (NP, RN)		•	
		Nurse (RPN)	•		
		Nurse (LPN)	•		
Suction – nasopharyngeal [153]	Yes	Nurse (NP, RN)		•	
		Nurse (RPN)		•	BCCNP Condition: to follow a DST; Refer to page 42 of Scope of Practice for RPNs
		Nurse (LPN)	•		BCCNP Condition: additional education and to follow a DST; Refer to page 14 in Scope of Practice for LPNs

[147] Some of skills included in this table may be employer-restricted; any client performing any activity should be familiar with employer related policies and protocols.
[148] Training is easily obtained through your employer by a trained educator/clinical lead, or formal First Aid Course that includes these skills. If not used properly these interventions may be ineffective and cause unintended consequences or harm
[149] Autonomous practice for nurses is based on baseline competencies at graduation
[150] Legally restricted under HPA, but some First Aid Courses still provide this training to the public
[151] Also known as Ambu Bag, with ventilation but without supplemental oxygen (as supplemental oxygen is a restricted activity and additional skills)
[152] Oral suctioning (not past narrowing of nasal passages) is a restricted activity as per HPA
[153] Suctioning beyond the narrowing of nasal passages or beyond the pharynx is a restricted activity under HPA. In addition to appropriate training, ongoing clinical supervision and monitoring recommended