Overdose Prevention, Recognition and Response Training

Welcome to Toronto Public Health's online Overdose Prevention, Recognition and Response Training!

Select Start to begin training.

1.2 Introduction

Introduction

Toronto, like many other places across Canada, continues to be in the midst of an overdose crisis. Potent drugs such as fentanyl, fentanyl analogues and novel benzodiazepines continue to contaminate the local illicit drug supply, exacerbating overdose risk for many people who use drugs. With the onset of the COVID-19 pandemic, people who use drugs may face compounded risk for overdose due to increased social isolation and reduced access or applicability of some overdose prevention strategies from the pre-COVID-19 era.

Select Next to continue.

1.3 Learning Objectives

Learning Objectives

Drug overdose and drug overdose-related fatalities are a persistent and alarming public health concern requiring a range of individual, collective and policy responses. Participating in this training will provide you with the life-saving knowledge necessary to:

- recognize someone's risk for overdose
- recognize the signs of overdose,
- respond to overdose in the community setting, with a particular focus on opioid overdose response during the COVID-19 pandemic.

This online module has been designed to educate a general audience in overdose response and complements standardized CPR training. The information shared here can also be used to inform organizational overdose response protocols and augment staff training. Health care workers and those working in healthcare settings should consult regulatory and practice setting protocols in addition to considering the information in this module.

Select Next to continue.

1.4 Learning Menu

This training module has been divided into three sections: Overdose Prevention, Overdose Recognition and Overdose Response. It is recommended that learners with limited knowledge of overdose complete all module content in sequence. Learners with more advanced knowledge are invited to review only the content that is required to meet their learning needs.

An Overdose Training Video has been provided to consolidate what you've learned about Overdose Prevention, Recognition and Response. The video can be accessed via the button on this screen.

Once you've completed your learning, please select the Next button on this menu to conclude this module.

To consolidate this module's learnings on overdose prevention, recognition and response, please watch this training video. While it was designed to supplement the training for naloxone distribution and references naloxone kits available to individuals, the information and overdose response protocol remain applicable. Please also note that the video was created prior to the COVID-19 pandemic and does not make reference to the personal protective equipment that should be worn by overdose responders, nor does it provide messaging to discourage rescue breathing at this time.

2. Overdose Prevention

This section will address Overdose Prevention. Select 'next' to continue.

2.2 Introduction

People from all walks of life have taken drugs throughout human history, for many reasons, with the most commonly used drugs being alcohol and cannabis. Most substance use does not harm the individual or anyone else, however in a small percentage of cases, people can experience negative consequences from their substance use, or become physically or psychologically dependent on drugs.

Regardless of where someone finds themselves on the continuum of drug use, overdose will be a risk if they consume a toxic amount of a drug, or combination of substances. This can happen intentionally or unintentionally, especially given the unpredictable ingredient profile of the illicit drug supply.

Results from drug checking services in Toronto suggest that the drugs that people are purchasing in the illegal drug market often contains substances that are unanticipated by the consumer. Fentanyl and fentanyl-like drugs are often found in opioids and sometimes in other drugs, such as crystal meth or crack cocaine. Potent benzodiazepines and drugs manufactured to act like benzodiazepines, are also showing up in drugs expected to be opioids. When people have to access the illicit drug market, there is an inherent overdose risk.

Select Next to continue.

2.3 What is an Overdose?

An overdose occurs when a person consumes a toxic amount of a drug, or combination of drugs.

As a result, the central nervous system is no longer able to control basic life functions such as breathing, heart rate, body temperature, or consciousness. When someone stops breathing the brain has approximately 3 minutes worth of oxygen on reserve. Permanent brain damage can occur within 10 minutes of oxygen deprivation.

Overdose is a life-threatening medical emergency. If you recognize that someone is overdosing, it is vital to act quickly.

Select Next to continue.

2.4 Substance Types

Before we learn more about overdose, it is important to have a basic understanding of

drug classifications and their different effects on the body. There are 3 main classes of drugs: Depressants, Stimulants and Hallucinogens (or Psychedelics). Select each button to learn more.

Depressant drugs, also called “down or downers” slow down central nervous system activity, reducing arousal and stimulation. Opioids, Benzodiazepines and alcohol are all types of depressant drugs.

Some examples of opioids include heroin, Fentanyl, fentanyl analogues, hydromorphone (or Dilaudid), oxycodone, morphine, methadone and Suboxone. Prescribed opioids are used to treat pain, cough, diarrhea, opioid use disorder and to replace illicit opioids to provide a safer alternative. Some people use opioids non-medically to feel very relaxed, “high,” less inhibited, or escape discomfort.

Benzodiazepines, sometime referred to as “benzos,” are widely prescribed to treat conditions like insomnia, anxiety, alcohol withdrawal and seizure disorders. Benzodiazepines can cause feelings of tranquility and physical relaxation. Some examples of pharmaceutical benzodiazepines include lorazepam (or Ativan), diazepam (or Valium), and alprazolam (or Xanax). Potent unregulated benzodiazepines and benzodiazepine-like substances such as flualprazolam and etizolam can be found in illicit drug batches expected to be opioids.

The most important difference between all of these depressant drugs when it comes to overdose, is that the **life-saving drug Naloxone does NOT work to reverse the effects of ALL depressants; it only reverses the effect of opioids**.

(speed, **MDMA**, crystal meth) 1. Large doses of stimulants can cause over-stimulation, causing anxiety, panic, seizures, headaches, stomach cramps, aggression and paranoia

Stimulants are substances that speed up a person's central nervous system activity and are used to increase alertness, wakefulness, energy and confidence. They can also be prescribed to treat attention deficit and hyperactivity disorders. Some common stimulants include cocaine, crack cocaine, amphetamines (which are also known as “speed” or “uppers” and are found in crystal meth as well as pharmaceuticals like Adderall). Methylphenidate (or Ritalin), caffeine and nicotine are also stimulants . Naloxone does not counteract the effects of any of these drugs.

Hallucinogenic substances can cause visual, auditory and psychological changes, alter level of consciousness and cause fluctuations in heart rate, respiratory rate and body temperature. They are used for recreational, experimental and spiritual experiences. There is also emerging evidence that some psychedelics may be therapeutically beneficial when used under medical supervision to treat some depression, anxiety and post-traumatic stress disorder, though these drugs remain unregulated in Canada. LSD, psyilocybin (or magic mushrooms), MDMA, mescaline, and DMT are all classic

hallucinogens. Ketamine and PCP (or angel dust) are examples of disassociative hallucinogens. Naloxone should not be used to reverse the effects from hallucinogens Naloxone cannot reverse the negative effects caused by hallucinogens.

2.5 Overdose Risk Factors

There are a number of risk factors that may increase a person's likelihood of experiencing a drug overdose. Understanding the individual characteristics and social environment associated with overdose helps to determine ways that individuals and communities can reduce the risk and ultimately prevent drug overdose.

Taking different drugs at the same time, or “mixing”, can lead to an increase in theirs effects. Many overdoses occur when opioids are mixed with alcohol or benzodiazepines. Avoiding the intentional mixing of drugs helps to reduce the risk of overdose. If this strategy is not achievable, it is best to use less of each substance or finish using one before starting another.

Drug tolerance refers to when a person’s body gets used to a specific dose or quantity of a particular drug, and therefore they require more of the drug to experience the desired or intended effect. Tolerance increases over time with continued drug use and decreases quickly. Reduced tolerance to opioids creates a serious overdose risk. Even a few days without using opioids can lead to a significant drop in tolerance- this can happen when someone participates in drug treatment, takes a voluntary break, is incarcerated, becomes ill or their usual drug supply is otherwise inaccessible. A drop in opioid tolerance means that the body can process only a smaller amount of the specific opioid than what someone previously consumed, without overdosing. Knowing about tolerance is essential, and self-monitoring for stress and new illness which can reduce one’s tolerance can help someone decide whether they need to reduce the amount of drug they use. When someone returns to drug use after a break, it is important to start with a lower dose than what they were previously accustomed to- start low an go slow, maybe try a small tester shot to see how it feels. For people who typically inject, snorting or inhaling their drug might be a safer option when tolerance is low.

The quality and strength of drugs in the illicit market are not controlled and therefore, unpredictable. Drugs purchased may not be what the buyer expected or may contain other substances or contaminants. It is difficult to tell by inspection alone if an illicit drug is actually what the buyer thought they purchased or if it has other dangerous additives in it. Prescription opioids are regulated and therefore predictable in terms of quality and dosage, but opioid strength and effect differs among the different types of opioid drugs and between users. Also, illicit powders can be pressed into forms that look like prescription pills. It is important to do everything possible to check and vet drugs before consumption. Vetting a new batch or dealer through trusted peers can help to discern what a drug’s strength and effect. Submitting a small amount of the drug or residue from use, to a drug checking program can provide information on the contents of a substance and help inform decisions to use it, use less or not use it at all. Using illicit drugs at a supervised consumption service or in the presence of others that can respond in the

event of an overdose are some of the most important overdose prevention strategies.

Having a history of non-fatal overdose is also a risk factor for overdose. Previous overdose experiences suggest that the person has vulnerabilities or use patterns that might contribute to their heightened risk. Using drugs at a supervised consumption service or in an otherwise observed way will help to prevent overdose death for people with this risk factor.

Finally, the environment where someone uses drugs can create addition risk for overdose and overdose death.. Some people have to use in haste, fearful of using drugs in a public or otherwise prohibited space. Using too much of a drug and too fast can lead to overdose. Using drugs alone puts individuals at the highest risk for overdose fatality because there is no one to take care of them if they overdose. Ideally, everyone would use drugs at a supervised consumption service or in the presence of people they trust to respond to their overdose. This may not feel like a safe option for some people and even more so during the COVID-19 pandemic; so, developing an overdose plan is a critical prevention strategy to increase the likelihood that help will be available. A plan could include having someone check in on the person after use, leaving the door ajar while using, using an overdose prevention phone line or app for virtual observation, and having naloxone ready.

Select Next to continue.

3. Overdose Recognition

This section will address Overdose Recognition. Select Next to continue.

3.2 Signs of Stimulant Overdose

Stimulant toxicity, or overdose, can lead to several signs and symptoms of physical and psychological distress.

Physical signs of toxicity may include chest pain, racing heart, high body temperature, profuse sweating, tremors, seizure activity, vomiting, paralysis, muscle rigidity, and jerking limbs. Signs and symptoms of psychological distress related to stimulant toxicity may include anxiety, extreme agitation, paranoia, panic and confusion.

In the event that stimulant use precipitates chest pain, rapidly increasing pulse or body temperature, seizing, body paralysis or rigidity, jerking limbs, or psychological symptoms that cause concern for the safety of the person or others, it is essential to get the person emergency medical help immediately by calling 911. If the person becomes unconscious and goes into respiratory distress, follow the standard CPR protocols. There is no

specific antidote to stimulant overdose.

If the person is conscious and experiencing psychological distress (also known as “overamping”), it is important for the helper to keep calm and offer support. Help move the person to a quieter and less stimulating environment and discourage them from using more substances. Apply cool compresses to back of the neck, underarms and forehead, and give them water or other non-sugary and non-caffeinated drinks cautiously. Help them maintain their personal safety.

Select Next to continue.

3.3 Adverse Effects of Hallucinogen Use

Hallucinogens, if taken at high doses can cause unpleasant experiences but do not typically lead to life-threatening overdose emergencies. Increased heart rate, excessive sweating, nausea, negative sensory experiences and intensified feelings, memory loss, anxiety, panic, paranoia, psychosis, disorientation and loss of coordination may indicate a “bad trip.” Helping to increase the person’s sense of safety and comfort can be supportive of someone going through an unpleasant experience attributed to hallucinogen use. Seizures, breathing problems and extreme psychological distress related to hallucinogen use should be managed according to standard first aid protocols including calling 911.

Select Next to continue.

3.4 Signs of Opioid Overdose

Opioid Overdose can either manifest classic or Atypical signs. Select each tab to learn more.

Classic Signs

Someone who is experiencing an opioid overdose may become unconscious and will not rouse to external stimuli like voice, touch or pain. Their breathing may slow down significantly, sound like a deep snoring or gurgling, or it may stop completely. Opioid overdose may also cause their skin to change colour and lips and fingertips to become a bluish or greyish purple. These changes indicate a lack of oxygen in the person's blood and the body’s inability to circulate blood adequately. Other signs include cool, clammy skin, limp body and very small, pinpoint pupils. These signs tell us that the person needs assistance immediately.

Atypical Signs

The continued presence of contaminants, or otherwise unwanted or unexpected substances, in the local illicit opioid drug supply, means that we can expect to observe nuances in the ways people present with opioid overdose.

During a fentanyl overdose, a person may present jaw, neck or torso muscle rigidity, known as chest wall rigidity or wooden chest syndrome. The onset of chest wall rigidity is associated with rapid injection of high dose fentanyl and may be correlated with the use of some antidepressant and Parkinson's disease medications. Ventilations and rescue breathing can be difficult in the presence of muscle rigidity. However, muscle rigidity typically responds to standard naloxone administration dosing.

Unregulated benzodiazepines and substances that are similar to benzodiazepines in the local opioid supply are also leading to complicated overdose situations. Community responders and supervised consumption services have reported that some people are remaining unconscious, and for significant periods of time, following naloxone administration. While naloxone works to counteract the effects of any opioids consumed, it has no effect on other drug types that might also be in the substance. Responders that do not have the competency and resources to manage prolonged unconsciousness should call 911 even if the person's breathing has improved.

4. Overdose Response

This section will address Overdose Response, including naloxone administration and COVID-19 infection control precautions. Select Next to continue.

4.2 Naloxone

Naloxone (also referred to as Narcan) is a life-saving medicine that temporarily reverses opioid overdose signs and symptoms. In Canada it is available in injectable and intranasal formulations in varying concentrations. Individuals and organizations may have preference for using one formulation over the other based on comfort level, prior experience or perception of risk. Injectable and intranasal formulations are highly and similarly effective.

Naloxone kits are available for free and without a prescription to individuals across Ontario, at participating community organizations, emergency departments and pharmacies. Each kit has two doses of injectable or nasal spray naloxone, as well as the necessary equipment and information to safely administer the medication. The injectable naloxone comes in glass ampoules and is accompanied by safety-engineered needles for administering intramuscularly. The intranasal naloxone comes in nasal spray devices. Naloxone can be purchased by organizations that wish to stock it in their first aid kits.

Select Next to continue.

4.3 How Naloxone Works

To understand how naloxone works to reverse an opioid overdose, it is important to know how opioids work in the brain. When opioids are consumed they make their way to the brain, as well as other places in the body, where they attach very specifically to opioid receptors. An overdose occurs when too much of an opioid attaches to too many brain receptors. This causes breathing to slow and eventually stop, creating a life threatening situation.

Naloxone is an opioid agonist medication that works by blocking the opioid receptors. Naloxone has a higher affinity to opioid receptors than opioids do; so, when opioids are present in the brain, naloxone bumps them off, stopping their effect on the body. This allows normal breathing to resume.

Naloxone can counteract the effects of all types of opioids, whether pharmaceutical grade or illicitly produced. It only works if opioids are present in the body because it competes with them at the opioid receptor sites. Naloxone has no effect in the absence of opioids.

Select Next to continue.

4.4 Naloxone Pharmacology

Naloxone is a **temporary** treatment for reversing opioid overdose. Once administered it starts to work within 2-5 minutes. The effects of the injectable formulation last 30-90 minutes and the intranasal format can last up to 2 hours. Because naloxone only works for a relatively short time, it is possible with longer acting opioids, like methadone, that an overdose can return once the naloxone wears off. For this reason it is important to let anyone who has been given naloxone know what has happened and encourage them to refrain from using more opioids for several hours.

Select the button to view signs and symptoms.

Naloxone may cause opioid withdrawal symptoms for people who are physically dependent on opioids. Withdrawal symptoms include: nausea, vomiting, diarrhea, stomach pain, increased blood pressure, fever, sweating, body aches, weakness, feelings of nervous, restless, or irritability, tremors or shivering, goosebumps, runny nose, yawning, fast heart rate, and pounding heartbeats.

4.5 Naloxone – Safety Profile

Naloxone is a very safe medication. Although it may cause opioid withdrawal, this is not typically life threatening. Withdrawal can be an extremely unpleasant and painful experience but naloxone can start to wear off in 30 minutes and last up to 2 hours after administration and the uncomfortable symptoms should begin to subside on a similar timeline.

Naloxone has no counter effect to alcohol, benzodiazepines and other non-opioid drugs, though it will help relieve the opioid effects in an overdose involving multiple drugs. Known naloxone allergy would be the only reason not to give someone naloxone in a suspected opioid overdose though, this is a very rare circumstance and likely to be unknown prior to administration. Naloxone should be administered to pregnant and lactating persons. Any time naloxone is given to a pregnant person, emergency medical care is a critical follow up. Naloxone can cause opioid withdrawal for the pregnant person and fetus which can compromise a pregnancy.

It is important to note that naloxone does not cause aggression, contrary to some anecdotal reports that stoke fears about rescuer safety. Rather, some immediate overdose impacts, including altered level of consciousness, lowered blood oxygen and sugar levels, and psychological effects triggered by waking up to a confusing situation, can contribute to challenging behaviours when a person is revived. Linking aggression and assault to the life-saving intervention for people who use drugs is not based in evidence and perpetuates harmful stigma. It is not common to see aggressive and threatening behaviours upon someone's overdose revival.

Select Next to continue.

4.6 Routine Practices

To reduce the risk of transmitting infections between a person experiencing overdose and the individual or individuals providing care, it is important for responders to adhere routine practices for infection prevention and control (or IPAC) for overdose response. "Routine practices" refers to the minimum level of IPAC activities, including personal protective equipment, or PPE, that create a barrier for disease transmission. For community overdose response, routine practices include:

- Putting on non-latex or medical-grade gloves prior to touching the person
- Safely disposing of any syringes, opened naloxone ampoules, used intranasal naloxone devices immediately after use
- Disposing of gloves directly into a waste receptacle after use
- Washing your hands, immediately after the overdose response and taking off gloves, with soap and water for at least 15 seconds and drying them thoroughly

Select Next to continue.

4.7 Additional Precautions

The COVID-19 pandemic has introduced additional PPE considerations for overdose response. All PPE decisions should be based on a client interaction risk assessment. However, if a person is unconscious or unable to respond to questions about COVID-19 risk factors, based on the current prevalence in the community it may assumed that the person has the infection until the client can be assessed. This means that in a community service setting, a surgical mask, isolation gown, gloves, and eye protection (which includes goggles or a face shield) is the recommended PPE for an overdose responder. Lay persons responding to an overdose in a public or private setting, should at minimum wear a mask or face covering in addition to gloves, prior to intervening. Additional strategies to reduce the risk of COVID-19 spread include limiting the number of overdose responders or observers within 2 meters (or 6 feet) of the person who has overdosed, and prioritizing calling 911.

Community services that serve people who use drugs should ensure that: staff have access to hand hygiene at all times, kits of PPE are stocked with overdose response equipment, and they have a pandemic overdose response plan which includes evidence-informed cleaning and disinfection protocols.

Public Health authorities, like Toronto Public Health and Public Health Ontario, provide the most current, evidence-informed guidance on PPE use and cleaning and disinfection practices. Public health sources should be consulted while developing a pandemic overdose response policy and procedure.

Select Next to continue.

4.8 5 Step Opioid Overdose Response Introduction

Five Step Opioid Overdose Response

The next section of this module will discuss a basic, evidence informed protocol for responding to overdose in a non-medical, community setting. The Toronto Public Health 5 step overdose response protocol is appropriate for lay responders and can be incorporated into organizational overdose response policies and procedures.

Select Next to continue.

4.9 Five Step Overdose Response

Toronto Public Health recommends that community overdose responders follow 5 steps when helping someone who is overdosing. These steps include verbal and physical stimulation, dispatching paramedic services, giving naloxone, performing CPR, and assessing to see if the person's status is improving. Previous versions of the 5 Step Response have included rescue breathing; however, in the context of the COVID-19 pandemic Toronto Public Health discourages mouth-to-mouth rescue breaths in any non-medical or community-based overdose response due to the risk of transmitting the coronavirus.

Toronto Public Health's 5 Step overdose response protocol is appropriate for lay responders and can be incorporated into organizational overdose response policies and procedures. Select each step to learn more. You can not move on to the next slide after all steps have been reviewed.

STEP 1

The first step in responding to opioid overdose involves recognizing the signs of overdose and assessing the person's level of consciousness. Prior to taking any action responders should consider their safety on scene and take the necessary infection prevention and control precautions. PPE should be considered and put on prior to coming in contact with an individual who appears to be overdosing, and during the COVID-19 pandemic it should be donned prior to coming within 2 meters or 6 feet of an unconscious person who is not a co-habitant of the responder or is of unknown COVID-19 status.

Always start the assessment with verbal stimulation- try shouting their name or try to rouse them otherwise by being loud and startling. If they do not wake up to your voice, try to rouse them with physical stimulation like shaking them at their shoulders, rubbing the knuckle of your closed fist across their breastbone for a sternal rub, or deeply pinching the muscles between their neck and shoulders for a trapezius squeeze. While assessing their level of consciousness, the rescuer should take note of other opioid overdose signs, such as irregular, slow or stopped breathing; deep snoring or gurgling throat sounds; loss of usual skin tone to ashen, blueish or purplish tinge and damp, cold skin; bluish or dark purple finger tips; limp body or loss of muscle tone, or the presence of novel signs such as muscle rigidity or flailing. If they don't wake them up to verbal and physical and they are exhibiting signs consistent with opioid overdose it is time to call for help.

Opoid Intoxication

Before we move on to describing the next steps of the overdose response, it is

important to highlight the differences between signs of opioid overdose and signs of opioid intoxication. Someone who is very intoxicated or high does not need naloxone and would have the ability to decline naloxone. They might have very relaxed muscles, slow and slurred speech, extreme lethargy and nod off, where they go back and forth between consciousness and semi-consciousness, looking like they are nodding off to sleep then rousing back to semi-wakefulness either spontaneously or due to external stimulation. A person who is intoxicated should be monitored as they may be in the process of overdosing.

STEP 2

After performing the shout and shake of step one and discerning that the person can not wake up and appears to be experiencing an opioid overdose, call 911 and solicit emergency medical support. The 911 dispatch will ask a quick series of questions to get an understanding of the situation and are able to coach responders through the overdose protocol including naloxone administration. It is important to provide the dispatcher with exact information about the overdose location and access issues and to be clear that the person is non-responsive, is not breathing or struggling to breathe as well as any other notable observations.

Organizations who frequently attend to overdoses may want to have a 911 call script accessible by phones or in their first aid kits to help staff clearly communicate during such a potentially distressing event. This might include information about what your program/setting is equipped to handle, if naloxone has been administered yet and the best way to enter the premises. Individuals who may be in the position to respond to overdoses might also benefit from thinking ahead about what to say on a 911 call. If possible, the call to 911 should be made by a bystander while the responder prepares to administer naloxone.

Not everyone will feel comfortable with, or safe calling 911 for an overdose. There is a federal good Samaritan overdose act that provides some legal protections from charges related to simple possession of drugs and breech of conditions related to possession, for people on scene during an overdose. Although this law aims to encourage more people to dispatch first responders, there is still significant fear about police presence at an overdose scene due to the limited protections of the Act and persisting harms of criminalization for people who use drugs.

STEP 3

Step 3 is to give the overdosed person a dose of either injectable or intranasal spray. Both types of naloxone should be given with the person laying on their back, on a

flat and stable surface, like the floor.

Naloxone Administration - Injectable

To prepare a single dose of injectable naloxone the responder needs to ensure that all of the liquid medication is sitting below the neck, or narrowest part of the ampoule. If there is liquid in the top, hold the bottom of the ampoule between two fingers and gently flick the top with you're the fingers of your other hand to move the medication downward. Then, between two fingers gently snap the ampoule open at its narrowest part and away from you, using a facial tissue, light cloth, piece of gauze or a protective ampoule cap to protect fingers from injury. A light pressure should cleanly snap the ampoule open, while using too much force can cause it to shatter. Safely put aside or dispose of the ampoule top, and then insert the needle tip of a new safety-engineered syringe into the ampoule; steadily and slowly draw up all of the naloxone, equal to 1 mL, into the syringe by pulling the plunger. Remove any air from the syringe by pointing the tip upward, flicking the top of the barrel and pressing the plunger until only air is in the syringe. Do not take too much time to dislodge air, a small amount of air in the syringe is ok and wont harm the person.

Next, inject all of the naloxone into the person's deltoid muscle in the upper arm muscle or vastus lateralis, the high muscle. Hold the syringe like a dart and push the needle gently through their skin at a 90 degree angle, then gently push down on the plunger until all of the naloxone is administered. Next put the needle safety guard in place and appropriately dispose of the needle.

Injection Sites

This slide shows where on the body to find the two places for injecting naloxone: the deltoid and the vastus lateralis. The deltoid, or the upper arm, is also where adult vaccinations are administered. The vastus lateralis is located on outer part of the thigh. Naloxone can be injected into either site. Ideally skin should be exposed when injecting naloxone; however, the needles can pierce through light fabric if necessary.

Naloxone Administration - Nasal

The other option for naloxone administration is the intranasal formulation. Before administering a dose of nasal spray naloxone, try to bring the person to lay on their back. Then remove the device from its packaging. Tilt the person's head back and support their neck with your hand and while holding the naloxone spray device between your first two fingers, insert the nozzle of the naloxone spray devise into one of their nostrils, until your fingers touch the bottom of the person's nose. Then use your thumb to press the plunger firmly, giving the entire naloxone dose while maintaining the person's head support.

It is very important that the plunger is not pressed before inserting the intranasal naloxone nozzle into the person's nose. The device delivers an entire dose in a single activation and testing or priming it is not required.

STEP 4

After giving one dose of either injectable or intranasal naloxone, start CPR. Untrained rescuers should start chest compression-only CPR by positioning their arms in a locked position and pushing hard and fast on the middle of the person's chest- to the rate of 120 beats per minute. Each compression should reach a depth into the chest of at least 2 inches and chest compressions should continue until paramedics arrive and direct otherwise; or another dose of naloxone is indicated; or the person is revived and starts to breathe again.

During the COVID-19 pandemic, overdose responders with the knowledge, skills, judgement and appropriate personal protective equipment may consider manually ventilating the overdosed person. This should be a clinical decision informed by an in depth patient assessment, supported by the most up to date infection prevention and control guidance and indorsed by organizational protocols.

STEP 5

Step 5 in the opioid overdose response protocol is to evaluate to see if there is any change in the person's condition. If the person's condition has not improved within 2-3 minutes following the first dose of naloxone, step 3 and step 4 in the protocol should be repeated. This means that a second dose of naloxone should be given followed again by CPR.

Recovery Position

If at any point the rescuer needs to leave the person alone or if the person begins to breathe but remain unconscious, the person should be placed in the recovery position. The recovery position helps to keep the tongue from obstructing the airway, prevent choking, and also gives a clear route by which fluid, like vomit, can drain from the airway.

Nalaxone Aftercare

An overdose is a distressing and potentially traumatic experience for the people involved. Survivors, witnesses and responders should be offered some level of support following an overdose event. The survivor should be informed of what happened and that they were given naloxone for a suspected overdose and situated to their surrounding. Overdose revival can be disorientating and distressing especially if surrounded by a crowd of people. The survivor should be monitored and prepared for the onset of possible withdrawal symptoms. They should also be encouraged to not to consume any other drugs for several hours and supported to go to the hospital for medical monitoring.

Witnesses and bystanders should be offered emotional support and space to process their reactions to the overdose event.

Overdose responders will often benefit from a debrief and collective support from their friends, family, coworkers or other support network. Time and space to recover and process what happened should be offered by management following an overdose event in a workplace setting. Support for self care and the offer of collective care among staff teams or networks should also be offered.

Like other distressing events, emotional and psychological reactions to an overdose experience may be delayed, wellness checks with coworkers, family, and friends that have experienced, witnessed or responded to an overdose should be part of routine care following overdose events.

5. Overdose Training Video

5.1 Overdose Training Video

To consolidate this module's learnings on overdose prevention, recognition and response, please watch this training video. While it was designed to supplement the training for naloxone distribution and references naloxone kits available to individuals, the information and overdose response protocol remain applicable. Please also note that the video was created prior to the COVID-19 pandemic and does not make reference to the personal protective equipment that should be worn by overdose responders, nor does it provide messaging to discourage rescue breathing at this time.

1.5 Resources

Here are some resources to further your learning. You can also access and download these using the Resources tab located in the upper right corner of this window.

Select Next to continue.

1.6 Conclusion

Congratulations!

You have completed this module. If you have any questions about the its content, please contact The Works harm reduction program at Toronto Public Health.

Please select the "Exit Course" button below to exit and have this marked complete in your ELI transcript.