

Vancouver Fire & Rescue Services

Administration of Naloxone by Vancouver Firefighters in Suspected or
Confirmed Opiate Overdoses

By

VF&RS

Standing Committee Presentation to Our Elected Officials

April 6, 2016



Objectives

1. The rationale
2. Statistics
3. What are opioids and an opioid overdose
4. Describe how Naloxone (Narcan®) works and dosing
5. Emergency Physician Online Support (EPOS)
6. How to prepare and administer naloxone



Why is this important?

Opioid overdose is a public health issue.

In BC in 2013

- 334 deaths due to drug overdose
- 2,011 drug overdoses received naloxone by BC Emergency Health Services
- 2011–VFRS overdose response 1900
- 2015-VFRS overdose response 2500
- To date: VFRS has administered naloxone 4 times



Opioids

Opioids (opiates, narcotics):

- A group of drugs used for treating pain by binding to opiate receptors in the brain, spinal cord, gastrointestinal tract and other organs in the body reducing the perception of pain by stimulating dopamine release in levels that far exceed what natural pleasures produce
- Common opioids are morphine, heroin, methadone, oxycodone, and fentanyl



Opioid Overdose

Opioids bind to opiate receptors in the brain that control breathing



Respiratory depression or stop breathing (respiratory arrest)



Within minutes of a respiratory arrest, vital organs are deprived of oxygen, in particular the brain and the heart



Cardiac arrest



Naloxone (Narcan®)

- An antidote to an opioid overdose
- Been used in Canada for over 40 years
- On World Health Organization's list of essential medications
- Binds to opioid receptors more tightly than opioids
- Does not work for non-opioid overdoses (e.g., cocaine, ecstasy, GHB or alcohol)
- Reverses respiratory depression by knocking the opioids off the receptors and restoring breathing
- Acts fast (usually within 5 minutes) and the protective effect lasts for 30 to 90 minutes
- Risk of respiratory depression reoccurrence if large doses, strong opioids (like fentanyl), or long-acting opioids (like methadone) are involved, or the individual has liver damage
- Another dose of naloxone may be needed

Naloxone (Narcan®)

- **Can Naloxone be harmful or be abused?**

- It's a very safe drug
- It cannot get a person high and does not encourage opioid use.

- **Are there risks associated with its use?**

- It may cause individuals dependent on opioids to go into withdrawal
- It can be unsettling to come out of an overdose unaware of what has happened
- Potential nausea and vomiting
- Rarely – development of acute pulmonary edema after reversal of an opiate overdose



Overview of EPOS Service

What is EPOS?

- **Emergency Physician Online Support** (EPOS) is a province wide clinical support service that ensures clinical support for the period when a patient is 'out-of-hospital,' which happens during:
 - **Pre-hospital events** – 911 scene response calls
 - The EPOS service is delivered over the phone by emergency and critical care physicians from around BC that have been contracted by BC Emergency Health Services, Medical Programs, to provide 24/7 support, with a requirement to respond to calls within 30 seconds of the phone ringing.
 - Pre-hospital support physicians are called **PRP's** (Primary Response Physician)



How to respond to an opioid overdose: Administering naloxone

Prepare the medication:

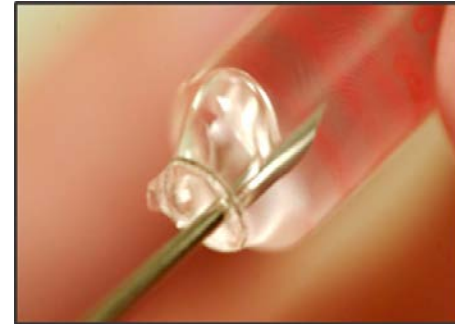
D. Administer the medication:

i. Needle Insertion

- Hold the muscle broadly, do not pinch skin
- Insert the needle at a 90-degree angle into the muscle in a smooth and steady motion

ii. Medication administration

- Inject the medication in a slow, steady motion into one of the large muscle groups previously identified
- Post-injection:
 - Withdraw needle slowly
 - Apply gentle pressure and bandage to injection site
 - Immediately dispose of used needles into the sharps container
 - **DO NOT** recap needles



Naloxone Program Review Management

- Ongoing review by BC Emergency Health Services on a case-by-case basis
- Vancouver Fire & Rescue Services & Surrey Fire Rescue to partner with the University of the Fraser Valley to develop an evidence based White Paper on the effects of First Responders administering Naloxone

Questions

