Peer Naloxone

A harm reduction approach to overdose prevention

Kristel Guthrie RN  BScN  BA
Chantel Marshall RN  BScN
The Works – Toronto Public Health
November, 2011
Overview of Session

- Timeline of >POINT (Prevent Overdose in Toronto) program
- Overview of components of Naloxone training
- Insight into our first month of distribution
- Next steps....
2005 - The Toronto Drug Strategy (TDS), was adopted by Toronto City Council in December

- **Recommendation #57**: Toronto Public Health, in partnership with relevant institutions and community groups, expand overdose prevention strategies for all substances.
Toronto Data

- Toronto has a large population of opiate users, and the latest coroners report (2007) identified 39 heroin, and 45 oxycodone related deaths.

- Due to the illegal nature of opiate use in Canada, it is difficult to obtain exact numbers of opiate users; however, one study estimated opiate users in Ontario at 30,000 in 2003. Applying that to the total population in Toronto results in a guesstimate of opiate users in Toronto of 6258.

- According to the latest I-Track survey, 45.1% of the participants injected drugs in the company of others. (opportunity for others to intervene)
Timeline -
Formation of >POINT

- **2007** – Study was completed by Edmund Ng: “Investigating Naloxone Peer distribution as an Overdose Harm Reduction strategy in Toronto”

  - Results indicated extensive support for the provision of take-home Naloxone by drug users in Toronto
Naloxone Globally

- In Canada, Edmonton was the only city with a needle exchange program formally distributing Naloxone to their clients.

- In 1995, England and Germany became the first countries to distribute Naloxone to opiate users.

- The United States started distributing naloxone in 1999 and as of 2010, 150 programs are operating in 19 states to provide take-home Naloxone.

- Scotland has introduced a National Patient Group Directive in August 2010 to ease the development of take-home naloxone programs. Patient Group Directives (PGD) allow Naloxone to be prescribed by appropriately qualified nurses and pharmacists.

- In Turin, Italy Naloxone is available over the counter.
Steps taken to get >POINT up and running:

**Consultation:**

- The proposed program was reviewed by the **City’s Legal Counsel** as well as the **Physician Advisory Service of the CPSO**.
- The full proposal has been shared with **Toronto EMS**, the **College of Nurses of Ontario**, the **College of Physicians and Surgeons Methadone Committee** and the **College of Pharmacists of Ontario**.
- There is support for the program from the **CNO** and the **Methadone Committee of the CPSO** and the local **Drug Users Union**.
- Consultation was also undertaken with **Rescu** (Research team at St. Michaels hospital) specifically around recent changes to CPR guidelines.
- The **Chief of Police** was informed of the program.
>POINT  Program launched August 31\textsuperscript{st}, 2011  International Overdose Awareness day!!
Naloxone:

- A prescription medication
- 1 supplier in Canada – Sandoz
- Average cost: $11.35/ampoule
Naloxone

- Naloxone is an opiate antagonist which works by displacing opioids from their receptor sites.

- Naloxone can reverse the effects of overdose if administered within a short period following an opioid overdose.

- When administered intramuscularly:
  - The onset of action is between 2-4 minutes.
  - The duration of the Naloxone is up to 45 minutes.

- The only contraindication to receiving Naloxone would be previous hypersensitivity.
Prescription Process

Naloxone Medical Directive

Registered Nurses at The Works are certified to dispense Naloxone
Criteria for Dispensing

- Has a **history** or is **currently** using opiates
- Willing to take the overdose training
- Willing to complete the follow-up evaluations
- No previous hypersensitivity (allergic reaction) to Naloxone
Components of the Naloxone Training:

- Risk factors associated with overdose – prevention/myths
- Drug classifications (Opioids, Stimulants, Hallucinogens)
- Naloxone – pharmacodynamics – Short ½ life
- 5 Steps in responding to an opioid overdose
  
  **Practice:**
  - CPR mannequin – chest compressions
  - Sample ampoules with water to practice drawing up and simulate injection with a sponge

- Interfacing with police/EMS
- Debrief/Support after overdose
- Evaluation/follow-up refill.
Sample of training materials:
Mixing
- Avoid mixing drugs, or mixing drugs with alcohol or benzodiazepines.
- Most overdose deaths occur when multiple drugs have been taken.
- Prevention: use one drug at a time, or use less of each drug if you are mixing!

Tolerance
- Tolerance is the body's ability to increasingly withstand the effects of the substance being used.
- Tolerance to a drug develops over time, therefore the amount of a drug a long-time user needs to feel a drug's effect is greater than a new user.
- Tolerance will also change depending on several factors including, weight, size, illness, stress, compromised immune system (from hepatitis for example), and age. Most importantly, drug tolerance can decrease rapidly when someone has taken a break from using a substance whether intentionally while in drug treatment or on methadone, or unintentionally while in jail or the hospital.
- Prevention: use less drugs when tolerance is lower.

Overdose Prevention

Inconsistent Drug Quality & Potency
- Drug quality is unpredictable, illegal drugs are unregulated, therefore their strengths can be unpredictable.
- Prevention: inject a very small amount or snort the first bit to gauge the strength. Carefully check out a new product. Does it taste, smell and look different?

Using Alone
- If you overdose, there will be no one to help you.
- Prevention: fix with a friend (do not share needles), leave door unlocked, call someone.
Recognizing an Overdose

**Opioids**
- Breathing is very slow, erratic or not there at all
- Finger nail & lips turn blue or purple
- Body is very limp
- Deep snoring or gurgling sounds
- Vomiting
- Loss of consciousness
- Unresponsive to stimuli
- Pinpoint pupils

**Stimulants**
- Seizures
- Pressure/tightness in chest
- Foaming at the mouth
- Racing pulse
- Perfuse sweating
- Vomiting
- Headache, dizziness, ringing in ears
- Difficulty breathing
- Sudden collapse
- Loss of consciousness

**Hallucinogens**
- Psychosis
- Catatonic syndrome (person may sit in a trance-like state)
- Seizures
- Nausea, vomiting
Drug Categories

**Depressants**
- **Opioids:** Codeine, Morphine, Methadone, Fentanyl, Heroin, Buprenorphine, Hydromorphone (Dilaudid) Hydrocodone (Vicodin, Oxycontin), Pentazocine (Talwin)
- **Benzodiazepines:** Valium, Serax, Ativan, Xanax, Restoril, Halcion, Rohypnol
- **Barbituates:** Seconal, Nembutal, Amytal
- Zopiclone
- Alcohol
- GHB

**Stimulants**
- Cocaine
- Crack cocaine
- Khat
- **Methamphetamine**
  - Speed, Crystal, Meth
- Caffeine
- Methylphenidate
  - Ritalin

**Hallucinogens**
- LSD
- Magic Mushrooms
- Mescaline
- PCP
- MDMA
- DMT
- 2C-B
What’s in the Naloxone Kit?

- Syringes - Safety engineered
- 2 ampoules of Naloxone (.4mg/1cc/amp)
- Alcohol swabs (assist with breaking ampoule)
- Prescription identifier Card
- Overdose Response steps pamphlet
Prescription Identifier Card
RESPOND to an OPIOID OVERDOSE
You can save a life!

1. Shake at shoulders
2. Call 911 if unresponsive
3. Naloxone
   Inject 1 ampule (1cc) of Naloxone into Arm or Leg muscle
4. Chest Compressions
   Push hard and fast on the centre of the chest
5. Is it working?
   If no improvement after 3-5 minutes, inject a 2nd ampule (1cc) of Naloxone and continue with chest compressions until EMS arrives

For more information contact The Works 416-392-0520
Length of Training

- 20-40 minutes
Locations of trainings

- Drop-in at The Works
- Outreach to agencies (Shelters, housing..)
- Mobile service (in planning phase)
As of Nov 16/2011:

80 Naloxone Kits distributed
**Training Locations**

*Off site:* South Riverdale CHC, Queen West CHC, Eva’s Satellite, Strachan House, St. Stephen’s Corner Drop-in, Unison CHC

![Pie chart showing training locations: 57% off site, 43% The Works](chart.png)
Reported Naloxone administered since program inception:

- 4 reported incidence of opioid overdose where Naloxone was administered
  - 1 dose of Naloxone administered
  - 2 of these cases 911 was called.
Next steps/work to be done:

- Establish a formal research project
- Lobbying to put Naloxone on the formulary
- Explore options for the development of a epi-pen like device/intra nasal device
- Advocate to reach a wider audience (prisons, etc)