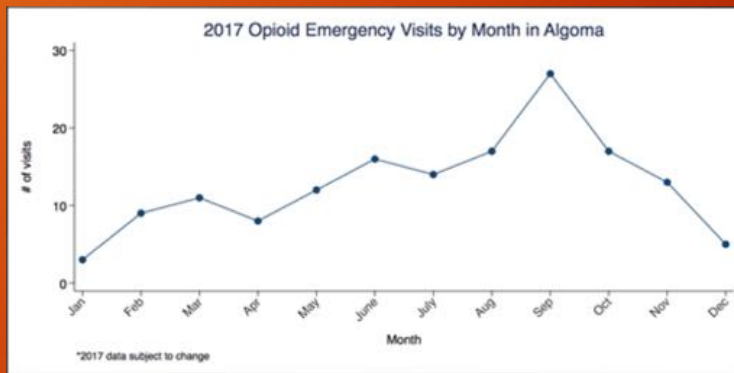




## How Real is The Problem

- Algoma region has the highest number of opioid emergencies and deaths in the province.



## What are your thoughts?

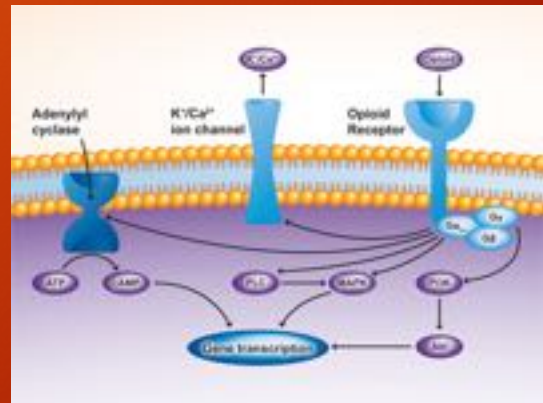
- How do you feel about the recent W5 special?
- Do you feel that is an accurate depiction of the problem?
- What can we do about it?

## Where may these incidents happen?

- What type of events do you think these incidents can happen at that we cover?

## What are Opioids?

- Opioids are a drug class that includes:
  - OxyContin, codeine, morphine, fentanyl, heroin, etc.
- The drug works on **opioid receptors** to produce pain relief or anesthesia
- The primary site of binding is in the central nervous system and the gastrointestinal tract
- Commonly used in the medical professional for pain management
- Frequently utilized for non-medical purposes for their euphoric effects



## Drug Mechanism of Action

- Opioid receptors are in many regions of the nervous system involved in pain transmission and control including neurons, spinal cord, midbrain and thalamus.
- Although opioids MOA is not clear, opioid drugs produce analgesia by actions at several levels of the nervous system.
- Inhibit neurotransmitter releases to change the sensitivity of pain.
- Causes cascading chemical responses to produce that analgesic effect.

## Adverse Effects

- Sedation
- Nausea & vomiting
- Constipation
- Urinary retention
- Increased risk of falls
- Organ toxicity
- Gastrointestinal bleeding
- Kidney toxicity
- Tolerance
- Addiction
- Dependence

## Dependence

- Physical dependence - physiological adaptation of the body to the presence of a substance
- When opioids are discontinued or when the dose is abruptly reduced patients develop withdrawal symptoms due to the dependence of the drug



## Addiction

- A complex set of behaviors associated with the misuse of certain drugs, including higher drug dosages
- Psychological compulsion to use the drug
- Results in dangerous or unhealthy outcomes

## So why do people get addicted?

- Over medicated when taking for a medical purpose (too high a dose, etc.)
- Like the feeling of euphoria
- Its a way to escape underlying health issues (i.e. mental health)
- Social norm
- “nothing else to do” mentality
- Etc....
  
- Any others?

## What are the risks?

- Overdose
- Financial challenges
- Criminality
- Severe medical complication
- DEATH!

## Patient Management

- Treat the patient and recognize
  - Causes
  - Environment
  - Safety, etc.
- Manage the acute overdoses
- Provide community referrals
- Support
- CHANGE!

## Reduce Risk

- Harm Reduction Strategy
- Understand the risk of drug contamination
- Ensure proper patient education
- Ensure drugs are not mixed with other drugs (incl. alcohol!)
- Ensure people do not leave drinks unattended
- Do drugs with a “buddy”
- Ensure a naloxone kit is available
- Call 9-1-1
  
- What are your thoughts on this approach?

## What is Naloxone?

- Trade Name: Narcan
- Generic Name: Naloxone
- Class: Opioid Antagonist
- Use: Opioid-induced depression and acute opioid overdose



## Mechanism of Action

- Blocks or reverses the effect of opioid medication including:
  - Respiratory depression
  - Sedation and hypotension

## Pharm

- Distribution
  - Rapidly distributed in the body
- Metabolism
  - Metabolized in the liver
  - Half life ranges from 30-80 minutes



## Indications

- Complete or partial reversal of opioid depression including: respiratory depression induced by natural or synthetic opioids

## Contraindications

- Contraindicated in patients known to be hypersensitive to naloxone or any other ingredients contained in the formulation

## Dosages

| Consider Naloxone: |           |           |           |              |
|--------------------|-----------|-----------|-----------|--------------|
|                    | Route: SC | Route: IM | Route: IN | Route: IV    |
| Dose               | 0.8 mg    | 0.8 mg    | 0.8 mg    | Up to 0.4 mg |
| Max single dose    | 0.8 mg    | 0.8 mg    | 0.8 mg    | 0.4 mg       |
| Dosing interval    | 10 min    | 10 min    | 10 min    | Immediate    |
| Max # of doses     | 3         | 3         | 3         | 3            |

## Methods of Delivery

- Subcutaneous
- Intramuscular
- Intravenous
- Intranasal

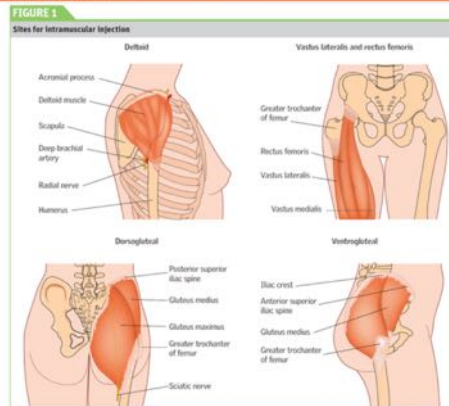
# Subcutaneous



# Intramuscular

**Intramuscular (IM) Injections: More Than One Choice Of Site: Four Sites Usually Used**

- Deltoid (in upper arm)
- Dorsogluteal (buttocks)
- Vastus Lateralis & Rectus Femoris (Thigh muscles)
- Ventrogluteal (side of hip)



From Depkin-Holt, Sherris, "Intramuscular Injection Techniques: an evidence-based approach," Nursing Standard 25, 4 (2016), 52-55.

## Intravenous



## Intranasal





## Other interventions

- Ventilatory support
- Oxygenation
- Patient Support
- Etc...

## Safety!



Questions? Thoughts?

## Skills practice

- Drawing up
- Injecting...