Naloxone for Opioid Overdose – Virtual Q&A

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Speaker

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What is Naloxone

Naloxone has a stronger affinity to the opioid receptors than opioids, such as heroin or oxycodone, so it knocks the opioids off the receptors for a short time (30-90 minutes). This allows the person to breathe again and reverse the overdose.
Naloxone bundles

- Naloxone 0.4mg/mL ampoules
  - Minimum 2 in a bundle
  - Minimum 6 month expiry date
- Safety syringes (3mL x 25ga)
  - Unlikely to be used for anything else
  - Reduced risk of needle-stick injury
- Nitrile gloves
- Breathing mask
- Alcohol swabs
- Ampoule breakers
Why is this needed?
Eight overdoses in 20 minutes: The night fentanyl-tainted cocaine almost devastated a B.C. town

Douglas Quan | September 15, 2016 | Last Updated: Sep 16 4:06 PM ET
More from Douglas Quan | @douqquan
A quick demonstration
Q: What would happen if naloxone was administered IV (or SubQ) instead of IM

A: It will still work.

- IV naloxone has a more rapid onset of action vs. IM
  - In hospital: length of time required to establish IV > than onset of IM naloxone
  - SubQ Naloxone onset of action likely similar to IM naloxone

Why have we chosen IM as administration method of choice?

- Longer needle: easier to draw up out of ampoule
- Thicker needle: able to penetrate clothing better, less likely to bend needle due to poor administration technique (if person administering is shaking/trembling)
- Less dexterity required to “jab” needle into muscle vs SubQ
- Less likely for IM needle to be used for other purposes (because it is long and large, may be less desirable to use it for IV injection of other drugs)
Q: Is there a maximum dose of naloxone? How many doses can be given while waiting for EMS?

A: There is not a well established max dose
- Monographs indicate 0.4mg-2mg as initial dose, with repeat doses as necessary
  - Adverse effects of the drug appear to be all related/due to opioid withdrawal
- Typically patients will revive after 1 dose, the 2nd dose supplied is a backup. The third dose supplied is intended for instances when EMS wait is prolonged, and original doses of naloxone wear off
- Toxicity data
  - Healthy volunteers receiving 24mg/70kg did not experience any toxicity
  - In other studies, doses range from 0.4-2.4mg
Q: Is there a different dose for people overdosing on Suboxone?

• A: No, the same procedure is followed

• Luckily there is low risk of overdose associated with buprenorphine

• Buprenorphine action is different from other opioids, partial agonism, high affinity for \textit{mu} receptors. Naloxone may not be as effective in overdose. May require high doses (10x?)
  • If OD on buprenorphine, likely other agents on board, which will not be affected by naloxone (ie benzodiazepines, alcohol)

• Supportive care is paramount; get to hospital ASAP
Q: How do you approach someone who could benefit from naloxone without insulting/offending/accusing?

• A: Diplomatically, openly, honestly
  • Address risk factors for opioid overdose
  • Use non-judgemental tone
  • Present facts
    • at least half of all U.S. opioid overdose deaths involve a prescription opioid
    • Every day, over 1,000 people are treated in emergency departments for misusing prescription opioids
  • A “normal” component of safe opioid use
Q: Are there any patients who you would not offer naloxone?

• A: Recommend offering it to all patients at risk of opioid overdose
  • Reinforce it is a safety measure
  • Not just for illicit/recreational users
    • People on Long Term Opioid Therapy can benefit as well
    • Higher risk of overdose once > 90mg MEQ daily
Q: How do you know if the patient is having an opioid overdose (vs. other overdose)? What happens if naloxone is given in a non-opioid overdose?

A: Opioid Overdose signs/symptoms

• Unconscious/unresponsive
• Respiratory depression
• Pinpoint pupils
• Snoring/gurgling/vomiting

• There is apparently no pharmacologic activity in the absence of opioids in the system. Nothing should happen
Q: How does the intranasal form of naloxone work if the patient is not breathing?

• A: Intranasal absorption of naloxone
  • 4mg given by intranasal spray (10x the IM dose to account for absorption and bioavailability)
  • May repeat prn until desired effect q2-3 mins

• Limited evidence, but it seems intranasal naloxone is as effective as IV naloxone at reversing the effects of opioid overdose.
  • Easier to administer
  • Less risks to the provider
Q: What are the legal risks of administering naloxone?

A: It would be very rare for a pharmacist to have to administer naloxone in an opioid overdose

- Overdose is unlikely to happen in a pharmacy
- Check your employer policies; likely that not providing care in an emergency situation is worse
- Outside of the pharmacy, individuals would likely be covered by the Good Samaritan Act: No liability for emergency aid unless gross negligence
Q: Is there data to show that naloxone does not promote or increase risk taking behaviours?

• A: No

• There is a lack of evidence in this area, but the evidence we do have does not indicate it increases risky drug use
  • “Two studies of naloxone distribution and overdose prevention programs report a reduction in self-reported drug use”
  • “While the harm that could result from increased opiate use is a legitimate concern, this potential harm would have to be weighed against the potential for naloxone to prevent overdose deaths. It is unethical to allow a narrow focus on the harms of drug use to overshadow an opportunity to save human lives.”
Q: Do you communicate sales to the GP?

A: Yes, after having a conversation with the patient about it

- In BC having a documented offer of naloxone to people at risk of overdose is part of opioid prescribing standards.
  - Pharmacists can help physicians with this requirement
Q: Are there any age restrictions on naloxone? How do you deal with youth who are interested in the product?

A: Check with your provincial regulations
   • Many provinces have indicated that there should be no age limit, not limit on the quantity or the frequency of naloxone purchase.
   • Pediatric dosing: the same as adult dosing
     • 0.4mg repeated q2-5mins prn for reversal
Additional Resources

• Excellent patient friendly informational videos
  • https://www.youtube.com/watch?v=wsN0ijLnK2k
  • https://www.youtube.com/watch?v=hGVSaO1oxpg

• Other videos and infographics
  • http://www.kellygrindrod.com/resources/
  • https://www.youtube.com/watch?v=U1frPJoWtkw

• http://www.ohrdp.ca/opioid-overdose-prevention/
Additional Resources

• Alberta Pharmacists’ Association – [Take Home Naloxone Program](#) (accredited for 0.5 CEUs)

• Pharmacy Association of Nova Scotia – Naloxone support material available on their website for members

• Ontario Pharmacists Association – [Take-Home Naloxone Program](#) and [Additional Resources](#)

• Alberta College of Pharmacists – [Guidance for Pharmacists and Pharmacy Technicians Dispensing or Selling Naloxone as a Schedule 2 Drug](#)
Additional Resources

• College of Pharmacists of British Columbia - [Naloxone Resources](#)

• College of Pharmacists of Manitoba – [Guidelines for Pharmacists Selling Naloxone as a Schedule II Drug](#)

• University of Waterloo – [Clinical support tools](#) and [video](#)