Understanding Naloxone Preventing Death from Opioid Overdose

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Drug overdoses kill more people_ than any other kind of accident

http://www.washingtonpost.com/local/a-drug-called-suboxone-could-combat-the-heroin-epidemicso-why-is-it-so-hard-to-get/2015/01/13/4135d08c-812e-11e4-9f38-95a187e4c1f7_story.html

- Fatal drug overdose has increased more than six-fold in the past three decades, and now claims the lives of over 43,000 Americans every year.
- Opioids both in the form of prescription painkillers and the illicit drug heroin — are responsible for most of these deaths.
- Deaths from heroin overdose rose an astounding 270% between 2010 and 2013

Source: The Network for Public Health Law

https://www.networkforphl.org/_asset/qz5pvn/network-naloxone-10-4.pdf

Those of us working in the field of addiction are keenly aware of the heroin epidemic. It might be more accurate to call it an opiate epidemic... And we know people are overdosing and dying. Some of us have lost clients. Some of us have lost friends and family.

Naloxone (Narcan) has been used for 30 years by EMTs to counteract opiate overdose

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2661437/

But accessing Naloxone has been difficult for users, and family and friends of users.

Although it is non-addictive and saves lives, it's generally not available without a prescription

"Tens of thousands of lives could be saved if naloxone were more widely available, and more people (including doctors, pharmacists and other health care professionals, as well as law enforcement professionals, many of whom are currently unfamiliar with naloxone), were trained in its use.....

http://www.cecentral.com/assets/9121/Wermeling_UK%20CE%20central%20addendum.pdf

...Providing take-home naloxone to opioid users, along with instructions in its use, could significantly reduce the number of accidental overdose deaths."

Jill Harris Managing Director of Strategic Initiatives for the Drug Policy Alliance

http://www.cecentral.com/assets/9121/Wermeling_UK%20CE%20central%20addendum. pdf

Reservations/Concerns

- Some prescribers are wary of prescribing naloxone because of liability concerns.
- Bystanders to a drug overdose may be afraid to administer it because of liability concerns.
- Overdose bystanders sometimes fail to summon medical assistance for fear of being prosecuted for possession of illegal drugs or similar crimes.

https://www.networkforphl.org/_asset/qz5pvn/network-naloxone-10-4.pdf

Arguments *Against* Naloxone Access

"It sends the message that you can go out and use heroin again."

"It's just another way of enabling them."

"This helps them stay out of treatment and stay in the drug lifestyle..."

Why don't they just call 911?

- Of those participants who did not call 911, <u>71% cited "fear of arrest"</u> as the reason for not making the call
- I2% of the 52 participants who did not use the naloxone, returned for a refill because <u>it was confiscated by police</u>, despite the fact that they were in legal possession of a legitimately prescribed medication

Source: Journal of Urban Health: Bulletin of the New York Academy of Medicine doi:10.1007/s11524-011-9600-7 * 2011 The New York Academy of Medicine

http://prescribetoprevent.org/wp-content/uploads/2012/11/juh2011bennet.pdf

Arguments *For* Naloxone Access

"It's hard to treat someone who's dead."

Sen. Chris Eaton, whose 23-year-old daughter died of a heroin overdose in 2007 after shooting up in a car parked outside a Burger King.

http://www.courier-journal.com/story/news/local/2015/03/27/naloxone-expansion-ky-part-nationalwave/70541992/



Naloxone in Kentucky

Kentucky pharmacists now are able to dispense naloxone, to reverse heroin and opioid overdoses, without a doctor's prescription.

A pharmacist may dispense naloxone to a family member of an addict, or to first responders such as police and firefighters without a prescription.

Read more here: <u>http://www.kentucky.com/2015/05/17/3856564/kentucky-pharmacists-now-allowed.html#storylink=cpy</u>

Naloxone in Kentucky

Pharmacists still must develop a protocol and have that protocol approved by a doctor.

It's not clear how long that process will take or when the first Kentucky pharmacist will issue naloxone without a doctor's prescription.

> http://www.kentucky.com/2015/05/17/3856564/kentucky-pharmacists-nowallowed.html#storylink=cpy



Opiate Overdose

To understand how naloxone works, it helps to understand what happens in the brain, when a person has overdosed.

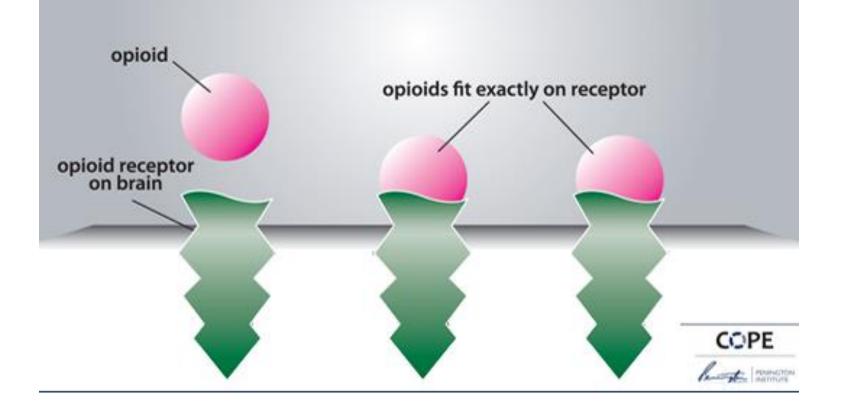


- Normally, when there begins to be too much carbon dioxide in our system, our brain is very sensitive to itso it sends a signal that it's time to take a breath
- When too many receptors have too much opiate, the brain becomes insensitive to the amount of carbon dioxide.
- Breathing stops because of the respiratory suppression caused by opiates; too much carbon dioxide, not enough oxygen.



Opioids attaching to receptors

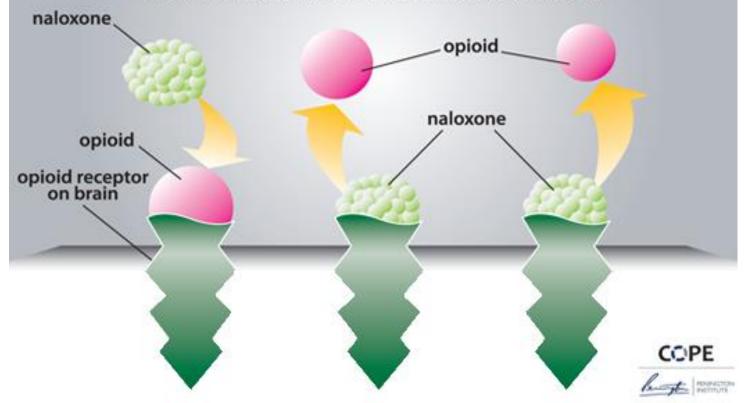
The brain has many, many receptors for opioids. An overdose occurs when too much of an opioid, such as heroin or oxycodone, fits in too many receptors slowing and then stopping the breathing.



Overdose Reversal

Naloxone reversing an overdose

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.



Overview of Naloxone Administration

Please Note:

This is NOT a NaloxoneTraining

- I am not qualified to train anyone in Naloxone administration.
- This is meant as educational overview, not instruction or training



Naloxone Delivery Systems

- Inhalation (nasal)
- Injection (upper arm or thigh)
- Most common among non-emergency responders is inhalation

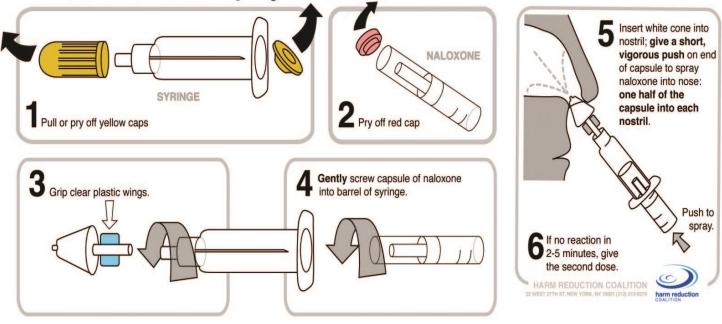
Naloxone Kit – Nasal Use





How the parts fit together

How to Give Nasal Spray Naloxone





Naloxone and "Pulp Fiction"



• In real life, DO NOT INJECT ANYTHING INTO THE HEART. Ever.

How the IDU Responds...

- Naloxone throws them into withdrawal,
- Wakes them up like a desert sun
- "Napalm in the bones"
- Experience intense pain, all over the body
- Ruins whatever "high" they had

And they are very, very unhappy.....

How the IDU Responds...

"A fellow student and I watched as the attending physician injected a dose of naloxone into the patient's IV..."

"...The patient screamed at the nurses and physicians and threatened them. He hurled expletives at the healthcare staff and swung his arms at the nurses while demanding to leave the hospital as spittle flew from his mouth."

Source: The New Atlantis, A Journal of Technology and Society, 2014; online.

http://practicing-medicine.thenewatlantis.com/2014/06/opioid-overdose-in-emergencydepartment.html







Discussion

Thank you!