



No man is an island entire of itself; ...any man's death diminishes me, because I am involved in mankind... therefore never send to know for whom the bell tolls; it tolls for thee.

Irish Poet, Rev John Donne



LONG ISLAND COUNCIL
ON ALCOHOLISM AND
DRUG DEPENDENCE

LICADD

LIFE – OP



Long Islanders Fighting an Epidemic - Overdose Prevention

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Objectives

After training, participants should be able to:

- ❖ Discuss the prevalence of opioid abuse
- ❖ Understand the effects of opioids on the body and recognize opioid overdose
- ❖ Understand the difference of opioid agonists and antagonists
- ❖ Understand how to provide assistance and administer a reversal for opioid overdose





A Reality Check from CDC Director Thomas Frieden, MD, MPH:

- ❖ “The rise in abuse of and deaths from prescription opioid narcotics has reached epidemic proportions....”
- ❖ “There were more than 27,000 deaths from prescription drug overdoses in 2007, a number that has risen five-fold since 1990....”
- ❖ “...overdose deaths from prescription opioids are exceeding deaths from heroin and cocaine overdoses combined....”
- ❖ “Also, the overall number of drug-induced deaths -- which includes all drugs, not just prescription painkillers, although it is attributable in large part to those -- is approaching the number of deaths from motor vehicle crashes.”
- ❖ “Drug abuse deaths have also surpassed the number of deaths from suicide, homicide, and fire arms....”

“Deaths from Rx Painkillers Still Rising, CDC Says”; Med Page Today, 17 Feb. 2011



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What are opioids???

The term opioids commonly refers to agonists.



Papaver Somniferum
"Poppy Plant"

What are opioids???

The term opioids commonly refers to agonists.

- ❖ heroin
- ❖ morphine
- ❖ codeine
- ❖ Methadone
- ❖ oxycodone
 - ❖ OxyContin
 - ❖ Percodan
 - ❖ Percocet
- ❖ hydrocodone
 - ❖ Vicodin
 - ❖ Norco
- ❖ fentanyl
- ❖ hydromorphone
 - ❖ Dilaudid



Physiology

Agonist

(hydrocodone, heroin,
morphine, oxycodone, etc.)

- ❖ Can only activate the receptor
- ❖ Can develop tolerance and physical dependence
- ❖ Overdose can lead to respiratory depression and death

Antagonist

(Naloxone, Naltrexone)

- ❖ Has the highest affinity for the receptor
- ❖ Will block the receptor from the agonist attaching and activating it
- ❖ Will knock an agonist off the receptor, especially in the case of overdose



Why does one overdose???

- ❖ The term “opioid ”refers to synthetic opiate medications, specifically opioid agonists. These can only activate the receptor leading to not just euphoria but respiratory depression.
- ❖ Essentially an opioid will put the user to sleep and suppress the drive to breath, this is what leads to the persons demise. This occurs over time (i.e.-hours) and rarely is immediate
- ❖ Most overdoses are not instantaneous and the majority of them are witnessed by others. Many overdose fatalities are preventable, especially if witnesses have had appropriate training and are prepared to respond in a safe and effective manner. *

* *NYS Dept. of Health Web Site, June 2006 - NYSDOH Opioid Overdose Prevention Programs Factsheet*



Naloxone (Narcan)

- ❖ A pure opioid antagonist
- ❖ Has a very high affinity to the opioid receptor, strong enough to remove any agonist from the receptor and attaching itself reversing the effects of an overdose
- ❖ An Opioid Overdose Prevention Kit, (Narcan Kit) can now be used by trained laypersons to treat opioid overdoses



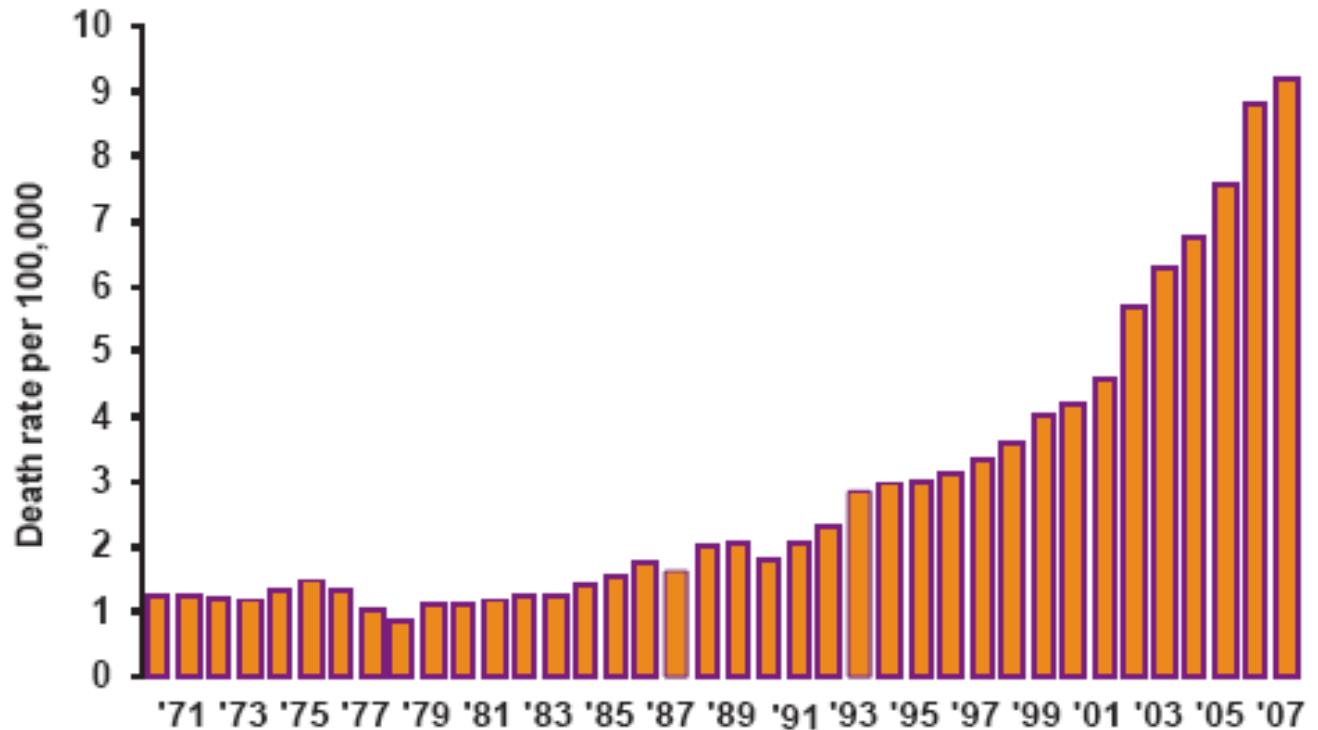


Narcan will not reverse:

- ❖ Alcohol
- ❖ Benzodiazepines
 - ❖ Xanax, Valium, Klonopin
- ❖ Tricyclic's
 - ❖ Elavil (amitriptyline)
- ❖ GBH
- ❖ Ketamine
- ❖ Cocaine
- ❖ Amphetamines
- ❖ Methamphetamine
- ❖ Ecstasy



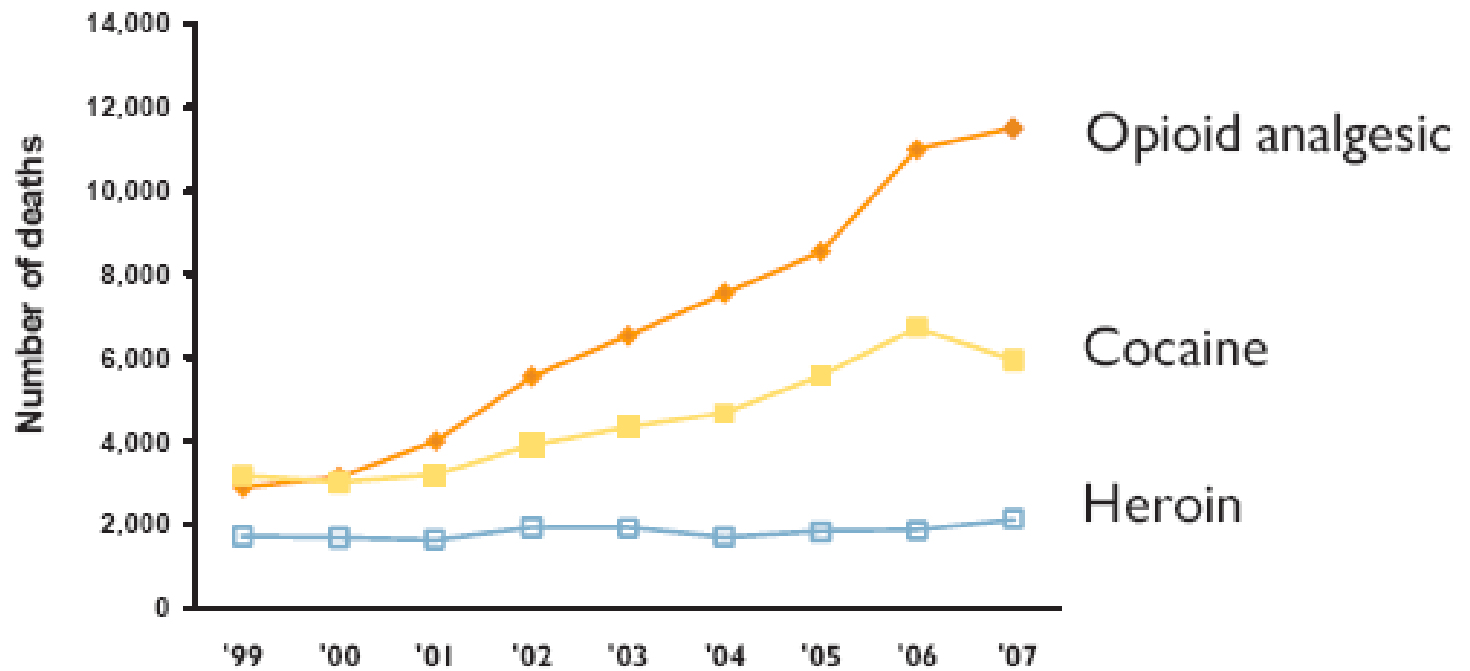
Figure 1: Rate of unintentional drug overdose death in the United States, 1970-2007



Source: National Vital Statistics System

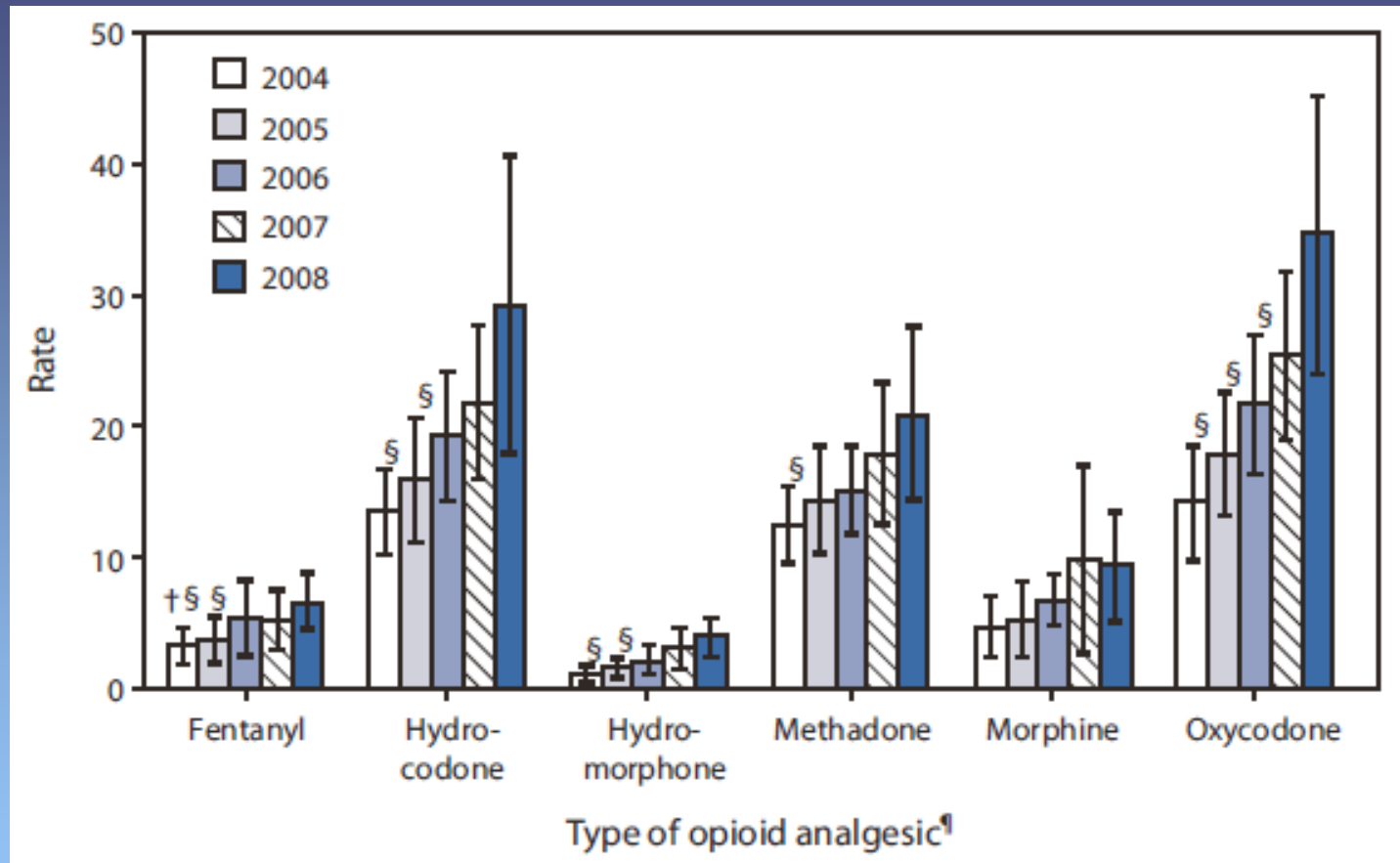


Figure 2: Unintentional drug overdose deaths by major type of drug, United States, 1999-2007



Source: National Vital Statistics System

Rates of emergency department (ED) visits* for nonmedical use of selected opioid analgesics, by type --- United States, 2004--2008



Source: Substance Abuse and Mental Health Services Administration (SAMHSA)'s Drug Abuse Warning Network (DAWN), 2004--2008. * Per 100,000 population. † 95% confidence interval. § Rate significantly less than the rate in 2008, by two-sided t test ($p < 0.05$). ¶ Drug types include combination products (e.g., combinations of oxycodone and aspirin).

911 Response Times

Response time is basic on 2 units of measure:

1. Call Receipt Interval, the time from the 911 call to the time the ambulance is dispatched. There is no regulation determining minimum time but Suffolk published the goal as 2-minutes in 2005
2. Response Time, the time from dispatch to EMS arriving on scene. The NIH recommends a maximum of 9-minutes for 90% of all “top priority calls”¹

¹ National Institutes of Health: Staffing and Equipping Emergency Medical Services Systems. NIH Pub #93-3304 (1993). P 11



911 Response Times



Risk factors for overdose:

- ❖ Major changes in opioid supply
- ❖ Variations in strength of street drugs
 - ❖ In 2006, >1000 deaths with fentanyl
- ❖ Depression
- ❖ History of previous overdose
- ❖ Injection drug use

Sporer 2006, Wines 2007, Pollini 2006

<http://www.whitehousedrugpolicy.gov/news/fentanyl%5Fheroin%5Fforum>,



Major Risk-Lowered Tolerance:

- ❖ Tolerance- repeated use of a substance may lead to the need for increased amounts to product the same effect
- ❖ Abstinence decreases tolerance increasing overdose risk:
 - ❖ Incarceration
 - ❖ Hospitalization
 - ❖ Drug treatment/ Detox/ TC's
 - ❖ Sporadic patterns of drug use

Sporer 2007, Binswanger 2007



Illness & Overdose

Overdose is more likely in the presence of significant illness

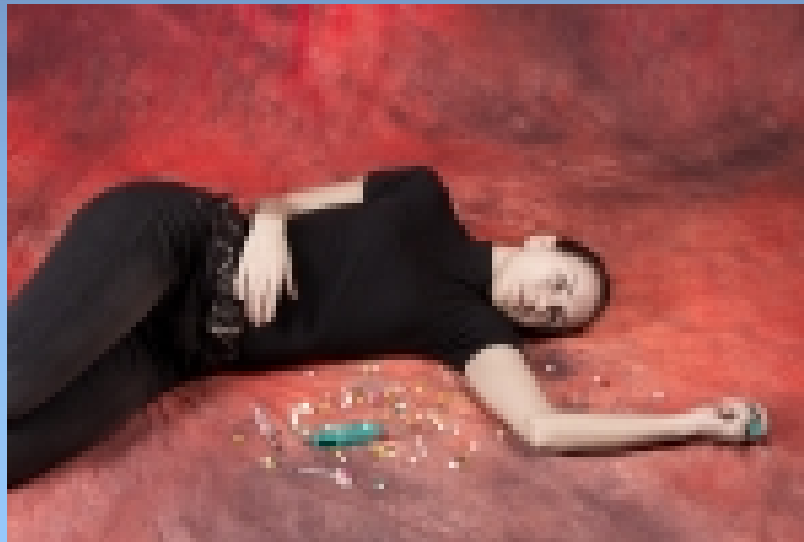
- ❖ Liver disease: notably cirrhosis
- ❖ Advanced AIDS
- ❖ Coronary disease
- ❖ Pulmonary disease: notably pneumonia

Wang 2005, Darke 2006





WHAT DOSE AN OPIOID OVERDOSE LOOK LIKE???





Overdose:

A Sequence of Events

- ❖ Overdose is rarely immediate – can happen over 1-3 hours
- ❖ Heavy/ Uncontrollable Nodding
 - ❖ Still arousable
 - ❖ Snoring or loud breathing
 - ❖ May have excess drooling
- ❖ Overdose
 - ❖ Not responsive
 - ❖ Very shallow breathing, gurgling
 - ❖ Skin changes, blue lips and nails
- ❖ Fatal Overdose



Recognition!!!

- ❖ Opioid overdose happens over time
- ❖ Blue lips and nail beds
- ❖ Slow or no breathing, gurgling, snorting sound
- ❖ Not responsive





Stimulate The Person Overdosing

- ❖ Shake, call name loudly
- ❖ Sternal rub: rub knuckles hard up and down breast bone (it hurts!)

(Ice can work but this is easier)



DO NOT!!!

- ❖ Leave without calling 911
- ❖ Salt shots
- ❖ Milk shots
- ❖ Cocaine shots
- ❖ Ice on genitals/ Shower
- ❖ Hitting or burning feet or fingertips





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HOW DO I
RESPOND???



Step 1

Recognize & Get Help

- ❖ Call 911- “My friend is unconscious & not breathing”
- ❖ This phrase is more likely to bring paramedics with naloxone than EMT, who don’t carry it
- ❖ Give location
- ❖ Police may come



Step 2

Check For Breathing

- ❖ Chest rising and falling
- ❖ Nostrils moving in and out
- ❖ Mirror or glass by nose or mouth will fog up



Step 2

Rescue Breathing

- ❖ Rescue breathing alone can sustain someone until EMS arrives
- ❖ Chest compressions not included (unless responder is trained in CPR)
- ❖ Administer several breaths before Narcan Kit



Step 2

Rescue Breathing

- ❖ Tilt back head to open airway
- ❖ Hold nose, lift chin
- ❖ Make a seal over the mouth with your mouth
- ❖ Start with 2 quick breaths then one breath about every 5 seconds until EMS arrives or person breathes on their own.



Step 3

Get Out Your Narcan Kit

- ❖ A face mask for rescue breathing
- ❖ Two safety syringes
- ❖ 2 vials of Naloxone
- ❖ 2 alcohol swabs
- ❖ 2 latex gloves
- ❖ 1 brochure reviewing OD and rescue steps.
- ❖ Contact information for program



Step 3

Get Out Your Narcan Kit

- ❖ Opioid antagonist which reverses opioid overdose
- ❖ Pushes most other opioids off the receptors, then sits on the receptor preventing it from being activated for 30-90 minutes
- ❖ Analogy- getting the wrong key stuck in a lock



Step 4

Administer Narcan

- ❖ Inject into a muscle (subcutaneous and intravenous are also effective)
- ❖ Acts within 2-8 minutes
- ❖ If no response in 2-5 minutes, give 2nd naloxone injection
- ❖ Lasts for 30 – 90 minutes
- ❖ Reminder, if 911 has not been called do it now!!!



Step 4

Administer Narcan

- ❖ Inject into muscle of upper arm or front of thigh
- ❖ Inject straight in, not at an angle
- ❖ Rapidly push needle through skin into muscle and then push syringe to inject the medication
- ❖ Depth of whole needle is fine (maybe less deep if person is skinny)
- ❖ **DON'T INJECT INTO THE CHEST**, even if you saw Pulp Fiction...

Good Samaritan Overdose Law New York State (Eff. April 1, 2006)

- ❖ Protects the non-medical person who administers naloxone in setting of overdose from liability.
 1. “shall be considered first aid or emergency treatment”.
 2. “shall not constitute the unlawful practice of a profession”.
- ❖ Allows the medical provider to provide naloxone for secondary administration.
- ❖ NYSDOH created regulations for implementation of opioid overdose prevention programs.
- ❖ Naloxone must be dispensed by MD, PA, NP by federal regulation





Disposal of Syringe

- ❖ If safety syringe, engage sheath
- ❖ Ask EMS to dispose of the needle or:
- ❖ Take to any SEP, hospital or nursing home for disposal, call first!
- ❖ Sharps accepted by some pharmacies and health care facilities
- ❖ Call DOH for disposal site near you (800-522-5006)
- ❖ Contact local Dept. of Public Works

Recovery Position

If you must leave the patient, even for a few minutes, put them into the recovery position so they won't choke on vomit





Effect of Narcan

- ❖ Reverses opiate effect of sedation and respiratory depression
- ❖ Causes sudden withdrawal in the opioid dependent person – an unpleasant experience
- ❖ No psychoactive effects – low potential for diversion, is not addictive
- ❖ Routinely used by EMS (but in larger doses)
- ❖ Has no effect if an opiate is not present
- ❖ Sold over the counter in Italy



More About Narcan

- ❖ It is regulated but not a controlled substance
- ❖ Need to obtain from a licensed prescriber
- ❖ Should be stored at room temperature and away from direct light (in kit is OK)
- ❖ Has a limited shelf life. Note expiration date and obtain replacement



More About Narcan

- ❖ Emergency Medical Services give 1.2 to 1.6 milligrams of Naloxone which precipitates severe withdrawal in the dependent person
- ❖ Overdose prevention services recommend starting with 0.4 with an additional dose readily available – found to be effective in most instances

Once Awake & Breathing

- ❖ Narcan wears off in 30-90 minutes
- ❖ Don't leave the patient alone as sedation may return
- ❖ Reassure the patient if he is drug sick- the naloxone will wear off

Don't use more heroin to feel better!!!

- ❖ Encourage survivor to go to the hospital





Role of EMS

- ❖ Potential exists of sinking back into overdose when naloxone wears off, however:
- ❖ In a study of 998 OD patients who were administered naloxone by EMS and refused to go to the hospital- none died in the next 12 hours (1)
- ❖ All responders are trained to call EMS

Vilke 2003



Does It Work???

- ❖ 2010 survey of programs known to the Harm Reduction Coalition
- ❖ 155 programs in 16 states ranging from state funded to underground 152 responses
- ❖ 1996- 2010:
- ❖ 53,339 kits dispensed
- ❖ 10,194 overdose reversals reported

*Naloxone Overdose Prevention, Education (NOPE)
Eliza Wheeler <wheeler@harmreduction.org>*

Who Can Be Trained???

- ❖ Any adult who may be in a position to respond to an overdose or is at risk of an overdose
 - ❖ Drug Users
 - ❖ Their friends and family
 - ❖ Other members of social network
 - ❖ Staff at agencies providing service to drug users
 - ❖ Family/ caretakers of patients prescribed opioid pain medications





Certificate of Completion

This certifies that _____
has been trained in opioid overdose prevention including
the use of injectable naloxone for the purpose of preventing
death from an opioid overdose. This practice is legal under
New York State Public Health Law Section 3309 and under
10 N.Y.C.R.R. Section 80.138.

NYS Approved Opioid Overdose Prevention Program

Responder Responsibilities

- ❖ Complete initial opioid overdose prevention training
- ❖ Complete refresher training at least every 2 years
- ❖ Contact EMS if suspected drug overdose and advise if naloxone was used
- ❖ Report all opioid overdose responses/ naloxone administration to overdose program director and get a refill





Conclusions:

- ❖ Opioid overdose is a sequence of events, not a moment in time. It can be treated.
- ❖ Know how to recognize opioid overdose
- ❖ Call for help
- ❖ Check for breathing
- ❖ Administer Narcan
- ❖ Report and get a refill



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You Can Save A Life!!!



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"I'M MARRIED, SO I'M AN EXPERT IN
PAIN MANAGEMENT."