NALOXONE EXPERIENCE IN THE PUBLIC SAFETY ENVIRONMENT

David W. Lindell, MS, NRP
Prehospital Care Coordinator
Department of Emergency Medicine
Allegheny General Hospital

Allegheny Health Network

SPORTS, D-1

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NE OF AMERICA'S GREAT NEWSPAPERS

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Drug overdose deaths soar 45% in Allegheny County in 2016

By Rich Lord
Pittsburgh Post-Gazette

When surging drug overdose deaths finally spurred state legislation last year, many policymakers warned that there would be no immediate reversal of the trend.

That has proved true, at least in Allegheny County and likely statewide. On Thursday the county medical examiner revealed that 613 people died from drugs last year, a jump of 45 percent over the prior year, largely because of fentanyl and heroin.

"I would say my heart aches," said county Health Department Director Karen Hacker. "We've been deeply involved in this issue

... It just feels like you get this new drug on the market, and you're just chasing it.

"We're just not able to get ahead of it."

The overdose numbers "don't surprise me," said Gov. Tom Wolf, on Thursday afternoon. "They

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Case Study

- ~35 yo son returns home to find mother nauseated and vomiting prompting call to EMS, he's worried mother may have overdosed.
- Family well known to EMS, multiple players, multiple problems… substance abuse included.
- Pt. ~60 yo F, sitting on bathroom floor, just finished vomiting.
- PMH/HPI- Crohn's/IBD, relates PCP just changed pain med to fentanyl patch 25mcg/hr. Awoke this am with increased pain, placed patch, developed n/v within 2-3 hr, removed same, took nap, awakened by son, needed to vomit… story is reasonable/believable.
- P/E- A&Ox4, Pupils 3-4 mm/reactive, speech clear, ambulatory without assist or ataxia, v/s WNL, allows EMS to check for patches- none found. IMP- n/v related to new med. PT wishes no service, has capacity to refuse.
- Pt. states will f/u with PCP, son will be home, is calm now and will watch mom. Will recall PRN, pt signs refusal.

Case continued.

- Nice day for an ice…
- Just get a spoonful down my neck…
- Dispatched back to residence for unresponsive woman turning blue.
- It's been a whole 10-12 min!
- Arriving at home, dispatch states cpr is started….
- Son states he went to check on mom ~10 min after we left, she had gone back to bed, she was face down and blue.
- Carried her to kitchen, called 911… started CPR

Case closed.

- P/E- Unresponsive to pain, cyanotic, cool, moist, RR- 4-6, pupils 1mm bilat., strong carotid ~100, SpO_2 – 54%
- Rx- BVM with O_2, 2 mg. naloxone IN, IV NSS, breathing improves ~7min. later, still unresponsive for an additional 8 min. Transported for evaluation and treatment without further problems (occasional vomiting).
- So what's the deal… when EMS left, pt decided to chew 2 fentanyl patches and swallow same. Would have died if son wasn't vigilant.
- NB: Humans are *very* creative! Humans are not always smart. Humans don't always use good judgment!
  - 25 mcg/hr patches = 2.75 mg = 2,750 mcg of fentanyl
  - 50 mcg/hr patches = 5.50 mg = 5,500 mcg of fentanyl
  - 75 mcg/hr patches = 8.25 mg = 8,250 mcg of fentanyl
  - 100 mcg/hr patches = 11.0 mg = 11,000 mcg of fentanyl

Hello Houston…

How High are We?

Americans constitute 4.6% of the world's population, but consume approximately 80% of the world's opioid supply.

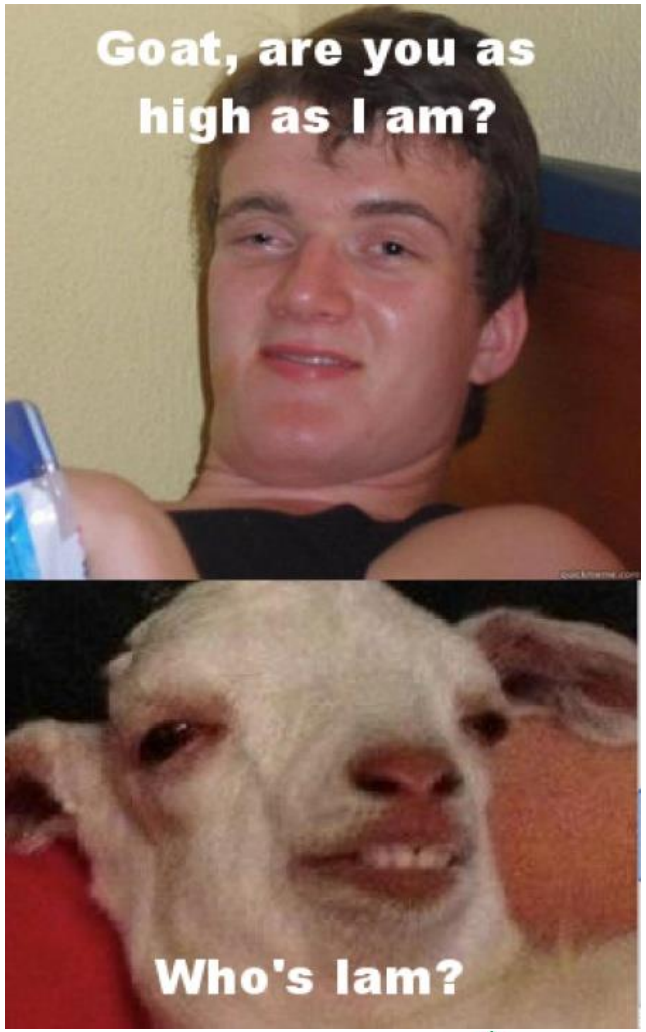
Americans consume 99% of the world's supply of hydrocodone (the opioid component of Vicodin).

Allegheny Co. 2015 = 424 deaths

Pennsylvania 2015 = 3,383 deaths

Allegheny Co. 2016 = 613 Deaths

Pennsylvania 2016 = pending



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We Have a Problem….

Drug overdose was the leading cause of injury death in 2012. Among people 25 to 64 years old, drug overdose caused more deaths than motor vehicle traffic crashes.[1]

Of the 22,767 deaths relating to pharmaceutical overdose in 2013, 16,235 (71.3%) involved opioid analgesics. [2]

The drug overdose death rate has quadrupled since 1999 through 2013, there were 33,091 deaths in 2015.
https://www.cdc.gov/drugoverdose/data/statedeaths.html

1: Centers for Disease Control and Prevention. Web-based Injury Statistics Query and Reporting System (WISQARS) [online]. (2014)

2: Centers for Disease Control and Prevention. National Vital Statistics System mortality data. (2015)

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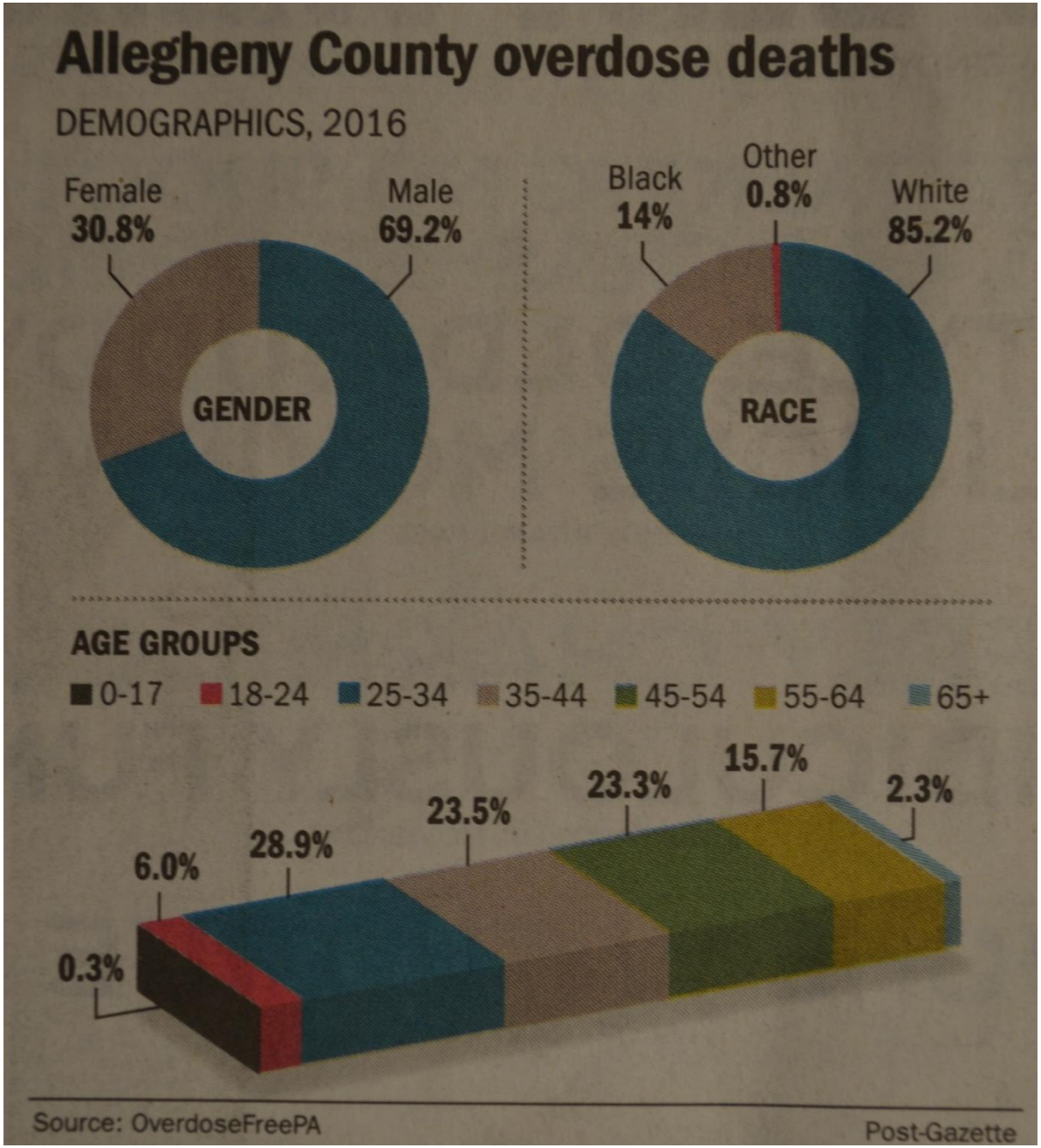

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BIG PROBLEM? YEP!

PUBLIC HEALTH ISSUE? ABSOLUTELY!

POLITICAL CONCERN? YOU BETCHA!

State Authorization

ACT 139

THE GENERAL ASSEMBLY OF PENNSYLVANIA

SENATE BILL

No. 1164 Session of 2013

INTRODUCED BY PILEGGI, VULAKOVICH, ERICKSON, FARNESE, RAFFERTY, WOZNIAK, ALLOWAY, YAW, BAKER, SOLOBAY, BRUBAKER, HUGHES, WARD AND SCHWANK, NOVEMBER 12, 2013

AS AMENDED ON SECOND CONSIDERATION, HOUSE OF REPRESENTATIVES, JUNE 24, 2014

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Act 139 Key Points

Caller Immunity

DOH Mandate

- **Revise BLS Scope of Practice**
- **Make naloxone training available to first responders**

Allows NON-EMS First Responder agencies to enter into agreement with physician to

- Carry Naloxone
- Use Naloxone

Exemptions from Pharmacy act for Naloxone

Provides IMMUNITY for First Responders using Naloxone

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EMS vs Non EMS Requirements

EMS Agency

- BLS Providers are Medical professionals
- **BLS Providers NOT COVERED under act 139**
- BLS Providers Restricted to BEMS-Define
  - SCOPE
  - Protocol
- **BEMS** Mandated Training
- Regional Mandated Psychomotor Training

First Responder

- BLS Providers are NOT Medical professionals
- **COVERED under act 139**
- Do not fall under BEMS Regulations
  - 139-Defined Scope
  - 139-Defined Use
- **STATE** Mandated Training
- Regional Mandated Psychomotor Training

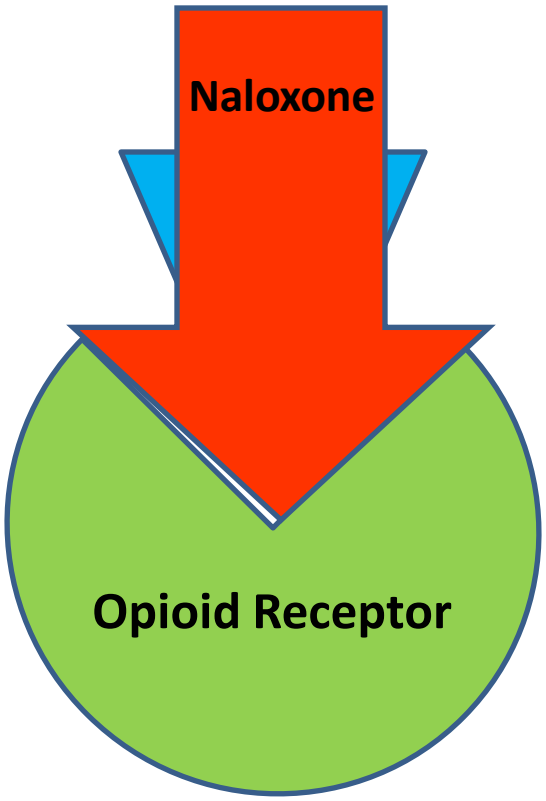
A work about priorities…

- We all have the tools and knowledge to manage opioid overdoses without naloxone!
- Narcotic ODs die from being unable to manage their airway and/or failing to breathe adequately.
- Solution – use your tools appropriately:
  - Manage the airway first
  - Provide for adequate ventilation second
  - Assure your patient isn't in cardiac arrest
  - Then, and only then consider using naloxone
- You may think someone is overdosed when they are:
  - Cardiac arrest, stroke, diabetic, post-ictal, OD from mixed drugs or another drug altogether (benzodiazepines)
  - Airway and ventilation work on all patients
- **Naloxone only works on opioids!!!! Doesn't work in true cardiac arrest or other drugs. Don't mess up!**

Check your bias at the door!

- Addiction is a disease, substances change your brain chemistry.
- It can start with a single bad judgment OR after taking pain meds for real pain.
- It's not a moral weakness, it's the expression of mental illness. Most of us have had, do have or will have someone in our families suffering from addiction and substance abuse.
- Addiction needs to be treated, but the addict has to want to quit, the alterations in brain chemistry make that hard to do.
- Treat your patient to the best of your ability… any less is a betrayal of your profession.
- Agreed- OD's are dangerous, difficult, manipulative and generally a PIA to manage at times (sometimes pleasant, thankful and easy). They are often repeat offenders.
- **They are always people with a medical problem that we have been called to help! To do any less is failure!**

Naloxone (Narcan®)- Poisoning/Toxic Exposure Protocol 831



For unresponsive patients with:

- Decreased respiratory effort
- Pinpoint pupils
- Suspicion of narcotic use

Naloxone displaces the opioid from the opioid receptor in the nervous system. Duration of action + 30-90 min.

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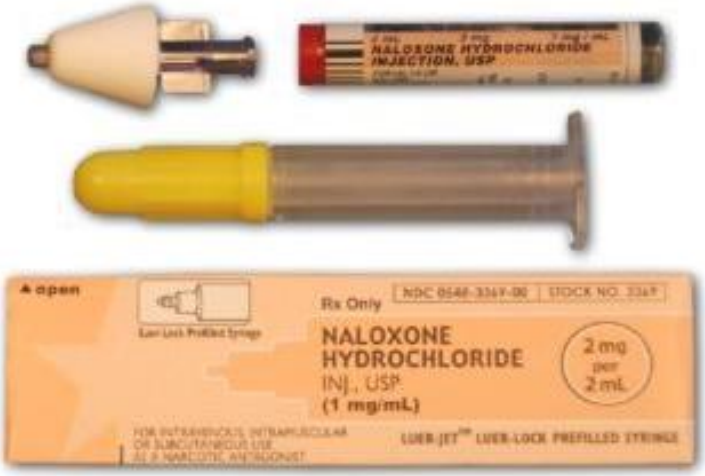
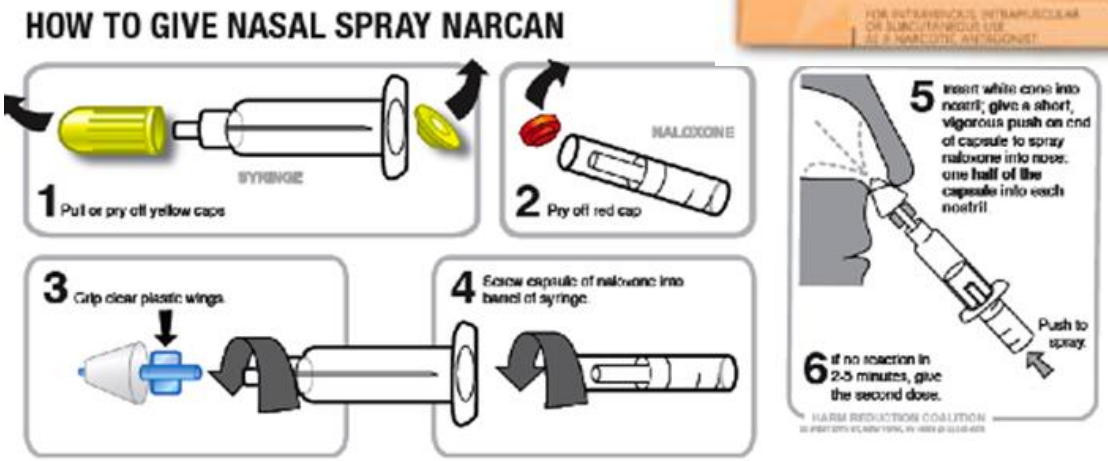
Naloxone

- Administer when: ALOC ***with*** decreased respirations ***and*** OD is suspected.
- Patients who are sleepy or unresponsive with ***adequate*** O2 saturations should be monitored and not be given naloxone.
- Other causes of AMS and resp. depression: hypoxia, hypoglycemia, head injury, shock, stroke, cardiac arrest.
  - Must always manage airway, ventilation first
  - Must not miss cardiac arrest, do compressions and resuscitation as needed
- Must have done online training and completed a hands on program for administration
- Must be working a service that complies with DOH naloxone requirements

How do we give it?

- By autoinjector (too expensive for most, risk of sharps)
- By intranasal administration by Mucosal Atomization Device (MAD) on a standard prefilled syringe. (most common, least expensive).
- Using MAD:





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Scene safety!

Needles, BSI, Infectious Patients

- Careful of your scene!
- Be mindful of loose drug (fentanyl analogues ie. carfentanil)
- Intranasal and Autoinjector
  - Premeasured doses
  - Half Life = $\geq$ 30 min.
- Monitor for recurring symptoms!
- Dispose of sharps in a red box
- Documentation
  - Protocol, why administered, who, time, route, dose, post-administration assessment, changes in pt.

Precautions - Opioid Withdrawal!

- When you reverse any narcotic overdose you may encounter:
  - Anger and Agitation
  - Tachycardia
  - Pulmonary Edema
  - N/V
  - Seizures
- Be prepared! Stay safe, treat your patient as needed.

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QUESTIONS, CONCERNS, GRATUITOUS HARASSMENT??