Opioid Overdose and Narcan

J. Craig Allen, MD
Medical Director
Learning objectives

At the conclusion of this activity, participants will be able to:

Understand the epidemiology and natural history of opioid overdose

Understand the evidence for overdose education and naloxone rescue kits.

Understand barriers to incorporating overdose prevention education and prescribing naloxone rescue kits in healthcare programs.

Understand how to incorporate overdose prevention education into your practices and be able to prescribe naloxone rescue kits to patients.
• Opioids are any of various compounds that bind to specific receptors in the central nervous system and have analgesic (pain relieving) effects including prescription medications such as oxycodone and hydrocodone and illicit substances such as Heroin

• Opioid addiction is federally described as a progressive, treatable brain disease ASAM

• ASAM Addiction definition: Chronic, relapsing brain disease characterized by compulsive drug seeking behavior and drug use despite harmful consequence

• Any type of opioid can trigger latent chronic addiction brain disease

• 24.6 million people 12 or older (9.4% of the population) live with substance dependence or abuse
Poisoning: Leading cause of injury death
9/10 poisonings are from drugs the majority being opioids

CDC has declared this an epidemic
Total Number of Opioid Prescriptions Dispensed by U.S. Retail Pharmacies, 1991–2010

Number of Opioid Rxs
Hydrocodone
Oxycodone

Source: SDI’s Vector One®: National (VONA)
OxyContin introduced in 1996
sales $48 million
to $1.1 billion in 2000
Endemicity of Opioid Problem:
DEA Drug Threat Assessment, 2014
In 2013 the national average for opioid overdose deaths per 100,000 was 7.7

In 2014
Massachusetts 14.9
Connecticut 15.3
Rhode Island 20.4
Who is abusing opioid analgesics?

- Young people  (Partnership for Drug-Free America, 2005)
- College students  (McCabe et al., 2005)
Adolescents

(12 to 17 years old)

- Every day, 2,500 American youth abuse a prescription pain reliever for the first time

- Nearly 1 in 20 high school seniors has taken Vicodin, 1 in 30 has abused OxyContin

- Over 50% obtain opioid analgesics from friend or family

- Adolescent abuse of prescription drugs is frequently associated with abuse of other drugs and alcohol
Who is abusing opioid analgesics?

- **Young people** (Partnership for Drug-Free America, 2005)
- **College students** (McCabe et al., 2005)
- **Elderly** (SAMHSA, 2005)
- **Women** (Manchikanti, 2006; Green et al., 2008)
Women

• Nearly 48,000 women died of prescription painkiller* overdoses between 1999 and 2010.

• Deaths increased among women more than 400% since 1999, compared to 265% among men.

• For every overdose, 30 go to the emergency department for misuse or abuse.

• Prescription painkiller overdoses are an under-recognized and growing problem for women.
Who is abusing opioids?

- **Young people** *(Partnership for Drug-Free America, 2005)*
- **College students** *(McCabe et al., 2005)*
- **Elderly** *(SAMHSA, 2005)*
- **Women** *(Manchikanti, 2006; Green et al., 2008)*
- **Chronic pain patients** *(Butler et al., 2004, 2008; Passik et al., 2006)*
- **Street drug users** *(Davis & Johnson, 2008)*
- **Exhibits geographic patterns:** greater in rural areas, also seen among street-based users in large cities *(Paulozzi et al., 2009; Brownstein et al., 2009)*
Heroin-related overdose deaths quadruple since 2002

CNN July 7, 2015

• CDC study shows a 74% increase in heroin use between 2009 and 2012
  -Doubled among women and young adults ages 18 to 25
  -More than doubled among whites

• highest increases
  -women
  -people with higher incomes
  -people who are privately insured.

• seizures of kilograms per year at the U.S.-Mexican border, quadrupled in 2013 to more than 2,000 kilograms. "decline in price and an increase in purity.”
Heroin

- Nearly a quarter of those who use heroin will become addicted.

- Those addicted to opioid painkillers are 40 times more likely to be addicted to heroin.

- In 2013,
  - 89,000 adolescents and young adults and 82,000 adults used heroin for the first time. (460 people initiating each day)
  - Average age was 24.5 years.

- 1.9 million Americans live with opioid pain reliever addiction and 517,000 are addicted to heroin. (NSDUH Report, 2015).

- 2010 to 2012 in the Northeast recorded a 211% increase in heroin overdose deaths.
Heroin in Connecticut

A Fatal Attraction

Overdose deaths linked to heroin tripled from 2012 to 2014, with non-Hispanic whites accounting for the vast majority of those who died.

SOURCE: Chief Medical Examiner's Officer

- 2012
- 2013
- 2014
Risk Factors for overdose

- Change in TOLERANCE
- Using in an unfamiliar environment
- using ALONE
- MIXING opioids with other central nervous system depressing substances (alcohol, benzodiazepines)
- Medical ILLNESS
- Depression
- Release from incarceration or discharge from a treatment facility
Opioid Overdose Deaths 2012

The bar chart illustrates the number of opioid overdose deaths per 100,000 population by age group and race/ethnicity in 2012. The data shows a peak in deaths for the 45-54 age group, with significant numbers also observed in the 35-44 and 55-64 age groups. The chart further highlights disparities among different racial and ethnic groups, with American Indian/Alaska Native populations experiencing higher rates compared to White, Hispanic, and Black populations.
2014
504 unintentional overdose deaths involving opioids

298 deaths from car crashes
MANY OPIOID OVERDOSES ARE PREVENTABLE

Prevention: Alter demand, supply, & harm
Motor vehicle safety: A public health achievement

Motor-Vehicle–Related Deaths Per Million Vehicle Miles Traveled (VMT) and Annual VMT, by Year—United States, 1925-1997

Source: US Department of Health and Human Services
Strategies to address overdose

• Prescription monitoring programs
PMP Survey Findings: *prescribers*

- Few use PMP.

- Those that do use PMP to screen for abuse, and to complement patient care

- **When concerned about “dr. shopping”/diversion**, PMP users are **significantly more likely than non-users to:**
  - Screen for drug abuse, conduct urine screens, refer to another provider, refer to substance abuse treatment
  - *Revisit* pain treatment agreements
  - *To address it* (ie Less likely to do nothing (ignore it))
  - *Call* law enforcement to intervene
PMP Survey Findings: prescribers

New York 75%

2012 Action:
New York required prescribers to check the state’s prescription drug monitoring program before prescribing painkillers.

2013 Result:
Saw a 75% drop in patients who were seeing multiple prescribers to obtain the same drugs, which would put them at higher risk of overdose.
Strategies to address overdose

- Prescription monitoring programs
  - Paulozzi et al. Pain Medicine 2011
- Prescription drug take back events
  - Safe disposal
Dispose of unwanted or expired medications* the SAFE AND LEGAL way

A permanent prescription drop box is now available in the lobby of the Meriden Police Department
50 West Main Street
Meriden, Connecticut

This initiative is a partnership of the Meriden Healthy Youth Coalition, the Meriden Police Department, and Rushford, a Hartford HealthCare partner.

*Rushford
A Hartford HealthCare Partner

*No needles will be accepted
Strategies to address overdose

- Prescription monitoring programs
  - Paulozzi et al. Pain Medicine 2011
- Prescription drug take back events
  - Safe disposal
- Safe opioid prescribing education
- Expansion of opioid agonist treatment
  - Clausen et al. Addiction 2009:104;1356-62
- Safe injection facilities
- Opioid Overdose Education and Naloxone Distribution
Rationale for Opioid Overdose Education and Naloxone Distribution

- Most opioid users do not use alone
- Known risk factors:
  - Mixing substances, abstinence, using alone, unknown source
- Opportunity window:
  - Opioid OD takes minutes to hours and is reversible with naloxone
- Bystanders can be trained to recognize signs and symptoms of OD
- Fear of police can delay or interfere with timely intervention
About Naloxone

• Naloxone reverses opioid-related sedation and respiratory depression = pure opioid antagonist
  – Not psychoactive, no abuse potential
  – May cause withdrawal symptoms
• May be administered IM, IV, SC, IN
• Acts within 2 to 8 minutes
• Lasts 30 to 90 minutes, overdose may return
• May be repeated
• Narcan® = naloxone
• naloxone ≠ Suboxone ≠ naltrexone
Overdose Education and Naloxone Rescue Kits

- 644 sites in the United States from 1996 through June 2014
- 152,283 naloxone kits provided to laypersons
- 26,463 overdose reversals.
- July 2014, the Harm Reduction Coalition (HRC)
Evaluations of OEND programs

• Feasibility
  – Piper et al. Subst Use Misuse 2008: 43; 858-70
  – Walley et al. JSAT 2013; 44:241-7 (Methadone and detox programs)

• Increased knowledge and skills
  – Green et al. Addiction 2008: 103;979-89

• No increase in use, increase in drug treatment

• Reduction in overdose in communities
  – Maxwell et al. J Addict Dis 2006:25; 89-96
  – The Harm Reduction Coalition (HRC),Survey July 2014,
Who benefits most from Narcan training & prescription?

- Patients:
  - with history or suspected history of substance abuse
  - treated for opioid poisoning or intoxication at ED
  - beginning Methadone or Buprenorphine therapy for addiction
  - with higher-dose opioid prescriptions (>50 mg morphine equivalent/day)
  - rotated from one prescription opioid to another
  - with opioid prescriptions and:
    - Benzodiazepine prescription
    - Anti-depressant prescription
    - Smoking, COPD, asthma, or other respiratory illness
    - Renal dysfunction, hepatic illness, cardiac disease, HIV/AIDS
    - Concurrent alcohol use
Connecticut Bills/Laws

   – House Bill No. 6554. Public Act No. 11-210
   “AN ACT CONCERNING EMERGENCY MEDICAL ASSISTANCE FOR PERSONS EXPERIENCING AN OVERDOSE.”

Signed June 2012. Effective October 2012
   – House Bill No. 5063. Public Act No. 12-159
   “AN ACT CONCERNING TREATMENT FOR A DRUG OVERDOSE”

Signed May 2014. Effective October 2014
   – House Bill No. 5487. Public Act No. 14-61
   “AN ACT PROVIDING IMMUNITY TO A PERSON WHO ADMNINISTERS AN OPIOID ANTAGONIST TO ANOTHER PERSON EXPERIENCING AN OPIOID-RELATED DRUG OVERDOSE”
Governor’s Substance Abuse Bill

Passed June 30, 2015

– House Bill No. 6856. now Public Act No. 15-198

“AN ACT CONCERNING SUBSTANCE ABUSE AND OPIOID OVERDOSE PREVENTION”

• AUTHORIZING PHARMACISTS TO DISPENSE OR ADMINISTER OPIOID ANTAGONISTS.

• Mandatory use of the PMP 72 hours and every three months for chronic opioid tx

• Cme involving safe prescribing for of opioids MD, APRN, PA and dentists
If you let her “sleep it off,” she may never wake up.

Drug overdose is the #1 cause of accidental death for adults in Rhode Island.

Learn how to spot an overdose and what to do.
YOU CAN’T HELP SOMEONE GET RECOVERY IF THEY’RE DEAD.
Naloxone Saves Lives.

ALL YOU HAVE TO DO IS ASK.

What is Naloxone & why do you need it?
Naloxone (Narcan™) is an opioid antidote that can be used by ANYONE to save the life of someone overdosing on heroin or prescription opioid pain killers, giving this person a second at life and the opportunity to get into recovery.

Where can you go to learn more?
You can learn more about the life-saving facts of naloxone from your clinician, counselor, doctor, APRN/PA, psychiatrist, nursing staff or pharmacist.

Where do you get it?
Prescriptions for this life-saving antidote can be written for you by any medical provider. Just take the prescription to a pharmacy to have it filled.

For more information:
1-877-577-3233
www.rushford.org
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SAVES LIVES

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1-877-577-3233
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Naloxone HCl 1 mg/mL
2 mL as pre-filled Luer-Lock needleless syringe (NDC 76329-3369-1)

Please dispense 2 boxes of naloxone for intranasal use

For suspected opioid overdose, spray 1mL in each nostril.
Repeat after 3 minutes if no or minimal response

Please do not dispense naloxone with needle attached.

☐ Do not substitute
☐ Substitution permitted
☐ No Refills
☐ Refill #
☐ Spanish Label

Approved Medicaid Tamper-Resistant Prescriptions

Security Features include: Front with blue-gray background on white paper; Tamper Resistant Ink; Void shows when copied; Red Logo fades when touched; microprint around the Logo
Intranasal Mucosal Atomizing Device (MAD 300)

Please dispense 2 units

attach to needle-less syringe in order to administer naloxone intranasally

Pharmacist if your supplier doesn’t carry please call 18007887999 to order MAD 300

Approved Medicaid Tamper-Resistant Prescriptions

Security Features include: Front with blue-gray background on white paper; Tamper Resistant Ink; Void shows when copied; Red Logo fades when touched; microprint around the logo
Narcan Locator


• [http://harmreduction.org/](http://harmreduction.org/)
- "Back from the Brink: The Need for Narcan"
QUESTIONS & ANSWER TIME
Papaver somniferum