Opioid Use Disorders: Risks and Treatment

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A part of Hazelden Betty Ford Foundation
I have the following financial relationships to disclose:
– Employee of: Hazelden Betty Ford Foundation.

I will not discuss off label use and/or investigational uses in my presentation.
Opioid Use Disorders

OBJECTIVES

1. Understand the causes behind the increasing problem of opioid use in the U.S.
2. Recognize the risks of addiction and overdose death in patients using opioids
3. Understand the pharmacology and efficacy of medications and psychosocial treatments for opioid use disorders.
4. Become familiar with the use of naloxone to reverse opioid overdoses.
Case Study

22 yo male, admitted for treatment of opioid use disorder

History

– age 16 prescribed hydrocodone for wisdom teeth extraction. “Liked” the feeling.
- stole oxycodone from grandparent’s medicine cabinet and used with friends.
- age 18, bought prescription opioids illicitly and began crushing and snorting them.
- age 20, tried snorting heroin. Immediately began using regularly, as it was available and cheaper than prescription pills. Within 6 mos., was injecting intravenously.
- Has had several overdoses, one required intubation.
Admitted to CD treatment –
- Found to have abscess in antecubital fossa due to injection.
- Liver enzymes were elevated, and antibody to hepatitis C was found to be positive.
- Pt. was detoxed with Suboxone and clonidine, and treated with antibiotics for abscess.
- He received 25 days of inpatient residential treatment and was given a Vivitrol injection, before transferring to intensive outpatient treatment.

Follow-up
- He did not come for his next outpatient Vivitrol injection.
- 1 week later he died of an opioid overdose.
Opioid Use Disorders: Risks and Treatment

How Big is the Problem?
In 2010, about 12 million Americans (age 12 or older) reported nonmedical use of prescription painkillers in the past year.

Nearly half a million emergency department visits in 2009 were due to people misusing or abusing prescription painkillers.

Nonmedical use of prescription painkillers costs health insurers up to $72.5 billion annually in direct health care costs.

Overdoses in pets has also increased.
Rates of Prescription Painkiller Sales, Deaths and Treatment Admissions

U.S. 1999 - 2010

Age-adjusted Rate of Drug Overdose Deaths in US, 2000–2014

Source: National Vital Statistics System, Mortality file
2014: 129 United States citizens died per day from drug overdose. 77 due to opioids.
Types of Opioids Involved in Overdose Deaths

Source: National Vital Statistics System, Mortality file
Heroin Use in U.S.

2013 Data

- more than doubled among young adults ages 18–25 in the past decade.
- About 75% of prescription opioid users switch to heroin as a cheaper opioid source.
- 9 in 10 people who used heroin also used at least one other drug.
- 45% of people who used heroin were also addicted to prescription opioid painkillers.
- Cheap and available
Heroin Addiction and Overdose Deaths are Climbing

Heroin-Related Overdose Deaths (per 100,000 people)

286% increase

Heroin Addiction (per 1,000 people)

YEAR


<table>
<thead>
<tr>
<th></th>
<th>2002-2004*</th>
<th>2011-2013*</th>
<th>% CHANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SEX</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>2.4</td>
<td>3.6</td>
<td>50%</td>
</tr>
<tr>
<td>Female</td>
<td>0.8</td>
<td>1.6</td>
<td>100%</td>
</tr>
<tr>
<td><strong>AGE, YEARS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12-17</td>
<td>1.8</td>
<td>1.6</td>
<td>--</td>
</tr>
<tr>
<td>18-25</td>
<td>3.5</td>
<td>7.3</td>
<td>109%</td>
</tr>
<tr>
<td>26 or older</td>
<td>1.2</td>
<td>1.9</td>
<td>58%</td>
</tr>
<tr>
<td><strong>RACE/ETHNICITY</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Hispanic white</td>
<td>1.4</td>
<td>3</td>
<td>114%</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>1.7</td>
<td>--</td>
</tr>
<tr>
<td><strong>ANNUAL HOUSEHOLD INCOME</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than $20,000</td>
<td>3.4</td>
<td>5.5</td>
<td>62%</td>
</tr>
<tr>
<td>$20,000–$49,999</td>
<td>1.3</td>
<td>2.3</td>
<td>77%</td>
</tr>
<tr>
<td>$50,000 or more</td>
<td>1</td>
<td>1.6</td>
<td>60%</td>
</tr>
<tr>
<td><strong>HEALTH INSURANCE COVERAGE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>4.2</td>
<td>6.7</td>
<td>60%</td>
</tr>
<tr>
<td>Medicaid</td>
<td>4.3</td>
<td>4.7</td>
<td>--</td>
</tr>
<tr>
<td>Private or other</td>
<td>0.8</td>
<td>1.3</td>
<td>63%</td>
</tr>
</tbody>
</table>
Death rates* from Overdoses of Heroin or Prescription Opioid Pain Relievers (OPRs)

By age group and ethnicity, 28 states, 2012

* Crude (unadjusted) rate per 100,000 population.
Other Complications of Opioid Use

- Progression of disease → Rx opioids → Smoked Heroin → IV Heroin
- Criminality / Legal issues
- Social Marginalization with legal convictions
- Health Consequences: Hepatitis C, HIV1/2, STDs, Abscess, Endocarditis
- Neonatal Abstinence Syndrome (NAS)
- Social Consequences - Family/Financial Employment

- Excessive and unnecessary cost burden
- Excessive and unnecessary human toll
- Propagation of continued drug use cycles
Injection drug use is the leading risk factor for acquiring Hepatitis C infection

HCV infection
- accounts for about 70% of all chronic hepatitis cases
- 30-60% of all cases of cirrhosis and end-stage liver disease
- 60% of all liver cancers
- is a leading cause for liver transplantation

- Fortunately, new, less-toxic treatments are improving cure rates.
Neonatal Abstinence Syndrome


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**AVERAGE LENGTH OR COST OF HOSPITAL STAY**

<table>
<thead>
<tr>
<th>Newborns</th>
<th>Length (Days)</th>
<th>Cost ($1000s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>With NAS</td>
<td>16.9</td>
<td>$66,700</td>
</tr>
<tr>
<td>W/O NAS</td>
<td>2.1</td>
<td>$3,500</td>
</tr>
</tbody>
</table>

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**NAS AND MATERNAL OPIOID USE ON THE RISE**

- Newborns suffering from opioid withdrawal
- Maternal opioid use

*2012 Maternal opioid use data not currently available*
Effects of Opiate Use on Fetus

- premature birth, placenta abruptio
- low birth weight
- Neonatal Abstinence Syndrome
- birth defects
- small head size
- sudden infant death syndrome
- developmental delays
- problems with learning, memory, and emotional control

long-term and even fatal effects
1. How many addicts does it take to change a light bulb?

   Just one. He holds the bulb and the world revolves around him!

2. How many addiction counselors does it take to change a light bulb?

   Just one. But the light bulb has to want to change!
Opioid Use Disorders: Risks and Treatment

How Did We Get Here?
Opium = dried, milky fluid from unripe poppy seed pod.

Now harvested by poppy straw process of extracting opium from mature dried plant.

Constituents of opium:
- morphine (4-21%)
- codeine (0.7 -2.5%)
- thebaine (<0.1%)

Only medicinal use of opium is as paregoric (induces vomiting)
History of Opiates and Opioids

- Poppy Plant (*Papaver somniferum*) in Mediterranean region 5000 B.C.
- Morphine isolated from opium in 1806.
- Used for combat wounds in Civil War – 50,000 soldiers became addicted.
- Late 1800s - Morphine and opium used in many medicinal mixtures, “tonics” and nostrums.
- Heroin synthesized from morphine in 1874.
- From 1898 through to 1910, Bayer, the German pharmaceutical company, marketed it as a cough suppressant and as a non-addictive morphine substitute.
History of Opioids and Opiates

- By end of 19th Century, morphine maintenance clinics in 44 U.S. cities.
- 1914 – Harrison Narcotics Act – restricted use of opioids to prescriptions.
- Physicians who prescribed to addicts were tried and censored; 3,000 imprisoned. Morphine maintenance clinics closed by early 1920s.
- People began obtaining drug illicitly; addicts were refused treatment for medical problems.
- Late 1950s, first therapeutic communities for drug addicts.
- Methadone shown to be effective for treating heroin addicts.
History of Opioids and Opiates

- Early 1990’s – push to treat pain more thoroughly.
  - “5th Vital Sign”

- Pharmaceutical companies begin marketing opiates for chronic pain.

- Significant increases in the prescribing of opiates and become easier to obtain.

- 2000 to today - Opiate overdoses and Opiate Use Disorders increase dramatically. Heroin use on the rise.
Sources of Heroin in US

- Latin America (Columbia and Mexico)
- “Golden Triangle” - Southeast Asia, Thailand, etc. - declining
- Southwest Asia (Afghanistan) - produces 80% of the world’s supply - high purity; white to brown powder

- Purer and cheaper than in past; So can now be smoked or snorted.
- A “bag” is usually 30-50 mg, often “cut” with sugar, starch, acetaminophen, procaine, benzocaine or quinine.
- More recently, cut with fentanyl, which is very potent.
Is it an opiate or an opioid?

All act on same receptors

- **Opiate** = compounds directly derived from or synthesized from the poppy plant. (e.g. morphine, codeine, heroin)
- **Opioids** = entire class of compounds, peptides and endogenous ligands that bind to one or more specific opioid receptors (e.g. oxycodone, buprenorphine)

- **“Semi-synthetic”** – source is plant material, but made in lab (oxycodone, hydromorphone)
- **“Synthetic”** – entirely synthesized chemical (fentanyl)
<table>
<thead>
<tr>
<th>Drug</th>
<th>Equianalgesic Dose (mg)</th>
<th>Half-life (hrs)</th>
<th>Duration of Effect (hrs)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morphine</td>
<td>20 - 30</td>
<td>2-3</td>
<td>3-4</td>
<td>Std. for potency</td>
</tr>
<tr>
<td>Codeine</td>
<td>200</td>
<td>2-4</td>
<td>4-6</td>
<td></td>
</tr>
<tr>
<td>Hydrocodone (Vicodin, Zohydro)</td>
<td>30</td>
<td>3-4</td>
<td>4-8</td>
<td></td>
</tr>
<tr>
<td>Hydromorphone (Dilaudid)</td>
<td>7.5</td>
<td>2-3</td>
<td>3-6</td>
<td></td>
</tr>
<tr>
<td>Methadone</td>
<td>20</td>
<td>12-150</td>
<td>Increases w/ doses</td>
<td>Long duration, multiple drug interactions</td>
</tr>
<tr>
<td>Oxycodone (Percodan, Percoct)</td>
<td>15 – 20</td>
<td>2-3</td>
<td>3-6</td>
<td></td>
</tr>
<tr>
<td>Oxycontin</td>
<td></td>
<td>4.5</td>
<td>8-12</td>
<td>5.5 million prescriptions in 12 mos. (2013 – 2014)</td>
</tr>
<tr>
<td>Oxymorphine (Opana)</td>
<td>15</td>
<td>7-9</td>
<td>3-6</td>
<td></td>
</tr>
<tr>
<td>Fentanyl patch (Duragesic)</td>
<td>60 mg/d morphine ~25 mcg/hr patch</td>
<td>17 (after removal)</td>
<td>48 - 72 per patch</td>
<td>Not for naïve pts.</td>
</tr>
<tr>
<td>Tramadol (Ultram)</td>
<td></td>
<td>6 – 9</td>
<td>4 – 6</td>
<td>Mixed mu agonist</td>
</tr>
</tbody>
</table>
Opioid Use Disorders: Risks and Treatment

What Can We Do About It?
Vast Chasm between Need and Access

Figure 1—Trends in past-year opioid abuse or dependence and opioid agonist medication-assisted treatment capacity: United States, 2003-2012.

Note: OA-MAT = opioid agonist medication-assisted treatment; OTP = opioid treatment program.
Psychosocial (ps) Treatment for OUD

1. Results generally support the efficacy of ps treatment in combination with medications for the treatment of opioid addiction in improving clinical outcomes.

2. The incremental efficacy varied - likely because comparison groups and ps treatments varied. Control groups were not always medications alone. May have received more intervention than they would have in clinical practice.

3. No consistent findings regarding use of specific medications with specific ps treatments.

4. No findings for specific subpopulations.

### Medications for Opiate Dependence

<table>
<thead>
<tr>
<th>Med</th>
<th>receptor</th>
<th>action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agonist - Methadone</td>
<td><img src="image" alt="Agonist" /></td>
<td><img src="image" alt="Happy Face" /></td>
</tr>
<tr>
<td>Partial Agonist – Buprenorphine</td>
<td><img src="image" alt="Partial Agonist" /></td>
<td><img src="image" alt="Happy Face" /></td>
</tr>
<tr>
<td>Antagonist – Naltrexone</td>
<td><img src="image" alt="Antagonist" /></td>
<td><img src="image" alt="X" /></td>
</tr>
</tbody>
</table>
Methadone

1. Methadone has been “gold standard” for treatment of opioid use disorders.
2. Pure opioid agonist - full activation of the mu-opioid receptor.
3. The only legal administration is through Federal/State-certified methadone clinics (OTP).
4. Strict regulations regarding dosing and “carry-outs”
5. Negative cultural beliefs surrounding methadone.
6. Risk of overdose and diversion
Buprenorphine

- Several formulations - alone or with naloxone
- Tablets or Film – both have to dissolve in the mouth and be absorbed by the oral mucosa
- Partial Mu-receptor activation – ceiling effect as far as sedation and respiratory depression.
- Potent Kappa-receptor blockade
- Naloxone is ONLY active if the agent is dissolved and injected
  - Bup/Naloxone preparations are considered less abusable
  - Generic Bup/Naloxone and Generic Bup exist and are often formulary preferred
- Office based – but limit on # of patients
Naltrexone

Oral or Extended Release

Oral form – not very effective for OUD,
- ? Compliance, blood levels

Extended-release form
- Vivitrol®
- IM injection q 28 days
- no opioid effect
- injection site reactions
- management of acute pain can be challenging
# Medication Efficacy

<table>
<thead>
<tr>
<th></th>
<th>Methadone</th>
<th>Buprenorphine</th>
<th>ER Naltrexone</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Percent Opiate – Free</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>On medication</td>
<td>60</td>
<td>20-50</td>
<td>36</td>
</tr>
<tr>
<td>On placebo</td>
<td>30</td>
<td>6</td>
<td>23</td>
</tr>
<tr>
<td><strong>Medication effect on</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>opiate abstinence c/t treatment only</td>
<td>&gt; 2x</td>
<td>&gt;2x</td>
<td>Sl. &lt; 2x</td>
</tr>
<tr>
<td><strong>Reduced illicit opioid use</strong></td>
<td>++</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td><strong>Retention in Treatment</strong></td>
<td>+++</td>
<td>++</td>
<td>+</td>
</tr>
<tr>
<td><strong>Overdose prevention</strong></td>
<td>++</td>
<td>++</td>
<td>Yes, but ?</td>
</tr>
<tr>
<td><strong>Prevention of Hep C</strong></td>
<td>+</td>
<td>+</td>
<td>unknown</td>
</tr>
</tbody>
</table>

## Summary of Treatments for Opiate Dependence

**TABLE 1. Clinical Characteristics of Methadone, Buprenorphine, and Naltrexone**

<table>
<thead>
<tr>
<th></th>
<th>Methadone</th>
<th>Buprenorphine</th>
<th>Naltrexone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Controlled substance</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Availability</td>
<td>OTP</td>
<td>OTP or DATA Waived practitioner</td>
<td>Any prescribing practitioner</td>
</tr>
<tr>
<td>1-year retention</td>
<td>60%</td>
<td>60%</td>
<td>20% (53% 6-months ER)</td>
</tr>
<tr>
<td>Direct expense</td>
<td>$</td>
<td>$$</td>
<td>$$$-$$$$$</td>
</tr>
<tr>
<td>Dosing frequency</td>
<td>Daily</td>
<td>Daily</td>
<td>Daily or monthly (ER)</td>
</tr>
<tr>
<td>Narcotic blockade</td>
<td>Yes, at steady-state</td>
<td>Yes, at steady-state</td>
<td>Yes</td>
</tr>
<tr>
<td>Can induce withdrawal</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Overdose potential</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Withdrawal upon cessation</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Loss of tolerance on cessation</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Complicates treatment of moderate-severe pain</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*OTP = opiate treatment program; DATA = Drug Addiction Treatment Act of 2000; ER = extended-release formulation*
Treatment for Pregnant Women with Opioid Use Disorder

Biggest risk to fetus is withdrawal.
Recommendation is to use agonist therapy (methadone or buprenorphine) during pregnancy.

Cochrane Review
- methadone superior in terms of retaining patients in treatment
- buprenorphine leads to less severe neonatal abstinence syndrome.
- Still need more randomised controlled trials of adequate sample size comparing different maintenance treatments.

Minozzi et al. Cochrane Database of Systematic Reviews 2013, Issue 12.
Adults and Adolescents Entering Treatment with Opioid Use Disorder - Hazelden Betty Ford Foundation

![Graph showing the percent of all admissions for adults and adolescents from 2001 to 2011. The graph indicates an increase in the percent of admissions for both adults and adolescents over this period.](image-url)
Comprehensive Opioid Response with 12 Steps (COR-12)

- Hazelden’s response to the opioid crisis
- Too many Opioid dependent patients leaving treating against staff advise.
- Too many relapsing soon after discharge
- Too many serious overdoses
- Evidence-based treatments

- Opioid dependent adults
- Patient Goals
  - retain in treatment
  - learn and practice recovery skills
  - peer support groups
  - 12- step meetings
  - random UDS
- 3 tracks - No meds
  - Buprenorphine
  - ER Naltrexone
## COR-12
### Patient Participation

<table>
<thead>
<tr>
<th>Admissions to Center City Primary</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of admissions</td>
<td>2127</td>
<td>2181</td>
<td>2170</td>
</tr>
<tr>
<td>Total number with opioid dependence (percent)</td>
<td>634 (29.8)</td>
<td>584 (26.8)</td>
<td>609 (28.1)</td>
</tr>
<tr>
<td>COR-12: No Medication (percent)</td>
<td>54 (2.5)</td>
<td>64 (2.9)</td>
<td>71 (3.3)</td>
</tr>
<tr>
<td>COR-12: Buprenorphine (percent)</td>
<td>35 (1.6)</td>
<td>30 (1.4)</td>
<td>53 (2.4)</td>
</tr>
<tr>
<td>COR-12: ER Naltrexone (percent)</td>
<td>49 (2.3)</td>
<td>71 (3.3)</td>
<td>69 (3.2)</td>
</tr>
</tbody>
</table>
# COR-12 Results

## Percent of Atypical Discharges *(Center City)*

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Opioid Dependence (Non COR-12)</strong></td>
<td>21.5</td>
<td>29.6</td>
<td>26.0</td>
</tr>
<tr>
<td><strong>Opioid Dependence (COR-12)</strong></td>
<td>10.3</td>
<td>6.2</td>
<td>5.3</td>
</tr>
<tr>
<td>COR-12 No Meds</td>
<td>7.5</td>
<td>3.3</td>
<td>5.9</td>
</tr>
<tr>
<td>COR-12 Buprenorphine</td>
<td>17.1</td>
<td>0.0</td>
<td>5.7</td>
</tr>
<tr>
<td>COR-12 ER Naltrexone</td>
<td>8.3</td>
<td>12.3</td>
<td>4.3</td>
</tr>
</tbody>
</table>
So this is how he knows if we’ve been bad or good!…”
Opioid Use Disorders: Risks and Treatment

You Can Save Lives!
1. Reduces overdose deaths.
2. No evidence for increase in opioid use or overdoses.
4. Effect lasts 30 – 60 min. – need to continue to watch them for recurrence of overdose symptoms.
Effects of Naloxone
- Opioid Receptor Blocker -

Heroin or other opiate

Coma, no breathing

Overdose Reversed
San Francisco Heroin Overdose Deaths After Naloxone

From Phillip Coffin, MD, MIA, Director of Substance Use Research San Francisco Dept. of Public Health

- Heroin Deaths: 120
  - 2000: 160
  - 2012: 10 per year
- Naloxone Distribution: 1200
Naloxone was successful in 98% (150/153) of rescue attempts. Most rescue attempts occurred in private settings. The rescuer and the person who overdosed were usually friends.

<table>
<thead>
<tr>
<th>Cumulative enrollments (per 100,000 population)</th>
<th>ARR*</th>
<th>(95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No enrollment</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>1-100</td>
<td>0.73</td>
<td>0.57-0.91</td>
</tr>
<tr>
<td>&gt;100</td>
<td>0.54</td>
<td>0.39-0.76</td>
</tr>
</tbody>
</table>

*Adjusted rate ratios

Risk Factors for Opioid Overdose

Clients at potentially higher risk

- Using > 100 mg morphine equivalents per day
- Having 4 or more prescribers
- Switching opiates or route of administration
- Previous opioid dependent clients with low tolerance
  - after being in treatment or incarcerated
  - after being on Vivitrol
- Illicit use of methadone or buprenorphine
- Use of opioids with alcohol or benzodiazepines
- Intermittent, or binge use
- Public subsidy income
- Older age
- Tobacco smoking
- Hx of previous overdose
Signs of Opiate Overmedication

- Sleepy or drowsy, but arousable
- Mental confusion, slurred speech, intoxicated behavior
- Slow or shallow breathing
- Pinpoint pupils
- Slow or weak pulse

May progress to overdose
Signs of Opioid Overdose

- Pale and/or clammy.
- Body is limp.
- Fingernails or lips have a blue or purplish cast.
- The patient is vomiting or making gurgling noises.
- Can’t be awakened or aroused.
- Breathing is very slow or stopped.
- Heartbeat is very slow or stopped.

May result in death if not treated quickly!
Intranasal Naloxone (Narcan)

2 mg/2 ml
Cost ~ $57/ 2 doses

1. CALL 911

2. RESCUE BREATHING

3. GIVE NARCAN

HOW TO GIVE NASAL SPRAY NARCAN

1. Pull or pry off yellow caps

2. Pry off red cap

3. Grip clear plastic wings

4. Screw capsule of naloxone into barrel of syringe

5. Insert white cone into nostril, give a short, vigorous push on end of capsule to spray naloxone into nose: one half of the capsule into each nostril.

6. If no reaction in 2-5 minutes, give the second dose.
Commercially Available Intranasal Narcan Spray – Adapt Pharma

4 mg/ 0.1 ml

Cost ~ $120/ 2 doses
Naloxone Auto-injector
- for intramuscular/subq injection

Cost ~ $600
Narcan for Opioid Overdoses

1. Most states allow prescribing for patient, family or friend.
2. “Good Samaritan” laws protect those who give it
3. Many states do not prosecute for possesson, if 911 called for OD.
4. Recently some pharmacies have made naloxone available without prescription in 14 states (including MN).

http://www.csam-asam.org/naloxone-resources
http://harmreduction.org/issues/overdose-prevention/
Thank you for your attention!