Disclosures

- No conflicts of interest.
Can Prescription Pain Meds Kill?

Felix Pham, PharmD, BCPS, BCCCP | Pharmacy Clinical Supervisor | Torrance Memorial Medical Center

Peer Reviewed by:
Tammy Ginder, PharmD
Steven Thompson, PharmD
Dr. Adam Weitzman
Wednesday, February 22, 2017
Overview

- Prescription Pain Meds – Opioids
- Opioid Epidemic
- What Addiction Looks Like
RELATING HEROIN AND OPIOIDS
Pain Meds

- **Medication Names**
  - Norco®, Vicodin® (hydrocodone/acetaminophen)
  - Percocet® (oxycodone/acetaminophen)
  - OxyContin® (oxycodone extended release)
  - Duragesic® (fentanyl transdermal)
  - Dilaudid® (hydromorphone)
  - Tylenol #3® (acetaminophen/codeine)
  - Phenergan VC® (promethazine/codeine)

- **Common reasons for using these medications**
  - Lower back pain
  - Post-surgical pain
  - Major dental surgery
  - Common cold symptoms
Beginnings of Opioids

- Before modern medicine, morphine was widely used as a remedy for an array of ailments
  - Cholera, tuberculosis, pain relief, menstrual pain, capitol punishment, etc.
- The substance was addictive and war time soldiers who became dependent were known to have “Soldier’s Disease”
HEROIN

- Charles Romley Adler Wright (1844-1894) experimented with the morphine molecule in attempt to make a less addicting substance
  - Diamorphine also known as Heroin
- In 1888, Bayer Laboratories marketed heroin as a pain reliever, sedative, and cough suppressant
The Arrival of Opioids

- In 1952, Dr. Marshall D. Gates Jr. of Harvard University introduced the world to the total synthesis of morphine – the modern day opioid.
SYNTHETIC OPIOIDS

Drugs

HEROIN

Similarity
THE OPIOID EPIDEMIC

EPIDEMIC:
RESPONDING TO AMERICA'S
PRESCRIPTION
DRUG ABUSE CRISIS

2011
National Overdose Deaths
Number of Deaths from Prescription Drugs

Source: National Center for Health Statistics, CDC Wonder
Sources of prescription painkillers among past-year non-medical users

Number of Days of Past-Year Non-Medical Use

- Given by a friend or relative for free
- Prescribed by ≥1 physicians
- Stolen from a friend or relative
- Bought from a friend or relative
- Bought from a drug dealer or other stranger
- Other

Percent of Users

Any 1-29 30-99 100-199 200-365

Obtained from the US National Survey on Drug Use and Health, 2008 through 2011.5

Estimate is statistically significantly different from that for highest-frequency users (200-365 days) (P < .05).

Includes written fake prescriptions and those opioids stolen from a physician’s office, clinic, hospital, or pharmacy; purchases on the Internet; and obtained some other way.

### Heroin Use Has INCREASED Among Most Demographic Groups

<table>
<thead>
<tr>
<th>SEX</th>
<th>2002-2004*</th>
<th>2011-2013*</th>
<th>% CHANGE</th>
</tr>
</thead>
<tbody>
<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>
</tbody>
</table>

### Age, Years

<table>
<thead>
<tr>
<th>Age Group</th>
<th>2002-2004*</th>
<th>2011-2013*</th>
<th>% CHANGE</th>
</tr>
</thead>
<tbody>
<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>
</tbody>
</table>

### Race/Ethnicity

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>2002-2004*</th>
<th>2011-2013*</th>
<th>% CHANGE</th>
</tr>
</thead>
<tbody>
<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>
</tbody>
</table>

### Annual Household Income

<table>
<thead>
<tr>
<th>Income Level</th>
<th>2002-2004*</th>
<th>2011-2013*</th>
<th>% CHANGE</th>
</tr>
</thead>
<tbody>
<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>
</tbody>
</table>

### Health Insurance Coverage

<table>
<thead>
<tr>
<th>Insurance Coverage</th>
<th>2002-2004*</th>
<th>2011-2013*</th>
<th>% CHANGE</th>
</tr>
</thead>
<tbody>
<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>

### Sources

- National Survey on Drug Use and Health (NSDUH), 2002-2013.
Monitoring the Future Study: Trends in Prevalence of Various Drugs for 8th Graders, 10th Graders, and 12th Graders; 2016 (in percent)*

<table>
<thead>
<tr>
<th>Drug</th>
<th>Time Period</th>
<th>8th Graders</th>
<th>10th Graders</th>
<th>12th Graders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vicodin</td>
<td>Past Year</td>
<td>0.80</td>
<td>1.70</td>
<td>[2.90]</td>
</tr>
<tr>
<td>OxyContin</td>
<td>Past Year</td>
<td>0.90</td>
<td>2.10</td>
<td>3.40</td>
</tr>
</tbody>
</table>

* Data in brackets indicate statistically significant change from the previous year.
A Typical Opioid Story

**Initial Use**
- A person will use opioids for medical reasons prescribed by a Physician
- A person may feel safe to misuse the medication outside of how it is being prescribed

**Availability**
- The drug becomes readily available through different resources by either a medical physician or by a loved one

**Traumatic Event**
- A traumatic incident enables the person to increase their opioid use justifiably
- There is a lack of a clear plan of discontinuation or weaning
A Typical Opioid Story

Dependency
- Often a gradual process
- Periods of opioid free time will convince the user that they can overcome cravings and addiction

Withdrawal
- When dependency is at its worse, interventions by family or healthcare providers to restrict opioid therapy after addiction has set in
- Without help or supportive care, heroin becomes available to the user

Resource limitations
- The user is restricted to use due to unsafe practices
- Drug seeking behavior overwhelms the current healthcare infrastructure
- The user turns to the street
An Opioid Story

- Two friends from Palos Verdes
- Non-hispanic white females between the ages of 18 to 25 across all household incomes and health insurance coverage
  - Putting a faces to the statistics
- A reminder that we are NOT IMMUNE to the hazards of opioid pain prescriptions that infect our community
References