The Prescription Opioid and Heroin Crisis: An Epidemic of Addiction

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The Opium Poppy
Papaver Somniferum
Opium
Opioids

- Morphine
- Codeine
- Thebaine
- Diacetylmorphine (Heroin)
- Hydrocodone (Vicodin)
- Oxycodone (Oxycontin)
- Oxymorphone (Opana)
- Hydromorphone (Dilaudid)

Naturally occurring opioids—also called opiates

Semi-synthetic opioids
Unintentional Drug Overdose Deaths
United States, 1970–2007

43,982 drug overdose deaths in 2013

Drug Overdose Deaths by Major Drug Type, United States, 1999–2010

Opioid Related Overdose Deaths
United States, 1999-2013

Heroin admissions, by age group & race/ethnicity: 2001-2011

Figure 21. Heroin admissions aged 12 and older, by age group and race/ethnicity: 2001-2011

NON-HISPANIC WHITE

NON-HISPANIC BLACK

Percent of all heroin admissions aged 12 and over

SOURCE: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, Treatment Episode Data Set (TEDS). Data received through 10.10.11.
Death rates from overdoses of heroin or prescription opioid pain relievers (OPRs), by age group

Primary non-heroine opiate/synthetics admission rates, by State (per 100,000 population aged 12 and over)

1999
(range 1 - 50)

SOURCE: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, Treatment Episode Data Set (TEDS). Data received through 11.03.10.
Primary non-heroin opiates/synthetics admission rates, by State (per 100,000 population aged 12 and over)

2001
(range 1 – 71)

SOURCE: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, Treatment Episode Data Set (TEDS). Data received through 11.03.10.
Primary non-heroine opiates/synthetics admission rates, by State (per 100,000 population aged 12 and over)

2003
(range 2 – 139)

SOURCE: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, Treatment Episode Data Set (TEDS). Data received through 11.03.10.
Primary non-heroine opiates/synthetics admission rates, by State (per 100,000 population aged 12 and over)

2005
(range 0 – 214)

SOURCE: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, Treatment Episode Data Set (TEDS). Data received through 11.03.10.
Primary non-heroine opiates/synthetics admission rates, by State (per 100,000 population aged 12 and over)

2007
(range 1 – 340)

SOURCE: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, Treatment Episode Data Set (TEDS). Data received through 11.03.10.
Primary non-heroine opiates/synthetics admission rates, by State (per 100,000 population aged 12 and over)

2009
(range 1 – 379)

SOURCE: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, Treatment Episode Data Set (TEDS). Data received through 11.03.10.
Non-heroin opioid admissions, by gender, age, race/ethnicity: 2011

Source: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, Treatment Episode Data Set (TEDS). Data received through 10.10.11.
Unintentional overdose deaths involving opioid analgesics parallel per capita sales of opioid analgesics in morphine equivalents by year, U.S., 1997-2007

Source: National Vital Statistics System, multiple cause of death dataset, and DEA ARCOS
* 2007 opioid sales figure is preliminary.
Rates of Opioid Sales, OD Deaths, and Treatment, 1999–2010

CDC. MMWR 2011
New York Consumption of Oxycodone
1980 - 2006

Sources: U.S. Dept of Justice, Drug Enforcement Administration, Office of Diversion Control
New York Consumption of Hydrocodone
1980 - 2006

Sources: U.S. Dept of Justice, Drug Enforcement Administration, Office of Diversion Control
Dollars Spent Marketing OxyContin (1996-2001)

Figure 1: Promotional Spending for Three Opioid Analgesics in First 6 Years of Sales

Absolute dollars in millions

Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6

- MS Contin: 1984-1989
- OxyContin: 1996-2001

### Table 2: Total OxyContin Sales and Prescriptions for 1996 through 2002 with Percentage Increases from Year to Year

<table>
<thead>
<tr>
<th>Year</th>
<th>Sales</th>
<th>Percentage increase</th>
<th>Number of prescriptions</th>
<th>Percentage increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>$44,790,000</td>
<td>N/A</td>
<td>316,786</td>
<td>N/A</td>
</tr>
<tr>
<td>1997</td>
<td>125,464,000</td>
<td>180</td>
<td>924,375</td>
<td>192</td>
</tr>
<tr>
<td>1998</td>
<td>286,486,000</td>
<td>128</td>
<td>1,910,944</td>
<td>107</td>
</tr>
<tr>
<td>1999</td>
<td>555,239,000</td>
<td>94</td>
<td>3,504,827</td>
<td>83</td>
</tr>
<tr>
<td>2000</td>
<td>981,643,000</td>
<td>77</td>
<td>5,932,981</td>
<td>69</td>
</tr>
<tr>
<td>2001</td>
<td>1,354,717,000</td>
<td>38</td>
<td>7,183,327</td>
<td>21</td>
</tr>
<tr>
<td>2002</td>
<td>1,536,816,000</td>
<td>13</td>
<td>7,234,204</td>
<td>7</td>
</tr>
</tbody>
</table>
Industry-funded “education” emphasizes:

- Opioid addiction is rare in pain patients.
- Physicians are needlessly allowing patients to suffer because of “opiophobia.”
- Opioids are safe and effective for chronic pain.
- Opioid therapy can be easily discontinued.
Industry-funded organizations campaigned for greater use of opioids

- Pain Patient Groups
- Professional Societies
- The Joint Commission
- The Federation of State Medical Boards
“The risk of addiction is much less than 1%”


Cited 824 times (Google Scholar)
ADDICTION RARE IN PATIENTS TREATED WITH NARCOTICS

To the Editor: Recently, we examined our current files to determine the incidence of narcotic addiction in 39,946 hospitalized medical patients who were monitored consecutively. Although there were 11,882 patients who received at least one narcotic preparation, there were only four cases of reasonably well documented addiction in patients who had no history of addiction. The addiction was considered major in only one instance. The drugs implicated were meperidine in two patients, Percodan in one, and hydromorphone in one. We conclude that despite widespread use of narcotic drugs in hospitals, the development of addiction is rare in medical patients with no history of addiction.

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Long-term Opioid Treatment of Nonmalignant Pain
A Believer Loses His Faith

Annals of Internal Medicine

Chronic Noncancer Pain Management and Opioid Overdose: Time to Change Prescribing Practices

Facing up to the prescription opioid crisis
Deaths resulting from prescription opioids tripled in the United States between 1999 and 2007 and are also increasing in many other countries, including the United Kingdom. Irfan A Dhall, Navindra Persaud, and David N Juurlink describe how this situation developed and propose several ways to reduce morbidity and mortality from opioids.

Annals of Internal Medicine

Long-Term Opioid Therapy Reconsidered
Michael Ringhoff, MD; Andreas Huland, MD; Richard A. Dava, MD, MPH; and Peter Cloes, MD

The NEW ENGLAND JOURNAL of MEDICINE

A Flood of Opioids, a Rising Tide of Deaths
Susan Okie, M.D.

JAMA®
The Journal of the American Medical Association

Viewpoint
Patient Satisfaction, Prescription Drug Abuse, and Potential Unintended Consequences
Aleksandra Zgierska, MD, PhD; Michael Miller, MD; David Rabago, MD
“I think that after 20 years of a failed experiment that there are not many people supporting this except for the die-hards and the pharmaceutical industry.”

Jane C. Ballantyne, MD FRCA
Professor, Univ. of Washington

The Emperor’s New Paradigm:
Patient Selection, Risk Stratification & Monitoring
Urine Tox Results in Chronic Pain Patients on Opioid Therapy

Controlling the epidemic: A Three-pronged Approach

- **Prevent** new cases of opioid addiction.

- **Treatment** for people who are already addicted

- **Supply control** - Reduce over-prescribing and black-market availability.
How the opioid lobby frames the problem:

Who Will Be Affected by Rescheduling?

Source: Slide presented by Lynn R. Webster MD at FDA meeting on hydrocodone up-scheduling, January 25th, 2013.
Non-medical use (abuse) of painkillers declining since 2002

Figure 3
First-time nonmedical use of pain relievers. Source: 64, 70.

Figure 4

(a) Past month nonmedical OPR use by age versus (b) OPR-related unintentional overdose deaths by age. Abbreviation: OPR, opioid pain reliever. Sources: 58, 68.

This is a **false dichotomy**
Aberrant drug use behaviors are common in pain patients

63% admitted to using opioids for purposes other than pain\(^1\)

Pain Patients
35% met DSM V criteria for addiction\(^2\)

92% of opioid OD decedents were prescribed opioids for chronic pain.

“Drug Abusers”

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Summary

• The United States is in the midst of the worst drug epidemic in its history.

• Ending the epidemic requires:
  – PREVENTING new cases of opioid addiction
  – TREATMENT for people who are already addicted