pain and the poppy
emergency care during an addiction epidemic
OD is #1 cause of death of Americans under age 50
opioid use now exceeds tobacco use
life expectancy for Americans is falling, two years in a row
For every 1 opioid overdose death in 2010 there were...

- 15 abuse treatment admissions
- 26 emergency room visits
- 115 who abuse/are dependent
- 733 nonmedical users

$4,350,000 in healthcare-related costs
Sharp increases in opioid prescribing coincides with sharp increases in Rx opioid deaths

Opioid Sales (kg per 10k)

Rx Opioid Deaths (per 100k)

National Vital Statistics System, DEA’s Automation of Reports and Consolidated Orders System.
Prescriptions for opioid analgesics in the US increased by **700%** between 1997 and 2007
### Top medicines by prescriptions

<table>
<thead>
<tr>
<th>Dispensed prescriptions Mn</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total U.S. market</strong></td>
<td>3,953</td>
<td>3,995</td>
<td>4,022</td>
<td>4,139</td>
<td>4,208</td>
</tr>
<tr>
<td>1 acetaminophen/hydrocodone</td>
<td>129.4</td>
<td>132.1</td>
<td>136.7</td>
<td>136.4</td>
<td>129.2</td>
</tr>
<tr>
<td>2 levothyroxine</td>
<td>100.2</td>
<td>103.2</td>
<td>104.7</td>
<td>112.2</td>
<td>115.2</td>
</tr>
<tr>
<td>3 lisinopril</td>
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<td>87.6</td>
<td>88.8</td>
<td>99.1</td>
<td>101.5</td>
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<td>4 metoprolol</td>
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<td>76.6</td>
<td>76.3</td>
<td>82.6</td>
<td>83.9</td>
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<tr>
<td>5 simvastatin</td>
<td>84.1</td>
<td>94.4</td>
<td>96.8</td>
<td>89.3</td>
<td>79.1</td>
</tr>
<tr>
<td>6 amlodipine</td>
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<td>57.8</td>
<td>62.5</td>
<td>69.1</td>
<td>74.0</td>
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<tr>
<td>7 metformin</td>
<td>53.8</td>
<td>57.0</td>
<td>59.1</td>
<td>67.8</td>
<td>72.8</td>
</tr>
<tr>
<td>8 omeprazole</td>
<td>45.6</td>
<td>53.5</td>
<td>59.4</td>
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<td>70.7</td>
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<td>9 atorvastatin</td>
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<td>45.3</td>
<td>43.3</td>
<td>55.5</td>
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<tr>
<td>10 albuterol</td>
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<td>55.1</td>
<td>56.9</td>
<td>61.2</td>
<td>63.5</td>
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<tr>
<td>11 amoxicillin</td>
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<td>52.4</td>
<td>53.8</td>
<td>52.8</td>
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<tr>
<td>12 hydrochlorothiazide</td>
<td>47.9</td>
<td>47.8</td>
<td>48.1</td>
<td>51.2</td>
<td>50.2</td>
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<tr>
<td>13 alprazolam</td>
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<td>49.1</td>
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<td>49.6</td>
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<td>48.6</td>
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<td>38.4</td>
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<td>16 furosemide</td>
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<td>43.6</td>
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<td>44.1</td>
<td>45.0</td>
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<tr>
<td>17 gabapentin</td>
<td>25.7</td>
<td>29.6</td>
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<td>43.7</td>
<td>44.6</td>
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<td>33.7</td>
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<tr>
<td>23 acetaminophen/oxydodone</td>
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<td>38.8</td>
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<td>35.9</td>
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<tr>
<td>24 ibuprofen</td>
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<td>31.1</td>
<td>32.6</td>
<td>34.2</td>
<td>35.1</td>
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<tr>
<td>25 pravastatin</td>
<td>17.2</td>
<td>20.2</td>
<td>23.9</td>
<td>33.3</td>
<td>34.7</td>
</tr>
</tbody>
</table>

*Source: IMS Health, National Prescription Audit, Dec 2013*

900% increase in prescription opioid addiction treatment between 1997 and 2011
why do we prescribe so much?
In Guilty Plea, OxyContin Maker to Pay $600 Million

ABINGDON, Va., May 10 — The company that makes the narcotic painkiller OxyContin and three current and former executives pleaded guilty today in federal court here to criminal charges that they misled regulators, doctors and patients about the drug’s risk of addiction and its potential to be abused.

By BARRY MEIER
Published: May 10, 2007
“the war on pain”

A Pain-Drug Champion Has Second Thoughts

By THOMAS CATAN and EVAN PEREZ

It has been his life’s work. Now, Russell Portenoy appears to be having second thoughts.
a generation of physicians taught that pain is under-treated and that treating pain with opioids is safe
there is an epidemic of untreated pain
opiophobia is an uninformed aversion to using opioids
pain is a vital sign
pseudoaddiction is legitimate pain disguised as addiction
pain score zero is the goal
opioids are effective in chronic non-cancer pain
addiction cannot come from treating pain
it is better to over-treat than to under-treat pain
high dose opioids are safe
always assume a patient claiming pain is in pain
oral opioids don’t cause respiratory depression
When I was in medical school, I was told, if you give opiates to a patient who's in pain, they will not get addicted. Completely wrong. Completely wrong. But a generation of doctors, a generation of us grew up being trained that these drugs aren't risky. In fact, they are risky.

Thomas Frieden
Former Director, CDC
Emergency Medicine In An Epidemic

prescribing
- dose, duration
- abuse liability
- harms counseling

street opioids
- psychiatric disease
- social isolation
- economic hardship
- genetic predisposition

opioid exposure

misuse / addiction
- addiction harms
- social harms
- acquisition harms
- injection/inhalation harms
- overdose
- withdrawal

addiction treatment & harm reduction
- methadone / suboxone
- take home naloxone
- prescription heroin
- needle exchange
- safe use counseling
- referral to specialized addiction care
Emergency Medicine In An Epidemic

prescribing

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street opioids

psychiatric disease
social isolation
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opioid naive patients

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addiction cannot come from treating pain"

it is better to over-treat than to under-treat pain
high dose opioids are safe
always assume a patient claiming pain is in pain
oral opioids don't cause respiratory depression

“addiction cannot come from treating pain”
harm in the rearview mirror
changing your practice might mean admitting that your prior practice caused harm
Opioid naive patients who receive a prescription for acute pain are more likely to be using opioids long beyond their expected duration of pain.
Opioid-Prescribing Patterns of Emergency Physicians and Risk of Long-Term Use

Michael L. Barnett, M.D., Andrew R. Olencki, B.S.,
and Anupam B. Jena, M.D., Ph.D.

A

Percent of Emergency Department Visits with an Opioid Prescription

Prescriber Quartile

B

Odds Ratio for Long-Term Opioid Use

NNH: 48
TO THE EDITOR: Barnett et al. (Feb. 16 issue) affirm a key hypothesis: seemingly random clinical exposure to opioids facilitates long-term use, at least among Medicare patients. Without careful inspection, readers may incorrectly interpret this finding to suggest that emergency physicians are key drivers of the opioid epidemic. Nationally, emergency department encounters account for only 5% of all opioids prescribed, even though they constitute more than 10% of all ambulatory visits.

This study shows that the risk of long-term opioid use after treatment in an emergency department by a “high-intensity prescriber” is small at 1.51%, as compared with a 1.16% risk associated with treatment by a “low-intensity prescriber.” Together these data suggest that interventions in the emergency department to reduce prescribing have a low potential to reduce long-term opioid use. Furthermore, the study is seriously limited, since it does not and cannot compare this effect size against that of providers in other clinical settings where high-dose and long-term opioid prescribing is much more prevalent (e.g., office-based practices that account for >84% of opioid prescriptions).

Understanding this crucial limitation is key to ensuring that policies do not unjustly focus on opioid prescribing in emergency departments, but rather target the problem of overprescribing of opioids in a comprehensive, multidisciplinary manner.

Michael Menchine, M.D., M.P.H.
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menchine@usc.edu

Bory Kea, M.D.
Oregon Health and Science University
Portland, OR

No potential conflict of interest relevant to this letter was reported.


DOI: 10.1056/NEJMec1703338
“Interventions focused on reducing opioid prescriptions in the episodic care setting are unlikely to yield important reductions in the prescription opioid supply”

HEALTH POLICY/BRIEF RESEARCH REPORT

The Supply of Prescription Opioids: Contributions of Episodic-Care Prescribers and High-Quantity Prescribers

...further efforts to reduce the quantity of opioids prescribed may have limited effect in the ED and should focus on office-based settings”
EM is a high prescriber in all age groups <40

the first opioid prescription often comes from the ED
Emergency Medicine In An Epidemic

prescribing

opioid exposure

dose, duration
abuse liability
harm counseling

street opioids

psychiatric disease
social isolation
economic hardship
genetic predisposition

misuse / addiction

addiction harms
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addiction treatment &
harm reduction
methadone / suboxone
take home naloxone
prescription heroin
needle exchange
safe use counseling
referral to specialized addiction care
Doubling of ED opioid Rx between 2000 and 2010

Table 3
Trends in treatment of non-malignant pain among ED visits in the United States, 2000 to 2010*

<table>
<thead>
<tr>
<th></th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
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</thead>
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<tr>
<td>All pain visits**</td>
<td>55.7</td>
<td>58.7</td>
<td>62.2</td>
<td>63.1</td>
<td>65.9</td>
<td>65.6</td>
<td>66.0</td>
<td>67.2</td>
<td>68.9</td>
<td>68.5</td>
<td>70.5</td>
</tr>
</tbody>
</table>
| Treated with pharmaco
terapies***            |      |      |      |      |      |      |      |      |      |      |      |
| No pharmaco
terapies       | 44.3 | 41.3 | 37.9 | 36.9 | 34.1 | 34.4 | 34.0 | 32.8 | 31.1 | 31.5 | 29.5 |
| Visits treated with opioids† | 27.4 | 29.9 | 34.3 | 36.4 | 38.1 | 40.6 | 42.2 | 43.9 | 45.9 | 46.3 | 48.9 |
| Fixed-dose combination visits | 22.1 | 24.3 | 26.9 | 26.9 | 27.5 | 29.1 | 28.9 | 29.0 | 29.7 | 30.4 | 30.5 |
| Opioid only visits†  | 6.9  | 7.0  | 10.2 | 12.8 | 15.0 | 16.7 | 19.0 | 21.7 | 23.2 | 23.7 | 26.8 |
| NSAIDs visits†       | 9.1  | 10.2 | 12.1 | 12.1 | 12.4 | 13.9 | 14.0 | 13.9 | 15.1 | 14.9 | 16.8 |
| Acetaminophen visits | 0.9  | 1.1  | 1.2  | 1.3  | 1.8  | 1.7  | 1.7  | 1.9  | 1.9  | 1.9  | 1.8  |
| Adjunctive treatment visits | 3.6  | 4.4  | 4.9  | 5.3  | 6.0  | 5.5  | 6.5  | 6.8  | 7.2  | 7.4  | 8.2  |
| Visits treated with non-opioids only† | 28.2 | 28.8 | 27.8 | 26.7 | 27.8 | 25.1 | 23.8 | 23.3 | 23.0 | 22.3 | 21.6 |
| NSAIDs visits        | 20.9 | 21.9 | 21.9 | 20.7 | 21.6 | 19.6 | 18.5 | 18.3 | 18.1 | 17.5 | 16.8 |
| Acetaminophen visits | 6.5  | 6.0  | 5.4  | 5.4  | 6.2  | 5.0  | 5.0  | 4.9  | 5.0  | 4.6  | 4.4  |
| Adjunctive treatment visits | 5.5  | 5.8  | 5.8  | 5.2  | 5.5  | 5.5  | 4.3  | 4.8  | 4.5  | 4.5  | 5.0  |
| Pain visits by therapy |      |      |      |      |      |      |      |      |      |      |      |
| Opioid (millions), N | 9.6  | 10.7 | 12.2 | 13.4 | 14.1 | 15.6 | 17.6 | 18.2 | 19.7 | 22.0 | 23.6 |
| Non-opioids only (millions), N | 9.9  | 10.3 | 9.8  | 9.8  | 10.3 | 9.7  | 9.9  | 9.7  | 9.9  | 10.6 | 10.4 |
| No pharmaco
terapies (millions), N | 15.5 | 14.7 | 13.4 | 13.6 | 12.6 | 13.2 | 14.2 | 13.6 | 13.4 | 15.0 | 14.2 |
| All pain visits (millions), N** | 35.0 | 35.7 | 35.4 | 36.9 | 37.0 | 38.5 | 41.7 | 41.5 | 42.9 | 47.6 | 48.2 |

Source: National Hospital Ambulatory Medical Care Survey, 2000 to 2010.

1 in 6 ED patients is discharged with a prescription for opioids
most patients currently discharged with opioids do not need them

<table>
<thead>
<tr>
<th>TABLE 3. Comparison of Narcotics Prescription Between Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td><strong>American</strong></td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>Hip fractures</td>
</tr>
<tr>
<td>Inpatient</td>
</tr>
<tr>
<td><strong>Outpatient</strong></td>
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<tr>
<td>Ankle fractures</td>
</tr>
<tr>
<td>Inpatient</td>
</tr>
<tr>
<td>Outpatient</td>
</tr>
</tbody>
</table>
chasing zero pain

function

chance of harm

10  pain  0

Thackeray 2017
My job is to manage your pain at the same time that I manage the potential for pain medications to harm you.
prescribing EM opioid exposure benefit:harm

amelioration of suffering from pain immediate harms long term use / misuse harms

risk factors for misuse in opioid naive patients
existing substance use—including alcohol and tobacco
psychiatric disease
social isolation, disability
adolescents and young adults
prescribing opioid exposure
dose, duration
“...the likelihood of long-term opioid use increases with greater prescribed cumulative doses and with each additional day of prescribed opioid medication beyond the third day.”
acute physical dependence can develop within days and causes withdrawal symptoms that are often mistaken for ongoing discomfort from injury/illness, which is relieved by more opioids, possibly initiating long term use.

Adina Weinerman

It happened to me. 6 years ago. After my tib/fib fracture. On opioids for 3 days post-op and withdrew after my last dose. I couldn't believe it.

David Juurlink

I've seen many patients over the years with mild to moderate withdrawal after short-term opioids (3-7 days). Entirely plausible.
EM

prescribing

dose, duration

opioid exposure

3 days and flush
Association between Electronic Medical Record Implementation of Default Opioid Prescription Quantities and Prescribing Behavior in Two Emergency Departments

M. Kit Delgado, MD, MS, FACEP¹,²,³,⁴, Frances S. Shofer, PhD⁵, Mitesh S. Patel, MD, MBA, MS³,⁵, Scott Halpern, MD, PhD²,³,⁵,⁶, Christopher Edwards, MD⁵, Zachary F. Meisel, MD, MSHP¹,⁴, and Jeanmarie Perrone, MD⁵

Median number of opioid tablets dispensed in weeks before and after implementation of EMR discharge order default of 10 tablets, vs. no default
<table>
<thead>
<tr>
<th></th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>Jul</th>
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</thead>
<tbody>
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<td>A</td>
<td>17.9%</td>
<td>20.0%</td>
<td>11.1%</td>
<td>4.5%</td>
<td>21.0%</td>
<td>4.5%</td>
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<td>B</td>
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% of Opioid Rx for patients who got Rx (by supervising attending)
physicians don’t follow instructions but will follow the group and follow the path of least resistance, use systems to encourage best practice
ditch percocet and vicodin

Immediate Release Morphine Sulfate (MSIR)
15 mg tabs
1 tab q4-6h prn pain
disp #9
prescribing opioid exposure

EM

dose, duration
abuse liability
harms counseling
Opioid Harms

constipation, nausea, itching
dysphoria, confusion, falls, occupational dysfunction, traffic accidents
lethargy and respiratory depression
imunosuppression

**acute physical dependence** can develop within days and causes withdrawal symptoms that are often mistaken for ongoing discomfort from injury/illness, which is relieved by more opioids, possibly initiating long term use.

most patients prescribed opioids for acute pain will not develop addiction and other forms of **misuse**, but those who do suffer tremendous, often life-limiting harm. people with existing substance use (including alcohol and nicotine), psychiatric disease, and social hardships are at particular risk.

at the same time that opioids treat pain, they sensitize patients to pain. **opioid-induced hyperalgesia** may occur within one week and may be difficult to distinguish from ongoing/worsening pain from the underlying stimulus.

extra opioid pills are often not discarded and may cause **community harms** by recreational or accidental ingestion. be especially cautious prescribing to patients with children or teenagers at home.
example: broken wrist

implement optimal non-opioid and non-pharmacologic analgesia

consider local/regional anesthetic

calculate the likelihood of benefit and harm if opioid script is added
example: broken wrist

implement optimal non-opioid and non-pharmacologic analgesia

calculate the likelihood of benefit and harm if opioid script is added

set expectations: goal is not zero pain

if it’s reasonable to offer opioid Rx, discuss benefits and harms with patient

if patient wishes to have opioid Rx, prescribe 3 days of MSIR
Emergency Medicine In An Epidemic

the emergency room is where opioid-harmed patients are

prescribing

street opioids

opioid exposure

dose, duration
abuse liability
harms counseling

psychiatric disease
social isolation
economic hardship
genetic predisposition

misuse/addiction

addiction harms
social harms
acquisition harms
injection/inhalation harms
overdose
withdrawal

addiction treatment & harm reduction
methadone/suboxone
take home naloxone
prescription heroin
needle exchange
safe use counseling
referral to specialized addiction care
the usual course of opioid addiction

1999
Explosion of opioid prescriptions
Explosion of opioid addiction

2010
Explosion of heroin abuse and mortality

2013
Explosion of illicitly manufactured fentanyl and IMF mortality
withdrawal is hell on earth

My relationship to OxyContin began in Berlin. It was originally prescribed for surgery. Though I took it as directed I got addicted overnight. It was the cleanest drug I’d ever met. In the beginning, forty milligrams was too strong but as my habit grew there was never enough. At first, I could maintain. Then it got messier and messier. I worked the medical field in Berlin for scripts. When they shut me out I turned to FedEx. That worked until it didn’t.

I returned to New York. My dealer never ran out of Oxy and delivered 24/7. I went from three pills a day, as prescribed, to eighteen. I got a private endowment and spent it all. Like all opiate addicts my crippling fear of withdrawal was my guiding force.

I didn’t get high, but I couldn’t get sick. My life revolved entirely around getting and using Oxy. Counting and recounting, crushing and snorting was my full-time job. I rarely left the house. It was as if I was Locked-In. All work, all friendships, all news took place on my bed. When I ran out of money for Oxy I copped dope. I ended up snorting fentanyl and I overdosed. I wanted to get clean, but I waited a year to go into treatment because of my fear of withdrawal.
opioid induced hyperalgesia

seconds of exposure to heated surface prior to paw withdrawal

infusion discontinued

Brush 2012
Angst 2006

analgesia
hyperalgesia

tolerance

Control

Opioid Infusion
opiod hyperalgesia

when subject starts to feel pain
when subject can no longer stand the pain and removes hand from water

arm in icewater

seconds

Control
Methadone
in chronic pain and addiction opioids provide temporary relief of symptoms but make the problem worse
misuse

abuse

addiction

chronic pain
Opioids more likely to harm than benefit

misuse

abuse

addiction

chronic pain

Ashworth 2013
Chou 2014
LeResche 2015
Dowell 2016
how revealed is your patient’s opioid misuse, and how willing is your patient to enter into addiction treatment?

“I’m an addict, I want help”
“I overdosed”
“I have chronic pain and need meds”
“I have acute pain and need meds”
how revealed is your patient’s addiction, and how willing is your patient to enter into addiction treatment?

“I’m an addict, I want help”

“I overdosed”

“I have chronic pain and need meds”

“I have acute pain and need meds”
MAT: medication assisted therapy is the best treatment for opioid addiction. Abstinence does not work. Naltrexone, methadone, buprenorphine.
MAT: medication assisted therapy

naltrexone

monthly depot opioid antagonist
abstinence therapy
withdrawal cravings
MAT: medication assisted therapy

methadone

long-acting full opioid agonist

effective but dangerous

daily engagement sometimes a plus
   but usually a minus
MAT: medication assisted therapy

buprenorphine

partial opioid agonist

ceiling effect (=much safer), less euphoriant

higher receptor affinity than almost any other opioid

will precipitate withdrawal if not in withdrawal

prevents more euphoriant opioids from working

bup is uniquely suited to treat opioid addiction: less dangerous, less abuse-prone vs. methadone, more likely to abolish craving, protects users from OD by more dangerous opioids
MAT: medication assisted therapy

**buprenorphine**

Naloxone additive (Suboxone) is inert unless injected. Naloxone component only prevents IV abuse.

- Slow acting & long-acting
  - Reduces abuse potential
  - Ceiling effect = long dosing intervals

Everyone can use buprenorphine to treat withdrawal, but an X-waiver is required to prescribe for addiction.
in 1996, France responded to its heroin overdose epidemic by training/licensing GP’s to prescribe buprenorphine

[Graph showing changes in heroin overdoses and patients treated from 1988 to 2004, with a peak in 1996 and a decline thereafter.]
Heroin overdose deaths and opioid agonist treatment
Baltimore, MD, 1995–2009

- Heroin overdoses
- Buprenorphine patients
- Methadone patients
1-year retention in treatment was 75% and 0% in the buprenorphine and placebo groups.
“adding any psychosocial support to standard maintenance treatments does not add additional benefits.”
everyone needs a therapist, but an opioid addict needs an opioid agonist
MAT is underutilized probably mostly because of stigma

opioid harms are from addiction, not dependence

MAT patients stop dying
acquisition harms cease
injection harms cease
return to normal lives
opioid addiction

- Desperate need to avoid withdrawal
- Constant debilitating cravings
- Perpetual cycling of highs/lows
- Normal functioning impossible

Acquisition harms: poverty, crime, frantic behavior
Injection harms: local infections, HIV/Hep C, endocarditis
Street drug harms: accidental overdose/death

opioid dependence

- Scheduled opioid consumption
- Freedom from addiction harms
- Normal life possible

Prescribed opioid agonist
buprenorphine initiation in the ED: the warm handoff

1. Patient with opioid use disorder is in withdrawal (COWS ≥ 9)

2. Buprenorphine initiation 4-32 mg in the ED. x-waiver not required

3. Refer to long term addiction care with or without buprenorphine Rx

Herring 2018
buprenorphine initiation in the ED:
the warm handoff

**classic dosing**

- 4 mg, then another 4 mg prn
- standard care, widely used in office-based practices
- covers patients for 12-24 hours = requires great followup

big doses only prolong duration of action

- **the addict who is therapeutic on bup is safe**

**high dose**

- 8 mg, wait 30-60 minutes, then additional 8-24 mg
- most patients covered/protected for 48-72 hours
- X waiver much less important
- avoidance of suboxone prescribing concerns / bup misuse
- does not have robust literature or specialist support (yet)
Engaged in Treatment at 30-Days

Proportion in Treatment at 30 Days

Referral
Brief Intervention
Buprenorphine

P<0.001
Buprenorphine treatment for opioid misuse should be available in emergency departments.
how revealed is your patient’s addiction, and how willing is your patient to enter into addiction treatment?

“I’m an addict, I want help”

“I overdosed”

“I have chronic pain and need meds”

“I have acute pain and need meds”
“I overdosed”

how did you get started with dope?
do you want to stop?
"I overdosed"

emupdates.com/help

HelpCard

Pain Medications Are Harming You

Take control of your life. Get treated.

Call 1-800-662-HELP

SAMHSA’s National Helpline is a free, confidential treatment referral and information service for individuals and families facing mental health and/or substance use disorders, including pain medications and heroin.

24/7 365

1-800-662-HELP
(in English and Spanish)

www.samhsa.gov/find-help
“I overdosed”

Harm Reduction: meeting patients where they are

Do you lick your needles?
Do you cut your heroin with sterile water?
Do you discard your cotton after every use?
Do you inject with other people around?
Do you do a tester shot to make sure a new batch isn’t too strong?

Do you want to be tested for HIV or Hep C?

Safe injection sites
Prescription heroin
take home naloxone

**High risk for OD**
- Prior overdose
- Use of illicit opioids
- High dose use (>100 MME)
- Concurrent use of sedatives
- Recent period of abstinence
- Uses alone
“I overdosed”

how did you get started with dope? do you want to stop?

referral / helpcard
harm reduction
take home naloxone

come back anytime if you want to get treated. we’re open 24/7.
"I have chronic pain and need meds"

"I have acute pain and need meds"
We know of no other medication routinely used for a nonfatal condition that kills patients so frequently.

Many patients become addicted to opioids after being treated for acute pain.
I know you are in pain and I want to improve your pain, but I believe that opioids are not only the wrong treatment for your pain, but that opioids are the cause of your pain. I think pain medications are harming you, and if you could stop taking them, your pain and your life would improve. Can I offer you resources that will help you stop taking pain medications?
### Opioid Alternatives for Outpatient Management of Acute and Chronic Pain

- **Ibuprofen**: 400-800 mg, three times daily (or equivalent NSAID)
- **Acetaminophen**: 1000 mg, four times daily
- **Methocarbamol**: 1500 mg, four times daily (back pain, muscle spasm)
- **Topical Diclofenac Gel**: 3%, apply three times daily (musculoskeletal pain)
- **Gabapentin**: 100 mg three times daily, increase by 100 mg every 3 days up to 900 mg/day (neuropathic pain)
- **Lidocaine patch**: apply 12 of 24 hours every day (back pain, postherpetic neuralgia)
- **Topical capsaicin cream**: 0.025% or patch 8%, apply twice daily (back pain, neuropathic pain)
- **Lidocaine cream or gel**: 2-3%, apply three times per day (burns, painful rashes)
- **Sumatriptan**: 100 mg once at onset of headache (or equivalent triptan)
- **Amitriptyline**: 10 mg at bedtime (neuropathic pain) (or equivalent tricyclic)

### Parenteral Opioid Alternatives for Management of Acute and Chronic Pain

- **Ketorolac**: 15 mg IV or 30 mg IM
- **Acetaminophen**: 1000 mg IV over 15 minutes
- **Cardiac Lidocaine**: 2% 1.5 mg/kg IV over 15 minutes (renal colic, back pain, neuropathic pain)
- **Bupivacaine**: 0.25% 10-15 mL infiltrated at point of maximal pain (back pain, musculoskeletal pain)
- **Metoclopramide**: 10 mg (headache, abdominal pain) (may substitute prochlorperazine)
- **Propofol**: 10 mg IV every five minutes until relief (headache)
- **Ketamine**: .25 mg/kg IV over 10 minutes, then .25 mg/kg/hour, titrated (all acute and chronic pain)
- **Droperidol**: 2.5 mg IV or IM (chronic pain) (may substitute haloperidol 5 mg)
- **Dexmedetomidine**: IV 0.5 mcg/kg bolus then by 0.3 mcg/kg/h infusion (all acute and chronic pain)
- **Nitrous Oxide**: 50-70% inhaled (acute pain or end of life pain)
nonpharmacologic pain management

thermotherapy (ice/heat)
therapeutic ultrasound
treatment of mood disorder
exercise
electroanalgesia (TENS)
counter-irritative therapy
spinal cord and deep brain stimulators
neuroablation
biofeedback
hypnosis
rehabilitative medicine / OT
chiropractor
meditation
acupuncture
shaman
avoid opioids in the ED and by prescription
use alternate modalities to manage pain
express concern that opioids are causing harm and refer

“I have chronic pain and need meds”
how revealed is your patient’s addiction, and how willing is your patient to enter into addiction treatment?

“I’m an addict, I want help”

“I overdosed”

“I have chronic pain and need meds”

“I have acute pain and need meds”
red flags for opioid misuse

poly-provider, poly-hospital
patient, relation, or provider reports addiction or diversion
injects oral opioid preparations
obtains drugs through dubious means (e.g. on the street)
uses others’ meds, steals Rx pads/syringes, forges Rx, false ID

yellow flags for opioid misuse

many visits, refill requests, dose escalation
requesting specific meds, requesting med IV, declines non-opioids
from out of town, primary provider unavailable, pt passed by closer institutions
allergies to analgesics and other relevant non-opioids
opioid/Rx is lost or stolen, no picture ID
uninterested in diagnosis or alternative treatments, refuses tests
repeatedly misses follow-up appointments, has been terminated by providers
history of substance abuse or incarceration
absence of objective findings of acute pain
symptom magnification, inconsistency, distractibility
rehearsed, textbook presentations
deterioration of work/social function, disability
negative PDMP does not exclude misuse

opioid naive does **not** suggest that opioid Rx is appropriate

positive PDMP should be used to encourage willingness to move to treatment
opioid misuse spectrum

chronic pain

opioid naive
addiction

recreation
diversion

terminal illness

less amenable to opioid alternatives
“I have acute pain and need meds”

benefit:harm
pain and the poppy
emergency care during an addiction epidemic

keep opioid naive patients opioid naive

if prescribing opioids for acute pain: prescribe to minimize opioid harms

aggressively move willing misusers to treatment
ED-initiated buprenorphine is best care

for revealed but unwilling misusers: harm reduction, supportive stance, open door

for chronic pain or high-risk acute pain: treat with non-opioids, express concern, nudge to willingness
want to know more?

emupdates.com/help

@andrewkolodny
@highlandherring
@LNelsonMD
@JMPerroneMD
@DavidJuurlink
“The history of medicine is, in part, the history of physicians stretching the scope of their practice to answer the pressing needs of their times.”

Rapoport & Rowley, *NEJM*, 2017
pain and the poppy
emergency care during an addiction epidemic

1. prevent opioid naive patients from becoming misusers by your prescription
   calculate benefit:harm whenever an opioid prescription is considered
   if opioid Rx, prescribe a small number of low dose, lower-risk pills

2. for existing opioid users
   2a. revealed, willing
       “I’m an addict, I need help”
       aggressive move to treatment
       ED-initiated buprenorphine
       arranged speciality followup
   2b. revealed, unwilling
       “I overdosed”
       harm reduction e.g. home naloxone
       supportive stance, open door
   2c. partially revealed
       “I have chronic pain and need meds”
       avoid opioids in ED or by prescription
       opioid alternatives for pain
       express concern that opioids are causing harm
   2d. unrevealed
       “I have acute pain and need meds”
       risk stratify with red & yellow flags
       PDMP - move positives to willingness
the goal is not to reduce opioid use, the goal is to reduce opioid harms

opioid analgesia in the ED for opioid naive patients with moderate or severe acute pain is very unlikely to cause important harms, nobody is advocating for an “opiate free ED.”

The harms come from the prescription to opioid naive, and from perpetuating misuse in existing misusers.

1. opioid naive: prevent the development of misuse

2. revealed misuse: initiate treatment in the willing, harm reduction in the unwilling

3. unrevealed misuse: do not perpetuate misuse, nudge to recognition of harm
industry marketing
regulatory failure
inadequate provider skepticism
provider convenience
perverse provider incentives
(customer satisfaction, pain as 5th vital sign)
poor access to opioid alternatives

overprescribing
**Figure 1.** Correlation between Countries’ Annual Per Capita Chocolate Consumption and the Number of Nobel Laureates per 10 Million Population.