

Approaching pain management in the midst of a drug overdose crisis

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MASSACHUSETTS
GENERAL HOSPITAL



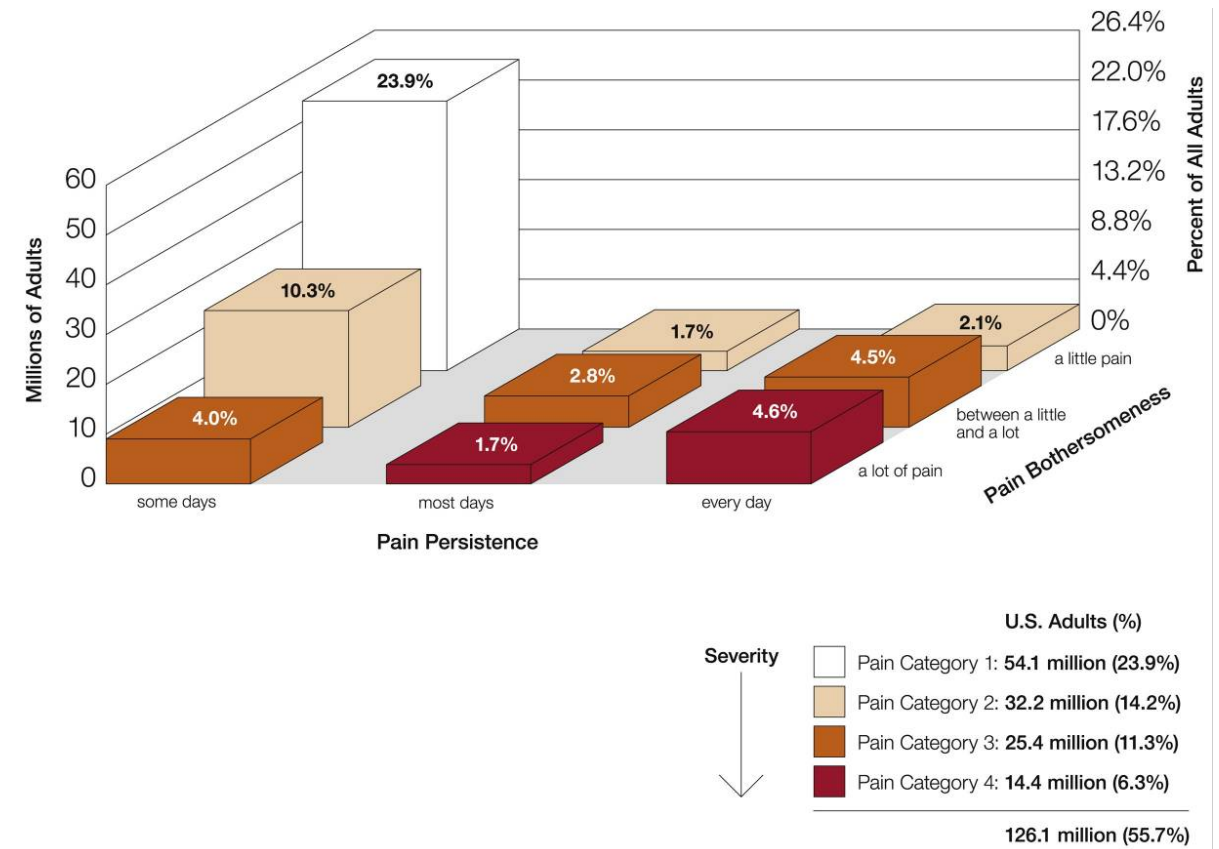
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Disclosures

- Research support funding from OptumLabs
- Scientific advisor for Celero Systems
- Academic detailer training for Alosa

The Scope of the Problem: Pain

- 126.1 million adults (55.7% of all adults) report some pain in the previous 3 months
- 25.5 million have pain every day and are classified as having chronic pain
- Chronic pain associated with multiple comorbidities, reduced functioning, reduced quality of life, work absenteeism, poor health, and increased use of medical resources
- Painful conditions among most frequent reason for outpatient medical visits



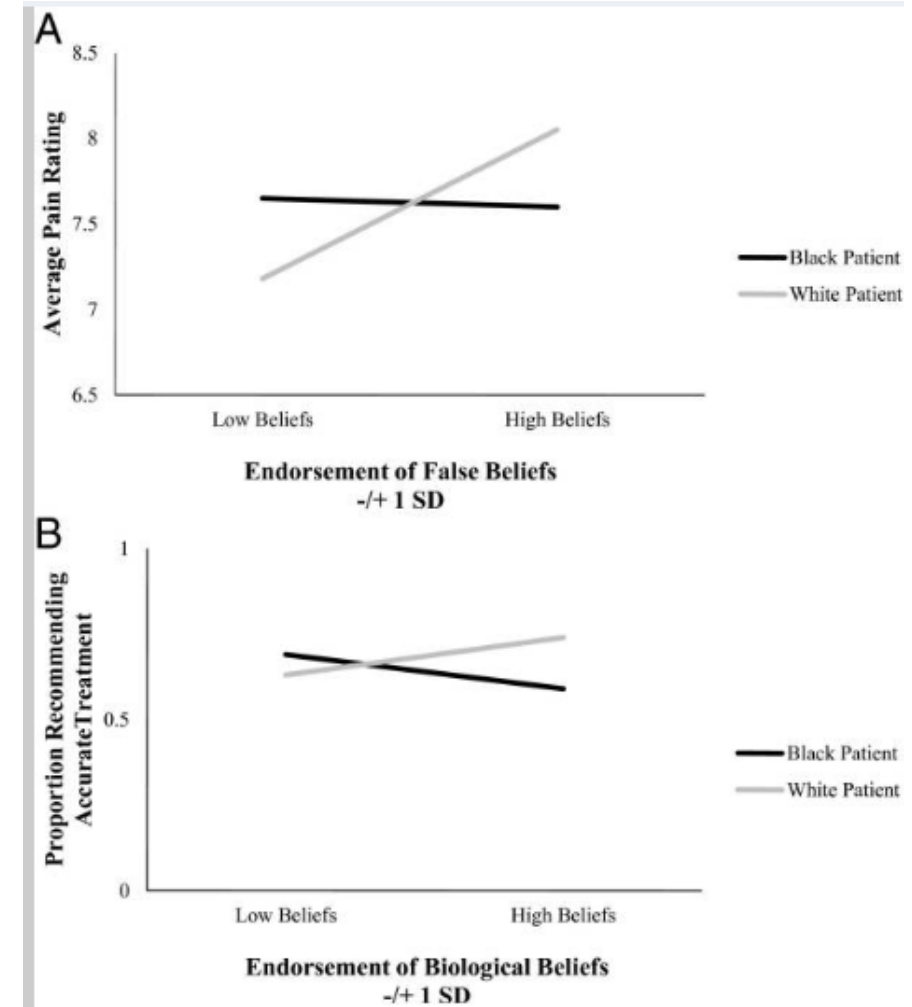
Racial Disparities in Pain Management

- Meta-analysis of studies examining ED analgesia use for pain (included long bone fractures, back pain, blunt trauma injury, musculoskeletal pain, post-fall pain)
- Black patients 36% less likely and Latinx patients 30% less likely to receive any analgesia compared to white patients
- In long-bone fracture or traumatic pain, Black patients significantly less likely to receive analgesia, OR 0.59 [95%-CI, 0.42–0.82]

Lee P, Le Saux M, Siegel R, et al. Racial and ethnic disparities in the management of acute pain in US emergency departments: Meta-analysis and systematic review. *Am J Emerg Med*. 2019;37(9):1770–1777.

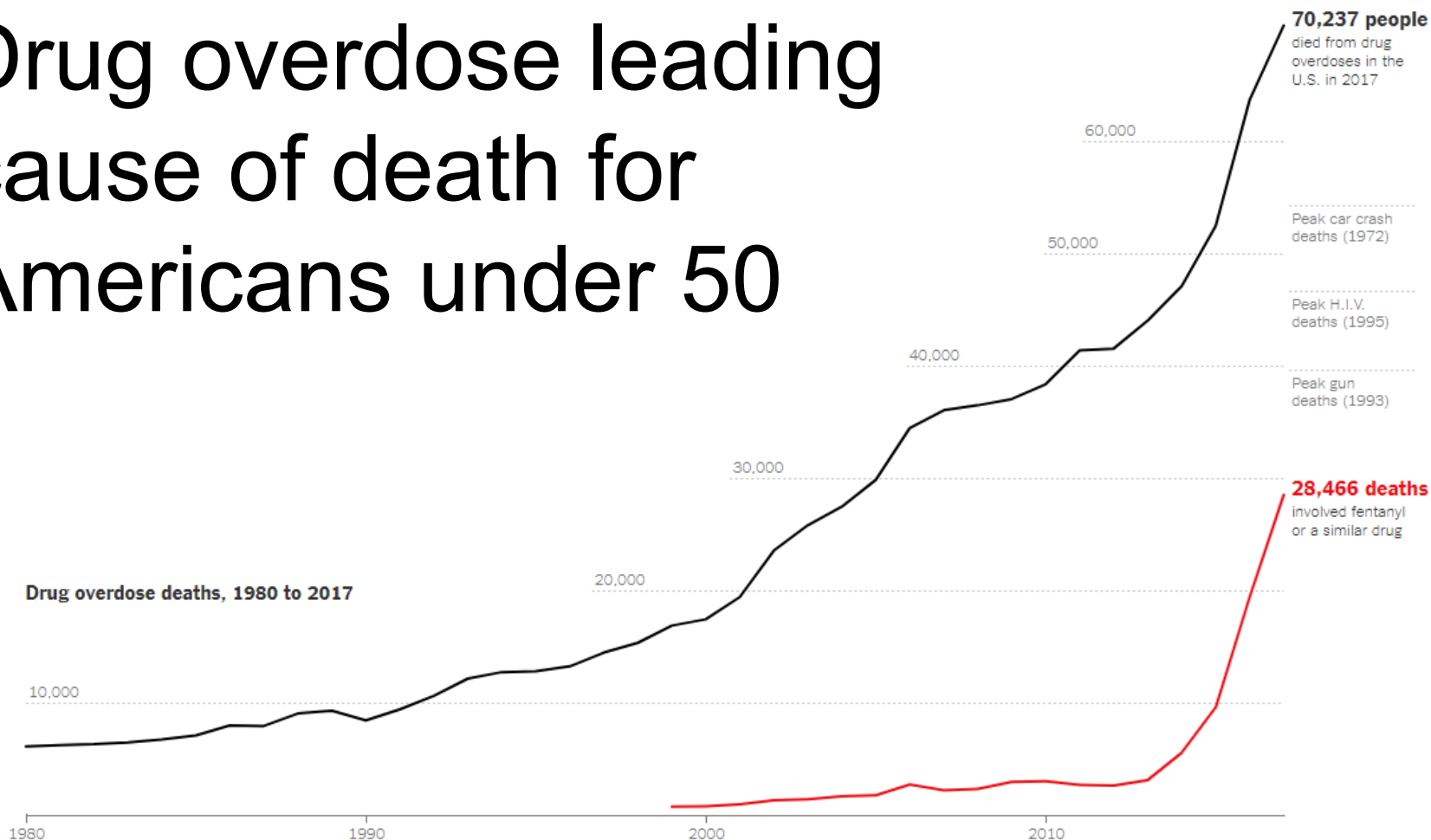
Provider Bias and Racial Disparities in Pain Management

- Study of 222 white medical students and residents
- 50% endorsed at 1+ false beliefs about biological differences between blacks and whites
- Those who endorsed more false beliefs rated black target as feeling less pain than the white target

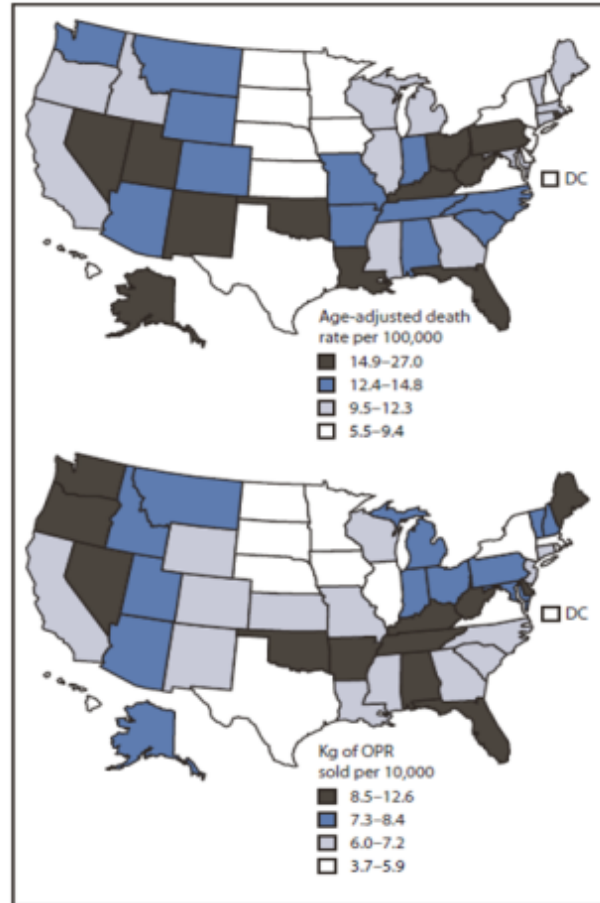


Scope of the problem: Overdose

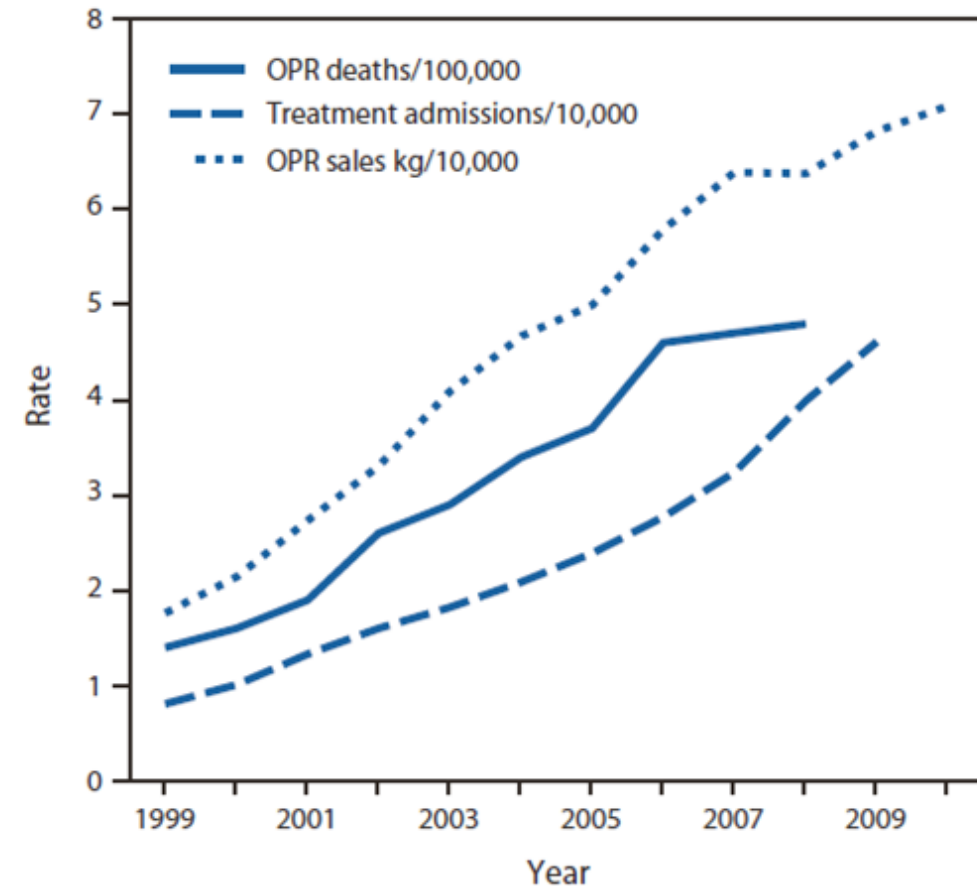
Drug overdose leading
cause of death for
Americans under 50



Increase in Opioid Prescribing Correlated with Onset of Rising Opioid-related Deaths



Vital signs: Risk for overdose from methadone used for pain relief - United States, 1999-2010. (2012). *MMWR. Morbidity and Mortality Weekly Report*, 61(26), 493-7.



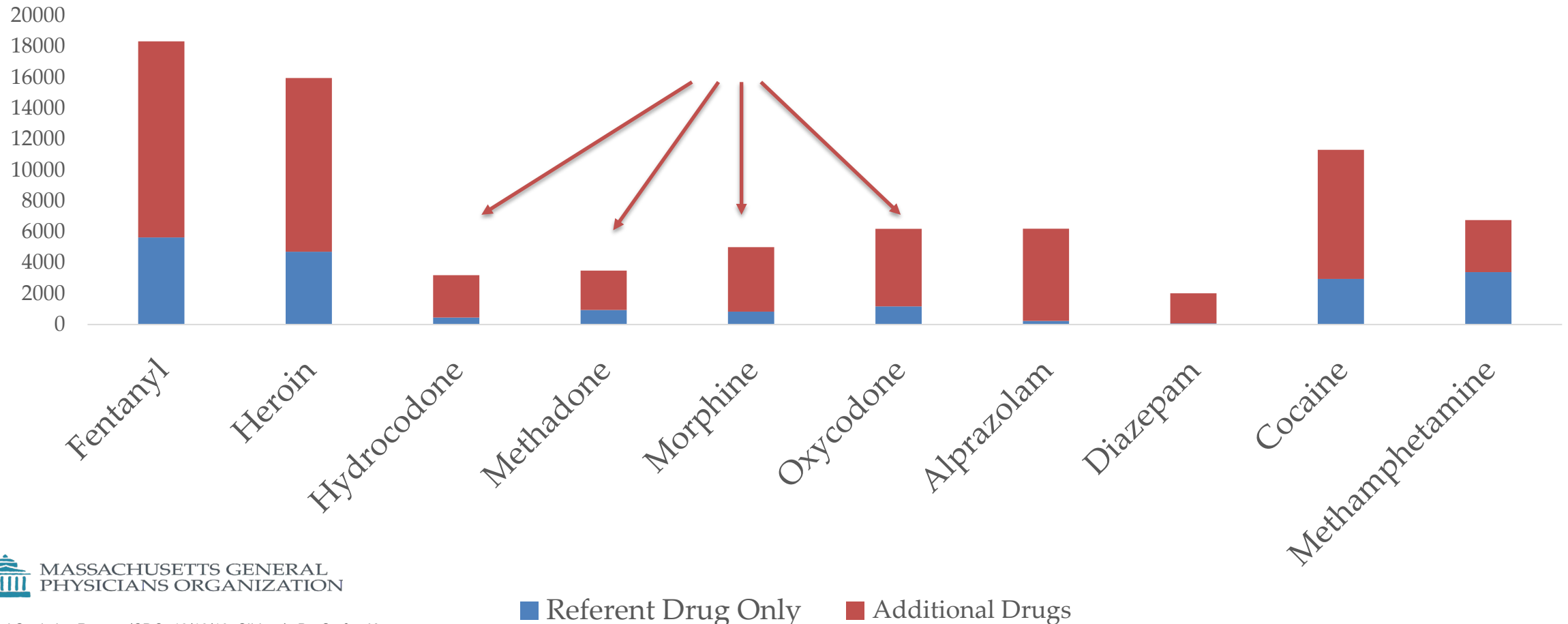
Prescription Opioid Sales, Deaths, and Treatment: 1999 - 2010

Unintentional overdose and prescribed opioids

- Meta-analysis of 7 studies examining unintentional opioid overdose and dosage
- Lots of heterogeneity in definition of exposure (filling vs prescribing); did not look at benzos or other drugs
- Higher risks with larger doses:
 - ≤ 20 versus ≥ 21 MME/day: RR 2.81
 - ≤ 50 versus > 50 MME/day: RR 3.87
 - ≤ 100 versus > 100 MME/day: RR 4.28
 - ≤ 50 versus $> 50-100$ MME/day: RR 3.09

Most “drug overdose” is a “polysubstance poisoning”

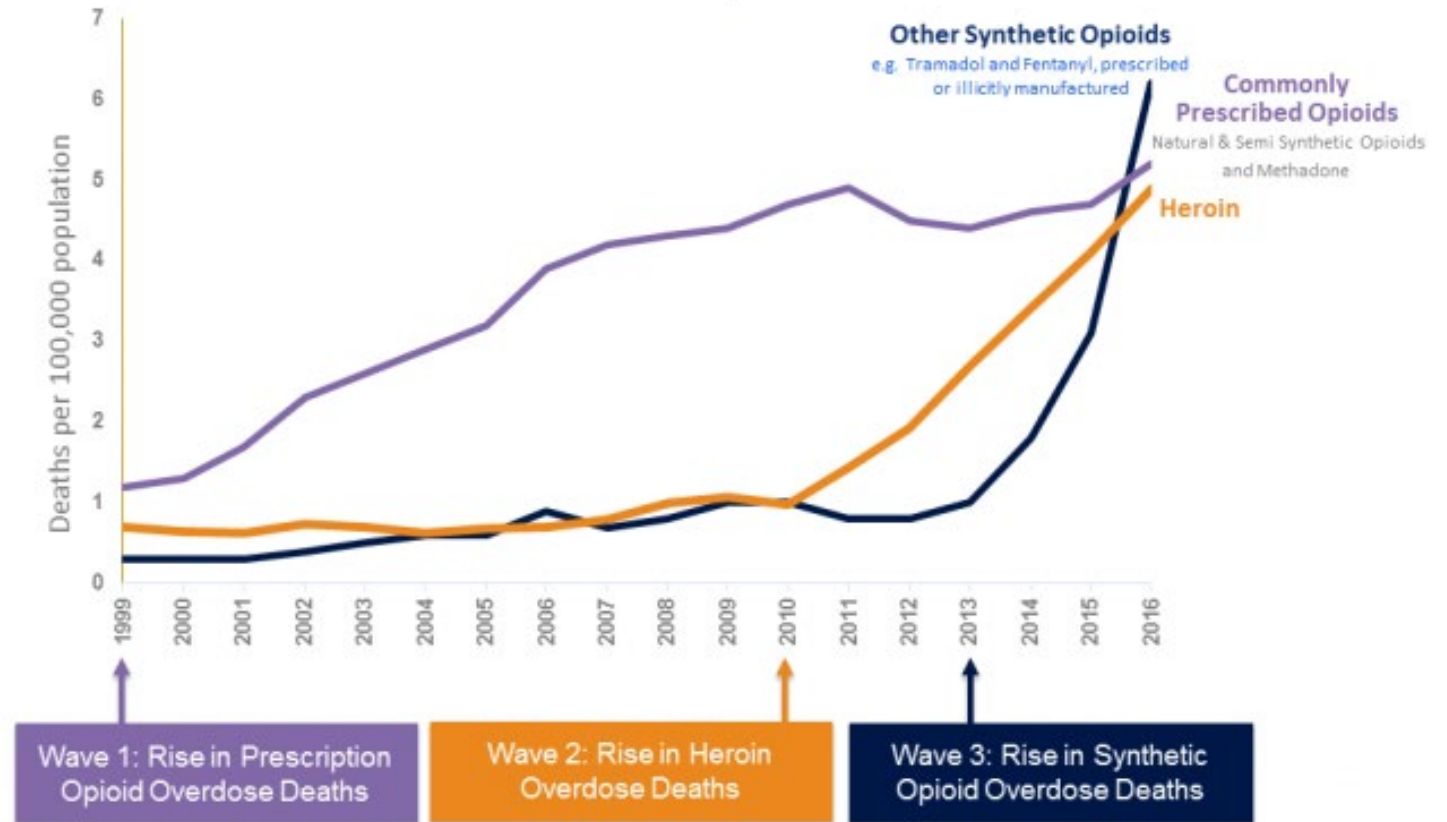
CDC Data, 2016



The three waves of the overdose crisis

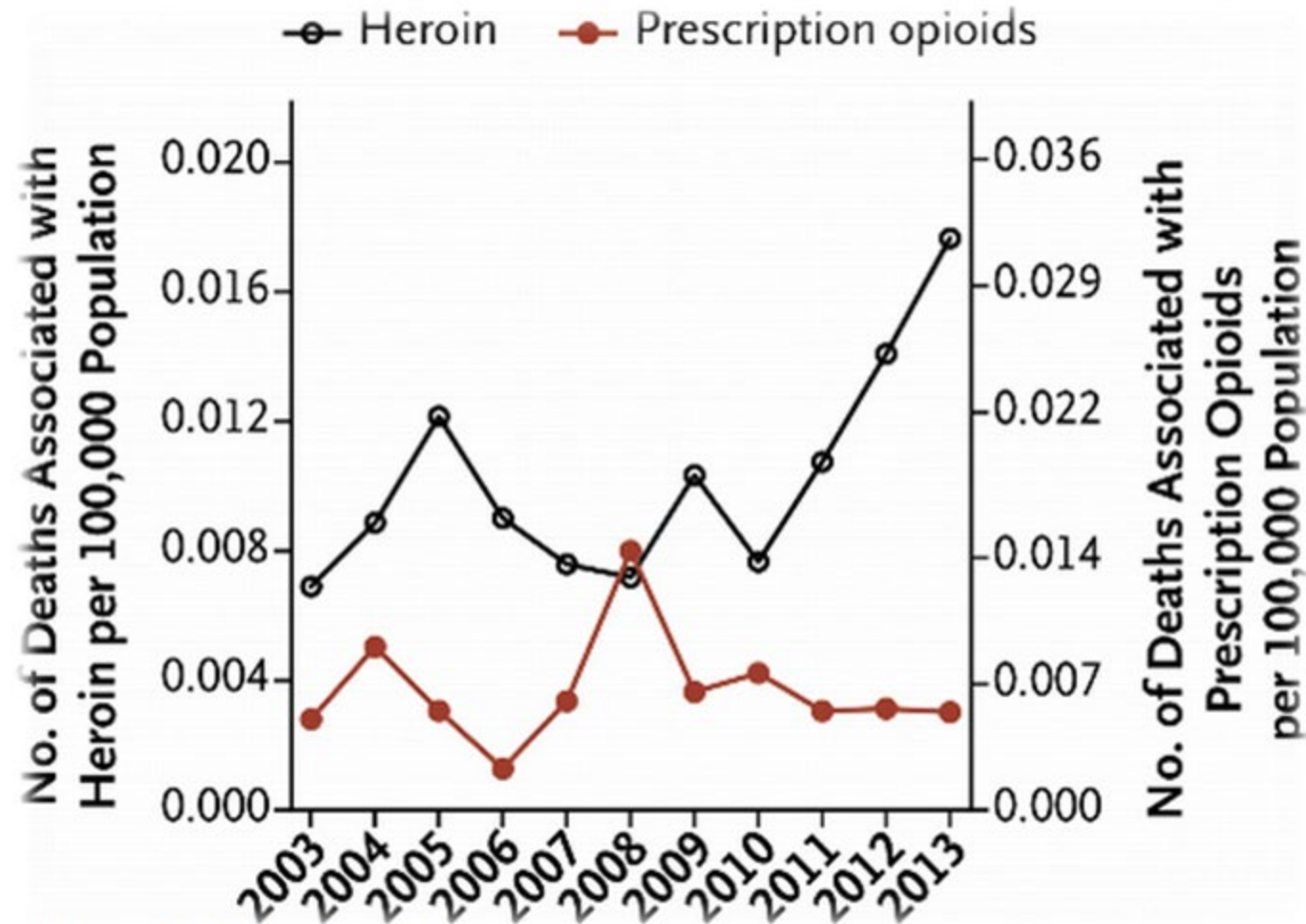
- Prescription opioid-related deaths have been decreasing, while heroin and fentanyl deaths have dramatically increased.
- Highlights need for balanced approach which addresses responsible opioid prescribing AND immediate access to treatment for opioid use disorder.

Dowell D. Underlying Factors in Drug Overdose Deaths
JAMA. Published online October 11, 2017.
<https://www.cdc.gov/drugoverdose/epidemic/index.html>



SOURCE: National Vital Statistics System Mortality File.

Opioid-related deaths – As rx deaths decreased, heroin deaths increased



Dart RC et al. N Engl J Med 2015; 372:241-248.

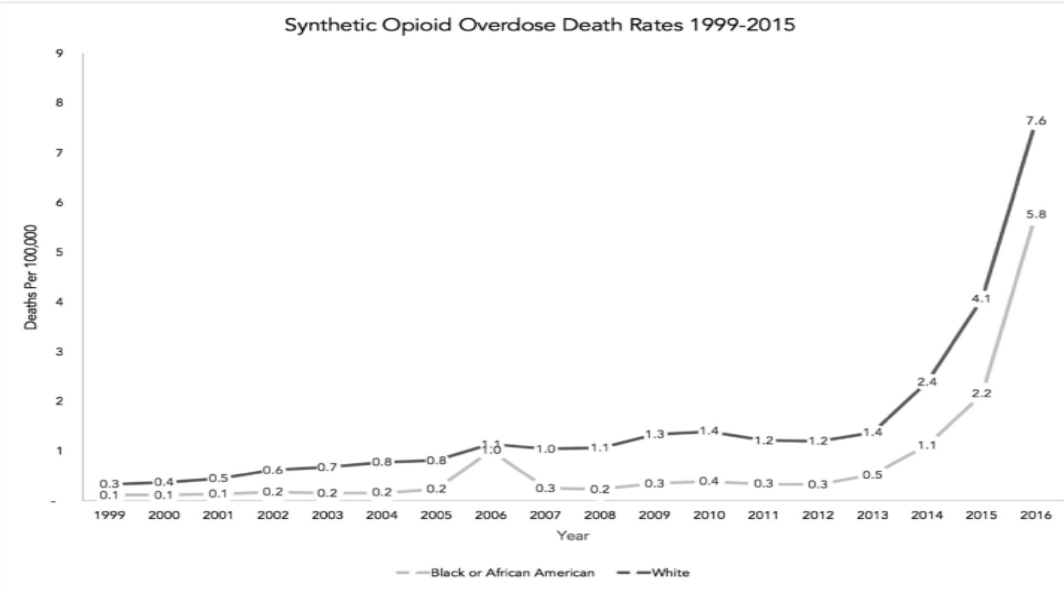
Racism is never “protective”

- Speculation that under-treatment of black patients' pain because of racial bias may explain early differences in overdose rates
- Calling racial bias protective is misguided and harmful
- “There is widespread suffering and even death caused by the lack of pain treatment. There is also potential to further stigmatize racial minorities who do have opioid use disorder. Overshadowing all these factors is the persistent legacy of this nation's history of deeply rooted, structural racism.”



The overdose crisis in black communities

- Much of the media coverage and public attention to overdose crisis has ignored the impact in Black Communities
- Fentanyl driving deaths
- In some states rate of opioid overdose deaths among Black Americans exceed those of the general and white population
- Yet, historical approach to a opioid use among Black and LatinX individuals has been heavily criminalized

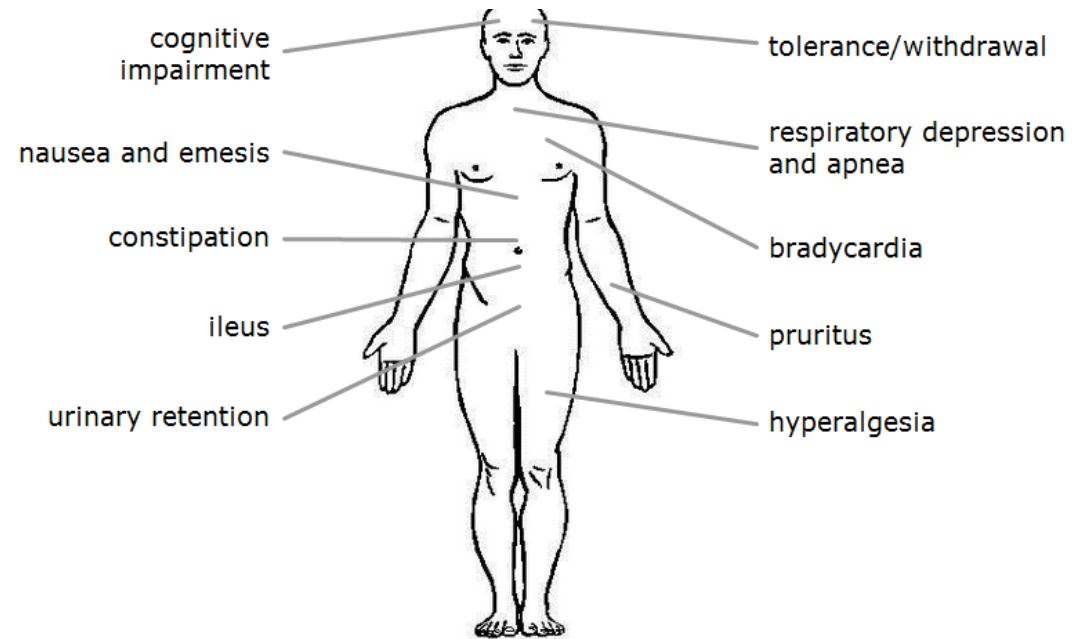


Jurisdiction	Black	White
West Virginia	55.5	36.2
D.C.	22.8	NR
Wisconsin	21.9	11.3
Missouri	14.8	11.9
Minnesota	10	6

*Jurisdictions where rates of opioid overdose deaths (per 100,000 Residents) are higher among black Americans in 2015

Risks of opioid prescribing

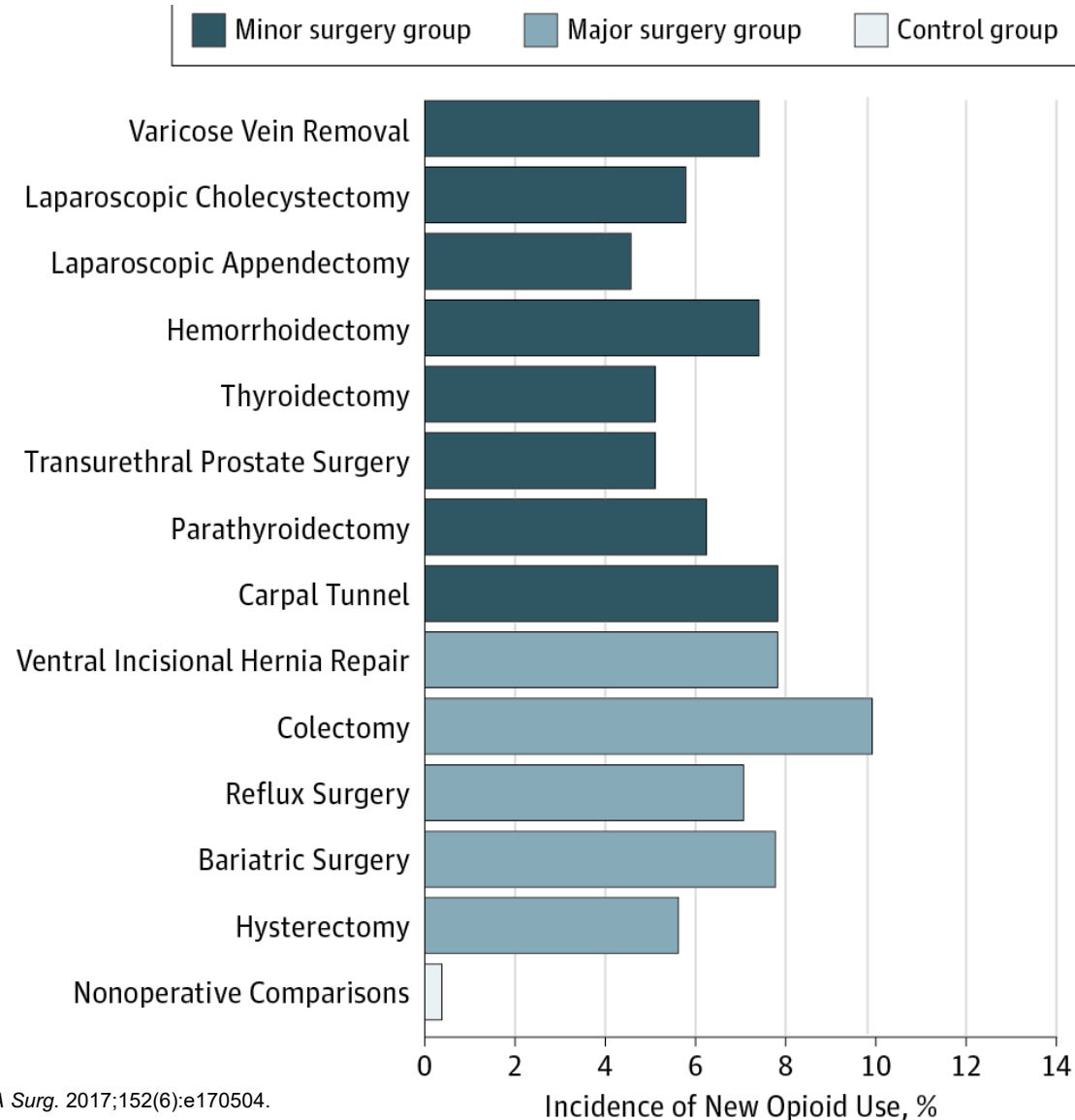
- Long term opioid use
- Opioid use disorder
- Overdose
- Excess pills in the community
- Opioid-related constipation, cognitive impairment, hyperalgesia, and other side effects



Attarian S, Tran LC, Moore A, Stanton G, Meyer E, Moore RP. The Neurodevelopmental Impact of Neonatal Morphine Administration. Brain Sciences. 2014; 4(2):321-334.

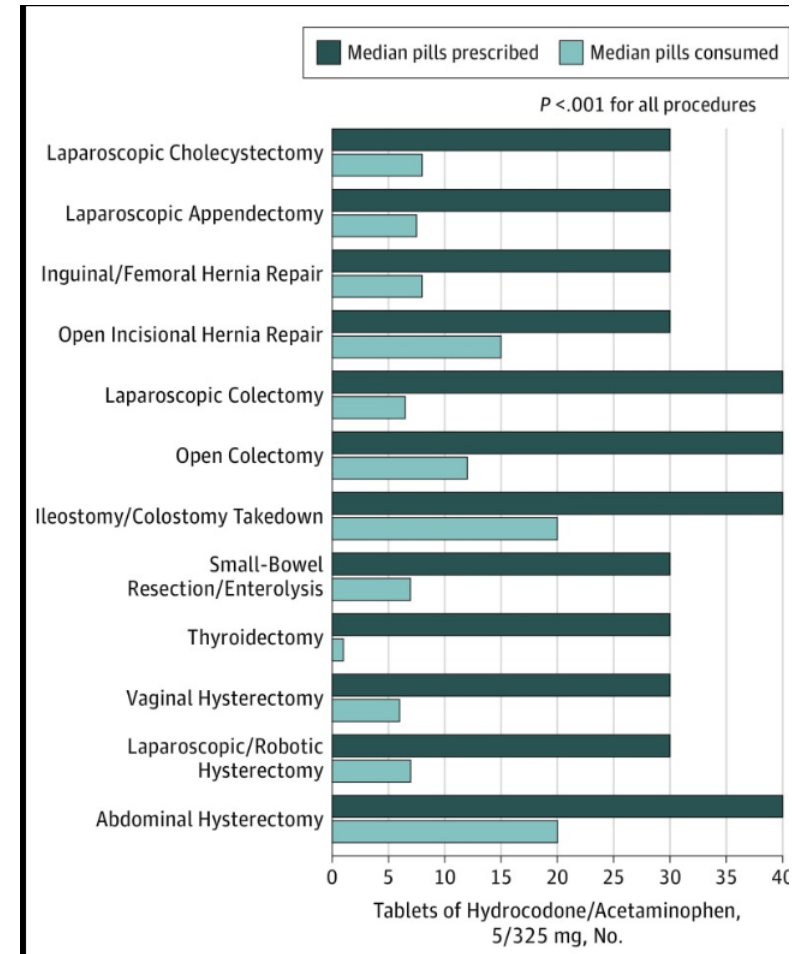
Acute opioid use leading to long-term opioid use

- Among those without opioid use in year prior to surgery, some patients will still be using prescribed opioids more than 90 days post-op
- Occurs for both minor and major surgical procedures



Excess prescribing may lead to taking more & leftover pills

- Study of 2392 surgical patients
- Quantity of opioids prescribed higher than opioid consumption (30 pills vs 9 pills)
- Quantity of opioid prescribed associated with consumption
 - patients used 0.53 more pills for every additional pill prescribed.



What do we know about how many opioid pills are needed for acute pain?

- Prospective study of outpatient surgery and mean opioid requirements:
 - Patients undergoing upper extremity surgery took mean of 5.1 pills
 - fracture related procedures took a mean of 13 pills,
 - joint procedures took mean of 14.5 pills
- Patients undergoing common outpatient surgical procedures:
 - Many take no opioids (22% after open inguinal hernia repair to 82% after partial mastectomy)
 - Partial mastectomy: 5 pills
 - Laparoscopic cholecystectomy: 15 pills
 - Open inguinal hernia repair: 15 pills

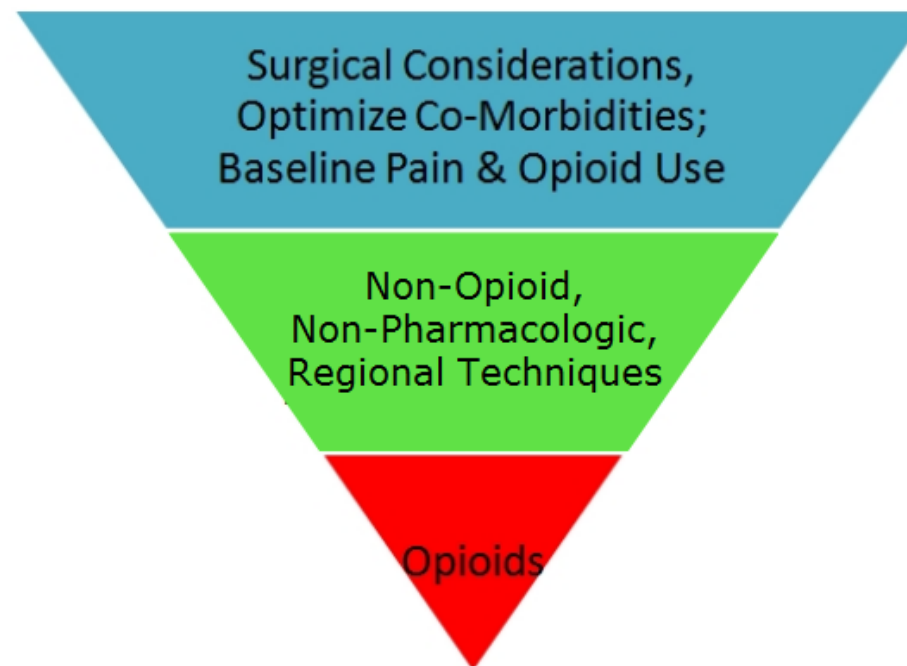
Screening for risk of problems related to opioids

- Screening for risk of “misuse” often recommended, how good are screeners?
- Small study of 48 patients who had been discontinued from opioids for aberrant drug-related behavior compared:
 - Screener and Opioid Assessment for Patients with Pain (SOAPP)
 - Diagnosis, Intractability, Risk, and Efficacy inventory (DIRE)
 - Opioid Risk Tool (ORT)
 - Clinical interview
- Clinical interview had highest sensitivity (0.77), followed by the SOAPP (0.72), ORT (0.45) and the DIRE (0.17)
- Combining the clinical interview with the SOAPP increased sensitivity to 0.90.

Approach to opioids for acute pain management

- Pain Assessment and Indications:
 - consider opioids based on degree of tissue disruption, strong consideration of alternatives, impact of pain on function, and risk/benefit ratio
- Opioids should only be prescribed after:
 - a clinical examination
 - Diagnosis
 - review of medication and medical/substance use disorder/psychiatric history
 - consideration of alternatives
 - review of data from the Prescription Monitoring Program (PDMP)

Opioids should be the *last* consideration in a multi-modal perioperative analgesia plan.

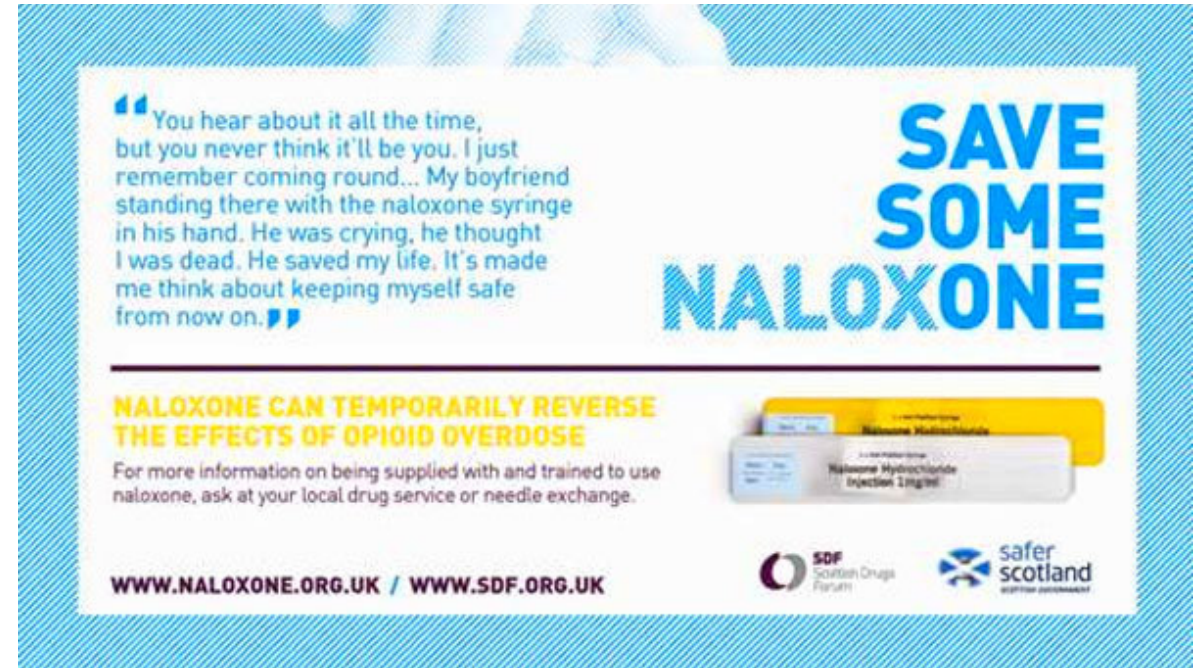


Approach to opioids for acute pain management

- Non-Opioid Alternatives to Pain Management:
 - Opioids should be the last consideration for acute pain management.
- Prescribing: Opioids should be prescribed only for severe acute pain.
 - lowest effective dose and for a limited period.
 - no more than a 7-day supply (most patients will be ok with 3 day supply).
 - long-acting or extended-release opioids *should not* be used for the treatment acute pain.
 - opioids should not be prescribed in excess of the expected duration of need
- Patient Expectations:
 - counsel patients that pain medications will manage pain but not resolve pain.
 - discuss side effects, risks for overdose, potential for physical dependence and need for tapering to avoid withdrawal, and risk of opioid use disorder.
 - review expected duration of therapy
 - educate patient about safe storage and disposal methods of medication.

Approach to opioids for acute pain management

- Communication:
 - Communication between providers of acute care and patients' primary care providers is essential for the coordinated management of acute pain.
- Consider naloxone co-prescription:
 - for >50 MME or anyone with risk factors
- Reassessment of Pain:
 - If opioids are prescribed for acute pain, close follow up should be arranged with the primary prescribing clinician and/or the primary care provider.



“The chronic pain medication conundrum”

The New York Times

- Undertreating pain, we are admonished...it violates the basic ethical principles of medicine. On the other hand, we are lambasted for overprescribing pain medications... creating an epidemic of overdose deaths.
- For patients with chronic pain, especially those with syndromes that don't fit into neat clinical boxes, being judged by doctors to see if they “merit” medication is humiliating and dispiriting. This type of judgment, with its moral overtones and suspicions, is at odds with the doctor-patient

“As Mr. W. and I sat there sizing each other up, I could feel our reserves of trust beginning to ebb. I was debating whether his pain was real or if he was trying to snooker me. He was most likely wondering whether I would believe him...”

Are opioids effective for chronic pain?

- 1 yr trial of adults w/ hip, knee or low back pain (n=248) who volunteered to be in a trial
- 4485 identified, 2377 not eligible and 1843 declined
- Compared opioid first vs non-opioid first approach

JAMA | Original Investigation

Effect of Opioid vs Nonopioid Medications on Pain-Related Function in Patients With Chronic Back Pain or Hip or Knee Osteoarthritis Pain The SPACE Randomized Clinical Trial

Erin E. Krebs, MD, MPH; Amy Gravelly, MA; Sean Nugent, BA; Agnes C. Jensen, MPH; Beth DeRonne, PharmD; Elizabeth S. Goldsmith, MD, MS; Kurt Kroenke, MD; Matthew J. Bair; Siamak Noorbaloochi, PhD

Interventions



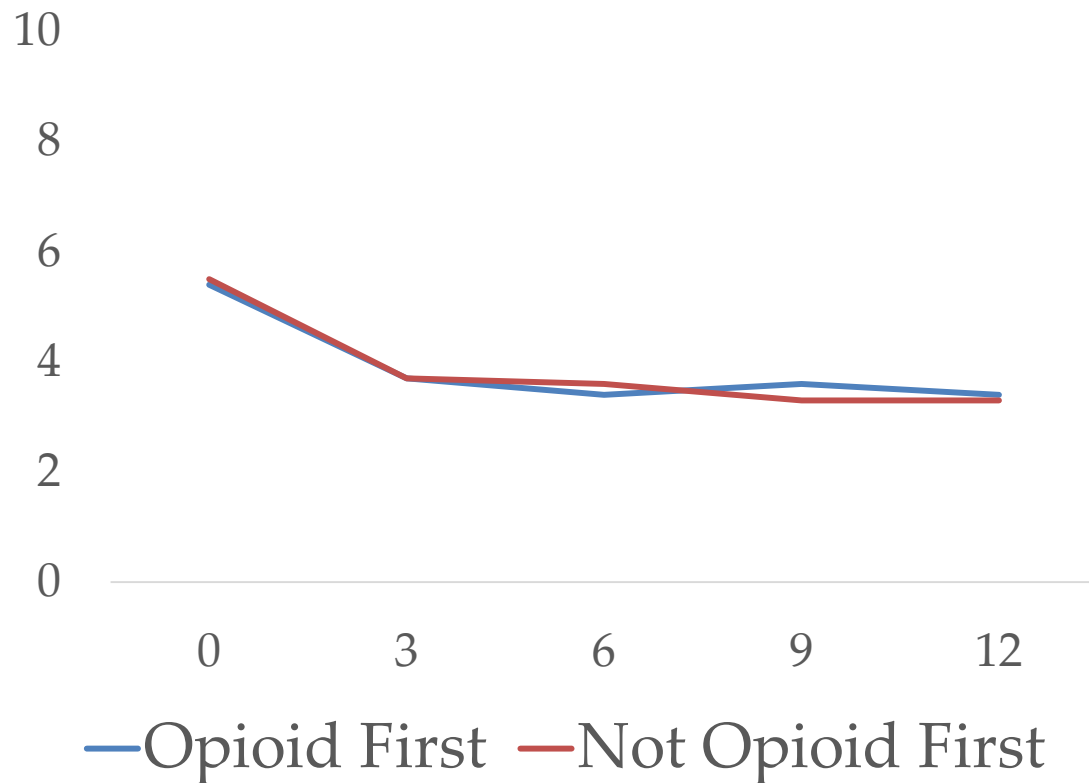
- All medications in both arms on VA formulary
- Each arm included 3 medication steps

Table: Example medications within arms

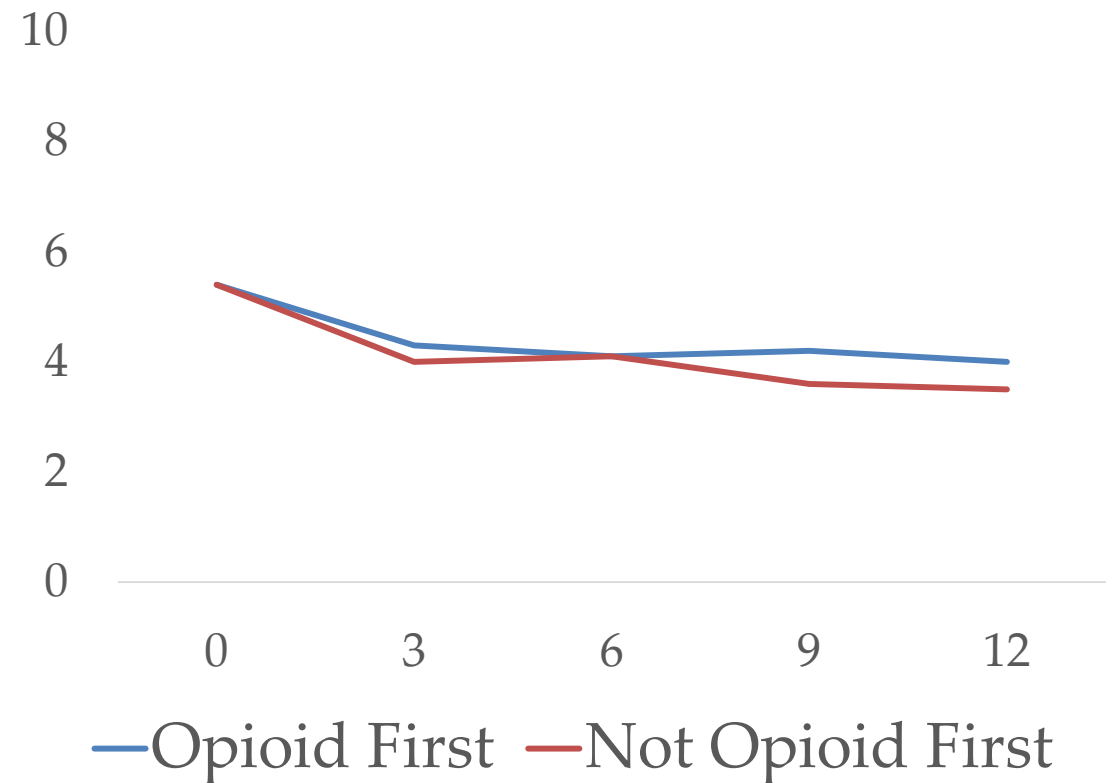
	Opioid arm	Non-opioid arm
Step 1	Morphine IR* Hydrocodone/APAP	Acetaminophen* Naproxen
Step 2	Morphine SR Oxycodone SA	Nortriptyline Capsaicin topical Gabapentin
Step 3	Fentanyl transdermal	Tramadol

Outcome: Intensive opioids up front no better than multi-modal step-up of therapies

Brief Pain Inventory (p=0.58)



Pain Scores (p=0.03)



Opioid Efficacy for Chronic Pain

Meta-analyses (3-6 m f/u)

- **Opioids vs placebo**

(high quality studies)

Opioids with statistically significant, but small, improvements in pain^{1,2} and physical functioning.²

- **Opioids vs nonopioids**

(low-mod quality studies)

Similar benefits²

RCT³ found opioids **not superior** to nonopioids for improving musculoskeletal pain-related function over 12 months

Study limitations: ⁴

- *Excluded patients already on long-term opioids*
- *89% of eligible patients declined to be enrolled*

Two longer term follow-up studies found **44.3%** on chronic opioids for chronic pain had **at least 50% pain relief** ⁵

1. Meske DS, et al. *J Pain Res*. 2018

2. Busse JW, et al. *JAMA*. 2018

3. Krebs EE, et al. *JAMA*. 2018

4. Webster L. *Pain Med*. 2019

5. Noble M, et al. *Cochrane Syst Rev*. 2010

What about risk of addiction or addiction-ish behaviors?

- Observational studies of patients receiving chronic opioid therapy have demonstrated high rates of aberrant medication taking behavior and history of current and past SUD
- Meta-analysis of studies of opioids for chronic back pain found:
 - lifetime prevalence of SUD ranged from 36% to 56%
 - estimates of prevalence of current SUD up to 43%
 - aberrant medication-taking behaviors ranged from 5% to 24%

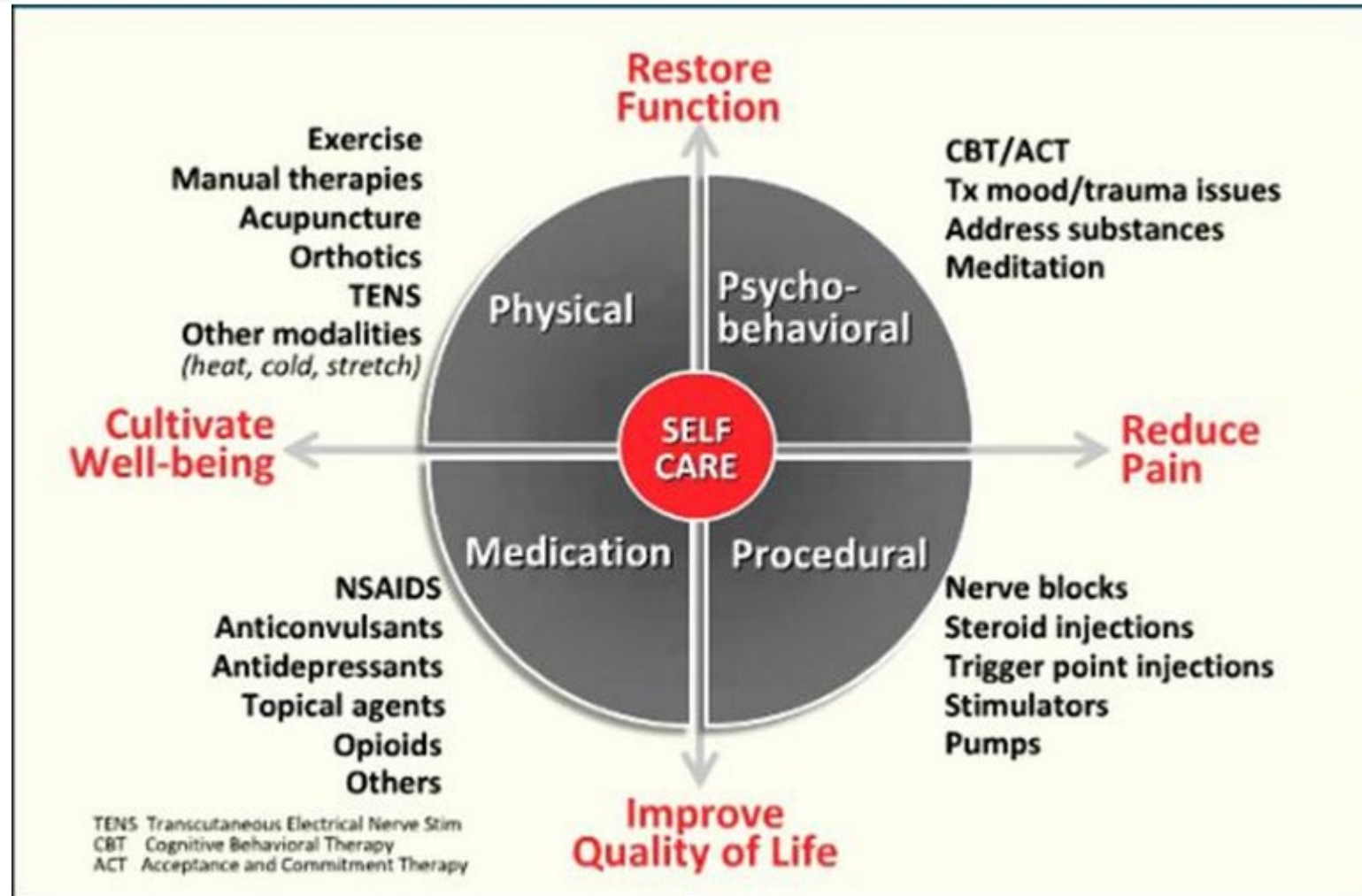
What about risk of de-novo opioid use disorder?

- Claims study of 90,415 individuals w/ new episode of CNCP prescribed opioids, not receiving opioids in the pre-index period, and no previous diagnosis of an OUD
 - Among those prescribed low dose, acute opioids 0.12% developed an OUD
 - 0.12% for medium dose, acute
 - 1.28% for medium dose, chronic
 - 0.12% for high dose, acute
 - 6.1% for high dose, chronic
- Prospective study of patients with chronic, non-cancer pain recruited from primary care who were newly initiating opioid therapy
 - Excluded patients currently using non-prescribed drugs other than cannabis, alcohol use disorder or hospitalization for SUD/psychiatric illness past 3 months
 - Followed for aberrant medication taking behaviors, positive toxicology
 - At 12 months, 9.7% tested positive for cannabis, 0% for cocaine, prescribed opioids were not detected in 16.1%
 - Very few aberrant medication taking behaviors

CDC Guidelines

When to initiate/ continue opioids	Opioid management	Assess risks/ address harms
1. Do not use opioids as 1st-line therapy. If used, combine w/ other therapies	4. When starting use immediate-release opioids	8. Use strategies to mitigate risk (eg, naloxone)
2. Before starting opioids establish realistic goals. Continue opioids only if meaningful improvements outweighs risks	5. Prescribe the lowest effective opioid dose. Use caution with any dose, if possible avoid doses ≥ 90 mg morphine mg equivalents	9. Review PDMP data
3. Before starting and then periodically discuss risks and benefits of opioids	6. Prescribe short durations for acute pain. ≤ 3 days often sufficient; > 7 days rarely needed	10. Use urine drug testing
	7. Evaluate benefits and harms within 4 weeks of starting and at least every 3 months thereafter	11. Avoid concurrent benzodiazepines
		12. Offer/arrange treatment for patients with an OUD

Multi-modal pain treatment



Approach to opioids for chronic pain management

- Opioids not 1st-line for chronic pain, but may be appropriate for some in conjunction with other therapies
 - Prior to prescribing opioids, non-pharmacologic and non-opioid pharmacologic options should be utilized
- Consider screening for risk of misuse using validated screening tools
 - A high score does not necessarily mean opioids should not be prescribed but does indicate a need for greater precautions.
- Review side effects; risks of dependence, addiction and overdose; counsel on safe storage and disposal
- Start low, set expectations that this is a medication trial, mutual responsibility
- Review and sign shared treatment agreement with patient identified functional treatment goals
- Consider prescribing intranasal naloxone

Approach to opioids for chronic pain management

- Follow-up:
 - Patients should have regular clinical reassessments of pain, functional goals, treatment plan, side effects of treatment, and adherence
 - See at least every 3-4 months, often more frequently
 - Toxicology often recommended to measure adherence and safety
 - Irregular findings should be discussed and documented with clinical response
- When to consider discontinuing opioids:
 - there is evidence of harm
 - risks not outweighed by clinical benefits
 - functional treatment goals not being met
 - high level of concern or confirmation of non-adherence
 - **The decision to discontinue opioids should be a shared decision between the patient and provider outside of circumstances of clear harm. Opioids should not be abruptly discontinued.**

A rapidly changing environment



Health

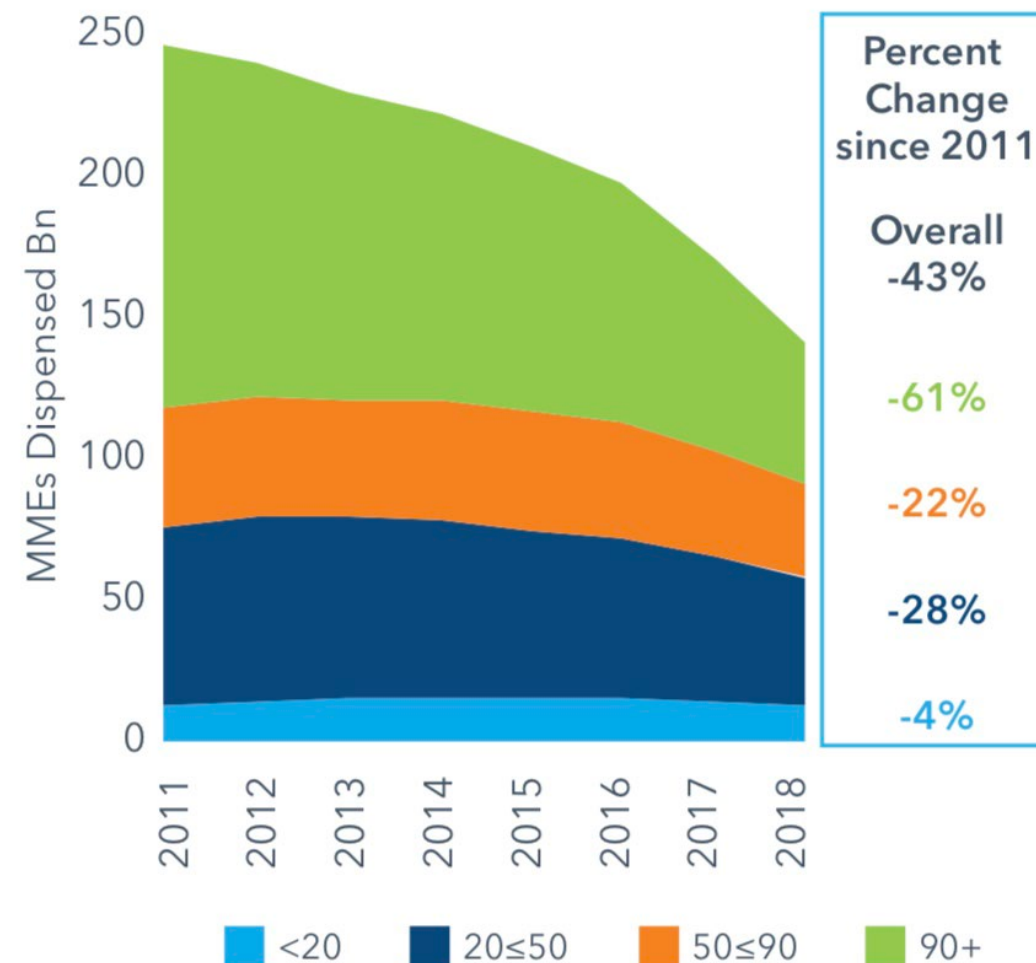
Opioid crackdown forces pain patients to taper off drugs they say they need



Hank Skinner and his wife, Carol, are no strangers to pain, having collectively experienced multiple illnesses and surgeries. Hank relies on a fentanyl patch but is now being forced to lower his dosage. (Salwan Georges/The Washington Post)

By **Joel Achenbach** and **Lenny Bernstein**

September 10, 2019 at 9:54 a.m. CDT



Patient Outcomes in Dose Reduction or Discontinuation of Long-Term Opioid Therapy: A Systematic Review FREE

Table 3. Studies of Effect of Dose Reduction or Discontinuation of LTOT on Patient Outcomes (n = 40 studies)

Study, Year (Reference)	Study Design	Intervention Type	Sample Size, n	Outcomes Assessed						Quality Rating
				Pain	Function	Quality of Life	Opioid Withdrawal	Substance Use	Adverse Events	
Heiwe et al, 2011 (43)	UO	Acupuncture	29	✓			✓			Fair
Hooten et al, 2009 (46)	UO	IPP	1241	✓						Fair
Hooten et al, 2010 (47)	UO	IPP	109	✓			✓			Fair
Huffman et al, 2017 (50)	CO	IPP	1457	✓	✓					Fair
Kidner et al, 2009 (52)	UO	IPP	1226	✓	✓	✓				Fair
Krumova et al, 2013 (54)	UO	IPP	102	✓	✓	✓	✓			Fair
Murphy et al, 2013 (63)	UO	IPP	705	✓	✓					Fair
Townsend et al, 2008 (80)	UO	IPP	373	✓	✓	✓				Fair
Baron and McDonald, 2006 (25)	CO	Buprenorphine-assisted	23	✓						Poor
Berland et al, 2013 (26)	UO	Buprenorphine-assisted	76	✓	✓		✓		✓	Poor
Blondell et al, 2010 (27)	RCT	Buprenorphine-assisted	12	✓	✓			✓		Poor
Buckley et al, 1986 (28)	UO	IPP	173				✓	✓	✓	Poor
Cowan et al, 2003 (30)	UO	IPP	104	✓	✓		✓			Poor
Cowan et al, 2005 (31)	RCT	Detoxification	10	✓	✓	✓	✓			Poor
Cunningham et al, 2016 (33)	UO	IPP	131	✓	✓	✓	✓			Poor
Daitch et al, 2012 (34)	UO	Buprenorphine-assisted	104	✓		✓	✓			Poor
Daitch et al, 2014 (35)	UO	Buprenorphine-assisted	35	✓		✓	✓			Poor
Drossman et al, 2012 (38)	UO	Detoxification	39	✓			✓			Poor
Hanson et al, 2009 (39)	CO	Other outpatient program	200	✓						Poor
Harden et al, 2015 (40)	UO	Other outpatient program	50	✓						Poor
Hassamal et al, 2016 (42)	UO	IPP	5	✓	✓	✓				Poor
Hooten et al, 2015 (48)	RCT	IPP	21	✓			✓		✓	Poor
Kapural et al, 2010 (51)	CO	Ketamine-assisted	36	✓					✓	Poor
Kroening and Oleson, 1985 (53)	UO	Acupuncture	14	✓			✓			Poor
Lake et al, 2009 (55)	UO	IPP	267	✓						Poor
Maani et al, 2011 (57)	UO	Other interventional program	6						✓	Poor
Maclaren et al, 2006 (58)	UO	IPP	127	✓	✓					Poor
Malinoff et al, 2005 (59)	UO	Buprenorphine-assisted	95	✓	✓		✓		✓	Poor
Miller et al, 2006 (62)	UO	Detoxification	53	✓						Poor
Nilsen et al, 2010 (66)	UO	Behavioral	11	✓	✓	✓	✓			Poor
Quinlan, 2012 (68)	UO	Ketamine-assisted	11	✓		✓			✓	Poor
Rome et al, 2004 (70)	UO	IPP	356	✓	✓	✓				Poor
Rosenblum et al, 2012 (71)	UO	Buprenorphine-assisted	12	✓	✓		✓	✓	✓	Poor
Roux et al, 2013 (72)	RCT	Buprenorphine-assisted	43	✓			✓			Poor
Schwarzer et al, 2015 (74)	CO	IPP	32	✓						Poor
Streltzer et al, 2015 (75)	UO	Buprenorphine-assisted	43						✓	Poor
Taylor et al, 1980 (77)	UO	IPP	7	✓	✓			✓	✓	Poor
Tennant and Rawson, 1982 (78)	CO	IPP	42	✓						Poor
Webster et al, 2016 (83)	RCT	Buprenorphine-assisted	39				✓		✓	Poor
Weimer et al, 2016 (84)	UO	Other outpatient program	516	✓		✓				Poor

CO = controlled observational study; IPP = interdisciplinary pain program; LTOT = long-term opioid therapy; RCT = randomized controlled trial; UO = uncontrolled observational study.

What do we know about tapers?

- Meta-analysis of 40 voluntary taper studies
 - 5 randomized controlled trials, 6 controlled observational studies, 29 uncontrolled observational studies.
 - None were rated as good-quality.
- None were mandated/involuntary tapers
- Studies often involved close (weekly) follow-up and multidisciplinary support
- Insufficient evidence on adverse events
- Improvements in “fair” quality studies
 - Pain: 8/8
 - Pain related function: 5/5

Table 4. Implications for Clinicians and Next Steps for Research

Implications for Clinicians	Next Steps for Research
Discuss with patients receiving LTOT that pain severity, function, and quality of life may improve after opioid tapering.	Researchers should seek consensus on the reporting of opioid dose reduction and definition of clinically meaningful dose reduction.
Consider referring patients to a multidisciplinary, multimodal pain program, when available, to support opioid dose reduction.	Innovative approaches to recruitment and randomization (such as trials with randomization at the provider or facility level) are needed to generate high-quality evidence on outcomes.
Consider team-based strategies with close follow-up to support opioid tapering when multidisciplinary programs are inadequately accessible.	Future studies should examine interventions that are feasible in busy primary care settings and scalable across multiple health systems.
Given inadequate evidence on the risks of opioid tapering, caution and close monitoring are warranted during and after.	Public health surveillance and large-scale observational studies are needed to assess outcomes of efforts to reduce opioid prescribing at health system and population levels.

LTOT = long-term opioid therapy.

A note of caution

- “In the context of ongoing health system and population-level efforts to reduce opioid use and prevent opioid-related harms, we identified no prospective studies of mandatory, involuntary opioid dose reduction among otherwise stable patients. This review found insufficient evidence on adverse events related to opioid tapering, such as accidental overdose... or onset of suicidality or other mental health symptoms. Public health surveillance and large-scale observational studies are needed to assess outcomes of efforts to reduce opioid prescribing at the health system and population levels, especially rare but important adverse events, such as overdose and suicide.”



U.S. Food and Drug Administration
Protecting and Promoting Your Health

Drug Safety Communications

FDA identifies harm reported from sudden discontinuation of opioid pain medicines and requires label changes to guide prescribers on gradual, individualized tapering

HHS Guide for Clinicians on the Appropriate Dosage Reduction or Discontinuation of Long-Term Opioid Analgesics

This HHS Guide for Clinicians on the Appropriate Dosage Reduction or Discontinuation of Long-Term Opioid Analgesics provides advice to clinicians who are contemplating or initiating a reduction in opioid dosage or discontinuation of long-term opioid therapy for chronic pain. In each case the clinician should review the risks and benefits of the current therapy with the patient, and decide if tapering is appropriate based on individual circumstances.

October 2019

“Stopping opioids abruptly or reducing the dose too quickly can result in serious problems, including withdrawal symptoms, uncontrolled pain, and thoughts of suicide.”



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Harms of involuntary or abrupt discontinuation

- Observational data on clinician-initiated opioid discontinuation highlight risks and reasons for caution
 - Study of 509 patients at VA found 9.2% had SI, 2.4% had SA following discontinuation.
 - Attempts to discontinue opioid therapy may lead patients to be exposed to variability in opioid dosing; nested case-control study found high-dose variability assoc w/ increased risk of overdose (OR 3.32) independent of opioid dose.
 - Retrospective cohort study examining mortality from 2010-2015 among patient prescribed chronic opioids found that 4.9% of discontinued patients died of overdose vs 1.75% retained patients. Discontinuation was associated with a hazard ratio for overdose death of 2.94.
 - Retrospective cohort study of patients prescribed chronic opioids in primary care found that patients who experienced an opioid taper compared with opioid dose continuation were more likely to have a termination of care (AOR 4.3)
- HHS guidance: Avoid misinterpreting cautionary doses as mandates to taper
 - *“There are serious risks to noncollaborative tapering: acute withdrawal, pain exacerbation, anxiety, depression, suicidal ideation, self-harm, ruptured trust, and patients seeking opioids from high-risk sources.”*

What if a patient develops OUD? Treat it!

Diagnosis of Opioid Use Disorder:

A problematic pattern of opioid use leading to clinically significant impairment or distress, as manifested by at least two of the following, occurring within a 12-month period

1. Opioids taken in larger amounts or over a longer period of time than was intended.
2. There is a persistent desire or unsuccessful efforts to cut down or control opioid use.
3. A great deal of time spent in activities to obtain, use, or recover from opioids.
4. Craving, or a strong desire or urge to use opioids.
5. Recurrent opioid use resulting in a failure to fulfill major role obligations.
6. Continued opioid use despite having persistent or recurrent social or interpersonal problems.
7. Important social, occupational, or recreational activities are given up or reduced.
8. Recurrent opioid use in situations in which it is physically hazardous.
9. Continued opioid use despite knowledge of having a persistent or recurrent physical or psychological problem that's likely to have been caused or exacerbated by the substance.
10. Tolerance*
11. Withdrawal*

*Diagnosis cannot be made on these two criteria alone

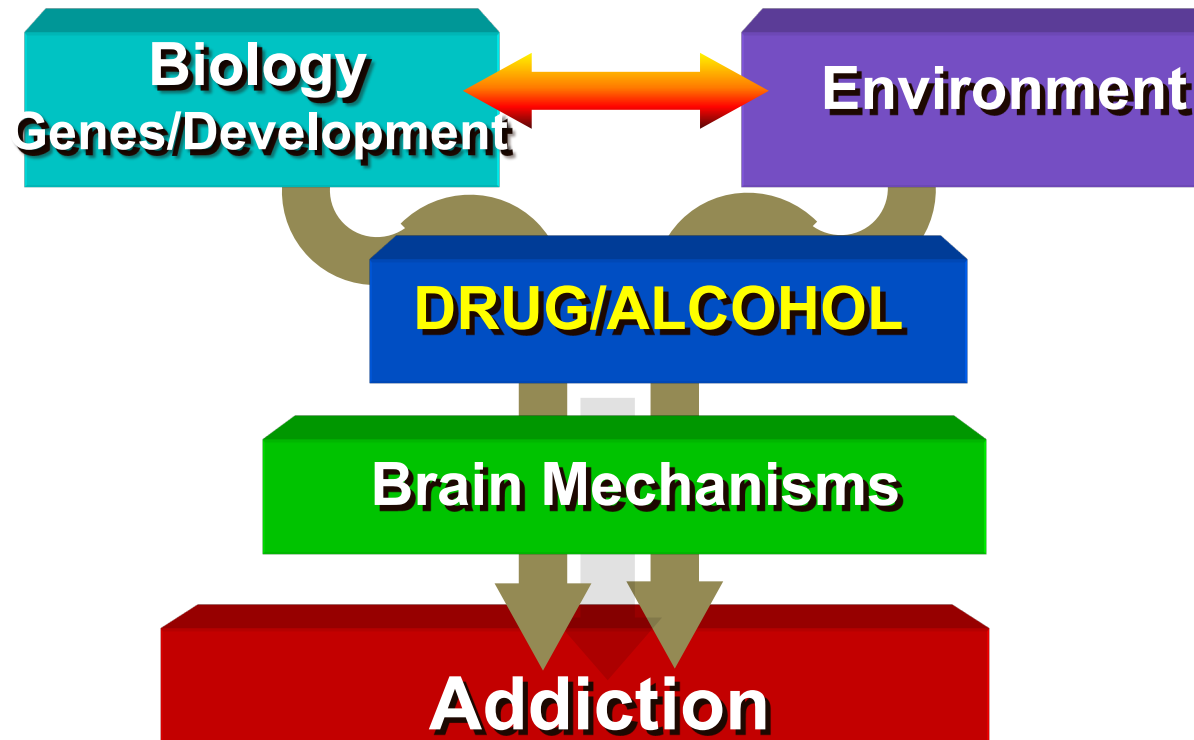
Severity: mild = 2–3 symptoms; moderate = 4–5 symptoms; severe = 6 or more symptoms

Understanding addiction

- Primary, chronic disease characterized by compulsive drug seeking and use *despite harmful consequences*
- Involves cycles of recurrence and remission
- 40-60% genetic



A disease of gene-environment-development



Similar to Management of Diabetes or HIV

- No cure
- Goal is prevention of acute and chronic complications
- Individualized treatment plans and targets
- Treatment includes:
 - Medication
 - Lifestyle changes
 - Regular monitoring for complications
 - Behavioral support



What is Effective Treatment?

Medication

Methadone

Buprenorphine

Naltrexone

Psychosocial Interventions

Cognitive behavioral therapy

Motivational enhancement therapy

Contingency management

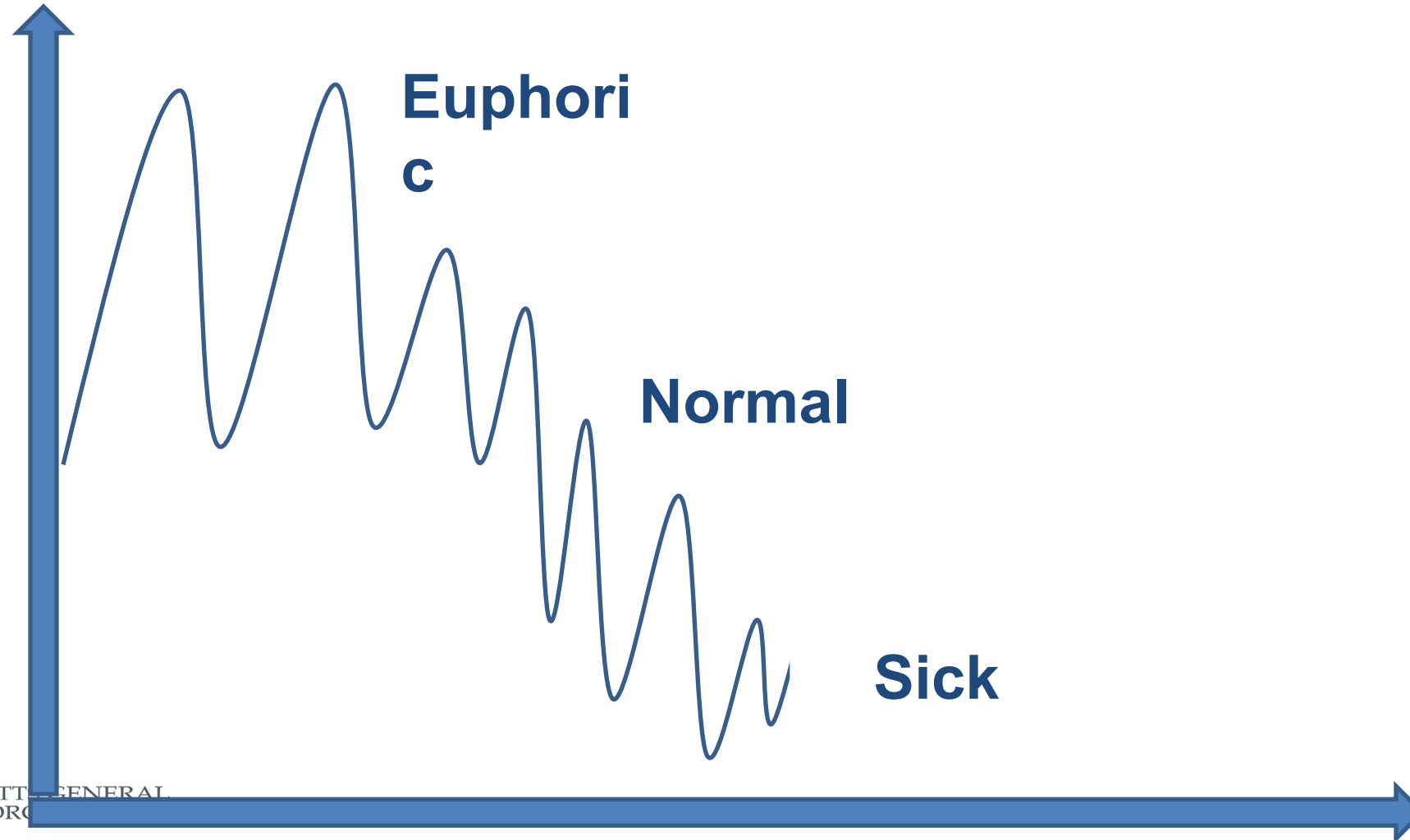
Recovery Supports

Recovery coaching

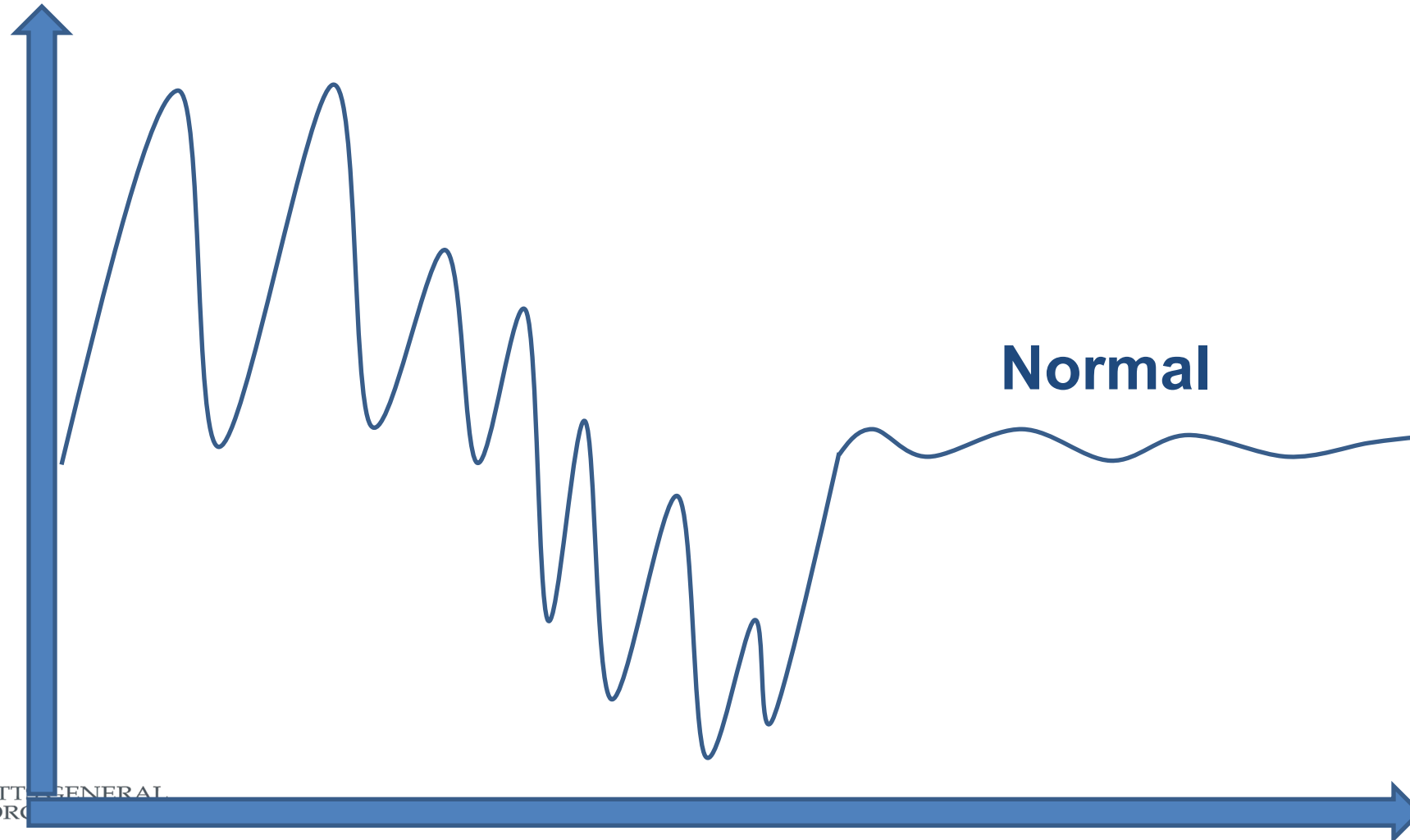
Mutual help organizations



Natural History of Opioid Use Disorder



Goal of Medications for Addiction Treatment



Goal of Medications for Addiction Treatment

1

Relieve
withdrawal
symptoms

2

Block effects of
other opioids

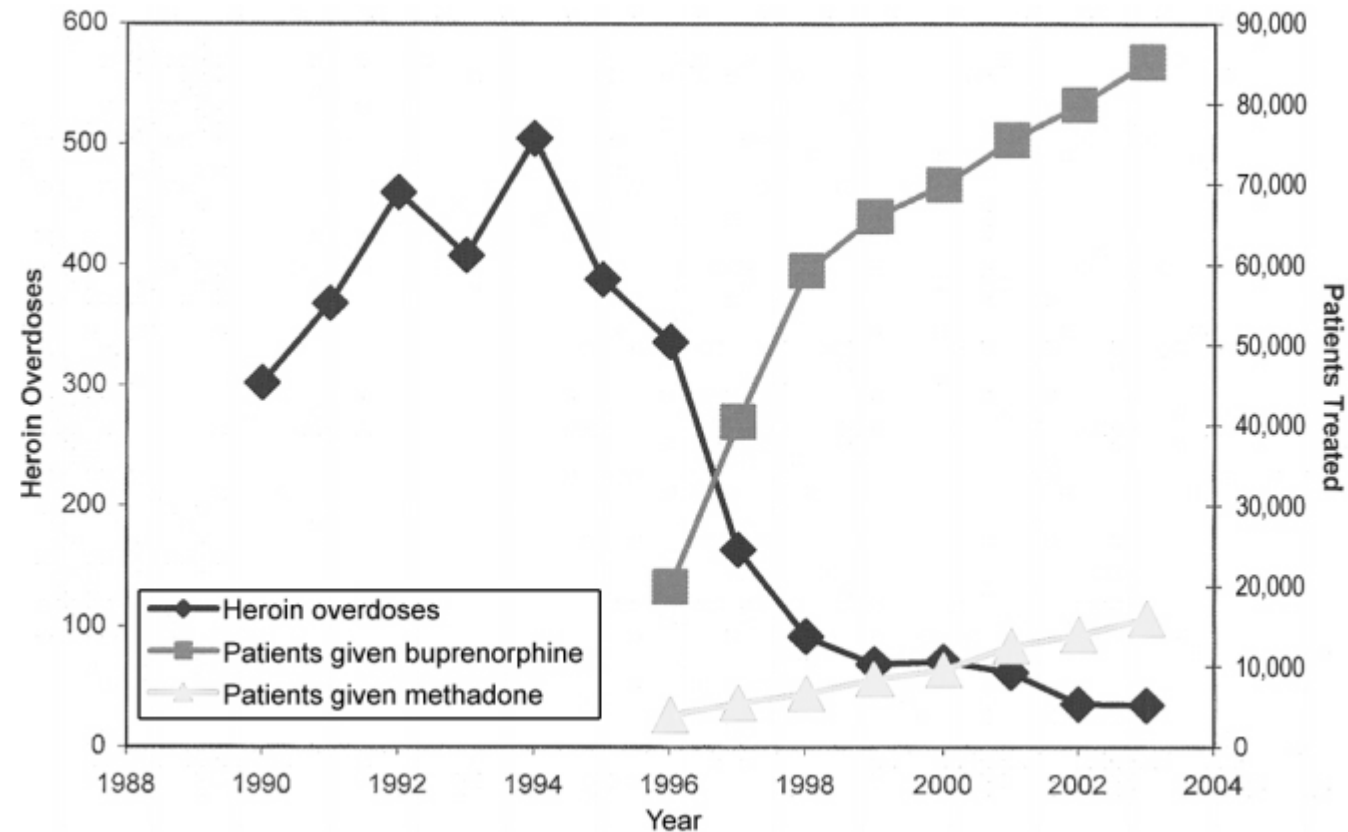
3

Reduce
cravings

4

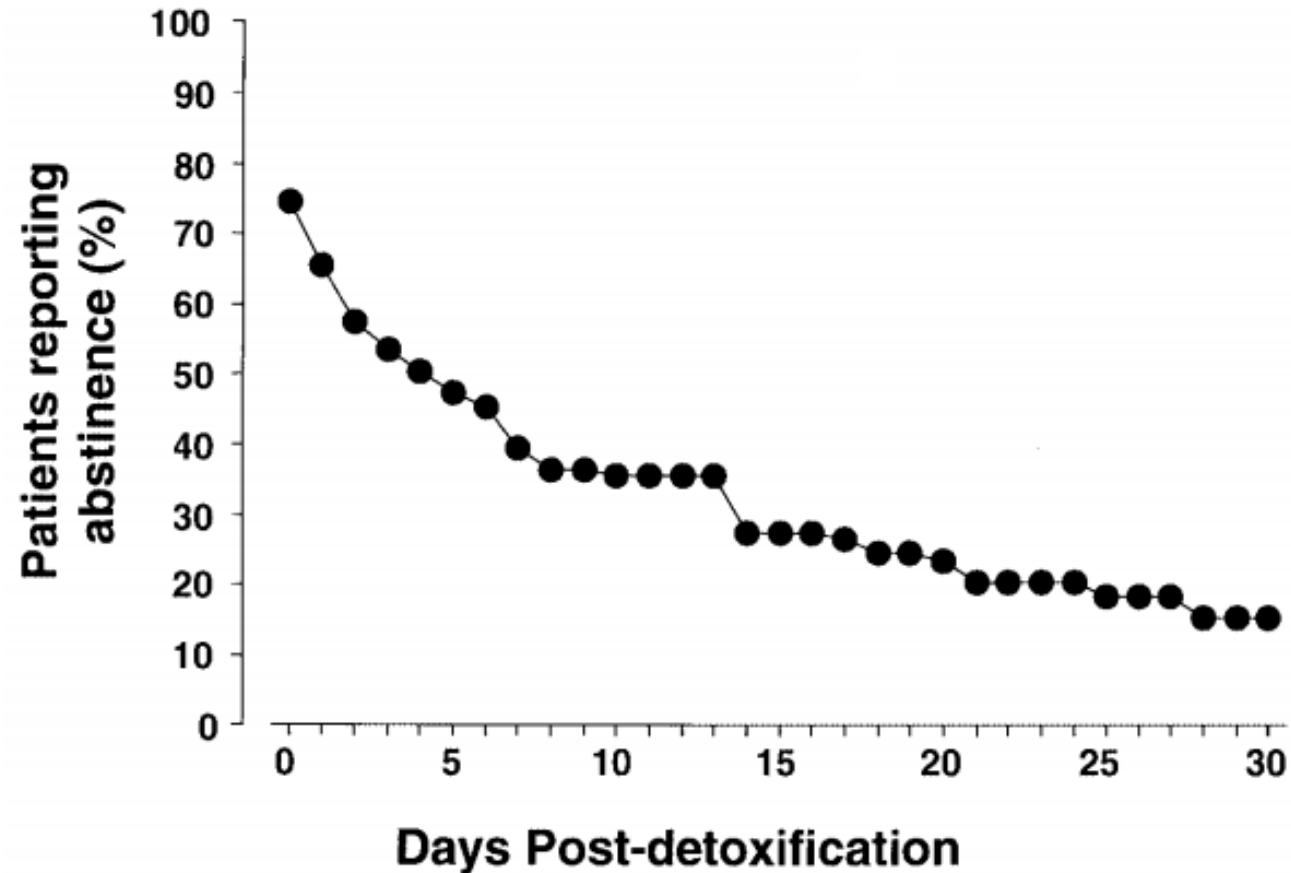
Restore normal
reward
pathway

Medication for Opioid Use Disorder Saves Lives



Not all treatment pathways are equally effective: informed decision making for patients crucial

INPATIENT OPIOID DETOXIFICATION OUTCOMES



August 23, 1965

A Medical Treatment for Diacetylmorphine (Heroin) Addiction

A Clinical Trial With Methadone Hydrochloride

Vincent P. Dole, MD; Marie Nyswander, MD

JAMA. 1965;193(8):646-650. doi:10.1001/jama.1965.03090080008002

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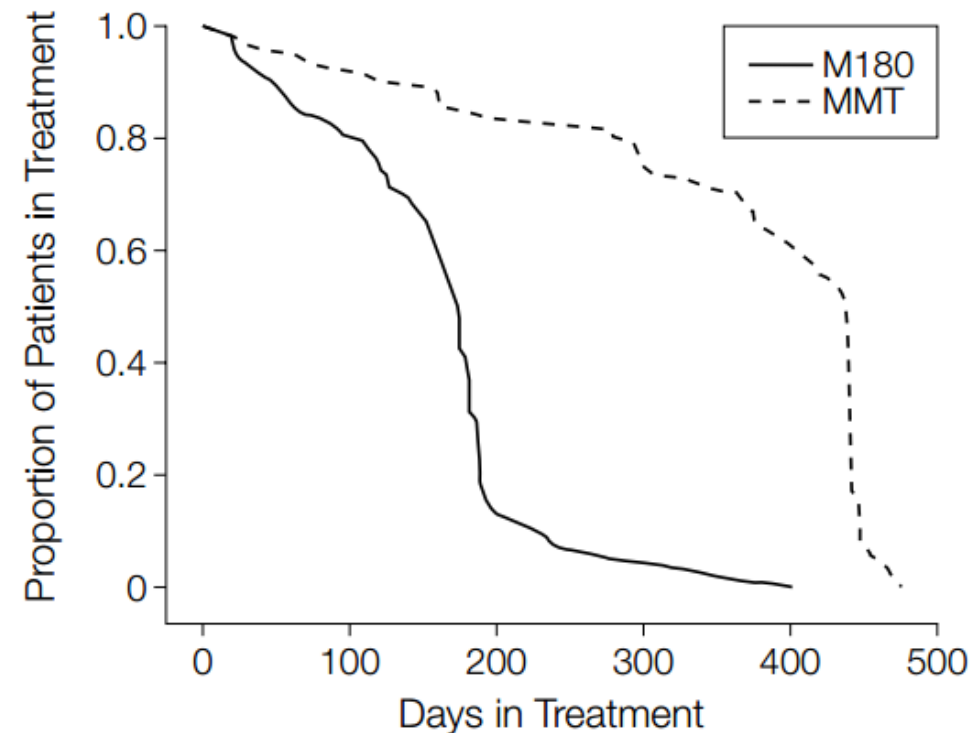
A group of 22 patients, previously addicted to diacetylmorphine (heroin), have been stabilized with oral methadone hydrochloride. This medication appears to have two useful effects: (1) relief of narcotic hunger, and (2) induction of sufficient tolerance to block the euphoric effect of an average illegal dose of diacetylmorphine. With this medication, and a comprehensive program of rehabilitation, patients have shown marked improvement; they have returned to school, obtained jobs, and have become reconciled with their families. Medical and psychometric tests have disclosed no signs of toxicity, apart from constipation. This treatment requires careful medical supervision and many social services. In our opinion, both the medication and the supporting program are essential.

ough review of evidence available in 1957,¹ concluded that "The advisability of establishing clinics or some equivalent system to dispense opiates to addicts cannot be settled on the basis of objective facts. Any position taken is necessarily based in part on opinion, and on this question opinions are divided." With respect to previous trials of maintenance treatment, the Council found that "Assessment of the operations of the narcotic dispensaries between 1919 and 1923 is difficult because of the paucity of published material. Much of the small amount of data that is available is not sufficiently objective to be of great value in formulating any clear-cut opinion of the purpose of the clinics, the way in which they operated, or the results attained." No new studies bearing on the question

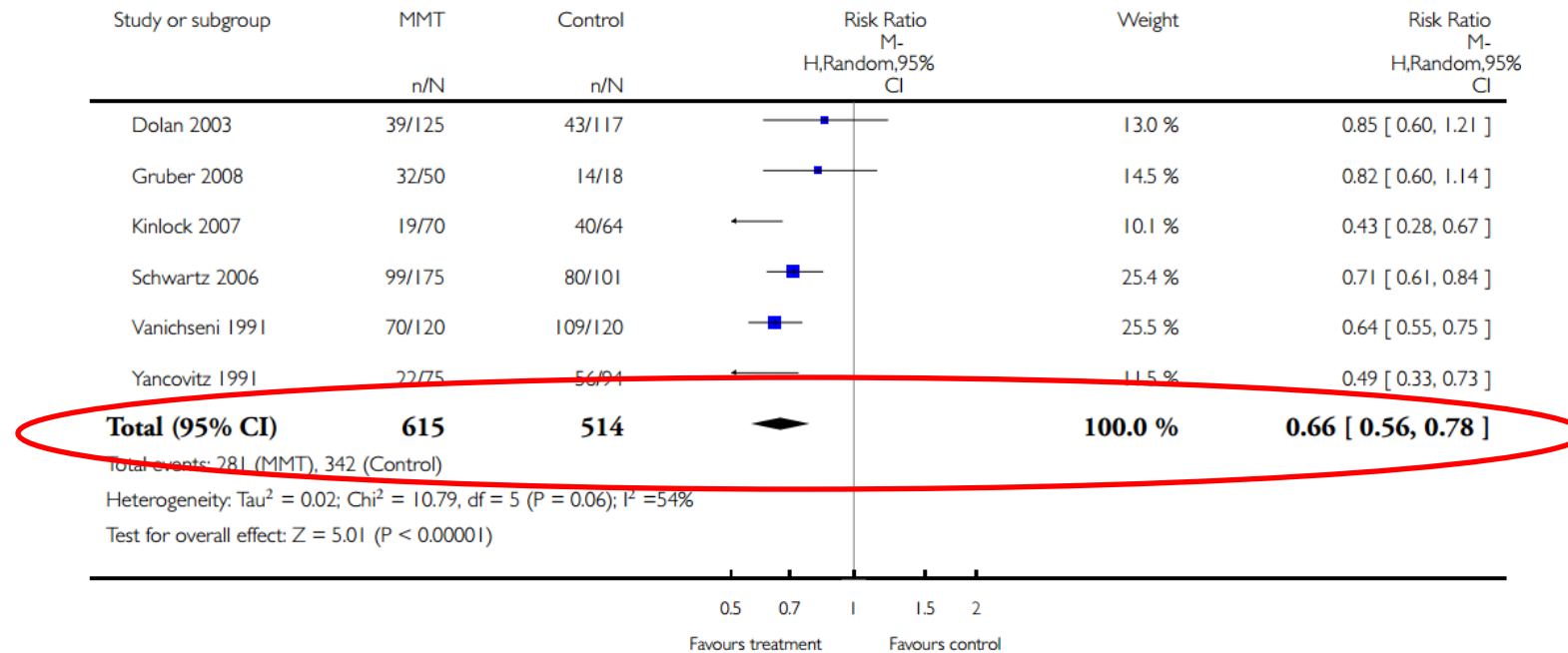


Treatment Retention Higher with Methadone Maintenance

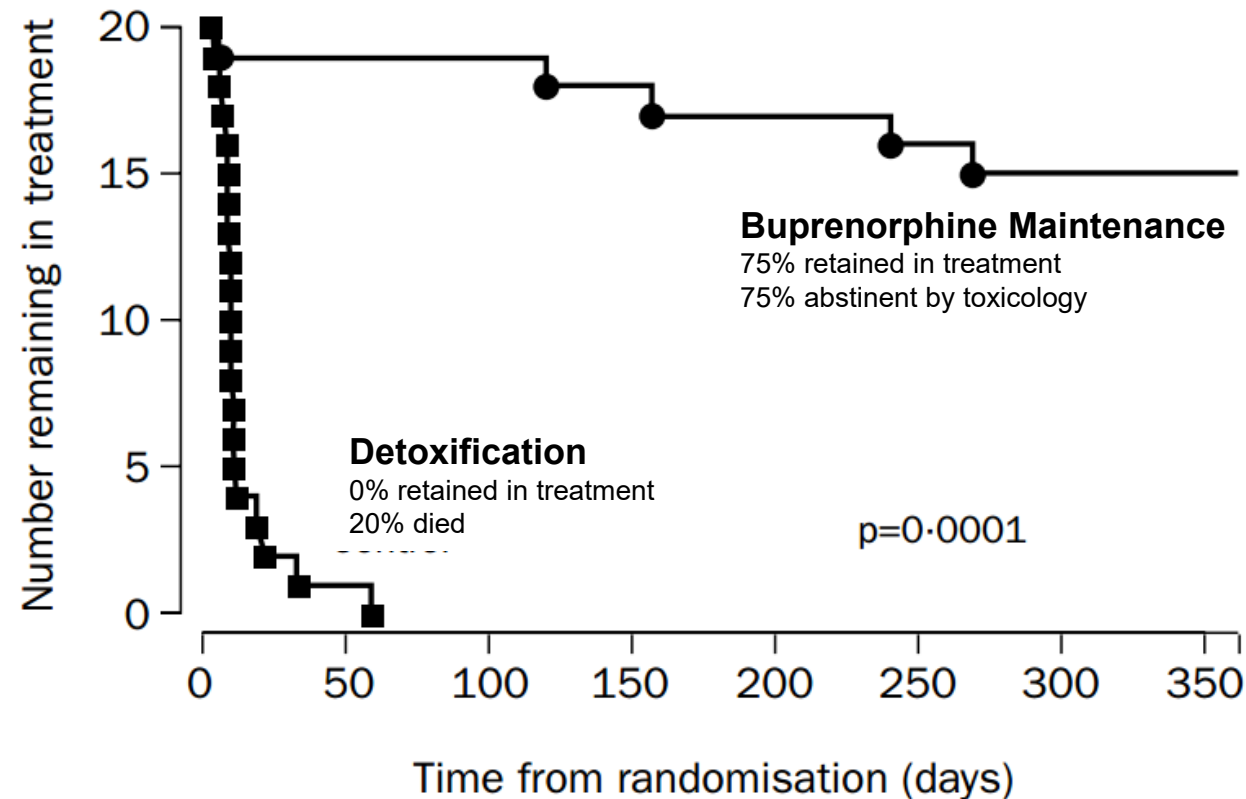
Figure 3. Survival Function by Treatment Group



Opioid Use Lower with Methadone Compared to other Treatments



Buprenorphine maintenance more effective than withdrawal management + counseling



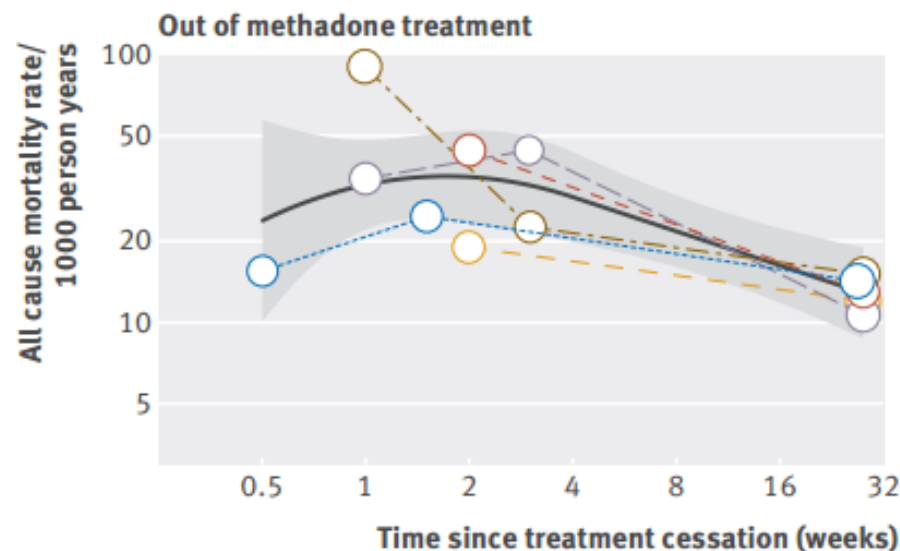
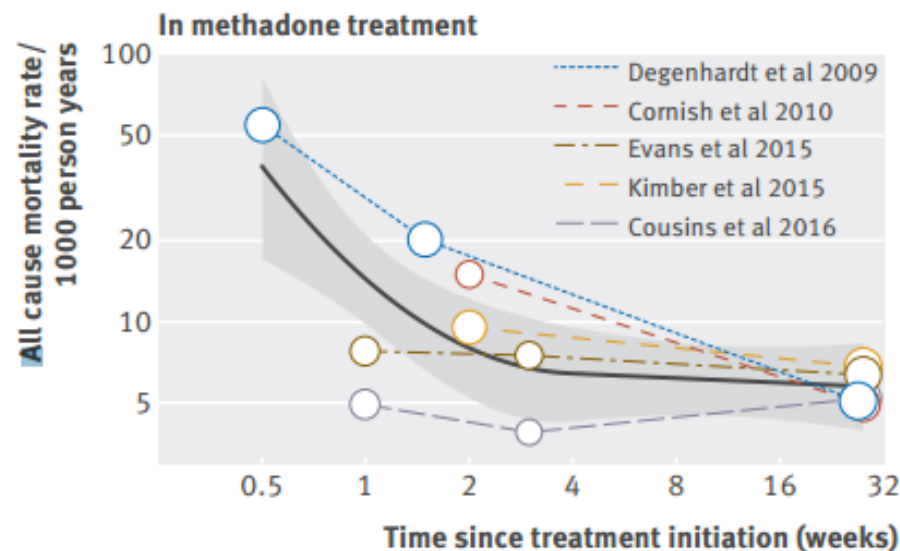
Most Patients Achieve Remission

Table 2.

Change in clinical characteristics from study entry to follow-up 18, 30, and 42 months later.

Participant characteristics	Month 0 ¹ (n = 338)	Month 18 (n = 252)	Month 30 (n = 312)	Month 42 (n = 306)
Substance use, past month				
Current opioid dependence ² , %**	100	16.3 ^a	11.5	7.8 ^b
Abstinent from illicit opioids ³ , %***	0	51.2 ^a	63.5 ^b	61.4 ^b
Opioid agonist treatment, %	0	31.8	38.1	36.9

Only methadone and buprenorphine reduce mortality



All cause mortality rates (per 1000 person years):

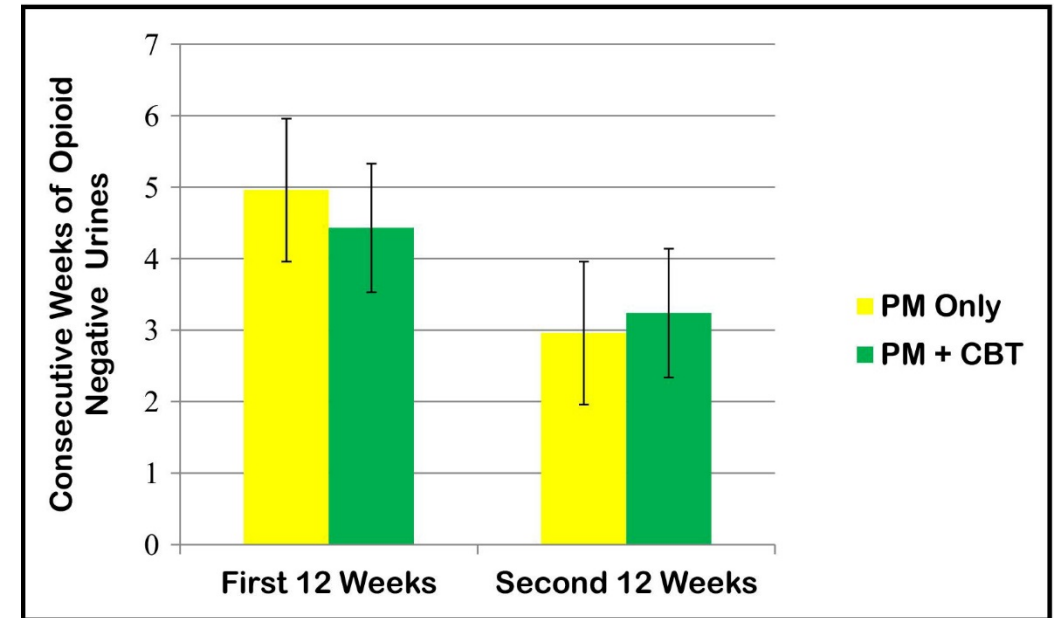
- In methadone treatment: 11.3
- Out of methadone treatment: 36.1
- In buprenorphine treatment: 4.3
- Out of buprenorphine treatment: 9.5

Overdose mortality rates:

- In methadone treatment: 2.6
- Out of methadone treatment: 12.7
- In buprenorphine treatment: 1.4
- Out of buprenorphine treatment: 4.6

Buprenorphine effective with or without adjunctive behavioral treatments

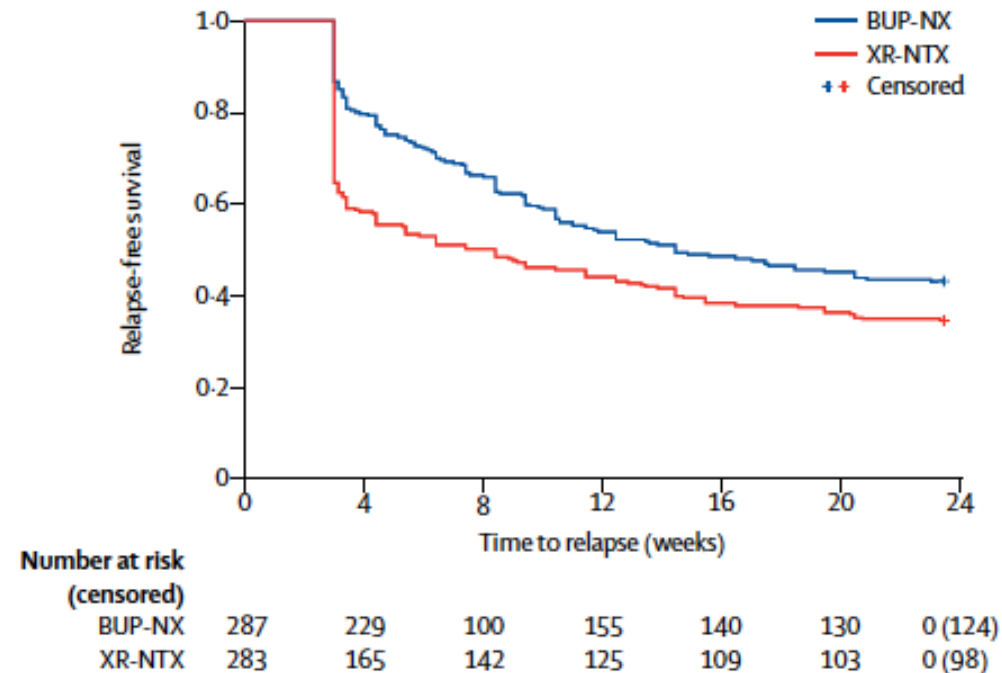
- RCT of behavioral treatment in addition to buprenorphine x 16 weeks: Cognitive Behavioral vs contingency management vs both vs medication management alone
- No differences in treatment retention, opioid use, or other drug use



- RCT of primary care mgmt +/- CBT
- No difference in self reported opioid use, opioid abstinence, study completion, or cocaine abstinence between the 2 groups

Buprenorphine vs. XR-NTX: U.S.

- Relapse rate: 65% for XR-NTX vs 57% for BUP-NX
- Only 72% of XR-NTX group started med (only 53% if randomized during detox)
- 94% of group assigned to buprenorphine started
- Among those who successfully started XR-NTX, outcomes equivalent to BUP-NX



NASEM Consensus Report

Lack of availability or utilization of behavioral interventions is not a sufficient justification to withhold medications to treat opioid use disorder.

Behavioral interventions, in addition to medical management, do not appear to be necessary as treatment in all cases. Some people may do well with medication and medical management alone. However, evidence-based behavioral interventions can be useful in engaging people with OUD in treatment, retaining them in treatment, improving outcomes, and helping them resume a healthy functioning life. There is inadequate evidence about which behavioral interventions provided in conjunction with medications for OUD are most helpful for which patients, including evidence on how effective peer support is; more research is needed to address this knowledge deficit.



NASEM Consensus Report

Conclusion 6:
Medication-based treatment is effective across all treatment settings studied to date. Withholding or failing to have available all classes of U.S. Food and Drug Administration–approved medication for the treatment of opioid use disorder in any care or criminal justice setting is denying appropriate medical treatment.

Treatment with FDA-approved medications is clearly effective in a broader range of care settings (e.g., office-based care settings, acute care, and criminal justice settings) than is currently the norm. There is no scientific evidence that justifies withholding medications from OUD patients in any setting or denying social services (e.g., housing, income supports) to individuals on medication for OUD. Therefore, to withhold treatment or deny services under these circumstances is unethical.



ACUTE PAIN MANAGEMENT FOR PATIENTS WITH OUD TREATED WITH OPIOID AGONIST THERAPY

Mutual Mistrust

- Physicians Fear Deception
 - “When the patient is always seeking, there is a sort of a tone, always complaining and always trying to get more. It’s that seeking behavior that puts you off, regardless of what’s going on, it just puts you off.” –JAR
- Patients perceive that treatment of pain and withdrawal is extremely variable among physicians
 - “The last time, they took me to the operating room, put me to sleep, gave me pain meds, and I was in and out in two days.... This crew was hard! It’s like the Civil War. ‘He’s a trooper, get out the saw’..
’”
.

Mutual Mistrust

- Patients perceive physicians to be avoiding pain/addiction:
 - Patient/Resident Dialog Resident: "Good Morning"
 - Patient: "I'm in terrible pain."
 - Resident: "This is Dr. Attending, who will take care of you."
 - Patient: "I'm in terrible pain."
 - Attending: "We're going to look at your foot."
 - Patient: "I'm in terrible pain."
 - Resident: "Did his dressing get changed?"
 - Patient: "Please don't hurt me."
- Patients are fearful they will be punished for their drug use by poor medical care.
 - "I mentioned that I would need methadone, and I heard one of them chuckle in a negative, condescending way. You're very sensitive because you expect problems getting adequate pain management because you have a history of drug use. . . He showed me that he was actually in the opposite corner, across the ring from me."

Language Influences Care

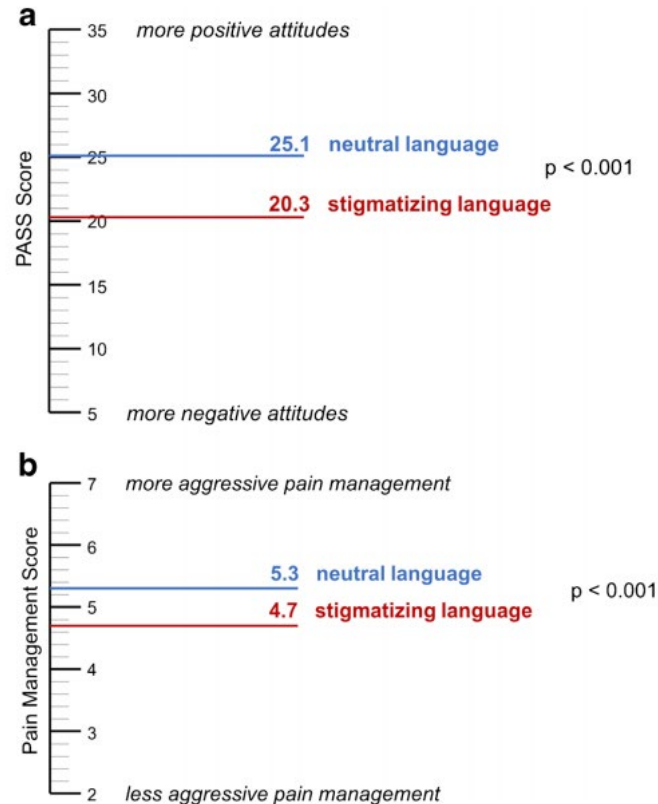


Figure 1 Effect of stigmatizing language on attitudes (Panel A) and on pain management (Panel B).

Neutral language chart note

Section 1

Mr. R is a 28-year old man with sickle cell disease and chronic left hip osteomyelitis who comes to the ED with 10/10 pain in his arms and legs. He has about 8–10 pain crises per year, for which he typically requires opioid pain medication in the ED. At home, he takes 100 mg OxyContin BID and oxycodone 5 mg for breakthrough pain. Over the past few days, he has taken 2 tabs every 4–6 hours. About 3 months ago, he moved to a new apartment and now has to wheel himself in a manual wheelchair up 3 blocks from the bus stop.

Stigmatizing language chart note

Mr. R is a 28-year old sickle cell patient with chronic left hip osteomyelitis who comes to the ED stating he has 10/10 pain “all up in my arms and legs.” He is narcotic dependent and in our ED frequently. At home he reportedly takes 100 mg OxyContin BID and oxycodone 5 mg for breakthrough pain. Over the past few days, he says that he has taken 2 tabs every 4–6 hours. About 3 months ago, patient states that the housing authority moved him to a new neighborhood and he now has to wheel himself in a manual wheelchair up 3 blocks from the bus stop.

Patient Perspectives

“If I wouldn’t have been so sick [i.e. experiencing opioid withdrawal], if they would listen about my drug needs, I would stay [in hospital]. Just take it seriously.”

“You could just show a little more compassion and gentleness. Understand that good people are also addicts. Not everybody is a criminal. Maybe not to deny them proper medications whether it’s an opiate or not just because of their addiction. Give them a chance to heal and get better.”

Patient Perspectives

“The hospital should ask the person, ‘Do you need anything? Are you using anything?’ Heroin, it’s an addictive drug. If my doctor was giving me pain medication, then I wouldn’t have to use heroin...If you’re a junkie and go in the hospital, they won’t give you anything. How do they expect you to stay?”

“I think they need to learn more about [people with addiction] and that they need more teaching around addictions instead of judging because of them not having that education...Instead of just being a nurse, maybe be a friend too.”

Acute Pain for patients with OUD on opioid agonist tx

- Maintenance dose of methadone/buprenorphine does not provide analgesia
- Analgesic requirements often higher due to increased pain sensitivity and cross tolerance
- Methadone strategy:
 - Continue usual verified once daily methadone dose
 - Treat pain with conventional analgesics, including opioids at higher doses and shorter intervals
- Buprenorphine options:
 - Continue buprenorphine and titrate short-acting opioids
 - D/c buprenorphine, use full agonist opioids, then re-induce
 - Divide total buprenorphine dose into every 6-8 hour dosing
 - Use supplemental doses of buprenorphine

Thank you!

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- @DrSarahWakeman