PAIN AND ADDICTION

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The ASAM Review Course of Addiction Medicine
July 2021

Financial Disclosures

Edwin A. Salsitz, MD, DFASAM
No Disclosures

2

"PRINCIPLES" 6th Edition

Comprehensive, Complete, Clear, References

- Chap. 37: Misuse All Controlled Medications
- Chap. 100: Basic Science and Overlap P & A
- Chap. 101: Psychological Issues
  - "If life is empty, pain will fill it up"
- Chap. 102: Rehabilitation Modalities
- Chap. 103: Non-Opioid Pharmacotherapy
- Chap. 104: Opioid Therapy
- Chap. 105: Co-Occurring Pain and Addiction
- Chap. 106: Legal & Regulatory Issues in Opioid Prescribing

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JAMA. 2016;315(17):1826

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Alleviating Suffering 101
Pain Relief in the USA

- 2011 IOM Report: 116 Million Americans have pain which persists for weeks to years
- $560---$635 Billion per year
- Some physicians overprescribe opioids, while others refuse to prescribe
- Lack of education: Providers and Patients
  - Headache, LBP, Neck Pain, Joint Pain, Fibromyalgia

NEJM 366:3 Jan 19,2012

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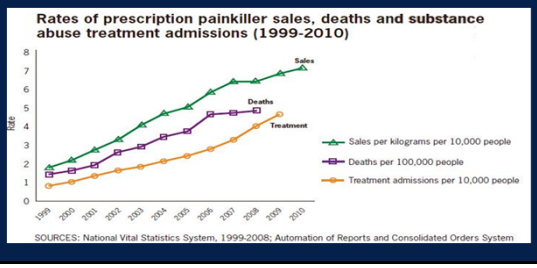
Rates of Opioid Overdose Deaths, Sales, and Treatment Admissions, United States, 1999–2010



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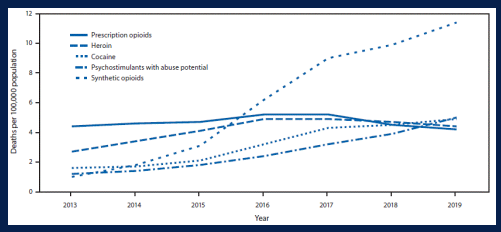
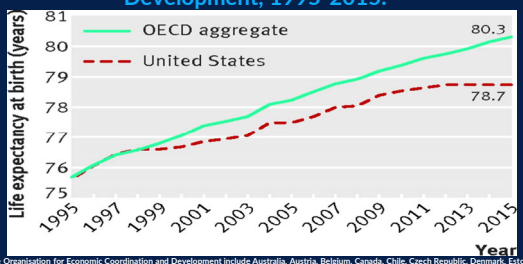
Age-adjusted rates of drug overdose deaths involving prescription opioids, heroin, cocaine, psychostimulants with abuse potential, and synthetic opioids other than methadone— United States, 2013–2019



MMWR Morb Mortal Wkly Rep 2021;70:202–207

7

Life expectancy at birth in the US and the Organisation for Economic Cooperation and Development, 1995-2015.

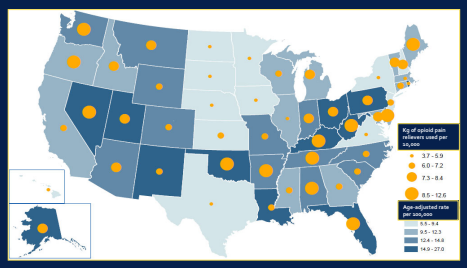


Members of the Organisation for Economic Coordination and Development include Australia, Austria, Belgium, Canada, Chile, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Latvia, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, the UK, and the US. .

Steven H Woolf, and Laudan Aron BMJ 2018;360:bmj.k496

8

Drug Overdose Death Rate, 2008, and Opioid Pain Reliever Sales Rate, 2010



National Vital Statistics System, 2008; Automated Reports Consolidated Orders System, 2010.

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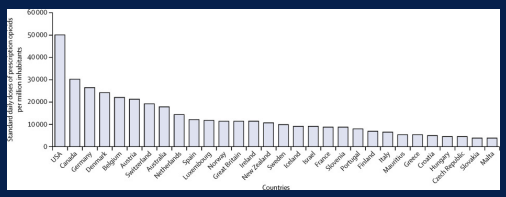
Avoiding Globalization of the Prescription Opioid Epidemic



Top 30 Opioid-Consuming Nations 2012-2014

Lancet, Vol 390, 29 July–4 August 2017, Pages 437-439, Keith Humphreys

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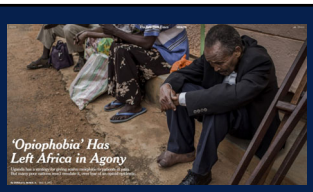

The United States, the report said, produces or imports 31 times as much narcotic pain-relievers it needs whether in legal or illegal form: morphine, hydrocodone, heroin, methadone, fentanyl and so on. Haiti, by contrast, gets slightly less than 1 percent of what it needs. And Nigeria, on a per-capita basis, gets only a quarter of what Haiti gets: 0.2 percent of its need.

The cobbler's desperate need exemplifies a problem that deeply worries palliative care experts: how they can help the 25 million people who die in agony each year in poor and middle-income countries without risking an American-style overdose epidemic abroad or triggering opposition from Western legislators and philanthropists for whom "opioid" has become a dirty word.

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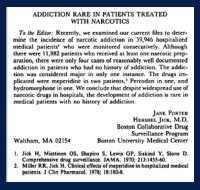
How Did We Get Here?

12

"Perfect Storm"

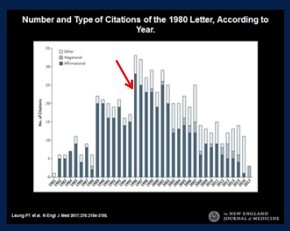


ADDICTION RARE IN PATIENTS TREATED WITH NARCOTICS

To the Editor: Recently, we examined our current files to determine the incidence of narcotic addiction in 39,946 hospitalized medical patients[1] 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,[2] 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.

Jane Porter
Hershel Jick, M.D.
Boston Collaborative Drug Surveillance Program
Waltham, MA 02154 Boston University Medical Center

1. Jick H, Miettinen OS, Shapiro S, Lewis GP, Siskind V, Slone D. Comprehensive drug surveillance. JAMA. 1970; 213:1455-60.
2. Miller RR, Jick H. Clinical effects of meperidine in hospitalized medical patients. J Clin Pharmacol. 1978; 18:1804.



1980→ 2017: 608 citations : ~75% used as evidence that addiction is rare with COT,
and made no mention that these were hospitalized patients with few doses of opioids.
11 other letters from 1980 were cited on average, 11 times.

N Engl J Med 1980; 302: 123.
N Engl J Med 376;22 June 2017

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"Perfect Storm"

- 1995: Introduction of Oxycontin
- 1995: Pain is Fifth Vital Sign
- Publications indicating low risk of addiction
- Thought Leaders with Financial/Pharma Conflicts
- Patient Satisfaction Surveys: "…staff did everything they could to help you with your pain"
- Physicians successfully sued for not treating pain
- No Evidence long term Effectiveness COT → CNCP
- Physical Dependence vs Addiction

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Doctor liable for not giving enough pain medicine

June 14, 2001 Posted: 12:28 AM EDT (0428 GMT)

HAYWARD, California (CNN) -- In a civil case that could have broad ramifications for how patients in pain are treated, a California jury Wednesday found a doctor liable for recklessness and abuse for not prescribing enough pain medication to a patient, who later died of cancer.

The jury in Alameda County Superior Court called on the doctor to pay the patient's family $1.5 million dollars for pain and suffering of the patient. Under California law, however, the cap for such awards is $250,000, and the judge will likely reduce the jury's award.

A Doctor Who Prescribed 500,000 Doses of Opioids Is Sent to Prison for 40 Years

Dr. Joel Smithers was convicted of more than 800 counts of illegally prescribing opioids, and jurors found that the drugs he prescribed caused the death of a woman.

By Adeel Hassan

Oct. 2, 2019

A Virginia doctor who prescribed more than 500,000 doses of opioids in two years was sentenced to 40 years in prison on Wednesday for leading what prosecutors called an interstate drug distribution ring.

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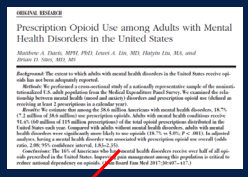

ORIGINAL RESEARCH

Prescription Opioid Use among Adults with Mental Health Disorders in the United States

Conclusions: **The 16% of Americans who have mental health disorders receive over half of all opioids prescribed in the United States.** Improving pain management among this population is critical to reduce national dependency on opioids.
Adverse Selection

J Am Board Fam Med 2017;30:407– 417

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Which of the following is not a risk factor for prescription opioid misuse?

A. Tobacco Use Disorder
B. History of depression
C. Marital Status
D. A family member with alcohol use disorder

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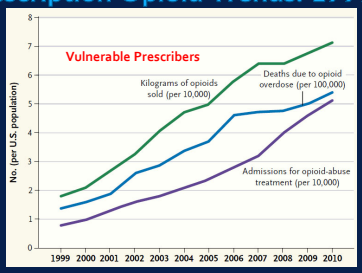
Prescription Opioid Trends: 1999-2010



National Vital Statistics System, 1999-2008; Automation of Reports and Consolidated Orders System of the DEA; Treatment Episode Data Set

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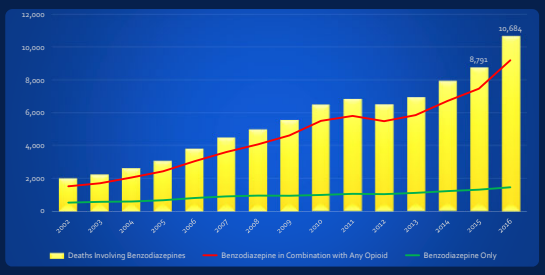
Opioid Involvement in Benzodiazepine Overdose



Source: National Center for Health Statistics, CDC Wonder

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New Safety Measures Announced for Opioid Analgesics, Prescription Opioid Cough Products, and Benzodiazepines FDA: August 2016

Table 1. The Danger of Combining Opioids And Benzodiazepines

FDA Warning: Risks From Concomitant Use With Benzodiazepines or Other CNS Depressants

Concomitant use of opioids with benzodiazepines or other central nervous system (CNS) depressants, including alcohol, may result in profound sedation, respiratory depression, coma, and death.

- Reserve concomitant prescribing of (opioid) and benzodiazepines or other CNS depressants for use in patients for whom alternative treatment options are inadequate
- Limit dosages and durations to the minimum required
- Follow patients for signs and symptoms of respiratory depression and sedation

Source: US Food and Drug Administration website. Available at: http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm518697.

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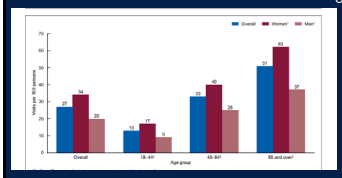
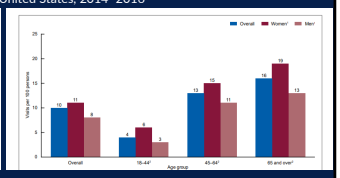
Visit rates at which benzodiazepines were prescribed for adult patients aged 18 and over, by age and sex: United States, 2014–2016



Visit rates at which benzodiazepines were prescribed with opioids for adult patients aged 18 and over, by age and sex: United States, 2014–2016



National Health Statistics Reports-Number 137-January 17, 2020

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FDA Drug Safety Communication: FDA urges caution about withholding opioid addiction medications from patients taking benzodiazepines or CNS depressants: careful medication management can reduce risks

This provides updated information to the FDA Drug Safety Communication: FDA warns about serious risks and death when combining opioid pain or cough medicines with benzodiazepines; requires its strongest warning (/Drugs/DrugSafety/ucm518473.htm) issued on August 31, 2016.

Safety Announcement

[9-20-2017] Based on our additional review, the U.S. Food and Drug Administration (FDA) is advising that the opioid addiction medications buprenorphine and methadone should not be withheld from patients taking benzodiazepines or other drugs that depress the central nervous system (CNS). The combined use of these drugs increases the risk of serious side effects; however, the harm caused by untreated opioid addiction can outweigh these risks. Careful medication management by health care professionals can reduce these risks. We are requiring this information to be added to the buprenorphine and methadone drug labels along with detailed recommendations for minimizing the use of medication-assisted treatment (MAT) drugs and benzodiazepines together.

Buprenorphine and methadone help people reduce or stop their abuse of opioids, including prescription pain medications and heroin. Methadone and buprenorphine have been shown to be effective in reducing the negative health effects and deaths associated with opioid addiction and dependency.[1] These medications are often used in combination with counseling and behavioral therapies (https://www.samhsa.gov/medication-assisted-treatment/treatment/counseling-behavioral-therapies), and patients can be treated with them indefinitely. Buprenorphine and methadone work by acting on the same parts of the brain as the opioid that the patient is addicted to. The patient taking the medication as directed generally does not feel high, and withdrawal does not occur. Buprenorphine and methadone also help reduce cravings[2] (see Table 1. List of Buprenorphine and Methadone MAT Drugs).

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Intended/Unintended Consequences in Reaction to the Prescription Opioid Epidemic

- Prescription Drug Monitoring Programs: PDMP
- Limits on the quantity and dosage prescribed
- UDTs becoming standard of care
- Education of prescribers: FDA REMS course on Safe and Effective Opioid Mgt.
- CDC Guidelines
- Tamper Resistant/Abuse Deterrent Formulations
- HEROIN: Cheaper, Readily Accessible
- FENTANYL/Fentanyl Analogues

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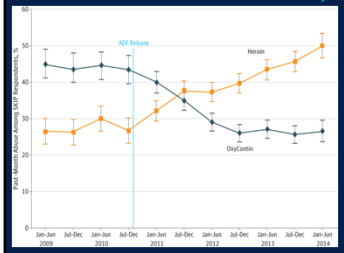
Abuse-Deterrent Formulations and the Prescription Opioid Abuse Epidemic in the United States: Lessons Learned From OxyContin



Respondents Who Endorsed Past-Month Use of OxyContin or Heroin Before and After the Introduction of an Abuse-Deterrent Formulation (ADF). Respondents include 10 784 participants in the Survey of Key Informants' Patients (SKIP) program (mean number per half-year, 991). Data are presented in 6-month increments from January 1, 2009, through June 30, 2014, and are expressed as percentages (95% CI [error bars]), with a χ^2 test for trend significance of $P < .001$ during the study period. The ADF was released in August 2010. OxyContin is a proprietary formulation of oxycodone hydrochloride.

JAMA Psychiatry. 2015;72(5):424-430.

24

Which of the following statements are consistent with the CDC Guidelines for Prescribing Opioids for Chronic Pain published in 2016?

A. Non-Pharmacological Therapies should be first line treatment
B. When initiating Opioid therapy, IR opioids should be prescribed, not ER/LA opioids
C. For acute pain, limit opioid treatment duration to 7 days
D. All of the Above

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CDC Guideline for Prescribing Opioids for Chronic Pain—3/16

Type 1 evidence: Randomized clinical trials or overwhelming evidence from observational studies
Type 2 evidence: Randomized clinical trials with important limitations, or exceptionally strong evidence from observational studies.
Type 3 evidence: Observational studies or randomized clinical trials with notable limitations
Type 4 evidence: Clinical experience and observations, observational studies with important limitations, or randomized clinical trials with several major limitations

- **NonPharmacologic** and **NonOpioid** therapy is preferred (Type 3)
- Before starting opioid therapy, **Establish Realistic Treatment Goals (Type 4)**
- Before starting and periodically during opioid therapy, discuss **Risks, Benefits** and responsibilities for managing therapy **(Type 3)**
- **Immediate Release Opioids** should be used when starting therapy (Type 4)
- When opioids are started, **Lowest Effective Dose** should be used**50/90 MME (Type 3)**
- Quantity prescribed: **Acute Pain < 3 days supply, Rarely >7 days (Type 4)**
- **Evaluate Benefit vs Harm** in patient within 1-4 weeks of starting opioids (Type 4)

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CDC Guideline for Prescribing Opioids for Chronic Pain—3/16

Type 1 evidence: Randomized clinical trials or overwhelming evidence from observational studies
Type 2 evidence: Randomized clinical trials with important limitations, or exceptionally strong evidence from observational studies.
Type 3 evidence: Observational studies or randomized clinical trials with notable limitations
Type 4 evidence: Clinical experience and observations, observational studies with important limitations, or randomized clinical trials with several major limitations

- Before starting and during therapy, **Evaluate Risk Factors (Type 4)**
- Review patient's history of controlled substance use by using the state's automated **Prescription Drug Monitoring System (PDMP) (Type 4)**
- When prescribing opioids for chronic pain, clinicians should use **Urine Drug Screens (UDS) (Type 4)**
- Avoid prescribing opioid medications with **Benzodiazepines (Type 3)**
- Offer **Substance Use Disorder Treatment** for patients when needed (Type 2)

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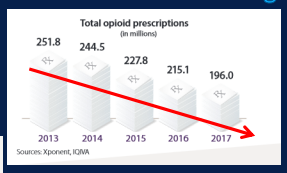
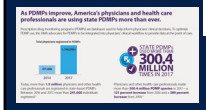
Physicians' Progress to Reverse the Nation's Opioid Epidemic
AMA Opioid Task Force 2018 Progress Report





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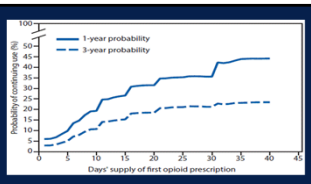
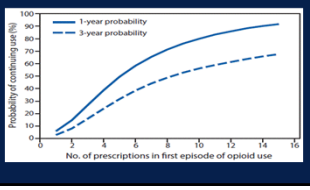


One and 3-year probabilities of continued opioid use among opioid-naïve patients, by number of days' supply of the first opioid prescription — United States, 2006–2015



One and 3-year probabilities of continued opioid use among opioid-naïve patients, by number of prescriptions in the first episode of opioid use — United States, 2006–2015

MMWR, March 17, 2017 / 66(10);265–269

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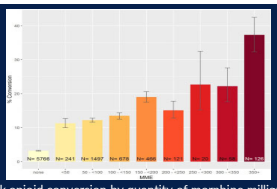
Conversion to Persistent or High-Risk Opioid Use After a New Prescription From the Emergency Department: Evidence From Washington Medicaid Beneficiaries

Zachary F. Meisel, MD, MPH*; Nicoleta Lupulescu-Mann, MS; Christina J. Charlesworth, MPH; Hyunjee Kim, PhD; Benjamin C. Sun, MD, MPP
*Corresponding Author. E-mail: zfm@wharton.upenn.edu, Twitter: @zachary meisel.



Frequency of persistent or high-risk opioid conversion by quantity of morphine milligram equivalents prescribed at the index ED visit

Ann Emerg Med. 2019;-:1-11

30

30

Start With Non-Pharmacologic Therapy

- Physical Therapy, Exercise
- Cold, Heat
- CBT, MI
- Meditation, Mindfulness
- Acupuncture
- Biofeedback
- Massage
- Aquatic Therapy
- Spinal Cord Stimulation (SCS)

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Next Option: Non-Opioid Pharmacotherapy

- Acetaminophen(?Efficacy), NSAIDS (Adverse Effects, Cardiac Warnings)
- **Adjuvants: Anti-depressants**: TCAs, SSRIs, SNRIs
  - Neuropathic Pain, Fibromyalgia
  - **Anti-Convulsants**: Neuropathic Pain, Migraine Prophylaxis
  - **Alpha Agonists**: clonidine, tizanidine
- Topicals: Capsaicin, Lidocaine patch, NSAID
- Muscle Relaxants: Baclofen, cyclobenzadrine, methocarbamol
  - ⦸-- B/Z, carisoprodol (Sched IV)
- Interventional Rx: Epidurals, Nerve Blocks, etc.

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Gabapentanoids: Conclusions

- Significant Misuse Among Patients with SUDs, Primarily OUD Receiving Methadone or Buprenorphine Maintenance.
- Significant Adverse Effects With Therapeutic Doses, and Increased Adverse Effects With Supra-Therapeutic Doses
- Must Adjust for Renal Function
- Full Recovery From Adverse Effects Is The Rule
- **Death Is Uncommon, But Increased In Combination With Opioids**
- Gabapentin Bioavailability ↓ With Increasing Dose
- Weak Evidence For Off Label Pain Treatment
- ? Should Gabapentin Be Listed On PDMPs (e.g. Ohio, NJ)
- Pregabalin Schedule 5 listed
- ? Add Gabapentanoids To UDT Screens

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Opioid Pharmacotherapy

- Acute Pain: e.g. Post-Operative Limit Duration: NYS-7days
- Cancer Pain
- Palliative Care, Hospice
- End of Life Care
- Chronic Opioid Therapy (COT) for
  - Chronic Non-Cancer Pain (CNCP)
    - Effectiveness, Safety, Adverse Effects,
    - IR vs. ER

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Long Term(>16wks.) COT for CNCP

Long-term Opioid Treatment of Chronic Nonmalignant Pain: Unproven Efficacy and Neglected Safety.

- "..No high quality evidence on the efficacy of COT for CNCP." no RCT lasting >3mos
- "Until 2003, opioid addiction associated with the treatment of CNCP was clearly a neglected topic of publication."

Kissin, Igor Journal of Pain Research, 2013:6 513-529

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REVIEW Annals of Internal Medicine

The Effectiveness and Risks of Long-Term Opioid Therapy for Chronic Pain: A Systematic Review for a National Institutes of Health Pathways to Prevention Workshop

Roger Chou, MD; Judith A. Turner, PhD; Emily B. Devine, PharmD, PhD, MBA; Ryan N. Hansen, PharmD, PhD; Sean D. Sullivan, PhD; Ian Blazina, MPH; Tracy Dana, MLS; Christina Bougatsos, MPH; and Richard A. Deyo, MD, MPH

Background: Increases in prescriptions of opioid medications for chronic pain have been accompanied by increases in opioid overdoses, abuse, and other harms and uncertainty about long-term effectiveness.

Purpose: To evaluate evidence on the effectiveness and harms of long-term (>3 months) opioid therapy for chronic pain in adults.

Data Sources: MEDLINE, the Cochrane Central Register of Controlled Trials, the Cochrane Database of Systematic Reviews, PsycINFO, and CINAHL (January 2008 through August 2014); relevant studies from a prior review; reference lists; and ClinicalTrials.gov.

Study Selection: Randomized trials and observational studies that involved adults with chronic pain who were prescribed long-term opioid therapy and that evaluated opioid therapy versus placebo, no opioid, or nonopioid therapy; different opioid dosing strategies; or risk mitigation strategies.

Data Extraction: Dual extraction and quality assessment.

Data Synthesis: No study of opioid therapy versus no opioid therapy evaluated long-term (>1 year) outcomes related to pain, function, quality of life, opioid abuse, or addiction. [illegible] and fair-quality observational studies suggest that opioid therapy for chronic pain is associated with increased risk for overdose, opioid abuse, fractures, myocardial infarction, and markers of sexual dysfunction, although there are few studies for each of these outcomes; for some harms, higher doses are associated with increased risk. Evidence on the effectiveness and harms of different opioid dosing and risk mitigation strategies is limited.

Limitations: Non-English-language articles were excluded, meta-analysis could not be done, and publication bias could not be assessed. No placebo-controlled trials met inclusion criteria, evidence was lacking for many comparisons and outcomes, and observational studies were limited in their ability to address potential confounding.

Conclusion: Evidence is insufficient to determine the effectiveness of long-term opioid therapy for improving chronic pain and function. Evidence supports a dose-dependent risk for serious harms.

Primary Funding Source: Agency for Healthcare Research and Quality.

Ann Intern Med. 2015;162:276-286. doi:10.7326/M14.2559 www.annals.org

For author affiliations, see end of text.

This article was published online first at www.annals.org on 13 January 2015.

Conclusion: Evidence is insufficient to determine the effectiveness of long-term opioid therapy for improving chronic pain and function. Evidence supports a dose-dependent risk for serious harms.

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Risk Assessment Tools: Examples

Tool	# of items	Administered
Patients considered for long-term opioid therapy:		
ORT Opioid Risk Tool	5	By patient
SOAPP® Screener & Opioid Assessment for Patients w/ Pain	24, 14, & 5	By patient
DIRE Diagnosis, Intractability, Risk, & Efficacy Score	7	By clinician
Characterize misuse once opioid treatments begins:		
PMQ Pain Medication Questionnaire	26	By patient
COMM Current Opioid Misuse Measure	17	By patient
PDUQ Prescription Drug Use Questionnaire	40	By clinician
Not specific to pain populations:		
CAGE-AID Cut Down, Annoyed, Guilty, Eye-Opener Tool, Adjusted to Include Drugs	4	By clinician
RAFFT Relax, Alone, Friends, Family, Trouble	5	By patient
DAST Drug Abuse Screening Test	28	By patient
SBIRT Screening, Brief Intervention, & Referral to Treatment	Varies	By clinician

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Initiating Opioid Treatment: CNCP

- Prescribers should regard initial treatment as a therapeutic trial
  - May last from several weeks to several months. **Start with IR Opioid**
  - Decision to proceed w/ long-term treatment should be intentional & based on careful consideration of outcomes during the trial
    - Progress toward meeting therapeutic goals
    - Functional Improvement
    - Presence of opioid-related Adverse Effects
    - Changes in underlying pain condition
    - Changes in psychiatric or medical comorbidities
    - Identification of aberrant drug-related behavior, addiction, or diversion

Chou R, et al. *J Pain.* 2009;10:113-30.

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Opioid Rotation

- Definition
  - Change from an existing opioid regimen to another opioid w/ the goal of improving therapeutic outcomes
- Rationale
  - Differences in pharmacologic or other effects make it likely that a switch will improve outcomes
    - Effectiveness & AEs of different mu opioids vary among patients
    - Patients show incomplete cross-tolerance to new opioid
      - Patient tolerant to 1st opioid can have improved analgesia from 2nd opioid at a dose lower than calculated from an EDT

Fine PG, et al. *J Pain Symptom Manage.* 2009;38:418-25.
Knotkova H, et al. *J Pain Symptom Manage.* 2009;38:426-39.
Pasternak GW. *Neuropharmacol.* 2004;47(suppl 1):312-23.

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Guidelines for Opioid Rotation

- Calculate equianalgesic dose of new opioid from EDT
- Reduce equianalgesic dose by 25%-50%: **incomplete cross tolerance**
- **Methadone: EDTS Not Helpful**
  Start Low, Go Slow
  2% of sales / 30% of Overdose Deaths: Pain, not OTPs

Opioid Induced Hyperalgesia (OIH): Counterintuitive but Real
Differentiate from Opioid Tolerance ↑Dose → ↓Pain or ↑Pain

Fine PG, et al. *J Pain Symptom Manage.* 2009;38:418-25.

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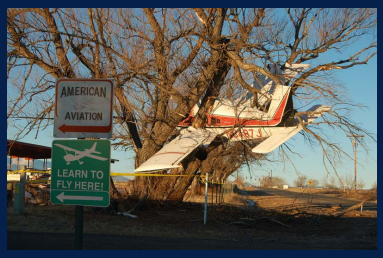
Can You Land the Opioid Plane?



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Opioid Tapering Strategies

- Patient Requests/Agrees vs Patient Resists
- Alternative Treatment if Pain Still Present
- Clonidine/Lofexidine Tablets and Patches
  - alpha 2 centrally acting adrenergic agonists→ ↓LC→ ↓NE
- Switch to Methadone
- Switch to Buprenorphine
- Symptomatic Meds: NSAIDS, Loperamide, Benzos(short course), non-benzo sleep meds
- Patients report favorable outcomes after tapering

JAMA Internal Medicine May 2018 Volume 178, Number 5
The Journal of Pain, Vol 18, No 11 (November), 2017

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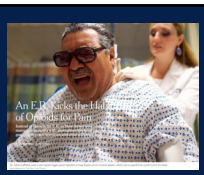

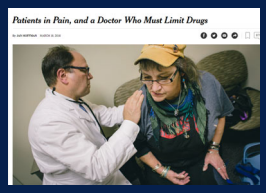
Patients in Pain, and a Doctor Who Must Limit Drugs


New Opioid Limits Challenge the Most Pain-Prone


GOVERNOR CUOMO AND LEGISLATIVE LEADERS ANNOUNCE AGREEMENT TO COMBAT HEROIN AND OPIOID ABUSE IN NEW YORK STATE

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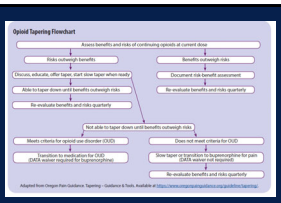
Oct. 2019

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


Opioid Tapering Flowchart

The CDC Guideline for Prescribing Opioids for Chronic Pain **does not recommend opioid discontinuation when benefits of opioids outweigh risks.**

Avoid misinterpreting cautionary dosage thresholds. Guideline recommends avoiding or carefully justifying increasing dosages **above 90 MME/day, it does not recommend abruptly reducing opioids from higher dosages.**

Avoid dismissing patients from care.

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Universal Precautions in Pain Medicine

- Make a Diagnosis with Appropriate Differential
- Psychological Assessment Including Risk of Addiction
- Informed Consent
- Treatment Agreement: Patient Prescriber Agreement (PPA)
- Routinely Check PDMP
- Urine (Saliva) Drug Testing as Indicated
- Random Pill Counts if clinically indicated

Gourlay, Heit Pain Medicine, 2005

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Universal Precautions in Pain Medicine Cont'd.

- Pre and Post-Intervention Assess Pain Level & Function
- Appropriate Trial of Opioid Therapy +/- Adjunctive Meds
- Reassessment of Pain Score and Level of Function
- Regularly Assess the "Five A's" of Pain Medicine Monitoring: analgesia, activity level, adverse effects, aberrant behavior, affect
- Periodically Review Pain Diagnosis and Comorbid Conditions, Including Addictive Disorders
- Documentation

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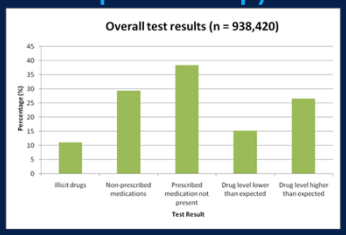
Urine Toxicology Results in Chronic Pain Patients on Opioid Therapy



Couto JE, Goldfarb NI, Leider HL, Romney MC, Sharma S. High rates of inappropriate drug use in the chronic pain population. *Popul Health Manag.* 2009;12(4):185–190.

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Examples of Metabolism of Opioids

Codeine → Morphine ← 6-MAM ← Heroin

$t_{½}$=25-30 min $t_{½}$=3-5 min

Hydrocodone → Hydromorphone

6-MAM=6-monoacetylmorphine

Oxycodone → Oxymorphone

Methadone, Fentanyl, Oxymorphone, Hydromorphone
Do Not Metabolize to other Opioid Analgesics

Gourlay DL, et al. *Urine Drug Testing in Clinical Practice. The Art & Science of Patient Care.* Ed 4. 2010.

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Prescription Drug Monitoring Programs: PDMPs

- All States are Operational
- Some States Mandatory at time of Rx, e.g. N.Y.
- Some State PDMPS Include Bordering and Other States
- OTPs are exempt: both Methadone and Buprenorphine
- OBOT Buprenorphine included in PDMPs
- ↓ Doctor Shopping and Rx Opioid Prescribed since 2010
- Evidence of ↓ OD deaths
- Unintentional Consequences: ?↑Heroin, ↑Pain, Abrupt Rx Cessation

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Prescription Opioid Cautions

- Do Not Tamper with Tablets or Capsules, especially ER/LA, which become IR with high potency by IN or IV route
  - Tamper resistant Oxycodone → Heroin
- Avoid Other CNS Depressants: Benzodiazepines, Alcohol (Dose Dumping), Carisoprodol
  - COT: No SUD hx: 29% sedatives; SUD hx: 39% ; Alcohol=12%

Saunders, et al, *The Journal of Pain*, 2012 266-275.

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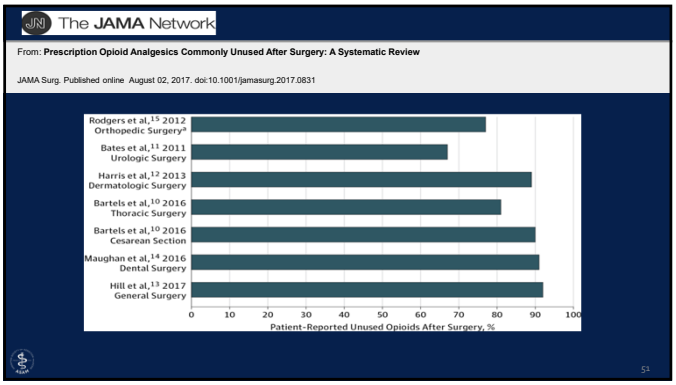

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Opioid Rx Disposal

- DEA Take Back Programs
- Some Pharmacies, Some Police Stations
- Mix with cat litter/coffee grounds, then seal in plastic bag, and throw out in trash
- Flush down toilet: ?environmental issues
  - Fentanyl Patch: Flush only
- DO NOT Throw out in trash in Rx bottle

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Co-Prescribe Naloxone



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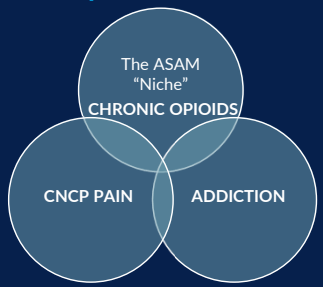
Complex Intersection



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Pain and Addiction: Definitions

- "Pain is viewed as a biopsychosocial phenomenon that includes **sensory, emotional, cognitive, developmental, behavioral, spiritual and cultural components."** (IASP website)
- Addiction is a treatable, chronic medical disease involving **complex interactions among brain circuits, genetics, the environment, and an individual's life experiences.** **People with addiction use substances or engage in behaviors that become compulsive and often continue despite harmful consequences.**

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Pain and Addiction
Limited(e.g.UDT) Objective Measurements

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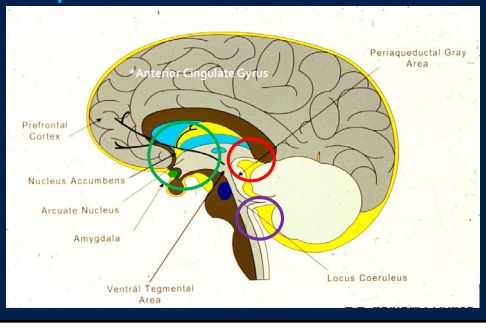
Opioid Sites of Action in the Brain



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Hedonic Tone

- Sense of well being, happiness, pleasure, contentment
- "Set" by/in the mesolimbic dopaminergic circuitry(Pleasure/Reward/Survival Center)
- Range: Euphoria ←-→ Dysphoria
- Altered by Psychoactive Activities
- A Delicate Balance
- Human Condition

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"Exaggerated Response"
What Did It Feel Like The First Few Times?

- "All My Problems Disappeared"
- "Felt Like I Was Under a Warm Blanket"
- "Thought This is How Normal People Feel"
- "Forgot About All the Abuse"
- "Felt Like the World Was at Peace"
- "Totally Relaxed" "Not Shy"
- "Looking at a Beautiful Sunset"
- "I Was Energized!!"
- *This is a Vulnerability (Liking Opioids)*

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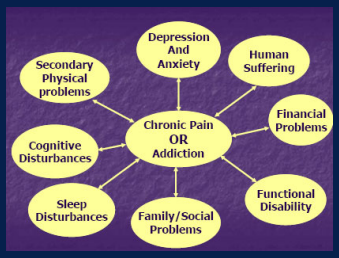
Pain and Addiction



Ann Quinlan-Colwell, PhD, PCSS-O Webinar 2011

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Systematic Review: Opioid Treatment for Chronic Back Pain:, Efficacy, and Addiction

- Conclusion: Opioids are commonly prescribed for chronic back pain and may be efficacious for short-term pain relief. Long-term efficacy (>16 weeks) is unclear. Substance use disorders are common in patients taking opioids for back pain, and aberrant medication-taking behaviors occur in up to 24%.

Current Best Estimate: 30% of patients with CNCP on COT will have a significant problem

Martell, B. Ann Intern Med. 2007;146:116-127

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Aberrant/Problematic Behaviors

Probably more predictive

- Selling prescription drugs
- Prescription forgery
- Stealing or borrowing another patient's drugs
- Injecting oral formulation
- Obtaining prescription drugs from non-medical sources
- Concurrent abuse of related illicit drugs
- Multiple unsanctioned dose escalations
- Recurrent prescription losses

Probably less predictive

- Aggressive complaining about need for higher doses
- Drug hoarding during periods of reduced symptoms
- Requesting specific drugs
- Acquisition of similar drugs from other medical sources
- Unsanctioned dose escalation 1-2 times
- Unapproved use of the drug to treat another symptom
- Reporting psychic effects not intended by the clinician

Passik and Portenoy, 1998

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Treating Pain in the Addicted Patient

- "Pain Patients with a coexisting SUD are among the most challenging patients in medicine."
- Universal Precautions
- ?? "Real Pain" may make opioids less rewarding/euphorogenic
- Addicted Patients Have Pain: Trauma, Lower Thresholds, Medical
- Screening Tests: ORT, SOAPP, others
- Untreated Pain is a trigger for relapse
- Address both pain and addiction
- Significant other to secure and dispense opioid meds
- Psychiatric Co-morbidity
- Active Addiction recovery program
- UDS, pill counts, agreements, etc.
- **Multidisciplinary Pain Program**

Bailey, et al. *Pain Medicine* 2010; 11: 1803-1818

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All the following statements about Methadone are correct except?

A. Methadone may be prescribed for pain treatment
B. Analgesic effect lasts longer than respiratory depressant effect
C. Methadone may not be prescribed for the treatment of opioid addiction
D. When rotating from another opioid to methadone, equianalgesic dose tables should not be used

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Should We Be Prescribing Chronic Opioids for Chronic Non-Cancer Pain Management?

- NO, but.....
- YES, but.....
- Rarely **Never** and **Always** Decisions in Clinical Medicine
- Not All Opioids are Created Equally
- "All Treatments Work For **Some Patients**; No One Treatment Works For **All Patients**"

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Buprenorphine Formulations: FDA Approved for OUD Treatment

- **Sublingual and Buccal forms** (tablets and films)
- "Combo" (buprenorphine/naloxone): tablets and films
- "Mono" (buprenorphine): generic tablets
- **Parenteral**
  - Mono SC monthly and weekly depot injection

- Approved for moderate to severe opioid use disorder
- Can be used **OFF LABEL** for pain

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Buprenorphine Formulations: FDA Approved for Pain not OUD

- Buprenex® Parenteral (IV, IM)
- Butrans® Transdermal (7 Day)
- Belbuca® Buccal Film (75—900mcg q12h)

- Approved for pain but **NOT** OUDs
- **Can NOT be used OFF LABEL** for OUDs: Violates DATA 2000

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Some Patients(?20%) Benefit From COT for CNCP

- Careful Selection: Evidence Low
- ? X % May Benefit
- Close Monitoring: Universal Precautions
- Functional Improvement
- Minimal Adverse effects
- Verification from Significant Others
- IR opioids prn versus ER/LA around the clock
- Opioid Induced Hyperalgesia (OIH)

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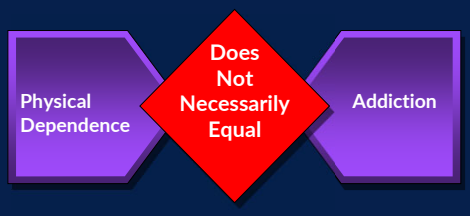
Pain and Addiction



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Definitions: Complex Physical Dependence

"Dependence on opioid pain treatment is not, as we once believed, easily reversible; it is a complex physical and psychological state that may require therapy similar to addiction treatment, consisting of structure, monitoring, and counseling, and possibly continued prescription of opioid agonists. Whether or not it is called addiction, **complex persistent opioid dependence** is a serious consequence of long term pain treatment that requires consideration when deciding whether to embark on long term opioid pain therapy as well as during the course of such therapy.

Opioid Dependence vs Addiction: A Distinction Without a Difference?
Ballantyne J, Sullivan M, Kolodny A, Arch Intern Med, 2012

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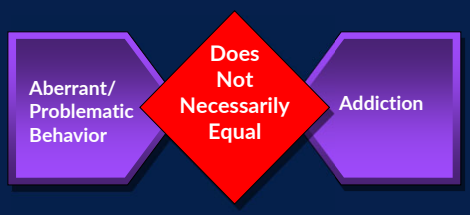
Pain and Addiction



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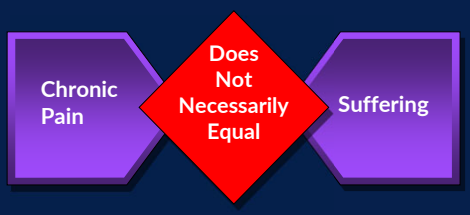
Pain and Addiction



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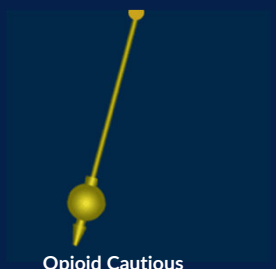
EVOLUTION OF OPIOID PRESCRIBING

Opioid Phobia



Opioid Philia

Opioid Cautious

Multidimensional Pain Treatment

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From: **Pain Management With Opioids in 2019-2020**

JAMA. Published online October 10, 2019.1-3 doi:10.1001/jama.2019.15802

Patient presentation and pain management strategy

Chronic pain Not currently receiving opioid therapy	Chronic pain Currently receiving opioid therapy	Acute pain Therapy not initiated[a]
• Avoid opioid therapy Risk stratification tools to identify high- or low-risk patients provide no diagnostic value	• Develop and use individualized treatment plan • Do not abruptly taper or discontinue current opioid treatment • Consider opioid agonist therapy (eg, buprenorphine/naloxone) if evidence of opioid use disorder	• Avoid opioid therapy in patients with minor to moderate pain conditions • Consider opioid therapy for patients with severe pain Dose and duration should be limited to short, renewable courses (eg, <1 week)

Evidence-Based Opioid-Sparing Pain Management Strategy. [a]Opioid analgesics should not be withheld from individuals with opioid use disorder with severe acute pain conditions.

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Baby Boomers
OK BOOMERS!

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The New Yorker, July 2, 2018.
Seeing Pain, Nicola Twilley

- "To have great pain is to have certainty. To hear that another person has pain is to have doubt."
- "Physical Pain does not simply resist language, but actively destroys it." -"The Body in Pain" by Elaine Scarry (1985)
- "Morphine Is God's Own Medicine" Sir William Osler
- We Can't Live Without Opioids, We Have To Learn To Live With Them

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Good Luck on the Exam and in Your Careers!!

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