Opioid Use Disorder For Case Managers: Ideas, Institutions, and What Works

4/27/19

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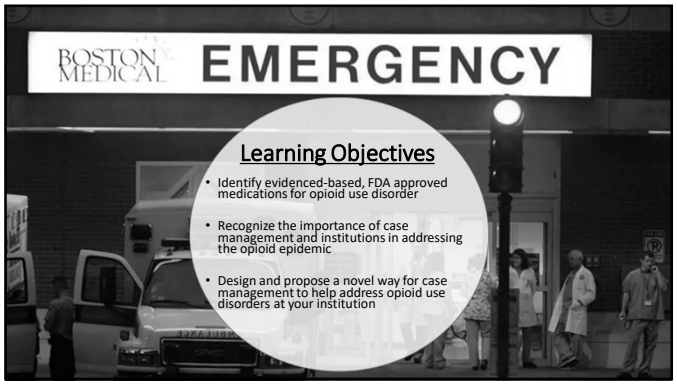


Learning Objectives

- Identify evidenced-based, FDA approved medications for opioid use disorder
- Recognize the importance of case management and institutions in addressing the opioid epidemic
- Design and propose a novel way for case management to help address opioid use disorders at your institution

Conflicts of Interest

- None

Abbreviations and Definitions

- OUD = Opioid Use Disorder
- SUD = Substance Use Disorder
- MOUD = medications for opioid use disorder
- OTP = Opioid Treatment Program
- OBAT = Office Based Addiction Treatment
- MTD = methadone
- BUP = buprenorphine
  - Buprenorphine + naloxone

"See one, do one, teach one"

- Do you…?
- Provide case management services for people with OUD?
- Feel your work is important for this population?
- Feel comfortable providing SUD services/referrals?
- Been to an OTP?
- Been to an OBAT?
- Seen MTD, BUP, naltrexone treatment?

Opioid pills are common

- In 2015, adults age ≥ 18
- Used **PRESCRIPTION** opioids in the prior year: **37%**
- Misused prescription opioids: **4.7%**
- OUD to prescription opioids: **0.8%**

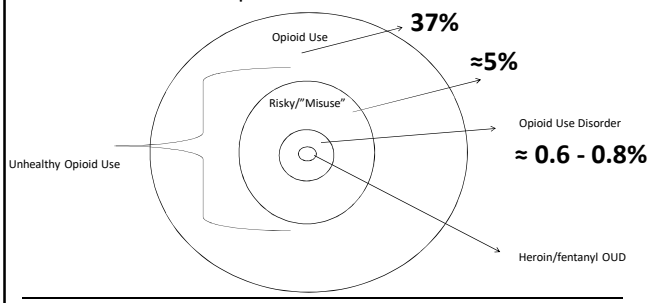
Han et al. Ann Intern Med 2017

Unhealthy Drug use

- Used an illicit drug in past 30 days:
  - 10% of Americans age ≥ 12
  - 25% age 18-25
- Past year opioid use:
  - Roughly, 5% misused opioids
  - 11.5 million misused pills
  - About 1 million heroin users

Ahrnsbrak et al. 2016

Opioid Use Continuum



Substance Use Disorder (SUD)

- 20.1 million SUD
- 1/13 people need treatment
- **10% of people needing specialty SUD treatment get it**

Ahrnsbrak et al. 2016

Opioid Use Disorder (OUD)

- Defined by DSM V
  - 11 Criteria
- 2.1-2.4 million people
- 20% receive any treatment
  - Of those, 1/3 receive medications
  - Retention is 30-50% in most settings
  - As a result, about 2% with OUD achieve long-term remission

Williams AR et al. J Subst Abuse Treat 2018

Public Health Crisis

- Overdoses, poisonings, and suicides reducing life expectancy for entire population
- Life expectancy declined to 78.6yrs

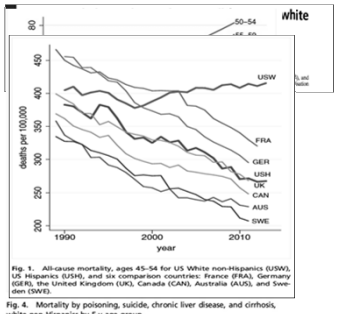


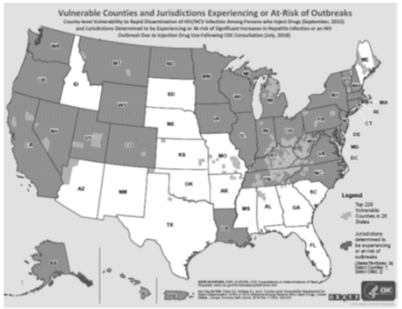
Fig. 1. All-cause mortality, ages 45–54 for US White non-Hispanics (USW), US Hispanics (USH), and six comparison countries: France (FRA), Germany (GER), the United Kingdom (UK), Canada (CAN), Australia (AUS), and Sweden (SWE).

Fig. 4. Mortality by poisoning, suicide, chronic liver disease, and cirrhosis, white non-Hispanics by 5-y age group.

Case A 2015; Murphy S 2018; Hedegaard H 2018

Effects on Health

- Infections, cellulitis, abscess, endocarditis, Hep A, Hep B, Hep C, HIV, necrotizing fasciitis



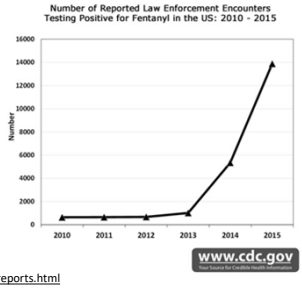
Van Handel MM 2016

Shifts in opioid use

Risky

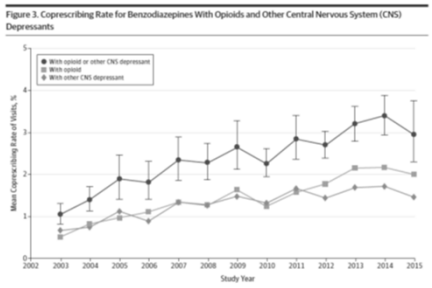
Very Risky

- Prescription opioids
- Heroin (diacetyl morphine)
- Fentanyl and analogs
  - Synthetic, 50-100x more potent than morphine
  - Sold as heroin but only fentanyl, mixed with: heroin, cocaine, "prescription" pills
  - 10% of ALL urine samples and 13% of people pos for illicit fentanyl over 6 mo in 2016



https://www.cdc.gov/drugoverdose/data/fentanyl-le-reports.html

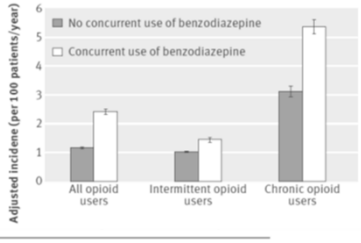
Shift towards multi-substance use



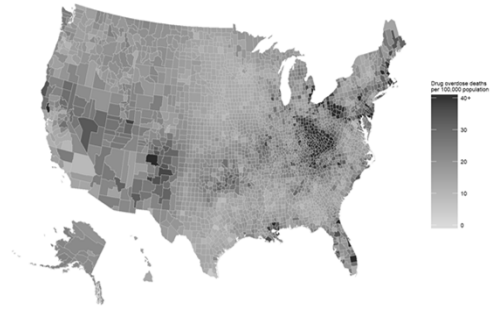
Agarwal S 2019

Benzodiazepines and opioid overdose risk

Fig 3 | Adjusted incidence of opioid overdose for patients taking opioids with and without benzodiazepines. Adjusted incidence incorporates controls for year, sex, age, and characteristics listed in table 1 (95% confidence intervals calculated with SE clustered at patient level)



Sun E. BMJ 2017



SOURCE: National Center for Health Statistics, National Vital Statistics System, mortality data (http://www.cdc.gov/nchs/deaths.htm).

SUGGESTED CITATION: Rossen LM, Bastian B, Warner M, Khan D, Chong Y. Drug poisoning mortality: United States, 2003–2017. National Center for Health Statistics. 2019. (Available from: https://www.cdc.gov/nchs/data-visualization/drug-poisoning-mortality/).

What Comes Next?
Depends on how you respond

What works: Medical Treatment

- 3 FDA approved medications
- Evidence-based
- Saves lives
- Reduced transmission of HIV and hepatitis C
- Lower risk of infectious diseases
- Reduces risk of incarceration
- Higher employment
- Improved birth outcomes

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Methadone

- Full Mu opioid receptor agonist
- FDA approved 1972
- ROBUST, evidence for efficacy
- Reduces illicit opioid use
- Can block other opioids, reducing/preventing euphoria & respiratory depression
- Decreased risk of overdose
- Reduces mortality
- Reduces HIV seroconversion risk
- Higher methadone doses are associated with better outcomes

Joseph H 2000; Longshore D 1993; Fortuin Corsi KF 2009; Mattick RP 2009; Mattick RP 2014; Nielsen S 2016; Sees KL 2000; Amato L 2005; Faggiano F 2003; Kimber 2010; Cornish 2010

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Methadone In Practice

- Via OTP with daily dosing
- Highly regulated: federal and state level
- Highly stigmatized treatment
- Semi-private
- "Take homes"
- Mandated counseling and drug testing
- MTD with other sedatives can be risky
- Can be difficult for patients to comply

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What patients say: (all quotes)

- how will I get here everyday? I live 30 minutes away and don't have a driver's license
- every summer I go camping with my kids in woods for 10 days, how would I do that?
- mom says I'm not 'clean' if I'm taking methadone
- the last time on methadone I was better, but the police picked me up on an old warrant…I kicked methadone in jail…I'll never go back to methadone
- 'Liquid handcuffs'

Liquid-Handcuffs.com

stigma STOP STIGMA NOW

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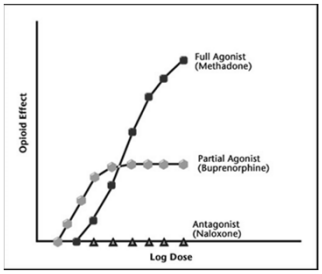
Buprenorphine

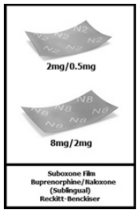
- Partially, activates opioid receptors
- FDA approved 2002
- Improves retention in treatment
- Reduces illicit opioid use
- Reduces risk of overdose
- Blocks other opioids
- Less risky with other sedatives because only partially activates opioid receptors
  - "ceiling effect"
- Maintenance is superior to "detox"



Mattick RP 2014; Fiellin DA 2014; Weiss RD 2011; Volkow ND 2019; Kakko J 2003

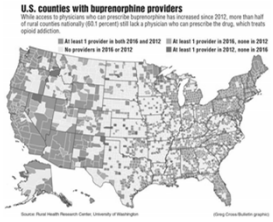
Buprenorphine in practice

- Physician, NP, PA must have DEA waiver
  - More training
- Treatment caps
- Can be hard to find doctors
- Harm reduction not always embraced
- More confidential than MTD, can be done with your doctor*
- Less restrictive than MTD



BUP! Now find it

- Waivered?
  - 16% of psychiatrists
  - Most practice in urban areas
  - 3% of primary care physicians
- Most US counties had no physicians with a waiver
  - 30 million Americans
- Average state has 8 doctors per 100,000 residents
  - 71% capped at 30 patients



Rosenblatt R 2015; Knudsen HK 2015

Naltrexone

- Opioid blocker
- FDA Approved 2010
  - Route: mouth or long-acting, depot intramuscular injection
  - Adherence to oral dosing
- Every 28 intramuscular injection improves retention
- Reduces illicit opioid use
- Must be abstinent of opioids for 7 days before starting treatment
- Evidence is strongest in motivated people with significant consequences to return to use and post-incarceration
- Who responds? No way to predict a priori

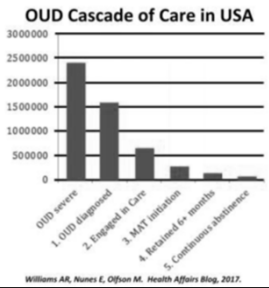
Krupitsky E 2011; Lee JD 2016; Comer SD 2006; Nunes 2015; Krupitsky E 2013

Naltrexone in practice

- Must be refrigerated
- Takes time to be delivered
- High cost per treatment
  - No shows can be costly
- Treating acute pain could be problematic
- Any licensed health care professional can administer, not controlled
- Poor long term adherence
- Depot intramuscular not on hospital formulary
- Difficult to achieve 7+ days of abstinence
  - Bup v Naltrexone – intention to treat analysis
  - Abstinent at time of randomization – similar outcomes as BUP in reducing use and treatment retention

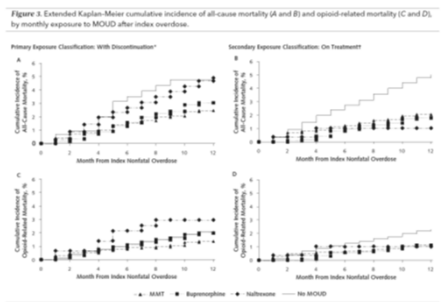
Lee JD Lancet 2018

Few get care



Williams AR, Nunes E, Olfson M. Health Affairs Blog, 2017.

Survival after overdose in Mass



Larochelle MR. 2018

Treatment and overdose deaths

Methadone and Buprenorphine in Baltimore:
Schwartz et al. AJPH 2013.

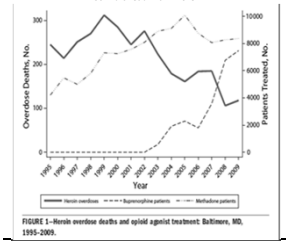
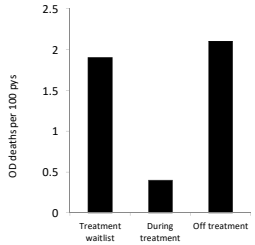


FIGURE 1--Heroin overdose deaths and opioid agonist treatment: Baltimore, MD, 1995-2009.

Methadone in Norway:
Clausen et al. Addiction 2009



Schwartz 2013; Clausen 2009

The New York Times

Opinion

Want to Reduce Opioid Deaths? Get People the Medications They Need

Drugs like buprenorphine could sharply curb the nation's opioid overdose crisis. But federal laws make it difficult for people who need such medications to get them.

By The Editorial Board

The editorial board represents the opinions of the board, its editor and the publisher. It is separate from the newsroom and the Op-Ed section.

March 26, 2019

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"This denial of care is so pervasive and egregious…that is amounts to a serious ethical breach on the part of both health care providers and the criminal justice system"

https://www.nytimes.com/2019/03/26/opinion/opioid-crisis-sacklers-purdue.html

Present Status- Director of NIDA

- "Although opioid use disorder often follows a chronic course, it **can respond to treatment**. The correct use of medications to treat opioid use disorder markedly improves outcomes, facilitates recovery, and protects against overdose. **Despite the strength of the evidence, reluctance exists to acknowledge opioid use disorder as a medical disorder and to treat the disorder with medications among many clinicians and the lay public**. By conceptualizing opioid use disorder as a chronic illness, clinicians could better understand its course and treatment, how to achieve and sustain remission, and help prevent relapse.

Blanco C and Volkow N. 2019

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We will overcome hurdles: Targets for CM

- Financial Barriers
- Regulatory restrictions
  - Limit access to care
- Geographic barriers
  - Rural areas
  - Transporation
- Time constraints
- Attitudinal Barriers = stigma
- Criminal justice barriers
- Logistical barriers
- Lack of knowledge
  - Provider, patient and institutions

Sharma A Curr Psychiatry Rep 2017

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Case management models in SUD treatment

- Engage those already in treatment
  - Maximize current treatment
  - Additional resources
  - Alternative treatments if necessary
  - Navigate stigma
  - Coordinate fragmented care
- Facilitate referral to treatment
  - Navigate complex system
  - Ambivalence
  - Stigma
  - Criminal justice

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Importance of Case Management

- Counselling with strong case management component is mandated in OTP treatment
- Enhances treatment retention
- May decreases illicit opioid use and other substances
- Improves clients' overall functioning in several domains
  - criminality, homelessness, mental health, vocational and educational advancement
- Improves satisfaction

Saleh S 2002; Day 2012

Clinical case management in an OTP

- After "clinical case management" instituted compared to usual care
- 15% reduction in drug positive testing
- 2% relative reduction in missed dosing days
- 40% relative reduction in missed physician appointments

Plater-Zyberk CJ et al. The value of clinical case management in a methadone maintenance program. Am J Drug Alcohol Abuse 2012

Case Management in Harm Reduction

- Effect of CM referring people from needle exchange to treatment in Baltimore
- CM 40% entered treatment compared to 26% from control group
- Increased chance of entering treatment if:
  - Had two or more contacts case management prior to intake at treatment
  - More time with case management
  - Driven to treatment by case management

Strathdee SA et al. Facilitating entry into drug treatment among injection drug users referred from a needle exchange program: results from a community-based behavioral intervention trial. Drug Alcohol Depend 2006

Role of Hospital

- Drug users use hospitals more
  - 30% more ED use
- Very few SUD patients presenting to hospital receive substance treatment
  - <10% in a 7 hospital study
  - <19% injection drug users successfully referred to treatment
- Much more costly
  - 81% more likely to be admitted
  - $772 million in extra hospital charges in Tenn alone (in 2000 dollars)
- Hospital based CM
  - Ex: Project ASSERT
  - Linkage reduced ED services 58%
  - Start MOUD, link to outpatient care reduced illicit opioid use at 6 months compared to "detox"

Stein and Anderson Drug Alcohol Dep 2003
Rockett IRH Ann Emerg Med 2003
Berstein E Ann Emerg Med 1997
Rockett IR Ann Emerg Med 2005
Weinstein ZM 2018
Shanahan CW 2010
Liebschutz JM 2014

Hospital to methadone

- Medical problems may motivate help seeking behavior
- Opportunity to start medications for OUD **and** case management
- San Francisco
  - Inpatient assigned to CM, voucher for free OTP, CM plus voucher, usual care
  - Best retention in treatment for CM plus voucher

	3 months	6 months
Case management	47%	48%
Voucher	89%	68%
CM + voucher	93%	79%
Usual care	11%	21%

Sorensen JL 2005

CM Approach to patients

- Words matter
  - Diction
  - Patient-centered
  - Goal oriented
- Motivational Interviewing
- Contingency Management
  - studied for people in treatment
- Role for linking people to care?

Carroll KM 2017
DiClemente CC 2017
Coffin PO 2017

CM and Harm Reduction

- Know your local services
- Typically needle exchanges provide an array of services
- Prescription drug take back events and locations
- Naloxone distribution
- Safer Injection Techniques
- Vaccines: Hep A, B, Tdap, pneumoccocal
- Screen for TB
- Pre-exposure HIV prophylaxis
- Hep C treatment

Thakarar K Postgrad Med J 2016

Ideas and Institutions

- Effective care models (next slide)
- Institutional support is needed to implement models of care
- Systems must adapt to coordinate and link care
- Dispense naltrexone to social networks of opioid users
  - Communities with greater access have less overdose deaths

Walley AW. BMJ 2013

	Description	Advantages	Disadvantages
Office-based opioid treatment (also known as OBOT)[7–10]	Clinicians prescribe buprenorphine in their practices; counselling and coordination with other services is done by physician, nurse, or social worker	Simplicity and relative low cost	Variability in level of coordination with other medical, and psychosocial services
Hub-and-spoke[105]	Hubs are specialty outpatient programmes with capabilities for comprehensive care; hubs provide consultation to spokes, which are community clinics that provide opioid use disorder medications and psychosocial services for less complex patients	Spokes extend the capabilities of hubs	Need to train and supervise spokes; variability in quality of care across spokes
Massachusetts nurse care[106]	Nurses provide initial assessment and ongoing management; physicians provide consultation and supervision; psychosocial services provided onsite or nearby; complex patients are transferred to a specialty clinic	Shifts many treatment tasks from physicians to other professionals (eg, nurses)	Need to train and supervise spokes; variability in quality of care across spokes
Extension for Community Healthcare Outcomes project[107–110]	Initial assessment done by nurse or physician assistant; physician prescribes opioid use disorder medication and ongoing management; consultation and mentoring provided over the internet	Extends ability to provide care in rural areas	Difficulty managing complex patients or those who live in places without internet access
Emergency department-initiated buprenorphine[111]	Buprenorphine is initiated in the emergency department and patient is linked for subsequent outpatient care	Treatment initiated at time of heightened patient motivation	Need for emergency departments to allocate resources for this activity

Table 3: Models of care for opioid use disorder medications

Blanco C Lancet 2019; Levin FR 2016; Fiellin DA 2006; Knudsen HK 2015; Brooklyn JR 2017, Labelle CT 2016, Komaromy M 2016; D'Onofrio G 2015; D'Onofrio G 2017

	Patient	Clinician	System
Identification	Development of self-assessment or screening tools	Encouragement or incentivisation of screening of high-risk populations; use of prescription drug monitoring programs; combatting of stigmas held by many stakeholders (eg, clinicians, family members, or other patients)	Identification of high-risk populations and settings; integration of mental health and substance use disorder services; combatting of stigmas held by many stakeholders (eg, clinicians, system administrators, other patients); electronic health record screening and identification
Treatment engagement	Use of non-judgmental approaches; motivational interviewing; harm reduction approaches; treatment of medical and psychiatric comorbidity	Improvement of reimbursement and use of non-prescribing clinicians to do initial engagement	Expansion of settings where opioid use disorder medications can be initiated and improvement of linkages (eg, between emergency or hospital care and outpatient care, and social services and treatment services)
Opioid use disorder medication initiation	Psychoeducation; reduction of induction time; use of α_2-adrenergic receptor agonist to treat withdrawal symptoms; expansion of insurance or reduction of medication cost	Training and supervision; elimination of barriers to prescribing medications for opioid use disorder	Improvement of clinician availability; improvement of availability of supervision; implementation of collaborative models; ensuring appropriate reimbursement; provision of wrap-around services; developing and implementing evidence-based measures of quality of care
Retention	Use of extended-release medications; contingency management	Provision of incentives to clinicians	Provision of wrap-around services and incentives
Remission	Modification of social network; provision of alternative reinforcers	Use of booster sessions either in person or through the use of technology (eg, telemedicine or apps)	Adoption of chronic disease model

Table 4: **Interventions to improve the cascade of care by step of the cascade and target of the intervention**

Blanco C 2019

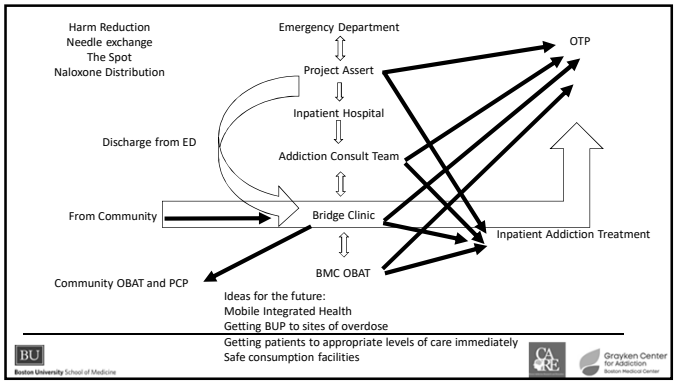
Institutions

- Seek support
- Advocate for change
- Inpatient Addiction Consult Service
- Bridge Clinics
- Relationships between institutions
- Partner with peer recovery coaches to continue outpatient support
- Continuum of care
  - Hospital v Health Care Systems

Weinstein ZM 2018

Fig. 1. Opioid Overdose Recovery Program (OORP) Workflow Structure.

Powell KG Int J Drug Policy 2019



Thank You!

- Please write down:
- 1) thing you plan to do at your institution, keep it simple
- 2) Show it to your neighbor
- 3) Post it in your office

Works Cited on dedicated document

Tkerensky@southshorehealth.org