Disclosures/Funding Source

Conflict of interest statement:
• I receive funding from AHRQ and WGBH
• I will not be discussing any unapproved uses of pharmaceuticals or devices

• Research and education support from grant funding:
  • National Institute on Drug Abuse
  • Jack Satter Foundation
  • Massachusetts Department of Public Health
  • Department of Medicine, Boston University School of Medicine
Objectives

At the end of the session, participants will:

1. Discuss recent changes in the epidemiology of the opioid epidemic

2. Outline recent evidence supporting best practices to address rising deaths

3. Describe novel approaches to reduce risk of overdose death
Language and stigma

YOU are biased.
(So am I.)

It matters.

https://rework.withgoogle.com/guides/unbiasing-raise-awareness/steps/give-your-own-unbiasing-workshop/

Slide courtesy of Alicia Ventura
# Examples of Preferred Language

<table>
<thead>
<tr>
<th>Say this...</th>
<th>Instead of this...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Person with a substance use disorder, person with addiction, person who uses drugs</td>
<td>Addict, junkie, crackhead, user, abuser, pill-popper, alcoholic</td>
</tr>
<tr>
<td>Risky or unhealthy alcohol/drug use</td>
<td>Misuse or abuse*</td>
</tr>
<tr>
<td>Medication for addiction treatment (MAT), treatment, opioid agonist therapy, medication for addiction</td>
<td>Medication-assisted treatment (MAT), replacement therapy, substitution therapy</td>
</tr>
<tr>
<td>Negative or positive urine toxicology test</td>
<td>Dirty or clean urine</td>
</tr>
<tr>
<td>Addiction survivor, in remission, in recovery</td>
<td>Recovering addict, clean</td>
</tr>
<tr>
<td>Infant with NAS or SEN</td>
<td>Addicted baby</td>
</tr>
</tbody>
</table>

*Unless in reference to DSM-IV diagnosis “substance abuse disorder”

Slide courtesy of Alicia Ventura
Case

36 year old female presents to primary care for hospital follow-up

Review of her medical record shows recent admission for endocarditis related to injection drug use

What should you be thinking about as you walk into the room to meet her?
How we think about addiction has shifted

Drug Dependence, a Chronic Medical Illness
Implications for Treatment, Insurance, and Outcomes Evaluation

A. Thomas McLellan, PhD
David C. Lewis, MD
Charles P. O'Brien, MD, PhD
Herbert D. Kleber, MD

The effects of drug dependence on social systems has helped shape the generally held view that drug dependence is primarily a social problem, not a health problem. In turn, medical approaches to prevention and treatment are lacking. We examined evidence that drug (including alcohol) dependence is a chronic medical illness. A literature review compared the diagnoses, heritability, etiology (genetic and environmental factors), pathophysiology, and outcomes of treatments (adherence and relapse) of drug dependence with...
Drug overdose deaths have increased since 1999

Figure 1. Age-adjusted drug overdose death rates: United States, 1999–2017
Life expectancy has fallen has fallen every year since 2015.

https://www.bmj.com/content/bmj/suppl/2018/08/15/bmj.k3096.DC1/mid_life_mortality_v37_datasupp.pdf
Driven by opioid overdose deaths

Americans are now more likely to die from opioid overdoses than car crashes

The opioid epidemic is now a bigger public health and safety threat than car crashes.

Note: 2017 figures are provisional. Many overdose deaths involve multiple drugs.
Source: Centers for Disease Control and Prevention
Prescriptions opioid deaths decreasing

Figure 4. **National Drug Overdose Deaths Involving Prescription Opioids**, Number Among All Ages, 1999-2017

Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 1999-2017 on CDC WONDER Online Database, released December, 2018
Heroin-only deaths decreasing

Figure 5. National Drug Overdose Deaths Involving Heroin
Number Among All Ages, 1999-2017

Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 1999-2017 on CDC WONDER Online Database, released December, 2018
Estimates are that this will continue to 2022
Trends in Teen Overdose Deaths

Figure 1. Drug overdose death rates for adolescents aged 15–19, by sex: United States, 1999–2015

Deaths increasing among middle-aged women

FIGURE 1. Drug overdose deaths* (unadjusted) per 100,000 women aged 30–64 years, by involved drug or drug class — National Vital Statistics System (NVSS), 1999–2017.9

VanHouten, MMWR 2019
Not only an opioid epidemic
Not only an opioid epidemic
Case continued

• While she was inpatient, she was started on buprenorphine/naloxone by the addiction consult team

• She asks how long she will need to be on this medication and what are the benefits? Her family has been telling her that she is not really sober if she is taking a medication to treat her opioid use disorder
Options for medication treatment

- **Methadone**: Full agonist, generates effect
- **Buprenorphine**: Partial agonist, generates limited effect
- **Naltrexone**: Antagonist, blocks effect

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Options for medication treatment

<table>
<thead>
<tr>
<th>Medication</th>
<th>Mechanism of action</th>
<th>Route of administration</th>
<th>Dosing frequency</th>
<th>Available through</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methadone</td>
<td>Full agonist</td>
<td>Available in pill, liquid, and wafer forms</td>
<td>Daily</td>
<td>Opioid treatment program</td>
</tr>
<tr>
<td>Buprenorphine</td>
<td>Partial agonist</td>
<td>Pill or film (placed inside the cheek or under the tongue)</td>
<td>Daily</td>
<td>Any prescriber with the appropriate waiver</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Implant (inserted beneath the skin)</td>
<td>Every six months</td>
<td></td>
</tr>
<tr>
<td>Naltrexone</td>
<td>Antagonist</td>
<td>Oral formulations</td>
<td>Daily</td>
<td>Any health care provider with prescribing authority</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Extended-release injectable formulation</td>
<td>Monthly</td>
<td></td>
</tr>
</tbody>
</table>
Models of Care

Figure 2

Massachusetts Nurse Care Manager Model
Patient flow in the office-based opioid treatment (OBOT) collaborative care model

- Initial screening assessment by nurse care manager (NCM)
- Chart review (OBOT team)
- Chart review, physical examination, opioid use disorder diagnosis, and decision to prescribe by the medical doctor (MD)
- Prescription generation (NCM), signature (MD), prescription filled (pharmacy)
- Buprenorphine induction (NCM protocol, assessing and educating patients on medication)
- Patient’s support and titration during induction (NCM, MD backup)
- OBOT stabilization monitoring (NCM, MD backup)
- OBOT maintenance with follow-up NCM and MD visits

Source: Colleen T. Labelle et al., “Office-Based Opioid Treatment With Buprenorphine (OBOT-B): Statewide Implementation of the Massachusetts Collaborative Care Model In Community Health Centers,” Journal of Substance Abuse Treatment 60 (2016): 6-13, http://dx.doi.org/10.1016/j.jsat.2015.06.010
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Models of Care

Figure 1
Integrated Health System for Addictions Treatment

- Corrections
  probations and parole
- Residential services
- Inpatient services
- Pain management clinics
- Spokes
  Nurse-counselor teams with prescribing medical doctor
- HUB
  Assessment
  Care coordination
  Methadone
  Complex cases Consultation
- Medical homes
- Outpatient substance use treatment
- Mental health services
- Family services

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Why do we use medications to treat OUD?

- Increases retention
- Reduces opioid use
- Decreases risk for HIV and HCV
- Improves quality of life
Why do we use medications to treat OUD?

LaRochelle et al. Annals, 2018
Room for improvement

• Only 23 percent of publicly funded treatment programs reported offering any FDA-approved medications to treat substance use disorders

• Less than half of private-sector treatment programs reported that their physicians prescribed FDA-approved medications
Case continued

• You continue her buprenorphine treatment, she drops out of care and returns in 4 months telling you that she is actively using and wants help to reduce her overdose risk but does not want treatment

• What are best practices in caring for someone who is actively using?
Overdose education

- NARCAN, NARCAN, NARCAN

Naloxone is now available without an individual prescription at the following locations in Delaware:

- CVS Pharmacy locations (including those located inside Target stores)
- Walmart and Sam's Club store locations in Delaware
- Giant Pharmacy locations
- Walgreens Pharmacy locations
- Acme and Safeway Pharmacy locations
- Rite Aid Pharmacy locations
- ShopRite Pharmacy locations
- Shayona Pharmacy – Delmar
- Greenhill Pharmacy locations
Optimizing Safety for People Who Use Drugs

- **CHECKLIST to optimize health and safety in people who inject drugs**
  - Take an addiction history
    - Triggers, coping skills, recovery supports
    - Previous treatment experience
    - Polysubstance - polypharmacy
  - Assess readiness for treatment
  - Offer Treatment Options
    - Opioid agonist therapy
    - Opioid antagonist therapy
  - Account for Mental Health Needs
  - Overdose prevention
    - Risk reduction plan
    - Response plan
    - Naloxone rescue kit
    - Safe storage and disposal
  - Infection prevention
    - Safer injection techniques
    - STI screening
    - TB screening
    - Vaccines
    - PrEP consideration
    - Hepatitis treatment
  - Case Management for Concrete Needs/ Bolstering Supportive services

Thakarar K et al. J Postgrad Ed, 2016
Safer injection sites
SPOT

Providing A Safe Space And Medical Monitoring To Prevent Overdose Deaths
Testing strips

Fentanyl Test Strips

1. Add sterile water to your empty baggie or the cooker you just prepped – mix well!
   **Load your shot FIRST! Only test your rinse water!
2. Dip the test strip in the water, in up to the first line & hold for 15 seconds
3. Place test strip on sterile surface or across top of cooker.

   One line POSITIVE  Positive  Negative

   Two lines NEGATIVE
Addiction consultation services – Linking hospitalized patients to outpatient addiction treatment

Paul Trowbridge\textsuperscript{a,b,\ast}, Zoe M. Weinstein\textsuperscript{a}, Todd Kerensky\textsuperscript{a}, Payel Roy\textsuperscript{a}, Danny Regan\textsuperscript{a}, Jeffrey H. Samet\textsuperscript{a,c}, and Alexander Y. Walley\textsuperscript{a}
Thank you

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