

Addiction and HIV in 2019: What You Need to Know to Care for Your Patients

R. Douglas Bruce, MD, MA, MS

Chief of Medicine, Cornell Scott-Hill Health Center
Associate Clinical Professor of Medicine
Yale University

IAS-USA

Learning Objectives

After attending this presentation, learners will be able to:

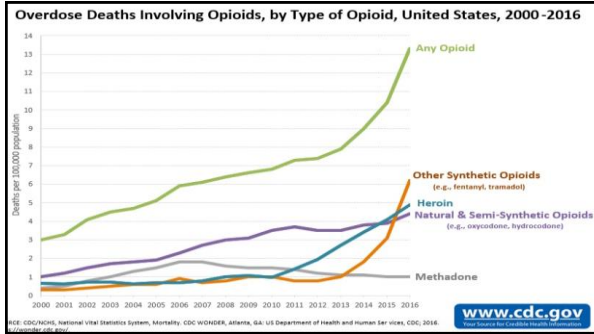
- Describe opioid use disorder
- Initiate treatment for opioid use disorders
- Describe the implications of opioid use disorders in people living with HIV infection
- Describe stimulant use disorders and treatments for these disorders

Slide 3 of 37

Question 1: According to CDC data, how many people died of opioid overdose in the United States in 2017?

1. 5,000
2. 10,000
3. 20,000
4. 30,000
5. Over 40,000

Slide 4 of 25



Why do people take drugs?

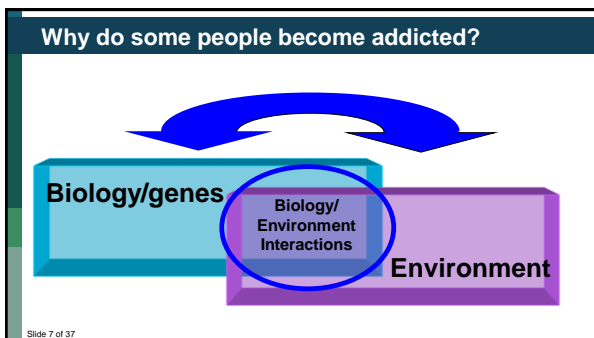
To feel good

To have novel:
feelings
sensations
experiences
AND
to share them


To feel better

To lessen:
anxiety
worries
fears
depression
hopelessness

Slide 6 of 37



Drugs Are Usurping Brain Circuits and Motivational Priorities

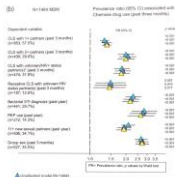


Slide 6 of 37

Consequences: Sex and Drugs - "Chemsex"

Chemsex drugs & HIV risk

- MACS Cohort (HIV Neg)
 - Use of poppers, stimulants, and erectile dysfunction drugs increased risk for HIV seroconversion
- AURAH study (HIV Neg)
 - n=1484, 21.8% (324) reported Chemsex drugs – associated with greater risk behaviours
- Methamphetamine may increase rectal mucosal inflammation (HIV pos & HIV Neg)



Courtesy Mark Pakianathan CROI 2019

General Principles

IAS-USA

General Principle

- Treat all patients with dignity and respect
- People who use drugs are people
- Malingering, manipulation, etc. are all survival mechanisms people who use drugs use for survival. Don't take it personally.

Slide 11 of 37

Practical Initial Step: Screening

1. Screen patients for substance use disorders using standardized questions:
 - How many times in the past year have you had 5 or more standard drinks in a day?
 - How many times in the past year have you used an illegal drug or a prescription medication for nonmedical reasons?

Slide 12 of 37

Practical Next Step: Think about systems

- Provision of low threshold, rapid access, appropriately dosed treatment (e.g., buprenorphine, methadone, or other treatments)
- Culturally appropriate counseling for addiction [can be simple (NA) to more complex (CBT)]

Slide 13 of 37

Practical Steps: Treat everyone

Treatment of the medical issues associated with addiction (e.g., HIV, hepatitis B/C, and Tuberculosis)

- There is NO data to support denying or waiting to start patients on ART or any other treatment.
- Prescribe naloxone and consider becoming a buprenorphine provider
- Review guidelines on the treatment of chronic pain and re-evaluate how you prescribe opioids

Slide 14 of 37

Case 1

- You inherit a new patient: A 45 year old male comes in for his refill of oxycodone of 30 mg tablets, two tablets every 6 hours for a total of 240 tablets for the month. You notice there hasn't been a urine toxicology in 5 years, but notice that there have been a few recent Emergency Department visits for methamphetamine intoxication. The patient today is agitated, struggling to sit still, and wondering why the refill is taking so long....

Slide 15 of 37

Your next steps:

1. Curse the prior provider who left you a mess
2. Give the refill and find a way never to see the patient again
3. Call social work (or anyone) to try and diffuse the situation and get the patient into treatment
4. Talk with the patient about the ED visits and methamphetamine use to gauge interest in treatment, and refill the medication
5. #4 but do not refill the medication

Slide 16 of 37

"But it isn't really a problem" – change is a process

▪ Transtheoretical Model of Change:

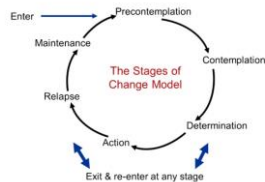
- Helping patients to move along the stages of change
- MI – "Roll with resistance"

▪ Harm Reduction

- Syringe exchanges
- Naloxone

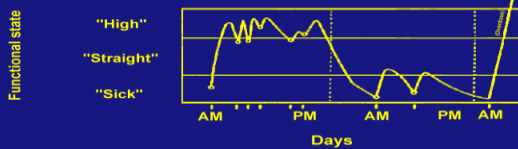
▪ When helping hurts

- Enabling vs. boundaries



Slide 17 of 37

Why isn't it a problem? The Lifecycle of a Heroin User



Diagrammatic summary of functional state of typical "mainline" heroin user. Arrows show the repetitive injection of heroin in uncertain dose, usually 10 to 30 mg but sometimes much more. Note that addict is hardly ever in a state of normal function ("straight").

From "Narcotic Blockade" by V. P. Dole, M. E. Nywander, and M. J. Kreek, 1966, Archives of Internal Medicine, 116, p. 305.

Opioids

IAS-USA

It's Friday at 4PM ...

- 30 year old comes into clinic and, through much creative and interesting conversations, you conclude that the oxycodone you were giving for back pain is not in the urine toxicology, but morphine is.....

Slide 20 of 37

Your next step:

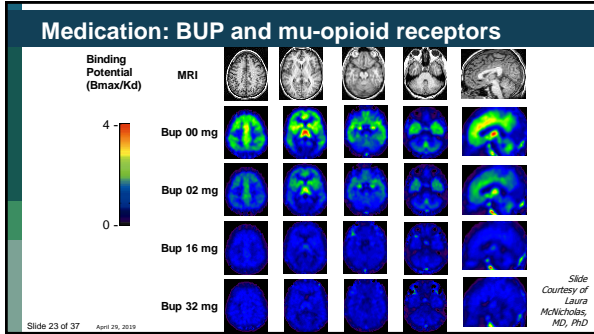
1. Refuse to refill the medication and call someone else to deal with the upset patient
2. Agree with the patient that it was a one time thing and give all or some of the oxycodone
3. Discuss treatment for opioids and start buprenorphine
4. Discuss treatment for opioids and refer to methadone
5. Discuss treatment for opioids and start naltrexone

Slide 21 of 37

Treatment

- Pharmacological Treatment
 - Buprenorphine, Methadone, Naltrexone
- Behavioral Treatment (Therapy)
 - Motivation Interviewing – getting you motivated to do treatment
 - Cognitive Behavioral Therapy – getting you to think differently about drug use

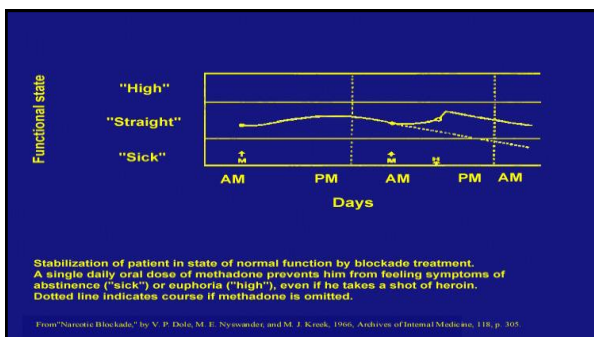
Slide 22 of 37



Medications to treat opioid use disorder

- Methadone
 - Only in OTP
 - Efficacious, best retention
- Buprenorphine
 - Office based
 - Efficacious, retention less than methadone
- Naltrexone
 - Office based
 - Efficacious
 - Retention less than methadone & buprenorphine

Slide 24 of 37

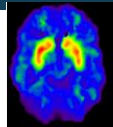
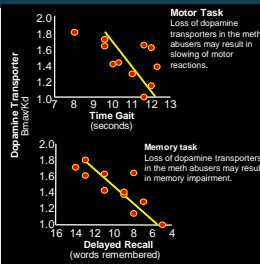
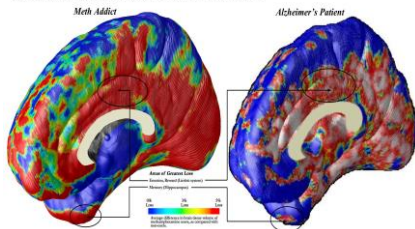


Methamphetamine Treatments

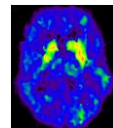
IAS-USA

Structural Changes: Methamphetamines

Eroding the Mind: Researchers have mapped brain decay caused by methamphetamine use (left). The damage affected memory, emotion, and the reward system. Notice the similarities to the brain decay caused by Alzheimer's Disease (right).



Normal Control



Methamphetamine Abuser

HIV Specific Methamphetamines Effects

- Neurocognitive effects and HIV may result in permanent neurobiological changes.
- Methamphetamine increases HIV replication and expression of CCR5 on macrophages and these events may contribute to the immunopathogenesis of HIV-infected methamphetamine users.
- Reduced neurocognitive performance can severely compromise HIV clinical care and is associated with HIV nonadherence and the development of HIV resistance.

Slide 29 of 37

Treatment

- Pharmacological Treatment
 - No pharmacological agents have demonstrated efficacy through Phase 2 trials. Morley, K. C., et al. (2017). "Pharmacotherapeutic agents in the treatment of methamphetamine dependence." Expert Opin Investig Drugs **26**(5): 563-578.
- Behavioral Treatment (Therapy)
 - Motivation Interviewing –motivated to do treatment
 - Cognitive Behavioral Therapy – getting you to think differently about drug use

Slide 30 of 37

Medications that do not work

Aripiprazole	Mirtazapine
Baclofen	Modafinil
Bupropion	Ondansetron
Dextroamphetamine	Risperidone
Gabapentin	Sertraline

Slide 31 of 37

Riluzole

- Riluzole is a glutamate regulator and effective in treatment of neuropsychiatric conditions.
- Double blind placebo controlled trial in men 18 to 65 to 50 mg riluzole (n=34) or placebo (n=54) twice daily for 12 weeks.
- Patients were excluded for serious medical conditions or neurologic disorders, comorbid psychiatric disorders other than methamphetamine dependence including other drugs of abuse

Slide 32 of 37

Riluzole cont'd

- RESULTS: Visit attendance went up and the number of positive methamphetamine urine test results was significantly lower in the riluzole arm.
- Patients in the riluzole arm experienced significantly greater improvement on all the craving, withdrawal, and depression measures regarding mean score changes from baseline to endpoint
- ISSUE: Small study, only men, needs larger study to validate.

Slide 33 of 37




Lisdexamfetamine forthcoming trial

- Agonist therapy has been tried with mixed results in the past.
- LDX – used for ADHD and binge eating has potential as an agonist therapy for methamphetamine dependence, and possible benefits of reduced risk of aberrant use due to its novel formulation.
- RCT ongoing. TRIAL REGISTRATION NUMBER: ACTRN12617000657325

Slide 34 of 37

HIV, Pain and Addiction

Clinical Infectious Diseases
IDSA GUIDELINE

2017 HIVMA of IDSA Clinical Practice Guideline for the Management of Chronic Pain in Patients Living With HIV

R. Douglas Bruce,¹ Jessica Morlin,² Paula J. Lum,² Eltesam Ahmed,³ Carlo Alexander,⁴ Amanda H. Corbett,⁵ Kathleen Foley,⁶ Kate Leonard,⁷ Glenn Jordan Treisman,⁸ and Peter Schweyn⁹

¹Department of Medicine, Cornell Scott-Hill Health Center and Yale University, New Haven, Connecticut; ²Divisions of Infectious Diseases and Gerontology, Geriatrics and Palliative Care, University of Alabama at Birmingham; ³Division of HIV, Infectious Diseases, and Global Medicine, University of California San Francisco; ⁴St. Johns University College of Pharmacy and Health Sciences, Monmouth Jewish Health System Institute for Innovation in Palliative Care, New York; ⁵University of Maryland School of Medicine, Institute of Human Virology, Baltimore; ⁶Eisenberg School of Pharmacy, University of North Carolina, Chapel Hill; ⁷Abertown Neurologic Institute, Memorial Sloan-Kettering Cancer Center, New York; ⁸Division of Neuroscience and Clinical Pharmacology, Cornell University, New York, New York; ⁹Division of HIV Medicine, Johns Hopkins Medical Center, Baltimore, Maryland; and ¹⁰Department of Family and Social Medicine, Montefiore Medical Center, Albert Einstein College of Medicine, Bronx, New York

▪ <https://academic.oup.com/cid/article/65/10/e1/4157299>

Slide 35 of 37

Useful websites:

- American Pain Society has resources available online:
<http://www.americanpainsociety.org/resources/content/pri-mary-care-practitioner.html>
- American Academy of Pain Medicine resources:
<http://www.painmed.org/library/main.aspx>
- Providers Clinical Support System (PCSS) for MAT at
<https://pcssnow.org/resources/clinical-tools/>
- Buprenorphine training:
<https://www.samhsa.gov/medication-assisted-treatment/training-resources/buprenorphine-physician-training>

Slide 36 of 37

Questions?

- Email: robert.bruce@yale.edu

Slide 37 of 37

