Opioid Use Disorder Treatment: Buprenorphine Treatment Basics

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Eastern Oregon Coordinated Care Organization Provider Forum on Chronic Non-cancer Pain Management

Pendleton, OR

February 24, 2017

Acknowledgment

Slides adapted with permission from Melissa Weimer, DO, MCR

Disclosure

I and my spouse/partner DO NOT have any relevant financial relationships with any commercial interests

Learning Objectives

Upon completion of this educational activity the participant should be better able to:

- Understand the basis for medical treatment of opioid use disorder
- List opportunities to integrate medication-assisted therapy (MAT) into clinical practice
- Identify the steps to become a certified prescriber for buprenorphine
- List the resources available to medication-assisted therapy prescribers

Case 1: Chronic migraines + prescribed opioids

- 35 yo female with chronic daily migraine and diffuse myofascial pain who has been prescribed opioids for 5 years after the birth of her daughter. The patient has severe depression and anxiety, chronic nausea, history of adverse childhood experience (neglect as a child), and obesity. She is a stay at home mother to her 2 children, but frequently has to put the children in daycare because she can not care for them when she has severe migraines. She is also prescribed chronic high dose benzodiazepines by a psychiatrist.

- The patient has a history of losing her opioid prescription, obtaining opioids from another provider, being allergic to most other pain medication options, missing appointments, and frequently asking for opioid dose increases.

Case 2: IV heroin use

- 30y/o female with IV heroin use, difficult to manage seizure disorder, PTSD, and chronic incarceration and homelessness.
- Hx of IV heroin use since around age 15
- Longest sobriety was 2 years while incarcerated
- Frequently does not take her seizure medications and has seizures causing repeated hospitalization
- Supportive mother and family
- Presents to your clinic with an abscess in her forearm

Thought Questions

- What treatment is best suited for Case 1?

- What treatment is best suited for Case 2?

How we think about addiction

Photo: http://myfox8.com/2016/09/09/ohio-police-post-pictures-of-parents-who-overdosed-with-young-child-in-car/

How we think about dependence on opioid pain medication

Photo: http://www.addictioncampuses.com/resources/addiction-campuses-blog/6-signs-your-loved-one-may-be-addicted-to-prescription-pills/

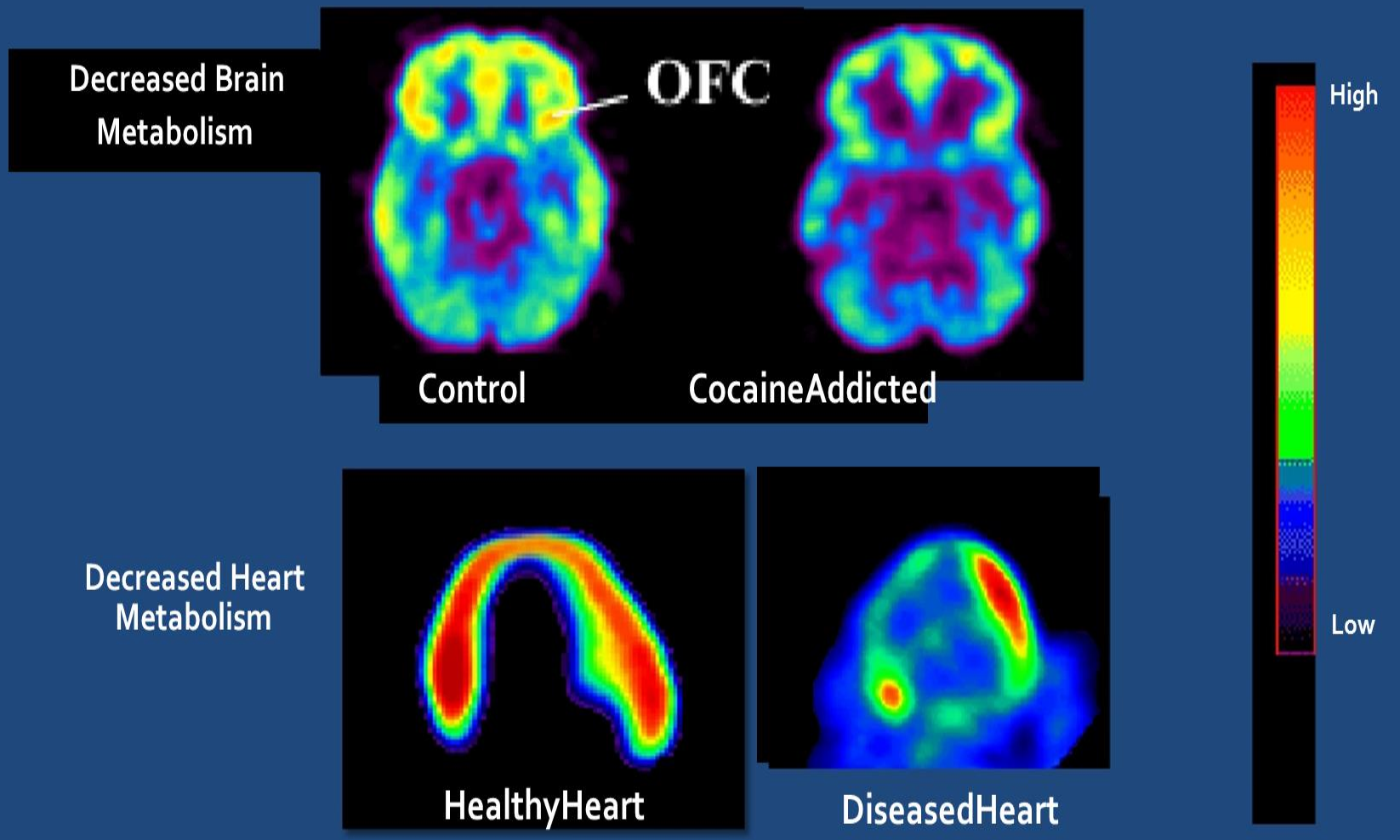
Are they biologically any different?

Substance Use Disorder: A chronic disease of the brain

- Outdated view: moral failing, bad choices, legal problem
- Modern, evidence-based view:
  - Genetic, Environmental, and pharmacologic factors predispose to chronic drug use
  - Leads to structural and functional disruption of motivation, reward, inhibitory control centers
    - Dopaminergic, opioidergic, and stress response pathways
  - Turns drug use into an automatic, compulsive behavior (addiction)
  - Withdrawal from substances produces profound negative reinforcement in order to avoid it

Hall, Lancet 2015
Koob, Neuropsychopharm 2001

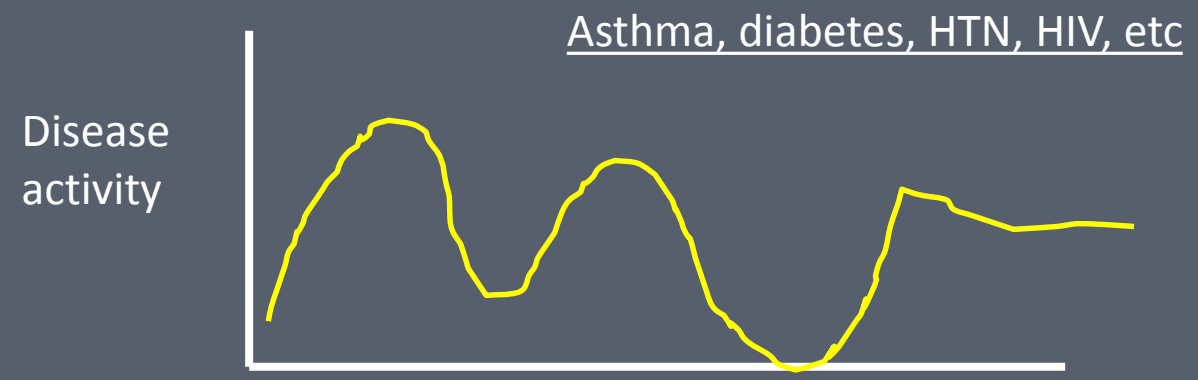
A Disease of the Brain

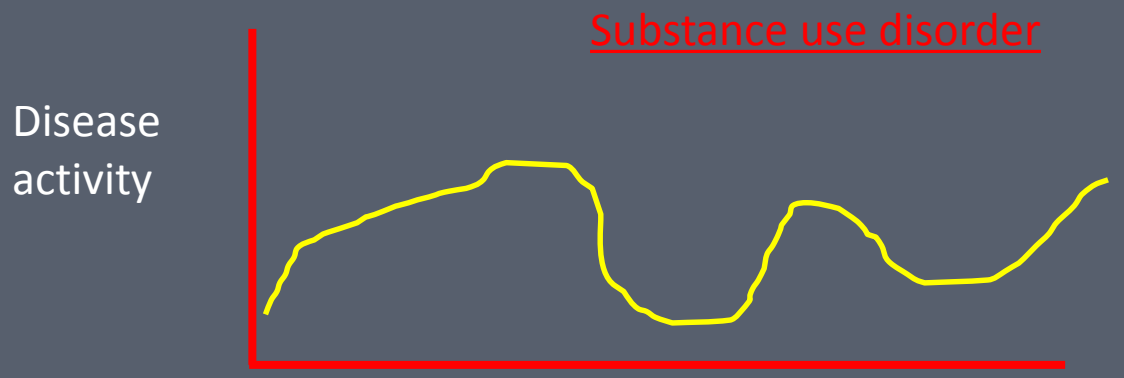


Courtesy oF Meg Devoe, Andy Lawton

Volkowetal.*Neuroimage* 2013

Chronic Illness versus Moral Failing





O'Connor, JAMA 1998
Lucas, JAIDS 2005

Like other chronic illnesses…

- Genetic, personal choice, and environmental factors
- Behavioral change is an important part of treatment
- Relapse and medication adherence issues
- Comply with treatment and medications = better outcomes
- No reliable cure
- Older, employed with stable families = better outcomes
- Reasonably predictable course

McLellan A T, et al. Drug dependence, a chronic medical illness: Implications for treatment, insurance, and outcomes evaluation. JAMA. 2000;284(13):1689–1695

The Developmental Roots of Addiction

- *“We know that the majority of chronically hard-core substance-dependent adults lived, as infants and children, under conditions of severe adversity that left an indelible stamp on their development. Their predisposition to addiction was programmed in their early years. Their brains never had a chance.”*
- Gabor Maté, *In the Realm of Hungry Ghosts*, 2008

Different Treatment Philosophies for Substance Use Disorder Treatment

- Abstinence-based Treatments
  - 12 Step
  - Celebrate Recovery, Smart Recovery

- Medication Assisted Treatments (MAT)
  - MAT alone
  - MAT plus behavioral treatments

Medication-Assisted Treatment for OUD

- Normalizes persistent alterations in dopaminergic, opioidergic and stress responsive pathways
- “Re-sets” the innate reward pathways in the brain
- Prevents/treats the negative reinforcement of opioid withdrawal
- Allows patient to re-engage in healthy rewards and re-establish community

Barriers to MAT

- Stigma
  - “liquid hand cuffs”
  - “trading one addiction for another”
- Organizational philosophy/staff beliefs about use of medications
  - “I didn’t have to use medication to recover”
- Lack of understanding of its purpose and outcomes
- Cost and access
- Lack of appropriate staffing (physicians) in treatment centers

Medications

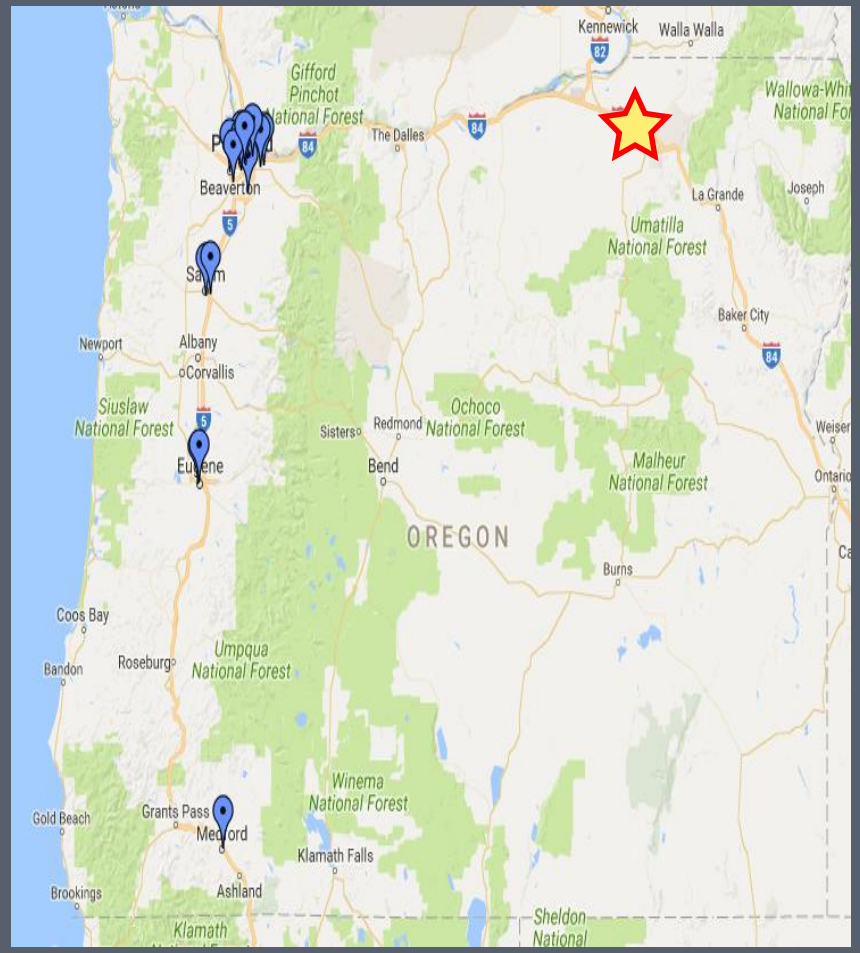
Naltrexone (oral or Intramuscular)

- Opioid antagonist
- Possible pain relief at very low doses
- Craving relief
- May not work well for patients who have pain

Medications

Methadone

- Full opioid agonist
- Analgesia for 4-6 hours
- For OUD, only available through a federally qualified opioid treatment program

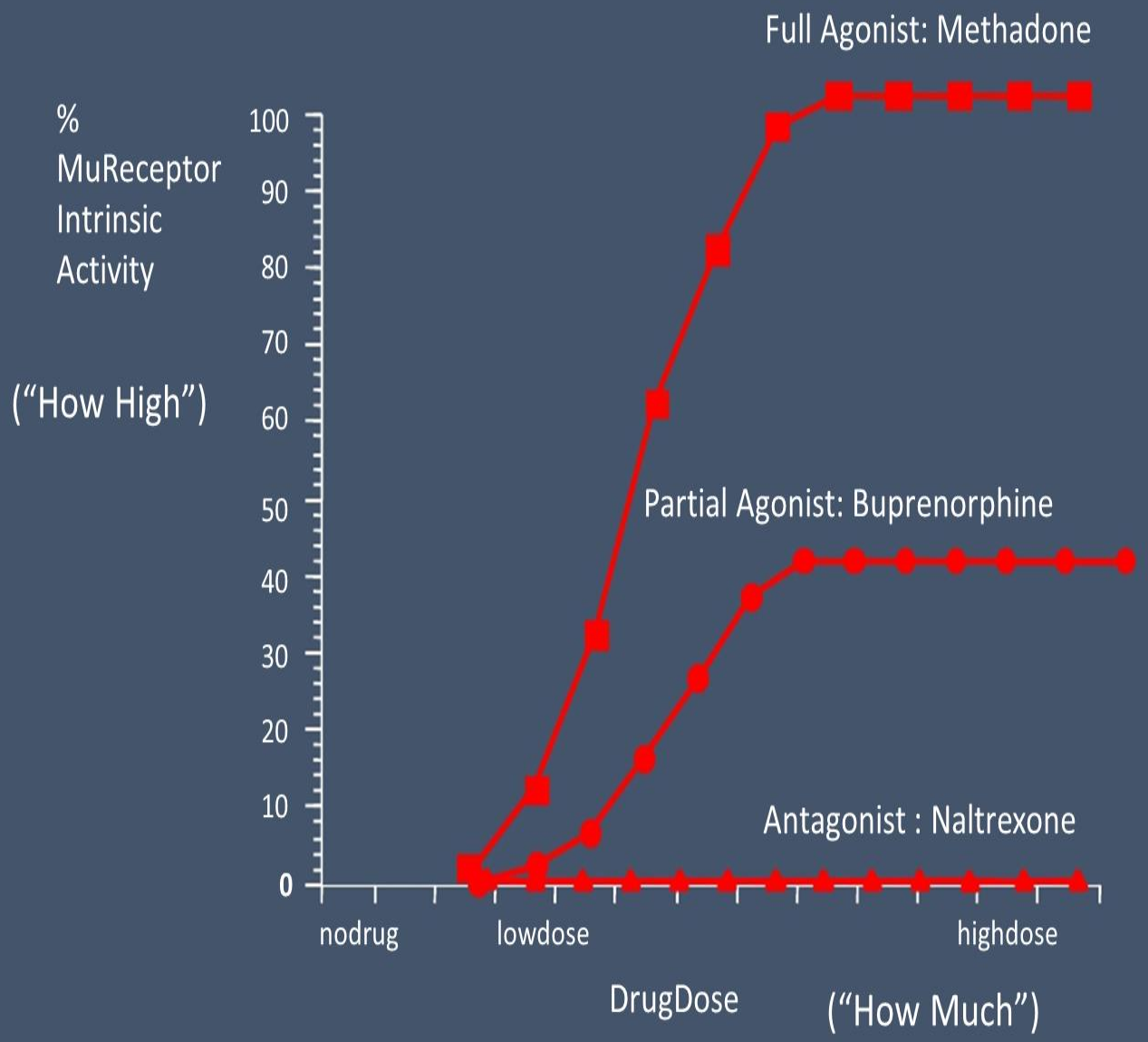


Medications

Buprenorphine

- Partial opioid agonist
- Analgesia for 4-6 hours, can be dosed BID or TID for improved pain management
- Can be utilized to help patients taper off of opioids
- Office based prescribing with DEA waiver or “X waiver” after completing 8-hour (physicians) or 24-hour (NPs and PAs) training

Opioid Activity Levels



Medication Efficacy For Opioid Use Disorder

	Treatment Program Retention	Opioid Misuse	Criminal Activity
Methadone	↑ (n=3)[a]	↓ (n=6)[a]	No Effect (n=3)[a]
Buprenorphine	↑ (n=4)[b]	↓ (n=2)[b]	No data
PO Naltrexone	No effect (n=2)[c]	↓ (n=4)[c]	↓ (n=2)[c]
XR Naltrexone	↑ (n=2)[d]	↓ (n=2)[d]	No data

[a]Mattick RP, et al. Cochrane Database Syst Rev 2011;
[b]Mattick RP, et al. Cochrane Database Syst Rev 2018;
[c]Minozzi S, et al. Cochrane Database Syst Rev 2011;
[d]Krupitsky E et al. Lancet. 2011, Comer SD et al. Arch Gen Psychiatry 2006.

Buprenorphine: Pros/Cons

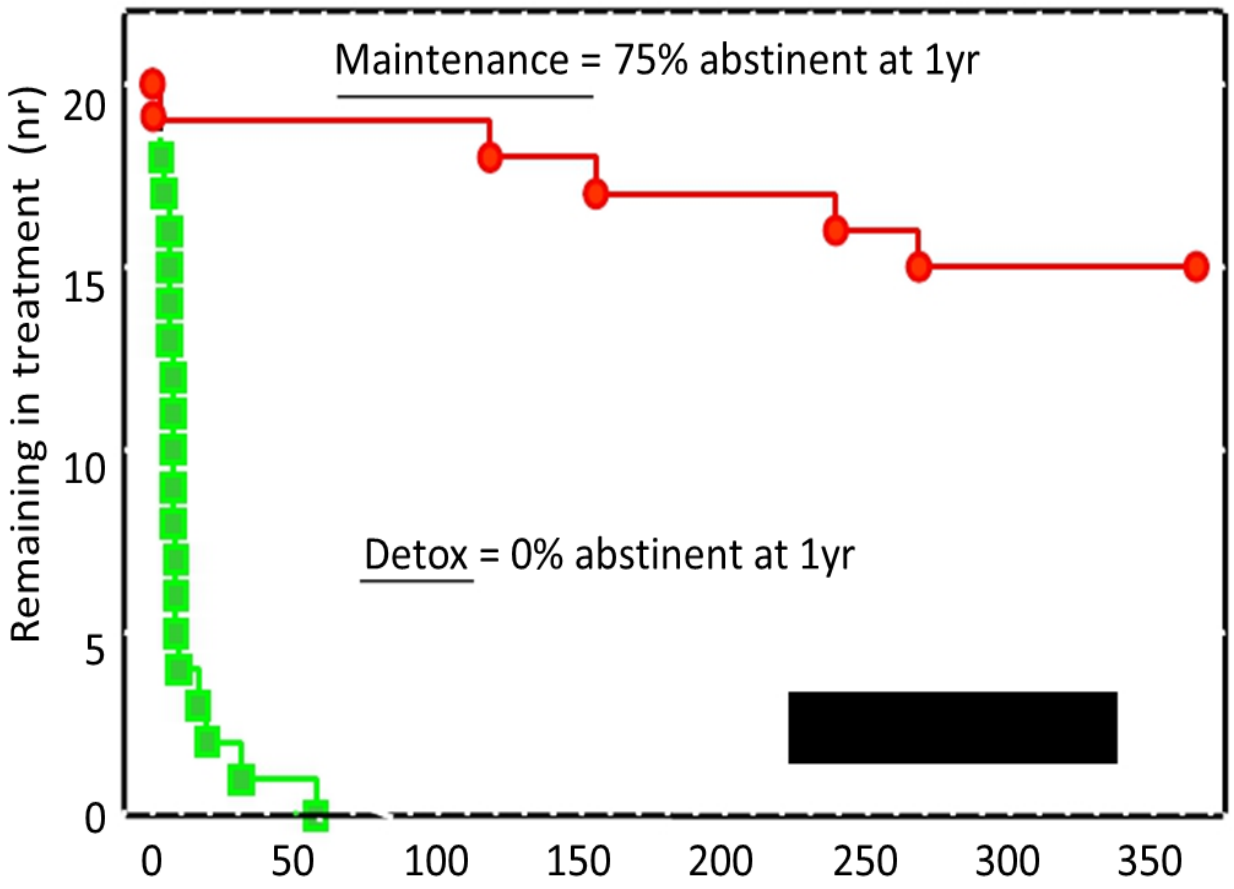
Pros

- Effective for pain and opioid use disorder
- Increased retention in treatment
- Low overdose risk
- Office-based prescribing
- Minimal drug interactions
  - Except benzos, etoh
- No cardiac toxicity

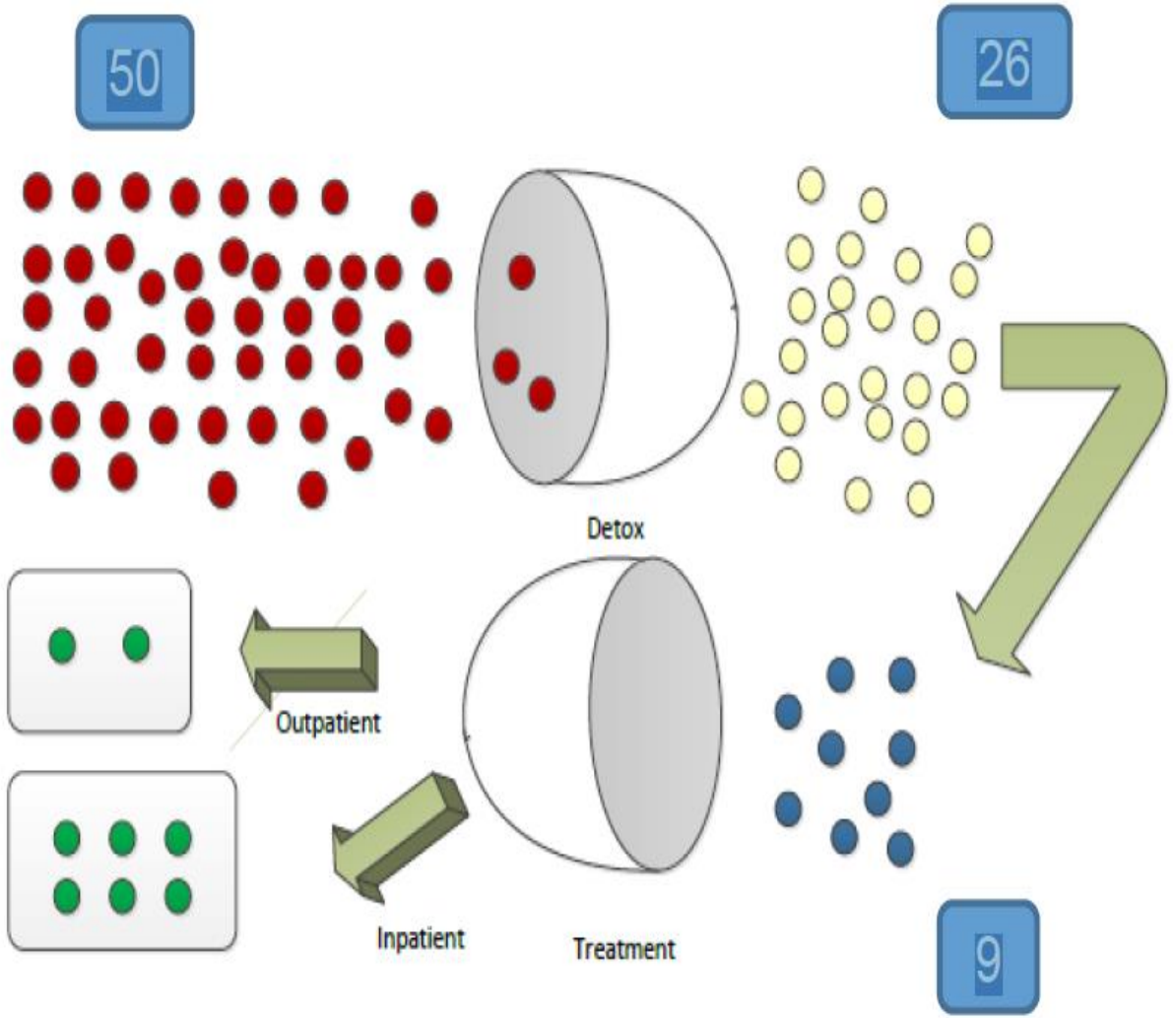
Cons

- Training required to prescribe
- Cost
- Can complicate pain treatment
- Potential for precipitated withdrawal
- Can be diverted

Treatment Retention: Buprenorphine Detox with counseling vs. Maintenance treatment



Kakko, Lancet 2003



Courtesy Charissa Fotinos, MD, MSc

Integrating Buprenorphine Into Your Practice

- Reduce stigma :“I don’t treat those patients”
- Staff education
- Establish substance treatment resources in your community for referral
- Practical components
  - Induction space and time
  - Access for urgent appointments
  - Urine drug testing capabilities in the office
- Access to specialty assistance if needed

Getting Your Buprenorphine Waiver

- **EOCCO**
  - **2/25 Pendleton, 5/13 Ontario, free of charge**
- ASAM
  - http://www.buppractice.com/
- AAAP
  - http://www.aaap.org/education-training/buprenorphine/
- 8 hours for physicians, 24 hours for NPs and PAs
- Some other free of charge trainings in Oregon

A Note On Naloxone

- Reduces overdoses
- Does not increase drug use
- Is cost effective
- ***(Is covered by EOCCO and other insurance, with or without prescription)

http://stopoverdose.org/section/learn-about-naloxone/

Case 1: Chronic migraines + prescribed opioids

35 year old female with chronic daily migraine and diffuse myofascial pain who has been prescribed opioids for five years after the birth of her daughter. The patient has **severe anxiety and depression**, chronic nausea, history of adverse childhood experience (neglect as a child), and obesity. She is a stay at home mother of 2 children, but frequently has to put the children in daycare because she cannot care for them when she has severe migraines. She is also prescribed **chronic high dose benzodiazepines** by a psychiatrist.

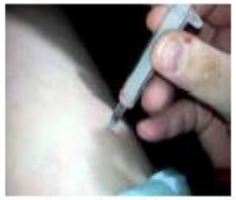
Naloxone

- Per SAMHSA:

  “The codes for Screening, Brief Intervention, and Referral to Treatment (SBIRT) can be used to bill time for counseling a patient about how to recognize overdose and how to administer naloxone. Billing codes for SBIRT are as follows:

  - Commercial Insurance: CPT 99408 (15 to 30 minutes)
  - Medicare: G0396 (15 to 30 minutes)
  - Medicaid: H0050 (per 15 minutes) ”

Naloxone Product Comparison for Community Programs

	Intramuscular injection naloxone		Intranasal spray naloxone	
Product		 Brand name: Evzio®	 (FDA approved as injectable but used off label as intranasal.)	 Brand name: Narcan®
Packaging	2 single use 1 mL vials. Requires 2 intramuscular syringes (23G, 3cc, 1-1.5), sold separately.	Two-pack of autoinjector devices.	2 Luer-Jet™ Luer-Lock 2mL needleless syringes. Requires assembly with 2 mucosal atomizer devices (MAD-300) sold separately.	Two-pack of autospray devices in individual foil packs.
Administration	 Inject 1 mL in shoulder or thigh.	 Follow English voice prompt. Press black side firmly on outer thigh for 5 seconds.	 Spray 1ml (1/2 of vial) into each nostril.	 Spray unit into one nostril.
	For all products, repeat administration if no or minimal response after 2-3 minutes.			
Strength	0.4mg/mL	0.4mg/0.4mL	1mg/mL	4mg/0.1mL
Storage	68-77°F away from light Fragile: Glass	59-77°F away from light	59-86°F away from light Fragile: Glass	59-77°F away from light
Cost	$	$$$*	$$	$$*

Adapted from *PretscribetoPrevent.org*

Practice Support

- http://pcssmat.org/mentoring/
- http://www.buppractice.com/resourcecenter

- OHSU Consult Line: Addiction Medicine Consultation
  - 503 494-4567
  - 800 245-6478 toll-free

- Daniel Warren (me!): 316-200-3930, warreda@ohsu.edu

Case Study Panel

Chuck Hofmann, MD
Joel Rice, MD
Daniel Warren, MD

Ron

52y/o disabled/retired laborer with chronic back pain. No history of addiction, hep C, or aberrant behavior. Married x 30yrs with adult children. Prescribed OxyContin 60mg QID. (MED 360)

Linda

52y/o disabled/retired office worker with chronic back pain. No history of addiction, hep c, or aberrant behavior. Married x 25yrs. Prescribed hydrocodone 10/325 8 QD, oxycodone IR 30mg 6 QD and OxyContin 80mg TID. (MED 710)

Roxanne

47 y/o disabled female with a history of fibromyalgia and DJD s/p multiple orthopedic procedures. No history of addiction, hep C, or aberrant behavior. Married x 25yrs with grown children. Managed on Methadone 100 mg BID and Hydrocodone 10 mg QID prn. (MED 1260)