WELCOME to the

Substance Use ECHO

Session will start in less than 15 minutes

For educational and quality improvement purposes, we will be recording this video-session

By participating in this clinic you are consenting to be recorded –
we appreciate and value your participation

If you have questions or concerns, please email

ECHO@hitchcock.org

Attendance

- Spoke participants
- Hub participants

Please type your name, organization into chat

Please turn video on

Respect Private Health Information

To protect patient privacy, please only display or say information that doesn't identify a patient or that cannot be linked to a patient.

- **Names:** Please do not refer to a patient's first/middle/last name or use any initials, etc.
- **Locations**: Please do not identify a patient's county, city or town. Instead please use only the patient's state if you must.
- **Dates:** Please do not use any dates (like birthdates, etc) that are linked to a patient. Instead please use only the patient's age(unless > 89)
- **Employment:** Please do not identify a patient's employer, work location or occupation.
- **Other Common Identifiers:** Patient's family members, friends, co-workers, phone numbers, e-mails, etc.

Pharmacologic Treatment of Opioid Use Disorder

Charles Brackett, MD, MPH

3/24/20

Conflict of Interest Disclosure Statement

No Conflicts of Interest

The Opioid Crisis

A family mourns the death of their son, Brian Malmsbury, who overdosed on heroin in the basement of their home. From left to right: Brian's half sister, Brittany Neff; Brian's stepfather, Damian Neff; and Brian's mother, Patty Neff.

67367 OD deaths in 2018

200/day

CDC data

Treatment (MAT) Works!

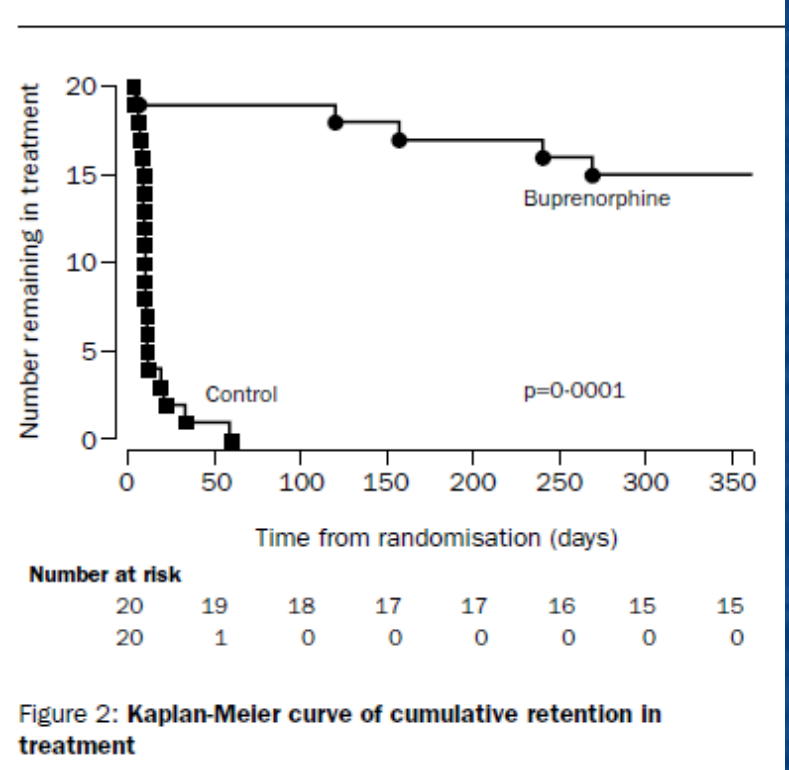
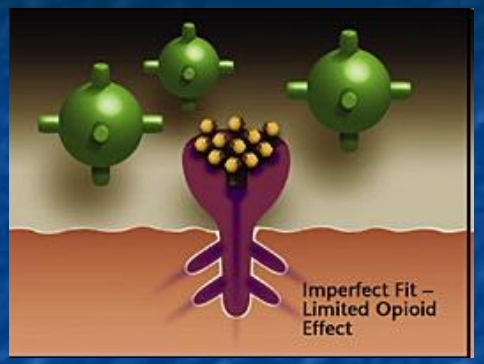
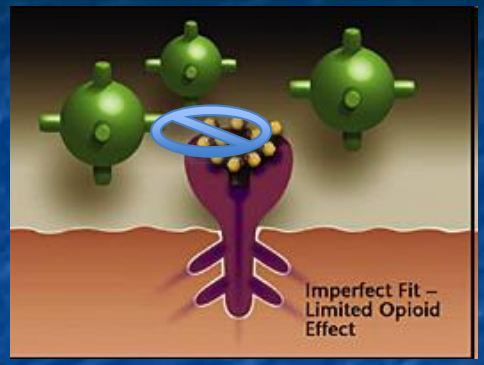


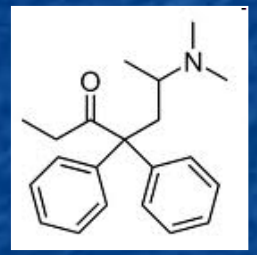
Figure 2: **Kaplan-Meier curve of cumulative retention in treatment**

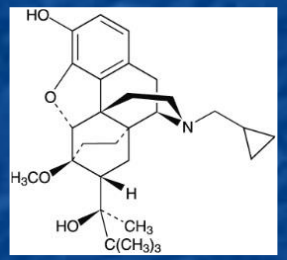
- OAT reduces all cause mortality 70%
- Reduces illicit opioid use
- Reduces other drug use
- Reduces criminal activity
- Improves psycho-social function
- Improves mental health
- Reduces HIV and Hep C
- Reduces ED visits and admissions
- Reduces overall medical costs

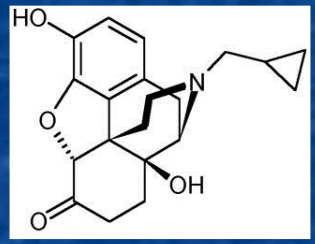
Medications for Opioid Use Disorder











Full MU Agonist:

Methadone

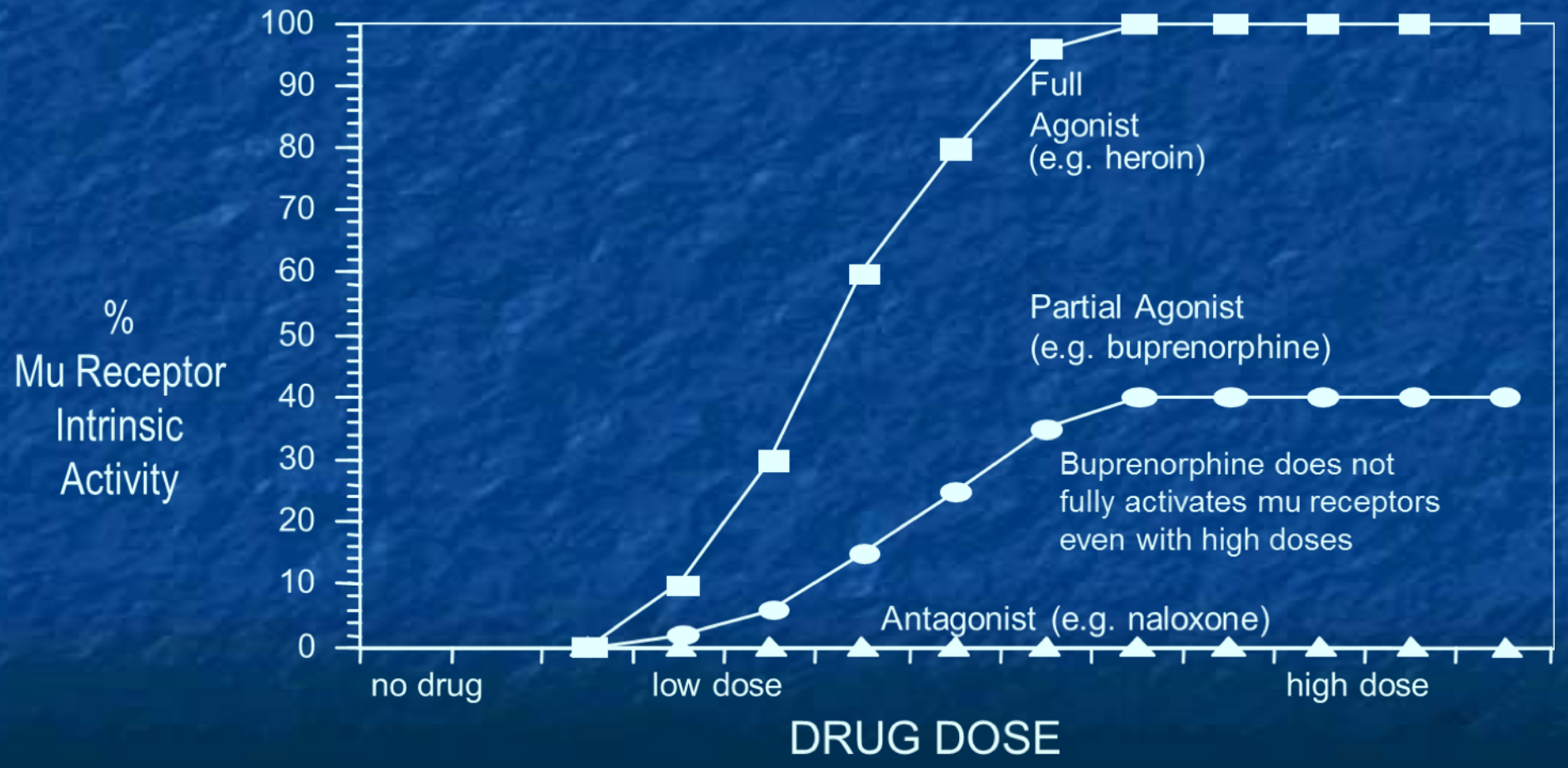
Partial MU Agonist:

Buprenorphine

Full MU Antagonist:

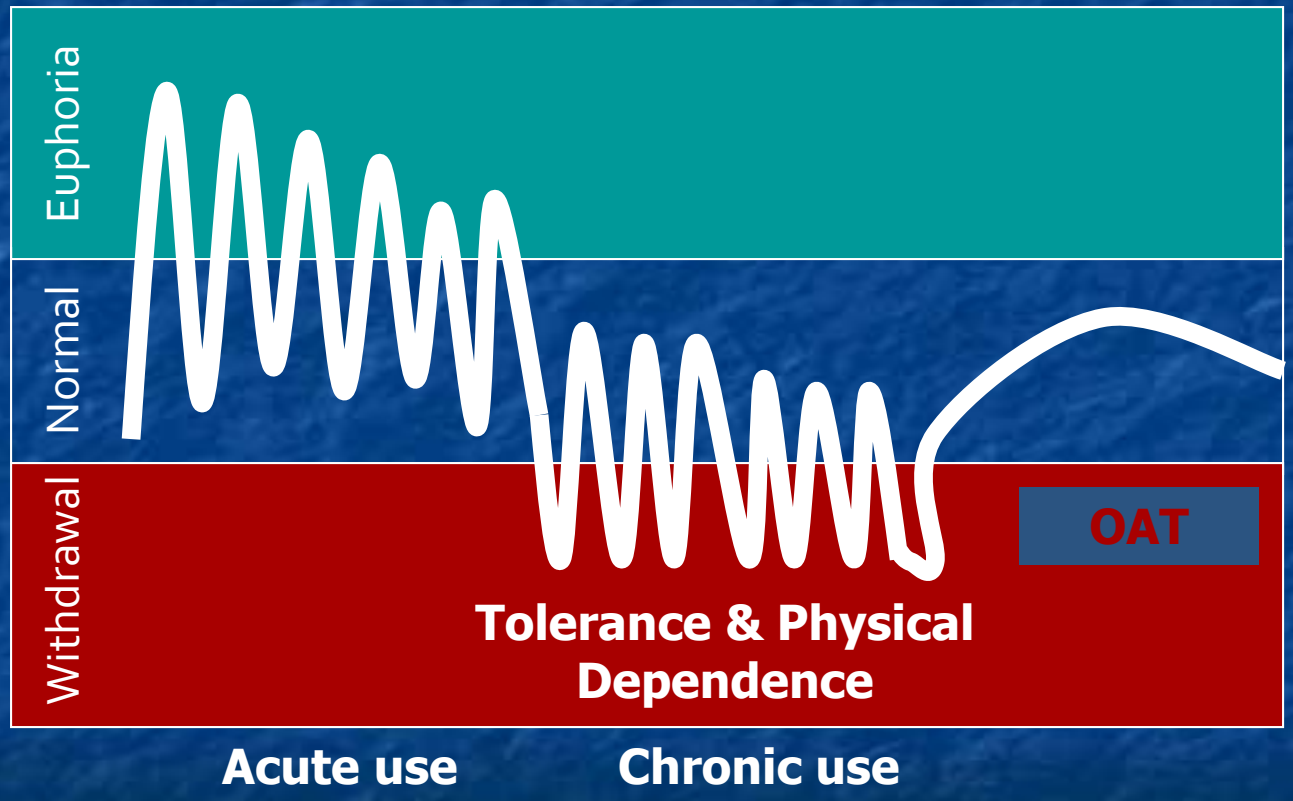
Naltrexone

Intrinsic Activity: Full Agonist (Methadone), Partial Agonist (Buprenorphine), and Antagonist (Naloxone)



Opioid Agonist Therapy (OAT)

Methadone & Buprenorphine



Methadone Maintenance

- “gold standard”
- Can’t be prescribed for opiate dependence in clinic- need OTP
- Drawbacks:
  - Weight gain, brain fog, hypogonadism
  - Daily→frequent visits, transportation/availability
  - for-profit clinics, risk by association
  - Stigma

Buprenorphine

- Partial mu agonist with high binding affinity; kappa and delta antagonist
- Slow kinetics
- Less reinforcing
- Reduces withdrawal symptoms
- Reduces craving
- Blocks other opiates
- buprenorphine+naloxone (4:1)
  - Generic sublingual pills
  - Suboxone and generic films
  - Bunavail, Zubsolv, Probuphine (6mo implant), Sublocade

Prescribing buprenorphine

- Need a special DEA #
  - DATA 2000: MDs prescribe after 8 hour course
  - CARA 2016: PAs and NPs prescribe after 24 hour course (as of 2/27/17)
  - 30 first year, can then apply to go up to 100
- Schedule III- available in pharmacies
- Can prescribe in outpatient setting- PC, psych
  - Greater access/availability, less stigma

Naltrexone

- Opiate receptor antagonist- Patients must be fully detoxed. Helps craving 2 ways
- Oral: No better than placebo, due to poor adherence
- Can work for patients who are
  - highly motivated or legally mandated to be abstinent
  - in closely supervised settings
  - milder OUD
  - In occupations not permitting OAT: driving, medical…
  - Probation: 70% less opiate use, 50% less reincarceration
  - Medical personnel
- Injectable monthly form: Vivitrol
  - Limited data, low quality studies (Russia, jail)
  - No head to head trials with OAT, until….

JAMA Psychiatry | Original Investigation

Effectiveness of Injectable Extended-Release Naltrexone vs Daily Buprenorphine-Naloxone for Opioid Dependence

A Randomized Clinical Noninferiority Trial

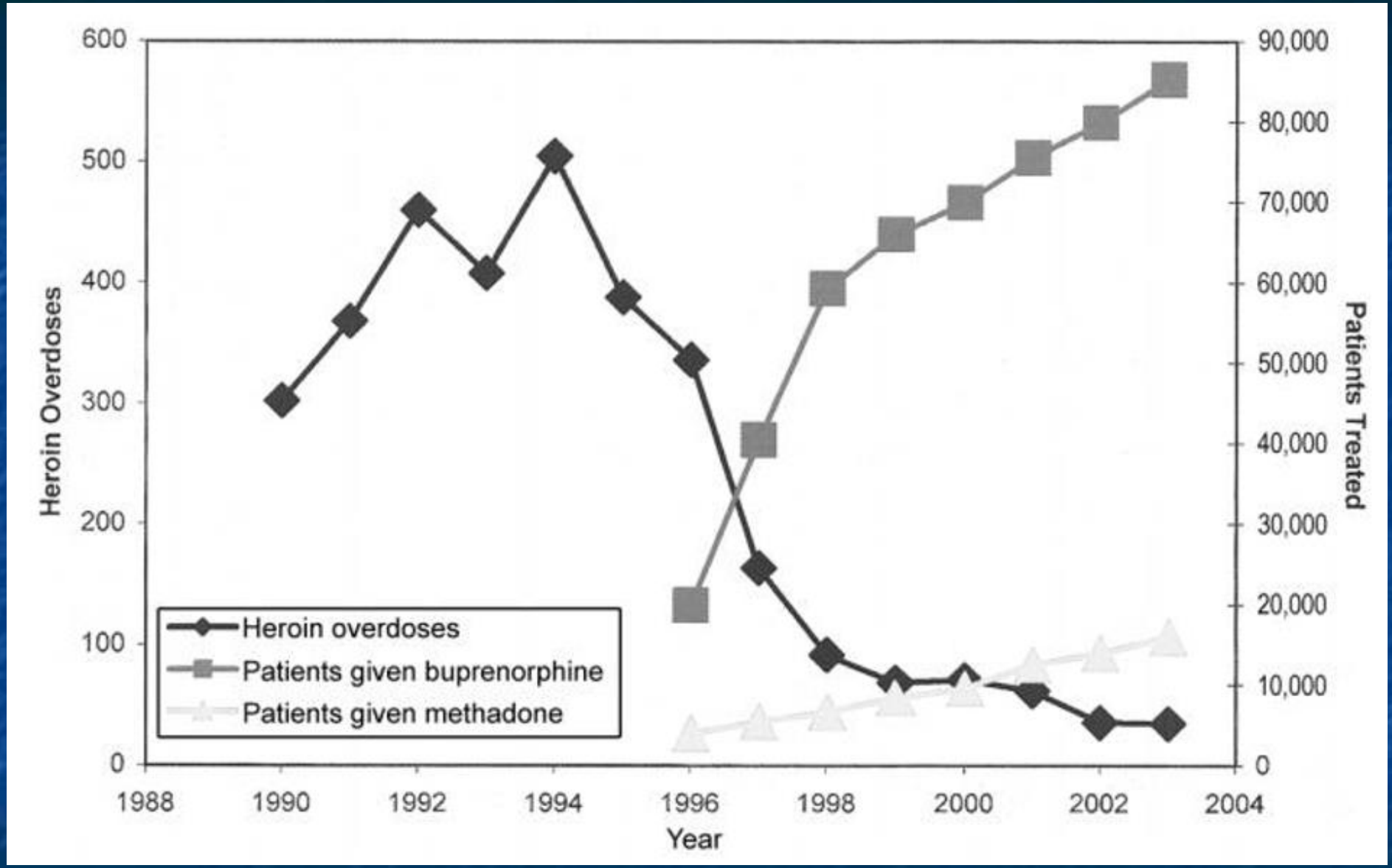
Lars Tanum, MD, DMSci; Kristin Klemmetsby Solli, MSc; Zill-e-Huma Latif, MD; Jūratė Šaltytė Benth, PhD; Arild Opheim, MSc; Kamni Sharma-Haase, MD; Peter Krajci, MD, PhD; Nikolaj Kunøe, MSc, PhD

JAMA Psychiatry. doi:10.1001/jamapsychiatry.2017.3206
Published online October 18, 2017.

Comparative effectiveness of extended-release naltrexone versus buprenorphine-naloxone for opioid relapse prevention (X:BOT): a multicentre, open-label, randomised controlled trial

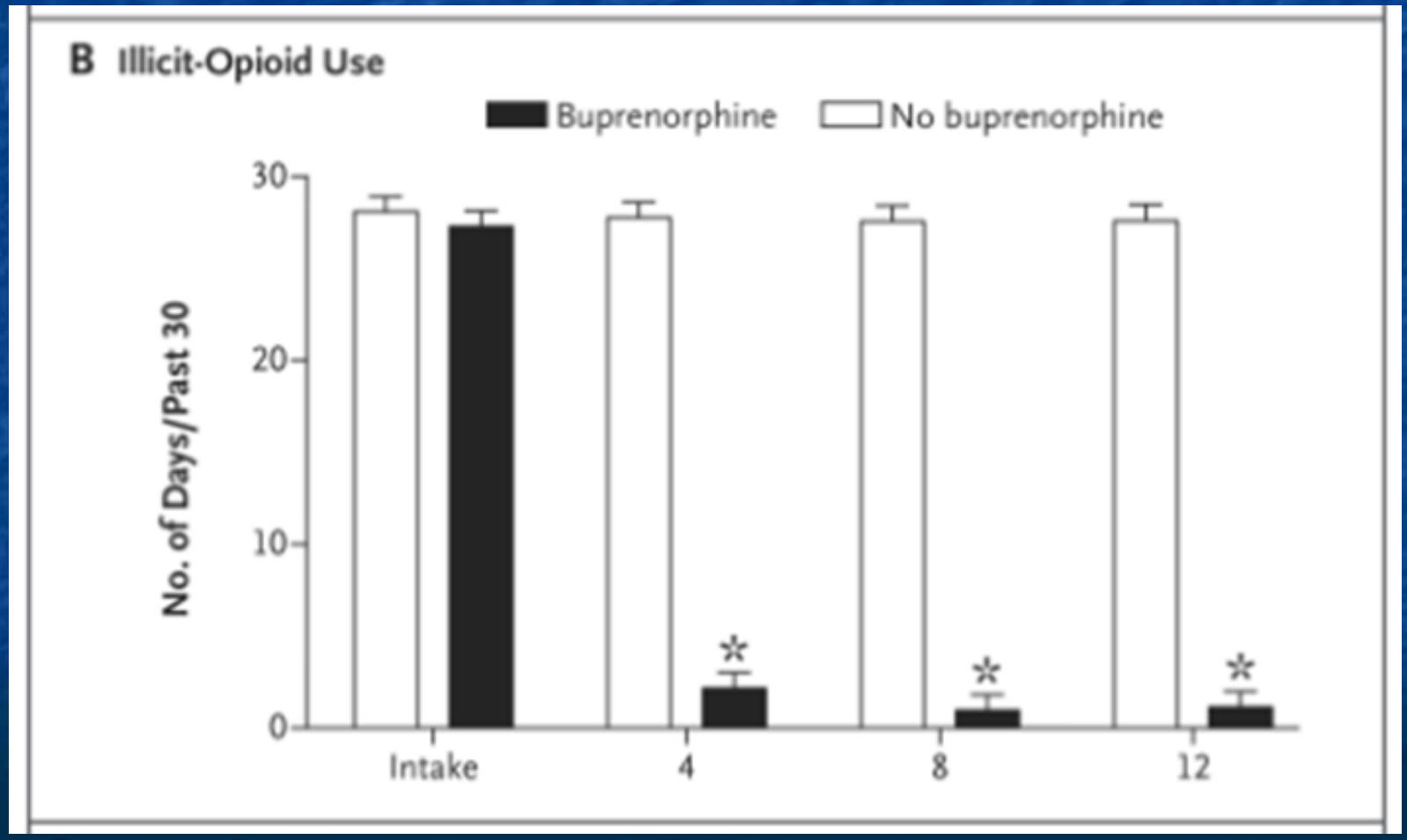
Joshua D Lee, Edward V Nunes Jr, Patricia Novo, Ken Bachrach, Genie L Bailey, Snehal Bhatt, Sarah Farkas, Marc Fishman, Phoebe Gauthier, Candace C Hodgkins, Jacquie King, Robert Lindblad, David Liu, Abigail G Matthews, Jeanine May, K Michelle Peavy, Stephen Ross, Dagmar Salazar, Paul Schkolnik, Dikla Shmueli-Blumberg, Don Stablein, Geetha Subramaniam, John Rotrosen

www.thelancet.com **Published online November 14, 2017**



Carrieri et al. Clinical Infectious Diseases, Volume 43, Issue Supplement_4, 15 December 2006, S197–S215

UVM Waitlist Study; Sigmond NEJM 2016



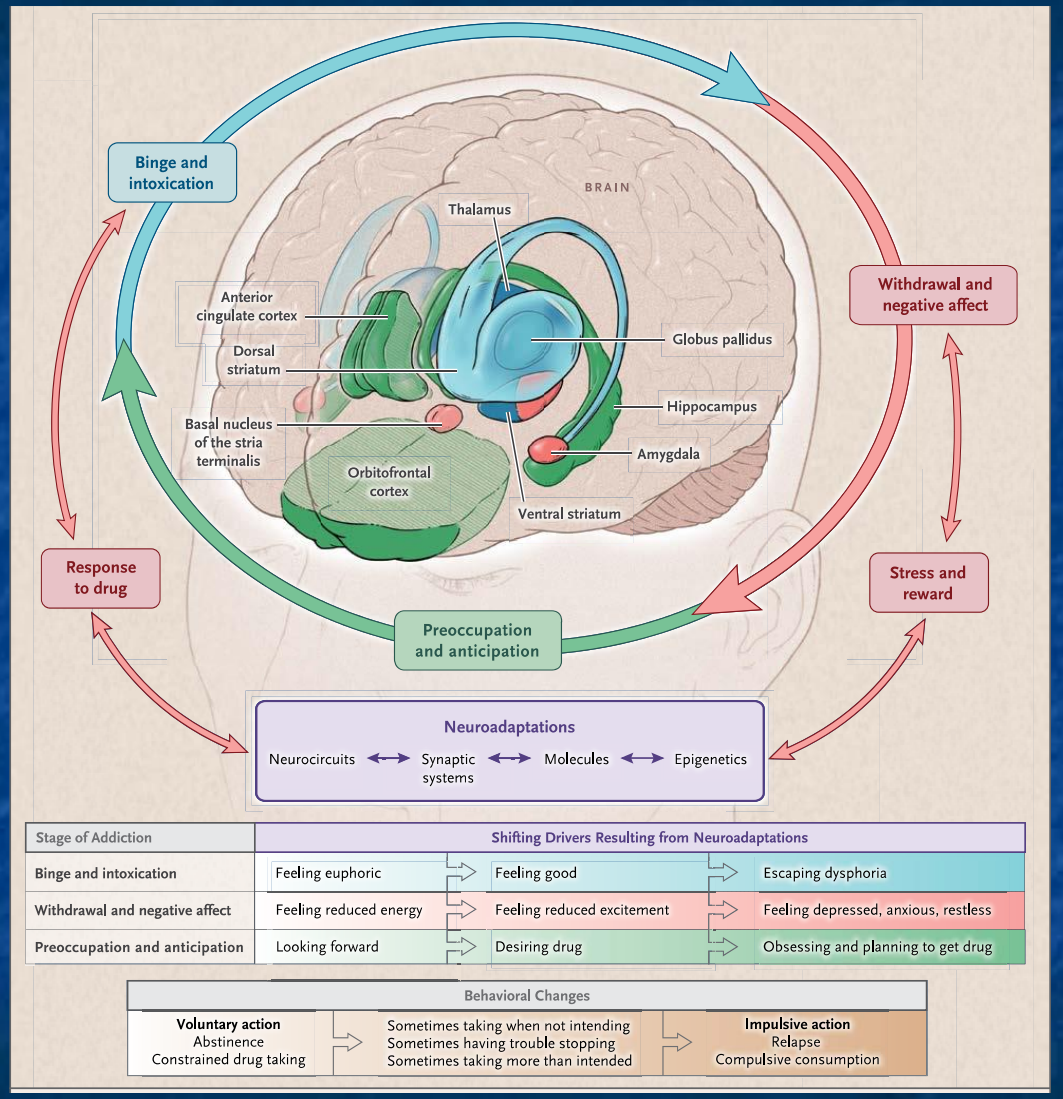
High Threshold vs Low Threshold Care

- PWUD face numerous barriers to engage in services:
  - Registration threshold (accessing care and staff)
  - Competence threshold (ability to communicate needs)
  - Efficiency threshold ("What about those who need 1000 cups of coffee before they start to speak about their needs?")
  - TRUST
- Low-threshold care aims to reduce barriers ('thresholds') through less stringent eligibility criteria to broaden potential reach

Edland-Gryt M. Int J Drug Policy. 2013 May;24(3):257-64.; Mofizul Islam M. Int J Drug Policy. 2013 May;24(3):220-2.

Brain Disease Model of Addiction
-Volkow, Koob,McClellan; NEJM2016

Drug addiction changes the brain:
↓ Reward
↑Stress hormones
↑response to cues
↓executive function and impulse control



Stage of Addiction	Shifting Drivers Resulting from Neuroadaptations		
Binge and intoxication	Feeling euphoric	Feeling good	Escaping dysphoria
Withdrawal and negative affect	Feeling reduced energy	Feeling reduced excitement	Feeling depressed, anxious, restless
Preoccupation and anticipation	Looking forward	Desiring drug	Obsessing and planning to get drug

Behavioral Changes		
Voluntary action Abstinence Constrained drug taking	Sometimes taking when not intending Sometimes having trouble stopping Sometimes taking more than intended	**Impulsive action** Relapse Compulsive consumption

Perspective
JULY 5, 2018

Primary Care and the Opioid-Overdose Crisis — Buprenorphine Myths and Realities

Sarah E. Wakeman, M.D., and Michael L. Barnett, M.D.

Myths and Realities of Opioid Use Disorder Treatment.

Myth	Reality	Possible Policy Response
Buprenorphine treatment is more dangerous than other chronic disease management.	Buprenorphine treatment is simpler than many other routine treatments in primary care, such as titrating insulin or starting anticoagulation. But physicians receive little training in it.	Amend federal buprenorphine-treatment eligibility requirements to include training completed during medical school and require training during medical school or residency. Add competency questions to U.S. Medical Licensing Examination and other licensing exams.
Use of buprenorphine is simply a "replacement" addiction.	Addiction is defined as compulsively using a drug despite harm. Taking a prescribed medication to manage a chronic illness does not meet that definition.	Public health campaign to reduce stigma associated with addiction treatment, similar to past campaigns (e.g., HIV) that provided education and challenged common myths.
Detoxification for opioid use disorder is effective.	There are no data showing that detoxification programs are effective at treating opioid use disorder. In fact, these interventions may increase the likelihood of overdose death by eliminating tolerance.	Advocacy from professional physician organizations to educate federal and state agencies and policymakers about evidence-based treatment and the lack of evidence for short-term "detoxification" treatment.
Prescribing buprenorphine is time consuming and burdensome.	Treating patients with buprenorphine can be uniquely rewarding. In-office inductions and intensive behavioral therapy are not required for effective treatment.	Develop and disseminate protocols for primary care settings that emphasize out-of-office induction and treatment.
Reducing opioid prescribing alone will reduce overdose deaths.	Despite decreasing opioid prescribing, overdose mortality has increased. Patients with opioid use disorder may shift to the illicit drug market, where the risk of overdose is higher.	Develop a national system of virtual consultation for physicians to reach addiction and pain specialists who can support treatment of patients with suspected opioid use disorder.

Annals of Internal Medicine SPECIAL ARTICLE

The Next Stage of Buprenorphine Care for Opioid Use Disorder

Stephen A. Martin, MD, EdM; Lisa M. Chiodo, PhD; Jordon D. Bosse, MS, RN; and Amanda Wilson, MD

Table. Buprenorphine Care: Previous Approaches Compared With New Findings and Recommendations

Previous Approach	New Findings and Recommendations
A medical setting is needed for induction.	Home induction is also safe and effective (6).
Benzodiazepine and buprenorphine coprescription is toxic.	Buprenorphine should not be withheld from patients taking benzodiazepines (5).
Relapse indicates that the patient is unfit for buprenorphine-based treatment.	Relapse indicates the need for additional support and resources rather than cessation of buprenorphine treatment (43).
Counseling or participation in a 12-step program is mandatory.	Behavioral treatments and support are provided as desired by the patient (6).
Drug testing is a tool to discharge patients from buprenorphine treatment or compel more intensive settings.	Drug testing is a tool to better support recovery and address relapse (56).
Use of other substances is a sign of treatment failure and grounds for dismissal from buprenorphine treatment.	Buprenorphine treatment does not directly affect other substance use, and such use should be addressed in this context (43).
Buprenorphine is a short-term treatment, prescribed with tapered dosages or for weeks to months.	Buprenorphine is prescribed as long as it continues to benefit the patient (6).

Reminders:

- Next session April 7th – Use & misuse of cannabis(Seddon Savage)
  - Case 1: ???
  - Open Discussion

- Please type your name, organization, and email into chat

- Slides will be posted to the D-H ECHO Connect site