2022 SOAR Medications for Opioid Use Disorder (MOUD) Treatment Boot Camp

How To Get Started and Safely Manage Patients

MOUD Basics

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Disclosures

- Neither Kurt DeVine nor Heather Bell have any disclosures.

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MOUD Basics

Objectives

- Define MOUD (Medications for Opioid Use Disorder).
- Describe who “should be” on MOUD.
- Explain the process of starting a patient on MOUD.

What is MOUD?

MOUD stands for Medication(s) for Opioid Use Disorder

- Methadone
- Buprenorphine Products
- Naltrexone/Vivitrol

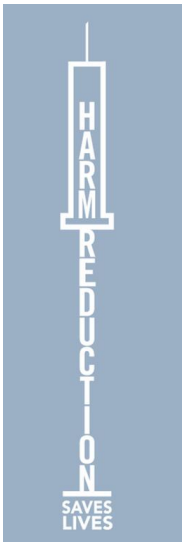
Treatment for SUD with medications AND therapy

History of MOUD

- 1800s: Heroin sold at the local apothecary for a substitute for alcohol
- 1860s: Opium used to treat Civil War soldiers who became addicted to morphine
- 1878-1885: 56-71% Opiate addicts in US upper-class white women
  - Rate of addiction nearly triple that in mid 1990s
- 1914: Harrison Act: Opioids available only with prescription
- Methadone in 1964
- Suboxone in 2001 (DATA)

Why use MOUD?

- Reduction in:
  - HIV infection,
  - Hepatitis C
  - Crime
- Increase in taxes collected
- Improved participation in treatment



Data for MOUD

- Several flawed studies (average of all studies)
  - 92% “sober” on MOUD
  - 8% sober at 4 weeks off MOUD
- Length of Treatment
  - Detox
  - Stabilization
  - Maintenance
- Abstinence vs. MOUD

Risk vs. Benefit

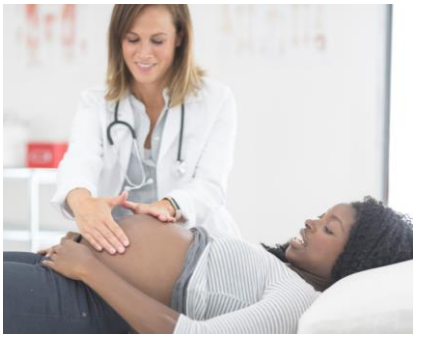
- Risks of NOT being on MOUD
  - OD
  - Death
  - Morbidity (Hep C, HIV, Endocarditis)
- Risks of MOUD
  - Diversion (50% of MOUD will be diverted)
  - Dependence
  - Some risk of OD when mixed with alcohol/benzodiazepines

Who Should Be On MOUD?

- Depends on who you ask
- Harm reduction vs. abstinence
- Opioid detox (inpatient vs outpatient)
- Patients with good follow-up in place
- History of OD – more severe = better candidate
- NOT on benzodiazepines
- NOT with severe AUD (although hotly debated)
- Multiple treatment failures

An MOUD MUST… Pregnancy

- Prevent withdrawal symptoms, cravings
- Decrease relapse risk
  - Decrease injection drug use (decreased infection risk)
  - Decrease in associated risky behaviors
- Improve adherence with prenatal care, addiction treatment
- Reduce risk of obstetric complications



ACOG 2017, Jones 2008

Fetal/Neonatal Complications Without MOUD

- Fetal growth restriction – preterm birth, still birth
- Preterm delivery- neurological, physical complications, death
- Trans-placental/peri-partum infection – syphilis, HIV, hepatitis B/C
- Neonatal opioid withdrawal syndrome (NAS, NOWS)

Towers 2019

So, What are the MOUD Choices?

Buprenorphine (Subutex)

- Partial agonist/antagonist
- Sublingual tab/film, monthly injectable, 6-month implant (non-US)
- Advantages
  - Established pregnancy/breastfeeding safety
  - Lower overdose risk
  - Fewer drug interactions
  - Office-based treatment
  - Shorter, less severe neonatal withdrawal
  - Blocks other opioid effects
  - Long-acting formulations

Wiegand 2015, Zedler 2016

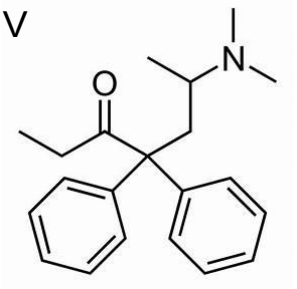
Buprenorphine-Naloxone (Suboxone)

- Advantages:
  - Decreased diversion/misuse
  - Improved insurance coverage
- Disadvantages:
  - Limited data
  - Prescriber training recommends change to monotherapy
- SAMHSA expert panel:
  - Continue/initiate with individual benefit-risk discussion
- Naloxone minimally absorbed with correct use

ACOG 2017, SAMSHA 2018

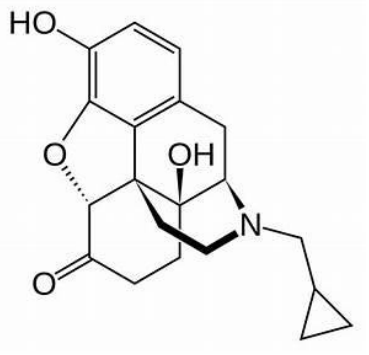
Methadone

- Full Mu agonist
- Nonlinear pharmaco-kinetics
- Long half life
- Many drug interactions (CYP450: seizure and HIV meds in particular)
- Qt prolongation
- High overdose and death potential
- Transportation
- Availability

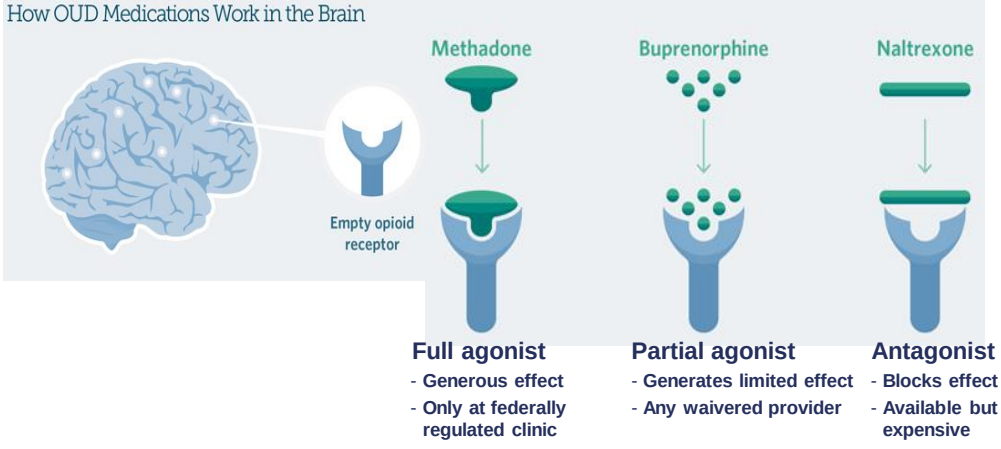


Naltrexone

- Mu receptor antagonist
- Need at least a week off of opioids (10-14 days is preferred)
  - Lose tolerance
  - Not recommended in pregnancy
  - Better compliance
- No dependence
- No long-term survival data
- Expensive
- Marketed to Department of Corrections
- Loss of tolerance = OD
- Pain?



How OUD Medications Work in the Brain



Comparison of Three MAT Options

	Methadone	Buprenorphine	Naltrexone
Who can prescribe	OTP- fed regulation for addiction	Waivered providers NP, PA, MD, DO ER providers*	Anyone
Dosing	Daily →take homes	Office based opioid treatment	Every month
Diversion potential	↑ (especially when take home)	**- / ↓**	↓
OD Potential	↑	↓	↓
Emergency Dept.	**-**	**+**	**-**

Comparison of Three MAT Options cont.

	Methadone	Buprenorphine	Naltrexone
Jail	-	+	+
Availability	Chain of custody	Widely available	Buy and bill
Cost	Transportation, logistics	$	$$$
Side effects	Sleep apnea, long Qt, hypogonadism in men, flat affect, drowsiness, constipation	Initial potential drowsiness, headache	Nausea, vomiting- can be severe, injection site, LFT abnormalities
Long term	? Jobs, safe pregnancy, frequent medication interaction	Min issues, safe in pregnancy, safe with surgery	LFTs, shouldn't use in pregnancy, challenging to treat "real pain"
Induction	At OTP, usually after abstinence or detox	In clinic, ER, jail need mild withdrawal	1 week off any opioid, after withdrawal

So How Long Should Patients Stay on MOUD?

20

86%

21

How Do We Get Going?

Intakes

- The first phone call
  - Where does it go?
  - How do they find you (advertise?)
  - Who answers the phone
    - *Important
  - First question: why are they calling now?

Intakes cont.

"The most important time is now."

- Leo Tolstoy

Intakes cont.

- "I am thinking about getting help"
  - Would you like to come in tomorrow to see us?
  - Do you want to stop using today and get started tomorrow?
- "I am in withdrawal and need help"
  - Can you come in now?

Intakes cont.

Suboxone Screening Criteria

1: Where do you live? County:

2. What is the drug/Substance that you are currently using?

3. Have you been on Suboxone in the past or currently?

A: If current, dose?

B: Why are you changing Suboxone providers?

4. Who is your doctor now? If no one, who in the past?

5. Have you had any previous treatment? Rule 25 completed? Y/N

A: Inpatient Legal issues? Y/N

B: Outpatient Current Insurance?

6: Are you currently in counseling?

A: NA or AA?

7. What medications are you currently taking? Please list all meds including herbals, supplements, OTC and prescriptions.

Intakes cont.

- The important questions:
  - Where do you live?
    - Location matters
  - Previous buprenorphine/naloxone treatment
    - Why changing providers
    - What was your experience
    - records

Intakes cont.

- Previous treatment
- Current medications
  - Benzos?
  - Stimulants?
  - Methadone?
- Drug of choice?
  - Sometimes records/ER visits will tell the story

Intakes cont.

	Age of first use (ex. 16)	When did you last use? (ex. 1 month ago)	Frequency of most recent use. (ex. 3x per week)	Was this substance ever a problem? (yes/no)
Alcohol				
Benzodiazepines (Xanax, Valium, etc.)				
Cocaine				
Crack				
Hallucinogens (LSD, mescaline, etc.)				
Heroin				
Inhalants ("Huffing")				
Marijuana				
Methamphetamine				
Methadone				
MDMA ("Ecstasy")				
PCP ("Angel Dust")				
Prescription Medicine (Vicodin, "Oxys," etc.)				
Other (list)				

We track some of this data

Intakes cont.

- RN Brings form to doctors
- Physicians review forms
- If patient is felt to be appropriate*: appointment is made

If the Patient is in Withdrawal…

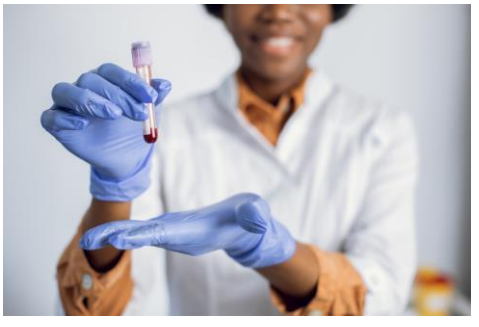
STAT

Initial Evaluation

- Physical Exam
  - Withdrawal/using signs
  - Signs of injection site infection
  - Murmur
  - Jaundice, liver size
  - Teeth
  - Sweating

Initial Evaluation cont.

- Blood work
  - CBC
  - Comprehensive profile
  - Pregnancy test in women
  - HIV
  - Hepatitis
  - STIs



Documentation

- Forms filled out by social worker or RN
  - Buprenorphine medication agreement
  - Care plan for controlled substance care team
  - Buprenorphine consent form- CARA Act
  - Patient responsibility form
    - Lost pills
    - Storage safety
    - Call if relapse!

Release of Information

- Clinics
- Treatment centers
- Socials services
- Parole officers
- Drug court
- Others

Insurance

Prior authorization- what you “need” for “approval”

Prior Authorization Rationale:

1. PDMP reviewed
2. Urine drug screen updated and reviewed
3. Pregnancy test, where applicable, negative
4. Avoiding benzodiazepines, and other illicit drugs, reviewed with patient
5. With our program, patient will either need to have completed treatment or be in the process of getting into or going through treatment
6. Patient has been complaint with treatment plan laid out in our clinic

For new starts/induction:

1. Dosage is currently being adjusted to meet patient’s needs
2. Patient will be seen and new prescription give quite frequently until stability reached

For chronic/maintenance:

1. Stable dose in stable patient- maintenance phase of treatment
2. Dosage reviewed and deemed to still be an appropriate dose to meet patient’s needs

Induction

- Same day if possible/indicated
- More convenient when planned

BE FLEXIBLE

Induction cont.

- UDAS – drug screen
  - Opiate – ask when last used
  - Benzodiazepines – do not all show up
  - Methamphetamine and marijuana – historical “street” withdrawal remedy
  - Methadone – a bigger issue
  - Fentanyl – not on screen

Induction cont.

- When will withdrawal occur?
  - Long acting: 36-72 hours
  - Short acting: 12-24 hours
  - Our method: when are you sick?
    - Come then - “*highly scientific*”

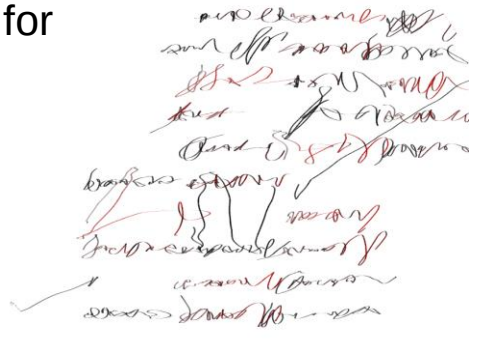
Induction cont.

CLINIC

HOME

Induction cont.

- Home inductions:
  - Clearly outlined instructions for the patient
  - More convenient for patient
  - Likely no increased risk compared to clinic
  - Does not “tie up a room”



Induction cont.

- In-clinic IN“DUCK”TIONS
  - Gives team time to get to know patient
  - Plenty of time to get forms/releases
  - Staff and family witness the “transformation”
  - Imprinting?

Induction – COWS

(Clinical Opioid Withdrawal Score)

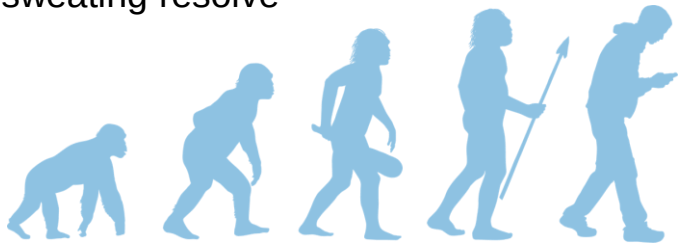
	DATE/TIME:	DATE/TIME:
Resting Pulse Rate: (record beats per minute) *Measured after patient is sitting/lying for one minute.* **0** pulse rate 80 or below **1** pulse rate 81-100 **2** pulse rate 101-120 **4** pulse rate greater than 120		
Sweating: *Over past ½ hour not accounted for by room temperature or patient activity.* **0** no report of chills of flushing **1** one subjective report of chills or flushing **2** flushed or observable moistness on face **3** beads of sweat on brow or face **4** sweat streaming off face		
Restlessness: *Observation during assessment.* **0** able to sit still **1** report difficulty sitting still, but is able to do so **3** frequent shifting or extraneous movements of legs/arms **5** unable to sit still for more than a few seconds		
Pupil Size: **0** pupils pinned or normal size for room light **1** pupils possibly larger than normal for room light **2** pupils moderately dilated **5** pupils so dilated that only rim of the iris is visible		
Bone or Joint aches: *If patient was having pains previously, only the additional component attributed to opiate withdrawal is scored.* **0** not present **1** mild diffuse discomfort **2** patient reports severe diffuse aching of joints/muscles **4** patient is rubbing joints or muscles and is unable to sit still because of discomfort		
Runny nose or tearing: *Not accounted for by cold symptoms or allergies.* **0** not present **1** nasal stuffiness or unusually moist eyes **2** nose running or tearing **4** nose constantly running or tears streaming down cheeks		
GI Upset: *Over last ½ hour* **0** no GI symptoms **1** stomach cramps **2** nausea or loose stools **3** vomiting or diarrhea **5** multiple episodes of diarrhea or vomiting		
Tremor: *Observation of outstretched hands* **0** no tremor **1** tremor can be felt, but not observed **2** slight tremor observable **4** gross tremor or muscle twitching		
Yawning: *Observation during assessment* **0** no yawning **1** yawning once or twice during assessment **2** yawning three or more times during assessment **4** yawning several times/minute		
Anxiety or Irritability **0** none **1** patient reports increasing irritability or anxiousness **2** patient obviously irritable, anxious **4** patient so irritable or anxious that participation in the assessment is difficult		
Gooseflesh skin **0** skin is smooth **3** piloerection of skin can be felt or hairs standing up on arms **5** prominent piloerection		

Induction (Not Including Fentanyl/Methadone)

- COWS guidelines > 12
- Training guidelines: 2-4mg first dose, wait 1-2 hours
- In our practice we will give 2mg then give second dose 30-45 minutes later
- Depending on response may give another 2-4 then watch for 30-45 minutes
- Sometimes dosing will need to be significantly increased*

Induction – Response…

- Body aches, nausea, sweating resolve
- Hungry
- Tired – nap time
- Crawl in, walk out



After Clinic…

- Instructed how to take until the following morning
  - Max amount 12mg (guideline dosing)
  - Sample: 4mg in clinic, 4mg at supper, 4mg before bed

Induction – In the Real World…

- Patient dose/route/frequency (of substance of abuse) may result in a wide range of dosing for buprenorphine
- Big difference in…
  - Pills vs. snort vs. IV
  - Hydrocodone vs. Oxycodone vs. Heroin
  - Methadone*
  - Fentanyl*

Precipitated Withdrawal

- The Science
  - High activation drug with less affinity pushed off by less activating drug with high affinity
  - Less activation = withdrawal symptoms

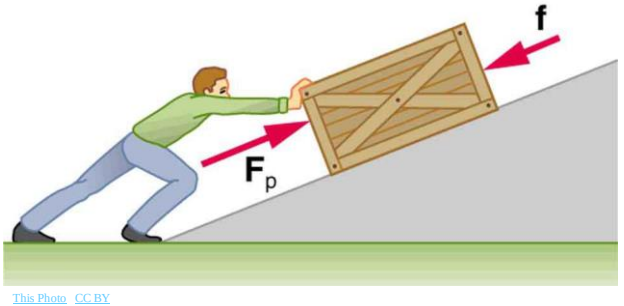
"Adventure. Excitement. A Jedi craves not these things…."

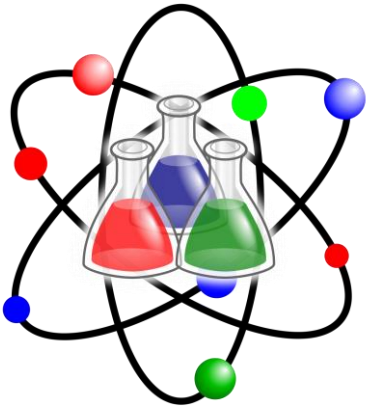
- Yoda

Precipitated Withdrawal

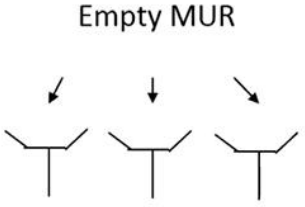
How can we avoid this?

Understand the science!

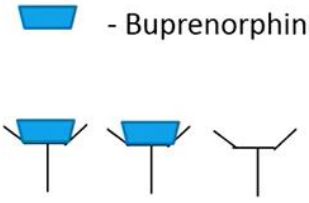




Typical ("Normal") Induction

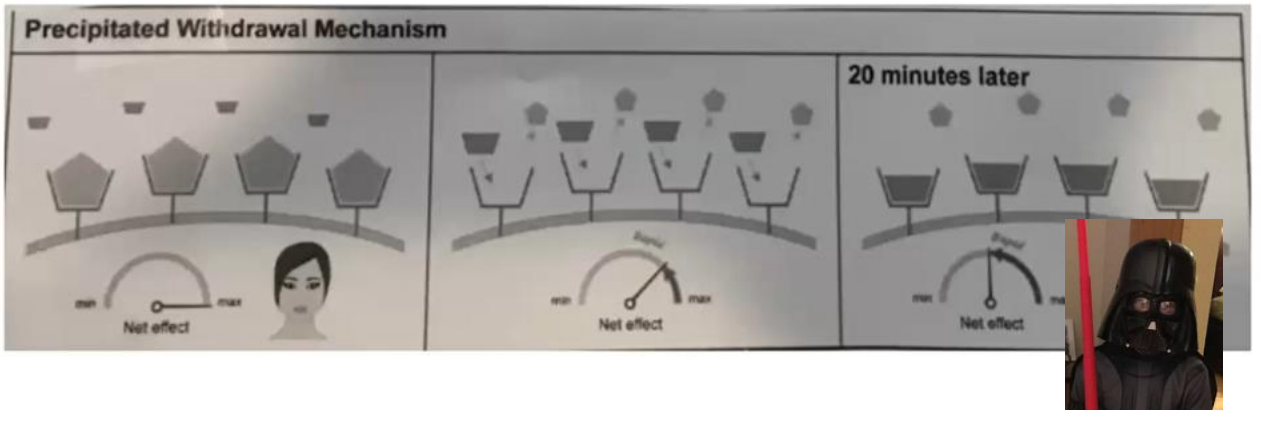


Withdrawal symptoms

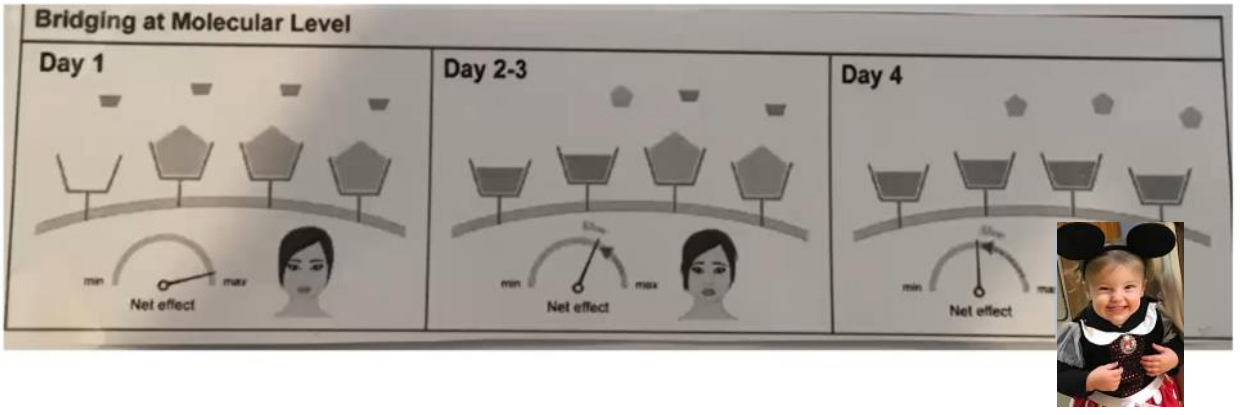


Less activating (than full agonists)
Resolves withdrawal symptoms

Precipitated Withdrawal



Micro-Induction cont.



Micro-Induction cont.

- Only dosing recommendations:
  - Regardless of the “dose” of opioid/Fentanyl
  - Can be used even when Fentanyl is not present
  - Urine: fentanyl ≠ opioid
  - No “Perfect” schedule

Micro-Induction cont.

Patients DO NOT get better fast

Adjunctive Medications

1. Zofran for nausea (4mg TID PRN)
2. Clonidine for tachycardia, elevated blood pressure, anxiety (0.1mg BID PRN). [Doses can be increased if necessary and as vital signs allow.]
3. Hydroxyzine for anxiety (50mg BID PR

Questions?

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For questions regarding content from this boot camp or for TA:

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Podcast: The Addiction Connection

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