INTRODUCTION TO MAT

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Learning Objectives

1. Describe the available MATs
2. Overview of MAT options
3. Which MAT for which patient?

WHAT DO WE MEAN BY MAT (Medication Assisted Treatment)

Medication-assisted treatment (MAT) is the use of medications, in combination with counseling and behavioral therapies, to provide a "whole-patient" approach to the treatment of substance use disorders

FDA APPROVED MEDICATIONS

- ALCOHOL USE DISORDERS
  - Disulfiram (Antabuse)
  - Acamprosate (Campral)
  - Naltrexone (Reviva, Trexan, Vivitrol)
- OPIOID USE DISORDERS
  - Methadone
  - Naltrexone
  - Buprenorphine
  - Naloxone (Narcan)

WHY NOT ABSTINENCE

RELAPSE (1970-75)

- 13 studies
- 807 patients

- 334 detoxed with psychotherapy
  - 42% completed (no psychotherapy)
  - 60% completed (if there was psychotherapy)
  - 16% abstinent after 12 months
- 402 detoxed without staff approval
  - 19% completed
  - 8% abstinent after 12 months

RELAPSE (1976-1980)

- 22 studies
- 677 patients

- 428 detoxed with psychotherapy
  - 57% completed the detox
  - 36% remained abstinent at 12 months

RELAPSE 1980-90

- Gossop,et al, 1986
  - 17% successfully detoxed with a 56 day detox
- Senay, et al., 1981
  - 19% successfully detoxed with a 84 day detox
- Dawe et al., 1991
  - 28% successfully detoxed with a 42 day detox

Walter Ling, et. Al., Addiction, 1/15/2009

Time-point	*Percentage of participants with drug-free UA (n)*		*χ^2 value*	*P-value*
	7-day (n = 255)	*28-day (n = 261)*		
Opiates				
End of taper	44.31 (113)	29.89 (78)	11.52	*0.0007*
1-month follow-up	17.65 (45)	17.62 (46)	0.00	0.9946
3-month follow-up	12.16 (31)	13.41 (35)	0.18	0.6700
All drugs				
End of taper	24.71 (63)	18.77 (49)	2.67	0.1022
1-month follow-up	10.98 (28)	11.49 (30)	0.03	0.8534
3-month follow-up	6.67 (17)	9.20 (24)	1.13	0.2883

- The goal is not weaning or “detox”
- The goal is to keep the patient allive
- The goal is stabilization and “normalization” of the patient
- The goal is to keep the patient engaged in treatment
- Reduce or eliminate cravings
- Block euphoric effects of the opioid of choice

METHADONE

“ Methadone maintenance has been the most rigorously studied drug treatment modality and has yielded the most incontrovertible positive results “

National Academy of Sciences
Institute of Medicine- 1990

Era of Narcotic Control

- Harry Jacob Anslinger
  Head of Bureau of Narcotics
  from 1930-1962
- No room for maintenance as a treatment option
- Detoxification in select facilities

Methadone 1965-2000

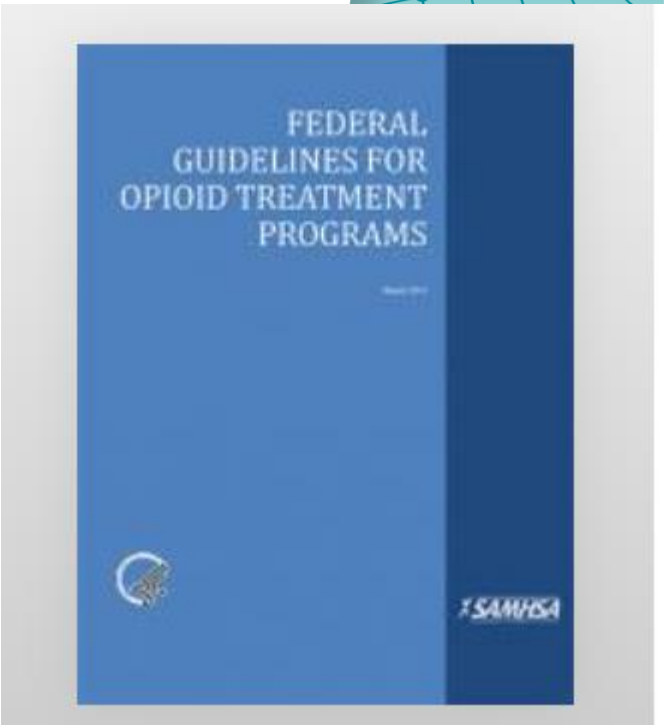
- 1962- Anslinger retires
- White House Conference in 1962
- Marie Nyswander / Vincent Dole set up an experimental maintenance program eventually leading to the first methadone programs
- Opiate treatment programs expand under the jurisdiction of the DEA and State

Methadone 1965-2000

- Methadone Regulations 1972
- Narcotic Addict Treatment Act 1974
  - limited methadone maintenance treatment in the context of an Opioid Treatment Program (not a general drug treatment program) requiring special registration

Methadone and Office Based 2000

- <u>Drug Addiction Treatment Act of 2000</u>
  -moved monitoring of clinics from FDA to the Office of Substance Abuse and Mental Health Services Administration / CSAT
- Established accreditation bodies as responsible for monitoring OTPs
- Accreditation guidelines and standards
- Requirements under the Code of Federal Regulations 42 CFR-
- State laws may be more restrictive



METHADONE REGULATIONS

- Must have a one year history of opioid dependency unless released from jail, pregnant or prior client (2 yrs)
- Minimum age of 18 (unless there is a hx of 2 prior unsuccessful detoxifications in the last 12 months and parental consent,16-18)
- OTPs shall provide adequate medical, counseling, vocational, educational, and other assessment and treatment services.
- Monthly urine drug screening, case management
- 0-90 days: attend 6 days a week (1 takehome)
  90-180 days: attend 5 days a week (2 takehomes)
  180-270 days: attend 4 days a week (3 takehomes)
  27-365 days: attend once a week (6 takehomes)
  1 -2 years : 2 weeks of takehomes
  > 2 years: 1 month supply

METHADONE

- Start at 30mg the first day (this typically will not control cravings or prevent withdrawal completely)
- Due to its long half life it should be increased in small increments (5mg) every 3-4 days
- Typical therapeutic dose is 70mg
- Great deal of variability in dose response (metabolism)
- Can cause mental clouding, “nodding”
- Abuse potential, especially when combined with other drugs such as muscle relaxants, benzos
- The medication is only as good as the program

NALTREXONE

- NALTREXONE
  - developed in 70s
  - approved for heroin addiction as oral version in 1984
  - injectable formulation approved for alcohol use disorder 2006
  - injectable formulation approved for opioid use disorder 2010
  - Office based,
  - No restrictions or special requirements to prescribe

NALTREXONE

- NALTREXONE
  - Equally effective if you can get the patient on it
  - Requires a prolonged period of abstinence before it can be started without risk of precipitated withdrawal
  - May not be as effective in reducing cravings as agonists
  - Does not cause euphoria or mental status changes
  - Zero abuse potential
  - Will not help in pain management
  - Injectable insures compliance

MAT SETTINGS AND REQUIREMENTS

BUPRENORPHINE/NALOXONE

- approved in 2002 (Drug Abuse Treatment Act 2000)
  OFFICE BASED TREATMENT
  - setting of a substance use disorder clinic
    (concurrent therapy, offer higher level of cares)
  - setting of a medical clinic -Office Based Treatment)
    (may be integrated within the primary practice)

- Minimal federal requirements: waiver requirement removed, special DEA number, patient number limits
- DEA audits possible
- State requirements for OBTs (Public Law 213-2019)

OBT STATE REQUIREMENTS

- INSPECT on induction and 4 times/yr
- Initial assessment including mental health assessment
- Treatment agreement
- Some level of counseling
- Regular follow up visits with documentation of progress
- Drug testing as part of their follow up and documentation of plan when positive or no buprenorphine in urine
- Provide naloxone rescue prescription

BUPRENORPHINE

- Partial agonist
- Reduces cravings, stops withdrawal, some blocking of pure agonist
- Can be started within a short period after stopping opioids or even low dose initiations while opioid use is continued
- Patient can be stabilized within 2-4 days
- Little euphoria once stabilized
- Can help with pain (variable)
- Some diversion potential

WHICH MAT ?

	METHADONE	BUPRENORPHINE/NALOXONE	IM NALTREXONE
EFFICACY	Most proven, higher retention	Close if not equal to methadone	Less but mostly due to dropouts during induction (25%)
SIDE EFFECTS	Prolonged QT Constipation Low testosterone Respiratory depression Sweating Pituitary suppression	Constipation Low testosterone(less) Nausea, LE edema, HA Insomnia Sweating Blistering in mouth	Nausea Liver function tests Dizziness, drowsiness Injection site tenderness
RISK OF OVERDOSE	+++ if dose is too high or patient mixes with sedatives (6x OD risk)	Very low, possible when mixed with sedatives but low	None
PAIN CONTROL	Yes (caveat)	Yes	No

WHICH MAT ?

	METHADONE	BUPRENORPHINE/NALOXONE	NALTREXONE
MEDICATION INTERACTIONS	Yes (anticonvulsants, HIV meds, antidepressants…)	Few	Opioids
REGULATION	VERY High	Moderate	Minimal
CONVENIENCE	Daily visits for at least 3 months (Covid changes) Limited number of clinics-19	Monthly visits	Monthly visits
COSTS	Medicaid/? Insurance	Medicaid/Insurance	Medicaid/Insurance
WORK / MILITARY STATUS	Prohibited in certain job situations (CDL)	Less restrictive but often prohibited in CLD	None
DIVERSION RISK	Very low for 1st three months but higher after take homes are granted	Initially > methadone but less dangerous when diverted	None

Buprenorphine vs Methadone vs XR-Naltrexone vs Abstinence

- Prior experience of patient (or friends) frequently drives the decision
- Many patients will not tolerate the withdrawal period for naltrexone
- Prior use of diverted buprenorphine does not preclude OUD treatment with buprenorphine
- Opioid agonist therapy should not be denied to patients solely because they take benzodiazepines or other drugs
- Prior failure should not preclude another attempt but typically something needs to be adjusted

Who shouldn't be placed on MAT for opioid use disorder?

- There is no opioid use disorder (? Chronic pain patients)
- They already are getting MAT from someone else
- If they are clearly intoxicated at time of starting
- They are transitioning somewhere soon where they will not have access to MAT
- Short term "detoxes"
- If their employment precludes it and they need to maintain that position (nurses, CDL License)
- Known allergy or adverse reaction

Medical Management Alone vs Therapy linked

- 4 studies that suggest no additional benefit of behavioral intervention with buprenorphine but…

- Regular medical management that included weekly appointments for early phase
- Regular urine monitoring
- Physician counseling on addiction that stressed importance of abstinence, outside meetings.

THERAPY

Minimal

Intense

- prescription
- stable in most domains
- high level of motivation
- engaged in outside groups

- multi drug
- unstable
- lacks insight

LINK TO STATE LAW 214

https://services.statescape.com/ssVersions/2479000/2479076/u_20190509.pdf

Download your PDF of **Ind. Code § 12-23-20-2**