



Medications for Opioid Use

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+ Disclosures

- No conflicts of interest
- Off-label use of medications
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+ Who here:

- Has an X License?
- Has prescribed buprenorphine



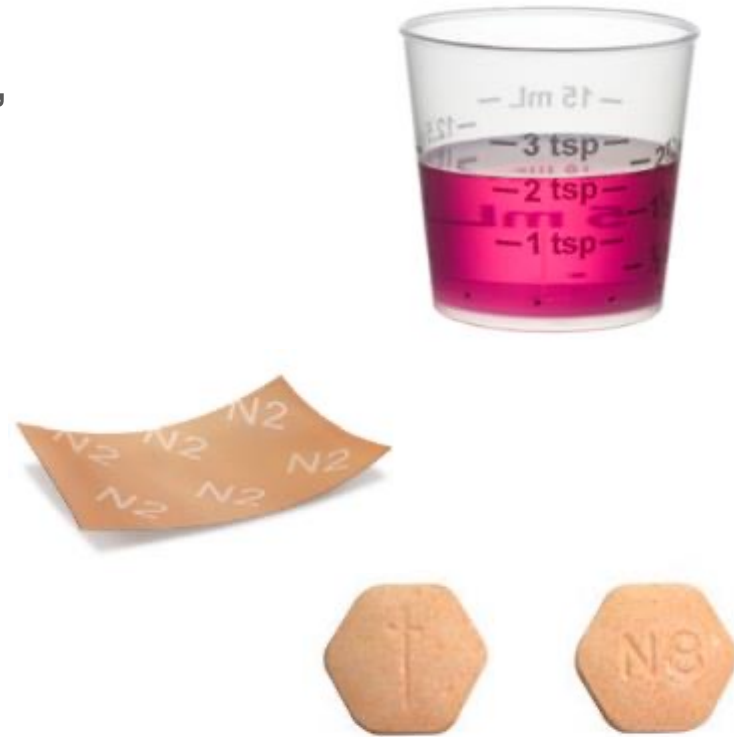
+ Key Points



- Opioid agonist therapy works
- Opioid agonist *maintenance* works better
- Buprenorphine and methadone both work—it depends on the patient
- Prescribing in primary care is easy and important

+ Opioid Agonist Therapy (OAT)

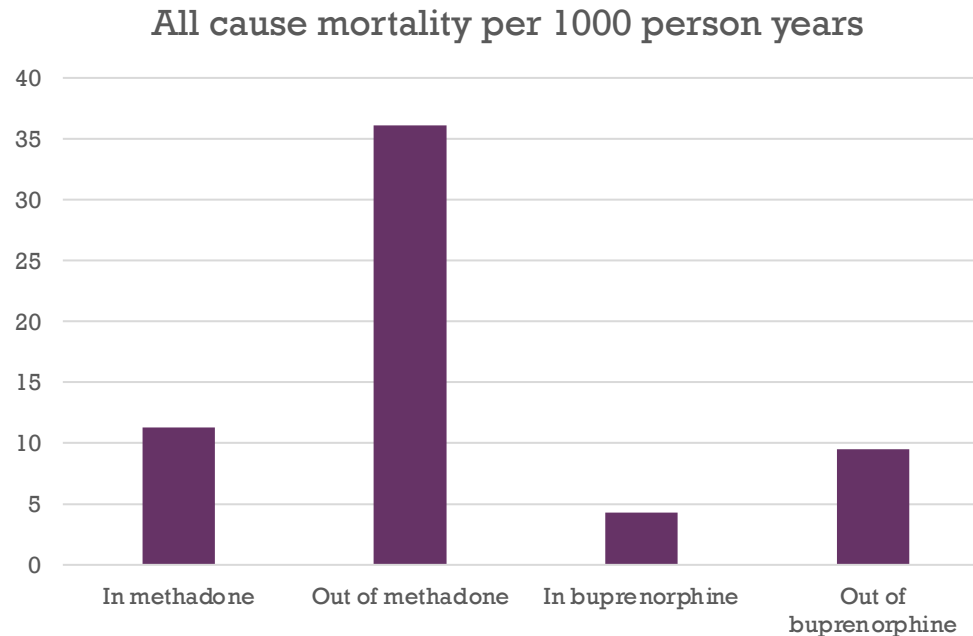
- Buprenorphine and methadone
- Goals: no withdrawal, cravings, sedation
- Maintenance, not “detox”
 - 8-9/10 relapse within 30 d





Opioid Agonist Therapy (OAT)

- Buprenorphine and methadone
- Goals: no withdrawal, cravings, sedation, no euphoria if use opioids
- Maintenance, not “detox”



+ Candidates for OAT



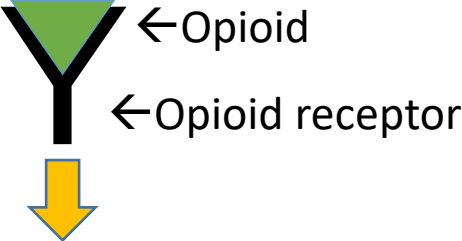
- Offer if meet OUD criteria
- Presenting with:
 - Withdrawal
 - Abscess, cellulitis, endocarditis
 - Healthcare maintenance
- Part of any primary care practice, hospital
- One of most impactful interventions



Life Changes

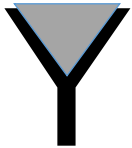


- Reduce injection and illicit drug use
- Reduce HIV and HCV transmission
- Reduce bacterial infections
- Reduce criminal behavior
- Promotes return to work and family obligations





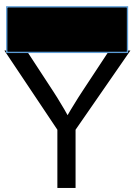
Non MAT Opioids: full agonist
heroin, oxycodone, Percocet, etc



Methadone: full agonist
Activates receptor, prevents binding



Buprenorphine: partial agonist
High affinity, ceiling effect



Naltrexone, naloxone:
Full antagonist, high affinity

+ Naltrexone

- Opiate antagonist
- PO daily or IM monthly
- Not first line
 - 28% not induced vs 6% for bup



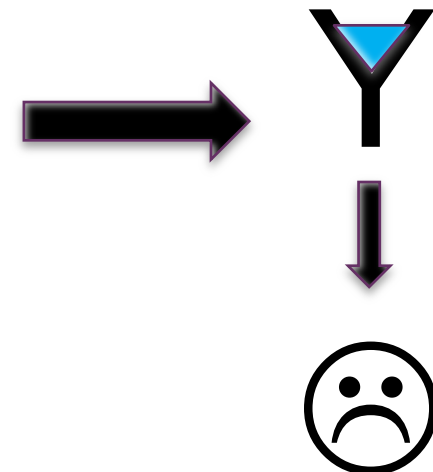
+ Buprenorphine: a note about withdrawal

- Must be in withdrawal prior to induction
- Bup: high affinity, low intrinsic activity
- Risk of precipitated withdrawal

Heroin



Buprenorphine





Withdrawal Diagnosis

Stage I: Up to 8 hours



Anxiety



Drug craving

Stage II: 8–24 hours



Anxiety



Insomnia



GI Disturbance



Rhinorrhea



Tearing



Diaphoresis

Stage III: Up to 3 days



Tachycardia



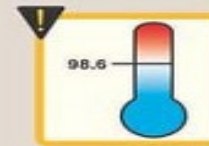
Nausea, vomiting



Hypertension



Diarrhea



Fever



Chills



Tremors



Seizure



Muscle spasms



COWS Wesson & Ling, J Psychoactive Drugs. 2003 Apr-Jun;35(2):253-9.

Clinical Opiate Withdrawal Scale

Resting Pulse Rate: _____ beats/minute <i>Measured after patient is sitting or lying for one minute</i> 0 Pulse rate 80 or below 1 Pulse rate 81-100 2 Pulse rate 101-120 4 Pulse rate greater than 120	GI Upset: <i>over last 1/2 hour</i> 0 No GI symptoms 1 Stomach cramps 2 Nausea or loose stool 3 Vomiting or diarrhea 5 Multiple episodes of diarrhea or vomiting
Sweating: <i>over past 1/2 hour not accounted for by room temperature or patient activity.</i> 0 No report of chills or flushing 1 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	Tremor: <i>observation of outstretched hands</i> 0 No tremor 1 Tremor can be felt, but not observed 2 Slight tremor observable 4 Gross tremor or muscle twitching
Restlessness: <i>Observation during assessment</i> 0 Able to sit still 1 Reports 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	Yawning: <i>Observation during assessment</i> 0 No yawning 1 Yawning once or twice during assessment 2 Yawning three or more times during assessment 4 Yawning several times/minute
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 the rim of the iris is visible	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
Bone or Joint aches: <i>If patient was having pain previously, only the additional component attributed to opiates withdrawal is scored</i> 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	Gooseflesh skin 0 Skin is smooth 3 Piloerection of skin can be felt or hairs standing up on arms 5 Prominent piloerection
Runny nose or tearing: <i>Not accounted for by cold symptoms or allergies</i> 0 Not present 1 Nasal stuffiness or unusually moist eyes 2 Nose running or tearing 4 Nose constantly running or tears streaming down cheeks	Total Score _____ The total score is the sum of all 11 items Initials of person completing Assessment: _____

Score: 5-12 mild; 13-24 moderate; 25-36 moderately severe; more than 36 = severe withdrawal

Methadone

Buprenorphine

	Methadone	Buprenorphine
Mechanism	Full opioid agonist	Partial agonist, often paired with antagonist (naloxone) abuse deterrent

	Methadone	Buprenorphine
Mechanism	Full opioid agonist	Partial agonist
Formulation	Liquid in OTP For pain: tablet	Sublingual tablet/film For pain: patch, buccal, implant, IV

	Methadone	Buprenorphine
Mechanism	Full opioid agonist	Partial agonist
Formulation	Liquid	Sublingual tablet/film
Cautions	<ul style="list-style-type: none"> • Allergy • Severe liver disease • QTc prolongation • Drug-drug interactions • High risk job 	<ul style="list-style-type: none"> • Allergy • Severe liver disease • Heavy EtOH or benzo • Need for opioids • Recent methadone

	Methadone	Buprenorphine
Mechanism	Full opioid agonist	Partial agonist
Formulation	Liquid	Sublingual tablet/film
Cautions	<ul style="list-style-type: none">• QTc prolongation• Drug-drug interactions	<ul style="list-style-type: none">• Severe liver disease• Heavy EtOH or benzo
Risks	<ul style="list-style-type: none">• Hypogonadism• Torsades• Constipation• Sweating	<ul style="list-style-type: none">• Precipitated withdrawal• GI upset, constipation• Headache• Insomnia

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Mechanism	Full opioid agonist	Partial agonist
Formulation	Liquid	Sublingual tablet/film
Cautions	<ul style="list-style-type: none"> • QTc prolongation • Drug-drug interactions 	<ul style="list-style-type: none"> • Severe liver disease • Heavy EtOH or benzo
Risks	++	+
Sedation	More dose-dependent sedation	Less sedation, ceiling effect

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Mechanism	Full opioid agonist	Partial agonist
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Cautions	<ul style="list-style-type: none"> • QTc prolongation • Drug-drug interactions 	<ul style="list-style-type: none"> • Severe liver disease • Heavy EtOH or benzo
Risks	++	+
Sedation	+	-
Visit Frequency	Daily → may earn take-homes	Daily or weekly → monthly

	Methadone	Buprenorphine
Mechanism	Full opioid agonist	Partial agonist
Formulation	Liquid	Sublingual tablet/film
Cautions	<ul style="list-style-type: none"> • QTc prolongation • Drug-drug interactions 	<ul style="list-style-type: none"> • Severe liver disease • Heavy EtOH or benzo
Risks	++	+
Sedation	+	-
Visit Frequency	Daily	Monthly
Location of care	OTP (aka methadone clinic)	Clinic w/ X waived provider (primary care, prenatal, psychiatry, or addiction)

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Cautions	<ul style="list-style-type: none"> • QTc prolongation • Drug-drug interactions 	<ul style="list-style-type: none"> • Severe liver disease • Heavy EtOH or benzo
Risks	++	+
Sedation	+	-
Visit Frequency	Daily	Monthly
Location of care	OTP	Clinic
Retention	Higher	Lower (RR 0.89, CI 0.72-0.95), unless ≥ 16 mg

	Methadone	Buprenorphine
Mechanism	Full opioid agonist	Partial agonist
Formulation	Liquid	Sublingual tablet/film
Cautions	<ul style="list-style-type: none"> • QTc prolongation • Drug-drug interactions 	<ul style="list-style-type: none"> • Severe liver disease • Heavy EtOH or benzo
Risks	++	+
Sedation	+	-
Visit Frequency	Daily	Monthly
Location of care	OTP	Clinic
Retention	Higher	Lower
Opioid negative urine	Equivalent	Equivalent at doses ≥ 16 mg

+ Pregnancy



- Either buprenorphine or methadone
- MOTHER study: buprenorphine vs methadone
 - Shorter hospitalization, less morphine w buprenorphine
- Buprenorphine without naloxone (for now)



Buprenorphine: Misconceptions



- Diversion
- Can't control pain—acute and chronic
- Substituting one drug
- Contraindicated w EtOH or benzos
- Induction in clinic only



Buprenorphine: Implementation



- Legal:
 - X waiver (including NP & PA)
 - Max 30 patients
 - Log all prescriptions for DEA
- Monitoring:
 - PDMP/CURES
 - Utox, urine buprenorphine
 - LFTs if elevated
- Naloxone, safe injection, PREP

+ Key Points



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- Opioid agonist *maintenance* works better
- Buprenorphine and methadone both work—it depends on the patient
- Prescribing in primary care is easy and important