Medication for Addiction Treatment (MAT): the Standard of Care for Opioid Use Disorder (OUD)

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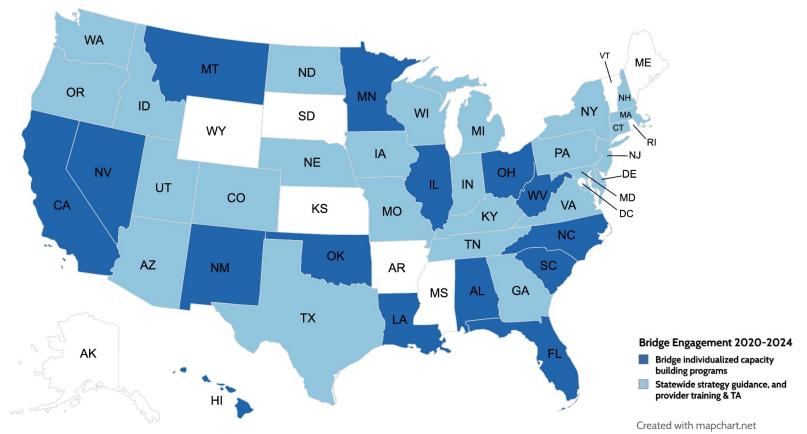


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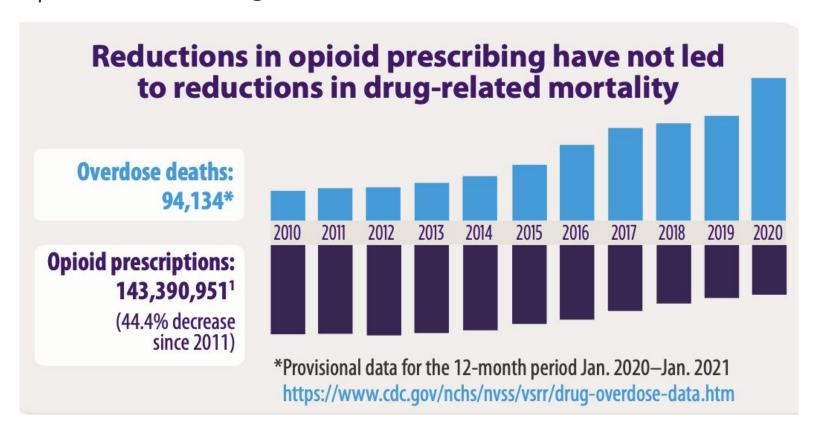
BRIDGE

National reach as of May 2024



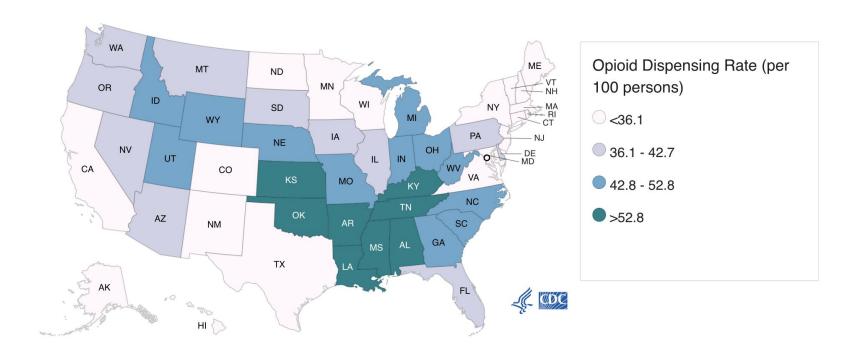


As Opioid Prescribing Decreased, Overdose Deaths Increased



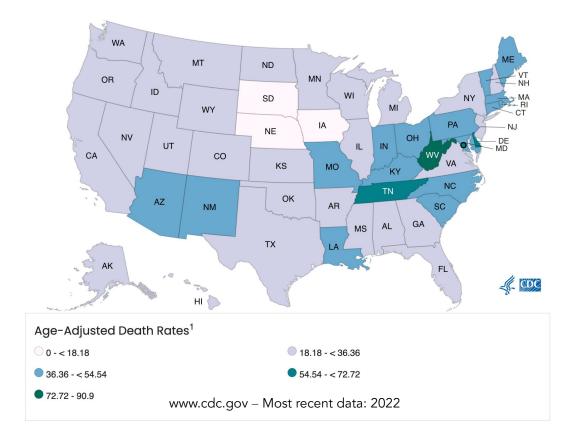


Kentucky has one of the highest opioid *prescribing* rates in the nation.





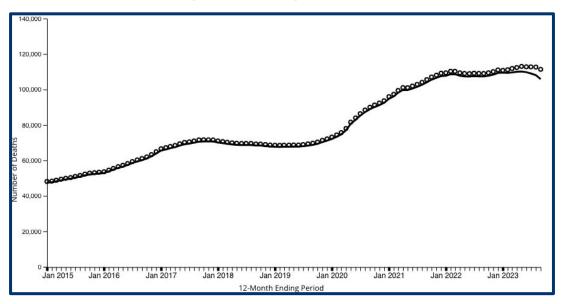
Kentucky has the 7th highest drug overdose mortality in the nation.





Study: 42% of US adults know someone who died by overdose

12 Month-ending Provisional Number and Percent Change of Drug Overdose Deaths



^{1.} Howard J. About 42% of us adults know someone who died by overdose, new survey finds. CNN. February 22, 2024. Accessed February 26, 2024. https://www.cnn.com/2024/02/21/health/us-adults-overdose-survey/index.html.



Why treat OUD in the

Emergency Department?

The ED is the Ultimate Safety Net



Visible, easily accessible, and near public transport



Offers all-hours access, acute psychiatric stabilization, same-day treatment, and navigation to ongoing care



Critical link to shelters and community treatment programs



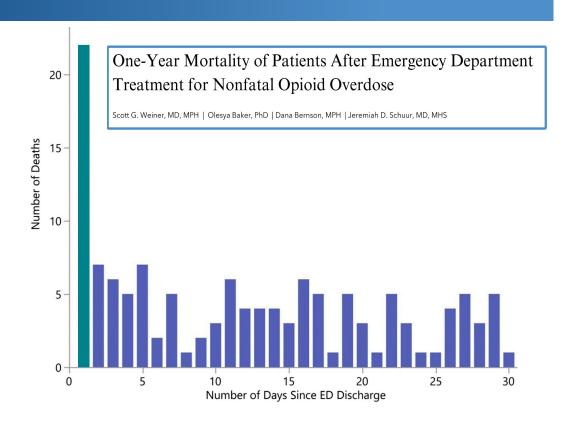
28%

of adult ED patients screen positive for SUD.

OUD is an Emergency

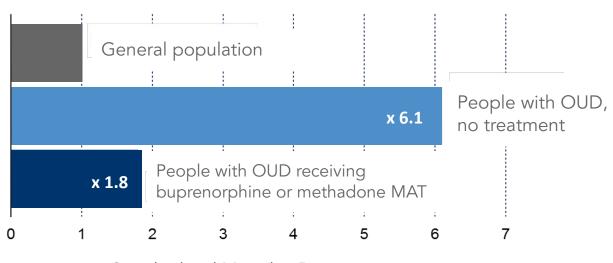
Significant increased mortality risk post-ED discharge

- 20% of patients who died did so in the first month
- 22% of those who died in the first month died within the first 2 days



Buprenorphine Saves Lives

Mortality Risk Compared to the General Population



Standardized Mortality Ratio



Treatment in the ED

Emergency Department-Initiated Buprenorphine/Naloxone Treatment for Opioid Dependence: A Randomized Clinical Trial

Gail D'Onofrio, MD, MS | Patrick G. O'Connor, MD, MPH | Michael V. Pantalon, PhD | Marek C. Chawarski, PhD | Susan H. Busch, PhD | Patricia H. Owens, MS | Steven L. Bernstein, MD | David A. Fiellin, MD





78% vs. 37% stayed in treatment if MAT started in ED

Number Needed to Treat (NNT)

Aspirin in STEMI	42 to save a life
Warfarin in Afib	25 to prevent a stroke
Steroids in COPD	10 to prevent tx failure
Defibrillation in Cardiac Arrest	2.5 to save a life
Buprenorphine in Opioid Use Disorder	2 to retain in treatment

NNT by Buprenorphine Dose

NNT	Buprenorphine (Bup) Dose	
1 in 4	low dose bup (2-6mg)	
1 in 3	medium dose bup (7-16mg)	
1 in 2	high dose bup (≥ 16mg)	

Mattick RP et al. Buprenorphine maintenance versus placebo or methadone maintenance for opioid dependence. Cochrane Database Syst Rev. 2014;(2):CD002207.

Addiction is NOT a moral failing.

It is a chronic disease that requires medical treatment.





Revolutionizing the System of Care



Low-Barrier Treatment



Connection to Care and Community



Culture of Harm Reduction

Prioritizing Treatment

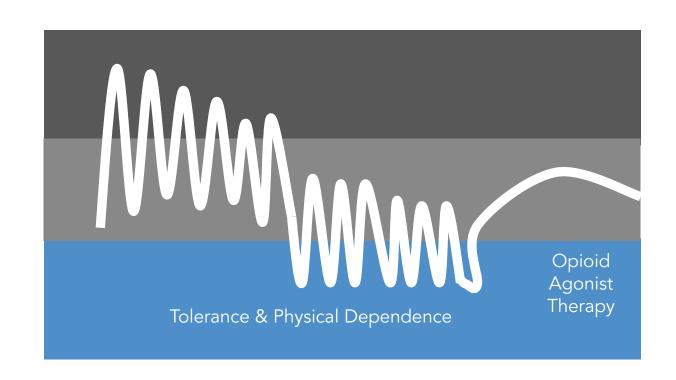


Opioid Use Natural Progression

Euphoria

Normal

Withdrawal



Medications for OUD



Full mu (opioid) receptor agonist



Oral (often solution)

Buprenorphine ± Naloxone

Partial mu receptor agonist





Sublingual (tab, film), IV, IM, subcutaneous injection, transdermal patch

Naltrexone

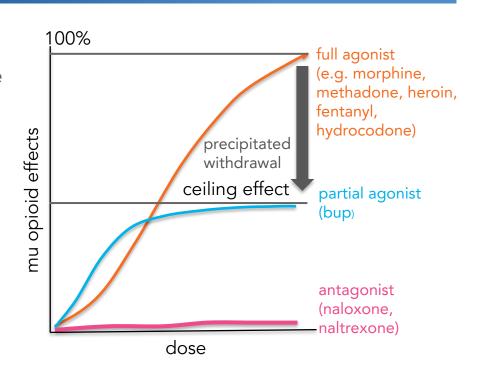
Mu receptor <u>ant</u>agonist (blocker)



Intramuscular injection (extended release) or oral Ex: "Vivitrol," "ReVia"

Understanding Buprenorphine ("Bup")

- Treats withdrawal, cravings, & overdose
- Partial agonist → less respiratory depression & sedation
- High affinity
 - Blocks & displaces other opioids
 - Can precipitate withdrawal
- Half-life ~ 24-36 hours (long acting)

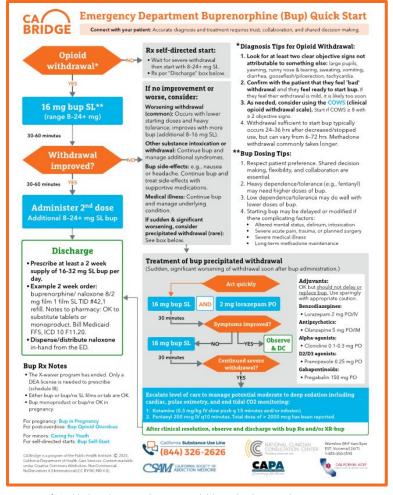


Good News: MAT Works

Buprenorphine (Bup) Emergency Department Quick Start



View or download on your device



Identify Withdrawal

* Diagnosis Tips for Opioid Withdrawal:

- 1. Look for at least two clear objective signs not attributable to something else: large pupils, yawning, runny nose & tearing, sweating, vomiting, diarrhea, gooseflesh/piloerection, tachycardia.
- 2. Confirm with the patient that they feel 'bad' withdrawal and they feel ready to start bup. If they feel their withdrawal is mild, it is likely too soon.
- 3.As needed, consider using the COWS (clinical opioid withdrawal scale). Start if COWS ≥ 8 with ≥ 2 objective signs.
- 4. Withdrawal sufficient to start bup typically occurs 24-36 hrs after decreased/stopped use, but can vary from 6-72 hrs. Methadone withdrawal commonly takes longer.

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

Resting Pulse	Rate: beats/minute	GI Upset: over la	st 1/2 hour
Measured after patient is sitting or lying for one minute		0 No GI symptoms	
0	Pulse rate 80 or below	li	Stomach cramps
i	Pulse rate 81-100	,	Nausea or loose stool
,	Pulse rate 101-120	3	Vomiting or diarrhea
a a	Pulse rate greater than 120	5	Multiple episodes of diarrhea or vomiting
	(Charles to the control of the contr	25.5	
Sweating: over past 1/2 hour not accounted for by room temperature or patient		Tremor observation of outstretched hands	
activity.		0	No tremor
0	No report of chills or flushing	1	Tremor can be felt, but not observed
1	Subjective report of chills or flushing	2	Slight tremor observable
2	Flushed or observable moistness on face	4	Gross tremor or muscle twitching
3	Beads of sweat on brow or face	-	
4	Sweat streaming off face		
Pestlessness	Observation during assessment	Yawning Observe	ation during assessment
7	Able to sit still	0	No yawning
	Reports difficulty sifting still, but is able to do so	l i	Yawning once or twice during assessment
*	Frequent shifting or extraneous movements of legs/arms	2	Yawning three or more times during assessment
5	Unable to sit still for more than a few seconds	4	Yawning several times/minute
Pupil size 0 1 2 5	Pupils pinned or normal size for room light Pupils possibly larger than normal for room light Pupils moderately didated Pupils so dilated that only the rim of the iris is visible	Anxiety or irritab 0 1 2 4	dity None Patient reports increasing irritability or anxiousness Patient obviously irritable anxious Patient so irritable or anxious that participation in the assessments difficult
	aches If patient was having pain previously, only the additional	Gooseflesh skin	Sept. 199
component a	ttributed to opiates withdrawal is scored	0	Skin is smooth
0	Not present	3	Piloerrection of skin can be felt or hairs standing up or
1	Mild diffuse discomfort		arms
2	Patient reports severe diffuse aching of joints/ muscles	5	Prominent piloerrection
4	Patient is rubbing joints or muscles and is unable to sit still because of discomfort		The state of the second state of the second
Runny nose o	or tearing Not accounted for by cold symptoms or allergies		
0	Not present	Total Score	
1	Nasal stuffiness or unusually moist eyes	The total score is the sum of all 11 items Initials of person completing Assessment:	
,	Nose running or tearing		
4	Nose constantly running or tears streaming down cheeks		
*	constant, ranning of tears streaming down cuters		

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

At least two 'Hard Signs'

* Diagnosis Tips for Opioid Withdrawal:

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- 2. Confirm with the patient that they feel 'bad' withdrawal and they feel ready to start bup. If they feel their withdrawal is mild, it is likely too soon.
- 3. As needed, consider using the COWS (clinical opioid withdrawal scale). Start if COWS ≥ 8 with ≥ 2 objective signs.
- 4. Withdrawal sufficient to start bup typically occurs 24-36 hrs after decreased/stopped use, but can vary from 6-72 hrs. Methadone withdrawal commonly takes longer.

Include 2+ *objective* sign(s):

- Dilated pupils
- 'Goose bumps'
- Vomiting
- Tachycardia
- Yawning
- Runny nose & eyes

Rule Out Contraindications

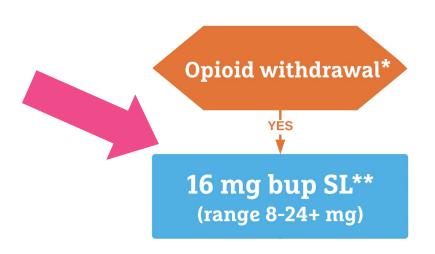
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** Bup Dosing Tips:

- 1. Respect patient preference. Shared decision making, flexibility, and collaboration are essential.
- 2. Heavy dependence/tolerance (e.g., fentanyl) may need higher doses of bup.
- 3. Low dependence/tolerance may do well with lower doses of bup.
- 4. Starting bup may be delayed or modified if there complicating factors:
- Altered mental status, delirium, intoxication
- Severe acute pain, trauma, or planned surgery
- Severe medical illness
- Long-term methadone maintenance

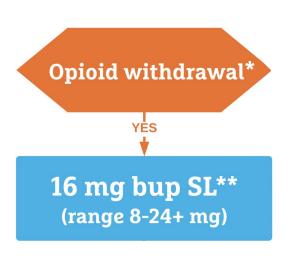
Patient in Moderate to Severe Withdrawal & Interested in Bup?



Bup is given as a sublingual, dissolvable dose.

No PO for 15-20 minutes.

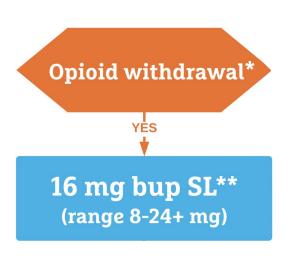
Patient in Moderate to Severe Withdrawal & Interested in Bup?



No methadone for at least 72 hours.

CAUTION: Benzodiazepines, alcohol, and other respiratory suppressants.

Patient in Moderate to Severe Withdrawal & Interested in Bup?



Typically start with 16mg bup SL.

Fentanyl is widespread and often requires higher dose, e.g., 16-24+ mg.

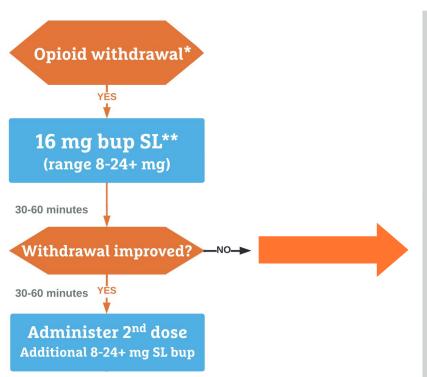
Wait 30-45 min. Reassess. Better? Give another dose.



Don't be afraid to repeat dose! Fentanyl use may take *more* doses.

Note: *Most* patients will *still* do great with 16-32 mg total buprenorphine.

Wait 30-45 min. Reassess. Not better? Widen your ddx.



If no improvement or worse, consider:

Worsening withdrawal (common):

Occurs with lower starting doses and heavy tolerance; improves with more bup (additional 8-16 mg SL).

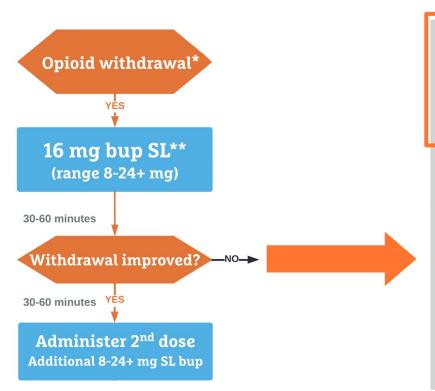
Other substance intoxication or withdrawal: Continue bup and manage additional syndromes.

Bup side-effects: E.g., nausea or headache. Continue bup and treat side-effects with supportive medications.

Medical illness: Continue bup and manage underlying condition.

If sudden & significant worsening, consider precipitated withdrawal (rare): See box below.

Wait 30-45 min. Reassess. Not better? Widen your ddx.



If no improvement or worse, consider:

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If sudden & significant worsening, consider precipitated withdrawal (rare): See box below.



<u>Undertreated</u> Withdrawal

Small bup doses given to pt with high tolerance → ongoing sxs
Incomplete treatment of sxs

As time goes on between doses, sxs get worse – from <u>not enough</u> bup; not <u>because</u> of it

Can be a *normal* part of the bup induction experience

Precipitated Withdrawal

- Very rare! (<1% in National Institute on Drug Abuse data)
- How? "Too <u>little</u> bup, too <u>soon</u>"
- What? Rapid, significant & sudden worsening withdrawal sxs
- Pain, unpleasant, agitated, "excited delirium"
- Note: this is what happens on purpose when we give naloxone!

Why the Hype?!

- A rough patient experience patients talk to each other.
- A rough provider experience providers do not want to lose patient trust.

We need to normalize the experience of withdrawal for patients.

It may take some time for the medication to work;

I'm here for you and will help you no matter what happens.

I know going through withdrawal is terrible and painful. I'm here to help make this the best withdrawal experience ever! With SUPPORT and MEDICATION to ease your pain.

Have you ever tried buprenorphine before? Do you know anybody who has? What concerns do you have?

If you do precipitate withdrawal...



If you do precipitate withdrawal...

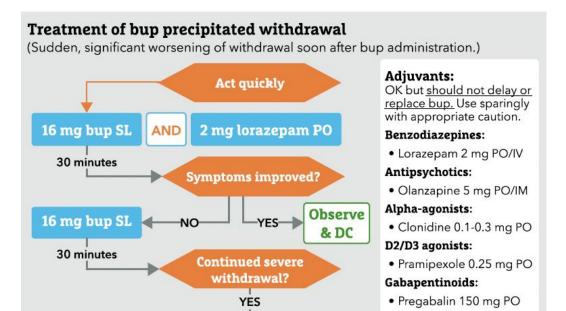
KEEP CALM AND GIVE BUP



If you do precipitate withdrawal...

KEEP CALM AND GIVE BUP...and more bup!

Treat precipitated withdrawal.



Give 16+mg more bup.

Add a benzo.

Use adjuvant therapy.

Escalate level of care to manage potential moderate to deep sedation including cardiac, pulse oximetry, and end tidal CO2 monitoring:

- 1. Ketamine (0.3 mg/kg IV slow push q 15 minutes and/or infusion).
- 2. Fentanyl 200 mcg IV q10 minutes. Total dose of > 2000 mcg has been reported.

For Discharge:

Maintenance Treatment

- Rx bup 1-2 doses SL/day
- Titrate to suppress cravings
- Usual dose 16-32 mg/day or BID
- Prescribe sufficient quantity to bridge to outpatient care (recommend 14 days)

Discharge

- Prescribe at least a 2 week supply of 16-32 mg SL bup per day.
- Example 2 week order: buprenorphine/ naloxone 8/2 mg film 1 film SL TID #42,1 refill. Notes to pharmacy: OK to substitute tablets or monoproduct. Bill Medicaid FFS, ICD 10 F11.20.
- Dispense/distribute naloxone in-hand from the ED.

the X-waiver!

As of Jan 1, 2023, an X-waiver is no longer required by federal law. Buprenorphine for medication for opioid use disorder no longer requires an X-waivered prescriber.

Need Help?

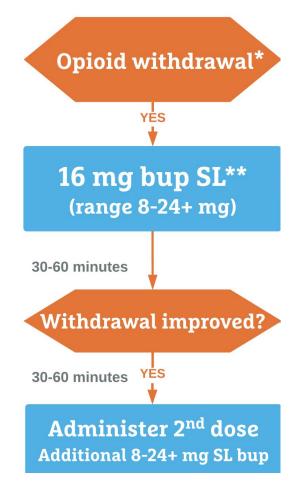
Bridge Program
NEAT Slack Channel

https://bit.ly/Join-NEAT-2024

National Clinician
Consultation Center
Substance Use Warmline
M-F 6 am-5 pm
Voicemail 24/7
(855) 300-3595

Step 1: Medication First Approach

- Pt in moderate to severe withdrawal?
- Wants to try bup?
- Give 16+mg SL

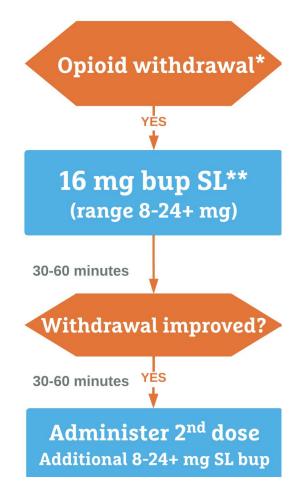


Step 1: Medication First Approach

- Pt in moderate to severe withdrawal?
- Wants to try bup?
- Give 16+mg SL

Step 2: Reassess in 30-45 min.

- Better? Give another dose.
- No? Widen your ddx.



Discharge

- Prescribe at least a 2 week supply of 16-32 mg SL bup per day.
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- Dispense/distribute naloxone in-hand from the ED.



What if the patient is interested in treatment, but not yet in withdrawal?

Patients Can Self-Start on Bup

- Studies show patient's self-rating for withdrawal is more accurate than COWS.
- Instructions mimic ED start.
- Safe, effective option.



Buprenorphine Self-Start

Guidance for patients starting buprenorphine outside of hospitals or clinics

- Plan to take a day off and have a place to rest.
- 2 Stop using and <u>wait</u> until you <u>feel very sick</u> from withdrawals (at least 12 hours is best, if using fentanyl it may take a few days).
- 3 Dose one or two 8mg tablets or strips UNDER your tongue (total dose of 8-16mg).
- Repeat dose (another 8mg-16mg) in an hour to feel well.
- 5 The next day, take 16-32mg (2-4 tablets or films) at one time.

If you have started bup before:

- If it went well, that's great! Just do that again.
- If it was difficult, talk with your care team to figure out what happened and find ways to make it better this time. You may need a different dosing plan than what is listed here.

If you have never started bup before:

- $\bullet\,$ Gather your support team and if possible take a "day off."
- · You are going to want space to rest. Don't drive.
- Using cocaine, meth, alcohol or pills makes starting bup harder, and mixing in alcohol or benzos can be dangerous.



Place dose under your tonque (sublingual).

If you have a light habit: (For example, 5 "Norco 10's" a day)

- Consider a low dose: start with 4mg and stop at 8mg total.
- WARNING: Withdrawal will continue if you don't take enough bup.

If you have a heavy habit: (For example, injecting 2g heroin a day or smoking 1g fentanyl a day)

- · Consider a high dose: start with a first dose of 16mg.
- For most people, the effects of bup max out at around 24-32mg.
- WARNING: Too much bup can make you feel sick and sleepy.

Not going well? Have questions? Contact your Navigator for help!

	Call or text your Navigator for help at	
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What if my patient is pregnant?

Bup is Safe in Pregnancy

- There are more pregnancy related deaths from <u>overdose</u> than hemorrhage or pre-eclampsia
- MAT is safe in pregnancy & breastfeeding & is recommended by ACOG
 - Buprenorphine, bup/naloxone (combo), & methadone are all safe
 - Reduces risk of neonatal abstinence syndrome
- Pregnant bup starts mirror non-pregnant bup starts
- Bup starts alone do not require admission or fetal monitoring
- May need increased doses in 3rd trimester; do <u>not</u> stop during labor



What if my patient taking bup is in pain?

Bup & Acute Pain

- Most important: Do not stop buprenorphine!
- Use multimodal anesthesia
- Divide 24 hr bup total into more frequent doses; can increase dose.
 - \circ Ex: Home dose bup 16 mg daily \rightarrow bup 4mg Q6hrs
- Can use full agonist opioids give bup <u>first!</u>
- Do not be afraid or hesitate to treat the pain!

Full protocol available at bridgetotreatment.org/resources.



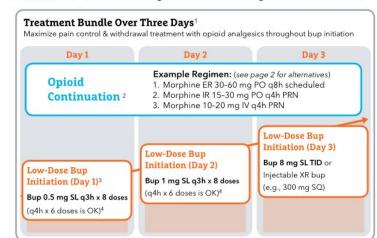
What if my patient is being admitted?

Buprenorphine (Bup) Hospital Start





Buprenorphine (Bup) Hospital Start: Low-Dose Bup Initiation with Opioid Continuation



Footnotes

- 1. A rapid three-day bup up-titration schedule is presented here that may not be appropriate for some patients such as patients receiving high-dose (e.g., ≥100 mg daily) methadone. Extend initiation schedule by lengthening the dose interval to q4h, q6h, or q8h+ and/or increasing the number of doses to be given at each step prior to advancing. Example: bup 0.5 mg SL g4h for 12 doses, (See page 2 for Example Five Day and Eight Day Ramp schedules.)
- 2. Opioid Analgesic (full agonist) Dosing: The doses presented here assume a very high opioid tolerance. Use clinical judgment to tailor opioid dose to match expected level of opioid tolerance. Morphine doses are presented as a quide for conversion to preferred opioid. (See page 2 for Alternative Full Agonist Opioids.) Combine opioids with a multimodal analgesic strategy for optimized comfort and pain control (e.g., NSAIDs, ketamine, and regional anesthesia. (See CA Bridge Acute Pain Management guide.)
- 3. Bup Dosing: SL film doses are presented here as a guide for conversion to preferred bup formulation. If bup 0.5mg SL (quartering a 2 mg SL film) is a pharmacy barrier, most patients will tolerate bup 1 mg SL or an alternative formulation can be used. Example: bup buccal film 300 mcg, or bup 0.15 mg IV. (See page 2 for Alternative Bup Formulations.)
- 4. Bup Frequency: It is OK to hold doses for sleep. Continue dosing when awake, If nursing capacity limits q3h dosing intervals increasing to q4h or q6h is generally well tolerated. Most patients will tolerate 1-2 missed doses per step.





Warmline (M-F 6am-5pm



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March 2024

Treatment Bundle Over Three Days1

Maximize pain control & withdrawal treatment with opioid analgesics throughout bup initiation

Day 1 Day 2 Day 3

Opioid Continuation ²

Example Regimen: (see page 2 for alternatives)

- 1. Morphine ER 30-60 mg PO q8h scheduled
- 2. Morphine IR 15-30 mg PO q4h PRN
- 3. Morphine 10-20 mg IV g4h PRN

Low-Dose Bup Initiation (Day 1)³

Bup 0.5 mg SL q3h x 8 doses $(q4h \times 6 \text{ doses is } OK)^4$

Low-Dose Bup Initiation (Day 2)

Bup 1 mg SL q3h x 8 doses $(q4h \times 6 \text{ doses is } OK)^4$

Low-Dose Bup Initiation (Day 3)

Bup 8 mg SL TID or Injectable XR bup (e.g., 300 mg SQ)

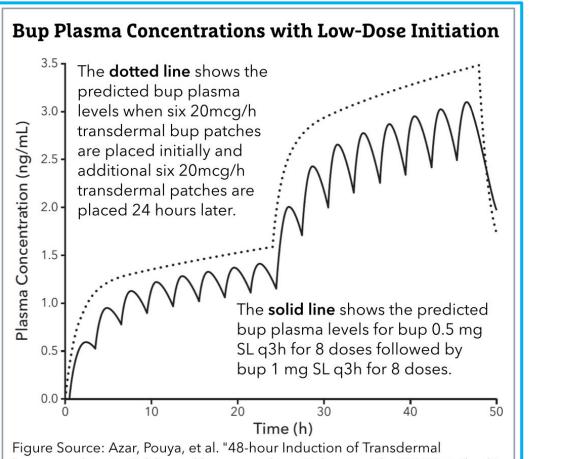


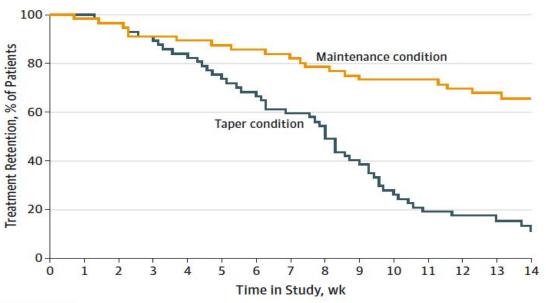
Figure Source: Azar, Pouya, et al. "48-hour Induction of Transdermal buprenorphine to Sublingual buprenorphine/Naloxone: The IPPAS Method." *Journal of Addiction Medicine* (2022): 10-1097.



When should a patient stop or come off bup?



Bup Taper vs. Maintenance



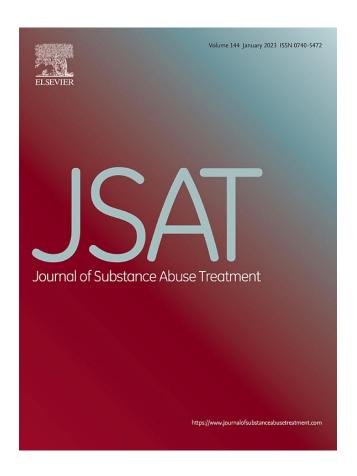
Mean buprenorphine dosage, mg/d

Maintenance condition 14.9 15.1 15.2 15.3 15.3 16.0 15.9 16.2 16.2 16.6 16.8 16.2 16.1 15.8 14.6 Taper condition 15.6 15.6 15.4 15.3 14.2 9.7 5.7 3.1 0.6 0.2 0 0 0 0



What about diversion?





Buprenorphine in the United States: Motives for Abuse, Misuse, and Diversion

Howard D. Chilcoat | Halle R. Amick | Molly R. Sherwood | Kelly E. Dunn

Reasons for using diverted buprenorphine: (cited by patients with OUD)

63% – to abstain from other drugs

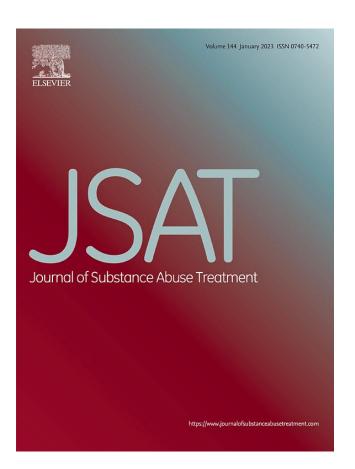
50% – to treat symptoms of withdrawal

50% - treatment/management of pain

33% – management of psychiatric issues

2% – as drug of choice to get high







The studies in this review consistently suggested that patients using illicit buprenorphine did so to treat symptoms of opioid withdrawal and that lack of formal access to buprenorphine MAT contributed to their illicit buprenorphine use.

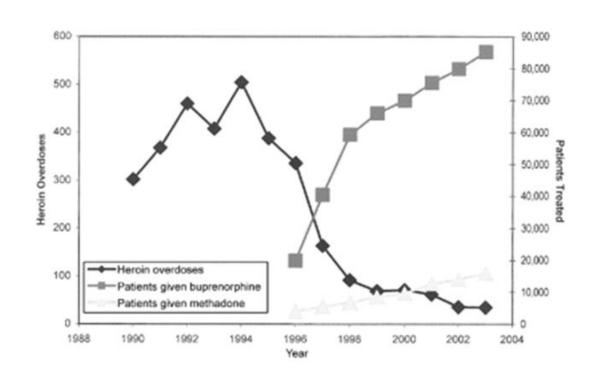


French Field Experience with Bup

Bup saturation resulted in a

79% decrease in overdose

even with 20% bup diversion





Patients Can Self-Start on Bup

- Studies show patients' self-rating for withdrawal is similar to COWS
- Instructions mimic hospital start
- Safe, effective option
- Patient-facing handout available at bridgetotreatment.org/resources

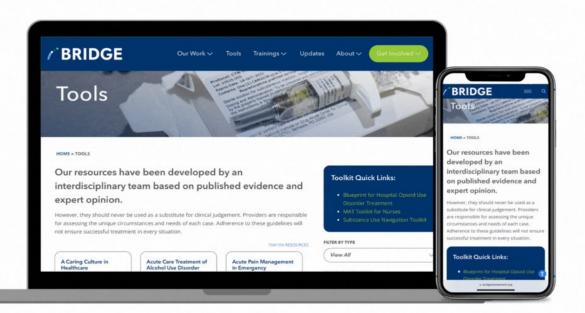


Bottom line:

MAT saves lives.



Resources





Visit our website at www.bridgetotreatment.org.

Continuing education with:

CA Bridge Academy





Contact Us: info@BridgeToTreatment.org

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