

Innovations in Buprenorphine Initiation for the Advanced Clinician

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ASAM Annual Conference 2025



Disclosure Information

- ☀ Presenter 1: Pouya Azar, MD, FRCPC, FASAM
 - ☀ Commercial Interests: Indivior Advisor for a study on XR buprenorphine, Patent: Apparatus and Methods for Detecting and Quantifying Analytes
- ☀ Presenter 2: David Wolinsky, MD
 - ☀ Commercial interests: no disclosures
- ☀ Presenter 3: Andrew Herring, MD
 - ☀ Commercial Interests: no disclosures
- ☀ Presenter 4: Melissa Weimer, DO, MCR, DFASAM
 - ☀ Commercial Interests: no disclosures

Learning Objectives

- ☀ Describe new approaches to initiation of buprenorphine for OUD.
- ☀ Discuss the rationale and potential risks and benefits of novel buprenorphine initiation strategies.

**Pre-reading recommended: [ASAM Clinical Considerations: Buprenorphine Treatment of OUD for Individuals Using High-potency Synthetic Opioids](#)*



Polling Questions

- ☀ Who has used naloxone to facilitate buprenorphine initiation?
- ☀ Who uses low dose buprenorphine with opioid continuation for buprenorphine initiation?
- ☀ Who uses high dose buprenorphine approach for buprenorphine initiation?

Workshop Outline

- ☀ Case presentation 1 – Dr. Wolinsky – naloxone facilitation
- ☀ Case presentation 2 – Dr. Azar – naloxone facilitation
- ☀ Case presentation 3 – Dr. Herring – low dose with methadone
- ☀ Case presentation 4 – Dr. Weimer – high dose with XR bup
- ☀ Wrap Up

Naltrexone/naloxone and Buprenorphine

Detoxification era

- ◆ 1970's-90's **Rapid and "ultra rapid" detoxification** facilitated by naloxone or naltrexone. O'Connor et al. 1998 PMID: 9438745
- ◆ 1999 **Buprenorphine then naltrexone** Umbricht et al. 1999 PMID: 10529020
- ◆ 2008 **Elective Naltrexone then buprenorphine** Urban et al. 2008 PMID: 19727311

Naltrexone/naloxone and Buprenorphine

MOUD era

- ◆ 2018 Naloxone then Buprenorphine
 - ◆ Elective in emergency department:
Phillips and Haroz et al PMID: 30773411
 - ◆ After overdose in emergency department:
Herring and Greenwald PMID: 31239086
- ◆ 2020/21 BUP after naloxone by paramedics:
 - ◆ Carroll & Haroz 2020 PMID: 3220894 Hern & Herring 2021 PMID: 34505820
- ◆ 2022 Elective Naloxone then BUP via telehealth
 - ◆ Randall and Martin PMID: 36149001

Naloxone-Facilitated Buprenorphine-Induction

CASE REPORT

OPEN

Enhancing Patient Choice: Using Self-administered Intranasal Naloxone for Novel Rapid Buprenorphine Initiation

Adam Randall, DNP, FNP-C, Ilana Hull, MD, MSc, and Stephen A. Martin, MD, EdM, FASAM, FAAFP

Buprenorphine-naloxone (BUP-NX) is a lifesaving treatment for opioid use disorder. The increasing use of illicitly manufactured fentanyl, however, has made initiating BUP-NX more likely to precipitate withdrawal—an experience that deters treatment and causes return to use. If BUP-NX cannot be successfully started, it cannot work. We describe the case of a patient who was able to transition to a therapeutic dose of BUP-NX less than 3 hours after his last illicitly manufactured fentanyl use by choosing to self-administer intranasal naloxone. After the naloxone, the transition took 31 minutes, including 14 minutes of expected moderately severe withdrawal. He remains in care with BUP-NX and would recommend this transition approach to others.

Key Words: opioid use disorder, buprenorphine, retention in care, telehealth, transition to buprenorphine

(J Addict Med 2022;00: 00-00)

BACKGROUND

More than 100,000 overdose deaths were reported in 2021,

fentanyl use—likely because of fentanyl's lipophilicity, which leads to a large volume of distribution and slow dissipation when used chronically.³ Patients have significant concerns about the severity of withdrawal needed to start buprenorphine as well as the risk of precipitated withdrawal; the possibility of a negative experience understandably fosters hesitance to begin treatment.⁴⁻⁶

Newer methods for BUP-NX initiation have been reported—generally categorized as very low- (or “microdosing”), low-, standard-, and high-dose (or “macrodose”) protocols—each with potential benefits and risks (Table 1).^{7,10} Less common methods use transdermal, buccal sublingual, and intravenous buprenorphine formulations not readily available for this outpatient purpose.⁷ Additional effective, expedited approaches would empower patients, providing more choices regarding when and how quickly they can fully transition to lifesaving treatment.

We present a novel approach for rapid outpatient BUP-NX initiation where a patient chose self-administration of intranasal naloxone to induce withdrawal, followed shortly by 24–6 mg BUP-NX. The patient provided written informed consent for publication, including review of the article.

Event	Time Elapsed, min	Time Between Events, min	COWS*
Last use of fentanyl	120 min prior		0
Premedication with clonidine 0.2 mg and gabapentin 600 mg	0	120	0
4 mg (1 spray) intranasal naloxone	36	36	NS†
GI upset (“stomach not feeling right”)	38	2	NS
COWS measured	42	4	9
Vomiting (2 episodes of vomitus, 3 episodes of dry heaving)	45	3	NS
24/6 mg sublingual buprenorphine-naloxone at once	50	5	28
Buprenorphine-naloxone fully dissolved.	60	10	NS
Subjective withdrawal symptoms 0–10; he states that he is at a 4. Feeling tired.			
Discontinued visit to sleep	65	5	NS

*Clinical Opioid Withdrawal Scale (COWS), excluding heart rate.

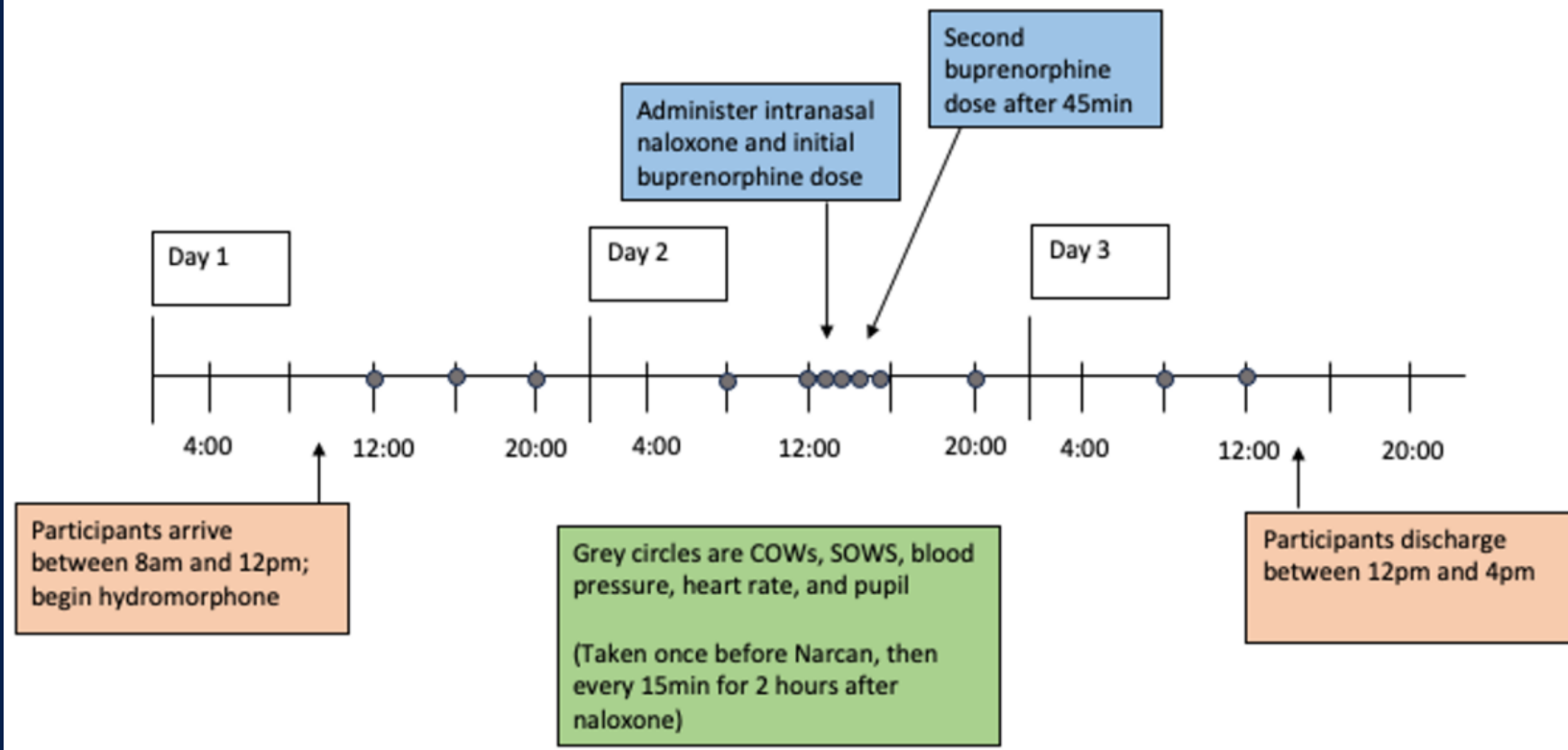
†COWS not scored.

Randall A et al, 2023

Objectives

- To evaluate the feasibility and acceptability of administering high doses of buprenorphine after elective naloxone administration as a method of beginning buprenorphine for patients with OUD
- PI: Cecilia Bergeria, PhD





- **Day 1:** Participants stabilized on hydromorphone 20 mg PO q4 hrs
- **Day 2:** Participants receive ondansetron 8 mg, gabapentin 600 mg, and clonidine 0.2 mg, then 4 mg IN Narcan and buprenorphine (either 4, 8, 16, or 24 mg) 15 minutes later. Then receive remaining bupe 30 minutes later
- **Day 3:** Participants discharged on 16-24 mg buprenorphine

Other Aspects of MOR Protocol

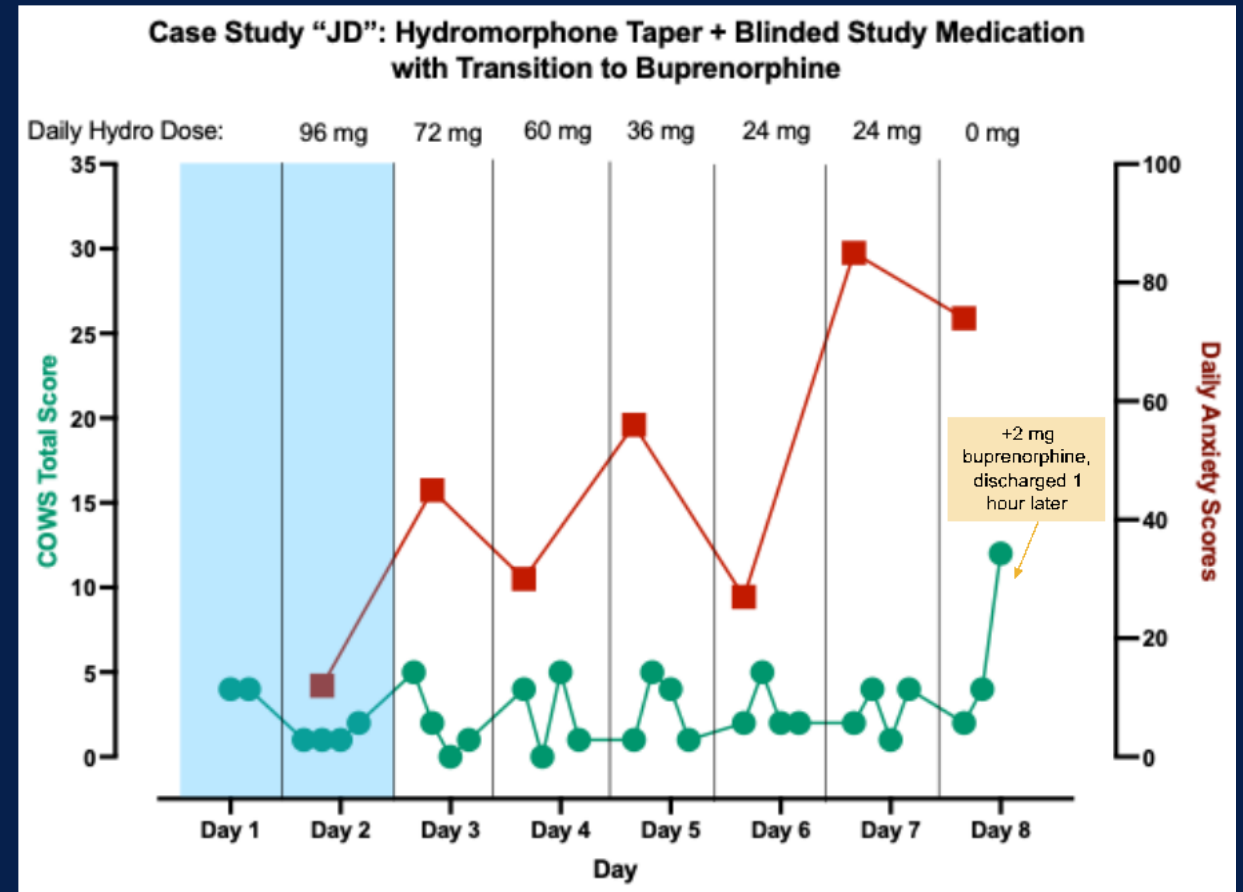
- Day 1 stabilization on opioids allows for standardized procedure for naloxone administration on Day 2
 - Avoids issues with participants arriving at different times
- Started an ascending dose protocol to avoid precipitating withdrawal with high dose buprenorphine (Antoine et al., 2021)
- Inherent differences between an inpatient research study and clinic
 - Less shared decision making
 - Lack of supports during this time

Outcomes & Measures

1. Rates of successful buprenorphine inductions
 2. Treatment Acceptability
 3. Withdrawal symptoms and rates of precipitated withdrawal
 4. Proportion of patients successfully maintained on buprenorphine
1. Self-report Proportion of individuals inducted onto buprenorphine/naloxone
 2. Self-report; completion of treatment acceptability questionnaire
 3. COWS and SOWS following buprenorphine induction.
 4. Successful administration of Day 2 buprenorphine/naloxone dose without precipitated withdrawal

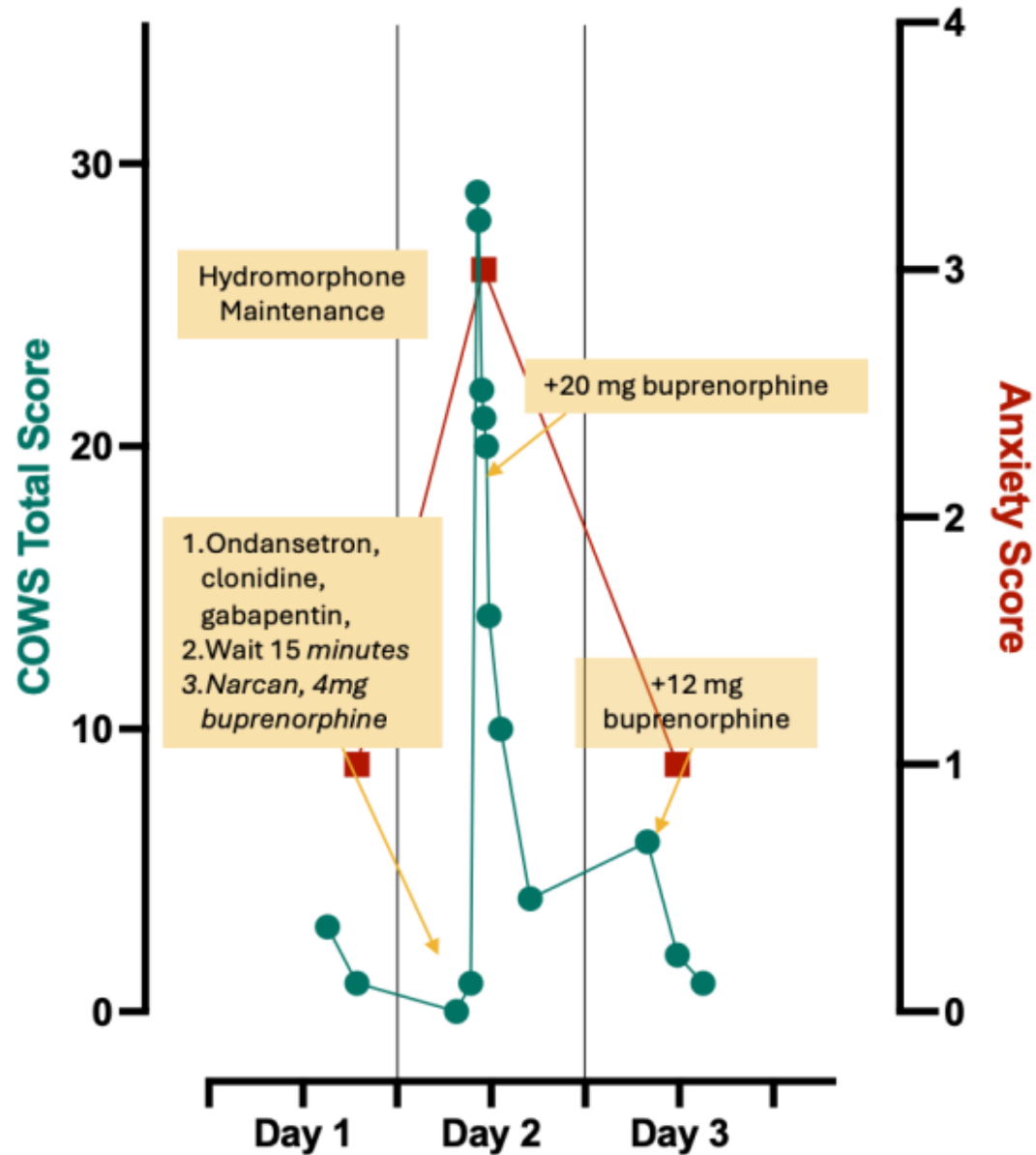
Case: JD

- ◆ Middle aged female with history of OUD who originally presented for a study involving a taper off of opioids before induction onto buprenorphine, but was unable to tolerate withdrawal symptoms (see right)
- ◆ Wished to retry induction



Bergeria C et al

Case Study “JD”: Naloxone-facilitated Buprenorphine Induction



Day	Time of Day	COWS Score
Day 1	15:07:00	3
	18:53:00	1
Day 2	07:36:00	0
	09:24:00	1
	10:15:00	29
	10:26:00	28
	10:50:00	22
	11:06:00	21
	11:24:00	20
	11:45:00	14
	13:13:00	10
	17:01:00	4
Day 3	07:58:00	6
	09:46:00	2
	15:02:00	1

Acceptability:

How helpful was this method in preventing you from leaving treatment early?

70/100

Would you recommend the induction method to a family member or friend?

Yes

On a scale of 1-10 how would you rate the withdrawal experience? 1 being no withdrawal at all and 10 being the worst withdrawal you've experienced

10/10

- Patient was discharged with 7-day prescription of buprenorphine-naloxone 24
- Plan was for patient to follow with clinic; unclear if follow-up took place

Future Directions

- More data is needed to clarify:
 - the optimal buprenorphine starting dose for minimizing withdrawal
 - the likelihood of buprenorphine-precipitated withdrawal when given with naloxone
 - the features that increase risk of withdrawal and/or poor tolerability
 - Contrast COWS/SOWS scores with tolerability scores
- Potential future directions include
 - Comparing results using immediate high-dose buprenorphine initiation
 - Outpatient study

Symptom-Inhibited Naloxone Induction (SINI)

Pouya Azar, MD, FRCPC, DABAM

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Complex Pain and Addiction Service, Vancouver General Hospital, Canada

Department of Psychiatry, The University of British Columbia, Canada



Background

- ★ **Elective naloxone-induced induction** causes rapid opioid displacement and antagonism, and then uses buprenorphine and adjuncts to manage severe precipitated withdrawal, likely making it intolerable for most patients.
- ★ **Symptom-Inhibited Naloxone Induction (SINI):** Titrates IV naloxone until mild to moderate withdrawal, and then utilizes buprenorphine rescue.
- ★ **Successfully transitioned 7 fentanyl-using patients onto BUP/NX and BUP-XR within minutes to hours.**

Symptom-Inhibited Naloxone Induction (SINI)

- ☀ 31-year-old male with severe OUD admitted to hospital
 - ☀ Found unresponsive and non-responsive to naloxone → admitted with aspiration pneumonia
 - ☀ UDS +ve for benzodiazepines, methamphetamines, cannabinoids, cocaine, and fentanyl → suspected benzodiazepine overdose
- ☀ Living in SRO, no diagnosed psychiatric or medical illnesses.
- ☀ Smoking 1 to 1.5g of unregulated fentanyl daily, and also 1 to 1.5g of methamphetamine daily
- ☀ Previously BUP/NX, methadone, and slow-release oral morphine
- ☀ Not on OAT at time of presentation: Expressed interested in BUP-XR

24 hours prior to induction:

- Hydromorphone 48 mg PO & Diazepam 10 mg PO
 - ☀ CIWA scores <10 before hydromorphone and diazepam administration
- No opioids given for 2 hours before starting the SINI protocol

Symptom-Inhibited Naloxone Induction (SINI)

Induction

- 0.1 mg IV naloxone given every 2 minutes
- Minimal change in COWS score after the first 2 doses -> Dose increased to 0.2 mg IV
- Patient reached moderate withdrawal, COWS = 13
 - Prominent piloerection, lacrimation, rhinorrhea, and yawning
- Due to delays in pharmacy processing and dispensing of medication, PT received 300 mg BUP-XR 125 minutes after SINI initiation

Time in Minutes and Seconds	Medication	COWS (Post Medication when given)
0	0.1 mg Naloxone IV	0
2.06	0.1 mg Naloxone IV	1
4.32	0.2 mg Naloxone IV	2
6.12	0.2 mg Naloxone IV	9
8.05	0.2 mg Naloxone IV	13
10.17	8 mg buprenorphine-naloxone SL	12
30.0	No medication Administration	5
60.0	No Medication Administration	4
125.0	300 mg buprenorphine depot XR	0

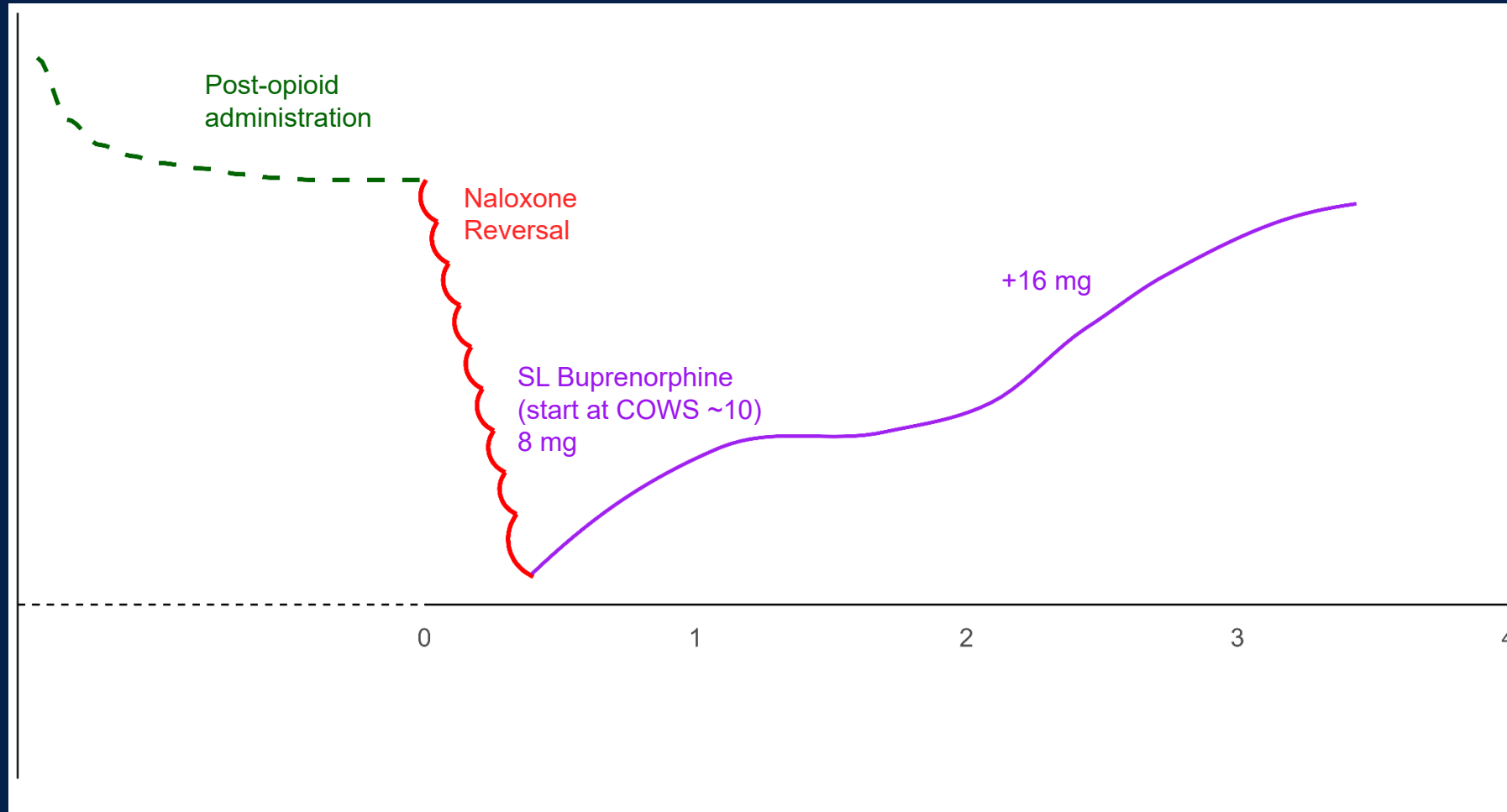
Follow-Up

- Outpatient follow-up scheduled in two weeks, but PT did not attend and was unreachable by phone.

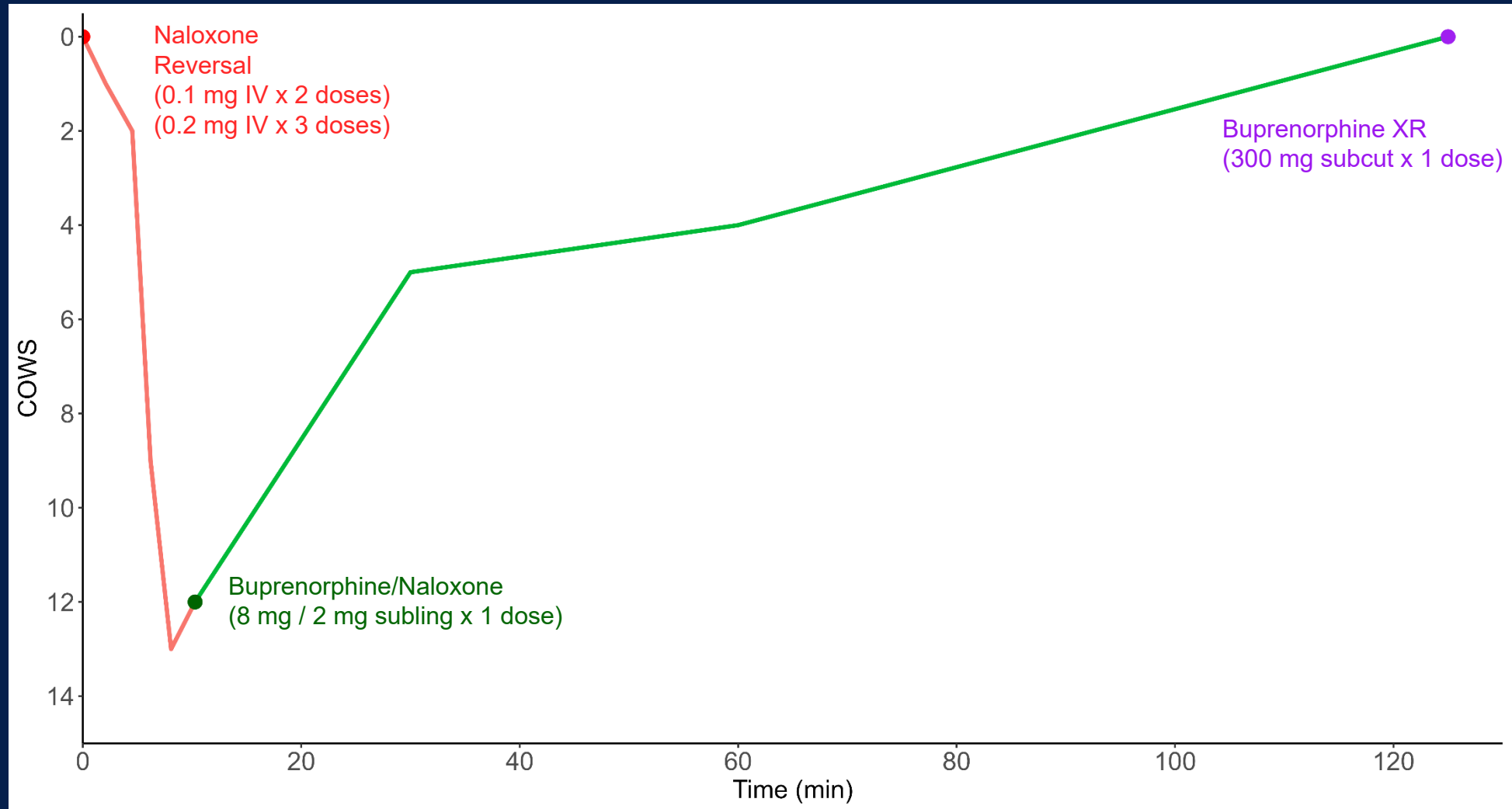
SINI: Agonist & Withdrawal Effects

Agonist
effects

Withdrawal
effects



SINI: COWS Trajectory



Final Takeaways/Summary

- ☀️ SINI uses controlled, titrated IV naloxone doses to induce mild-moderate opioid withdrawal, followed by rapid transition to therapeutic doses of BUP/NX and BUP-XR within minutes-hours.
- ☀️ Future directions: Preparing for a multi-site (inpatient, outpatient) clinical trial to evaluate SINI, use of symptomatic adjunct medications to optimize patient comfort, and developing an objective scale of opioid withdrawal.

Case 3 – Dr. Andrew Herring



**An Effective Treatment for
Opioid Addiction Exists.
Why Isn't It Used More?**

A drug called buprenorphine may be the best tool doctors have to fight the fentanyl crisis. Why hasn't it been more widely adopted?

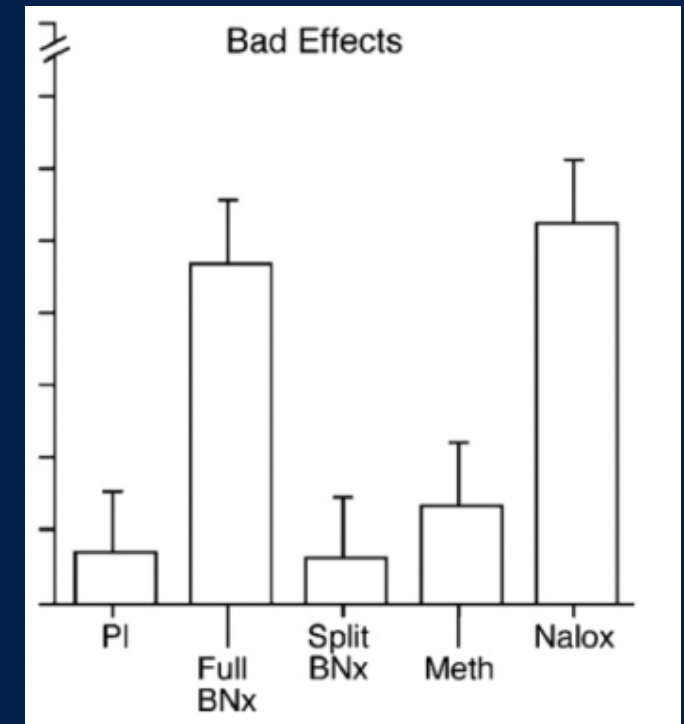
Magnitude of precipitated withdrawal is proportionate to the dose of buprenorphine



Eric Strain

Sublingual buprenorphine/naloxone precipitated withdrawal in subjects maintained on 100mg of daily methadone: Rosado et al 2007 PMID: 17517480

“Low, repeated doses of buprenorphine/naloxone (e.g., 2 mg/0.5 mg) may be an effective mechanism for safely dosing this medication in persons with higher levels of physical dependence.”

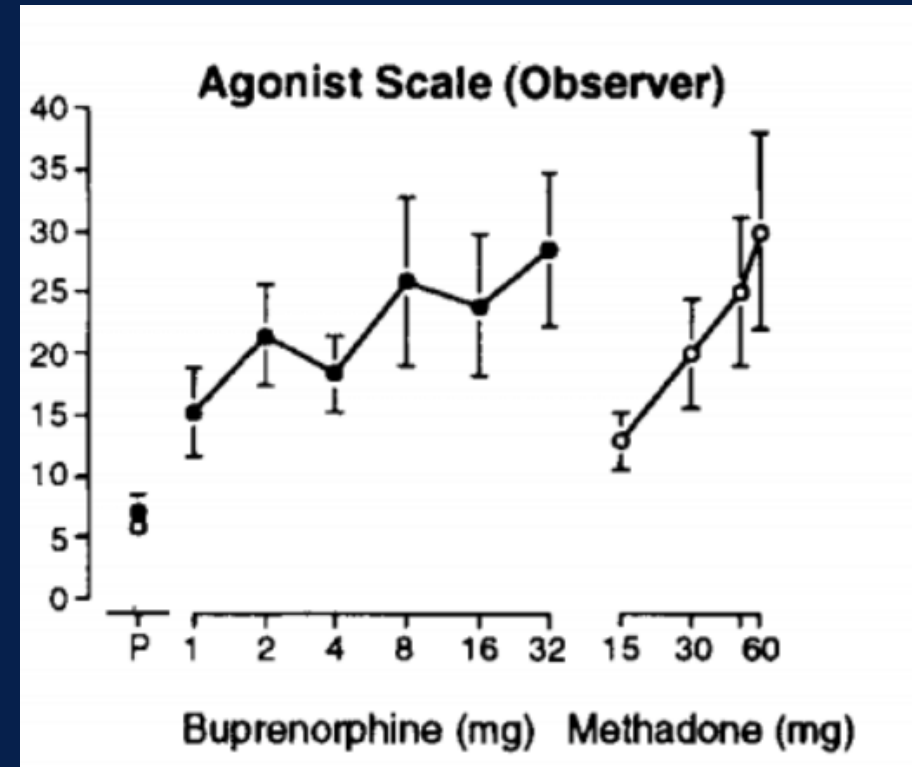
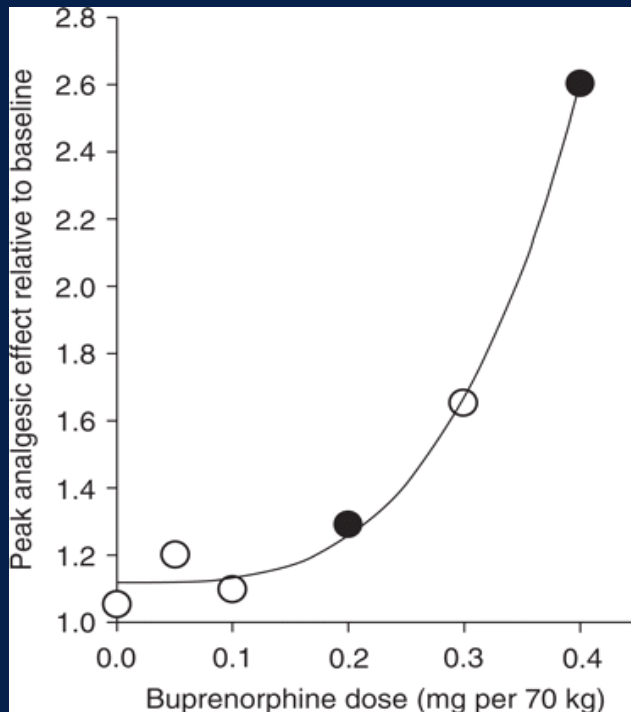


Magnitude of good effects is proportionate to the dose of buprenorphine



Sharon
Walsh

Clinical pharmacology of buprenorphine: Ceiling effects at high doses:
Walsh et al 1994 PMID: 8181201

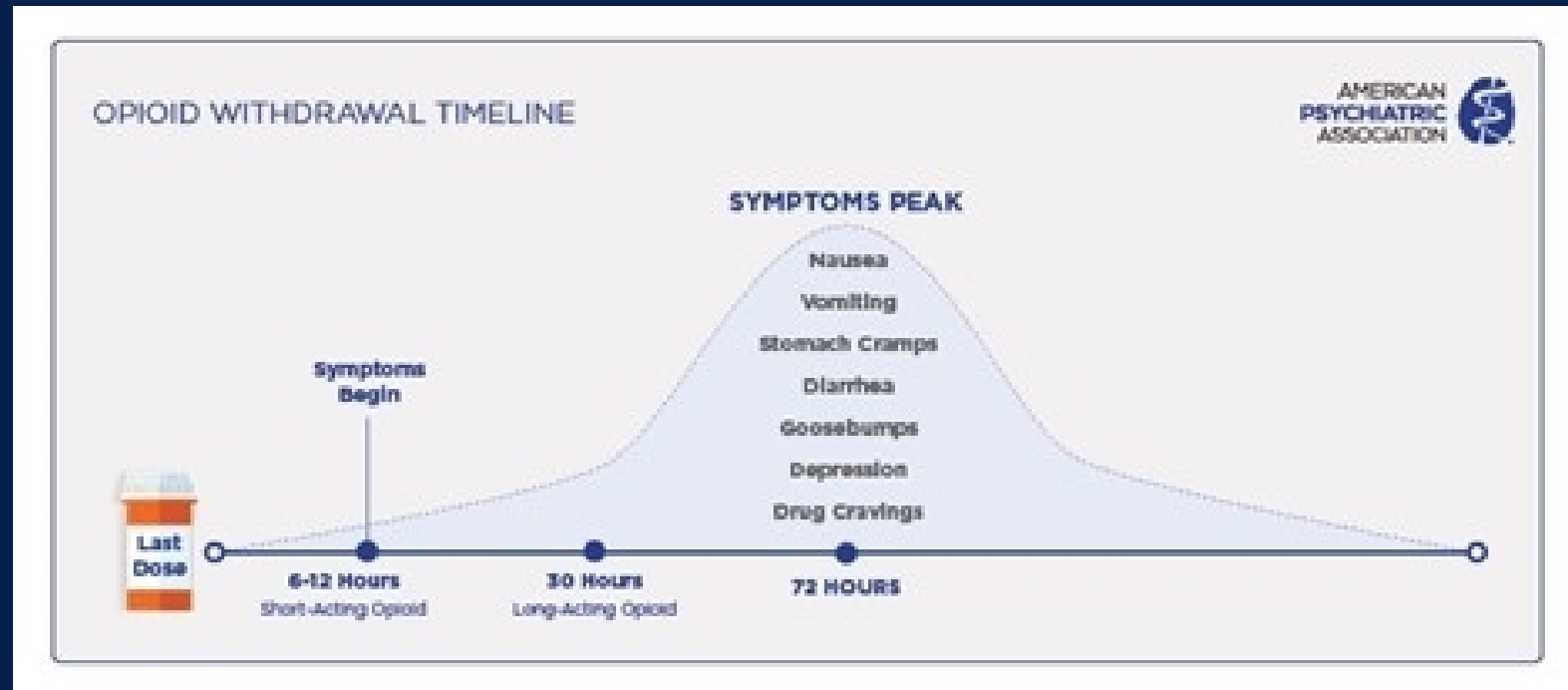


Abstinence Withdrawal



Leslie Suen

Withdrawal during outpatient low dose buprenorphine initiation in people who use fentanyl: a retrospective cohort study
Suen et al. [PMID: 38594721](https://pubmed.ncbi.nlm.nih.gov/38594721/)



Case

- ☀ 28 yo man hx of severe OUD and severe methamphetamine use disorder (using inhalation fentanyl and methamphetamine).
- ☀ Presents to outpatient bridge clinic for treatment initiation.
- ☀ Nervous about precipitated opioid withdrawal and heard about the low dose approach
- ☀ COWS 2

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

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 q4h PRN

**Low-Dose Bup
Initiation (Day 1)**³

Bup 0.5 mg SL q3h x 8 doses
(q4h x 6 doses is OK)⁴

**Low-Dose Bup
Initiation (Day 2)**

Bup 1 mg SL q3h x 8 doses
(q4h x 6 doses is OK)⁴

**Low-Dose Bup
Initiation (Day 3)**

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



FEDERAL REGISTER

The Daily Journal of the United States Government



Dispensing of Narcotic Drugs To Relieve Acute Withdrawal Symptoms of Opioid Use Disorder

A Rule by the [Drug Enforcement Administration](#) on 08/08/2023



Novel Uses of Methadone Under the "72-Hour Rule" to Facilitate Transitions of Care and Low-Dose Buprenorphine Induction in an Outpatient Bridge Clinic
Shahlapour et al PMID: 38329815

Addiction Medicine Team
Dispenses First Three-Day Supply
of Methadone at Yale



Treatment Bundle Over Three Days¹

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

Day 1

Opioid
Continuation ²

Day 2

Methadone 50 mg PO Daily
dispense #15

Day 3

Low-Dose Bup
Initiation (Day 1)³

Bup 0.5mg SL q3h x 8
doses
(q4h x 6 doses is OK)⁴

Low-Dose Bup
Initiation (Day 2)

Bup 1 mg SL q3h x 8
doses
(q4h x 6 doses is OK)⁴

Low-Dose Bup
Initiation (Day 3)

Bup 2 mg SL q3h x 8
doses
(q4h x 6 doses is OK)⁴

Liquid Low Dose Buprenorphine Dosing

We will provide you with a clean 30 ml bottle.

Fill this bottle with clean water until it's full.

Dissolve one of your 8mg Suboxone films (*buprenorphine*) into the water in the bottle. Make sure the film is fully mixed in.



When you need to take a Suboxone (*buprenorphine*) microdose, use the dropper.

One full dropper will give you around 0.25mg of the Suboxone (*buprenorphine*).

Take this dose by placing the liquid from the dropper under your tongue. Let it sit and absorb instead of swallowing it.



Final Takeaways/Summary

Principle 1: The magnitude of precipitated withdrawal is proportionate to the amount of buprenorphine administered

- **Technique: Small sequential doses of 1mg every 3 hrs on day one**

Principle 2: The magnitude withdrawal alleviation is proportionate to the amount of buprenorphine administered

- **Technique: Target High-Dose**

Principle 3: Buprenorphine administration facilitates positive effects of subsequent doses

- **Technique: Increase doses each day**

Principle 4: During abstinence, untreated withdrawal severity increases hour by hour

Principle 5: Full agonist opioids treat opioid withdrawal.

- **Technique: Continue Opioid during low-dose bup start using 3-day rule allowing methadone dispense.**

High Dose Buprenorphine Initiation

Definition: Buprenorphine initiation that starts patient on a higher dose of buprenorphine (e.g. >8mg) compared to traditional and low dose buprenorphine initiation.
Can also include use of XR buprenorphine for initiation.

Key Aspects and Considerations



Rapid Therapeutic Dosing

High-dose buprenorphine initiation involves opioid cessation and withdrawal symptoms, but it rapidly achieves therapeutic buprenorphine levels within hours, not days.



Ideal for Emergency Care

With a therapeutic dose typically reached in just one to three buprenorphine doses, this approach is practical for patients in opioid withdrawal, especially in ED settings. It remains an option in outpatient and inpatient care.



Precipitated Withdrawal Risk

Unlike low-dose initiation, high dose buprenorphine initiation can lead to precipitated withdrawal. Patients need counseling on this potential risk before starting.

Rationale for High-Dose Buprenorphine Initiation



Minimizes Undertreatment

High-dose initiation is effective in reducing the duration of undertreatment during opioid withdrawal.



Suitable for Emergency Department

It's well-suited for emergency department settings with high patient turnover.



Overdose Risk Reduction

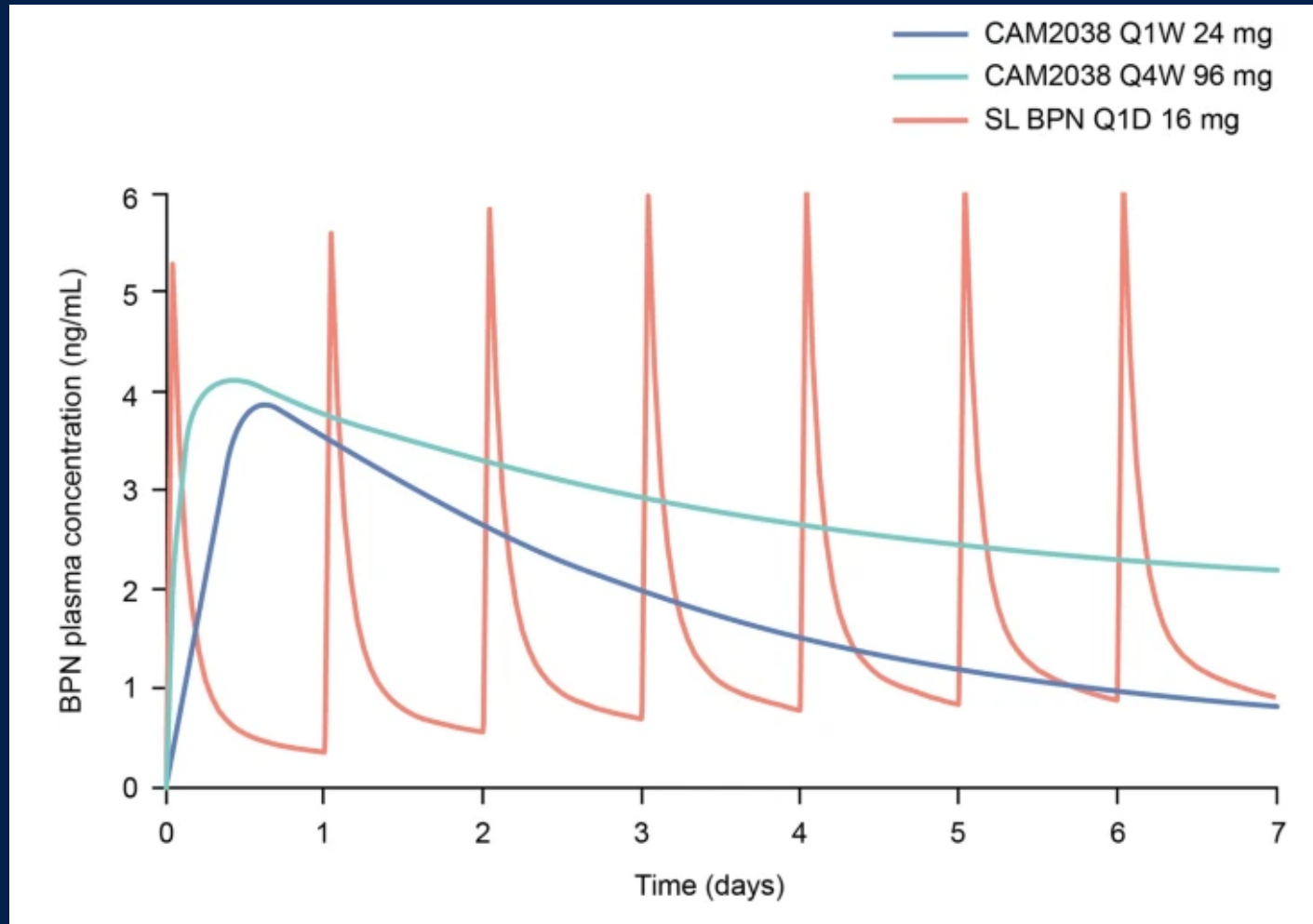
Achieving therapeutic buprenorphine levels quickly occupies most mu-opioid receptors, reducing the risk of overdose.



High Dose Buprenorphine Initiation

Dose SL buprenorphine	C _{avg} (ng/mL)	Equiv. Dose Brixadi® Q1W	Equiv. Dose Brixadi® Q4W	C _{avg} (ng/mL)	Equiv. Dose Sublocade® Q4W	C _{avg} (ng/mL)
2-6 mg		8mg				
8-10 mg	1.37	16mg	64 mg	NR	100 mg	3.21
12-16 mg	1.79	24mg	96 mg	NR	100 mg	3.21
18-24 mg	2.16	32mg	128 mg	3.89	300 mg	6.54
26-32 mg	2.84		160 mg	5.27	300 mg	6.54

XR Buprenorphine Pharmacokinetics



Bjornsson, et al. Clinical Pharmacokinetics, August 2023

Extended-Release 7-Day Injectable Buprenorphine for Patients With Minimal to Mild Opioid Withdrawal

Gail D'Onofrio, MD; Andrew A. Herring, MD; Jeanmarie Perrone, MD; Kathryn Hawk, MD; Elizabeth A. Samuels, MD; Ethan Cowan, MD; Erik Anderson, MD; Ryan McCormack, MD; Kristen Huntley, PhD; Patricia Owens, MS; Shara Martel, MPH; Mark Schachtman, MHS; Michele R. Lofwall, MD; Sharon L. Walsh, PhD; James Dziura, PhD; David A. Fiellin, MD

Table 2. Summary of Primary Outcomes by Subgroups of COWS Scores and Presence of Fentanyl

COWS score ^a	Patients enrolled, No.	Patients, No. (%) [95% CI] ^b			
		≥5-Point increase in COWS score within 4 h of extended-release buprenorphine	Transition to moderate or greater withdrawal within 4 h of extended-release buprenorphine ^c	Precipitated withdrawal within 1 h of extended-release buprenorphine	Precipitated withdrawal within 4 h of extended-release buprenorphine ^d
At baseline ^e					
4 to 7	63	4 (6.3) [1.7-15.5]	2 (3.2) [0.4-11.0]	1 (1.6) [0-8.5]	2 (3.2) [0.4-11.0]
0 to 3	37	6 (16.2) [6.2-32.0]	5 (13.5) [4.5-28.8]	1 (2.7) [0.1-14.2]	5 (13.5) [4.5-28.8]
With or without fentanyl					
4 to 7 Without	21	0 (0) [0-16.1]	0 (0) [0-16.1]	0 (0) [0-16.1]	0 (0) [0-16.1]
4 to 7 With	42	4 (9.5) [2.7-22.6]	2 (4.8) [0.6-16.2]	1 (2.4) [0.1-12.6]	2 (4.8) [0.6-16.2]
0 to 3 Without	9	0 (0) [0-33.6]	0 (0) [0-33.6]	0 (0) [0-33.6]	0 (0) [0-33.6]
0 to 3 With	28	6 (21.4) [8.3-41.0]	5 (17.9) [6.1-36.9]	1 (3.6) [0.1-18.4]	5 (17.9) [6.1-36.9]
Total	100	10 (10.0) [4.9-17.6]	7 (7.0) [2.9-13.9]	2 (2.0) [0.2-7.0]	7 (7.0) [2.9-13.9]

Case 4

- ☀️ 32 yo female with severe OUD, uses fentanyl IV, intermittent cocaine use, history of recent opioid overdose
- ☀️ Presents with cellulitis on her left forearm. COWS 5.
- ☀️ She would like buprenorphine treatment but has had precipitated withdrawal before and does not feel ready to start buprenorphine.
- ☀️ She is uninsured and unhoused
- ☀️ After 4 hours, COWS progresses to 8.

Case 4 – HDB option

- ☀ Agreeable to start XR buprenorphine
- ☀ Given 32mg XR buprenorphine (Brixadi®)* and adjuvant meds

Time	COWS
Initiation	8
1 hour later	10
2 hours later	8
4 hours later	5



**alternative option –
give 128mg of XR Buprenorphine Weekly Injection (Brixadi®)*

Final Takeaways/Summary

- ☀ Individualize your approach
- ☀ Each approach has risks and benefits that should be carefully discussed with patients
- ☀ Naloxone-facilitated buprenorphine initiation is currently being studied for feasibility, acceptability, and effectiveness
- ☀ Utilize the 72 hour rule for methadone or other opioid for low dose buprenorphine initiation strategies
- ☀ Consider the HDB approach a way to quickly stabilize individuals at very high risk

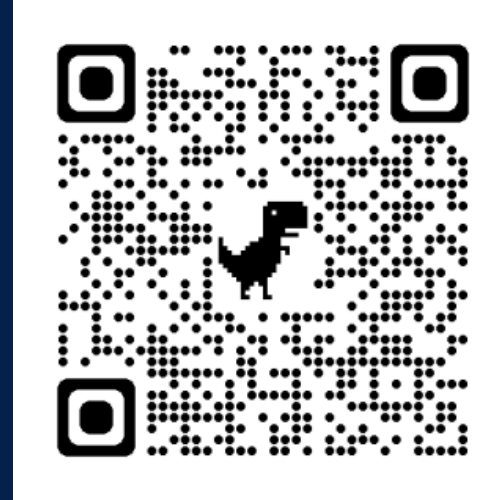
FREE RESOURCES



CA Bridge



ASAM Buprenorphine
Clinical
Consideration
Document



ASAM Advanced
Buprenorphine
Education



Low Dose Bup 1 hr
Education with
Resources (fee)

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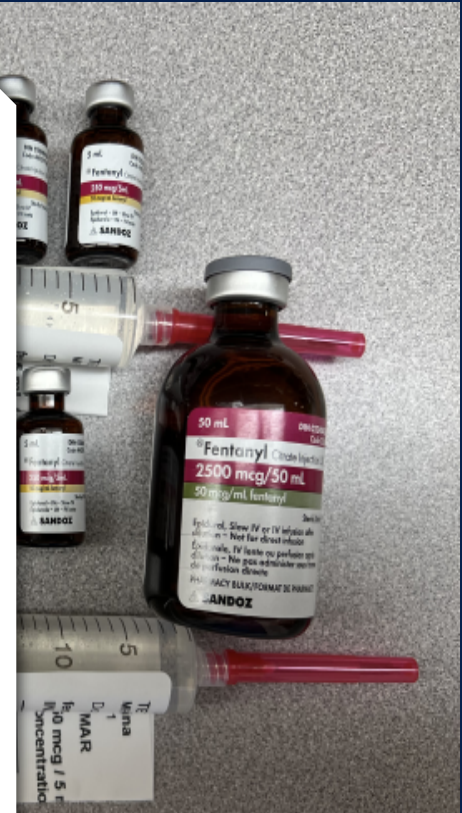
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Extra slides

Background: Fentanyl Tolerances



	23-May-2023 0000 - 2359	22-May-2023 0000 - 2359	21-May-2023 0000 - 2359
	Respiratory Rate: 16 br/min	Respiratory Rate: 16 br/min	Respiratory Rate: 17 br/min
	8,000 mcg @0551		8,000 mcg @0603
	Respiratory Rate: 16 br/min		Respiratory Rate: 16 br/min
	8,000 mcg @0755		8,000 mcg @0752
	Respiratory Rate: 16 br/min		(a) Respiratory Rate: 16 br/min ...
	8,000 mcg @0905		8,000 mcg @0900
n ...	Respiratory Rate: 16 br/min		Respiratory Rate: 18 br/min
	8,000 mcg @1105		8,000 mcg @1045
	Respiratory Rate: 16 br/min		Respiratory Rate: 18 br/min
	8,000 mcg @1315		8,000 mcg @1531
	Respiratory Rate: 16 br/min		Respiratory Rate: 18 br/min

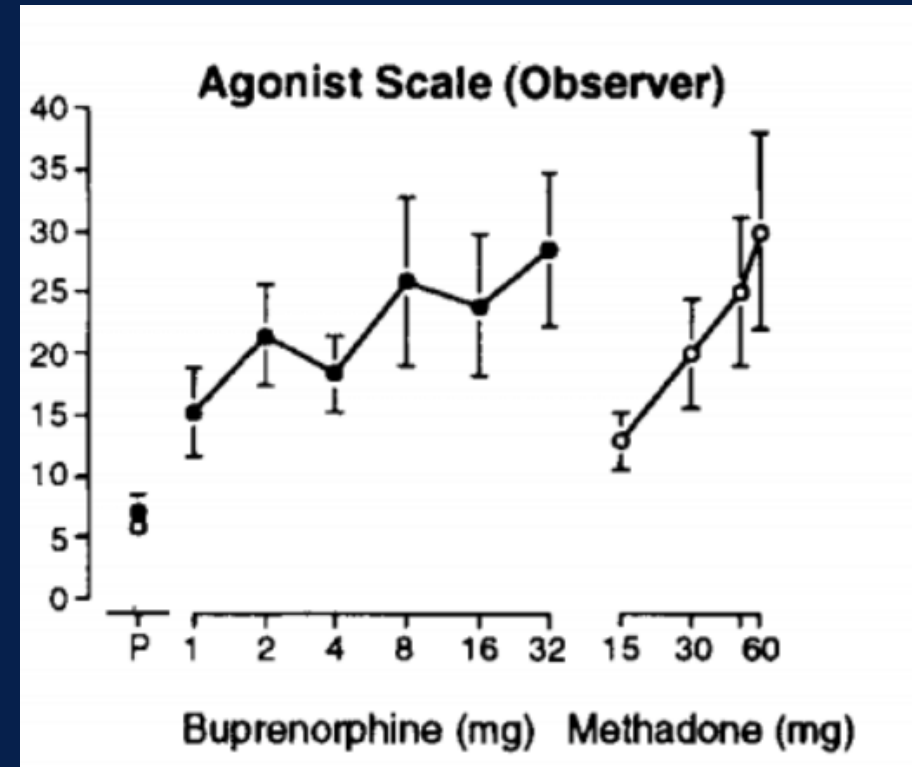
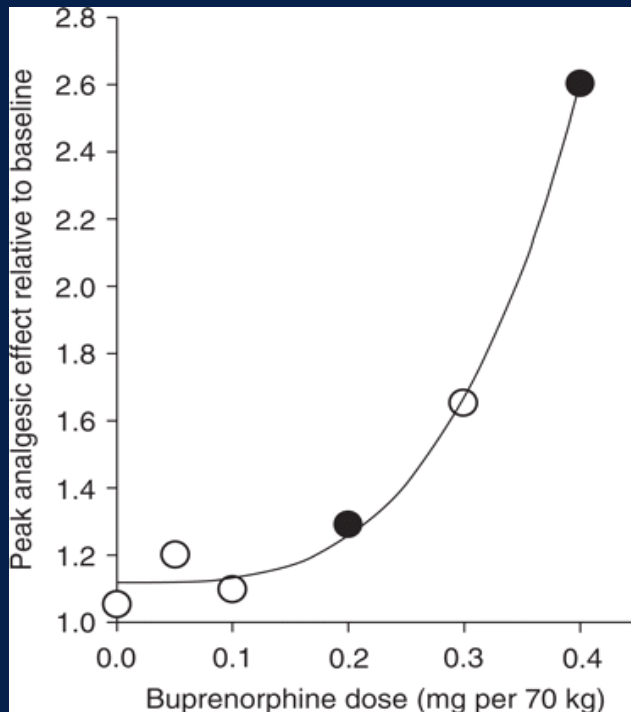


Magnitude of good effects is proportionate to the dose of buprenorphine



Sharon
Walsh

Clinical pharmacology of buprenorphine: Ceiling effects at high doses:
Walsh et al 1994 PMID: 8181201



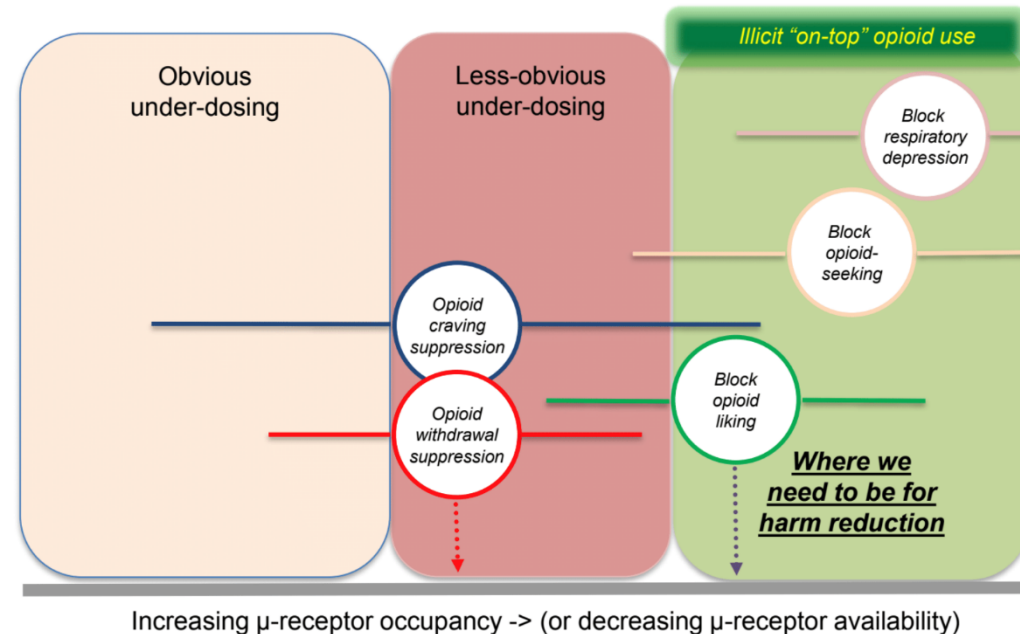
Higher dose buprenorphine associated with improved retention

Buprenorphine Dose and Time to Discontinuation Among Patients With Opioid Use Disorder in the Era of Fentanyl. **Chambers et al.** PMID: 37721749



Mark
Greenwald
“Partial agonist
misconception”

Approximate ordering & variability of μ OR occupancy requirements for differing therapeutic thresholds



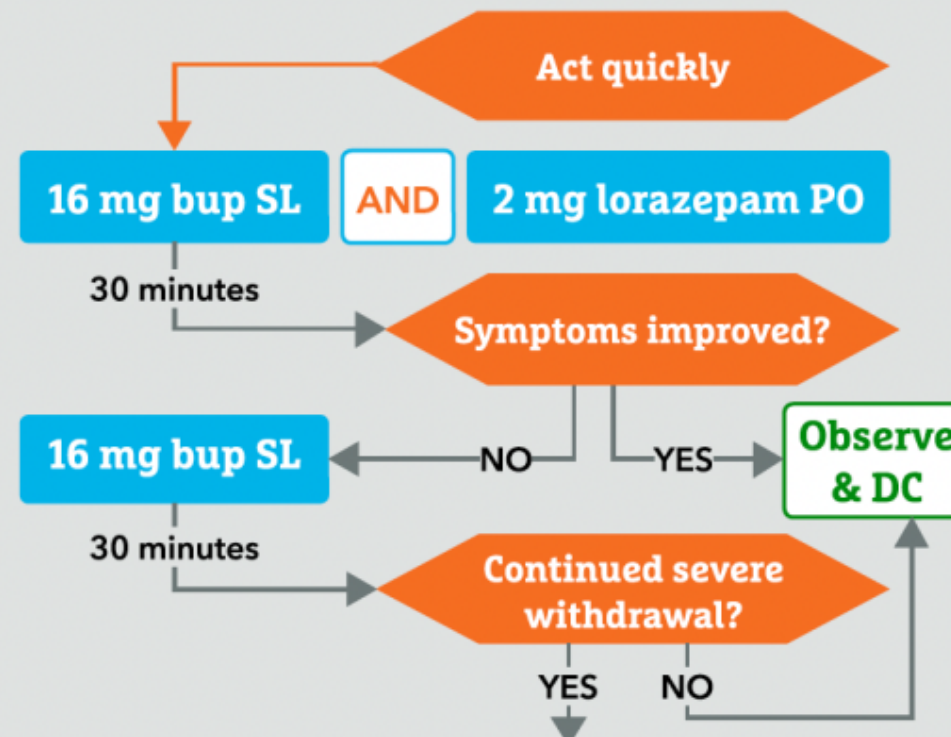
Buprenorphine treats its own precipitated withdrawal

Buprenorphine-precipitated withdrawal managed with high-dose buprenorphine

PMID: 33480051,
34789683, 3417364,
35623179

Treatment of bup precipitated withdrawal

(Sudden, significant worsening of withdrawal soon after bup administration.)



Adjuvants:

OK but should not delay or replace bup. Use sparingly with appropriate caution.

Benzodiazepines:

- Lorazepam 2 mg PO/IV

Antipsychotics:

- Olanzapine 5 mg PO/IM

Alpha-agonists:

- Clonidine 0.1-0.3 mg PO

D2/D3 agonists:

- Pramipexole 0.25 mg PO

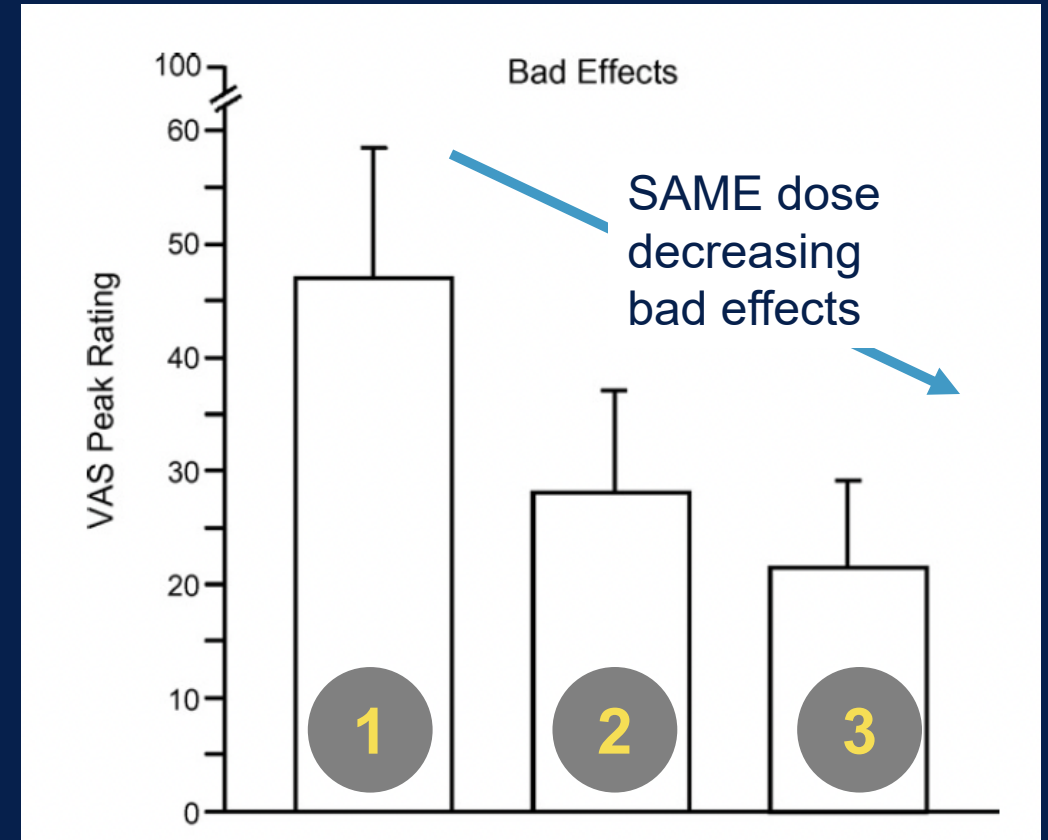
Gabapentinoids:

- Pregabalin 150 mg PO

BridgetoTreatment.org

Buprenorphine administration facilitates positive effects of subsequent doses

The more you take BUP the more it "feels" like a full agonist



Sublingual buprenorphine/naloxone precipitated withdrawal in subjects maintained on 100mg of daily methadone: Rosado et al 2007 PMID: 17517480

XR BUP Anesthesia -- MGH protocol

Massachusetts General Hospital Substance Use Disorder Bridge Clinic

Optional Lidocaine injection / local anesthetic for XR buprenorphine injections

Purpose:

Some patients find topical ice is insufficient to manage the procedural pain from XR buprenorphine injections, which has led some patients to fear initiating XR buprenorphine or to discontinue injections despite preference for this formulation

Procedure:

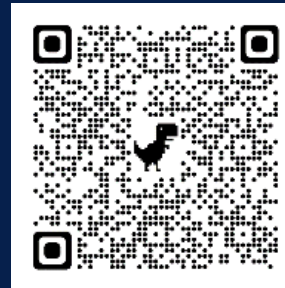
- 1) Identify site for XR buprenorphine in abdominal quadrant
- 2) Apply ice to site while preparing lidocaine for injection into subcutaneous tissue
- 3) Prepare 1% Lidocaine, without epinephrine:
 - Wipe top of lidocaine bottle with alcohol pad
 - Draw up 2cc Lidocaine with large bore needle in a 3 or 5 cc syringe
 - Change needle to 1 inch, 25 or 27 gauge
- 4) Clean abdominal site with alcohol swab
- 5) Tent skin and Inject 2 cc Lidocaine at ~75 degree angle, releasing lidocaine into tissue while pulling back
- 6) Apply 2x2 gauze to area and massage gently in circular motion to allow lidocaine to diffuse the area
- 7) Keep 2x2 resting on skin and reapply ice pack

*Wait at least 3 minutes before injecting XR buprenorphine

XR Buprenorphine injection:

- 1) Clean abdominal site with alcohol wipe where lidocaine was injected, identifying the lidocaine puncture site
- 2) Tent skin and inject XR Buprenorphine into the same puncture site and track of lidocaine
- 3) Apply band-aid
- 4) Have patient lay for recommended time per manufacturer

Kehoe, LG, Gray, J, MGH SUD Bridge Clinic



Buprenorphine Clinical Considerations

REVIEW

ASAM Clinical Considerations: Buprenorphine Treatment of Opioid Use Disorder for Individuals Using High-potency Synthetic Opioids

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