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Psychiatry and Addictions Case Conference

UW Medicine | Psychiatry and Behavioral Sciences

BUPRENORPHINE HOME INDUCTION

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ADDICTION RECOVERY SERVICE

SWEDISH MEDICAL CENTER

GENERAL DISCLOSURES

The University of Washington School of Medicine also gratefully acknowledges receipt of educational grant support for this activity from the Washington State Legislature through the Safety-Net Hospital Assessment, working to expand access to psychiatric services throughout Washington State.

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SPEAKER DISCLOSURES

✓ No conflicts

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JOHN

A 44 yo man with a long hx of opiate use. He has been on an off methadone "since the early 90s".

He reports he was sober on methadone from 2005-2009. He weaned off gradually and was abstinent for 9-12 months. Relapse occurred after several losses. The more proximal cause was a girlfriend who was using. Things got very bad - he was homeless and had suicidal feelings.

He got back on methadone in 2014. Dose was up to 85. He was still using heroin at first and it took a while for him to get sober and feel more hopeful. He has a new relationship with a woman who has been 18 years sober on methadone herself. This relationship with this woman and her supportive family has really changed his life and he has never been more optimistic.

He has slowly lowered his dose to 34 mg daily. He was getting carries weekly but they were recently reduced to dosing twice weekly when he failed to leave a urine test.

He notes that observed urine specimens has always been a problem, he was molested in a bathroom as child. He also suspects he has prostate problems and some back problems that make it hard to stand and urinate.

His counselor at the methadone clinic thinks he will do well on prescribed buprenorphine.

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OBJECTIVES

1. Why is office induction “normal”?
2. Review of published data
3. Is home induction better?
4. How to do it.

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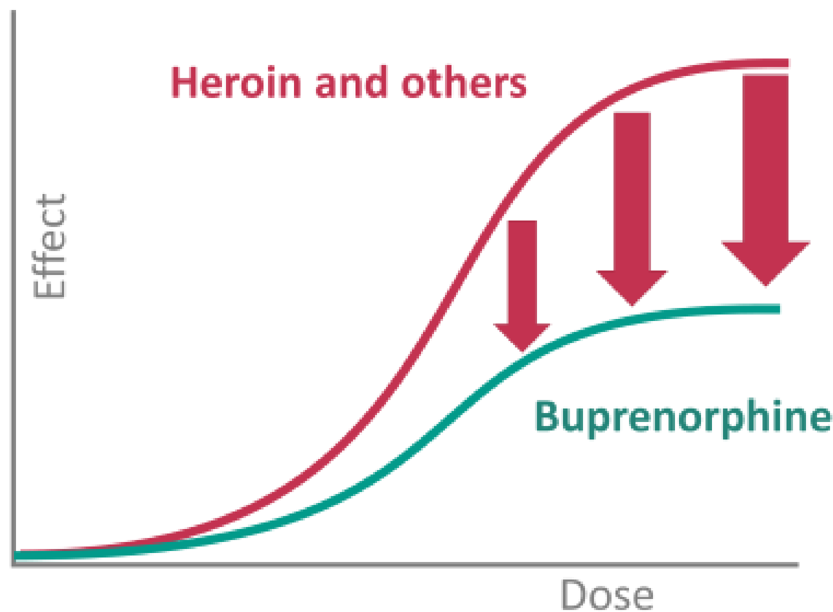
WHY IS OFFICE INDUCTION “NORMAL”?

Buprenorphine is introduced



Partial activation

- Experienced as withdrawal
- Antagonist effect

Walsh, S. L., & Eissenberg, T. (2003). The clinical pharmacology of buprenorphine: extrapolating from the laboratory to the clinic. Drug and alcohol dependence, 70(2), S13-S27.

PSYCHOPHARMACOLOGY INSTITUTE

https://psychopharmacologyinstitute.com/substance-use-disorders/buprenorphine-opioid-use-disorder-mechanism-action/
Joji Suzuki, MD Director, Division of Addiction Psychiatry Department of Psychiatry Brigham and Women’s Hospital

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FACTORS ASSOCIATED WITH COMPLICATED BUPRENORPHINE INDUCTIONS

Review of 107 patients at urban community health center.

10 patients had precip withdrawal, 8 had protracted withdrawal.

The prevalence of complicated induction was 38% during both the first and second quartiles, dropping to 16% in the third quartile and 6% in the fourth quartile.

As providers became more experienced in buprenorphine inductions, complications decreased.

Factors associated with complicated buprenorphine inductions.
Whitley SD et al J Subst Abuse Treat. 2010 Jul;39(1):51-7

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FACTORS ASSOCIATED WITH COMPLICATED BUPRENORPHINE INDUCTIONS

Complicated inductions were less likely to have a history of prior buprenorphine use (0% vs. 32%)

Complicated inductions were associated with lower 30-day treatment retention than routine inductions

Factors associated with complicated buprenorphine inductions.
Whitley SD et al J Subst Abuse Treat. 2010 Jul;39(1):51-7

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A CASE SERIES OF HOME INDUCTION

103 patients (68% heroin, 18% pills, 14% methadone < 40 mg)

An initial 4-mg buprenorphine dose followed by one to two additional 4-mg doses, as needed every 1-4 h, for a day 1 maximum of 12 mg, was recommended to all patients.

1 week retention 73% “similar to a comparable primary care based study” of office induction

No severe precip.

5 mild-moderate “buprenorphine-prompted withdrawal symptoms”: anxiety, nausea without vomiting, sweating, musculoskeletal aches, and sleepiness/sedation

Home Buprenorphine/Naloxone Induction in Primary Care
Joshua D. Lee, MD MSc eta all J Gen Intern Med. 2009 Feb; 24(2): 226–232.

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Buprenorphine - Beginning Treatment

Day One: Before taking a buprenorphine tablet you want to feel lousy from your withdrawal symptoms. Very lousy. It should be at least 12 hours since you used heroin or pain pills (oxycontin, vicodin, etc.) and at least 24 hours since you used methadone.

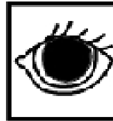
Wait it out as long as you can. The worse you feel when you begin the medication, the better it will make you feel and the more satisfied you will be with the whole experience.

You should have a least 3 of the following feelings:

- twitching, tremors or shaking
- joint and bone aches
- bad chills or sweating
- anxious or irritable
- goose pimples

- very restless, can't sit still

- heavy yawning



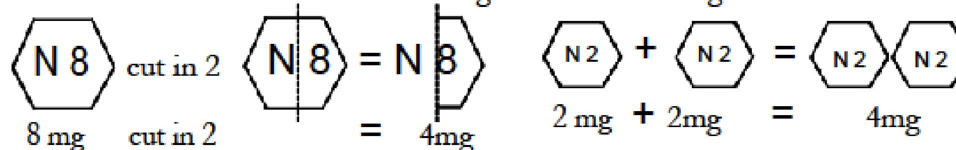
- enlarged pupils

- runny nose, tears in eyes

- stomach cramps, nausea, vomiting, or diarrhea

First Dose: 4 mg of Buprenorphine (Bup) under the tongue.

This is one half of an 8 mg tablet or two 2 mg tablets:



Put the tablet (one half tablet of 8mg tabs, or two tablets if 2mg tabs) under your tongue. Keep it there. If you swallow Bup tablets they will not work, the medicine is best absorbed through the thin skin on the bottom of your tongue.

It takes 20-45 minutes for the medication to be absorbed and have an effect. Feel better? Good, the medicine is working. Still feel lousy after 45 minutes? Don't worry, you just need more medication.

At 1-3 hours (60-180 minutes) after your first dose, see how you feel. If you feel fine after the first 4 mg, don't take any more, this may be all you need. If you have withdrawal feelings, take another 4 mg dose under your tongue.

Later in the day (6-12 hours after the first dose), see how you feel again. If you feel fine, don't take any more. If you have withdrawal feelings, take another 2 or 4 mg dose under your tongue.

Do not take more than 12 mg of Bup on the first day.

Most people feel better after the 4-12 mg on the first day. Still feel really bad, like a bad withdrawal? Call your doctor right away. You can call or page any time during the day if you are having difficulty.

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79 PATIENTS CHOSE THEIR INDUCTION STRATEGY

13 had office based induction

Assessed to ensure they were in adequate withdrawal and then given 1–2 tabs of 2/0.5mg of BUP/NX,

Re-assessed 60 minutes later to determine response. Depending on withdrawal symptoms, participants were subsequently given 1–2 more tabs of 2/0.5 mg of BUP/NX.

This process was repeated until participants' opioid withdrawal was substantially diminished or until a maximum of 16/4 mg of BUP/NX was taken.

A comparison of buprenorphine induction strategies: patient-centered home-based inductions versus standard-of-care office-based inductions. Cunningham CO, et al J Subst Abuse Treat. 2011 Jun;40(4):349-56.

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79 PATIENTS CHOSE THEIR INDUCTION STRATEGY

66 received home induction kit, included an instruction sheet, ten 2/0.5 and four 8/2 BUP/NX pills, and six pills each of ibuprofen, clonidine, and loperamide hydrochloride

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Contents of the tool kit for patient-centered home-based inductions

Instruction sheet

Section	What the section addresses
What's in the tool kit?	Guides when/how to use medications in the kit
When to start Suboxone	Guides the timing of treatment initiation
Things not to do	Warns against common mistakes or misunderstandings
How to take Suboxone	Facilitates correct dosing method
Plan	Guides treatment, provides support, and facilitates follow-up
What was taken	Facilitates keeping track of dosing

Medications

# Pills	Medication	Dose (mg)	Rationale
10	Buprenorphine/naloxone	2/0.5	Initiate buprenorphine treatment (day 1)
4	Buprenorphine/naloxone	8/2	Buprenorphine treatment (days 2–3)
6	Ibuprofen	200	↓ Withdrawal symptoms (pain)
6	Clonidine	0.1	↓ Withdrawal symptoms (anxiety)
6	Loperamide hydrochloride	2.0	↓ Withdrawal symptoms (diarrhea)

A comparison of buprenorphine induction strategies: patient-centered home-based inductions versus standard-of-care office-based inductions. Cunningham CO, et al J Subst Abuse Treat. 2011 Jun;40(4):349-56.

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79 PATIENTS CHOSE THEIR INDUCTION STRATEGY

Adjusting only for baseline opioid use, participants with standard-of-care office-based inductions and patient-centered home-based inductions had similar reductions in opioid use (AOR=0.74, 95%CI=0.16–3.50).

Adjusting for baseline opioid use, age, gender, and ethnicity, this finding remained (AOR=0.63, 95%CI=0.13–2.97).

When examining any drug use and adjusted only for any drug use at baseline, participants with patient-centered home-based inductions had significantly greater reductions in any drug use than those with standard-of-care office-based inductions (AOR=0.07, 95%CI=0.01–0.47).

Adjusting for any drug use at baseline, age, gender, and ethnicity, this finding remained (AOR=0.05, 95%CI=0.01–0.37).

A comparison of buprenorphine induction strategies: patient-centered home-based inductions versus standard-of-care office-based inductions. Cunningham CO, et al J Subst Abuse Treat. 2011 Jun;40(4):349-56.

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RANDOMIZED CONTROL TRIAL

20 patients randomly assigned to unobserved or office induction, stratifying by past buprenorphine use.

Outcome results were similar in the two groups: 60% successfully inducted in each group, 30% experienced prolonged withdrawal, and 40% stabilized by week 4

Unobserved versus observed office buprenorphine/naloxone induction: a pilot randomized clinical trial.
Gunderson EW et al Addict Behav. 2010 May;35(5):537-40

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RANDOMIZED CONTROL TRIAL

Patients received a prescription for BUP/NX, usually sixteen 2mg/0.5mg tablets filled at a local pharmacy.

They were instructed to initiate medication taking 1–2 tablets after abstaining 16 hours or more from opioids and when the SOWS reached ≥17.

Both groups were instructed to take no more than 16mg on Day 1

Unobserved versus observed office buprenorphine/naloxone induction: a pilot randomized clinical trial. Gunderson EW et al Addict Behav. 2010 May;35(5):537-40

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LITERATURE REVIEW

10 clinical studies describing unobserved induction were identified: 1 randomized controlled trial, 3 prospective cohort studies, and 6 retrospective cohort studies.

Evidence is weak to moderate in support of *no differences in adverse event rates between unobserved and observed inductions*. There is insufficient or weak evidence in terms of any or *no differences in overall effectiveness*.

Unobserved "home" induction onto buprenorphine.
Lee JD, Vocci F, Fiellin DA. J Addict Med. 2014 Sep-Oct;8(5):299-308.

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JOHN WAS GIVEN THESE INSTRUCTIONS

Last methadone dose Thursday AM

Wait until approx 36 hours after last methadone, when you are starting to have some withdrawal, around the time that you lose your appetite.

Start with 1/2 of the 2/0.5 mg tab, two hours after that take the other 1/2 tab, then one full 2 mg tab every 2 hours until you have taken all of the 2 mg tabs.

Two hours after that take 1/2 of the 8 mg tab and 2 hours after that the other 1/2 of the 8 mg tab.

Then one of the 8 mg tab in the morning and one at night.

Remember that all of the Suboxone (buprenorphine) is taken under your tongue and absorbs through the skin of your mouth. Don't eat or drink for 30 min after each dose.

During all this time you can use these medications to control the withdrawal symptoms

Tizanidine 2 mg every 4 hours as needed for restlessness. If you get dizzy when standing you have taken too much.

Gabapentin 300 mg tabs - two pills three times a day until stable on the new buprenorphine.

Hydroxyzine 50 mg one tab po q4h prn anxiety

These can all be stopped once your are feeling normal.

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JOHN RETURNED TO CLINIC AND TOLD US

Started buprenorphine 48 hours after his last methadone.
Dosing BUP/NX q2h

Felt "Not great that day - achy“. No diarrhea but did have nausea, sweat, anorexia.
He still has increased pain, and some headache but is getting better every day
Eating well

Partner “was there doting on me" "Played video games through a lot of it."

Medications that were helpful?
Hydroxyzine one day, to sleep 24h
Gabapentin most helpful, reduced his pain.
Tizanidine was not taken. "I was so light headed already"

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A PATIENT TAKING OXYCODONE / MS CONTIN

Patient Instructions

Stop MS Contin now. Take oxycodone 10 mg every 4 hours as needed until Thursday 11 am. Don't take any after that.

Starting Thursday 11 am to help withdrawal symptoms

Tizanidine 2 mg every 4 hours as needed for restlessness, but don't take it if you feel dizzy when standing

Gabapentin 300 mg every 4 hours as needed for anxiety - makes you feel calmer, more mellow

Hydroxyzine 50 mg every 4 hours as needed for anxiety - makes you feel sleepier

Trazodone 50 mg, one to two tabs as needed for sleep

Friday morning, when feeling some withdrawal - loss of appetite, if you are having diarrhea, you waited longer than you need to

2 mg Suboxone (2/0.5), under the tongue

If it make you feel worse, restless, wait 4 hours and start over

After two hours, if it makes you feel better, or no change, then repeat 2 mg under the tongue every 2 hours until you have taken all four of the 2 mg tabs.

After that take an 8 mg Suboxone under the tongue in the AM and one at night.

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A 59 YO MAN WITH USING HEROIN

Given gabapentin / hydroxyzine to help short term withdrawal.

Start 2 mg BUP/NX SL q4hr when in withdrawal, then 8 mg SL daily.

Follow up at next available appointment.

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