Office-Based Buprenorphine: Patient Selection, Induction, and Management

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Context

• CSAM Webinar Series
  – 12 monthly webinars to support implementation of medication-assisted treatment in primary care
  – Survey sent out to HRSA MAT-grant recipient clinics in CA to solicit training needs
  – Upcoming Webinars
    • Check the website!
  – How to Register
By the end of this session...

• To be more confident in deciding between home- and office-based induction with buprenorphine for patients with opioid use disorders
• To understand best practices for conversion from methadone or long-acting opioids to buprenorphine
• To know how to “triage” a patient with an opioid use disorder: methadone maintenance v. office based outpatient treatment (OBOT)

Case 1

• MO is a 34yo Spanish-speaking F with a history of a prior motor vehicle accident leading to chronic back pain for which she was prescribed long-acting morphine and oxycodone. She continued taking opioid pain relievers for 4 years.
• She presents for a new primary care appointment and says, “I need to get off these” and puts a bottle of MS Contin 60mg pills on table.
Case 1 continued

- Patient describes that while she originally started using these for pain (Vicodin®), now she needs them to feel normal. She tried to stop using them after she lost primary care, but found that she couldn’t. She continues to have intermittent back pain.
- She started purchasing pills off the street, taking 1-2 MS contin 60mg pills, depending on what she can find.
- She works as housekeeper. Lives with husband and 2 kids.
- She denies alcohol, benzodiazepine, heroin, stimulant, or tobacco use.
- She takes no other meds and has no allergies.
- Exam is normal. She has no evidence of opioid intoxication or withdrawal.

Question

- Which of the following represents the best approach to management for this patient?
  - A) Prescribe long-acting morphine for chronic pain
  - B) **Prescribe buprenorphine-naloxone for treatment of opioid use disorder**
  - C) Admit for detox
  - D) Taper down the long-acting morphine
  - E) Transition to XR-naltrexone
The New Epidemic

- Opioid Use Disorders
  - 2012 estimates (NSDUH)
    - 2.1 million rx pain relievers
    - 467,000 heroin

Needles/heroin = addiction

goo.gl/NNpwgx

Patient Selection: When Should I Think Bupe?

- SAMHSA Guidelines (TIP 40)
  - Diagnosis of moderate-severe opioid use disorder
  - Interest in Treatment
  - Understand risks/benefits
  - No contra-indications (allergy)
  - Can follow safety precautions
  - Reasonably adherent
  - Pregnant or Child-bearing age
  - Liver Disease
  - Drug-drug interactions
  - Need detox first
  - Prior treatment experience
  - Psychiatric Stability
  - Psychosocial Circumstances
  - Co-morbid substance use disorder: alcohol and benzodiazepines
  - Readiness?
**Diagnosis**

- **Opioid use disorder**
  - **4 Rs**
    - Risk of bodily harm
    - Relationship trouble
    - Role failure
    - Repeated attempts to cut back
  - **4 Cs**
    - Loss of Control
    - Continued use despite harm
    - Compulsion (time & activities)
    - Craving
  - Withdrawal and tolerance

**Buprenorphine Treatment Checklist**

1. Does the patient have a diagnosis of opioid dependence?
2. Are there current signs of intoxication or withdrawal? Is there a risk for severe withdrawal?
3. Is the patient interested in buprenorphine treatment?
4. Does the patient understand the risks and benefits of buprenorphine treatment?
5. Can the patient be expected to adhere to the treatment plan?
6. Is the patient willing and able to follow safety procedures?
7. Does the patient agree to treatment after a review of the options?
8. Can the needed resources for the patient be provided (either on- or off-site)?
9. Is the patient psychologically stable? Is the patient actively suicidal or homicidal? Has he or she recently attempted suicide or homicidal? Does the patient exhibit emotional, behavioral, or cognitive conditions that complicate treatment?
10. Is the patient pregnant?
11. Is the patient currently dependent on or abusing alcohol?
12. Is the patient currently dependent on benzodiazepines, barbiturates, or other sedative-hypnotics?
13. What is the patient’s risk for continued use or continued problems? Does the patient have a history of multiple previous treatments or relapses, or is the patient at high risk for relapse to opioid use? Is the patient using other drugs?
14. Has the patient had prior adverse reactions to buprenorphine?
15. Is the patient taking other medications that may interact with buprenorphine?
16. Does the patient have medical problems that are contraindications to buprenorphine treatment? Are there physical illnesses that complicate treatment?
17. What kind of recovery environment does the patient have? Are the patient’s psychological circumstances sufficiently stable and supportive?
18. What is the patient’s level of motivation? What stage of change characterizes this patient?
– Opioid use disorder
  • 4 Rs
    – Risk of bodily harm
    – Relationship trouble
    – Role failure
    – Repeated attempts to cut back tried to stop
  • 4 Cs
    – Loss of Control taking more
    – Continued use despite harm
    – Compulsion seeking street drug
    – Craving “can’t stop them”
• Withdrawal and tolerance

Case Continued

• You discuss with the patient your concern that she is opioid dependent. You explain to her about buprenorphone-naloxone, which could provide her with better treatment for pain and opioid dependence.
Patient Selection Continued:
When Should I Think Bupe?

- SAMHSA Guidelines (TIP 40)
  - Dx of moderate-severe opioid use disorder
  - **Interest in Treatment**
  - Understand risks/benefits
  - No contra-indications (allergy)
  - Can follow safety precautions
  - Reasonably adherent
  - Pregnant or Child-bearing age
  - Liver Disease
  - Drug-drug interactions
  - Need detox first
  - Prior treatment experience
  - Psychiatric Stability
  - Psychosocial Circumstances
  - Co-morbid substance use disorder: alcohol and benzodiazepines
  - Readiness?

Case Continued: Talking to Patients & Getting Buy-In

- **Pros**
  - Won’t go into withdrawal; less hassle
  - Possibility of *improved pain control*
  - Safe/proven medication
  - Possible anti-depressant effect??

- **Cons**
  - dangerous if combined with alcohol or benzodiazepines
  - Have to go through withdrawal before starting the medicine (I will help you with this)
  - Liver toxicity (rare)
  - Can’t get high
VA Experience: Co-occurring disorders clinic

- VA retrospective cohort of 143 pts with chronic pain and addiction induced on bupen-nal
  - 93/145 (65%) continued on the meds
    - Taken off if: uncontrolled pain >28mg, tox + 3+, miss 3+ visits, 3+ early refills
  - Pain scores modestly, but significantly improved
- Observational cohort: dec 2.3 points on bup

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<th>Preferred opioid</th>
<th>Patients</th>
<th>APS change</th>
<th># (% retain)</th>
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<tr>
<td>Heroin</td>
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Age group:
- 21-40 y: 25, -1.1, 15 (60%)
- 41-60 y: 81, -0.7, 51 (62%)
- 61-80 y: 37, -0.9, 27 (72%)


More Information

- [www.naabt.org](http://www.naabt.org)
  - Buprenorphine education → Patient stories
  - Online support communities
- SAMHSA (samhsa.gov)
  - Info chinese, russian, spanish, & vietnamese

http://www.samhsa.gov/medication-assisted-treatment/treatment/
Alternatives for Opioid Use Disorder

• Methadone maintenance program
  – MOA: full agonist at mu opioid receptor
  – Part of comprehensive drug treatment program
    • Mandatory counseling
    • Daily attendance
    • Rules guiding take-home privileges and other allowances
  – Evidence-base:
    • Decreased illicit drug use, decreased criminal behavior, decreased mortality
  – Candidate patients:
    • Active MH disorders
    • High psychosocial chaos
    • Co-morbid substance use disorders

• Naltrexone
  – MOA: competitive antagonist at opioid receptor
  – Forms:
    • Oral
    • Intramuscular (XR-NTX; Vivitrol®)
  – Evidence-base:
    • Meta-analysis no difference between oral formulation and placebo
    • Reduced drug use with intramuscular formulation
  – Candidate Patients:
    • Highly motivated (high risk-high reward); committed to abstinence
    • Criminal justice setting (limited MAT options)
    • Intensive adherence support
    • No other illicit drug use, less severe use disorder
    • Abstinent but high risk relapse

Alternatives for Opioid Use Disorder

• Methadone maintenance program
  – Pros:
    • Structure/support
    • Observation & safety
  – Cons
    • “liquid handcuffs”
    • Inadequate pain coverage
    • Stigma; cultural fit

• Naltrexone
  – Pros:
    • Support full abstinence
  – Cons
    • Follows opioid detoxification
    • Cost/coverage
      – California Medical Coverage (TAR):
        • Charged with, or convicted of, a felony or misdemeanor, AND
        • Under county or state supervision, including substances abuse monitoring (AB 109)
        • Must go through Specialty Pharmacy Network
      – Upfront cost to order product:
        • $1570/380mg
Patient Selection Continued:
Our Patient

- SAMHSA Guidelines (TIP 40)
  - Dx of moderate-severe opioid use disorder
  - Interest in Treatment
  - Understand risks/benefits
  - No contra-indications (allergy)
  - Can follow safety precautions – PLAN FOR SAFE STORAGE
  - Reasonably adherent - ATTENDS PRIMARY CARE APPOINTMENTS
  - Pregnant or Child-bearing age – YES. UPT NEGATIVE. USING CONDOMS W PARTNER
  - Liver Disease – LFTS NORMAL
  - Drug-drug interactions – NO DRUG-DRUG INTERACTIONS
  - Need detox first – CURRENTLY NO EVIDENCE OF WITHDRAWAL
  - Prior treatment experience – HAS FAILED DETOX ATTEMPTS
  - Psychiatric Stability – YES
  - Psychosocial Circumstances – STABLE
  - Co-morbid substance use disorder: alcohol and benzodiazepines – NO
  - Readiness? – YES

Case Continued

- You and the patient decide to proceed with a trial of buprenorphine-naloxone. Which of the following is true about unobserved home inductions?
  - A) During DEA inspection, it is mandatory to report whether home induction has occurred.
  - B) There is an increased risk of protracted withdrawal.
  - C) Evidence from academic settings and community-based clinics support the safety of home inductions
Case Continued

• You and the patient decide to proceed with a trial of buprenorphine-naloxone. Which of the following is true about **unobserved home inductions**?
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  – B) There is an increased risk of protracted withdrawal.
  – C) Evidence from academic settings and community-based clinics support the safety of home inductions

What About Induction?
Your Options

• 3 Models
  1. In-office approach
  2. Specialty clinic approach
  3. Unobserved home induction
Buprenorphine-Naloxone

Sublingual Film = Suboxone®: 2/0.5, 4/1, 8/2, and 12/3mg
Sublingual Tablet = generic (2/0.5mg and 8/2mg) and brand Zubsolv
Buccal film = Bunavail® **ONLY FOR MAINTENANCE

NOT DISCUSSING: Buprenorphine formulations (Butrans®, Buprenex®, Probuphine®)

In-office Induction

• **About**: Taught in 8hr waiver course; recommended in TIP 40, CSAT
• **Steps**:
  – Pre-visit & counseling to prepare pt
    • *Period of abstinence*: 12-16h for short-acting, 17-24h intermed-acting, and ~30-48hrs for methadone
    • Mild-moderate withdrawal (**COWS score of 12-16**)
  – Rx for bupe-naloxone (i.e., 2-0.5mg # 8, or 8-2mg #2)
  – Dose: 2-4mg initial, 16mg max on day 1
  – Monitor: 1+ hours
  – Follow-up: phone (day 2) + visit (day 3 or 4)
In-office Induction

- **Pros:**
  - Structured – observed dosing; low complication rate

- **Cons**
  - Labor, resource and time intensive
  - Staff/provider education
  - Patient may not be “ready”
  - Not particularly patient centered
**Specialty Clinic**

- **Outpatient Buprenorphine Induction Clinic (OBIC) – San Francisco Model**
  - Outpatient clinic staffed by addiction psychiatry and nurse practitioners
  - Patients seen on walk-in and appointment basis
  - Initial Intake visit → Induction visit → Stabilization
  - Allows for daily follow-up, if needed
  - Affiliated with pharmacy on site to pick up meds
  - Free for patients in SF
  - Transfer to primary care once stabilized

**Specialty Clinic Induction**

- **Pros:**
  - convenient for primary care providers 😊
  - Structure, support
  - Greater expertise

- **Cons:**
  - Cost, resources, institutional investment
  - Siloed
  - Communication and care coordination challenges
  - Capacity
3. Home Induction

- Basic Procedure:
  - See patient in primary care visit & describe the home induction process
  - Provide patient education materials
  - Patient induces her/himself at home
  - Close follow-up by phone and/or office, typically within 1 week

Home Induction

- Pros
  - Patient-centered
  - Provider-centered

- Cons
  - Less structure and oversight (think about patient selection)
  - Requires more robust patient self-management skills
  - Allotment and reimbursement for provider time (i.e., phone visits)
  - Provider experience
Evidence-Base for Home Inductions

- **Academic centers**
  - Montefiore:
    - No difference in 30d retention in treatment (~78%), or adverse events
  - NYU: Intake visit, labs/urine → rec 4/1mg, followed by 1-2 additional doses (max 12mg). F/U: call clinic coordinate d1-3, f/u at 1 week. Typically #14 of 8/2mg tablets
    - 73% retention, no cases of severe precipitated withdrawal
- **Community primary care**
  - 2006-2010: 228 patients home-induced
    - 1/228 experienced precipitated withdrawal
    - Convenience sample: 82% negative UDT, 88% pos for bupe

Who Didn’t Do Well?

- **Study of office- (56%) and home-based (43%) inductions of patients at Montefiore (n=107)**
  - 16% “complicated” inductions
    - 55% precipitated withdrawal, 44% protracted withdrawal
  - **Characteristics**
    - Methadone use
    - BZD use
    - Low initial dose of bupe-nal (2-0.5mg)
    - Start of program
    - Hadn’t used bupe in the past
  - Lower 30d retention in treatment
Back to Our Patient

• You talk about doing the home induction.
• She can describe that she starts to get sick about 12 hours after taking an MS contin. First she feels anxious and nauseous, then she gets back and leg pain. By then she’s usually found another pill.

Home Induction: the Details

• **Time:** she will have to go ~24-30 hours without morphine (longer is better)
  – Patient handout from NYU
  – SOWS
• **Ancillary Meds:**
  – Zofran 4-8mg po TID PRN nausea
  – Prochlorperazine 10mg po TID PRN nausea/vomiting
  – Clonidine 0.1mg po bid-tid PRN agitation (caution hypotension)
  – Hydroxyzine 25-50mg po q bedtime PRN insomnia
Home Induction: the Details

• **Pharmacy Preparation:**
  – Call in or write prescription
  – Make sure medication is covered
    • If managed Medical, bill FFS Medical (carve-out)
    • If Medicare, be prepared to do PA
    • Dx: F11.20 (opioid use disorder); not taking other opioids

• **Timing**
  – Day patient will induce;
  – Phone call on day 1 after induction +/- day 2
  – Day 3-5: appointment in clinic
    • Check symptoms, dose
    • Urine drug screen, urine buprenorphine

Home Induction: the Details

• **Dose**
  – **Day 1:** 4-16mg; NTE 16mg
    • Formulations:
      – 2/0.5, 4/1, 8/2, and 12/3mg SL strip
      – 2/0.5, 8/2 SL tab
      – Buccal film NOT FDA approved for induction
    • Schedule 3 medication
    • Pro-tips: no talking for 15min, tweezers, candy
  – **Expected dose:** 16-24mg daily; may need to split dose
  – **Half-life = 36 hours**
Case

• Patient decides that she will start the medicine on Tuesday since she is off work. She can teach back how she will start the med and how long she needs to wait.

• You call her Tuesday afternoon after her first dose (2/0.5mg film)
  – Feeling “ok,” not really sick, but still having pain
  – You advise an additional 2/0.5mg film & then ask her to take 4mg tomorrow AM or 2/0.5 BID

Case

• Day 2 (phone): took 2/0.5mg film this AM and planning to take another film later in the day
• Day 4 (clinic): taking 1-3 of 2/0.5mg films per day. Feeling “better” with less pain and more energy. Denies any morphine use or craving for morphine.
  – Urine drug screen and urine buprenorphine sent
  – Rx for 1 week supply of meds
• Day 11 (clinic): most days only requiring 2 films per day, but after hard day of work, will take 3.
  – Urine drug screen & urine bupe sent
  – Warm handoff to behavioral health
  – Agreement signed
  – F/u in 2 weeks
Case 2

- LE is a 56yo M with a history of an opioid use disorder (~25 years), in methadone maintenance stable on a dose of 80mg daily. He has been doing well in program with no further illicit opioid use (previous heroin & opioid pills).
- He is working as a security guard on the night shift and this is making it difficult to get to methadone clinic. He has had some absences because of this and has lost his take-home privileges. He has no active MH conditions. He is housed with his wife.
- He is wondering if you can prescribe him buprenorphine-naloxone. He really wants to stay clean but it’s been too difficult to get to clinic. He has had to buy street methadone on the days he misses.
- Exam: normal (no tracks). Labs: UDT + methadone. LFTs normal, hep, HIV neg

Question

- Which is the best management plan for this patient?
  - A) Sign release of information to talk with methadone clinic providers
  - B) Home induction with buprenorphine-naloxone with patient abstinent of methadone for 48-72 hours before starting
  - C) Taper patient down by 40% prior to induction
Methadone versus Buprenorphine-Naloxone for MAT

• Factors to Consider
  – Doing well? Why rock the boat?...
  – Recovery supports
  – Co-morbid substance use (especially etoh and BZDs)
  – Mental health disorder

• Best Practice
  – Sign release of information & talk to methadone clinic counselor and/or provider
    • Absent records, utox results, BA results, functional recovery
  – Taper methadone dose down to ~30mg x1 week prior to induction

Case 2

• LE is a 56yo M with a history of an opioid use disorder, in methadone maintenance stable on a dose of 80mg daily. He has been doing well in program with no further illicit opioid use (previous heroin & opioid pills).
• He is working as a security guard on the night shift and this is making it difficult to get to methadone clinic. He has had some absences because of this and has lost his take-home privileges. He has no active MH conditions. He is housed with his wife.
• He is wondering if you can prescribe him buprenorphine-naloxone. He really wants to stay clean but it’s been too difficult to get to clinic. He has had to buy street methadone on the days he misses.
• Exam: normal (no tracks). Labs: UDT + methadone only. LFTs normal, hep, HIV neg
Case continued

- Patient signs release of information. You talk to the patient’s counselor and learn that the patient has been doing very well.
  - Absent ~2-4 days per month
  - UDT 1/6 with morphine
  - Working with counselor
  - Not going to additional recovery programs (i.e., meetings); wife is source of support
- Patient is frustrated and really “wants to start” the bupe-nal. Says he knows someone who did it and has liked it.

Case continued

- You advise the patient that you want him to have the best possible outcome and to maintain his recovery. You advise that he taper with the support of his methadone clinic.
- The patient is frustrated and leaves your office angry.
Case continued

• One week later you get call from your patient. He says he only went to methadone clinic once in the past week (80mg, 2 days ago) and is in withdrawal. He’s wondering if you will give him buprenorphine-naloxone?

Question

• Which of the following is the best management plan?
  – A) Bring patient in for in-office induction
  – B) Instruct patient to return to methadone clinic
  – C) Refer patient to an acute detox facility

Always want to support recovery
Patient’s goals v. your goals
Patient unlikely to have success with detox given long hx of disease
Case continued

• Patient comes into clinic. He is having runny nose, watery eyes, agitation, and nasal stuffiness. HR is 90. You calculate his COWS score as 12.
• Patient picks up prescription for buprenorphine-naloxone 8-2mg films and returns to your office.
• You given him a ½ of a film (4mg) → he feels worse after 30 minutes.

Precipitated Withdrawal

• Assess
  – Did patient swallow bupe instead of let it dissolve?
  – Did he take another opioid he forget to tell you about?
• Reassure
  – You warned him of this risk. There is treatment & he will get through this.
• How to Manage:
  – Stop induction, or
  – Continue induction (typically favored)
    • Give additional 2/0.5mg q 30m – 1hr until patient feeling more comfortable
    • Some patients may require up to 32mg to alleviate withdrawal symptoms (would seek consultation & support)
    • Ancillary agents for symptom control
    • Anticipatory guidance: may not feel *well* for several days & may have dysphoria up to 2 weeks
Case continued

- Patient continued the buprenorphine and got 16mg on day 1. He took 24mg the next day. By day 5 he was starting to feel better.
- Came to follow-up apt one week later on 24mg daily, splitting his dose. Urine drug screen neg for opioids and other illicits, pos for buprenorphine.
- Still working as security guard. Having mild headache from bupe-naloxone, but happy to not be going to methadone clinic.

Summary

- Buprenorphine-naloxone is a highly effective treatment for patients with opioid use disorders.
- Careful attention should be paid to patient selection and education at the outset to ensure success.
- There are various models for induction onto buprenorphine – in-office, specialty clinic, and unobserved “home” induction.
- Home inductions are not associated with an increased risk of precipitated withdrawal or poor retention in treatment.
Summary continued

- Successful home induction is dependent on excellent patient education prior to starting.
- For patients wanting to transition from methadone to buprenorphine-naloxone, best practice is to wean dose to 30mg for 1 week and collaborate with methadone clinic during the transition.
- Methadone maintenance programs are highly effective for patients with severe opioid use disorders that require a higher level of addiction treatment, either related to psychiatric, medical, or social instability.
- If you haven’t already, start prescribing bupe-naloxone. Best lessons will come from working with patients.
- Help is available:
  - Substance use warm line, UCSF: 1-855-300-3595. 10a-6pm EST
  - PCSS-B mentor: psccmat.org/mentoring
  - Local peers

Question

- Which of the following represents an optimal candidate for buprenorphine treatment?
  - A) an HIV positive patient, housed, psychiatrically stable, OUD taking efavirenz-emtricitabine-tenofovir (Atripla) EFV lowers bupe levels
  - B) a new patient to your clinic, homeless, frequently admitted to the hospital due to LE pain, using IV methamphetamine and heroin safe storage, poly-substance use, medical instability
  - C) 56yo M housed, IN heroin to treat pain, sporadic diazepam, prior MMT but led to problems w/his job
  - D) long-term primary care patient of yours with an alcohol and opioid use disorder, current CIWA score of 12 needs detox
  - E) young woman, housed, employed, on 160mg MME for chronic pain with no concerning behaviors no OUD
### Partial List of Medications Metabolized by Cytochrome P450 3A4

<table>
<thead>
<tr>
<th>Inhibitors (potentially increasing blood levels of buprenorphine)</th>
<th>Substrates</th>
<th>Inducers (potentially decreasing blood levels of buprenorphine)</th>
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<tr>
<td>Amiodarone</td>
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<td>Etoposide</td>
<td>Verapamil</td>
</tr>
<tr>
<td>Sertraline</td>
<td>Estradiol</td>
<td>Verapamil</td>
</tr>
<tr>
<td>Verapamil</td>
<td>Ezetimibe</td>
<td>Verapamil</td>
</tr>
<tr>
<td>Zafirlukast</td>
<td>Fluvastatin</td>
<td>Verapamil</td>
</tr>
<tr>
<td>Zileuton</td>
<td>Fluoxetine</td>
<td>Verapamil</td>
</tr>
</tbody>
</table>

For a continuously updated list of cytochrome P450 3A4 drug interactions, visit: [http://medicine.jw.com/cytochrome-table.htm](http://medicine.jw.com/cytochrome-table.htm)