Complicated Pain Management: Addiction or Tolerance or both?

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Learning Objectives

- **1. Distinguish addiction from tolerance**
- 2. How to set boundaries with patients requesting pain medication
- 3. Determine when buprenorphine might be appropriate





Addiction vs. Tolerance

- <u>Tolerance</u> requiring higher or more frequent doses for same effect
- Addiction person continues using substance and cannot stop despite the negative impacts it causes in all aspects of their life (school/work/home)
- Substance use disorder ("SUD") is defined as recurrent use of alcohol and/or drugs that causes clinically and functionally significant impairment, such as health problems, disability, and failure to meet major responsibilities at work, school, or home.
- Not all opioid use leads to disordered use, even if there is dependence.





Case 1

- 71 y/o female DNR/DNI with goal of function
- <u>PMH</u>: DM2 w/ neuropathy, HFrEF, HTN, COPD, O2, chronic pancreatitis, h/o alcohol abuse, smoker, peripheral arterial disease, moderate protein calorie malnutrition, trigeminal neuralgia, seizures, migraines, depression
- <u>Meds</u>: gabapentin 100 3x's daily, glargine 20, metformin 1000 BID, carvedilol
 6.25 BID, furosemide 20, pancrelipase 3x's daily, clopidogrel 75, atorvastatin
 10, levetiracetam 500 BID, umeclidinium/vilanterol, quetiapine 12.5
- <u>SH</u>: sons visit regularly, bring cigarettes and food
- Trips on her walker going out to smoke and fractures Left femur, returns from hospital on hydrocodone 5/325 q4 hrs. PRN
- PT/OT report pt "refusing" to do therapy due to pain; nurses report patient is on call light every 3 hours requesting pain meds
- Concerns/Thoughts?

Evaluating patient's request for more pain pills

- Is there a <u>medical reason</u> that the pain is worse now?
- Any recent falls/injuries/hospitalizations?
- Inadequate pain control due to worsening of vascular disease, occult fracture, etc.
- Pain that generally doesn't respond to opiates neuropathic pain
- Is there a <u>psychiatric reason</u> to explain the request?
- Comorbid psych conditions?
- Any recent changes in social or medical history death, divorce, moving into facility, stopped smoking or drinking alcohol, loneliness/isolation due to COVID

Setting Boundaries in the facility with staff

- Limit who visits the resident (if you suspect diversion or obtaining from outside source)
- Visitors limited to common areas where he/she can be directly observed
- Illegal substances vs. controlled substances
- Observe med administration

Setting Boundaries with Patient

- Pain meds may be patient's coping strategy for dealing with physical, emotional, psychological and post-traumatic pain
- Controlling pain ≠prescribing resident's preferred opiate
- Expect to be uncomfortable!
- Compassion = boundaries

4 steps in setting patient boundaries

- 1. Name the behavior that is not acceptable.
 - Shouting, cursing, interrupting
 - 2. Express your expectations of the patient.
 - Attend PT/OT, try non-pharm mgmt., attend counseling
- 3. Decide what will happen if the boundaries are not respected.
 - Taper off opioids
- 4. Validation.
 - Validate the pain, the emotion, the importance of boundaries

Concentrate on what you are willing to do, rather than on what you refuse to do

- What you will do:
 - "I'd like to be your provider and continue to help you with your pain, despite our disagreement"
- What you won't do:
 - "Prescribing more of this medicine is something that is not in your best, long term interest. It is something I feel uncomfortable with and cannot do"
 - "Unfortunately, I will not be able to X (raise the dose, give you an RX, etc.), I would like you to consider the non-narcotic treatment options we discussed, I hear you have tried them in the past with no success, I am asking you to consider trying them again.

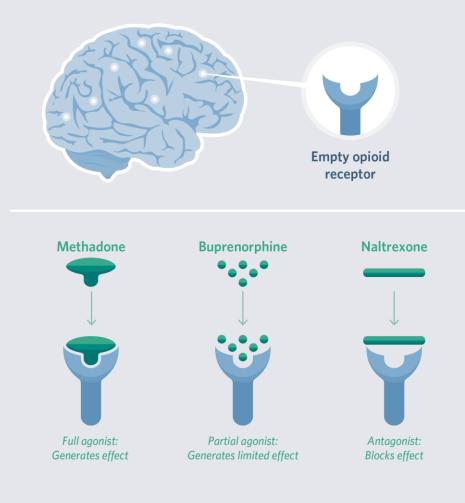
Case 1, cont.

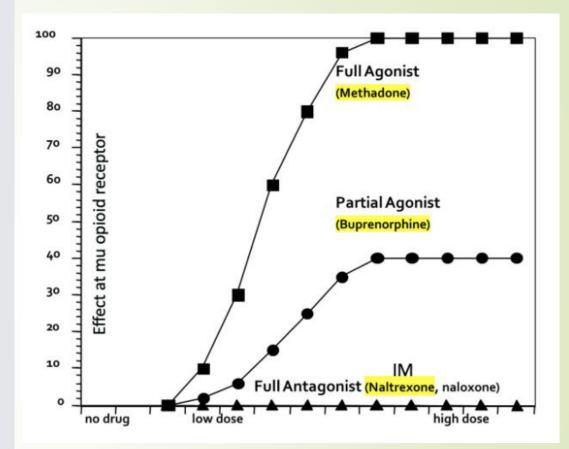
- Legitimate source of pain (femur fracture) with history of alcohol abuse
- Hydrocodone/APAP is short-acting best to give scheduled before therapy
- Consider scheduling opioid or APAP 3x's a day for 2 weeks
- Plan to wean off opioids at 6-8 weeks when fracture has healed
- Utilize non-pharmacologic options lidocaine patch/cream, menthol for muscle pain after therapy, stretching/ROM every day, ice/heat
- Set expectations will not be pain free, focus on function (not pain scores) goal to return to ambulating with walker independently

Case 2

- 43 y/o female Full code with goal of longevity
- <u>PMH</u>: spina bifida with hydrocephalus, hydronephrosis, kidney stones, cystostomy, recurrent UTIs, HF, CKD3b, bipolar disorder, insomnia, GERD
- <u>Meds</u>: sertraline 25 mg, trazodone 50 mg, famotidine 20mg, morphine 30mg q12 hrs., hydrocodone/APAP 5/325 q6 PRN
- <u>SH</u>: in LTC 2 years, mother rarely visits, frequently requests hydrocodone/APAP at night or when new nursing staff present
- What is the indication for morphine and hydrocodone/APAP?
- Any concerns about opioid prescribing in this patient?
- Any other psychosocial factors to be considered?
- Would she be a good candidate for buprenorphine?

Figure 1 How OUD Medications Work in the Brain





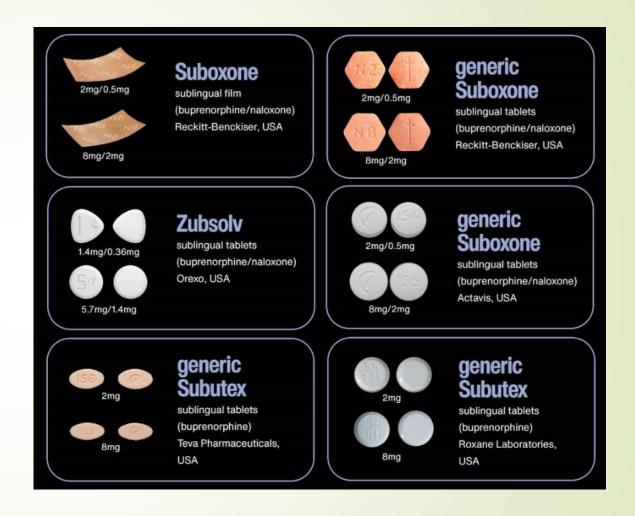
https://store.samhsa.gov/sites/default/files /pep21-02-01-002.pdf p105

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https://www.pewtrusts.org/en/research-and-analysis/factsheets/2020/12/medications-for-opioid-use-disorder-improvepatient-outcomes

Buprenorphine

- Partial mu agonist
- Suppresses and reduces cravings for opioids
- It can displace other opioids and precipitate withdrawal
- Long half-life (24-48 hrs.)
- Sublingual, buccal forms
- Schedule III, No longer need X waiver to prescribe
- FDA approved maximum dose of buprenorphine-naloxone for OUD is 24mg but can go up to 32mg.
- If cravings/use are still present at the higher doses then injectable buprenorphine could be considered (referral)



Buprenorphine, cont.

- Ceiling effect for respiratory depression at 24mg
- Overdose is possible if opioid naïve or taking with alcohol or benzodiazepines
- No dose adjustment for renal impairment or dialysis
- Avoid if Child Pugh Class C liver failure
- Less constipation
- Less cognitive dysfunction
- Effective for neuropathic pain

Buprenorphine/Naloxone

- Addition of naloxone decreases buprenorphine's potential for misuse. In Suboxone formulation of buprenorphine/naloxone, ratio of buprenorphine to naloxone is 4:1.
- Ratio of buprenorphine to naloxone varies across products, as absorption of both active ingredients is different for buccal versus sublingual films versus tablets.
- Buprenorphine/naloxone transmucosal products are abuse-deterrent formulations, although they can still be misused. When a patient takes these formulations as prescribed, he or she absorbs buprenorphine but only a biologically negligible amount of naloxone. But if crushed or dissolved for intranasal or intravenous (IV) misuse, both medications are bioavailable.
- Naloxone then blunts immediate opioid agonist effects of buprenorphine. It also induces opioid withdrawal in people who are physically dependent on opioids.

Admitting to PAC on buprenorphine

- Continue buprenorphine at current dose
- Review administration techniques with nursing
- Review administration techniques with patient
- Document effectiveness for cravings, withdrawal symptoms
- Discuss who will prescribe at discharge
 - Recommend taper off additional opioids prior to discharge so meds can be managed.
 - Prescribe Buprenorphine at discharge (up to 30 days)
 - Prescribe Naloxone at discharge

Administration Considerations

- Buprenorphine is best absorbed under the tongue
- Films and tabs are available, but tabs most common due to cost
- If swallowed, buprenorphine absorption is reduced, and naltrexone is absorbed (withdrawal)
- Give after all other pills
- No eating, drinking, or smoking 30 minutes after
- Rinse 30 minutes after administered to reduce tooth decay

EXHIBIT 3D.1. Buprenorphine Transmucosal Products for OUD Treatment

PRODUCT NAME/ ACTIVE INGREDIENT	ROUTE OF ADMINISTRATION/ FORM	AVAILABLE STRENGTHS	RECOMMENDED ONCE- DAILY MAINTENANCE DOSE
Bunavail ²³⁵ • Buprenorphine hydrochloride • Naloxone hydrochloride	Buccal film	2.1 mg/0.3 mg 4.2 mg/0.7 mg 6.3 mg/1 mg	Target: 8.4 mg/1.4 mg Range: 2.1 mg/0.3 mg to 12.6 mg/2.1 mg
 Generic combination product^{236,237} Buprenorphine hydrochloride Naloxone hydrochloride 	Sublingual tablet, film	2 mg/0.5 mg 4 mg/1 mg 8 mg/2 mg 12 mg/3 mg	Target: 16 mg/4 mg Range: 4 mg/1 mg to 24 mg/6 mg*
 Generic monoproduct^{238,239} Buprenorphine hydrochloride 	Sublingual tablet	2 mg 8 mg	Target: 16 mg Range: 4 mg to 24 mg*
Suboxone ^{240,241} Buprenorphine hydrochloride Naloxone hydrochloride 	Sublingual film	2 mg/0.5 mg 4 mg/1 mg 8 mg/2 mg 12 mg/3 mg	Target: 16 mg/4 mg Range: 4 mg/1 mg to 24 mg/6 mg*
Zubsolv ^{242,243} Buprenorphine hydrochloride Naloxone hydrochloride 	Sublingual tablet	0.7 mg/0.18 mg 1.4 mg/0.36 mg 2.9 mg/0.71 mg 5.7 mg/1.4 mg 8.6 mg/2.1 mg 11.4 mg/2.9 mg	Target: 11.4 mg/2.9 mg Range: 2.9 mg/0.71 mg to 17.2 mg/4.2 mg

*Dosages above 24 mg buprenorphine or 24 mg/6 mg buprenorphine/naloxone per day have shown no clinical advantage.^{244,245}

Adapted from material in the public domain.246

https://store.samhsa.gov/sites/default/files/pep21-02-01-002.pdf p144

Dose adjustments

- Dose evaluation (typical doses 16-24mg)
- Increase dose if cravings, withdrawal, or ongoing drug use
- Decrease dose if sedation or side effects (nausea)
- Urine toxicology monitoring (point of care recommended)
 - Specify buprenorphine
 - CONTINUE buprenorphine regardless of what non-prescribed substances are in the urine

Buprenorphine Initiation Approaches

1. Traditional

- Complete cessation of full opioid agonists before initiation
- Mild to moderate opioid withdrawal symptoms must be experienced
- Timing of initiation varies based on factors such as type of opioid used, frequency of use, and route of administration

2. Low dose

- Low doses of buprenorphine given at increasing doses while continuing use of full opioid agonists during initiation.
- Incremental doses of buprenorphine gradually displaces full opioid agonist, more tolerable

3. High dose

- Requires opioid cessation and withdrawal onset.
- Rapid attainment of therapeutic buprenorphine dose in 1-3 hours, practical for ER
- Precipitated withdrawal can occur, must counsel patient before initiation

ASAM Advanced Buprenorphine Education: Resource Guide

A Guide for Patients Beginning Buprenorphine Treatment at Home

Before you begin you want to feel very sick from your withdrawal symptoms

It should be at least . . .

- 12 hours since you used heroin/fentanyl
- 12 hours since snorted pain pills (Oxycontin)
- 16 hours since you swallowed pain pills
- 48-72 hours since you used methadone

Traditional

You should feel at least three of these symptoms ...

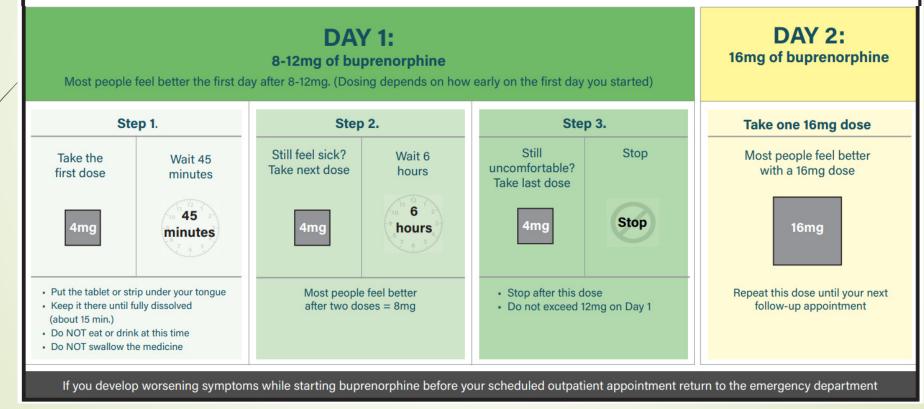
Body aches

Anxious or irritable

- Restlessness
- Heavy yawning
 Tremors/twitching
- Enlarged pupils
 Chills or sweating
- Runny nose

- Goose pimples
- Stomach cramps, nausea, vomiting or diarrhea
- vomiting or diarrne

Once you are ready, follow these instructions to start the medication



ASAM Advanced Buprenorphine Education: Resource Guide

Inpatient Low Dose Regimen (film or tab)*

Day	Buprenorphine Dose Sublingual Tab	Full Agonist Dose, i.e., methadone, hydromorphone, oxycodone	
1	0.5 mg QD (quarter of 2 mg tab) Same		
2	0.5 mg BID (quarter of 2 mg tab) Same		
3	1 mg BID (half of 2 mg tab)	Same	
4	2 mg BID (2 mg tab)**	Same	
5	4 mg BID (half of 8 mg tab)	Same	
6	12 mg (one and a half of 8 mg tab)***	Same	
7	16 mg (two 8 mg tabs)	OFF	

*Supportive Medications (ondansetron, loperamide, hydroxyzine, tizanidine, clonidine, dicyclomine) **Option to transition to sublingual film

**Can repeat days if patient develops withdrawal, achiness

Low Dose

ASAM Advanced Buprenorphine Education: Resource Guide

Acute Pain

- If acute pain develops:
- Option 1: Increase buprenorphine (up to 24mg)
- Option 2: Add hydromorphone (oral)
 - Competitively binds better than oxycodone
 - Higher doses may be needed to overcome buprenorphine blockade

Case 2, cont.

- 43 y/o female with no diagnosis to support use of morphine 60mg daily
- Precipitating opioid withdrawal will be difficult on patient and staff
- Transitioning to buprenorphine tab is reasonable, will need patient buy-in
- Consider low dose initiation
- 2mg buprenorphine is equivalent to 60mg morphine
 - may not need 8mg tab BID

Appendix

Resources

- <u>https://www.samhsa.gov/medications-substance-use-disorders/training-requirements-mate-act-resources</u>
- SAMHSA, <u>Buprenorphine Quick Start Guide</u> <u>https://www.samhsa.gov/sites/default/files/quick-start-guide.pdf</u>
- SAMHSA, <u>Buprenorphine Pocket Guide</u> <u>https://www.samhsa.gov/sites/default/files/quick-start-pocket.pdf</u>
- SAMHSA, <u>Advisory, Sublingual and Transmucosal Buprenorphine for Opioid</u> <u>Use Disorder</u>: Review and Update <u>https://store.samhsa.gov/sites/default/files/sma16-4938.pdf</u>

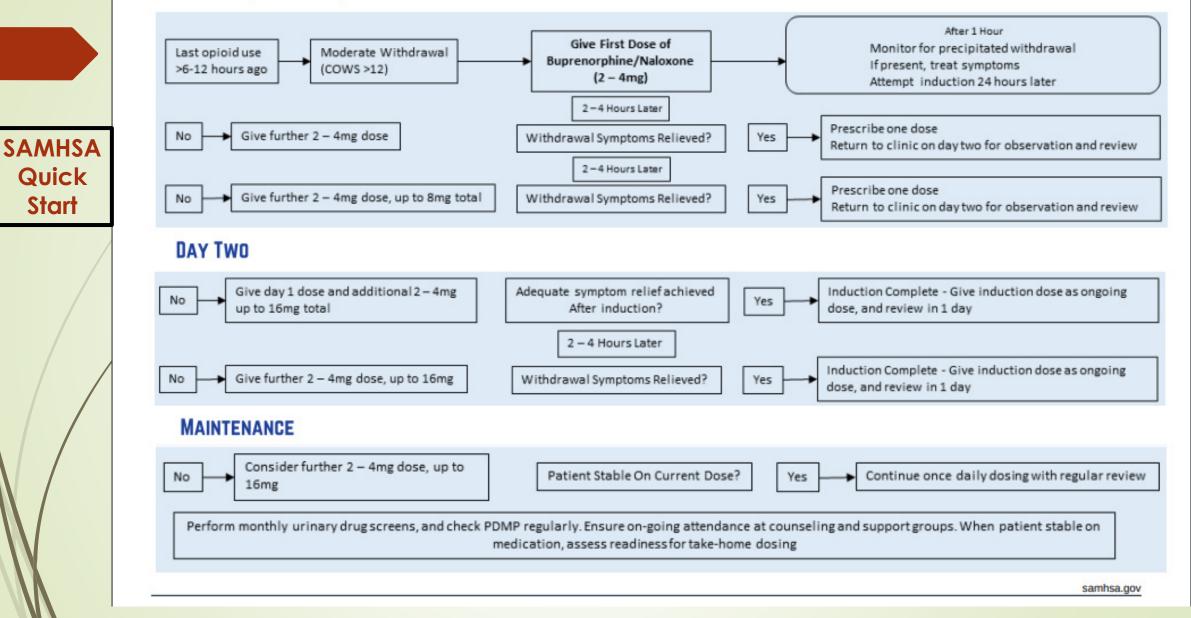
Resources, cont.

- American Society of Addiction Medicine (ASAM) eLearning Center (<u>https://elearning.asam.org/</u>)
 - Advanced Buprenorphine Education: Best Practices and Emerging Evidence in Opioid Use Disorder Treatment (90 min)
- Boston Medical Center (BMC) Grayken Center for Addiction Training and Technical Assistance (TTA) (<u>https://www.addictiontraining.org/</u>)
 - The Nuts and Bolts of Buprenorphine Treatment (2 hrs., recorded)
- Live support from National Clinician Consultation Center (https://nccc.ucsf.edu)
- Providers Clinical Support System Mentorship Program (longitudinal mentor program and case based, not real time) (https://pcssnow.org/mentoring)
- Massachusetts Department of Public Health, The Care of Residents with Opioid & Stimulant Use Disorders in Long-Term Care Settings Toolkit (https://www.mass.gov/info-details/the-care-of-residents-with-opioid-stimulantuse-disorders-in-long-term-care-settings-toolkit)

References

- <u>https://www.oregonpainguidance.org/clinics/difficultconversations/</u>
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- https://store.samhsa.gov/sites/default/files/pep21-02-01-002.pdf
- Pain Management Clinical Practice Guideline AMDA
- Passik SD, Weinreb HJ. Managing chronic nonmalignant pain: Overcoming obstacles to the use of opioids. Adv Ther. 2000;17:70–83.

DAY ONE (INDUCTION)



https://www.samhsa.gov/sites/default/files/quick-start-guide.pdf

Table III: Approximate Absorption Rates and DoseEquivalency of Buprenorphine.

Preparation	Absorption rate / Bioavailability*	Amount taken	Amount absorbed
Suboxone	25%	4 mg	1mg
Zubsolv	35%	2.9 mg	1 mg
Bunavail	50%	2.1 mg	1 mg
Belbuca	55%	1.8 mg	1 mg
Butrans patch	15%	20 mg is contained in a patch	20 mcg/h (0.48mg/d)
Buprenex	100%	1 mg	1 mg

*Information based on corresponding package inserts.

https://www.medcentral.com/addiction-med/oud/buprenorphine-promising-yet-overlooked-tool

Opioid Equivalent Doses

Roughly equivalent daily doses of various opioids

Buprenorphine Doses	Oxycodone	Morphine	Heroin	Methadone
2 mg	30 mg	60 mg	1-2 bags	10 mg
4 mg	60 mg	120 mg	3 bags	20 mg
6 mg	90 mg	180 mg	4 bags	30 mg
8 mg	120 mg	240 mg	6 bags	40 mg
12 mg	180 mg	360 mg	8 bags	60 mg
16 mg	240 mg	480 mg	10 bags	80 mg

From: Vermont Buprenorphine Practice Guidelines

http://contentmanager.med.uvm.edu/docs/default-source/vchip-documents/vchip_2buprenorphine_guidelines.pdf?sfvrsn=2

https://emcrit.org/ibcc/buprenorphine/

Equianalgesic Doses of Opiates

Hydromorphone>oxycodone>morphine>hydrocodone>tramadol>codeine

Morphine	15mg	30mg
Oxycodone	10	20
Hydromorphone	3	7.5
Hydrocodone	10-15	30
Codeine	100	120
Tramadol	60	120

Fentanyl Patch	Oral morphine equivalent per 24 hrs.	
12	30	
25	60	
50	120	
75	180	
100	240	

Opioid Risk Tool

Mark each box that applies	Female	Male
Family history of substance abuse		
Alcohol	1	3
Illegal drugs	2	3
Rx drugs	4	4
Personal history of substance abuse		
Alcohol	3	3
Illegal drugs	4	4
Rx drugs	5	5
Age between 16—45 years	1	1
History of preadolescent sexual abuse	3	0
Psychological disease		
ADD, OCD, bipolar, schizophrenia	2	2
Depression	1	1
Scoring totals		

Opioid Risk Tool

- Should be administered to patients upon an initial visit prior to beginning opioid therapy for pain management
- Score of 3 or lower indicates low risk for future opioid abuse
- Score of 4 to 7 indicates moderate risk for opioid abuse
- Score of 8 or higher indicates a high risk for opioid abuse

https://nida.nih.gov/sites/default/files/opioidrisktool.pdf

Compassion Traps

- PATIENT Do you want me to be in pain, unable to walk?
- PROVIDER I want you to have safe and effective pain control and it is my medical opinion that your current medicine won't give you that.
- PATIENT Do you have pain?
- PROVIDER I want to use every minute of our time today to talk about your pain management plan.
- PATIENT I wish you could feel my pain.
- PROVIDER I know you're suffering and I'm sure that we can work together to reduce pain, so you don't have to suffer.

All-or-Nothing Traps

- PATIENT So you're going to do nothing for me then?
- PROVIDER I am confident that together we will find safe and effective options.
- PATIENT You're cutting me off and I have to live with my pain?
- PROVIDER There are many, many things that people with chronic pain can do other than opiates to manage their pain. Would you like to hear about them?
- PATIENT I've tried all of that stuff, none of it works.
- PROVIDER I want to hear what you've tried so we can find a way for it to be more helpful this time.

Addiction Labeling Traps

- PATIENT Are you accusing me of being an addict?
- PROVIDER I have never accused anyone of diabetes but I've diagnosed him or her with it and that is what I am trying to now, diagnose.
- PATIENT Don't label me as a druggie.
- PROVIDER I have no interest in labels at all; I am interested in helping people who are struggling with medical problems.
- PATIENT So you're basically saying that I'm a junkie.
- PROVIDER I'm saying that addiction is a medical problem that responds to treatment, not a problem of bad morals or behavior

Desperate and Threatening Traps

- PATIENT I heard it's illegal for you to let me go into withdrawal.
- PROVIDER Withdrawal is uncomfortable but not life threatening. I can prescribe you medicines to help with the withdrawal symptoms.
- PATIENT Don't bother with any other meds, I'll just kill myself.
- PROVIDER I need to ask you some more questions about your thoughts about suicide.
- PATIENT I'm getting a lawyer (the medical board, your boss, etc....).
- PROVIDER You do what you feel is right, of course. That's what I'm doing for you, too.

Endgame

- PATIENT Behavior is angry, despondent, avoidant, etc....
- PROVIDER At this point, I suggest we agree to disagree, what I have laid out is what I believe to be the safest and most effective course of action right now. Now, how do you want to spend the rest of our time?
- PATIENT I hate you, I am leaving, you suck, etc....
- PROVIDER It is understandable that you are upset. It is my job to keep you safe and I care about you. I will be back in the next few days/weeks to talk to about next steps.

Buprenorphine Preparations

Table II: Brand Preparations of Buprenorphine Currently Approved in the US.

Туре	Buprenorphine	Buprenorphine/Naloxone	Buprenorphine long-acting
Indication	pain	opioid dependence substitution indication	opioid dependence substitution indication
Brands (available doses)	Belbuca (75, 150, 300, 450, 600, 750, or 900 mcg)	Suboxone (2/0.5, 4/1, 8/2, or 12/3 mg)	Sublocade injection (100, 300 mg monthly)
	Butrans (5, 7.5, 10, 15, or 20 mcg/h or a 7-day patch)	Zubsolv (0.7/0.18, 1.4/036, 2.9/071, 5.7/1.4, 8.6/2.1, 11.4/2.9 mg)	Probuphine implant (74.2 mg every six months)
	Buprenex (300 mcg/ml via intramuscular or intravenous administration)	Bunavail (2.1/0.3, 4.2/0.7, 6.3/1 mg)	Brixadi injection (8, 16, 24 or 32 mg weekly; 64, 96, or 128 mg monthly)

*Information based on corresponding package inserts.

https://www.medcentral.com/addiction-med/oud/buprenorphine-promising-yet-overlooked-tool