PAIN CARE

Buprenorphine Microdosing Induction Protocol

Buprenorphine is a partial-opioid agonist indicated for the treatment of opioid use disorder (OUD) and pain management. It's unique actions allow for analgesia and management of withdrawal symptoms while also minimizing the side effects of traditional opioids. While traditional opioids have a dose-dependent respiratory depression response (with apnea at high doses), buprenorphine has a plateau effect, with research noting single doses of buprenorphine up to 70 times the recommended analgesic dose are well tolerated by human subjects.

Research has noted numerous benefits of buprenorphine for the treatment of chronic pain, including increased efficacy for neuropathic pain, ease of use in elderly patients and those with renal impairment, less immunosuppression, and decreased development of tolerance. Regarding the treatment of OUD, research has noted an estimated 50% mortality reduction, along with increased social functioning, decreased injectable drug use and associated communicable diseases, better quality of life, and reduced crime rate with the use of buprenorphine.

In 2023, the requirement to have an X-waiver in order to prescribe buprenorphine for the treatment of OUD was repealed. Now, all providers with a DEA license can prescribe buprenorphine to an unlimited number of patients.

Traditional buprenorphine induction requires patients to abstain from full agonist opioids for at least 24-48 hours and be in moderate withdrawal before initiating buprenorphine. Microdosing is a novel approach that avoids withdrawal symptoms and reduces patient discomfort and fear.

This protocol is designed to provide pain management providers with an effective and streamlined method for transitioning patients from traditional opioids to buprenorphine utilizing a microdosing approach.

General Protocol for Microdosing

1. Initiate low dose of buprenorphine (typically less than 1mg). Patient may continue the use of their full opioid agonist.
2. Gradually increase the buprenorphine (typically over the course of 7 to 14 days).
3. Once a sufficient dose of buprenorphine is reached, the full-opioid agonist can be promptly discontinued (no need to taper).
4. The buprenorphine dose can then continue to be increased until a therapeutic dose is reached.
5. During the microdosing transition period, the patient can be seen either in person or via telehealth. Connection and support are the most important elements to convey during the process.

Sample Microdosing Schedules

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1. Patient currently on a short-acting full opioid agonist:

Day	Buprenorphine	Full Opioid Agonist
1	0.5mg QD	Maintain dose
2	1.0mg QD	Maintain dose
3	1.5mg QD	Maintain dose
4	2.0mg QD	Maintain dose
5	2.5mg QD	Maintain dose
6	3.0mg QD	Maintain dose
7	4mg QD	Discontinue
8	Continued titration of buprenorphine (see notes below)	

2. Patient currently on a long-acting full opioid agonist:

Day	Buprenorphine	Full Opioid Agonist
1	0.5mg QD	Maintain dose
2	1.0mg QD	Maintain dose
3	1.5mg QD	Maintain dose
4	2.0mg QD	Maintain dose
5	2.5mg QD	Maintain dose
6	3.0mg QD	Maintain dose
7	4.0mg QD	Maintain dose
If the patient is on a short-acting and long-acting, the short acting may be discontinued here		
8	5.0mg QD	Maintain dose
9	6.0mg QD	Maintain dose
10	7.0mg QD	Maintain dose
11	8.0mg QD	Maintain dose
12	10.0mg QD	Maintain dose
13	12.0mg QD	Discontinue long-acting
14	Continued titration of buprenorphine (see notes below)	

Following day 7 (short-acting schedule) or day 13 (long-acting schedule), the provider should continue to titrate the patient's buprenorphine dose up (by increments of 2-4mg per day) until a therapeutic dose is reached. This is evidenced by the patient reporting adequate pain control or functional improvement (in regard to their chronic pain condition) and/or the patient reporting an absence of withdrawal symptoms and cravings. The provider should continue to see the patient frequently during the titration period.

The daily dose of buprenorphine following induction and titration is generally >8mg, with an average daily dose

of 12-16mg. The FDA approves doses up to 24mg per day, and there is limited evidence on the efficacy of doses above 24mg per day.

We recommend the use of buprenorphine sublingual film, which is available in 2mg, 4mg, 8mg and 12mg options. The film is easier to divide by cutting, rather than splitting the pills which can crumble.

Microdosing is designed to avoid or reduce withdrawal symptoms, however, some patients may still experience some withdrawal symptoms. For these patients it is recommended that the microdosing be progressed at a slower rate (i.e. over three to four weeks), or that the full opioid agonist be tapered at a rate of 25% per week rather than abruptly discontinuing once a sufficient dose of buprenorphine is achieved. Additionally, providers should treat withdrawal symptoms, utilizing the following options:

- Clonidine 0.1mg q6 hours prn anxiety and hyperarousal symptoms
- Hydroxyzine 25-50mg q6 hours prn anxiety and insomnia
- Zofran 4mg ODT q6-8 hours prn nausea
- Loperamide 2mg q 4 hours for diarrhea (not to exceed 16mg daily)
- Dicyclomine 20mg q6 hours prn for abdominal cramping (can also consider methocarbamol for body aches and cramping)
- Tylenol or ibuprofen at standard dosing

Providers can supply the patient with preemptive prescriptions for these medications, provided at the same time the buprenorphine is prescribed. This allows the patient to immediately treat any withdrawal symptoms they may experience.

Behavioral health services should always be employed during the micro induction process. These services can be delivered by a licensed clinical social worker, psychologist, licensed mental health counselor or therapist. We recommend the patient receive mental health services as often as daily during the induction period. These services can also be delivered via telehealth.

Providers should continue to adhere to the US Pain Care 10-Step Opioid Protocol when prescribing buprenorphine to a chronic pain patient. However, it is important to consider the following pertinent points from The American Society of Addiction Medicine National Practice Guideline for the Use of Medications in the Treatment of Addiction Involving Opioid Use:

- The use of marijuana, stimulants, or other addictive drugs should not be a reason to suspend OUD treatment. However, evidence demonstratives that patients who are actively using substances during OUD treatment have a poorer prognosis. The use of alcohol, benzodiazepines, and other sedative hypnotics may be a reason to suspend agonist treatment because of safety concerns related to respiratory depression.

For complex patients (such as those also using ETOH, benzodiazepines, cocaine, or amphetamines), or patients who relapse during the micro induction period, or who do not tolerate micro induction, we recommend engaging the assistance of an addictionologist for additional guidance.