

Kratom, 7-OH, and Mitragynine Semisynthetic Derivatives Treatment Management

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Disclaimer

This guidance is intended solely for educational and information purposes to assist qualified healthcare professionals in the administration of buprenorphine. It does not constitute formal medical advice, establish a binding standard of care, or replace the independent professional clinical judgment of the treating healthcare professional. Healthcare professionals must tailor treatment plans to the individual needs, medical history, and specific circumstances of each patient. Medical knowledge is constantly evolving, and it is the responsibility of the healthcare professional to stay informed of the latest clinical guidelines, safety alerts, and prescribing information issued by regulatory bodies and manufacturers. Healthcare professionals are also responsible for ensuring that their practice complies with local, state, and federal laws and regulations.

Introduction (for all clinical settings)

Purpose and audience

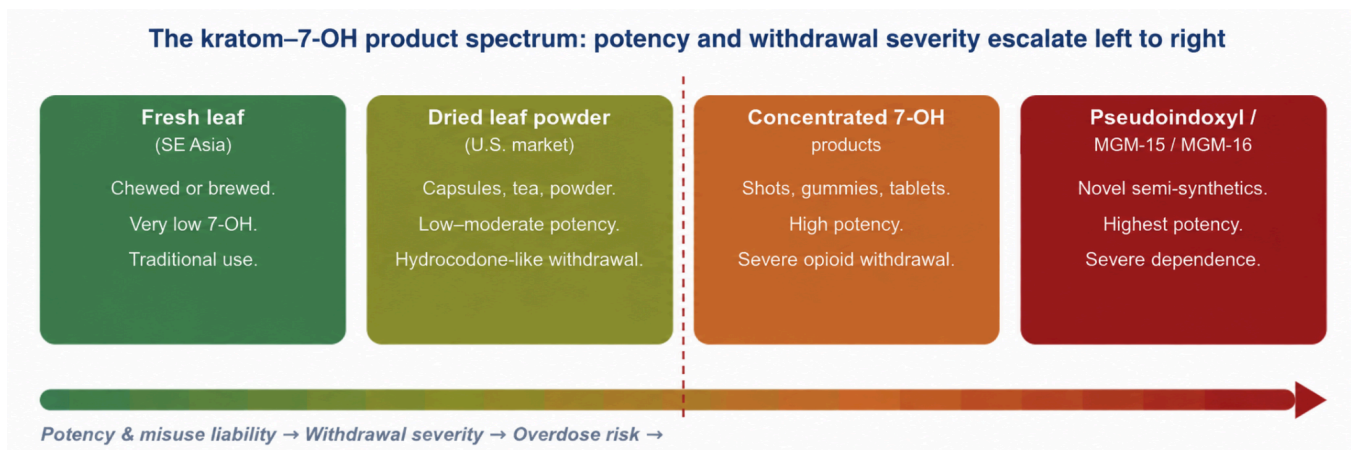
This guide supports Minnesota clinicians caring for patients with suspected dependence on concentrated 7-hydroxymitragynine (7-OH) and/or related kratom-derived products. It provides three setting-specific buprenorphine initiation pathways for Opioid Use Disorder (OUD), secondary to kratom and derivatives. It does not replace clinical judgment, local policy, toxicology consultation, or emergency care. Treatment evidence is limited to case reports/series, kratom literature, clinician experience, and extrapolation from OUD care. No FDA-approved medication is specifically indicated for 7-OH use disorder.

Clinical approach and rationale

Many of the outpatient protocols presented in this packet intentionally take a cautious approach to buprenorphine initiation for patients using 7-OH and related kratom products. When sufficient time has passed since the last use and the patient is experiencing clear opioid withdrawal, a high-dose buprenorphine initiation can be an excellent option and may allow for a faster, effective, and comfortable transition to treatment. At the same time, experience from the Minnesota clinicians who developed this package indicates that outpatient individuals taking high-dose 7-OH often have a low tolerance for withdrawal. These patients may disengage from care if the transition seems overly abrupt or if they cannot endure the waiting period required for a high-dose induction. To support ongoing treatment engagement, the package offers lower-dose and slower initiation pathways. These alternative options are suitable when a patient is not yet clearly in opioid withdrawal, when patients express concern about withdrawal symptoms, or when a more gradual transition is preferred.

The intent is not to suggest that one initiation strategy is preferred in every situation. Rather, these protocols offer several practical approaches that reflect the experience of Minnesota clinicians caring for this population. Clinical judgment remains essential. The overall goal is to use the simplest, most comfortable, and most effective approach.

Kratom, 7-OH, and other semisynthetics



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Know the emerging semisynthetic derivatives

- **7-OH (7-hydroxymitragynine):** kratom alkaloid found in trace amounts the native leaf but is the primary active metabolite of mitragynine. It is 20X more potent than mitragynine. Increasingly isolated or semisynthetically concentrated into concentrated shots, tablets, and gummies. These are often adulterated.
- **Mitragynine pseudoindoxyl (MP):** a rearrangement product of 7-OH (7-OH is converted to MP in the blood); a highly potent, G-protein–biased mu-opioid receptor agonist reported to cause severe dependence. As such, MP

theoretically causes no euphoria or CNS/respiratory depression but maintains its analgesic properties. A future substance of research.

- **MGM-15 and MGM-16:** synthetic 7-OH analogues (e.g., dihydro- and 9-fluoro-7-OH) with high mu-opioid potency.

Identification

Patients often call every product “kratom,” and most concentrated products are misbranded as kratom. Build the picture from a careful history - doses per day, amount, withdrawal severity and timing, and the product or brand names the patient reports. The product is likely kratom leaf if described as in a bottle, appears like a flake or powder substance, patients report an ability to tolerate 4-8 hours between dosing, or a past ability to “wean” off on their own. The product is likely concentrated semisynthetic or 7-OH if described as pill form, patients report rapid dose increase in a short time due to craving, withdrawal, dosing very frequently through the day, often overnight, or if not being able to tolerate more than a few hours of not using due to significant withdrawal. Asking the patient to bring in the product or packaging helps, but it is not required. Never delay starting treatment to obtain it. Do not rely on routine urine drug screens to detect or exclude 7-OH exposure.

Overdose risk, precipitated withdrawal, and buprenorphine induction strategy

Mitragynine and its semisynthetic derivatives act, at most, as partial agonists at the mu-opioid receptor (MOR), with varying potencies; they produce a “partial” biological effect. As a result of their inherent “ceiling effects” on respiratory suppression and sedation/somnolence, these substances in isolation should not cause life-threatening respiratory depression or arrest. However, data from the Minnesota Drug Overdose and Substance Use Surveillance Activity (MNDOSA) and similar nationwide epidemiological sources indicate that 7-OH and other semisynthetic derivatives are frequently adulterated with full agonist opioids (FAO) like fentanyl that are capable of causing respiratory arrest and death in small amounts. Consequently, fatal overdoses associated with kratom and 7-OH/derivatives stem primarily from adulterants or multi-substance toxicities.

Opioid withdrawal syndrome (OWS) occurs when opioid tolerance is paired with a reduction in downstream signaling from the MOR. OWS severity corresponds to higher baseline tolerance and a more sudden “drop/decrease” in downstream signaling. Precipitated withdrawal occurs when MOR antagonists (naloxone, naltrexone) or buprenorphine (a partial MOR agonist) abruptly diminish this downstream signaling. Importantly, in an individual tolerant only to partial MOR agonists like mitragynine, kratom, or 7-OH, introducing buprenorphine does not induce a steep decrease in downstream signaling (like it would in a chronic fentanyl user), making precipitated withdrawal unlikely. Nevertheless, if a patient has undisclosed full-opioid exposure or routinely consumes products adulterated with FAOs like fentanyl, buprenorphine administration can theoretically trigger precipitated withdrawal.

Clinicians must therefore evaluate potential co-exposures and clinical judgment when determining an induction strategy. While low-dose buprenorphine initiation with opioid continuation is not required for every patient consuming kratom/7-OH, it represents a safe and reasonable approach when product adulteration or exact exposure is uncertain, when the patient shows no signs of active opioid withdrawal, or when significant anxiety surrounding withdrawal exists, as discussed above. Conversely, for patients presenting in active opioid withdrawal—demonstrated by patient history or objectively elevated Clinical Opiate Withdrawal Scale (COWS) scores—a high-dose protocol provides a pharmacologically and physiologically sound induction strategy that is direct, rapid, and comfortable.

Setting-specific induction considerations

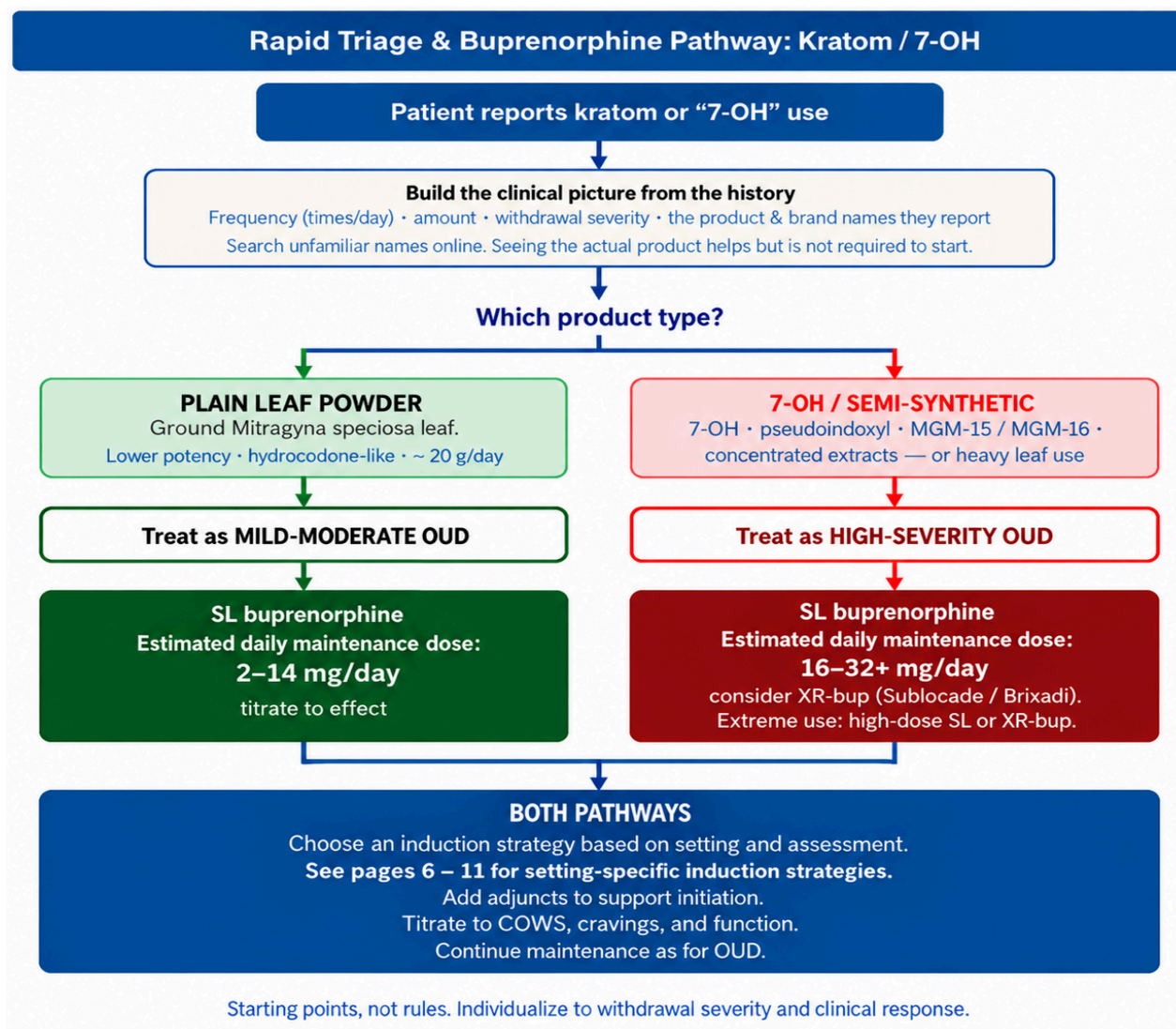
Three 7-OH induction algorithms were developed to reflect the reality that different care settings may require different induction approaches based on medication availability, level of monitoring, patient adherence, and risk of return to use in outpatient settings. Inpatient inductions may be easier to manage because patients can be closely monitored, dosed under direct observation, and treated with adjunct medications that are not routinely available in outpatient settings. In clinic settings where medications such as buprenorphine, clonidine, ondansetron, and benzodiazepines are available, clinicians can observe the patient’s initial response to induction and use that information to guide recommendations for completing the induction at home, with close follow-up by phone and in person. Clinics without medication access will

generally need to take a more conservative approach, as the entire induction process will occur at home without direct observation by the medical team; early follow-up by phone and in person remains especially important in these settings. In our experience, both types of clinic-based inductions may be complicated by overuse or underuse of prescribed medications, unanticipated use of other substances, and return to use of 7-OH. Medication access barriers, including pharmacy supply issues, insurance limits, and prior authorization requirements may affect outpatient outcomes and increase risk of relapse.

Key regulatory considerations

As of October 9, 2026, DEA has temporarily placed mitragynine pseudoindoxyl (MGPI), MGM-15, and MGM-16 in Schedule I. 7-OH itself has not yet been temporarily scheduled. HHS has recommended new thresholds intended to distinguish natural kratom from concentrated or enhanced 7-OH/MGPI products. Under that recommendation, federal control would apply when 7-OH or MGPI exceeds 1 mg/g in a solid product or 1 mg/mL in a liquid product, or when the mitragynine-to-7-OH/MGPI ratio is less than 100:1. DEA has issued a new notice reflecting these thresholds; final temporary scheduling action for 7-OH has not yet occurred.

Abrupt changes in product access may increase withdrawal and treatment-seeking and may contribute to a shift to fentanyl or other opioids. Products may be sold as tablets, gummies, liquids/shots, or as “enhanced” or “spiked” kratom and may be labeled “7-OH,” “7-HMG,” or “7-hydroxy.”

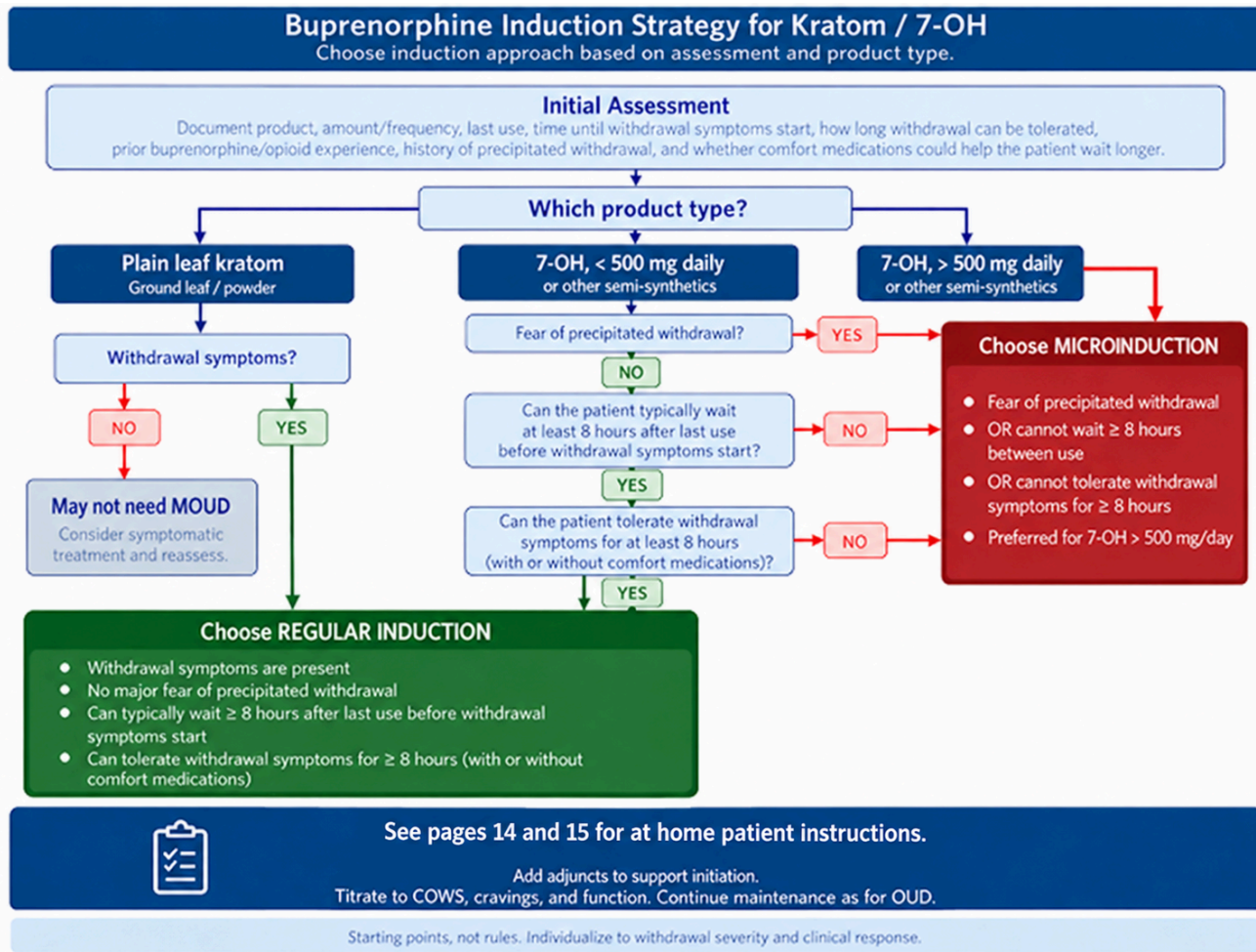


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Outpatient clinic (without in-office medication) treatment management for kratom/7-OH

For patients with opioid use disorder secondary to kratom and derivatives, with clear written instructions and rapid clinical backup.

1. Algorithm for in-clinic assessment and at-home medication administration



2. Buprenorphine and comfort medication prescribing guidance

- Once the induction method is determined, send the appropriate prescriptions to the pharmacy and review the home induction instructions with the patient. **Patients should follow the induction instructions provided in the patient instructions rather than the exact wording on the buprenorphine prescription label.**

Regular induction

For patients whose kratom/7-OH has worn off and who are in withdrawal or beyond withdrawal.

Prescription Element	Guidance
Medication	Buprenorphine-naloxone 8 mg/2mg films

Directions (Sig)	1 film up to 3 times daily, as instructed
Dispense	21 films
Refills	1
Diagnosis	Opioid Use Disorder
Pharmacy Comment	Name brand or generic, per insurance
Additional consideration	If the patient has not previously filled buprenorphine-naloxone, consider having clinic staff contact the pharmacy to confirm the prescription can be filled.

Microinduction

For patients who will continue taking kratom/7-OH initially while buprenorphine is gradually introduced and increased over several days.

Prescription Element	Script #1: Days 1-4	Script #2: Day 5 and Onward
Medication	Buprenorphine-naloxone 2 mg/05 mg films	Buprenorphine-naloxone 8 mg/2mg films
Directions (Sig)	Take 4 films over 4 days, as instructed	Take 1-3 films daily, as instructed
Dispense	4 films	21 films
Refills	0	0

Comfort medications

The same comfort medication approach may be used with either regular induction or microinduction.

Medication	Purpose	Direction	Quantity
Hydroxyzine (Atarax)	Anxiety	25 mg every six hours, as needed	30
Clonidine	Restlessness/withdrawal symptoms	0.1 mg every six hours, as needed	30
Gabapentin	Achiness/withdrawal discomfort	600 mg every 8 hours, as needed	30
Ondansetron (Zofran)	Nausea	4 mg every 6 hours, as needed	30

Comfort medications can be used to help patients tolerate withdrawal and support buprenorphine initiation. Prescribers should consider contraindications, precautions, drug interactions, and individual patient factors when selecting adjunctive medications.

3. Check-ins and follow-up

- Determine check-in schedule and method. Ideally, call the patient 1-2 days after starting.
- Give the patient guidance on how to call the clinical team for worsening withdrawal, repeated vomiting/diarrhea, inability to take fluids, severe anxiety/agitation, unexpected sedation, or uncertainty about the next dose.
- Counsel patients to call 911 for slow or difficult breathing, inability to awaken, seizure, chest pain, severe confusion, or imminent safety risk. Use naloxone for suspected opioid overdose and repeat per product instructions while awaiting EMS.

Hospital/ED-based treatment management for kratom/7-OH

For patients with opioid use disorder, secondary to kratom and derivatives, being seen in the hospital.

1. Initial assessment

- Document product, amount/frequency, last use, use of other substances (opioids, stimulants, and sedatives), withdrawal history, pregnancy status, and psychiatric/medical risk.
- Assess vital signs, respiratory status, sedation, and COWS score. Are the patient's symptoms consistent with prior experiences of kratom or opioid withdrawal syndrome (OWS)? Does the patient believe they are in withdrawal?
- Consult poison center/toxicology or addiction medicine if available or if clinically indicated.

2. Choose the treatment pathway

- Buprenorphine forms the backbone of pharmacotherapy. Like mitragynine and its concentrated/semisynthetic derivatives, it is a partial agonist at the mu-opioid receptor, but much more potent. **Adjuncts are almost always needed** because withdrawal can vary depending on the alkaloid content of kratom, the potency and concentration of semisynthetic mitragynine derivatives, or the presence of adulterants.
- The appropriate pathway depends on the degree of kratom/opioid tolerance and intensity of use. See tables below.
- **Only start buprenorphine once the patient is on the spectrum of opioid withdrawal, typically 1-6 hours after last use.** The patient should state they are in opioid withdrawal, COWS > 8, or if COWS > 4 and > 6 hours since last use.

APPROXIMATE EXPOSURE BANDS: The 7-OH quantities below are ballpark estimates based on regional anecdotal experience (Kansas and New York), not validated potency categories or equianalgesic conversions. Product composition, adulterants, co-exposures, withdrawal severity, and clinical response may be more informative than the reported amount.

Buprenorphine initiation/maintenance are based on tolerance and exposure (similar to algorithm on page 5)

Estimated tolerance	Exposure guide	Initiation	Maintenance
LOWER TOLERANCE	Plant kratom (<i>Mitragyna speciosa</i>) or approximately <50 mg 7-OH daily	2 to 4 mg SL buprenorphine; repeat every 30–60 minutes based on response	2 to 8 mg SL buprenorphine daily
MEDIUM TOLERANCE	Approximately 50–200 mg 7-OH daily	8 mg SL buprenorphine; repeat every 30–60 minutes based on response	12 to 24 mg SL buprenorphine daily
HIGH TOLERANCE	Approximately >200 mg 7-OH daily	8 to 16 mg SL buprenorphine*; repeat every 30–60 minutes based on response * If in the hospital for several days, you can consider a low-dose buprenorphine initiation (microinduction) with opioid continuation	16 to 32 mg SL buprenorphine daily

Proposed adjunct doses and durations

Adjunct	Lower tolerance	Medium tolerance	High tolerance
Gabapentin	300 mg TID 1–2 weeks	300–400 mg TID–QID 1–2 weeks	400–600 mg TID–QID 1–4 weeks
Mirtazapine	15–30 mg qHS 2–4 weeks	15–30 mg qHS 2–4 weeks	15–30 mg qHS 4+ weeks

Benzodiazepines (BZD)	Lorazepam 1 mg TID OR diazepam 5 mg BID 1–7 days	Lorazepam 1–2 mg TID OR diazepam 5–10 mg TID 1–7 days	Lorazepam 1–2 mg TID OR diazepam 5–10 mg TID 1–14 days
Low-dose ketamine	Not specified for this tier	20–40 mg IV push OR 0.1–0.3 mg/kg/hour infusion; oral 20–80 mg QID 1 dose to 5 days	20–40 mg IV push or 0.1–0.3 mg/kg/hour infusion; oral 20–80 mg QID 1 dose to 14 days
Valproate (VPA)	Not specified for this tier	250–500 mg BID 1–4 weeks	250–500 mg BID 1–4 weeks

Additional comments

- Evidence for the above is limited and is largely based on anecdotal reports and pharmacologic principles. **Adjunct therapies are nearly always required** to facilitate a comfortable and effective buprenorphine initiation.
- Mitragynine and other kratom alkaloids impact dopaminergic, serotonergic, and glutaminergic neural pathways; abrupt cessation triggers a withdrawal or discontinuation syndrome that presents as agitation, anxiety, insomnia, restlessness, and restless legs. **Multiple adjuncts are often necessary**, as increasing opioid tone using FAO or buprenorphine will not relieve non-opioid withdrawal symptoms. Adjunct therapy duration is ill-defined and patient-specific; often **days to weeks**.
- Mirtazapine is reported to anecdotally and profoundly help restless legs in kratom withdrawal.
- Some patients stabilize on less than 8 mg/day of SL buprenorphine; others require higher doses. Goal maintenance dose tempers cravings, alleviates withdrawal symptoms, and supports function without causing significant sedation.
- GABAergic medications: Diazepam is preferred over lorazepam because it has a quicker onset and longer duration of action. Pregabalin may substitute for gabapentin. The rough conversion is that pregabalin is approximately one-sixth of the gabapentin total daily dose, generally divided into BID or TID dosing. Confirm with local pharmacist.
- Ketamine potentiates the effects of opioids, helps treat OWS, and eases buprenorphine initiation, making it more comfortable and more likely to succeed. Ketamine makes opioids, including buprenorphine, more effective.
 - Oral ketamine: estimated bioavailability approximately 25%; onset <30 minutes; duration 3–4 hours. Oral dosing requires pharmacy compounding. PO administration approximates IV dosing. Commonly, this is the inexpensive repurposed IV solution administered orally; outpatient coverage is unlikely.
- Valproate can help with mood stabilization and has no misuse potential. It is contraindicated in pregnancy.

3. Monitor and respond

- If symptoms improve, continue titration to the agreed clinical target.
- If symptoms worsen abruptly after an initial dose, evaluate for precipitated OWS, other drug toxicities, toxidromes, or withdrawal syndromes.
- Precipitated OWS is the abrupt onset of intense OWS symptoms (autonomic, neuropsychiatric, GI, and musculoskeletal) within minutes of exposure to buprenorphine or naloxone in an opioid-tolerant patient. It is unlikely with isolated kratom products but has been more commonly reported with concentrated semisynthetic mitragynine derivatives, likely due to adulterants such as fentanyl. GI symptoms often predominate.
- Treatment of precipitated OWS: Administer additional buprenorphine promptly. Although counterintuitive, this is the primary, mechanistically grounded strategy to overcome withdrawal by maximizing partial agonism at the mu-opioid receptor. Promptly administer higher doses of buprenorphine or hydromorphone, and symptomatic adjuncts (particularly ketamine, gabapentinoids, BZD; plus antiemetics, loperamide, and clonidine).
- Reassess withdrawal, craving, function, sedation, and respiratory status after each dose.

4. Discharge bridge

- Schedule a follow-up appointment and **prescribe enough buprenorphine and adjunct medications** through the follow-up appointment. If there is no appointment, prescribe 2 weeks of maintenance SL buprenorphine, and advise return to the emergency department until an appointment can be made.
- Prescribe naloxone.

Outpatient clinic (with on-site medications) for treatment management of kratom/7-OH

For patients with opioid use disorder secondary to kratom and derivatives being seen in a clinic with medication administration on site.

1. Algorithm for in-office assessment and in-office medication administration

Buprenorphine Induction Strategy for Kratom / 7-OH

Choose induction approach based on assessment and product type.

Initial Assessment

Document product, amount/frequency, last use, time until withdrawal symptom onset, how long withdrawal can be tolerated, prior buprenorphine/opioid experience, history of precipitated withdrawal, and whether comfort medications may help the patient wait longer.

Does a patient need a higher level of care?

Consider a higher level of care if **ANY** of the following apply:

- The patient is in acute withdrawal and the clinician is uncertain how to safely initiate buprenorphine.
- The patient has a condition or circumstance in which severe or precipitated withdrawal could pose additional risk, such as pregnancy, psychosis, significant cardiac arrhythmia, or other medical instability.
- The patient does not believe they can tolerate the withdrawal period required for standard induction or the gradual cross-titration required for microinduction.

YES

Consider ED, inpatient care, or another setting with closer monitoring.

NO

What product/exposure level is the patient using?

Plant kratom or lower-exposure 7-OH
(≤ 500 mg/day of 7-OH)

Higher-exposure 7-OH or other semi-synthetics
(> 500 mg/day of 7-OH)

When was the last use?

When was the last use?

0 – 7 hours ago

≥ 8 hours ago

0 – 7 hours ago

≥ 8 hours ago

For all pathways: administer the first dose in clinic **when possible**; remaining doses may be taken at home as directed.

1. Give Suboxone 0.5 to 1 mg ($\frac{1}{4}$ to $\frac{1}{2}$ of a 2 mg film)
2. Repeat every 4 hours based on response

1. Give Suboxone 2 to 4 mg (use the lower end for plant kratom or milder withdrawals)
2. Give 4 to 8 mg for 7-OH or significant withdrawal

1. Give 0.5 mg Suboxone and repeat every 4 hours over 24 hours
2. Consider cross-titration if continuing product vs. higher-dose day 2

1. Premedicate
2. Give 8 to 16 mg based on withdrawal severity
3. Plan rapid titration to 24 to 32 mg
4. Plan rapid bridge to Sublocade



Add adjuncts to support initiation.

Titrate to COWS, cravings, and function. Continue maintenance as for OUD.

Starting points, not rules. Individualize to withdrawal severity and clinical response.

2. Low-dose initiation with opioid continuation/optional cross-titration to buprenorphine

- Continuing kratom/7-OH during low-dose buprenorphine initiation is not a treatment recommendation in itself, but it may be used temporarily when a patient is unable or unwilling to stop abruptly.
- It is not pharmacologically necessary to reduce kratom/7-OH as buprenorphine is increased. One approach is to continue the patient's usual kratom/7-OH dose during the low-dose initiation and discontinue it once a therapeutic buprenorphine dose has been reached.
- For some outpatients—particularly those taking high doses or a large number of pills each day—an abrupt transition to zero may be difficult. In these cases, a gradual reduction of kratom/7-OH may be used as a patient-centered strategy to support engagement, adherence, and treatment retention.
- If you use a gradual reduction, individualize the pace through shared decision-making rather than tying it to a fixed percentage reduction with each buprenorphine increase. Adjust based on withdrawal symptoms, cravings, patient preference, and clinical response.
- **Goal:** steadily increase buprenorphine to a therapeutic dose while supporting the patient in discontinuing kratom/7-OH in a way that is clinically safe and acceptable to them.

3. Adjuncts and long-acting injectable formulations of buprenorphine

- For patients with high-dose 7-OH use and moderate withdrawal, clinicians may consider a benzodiazepine as an adjunct when clinically appropriate. Use standard safety precautions, particularly with other sedating substances; benzodiazepines should not be used as sole treatment for kratom/7-OH withdrawal.
- Other adjuncts may include gabapentin, clonidine, hydroxyzine, or quetiapine, based on symptoms and clinical judgment.
- Consider extended-release buprenorphine when feasible, particularly for patients using >500 mg/day of 7-OH or who continue to have significant cravings/urges despite 32 mg/day of SL buprenorphine.

4. Maintenance medication

- For kratom-based products, expect a maintenance dose around 4mg daily, 8mg on the higher end.
- For lower 7-OH content products, expect a maintenance dose around 8-12mg daily, possibly up to 16mg.
- Upon reaching 4 to 8mg in the first 24 hours for 7-OH products, proceed with rapid dose increase on day 2. Increase by 4mg if still using product, versus >8mg if product was stopped until response.
- These are only guidelines; ultimately, dose to the response of stopping urges of return to use.
- Remind patients to expect continued maintenance for the remainder of the year, possibly longer. We do not have studies to determine formal recommendations for minimum treatment length, but we observe high return-to-use rates if treatment is stopped within the first year.

5. Check-ins and follow-up

- The first dose may be administered in the clinic or at home. Provide clear written at-home dosing instructions, comfort medications as appropriate, and a plan check-in and a follow-up appointment.
- Give the patients guidance on how to call the clinical team for worsening withdrawal, repeated vomiting/diarrhea, inability to take fluids, severe anxiety/agitation, unexpected sedation, or uncertainty about the next dose.
- Counsel patients to call 911 for slow or difficult breathing, inability to awaken, seizure, chest pain, severe confusion, or imminent safety risk.
- Prescribe naloxone and enough buprenorphine through the follow up appointment.

Special considerations (for all settings)

Adolescents	Define the age scope. If adolescents are included, involve pediatric or adolescent expertise, review consent and confidentiality requirements, address caregiver considerations, and ensure developmentally appropriate follow-up. Buprenorphine treatment for patients under age 16 is considered off-label by the FDA. However, opioid use carries a life-threatening risk of overdose, and youth under age 16 should still have access to evidence-based Medications for Opioid Use Disorder (MOUD) when clinically appropriate. Addiction specialists have successfully treated adolescents under age 16 with OUD using buprenorphine.
Alcohol, benzodiazepines, other sedatives	Assess overdose and withdrawal risks. Do not withhold OUD treatment solely because of co-use, but adjust monitoring and counsel carefully. You can and should treat co-occurring withdrawal syndromes. In general, these should be treated individually, but adequately.
Comfort medications	Comfort medications are important during initiation and early stabilization. When clinically appropriate, use a brief symptom-targeted course—often up to about one week. Examples include clonidine, hydroxyzine, ondansetron, and gabapentin; individualize for blood pressure, sedation, pregnancy, age, renal/hepatic function, and co-use.
Individualized stabilization dose	Titrate to withdrawal, craving, function, and tolerability rather than a fixed minimum. Some patients stabilize on less than 8 mg buprenorphine per day; others need higher doses. Reassess the dose over time and ensure the prescription matches the patient's response and access.
Laboratory testing	Routine toxicology testing is unnecessary. Standard immunoassays will not detect mitragynine or 7-OH/derivatives and they don't cross-react with opioid immunoassays. A positive result only indicates an exposure to the substance (or a substance that cross reacts with that immunoassay) and does not provide clinically meaningful information about use patterns, amount, or intent. Use testing only when it will answer a clinical question (which is rare) or for epidemiologic purposes; do not delay needed care. In clinical practice, addiction and medical toxicology specialists rely on patient history and presentation rather than toxicology testing.
Long-acting buprenorphine	Define local eligibility, stabilization/direct-to-inject requirements, formulary and insurance workflow, consent, follow-up, and rescue plan.
Other opioids / fentanyl exposure	Precipitated withdrawal may be less common with isolated 7-OH than expected from higher-potency full-agonist opioid experience, but evidence is limited. If fentanyl/analogues or another opioid exposure is possible, use fentanyl-era guidance and choose the setting/pathway based on precipitated-withdrawal and overdose risk. The use of adjunct medications is essential.
Pain / perioperative care	Do not force a choice between withdrawal treatment and analgesia. Coordinate buprenorphine strategy with the pain/surgical team and plan discharge continuity. Initiating buprenorphine does not mean patients cannot receive FAO for acute pain management. If indicated/helpful for nociceptive pain, higher doses of FAO (typically 2-3X) will be needed for analgesic effect because of an underlying opioid tolerance and the presence of buprenorphine.
Pregnancy	Use pregnancy-specific OUD guidance and shared decision-making; involve obstetric and addiction expertise. Conservative induction strategies are indicated to avoid any chance of precipitated withdrawal, which can risk inducing early labor or miscarriage.
Product variability / adulterants	Commercial products vary in kratom alkaloid content and include non-opioid constituents. Unexpected or unusually complicated presentations should prompt assessment for undisclosed potent full-agonist opioids (including fentanyl/analogues), other adulterants, or co-exposures; routine urine drug screens are not helpful.
Rural access and equity	Design around pharmacy supply, travel, broadband, stigma, language, disability access, tribal sovereignty, and patient cost. Permit telehealth and flexible follow-up where lawful and safe.
Worsening after an initial dose	Do not assume worsening after a small buprenorphine dose means buprenorphine must be stopped. After assessing for instability, oversedation, adulterants/co-exposures, underdosing, and other diagnoses, a common clinician-directed response is additional buprenorphine plus adjuncts with close reassessment. Resuming or increasing an unregulated 7-OH product is generally not preferred when buprenorphine is available.

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Kratom/7-OH

At-Home Buprenorphine Regular Induction Patient Instructions

For patients selected for regular induction and using 8 mg films

STEP	INSTRUCTIONS	
1	TAKE KRATOM/7-OH/Product ☐ Take your usual amount of kratom/7-OH tonight before you go to bed.	
2	WAIT ☐ Do not take kratom/7-OH for at least 8 hours, ideally 12. ☐ Keep waiting until you feel withdrawal symptoms like bone aches, yawning, runny nose, restlessness, or nausea. When both boxes are checked, move to Step 3.	★ During this step, you can take comfort meds as needed for withdrawal symptoms.
3	START BUPRENORPHINE FILMS (8 mg/2 mg) When you feel withdrawal symptoms and it has been at least 8 hours since you last took kratom/7-OH/Product ☐ Place 1/4 a film under the tongue until it dissolves. Do not swallow. ☐ Wait 15 minutes, or longer if you can. ☐ Take 1/4 a film if you continue to have withdrawal. ☐ Wait 2 hours. ☐ Take 1/2 a film if you continue to have withdrawal. ☐ Wait 2 hours ← you should start to feel better at this point If you're still feeling withdrawal symptoms, take 1/2 a film every 2 hours. ☐ Before going to bed, take 1/2 a film unless you feel great. Max dose today: 3 films	★ During this step, you can take comfort meds as needed for withdrawal symptoms.
4	CONTINUE BUPRENORPHINE FILMS (8 mg/2 mg) ☐ The next morning , take 1/2 film. Repeat every few hours as needed if you have withdrawal. ☐ That night , take 1/2 a film if needed. Max dose today: 3 films.	★ During this step, you can take comfort meds as needed for withdrawal symptoms.
5	TAKE BUPRENORPHINE EACH DAY Daily Dose: _____	

CUTTING A FILM	CHECK-IN + SAFETY	COMFORT MEDICATIONS
To make a 1/2 film: cut the film in half. To make a 1/4 film: cut the 1/2 film in half again. <i>Buprenorphine films must be placed under the tongue. Let the film dissolve fully in your mouth so that it can be absorbed properly. Do not swallow.</i>	Check-in date: _____ Call clinical team: worsening withdrawal; repeated vomiting/diarrhea; cannot drink; severe anxiety/agitation; sedation. CALL 911: slow/difficult breathing; cannot awaken; seizure; chest pain; severe confusion; or immediate danger. Suspected overdose: give naloxone; repeat per label while awaiting EMS.	Hydroxyzine (Atarax) 1 tablet every 6 hours, as needed, for anxiety Clonidine 1 tablet every 6 hours, as needed, for restlessness Gabapentin 1 tablet every 8 hours, as needed, for aches Ondansetron (Zofran) 1 tablet every 6 hours, as needed, for nausea <i>Take, as needed, throughout induction.</i>

Kratom/7-OH	At-Home Buprenorphine Microinduction Patient Instructions For patients selected for low-dose/microinduction and using 2 mg films
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DAY	INSTRUCTIONS
1	START WITH ONCE A DAY ☐ Take your usual amount of kratom/7-OH/product. ☐ Today: Place a 1/4 of a 2 mg/0.5 mg film (0.5 mg buprenorphine) under the tongue until it dissolves. Do not swallow.
2	INCREASE TO TWICE A DAY ☐ Take your usual amount of kratom/7-OH/product. ☐ Morning: Take 1/4 of a 2 mg/0.5 mg film (0.5 mg buprenorphine). ☐ Evening: Take 1/4 of a 2 mg/0.5 mg film (0.5 mg buprenorphine).
3	INCREASE THE AMOUNT OF BUPRENORPHINE ☐ Take your usual amount of kratom/7-OH/product. ☐ Morning: Take 1/2 of a 2 mg/0.5 mg film (1 mg buprenorphine). ☐ Evening: Take 1/2 of a 2 mg/0.5 mg film (1 mg buprenorphine).
4	INCREASE THE AMOUNT OF BUPRENORPHINE ☐ Take your usual amount of kratom/7-OH/product. ☐ Morning: Take 1 full 2 mg/0.5 mg film (2 mg buprenorphine). ☐ Evening: Take 1 full 2 mg/0.5 mg film (2 mg buprenorphine).
5	NEW BUPRENORPHINE PRESCRIPTION AND KRATOM/7-OH/PRODUCT REDUCTION ☐ Open the new 8 mg/2 mg buprenorphine film. ☐ Try to take <i>less</i> kratom/7-OH. ☐ Morning: Take 1/2 of a 8 mg/2 mg film (4 mg buprenorphine). ☐ Evening: Take 1/2 of a 8 mg/2 mg film (4 mg buprenorphine).
6	TAKE BUPRENORPHINE EACH DAY ☐ Take 1 to 3 full 8 mg/2 mg films (8 to 24 mg buprenorphine) daily, to avoid withdrawal symptoms and cravings. ☐ You should be able to avoid taking kratom/7-OH products.

CUTTING A FILM	CHECK-IN + SAFETY	COMFORT MEDICATIONS
To make a 1/2 film: cut the film in half. To make a 1/4 film: cut the 1/2 film in half again. <i>Buprenorphine films must be placed under the tongue and let the film dissolve fully in your mouth so that it can be absorbed properly. Do not swallow.</i>	Check-in date: _____ Call the clinical team for worsening withdrawal; repeated vomiting/diarrhea; cannot drink; severe anxiety/agitation; unexpected sedation; or unsure of the next dose. CALL 911: slow/difficult breathing; cannot awaken; seizure; chest pain; severe confusion; or immediate danger. Suspected overdose: give naloxone; repeat per label while awaiting EMS.	Hydroxyzine (Atarax) 1 tablet every 6 hours, as needed, for anxiety Clonidine 1 tablet every 6 hours, as needed, for restlessness Gabapentin 1 tablet every 8 hours, as needed, for aches Ondansetron (Zofran) 1 tablet every 6 hours, as needed, for nausea <i>Take, as needed, throughout induction.</i>