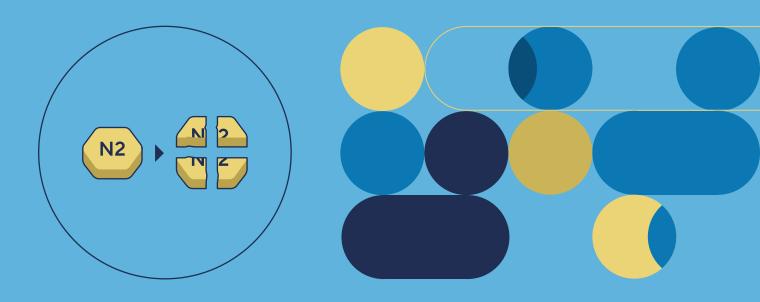


# Guide to Using the Buprenorphine-Naloxone (Suboxone®) Microdosing Induction Method in Opioid Agonist Therapy (OAT)

**JULY 2023** 

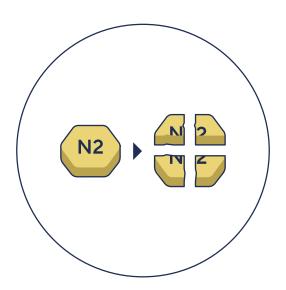






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This *Guide to Using the Buprenorphine-Naloxone (Suboxone®) Microdosing Induction Method in Opioid Agonist Therapy (OAT)* is a publication of the Équipe de soutien clinique et organisationnel en dépendance et itinérance (ESCODI) at CIUSSS du Centre-Sud-de-l'Île-de-Montréal.

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#### DISCLAIMER

The first literature to be published on the buprenorphine microdosing induction method appeared in 2016, when it was referred to as the Bernese Method.<sup>1</sup> At the time of writing, this method is off label and data supporting its use remain limited, but Canadian clinical guidelines suggest its use.

The content of this guide, which is based on case reports and clinical guidelines, is the result of discussions with a committee of Québec-based expert practitioners. In addition, the document was verified by competent experts to ensure that its content is as accurate as possible, in a context where there is still a paucity of quality literature on the subject.

However, it should be noted that this guide is not prescriptive in nature, and its authors cannot be held accountable for the clinical practices of professionals. Clinicians are expected to assume responsibility for being appropriately qualified and trained. They must exercise clinical judgment when providing care and services, in compliance with the professional standards and codes of ethics to which they are subject. Should there be any doubt about using this induction method, consulting an expert is recommended.

The advice given in this guide may come from case reports in the scientific literature, Canadian clinical guidelines, or Québec clinical expertise; this distinction is made in the text.

When the text refers to buprenorphine-naloxone (Suboxone®), this is understood to mean sublingual tablet and/or sublingual/buccal soluble film formulations.

Throughout this document, the buprenorphine-naloxone microdosing induction method is referred to as "microdosing" for ease of reading.

Unless otherwise indicated, the number of milligrams (mg) reported corresponds to the concentration of buprenorphine in the buprenorphine-naloxone formulation.

#### NOTES

In this document, the use of the term "nurse" is consistent with the standards of the Ordre des infirmières et infirmiers du Québec (OIIQ).

#### POUR NOUS JOINDRE

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## TABLE OF CONTENTS

	o Using the Buprenorphine-Naloxone (Suboxone®) Microdosing Induction Method d Agonist Therapy (OAT)	. 6
1. G	Seneral Principles	. 6
2. E	ligibility	. 6
3. C	Contraindications	. 6
4. T	reatment Principles	. 6
	Pre-treatment assessment	6
	Induction, dosage, and stabilization of treatment	7
	Prescription	10
	Unsupervised doses	10
	Missed doses	10
5. P	Precautions	11
Refe	erences	12
Append	ices	13
Арр	pendix 1: Buprenorphine-Naloxone (Suboxone®) Microdosing Induction - Frequently Asked Questions	14
Арр	endix 2 : Model Prescription	17
Арр	pendix 3 : Buprenorphine-Naloxone (Suboxone®) Microdosing Induction – Information for the Pharmacist	19

# GUIDE TO USING THE BUP/NLX MICRODOSING INDUCTION METHOD IN OAT

# Guide to Using the Buprenorphine-Naloxone (Suboxone®) Microdosing Induction Method in Opioid Agonist Therapy (OAT)

#### 1. GENERAL PRINCIPLES

- → In Québec, buprenorphine-naloxone (in a sublingual tablet and/or sublingual/buccal film) is one of three oral opioid agonist (OAT) options available for treating opioid use disorder (OUD), alongside methadone and slow-release oral morphine.
- Before starting treatment with buprenorphine-naloxone, the standard induction protocol requires the individual to be in moderate to severe withdrawal. For some individuals this requirement may be difficult to meet, effectively limiting access to this drug.
  - For more information on the standard buprenorphine-naloxone (Suboxone®) induction method, see the Optimal Usage Guide: Opioid Agonist Therapy (OAT), published by the INESSS, or the product monograph.
- → Buprenorphine-naloxone microdosing induction is an alternative, off-label method of induction involving repeated administration of low doses of buprenorphine-naloxone, in conjunction with the opioids used.¹ The opioids are discontinued gradually, or after 7-13 days.
  - The slow accumulation of buprenorphine at mu type (μ) opioid receptors allows for the gradual replacement of pure opioid agonists by buprenorphine without causing significant withdrawal symptoms.<sup>1</sup>
- → The usual average duration of microdosing is 7 or 13 days, compared with 2 days for standard induction protocols.<sup>2-5</sup>

#### 2. ELIGIBILITY

- Microdosing is suitable for use with pure opioid users, regardless of anticipated tolerance level, quantity consumed, or source of the opioids (prescribed or non-prescribed).
- Microdosing can be used to:
  - ➡ Initiate a buprenorphine-based OAT (e.g., buprenorphine-naloxone or buprenorphine sustained-release injection)
    in an individual taking opioids (prescribed or non-prescribed);

    4.5
  - Transfer an individual who is already on another OAT (e.g., methadone, slow-release oral morphine) to buprenorphine.
    - For further information on the use of sustained-release buprenorphine injection, see <u>A Guide to Using Extended-Release Buprenorphine</u> (Sublocade®) in Opioid Agonist Therapy (OAT).
- → Microdosing is particularly indicated for:
  - Individuals for whom the withdrawal symptoms associated with the standard induction method are unacceptable;
  - Individuals for whom withdrawal is not recommended (e.g., CAD, induction in a pregnant person);
  - Individuals whose withdrawal is not sufficient for standard induction; e.g., upon arrival at a clinic or in an emergency room.<sup>5,10</sup>

#### 3. CONTRAINDICATIONS

- → The literature does not report any contraindications to the use of microdosing.
- → The usual contraindications to the use of the various buprenorphine-naloxone formulations should be taken into consideration before starting induction. Consult the product monograph for a list of contraindications.

#### 4. TREATMENT PRINCIPLES

#### **Pre-treatment assessment**

- → Microdosing requires prescribers to make the same assessment as would be made before starting OAT with any drug.
  - For more information on the initial assessment required of an individual before prescribing an OAT, see the <u>CMQ</u>, OIIQ and OPQ guidelines (in French only).

- As microdosing is an off-label practice, the prescriber is encouraged to properly document the individual's clinical history prior to initiation of treatment, including the following:
  - Identifying the reason for choosing this induction modality,
  - Obtaining the individual's free and informed consent (consult Appendix 1).

#### For Prescribers

According to the expert clinicians consulted, it is advisable at this stage to take the time to explain to the individual that buprenorphine is a partial agonist of mu type  $(\mu)$  opioid receptors, and that its effect, once a stable dose has been reached, may therefore differ from that of a pure agonist. It is therefore important to ensure that buprenorphine-naloxone is suited to the needs and preferences of the individual starting microdosing induction.

#### Induction, dosage and stabilization of treatment

- → Various microdosing protocols have been published.<sup>3-8,10-14</sup> To date, no study has been able to determine that any particular protocol is better than another, so it is essential to tailor treatment to each individual case. However, a certain consensus appears to be emerging in the literature. The following is a summary of current practice:
  - Microdosing begins with the administration of one or more daily doses of buprenorphine-naloxone.
  - Concurrent use of other opioids may be discontinued immediately or gradually, as agreed with the individual receiving treatment.
  - → The most commonly used initial dose is 0.5 mg.<sup>3-6,12-14</sup>
  - ⇒ Daily doses are gradually increased (from 50% to 100% per day).<sup>3-7,9-14</sup>
  - The most common length of protocols for buprenorphine-naloxone microdosing induction is 7 days, but they can go as long as 13 days.<sup>3-5,12</sup>
    - A longer period is generally indicated for individuals taking long-acting opioids such as methadone, those
      using large quantities of opioids, and those who are fearful of discontinuing their opioid use.
      - Long-acting opioids (e.g., methadone, once-daily slow-release morphine, fentanyl patch, twice-daily (12-hour) slow-release morphine, etc.) can last 12 to 24 hours or more.
      - N.B.: If a long-acting opioid is injected, smoked or snorted, it becomes a short-acting opioid.
    - Conversely, a short protocol is indicated for individuals taking short-acting opioids, those with low opioid tolerance, and those using small quantities of opioids.
      - Short-acting opioids are those whose effects last less than five hours (e.g., heroin, hydromorphone, oxycodone, morphine, etc.).
  - When long-acting opioids are used, some protocols recommend starting to reduce such use at 4 mg of buprenorphine-naloxone, while others stop their use completely at 12 mg, without any prior reduction.<sup>3-5</sup>
    - It is recommended to reach a dosage of at least 4 mg of buprenorphine-naloxone before discontinuing short-acting opioids and/or starting to gradually reduce the use of long-acting opioids.
    - In general, use of long-acting opioids is discontinued after a dosage of 12 mg of buprenorphine-naloxone, on average (range 8-16 mg), has been reached.
  - End of induction and stabilization:
    - When discontinuing other opioids, monitor the individual for withdrawal symptoms and titrate the buprenorphine-naloxone dose rapidly, if necessary.
    - At the end of the microdosing protocol, it may be useful to provide additional doses of buprenorphinenaloxone to treat the onset of withdrawal symptoms; e.g., 1 tablet of 2 mg BID PRN, to be used as required,<sup>3,4</sup> without exceeding a total dose of 32 mg per day.
      - N.B.: The Optimal Usage Guide Opioid Agonist Therapy (OAT) states that a "dose of 32 mg/day is commonly used and is safe in this context," although the limit established by Health Canada is 24 mg.<sup>2</sup>

- → According to the clinical expertise, the key issues when tailoring the protocol to the individual's needs are as follows:
  - Opioid tolerance.
    - N.B.: Individuals who are taking high doses of opioids may need to reach the maximum dose of buprenorphinenaloxone (24 or 32 mg) before discontinuing such use;
  - Feelings of attachment to concomitant opioids.
  - Susceptibility to withdrawal symptoms (e.g., a history of traumatic withdrawal).
  - The urgency of the need to intervene (e.g., hospitalization, travel, etc.).
  - Comorbidities, including chronic pain.
  - The potential benefits of BID intake with regard to displacing opioids at mu type (μ) receptors.

	Examples of buprenorphine-naloxone microdosing protocols in OAT							
		Short protocol	Long protocol					
Day	BUP dosage	Other opioid dosage	BUP dosage	Other opioid dosage				
1	0.5 mg QD	Maintenance	0.5 mg QD	Maintenance				
2	0.5 mg BID	Maintenance	0.5 mg QD	Maintenance				
3	1 mg BID	Maintenance	1 mg QD	Maintenance				
4	2 mg BID	Options:  ➡ Discontinuation of short-acting opioids and/or  ➡ Reduction of long-acting opioids	1.5 mg QD	Maintenance				
5	3 mg BID	Maintenance	2 mg QD	Maintenance				
6	4 mg BID	Maintenance	3 mg QD	Maintenance				
7	12 mg QD	Discontinuation of other opioids	4 mg QD	Options:   ⇒ Discontinuation of short-acting opioids and/or  ⇒ Reduction of long-acting opioids				
8	Adjust BUP do	se until a comfort dose is reached.	5 mg QD	Maintenance				
9			6 mg QD	Maintenance				
10			7 mg QD	Maintenance				
11			8 mg QD	Maintenance				
12			10 mg QD	Maintenance				
13			12 mg QD	Discontinuation of other opioids				
14			Adjust the BUP	dose until a comfort dose is reached.				

Tiré de : Marwah et coll.<sup>3</sup>, Patel et coll.<sup>4</sup> et McHealth<sup>5</sup>.

#### **Proof** For Pharmacists

#### Warning:

- $\Rightarrow$  0.5 mg =  $\frac{1}{4}$  of a 2 mg tablet of buprenorphine-naloxone.
- On the subject of buprenorphine-naloxone film, one study reports that cutting the film in half, rather in quarters, with a razor blade will least compromise the stability of its contents.<sup>15</sup> This study also reports that the concentration of a film cut in half remains stable for 7 days if stored in a plastic bag with a sealable zipper.<sup>15</sup>

- → The provision of an opioid withdrawal symptom assessment tool, such as the <u>Subjective Opioid Withdrawal Scale (SOWS)</u>, may be indicated to enable the individual to monitor the onset of withdrawal symptoms during induction (see <u>Appendix 1</u>).
- → It is also recommended to prescribe a withdrawal kit to individuals commencing buprenorphine-naloxone microdosing induction.<sup>2</sup>

Withdrawal kit					
Symptom Medication example Quantity					
Nausea	Nausea Antiemetic (e.g., dimenhydrinate 25 mg every 6-8 hr.) 10 tabs				
Diarrhea Antidiarrheal (e.g., loperamide 4 mg stat, then 2 mg after each liquid stool; max 12 mg/24 hr.) 6 tabs		6 tabs			
Anxiety, irritability, perspiration  Clonidine 0.1 mg BID-TID as needed within the first 12 hr.		3 tabs			
	Diphenhydramine 25-50 mg HS <b>or</b>	2 tabs			
Insomnia	Trazodone 50 mg HS <b>or</b>	1 tab			
	Quetiapine 25-50 mg HS	2 tabs			
Pain	NSAID (e.g., ibuprofen 200-400 mg every 6-8 hr.) <b>or</b>	6 tabs			
Palli	Acetaminophen 500 mg every 4-6 hr.; max. 4 gr/24 hr.	8 tabs			

From: Institut national d'excellence en santé et services sociaux (INESSS). Optimal Usage Guide - Opioid Agonist Therapy (OAT).

#### For Prescribers

According to clinical expertise, mild withdrawal symptoms may appear around the fourth or fifth day of the microdosing induction process. It may be worthwhile to schedule a short courtesy call with the individual to ensure that the induction is going well, and to address any needs they may have.

There is currently a risk of contamination, by benzodiazepines, of opioids that are obtained on the illicit market. According to clinical expertise, it is recommended to pay particular attention to the signs and symptoms of benzodiazepine withdrawal when opioid use is discontinued.

- → In order to ensure that the induction is going well, various follow-up and support modalities can be offered to individuals who are following a microdosing induction protocol:
  - ⇒ Teleconsultations,
  - Close follow-up with a community pharmacist,
  - Home visits,
  - The use of a blister pack or pill dispenser (dispill).

At the first assessment and at each subsequent meeting, a naloxone kit should be offered, instructions should be provided on its use, and essential harm reduction materials should be distributed.



#### **Prescription**

- → For a model prescription for buprenorphine-naloxone microdosing induction, see Appendix 2.
- → A fact sheet for community pharmacists is provided in Appendix 3.
- → The following formulations of buprenorphine-naloxone are available in Québec for use in microdosing induction:

Buprenorphine-naloxone formulation	Concentration	Covered by RAMQ
Sublingual tablets (Suboxone®)	2 mg and 8 mg	Yes
Sublingual/buccal films (Suboxone®)	2 mg, 4 mg, 8 mg and 12 mg	Yes

#### **Unsupervised doses**

- → Whether or not to grant unsupervised doses as part of microdosing is left to the prescriber's discretion. A decision support tool for granting unsupervised dosing is available here.
- → In the case of an individual who is already visiting the pharmacy daily and is prescribed buprenorphine-naloxone to be taken twice daily, the first dose is generally administered in the pharmacy and the second dose is given to the individual.<sup>3,13</sup>

#### **Missed doses**

→ If consecutive doses are missed for a period of more than 48 hours, the community pharmacist may reassess the individual and adjust the prescription. If necessary, the pharmacist can contact the prescriber. See: Optimisation du rôle du pharmacien communautaire (in French only).

Missed doses	Recommended action(s)		
Less than 48 hours without a dose	Take the missed dose as soon as possible. Restart the induction schedule from the missed dose.		
More than 48 hours without a dose	Reassess the individual. If necessary, contact the prescriber.		

Inspired by: Marwah et coll.<sup>3</sup>, Patel et coll.<sup>4</sup>, Cho et coll.<sup>12</sup> et CRDQ<sup>11</sup>.

N.B.: The following criteria need to be considered when determining a dosage adjustment after a missed dose: the daily dose of buprenorphine-naloxone and the concomitant opioid, the number of missed doses, the use of a pure agonist opioid (e.g., methadone), and risk of a precipitated withdrawal.

#### 5. PRECAUTIONS

- The literature on microdosing reports few adverse reactions.
- → It is recommended to consult the <u>product monograph</u> of the chosen formulation for information on adverse effects and potential drug interactions.
- → It is not uncommon for individuals to report mild to moderate withdrawal symptoms during induction. It is recommended practice to prescribe a withdrawal kit at the same time as the induction.
  - If severe withdrawal symptoms appear, the individual should be reassessed to determine whether the microdosing should be continued or discontinued.



#### **Contact us**

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**Email**: <a href="mailto:escodi.ccsmtl@ssss.gouv.qc.ca">escodi.ccsmtl@ssss.gouv.qc.ca</a> **Website**: <a href="mailto:dependanceitinerance.ca">dependanceitinerance.ca</a>

#### **REFERENCES**

- Hämmig R, Kemter A, Strasser J, von Bardeleben U, Gugger B, Walter M, et al. Use of microdoses for induction of buprenorphine treatment with overlapping full opioid agonist use: the Bernese method. Subst Abuse Rehabil. 2016;7:99-105.
- Institut national d'excellence en santé et services sociaux. Guide d'usage optimal – Traitement par agonistes opioïdes [Internet]. Montréal (Québec): Institut national d'excellence en santé et services sociaux (INESSS); 2021 [cited 2022 Jan. 21]. Available from: www.inesss.qc.ca/fileadmin/doc/INESSS/Rapports/ Medicaments/GUO\_TUO\_FR.pdf
- Marwah R, Coons C, Myers J, Dumont Z. Microdosage de buprénorphine-naloxone: Outils pour l'induction du traitement par agoniste des récepteurs opioïdes. Can Fam Physician. déc 2020;66(12):e302-6.
- Patel P, Dunham K, Lee K. Buprenorphine/Naloxone Microdosing: The Bernese Method [Internet]. Canadian Mental Health Association; 2019 sept [cited 2021 Sept. 23]. Available from: www.metaphi.ca/wp-content/uploads/Guide Microdosing.pdf
- MacHealth. Buprenorphine Reference Guide v3.0 [Internet]. Toronto, ON: University of Toronto & McMaster University; 2021 [cited 2021 Nov. 15]. Available from: machealth.ca/programs/ opioids clinical primer/m/buprenorphine rg and course handouts/2403
- Saskatchewan College of Pharmacy Professionals. Opioid Agonist Therapy (OAT) Standards [Internet]. Saskatchewan College of Pharmacy Professionals; 2020. Available from: <a href="https://www.saskpharm.ca/document/5871/REF">www.saskpharm.ca/document/5871/REF</a> OAT Standards.pdf
- Center for Addiction Medicine and Policy. Micro-dosing Guidelines: Buprenorphine Cross-Tapering using a Micro-dosing Strategy [Internet]. Center for addiction medicine and policy; 2021 [cited 2021 Oct. 3]. Available from: <a href="https://penncamp.org/clinical/micro-dosing/">https://penncamp.org/clinical/micro-dosing/</a>
- Centre for Addiction and Mental Health (CAMH). Opioid
  Agonist Therapy: A Synthesis of Canadian Guidelines for
  Treating Opioid Use Disorder [Internet]. Centre de toxicomanie
  et de santé mentale; 2021 mai. Available from:
  www.camh.ca/-/media/files/professionals/canadian-opioiduse-disorder-guideline2021-pdf.pdf

- Adams KK, Machnicz M, Sobieraj DM. Initiating buprenorphine to treat opioid use disorder without prerequisite withdrawal: a systematic review. Addict Sci Clin Pract. 8 juin 2021;16(1):36.
- College of Physicians & Surgeons of Manitoba. The College of Physicians & Surgeons of Manitoba Buprenorphine/ naloxone Recommended Practice Manual: Recommendations for buprenorphine/naloxone induction using the microdosing method. [Internet]. College of Physicians & Surgeons of Manitoba; 2020 juin. Available from: https://cpsm.mb.ca/assets/PrescribingPracticesProgram/Buprenorphine%20
   Specific%20Guidance%20-%20Recommendations%20for%20
   Buprenorphine%20Micro-dosing%20Inductions.pdf
- Centre de réadaptation en dépendance de Québec. Induction de buprénorphine/naloxone (Suboxone) par microdosage.
   Centre de réadaptation en dépendance de Québec; 2019.
- Cho E, Lu S. Microdosing of Buprenorphine for Induction (the Bernese Method) [Internet]. BC Pharmacy Association; 2021 juil. [cited 2021 Oct. 3]. Available from: <a href="www.bcpharmacy.ca/tablet/fall-18/microdosing-buprenorphine-induction-bernese-method">www.bcpharmacy.ca/tablet/fall-18/microdosing-buprenorphine-induction-bernese-method</a>
- McLean M. OAT Transitions focus on microdosing [Internet].
   Available from: <a href="mailto:stophivaids.ca/wp-content/uploads/">stophivaids.ca/wp-content/uploads/</a> Microdosing-McLean-BOOST-14-June-2018.pdf
- 14. College of Physicians and Surgeons of Saskatchewan. OATP Opioid Agonist Therapy Program: STANDARDS AND GUIDELINES for the Treatment of Opioid Use Disorder [Internet]. College of Physicians and Surgeons of Saskatchewan; 2020. Available from: www.cps.sk.ca/iMIS/Documents/Legislation/Policies/OAT%20 Standards%20and%20Guidelines.pdf
- Reindel KL, DeAngelis MJ, Ferrara AS, Conn KM, Phillips EM, Corigliano AT, et al. An Exploratory Study of Suboxone (Buprenorphine/Naloxone) Film Splitting: Cutting Methods, Content Uniformity, and Stability. Int J Pharm Compd. 2019;23(3):258-63.

#### **APPENDICES**

#### Appendix 1

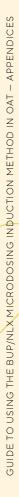
Buprenorphine-Naloxone (Suboxone®) Microdosing Induction - Frequently Asked Questions

#### Appendix 2

Model Prescription

#### Appendix 3

Buprenorphine-Naloxone (Suboxone®) Microdosing Induction – Information for the Pharmacist



#### APPENDIX 1

# BUPRENORPHINE-NALOXONE (SUBOXONE®) MICRODOSING INDUCTION

#### **Frequently Asked Questions**

# What is buprenorphine-naloxone microdosing?

It is a treatment initiation method for opioid dependence, or for switching treatment (e.g., from methadone to buprenorphine-naloxone), through the use of very small doses of buprenorphine-naloxone and without the person having to stop consumption of opioids or discontinue their usual treatment (e.g., methadone). Opioid use or treatment will be discontinued during the process.

#### Why is this method used?

Following this method does not require stopping the use of other opioids, and the individual being followed can be spared significant withdrawal symptoms. This can benefit individuals whose withdrawal symptoms are intolerable or unacceptable, as well as those for whom withdrawal is not recommended.

#### How does it work?

Low doses of buprenorphine-naloxone are taken orally every day and are gradually increased over a period of several days until a sufficient dose is reached, i.e., one that enables the individual to stop consuming opioids without experiencing significant withdrawal symptoms.

It is essential not to take the doses listed in the induction schedule any faster than suggested, as this could trigger withdrawal symptoms.

#### How long does the microdosing last?

The treatment usually lasts 7 or 13 days. However, the individual and prescriber may agree on a schedule tailored to the individual's needs.

Once the opioids have been discontinued, the dose of buprenorphine-naloxone can continue to be increased until a comfortable daily dose is reached.

# Are there any conditions for following this method?

Yes, the individual must want to treat their opioid dependence with buprenorphine, understand its effects, and aim to stop using opioids. Buprenorphine is a drug that does not produce a "soothing" effect like other opioids, such as methadone and morphine.

In addition, the individual must be prepared to take this drug according to a schedule. Depending on the situation, two doses a day may be indicated. It is also possible that at least one of these doses will be administered in a pharmacy.

#### What should I do if I miss a dose?

It is important to follow the established schedule to limit the onset of withdrawal symptoms.

Missed doses	Recommended action(s)
Less than 48 hours (2 days) without a dose	Take the missed dose as soon as possible. Continue with the next dose according to the schedule, starting from the missed dose. It is important not to speed up the schedule to "make up" for missed days.
More than 48 hours (2 days) without a dose	See the prescriber or the pharmacist, who will readjust the protocol if necessary.

# What should I do if I experience withdrawal symptoms?

Mild withdrawal symptoms may occur during microdosing. A withdrawal symptom self-assessment tool is available on the following page to help judge their intensity. If these symptoms are too severe, a withdrawal kit is prescribed. The kit contains various drugs that will relieve symptoms. The pharmacist can provide support on how to use it properly.

# Who should I contact for help or if I have questions?

For questions about the microdosing method, side effects, abnormal withdrawal symptoms and cravings, contact a member of the partner care team. The community pharmacist, who is a member of the care team, is also able to quickly provide advice.

#### Document inspired by the CHUM Addiction Medicine Department

We would like to thank to Marie-Christine Grégoire and Jonathan Ménard for their contribution.

#### Subjective Opioid Withdrawal Scale (SOWS)<sup>1</sup>

The SOWS is used to evaluate the intensity of one's opioid withdrawal symptoms on a 5-point scale ranging from 0 (not at all) to 4 (extremely).

**Instructions:** Please circle the answer that best describes how you feel now. Add up your points to obtain your final score.

		0=Not	at all; 1=A little; 2	?=Moderately; 3=	Quite a bit; 4=Ex	tremely
Symptom	Date					
Symptom	Time					
I feel anxious.		0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
I feel like yawning.		0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
I am perspiring.		0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	01234	0 1 2 3 4
My eyes are teary.		0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	01234	0 1 2 3 4
My nose is running.		0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	01234	0 1 2 3 4
I have goosebumps.		0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	01234	0 1 2 3 4
I am shaking.		0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
I have hot flushes.		0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
I have cold flushes.		0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	01234	0 1 2 3 4
My bones and muscles ach	ne.	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
I feel restless.		0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
I feel nauseous.	• • • • • • • • • • • • • • • • • • • •	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
I feel like vomiting.		0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
My muscles twitch.		0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
I have stomach cramps.		0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
I feel like using now.		0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
Tota	ıl score					

Mild withdrawal: 1-10 Moderate withdrawal: 11-20 Severe withdrawal: 21-30

<sup>1</sup> Handelsman L, Cochrane KJ, Aronson MJ, Ness R, Rubinstein KJ, Kanof PD. Two New Rating Scales for Opiate Withdrawal. 1987. American Journal of Alcohol Abuse 13, 293-308.

APPENDIX 2

### **Model Prescription**

[ Patient's contact information ]

# PHARMACEUTICAL PRESCRIPTION FOR BUPRENORPHINE-NALOXONE (SUBOXONE®) MICRODOSING INDUCTION

PRESCRIPTION FOR BUPRENORPHINE-NALOXONE (SUBOXONE®) MICRODOSING INDUCTION  ne principle of microdosing involves gradually inducing microdoses of buprenorphine-naloxone in order to minimize sympton ithdrawal from the other opioid, which is taken at the same time and discontinued once the therapeutic dose of buprenorphinaloxone has been reached. See the indication.  **** By convention, the number of milligrams indicated in the dosages corresponds to mg of buprenorphine. ***  IDICATION						
	stitution treatment for					
	DD MM	YYYY	DD	MM	YYYY	
			Microdosing	g Protocol		
Day	Buprenorph	ine-naloxone	dosage	Dos	age of the other opic	oid:
1	mg	BID 🗆	Other:		Maintenance	☐ Discontinuation
2	mg	BID 🗆	Other:		Maintenance	☐ Discontinuation
3	mg	BID 🗆	Other:		Maintenance	☐ Discontinuation
4	mg	BID	Other:		☐ Maintenance	Discontinuation
5	mg	BID 🗆	Other:		Maintenance	☐ Discontinuation
6	mg	BID 🗆	Other:		Maintenance	☐ Discontinuation
7	mg	BID 🗆	Other:		Maintenance	☐ Discontinuation
8	mg	BID 🗆	Other:		Maintenance	☐ Discontinuation
9	mg	BID 🗆	Other:		Maintenance	☐ Discontinuation
10	mg	BID 🗆	Other:		Maintenance	☐ Discontinuation
11	mg 🗆 QE	BID 🗆	Other:		Maintenance	☐ Discontinuation
12	mg 🗆 QE	BID 🗆	Other:		Maintenance	☐ Discontinuation
13	mg 🗆 QE	BID 🗆	Other:		Maintenance	☐ Discontinuation
14	mg 🗆 QE	BID 🗆	Other:		☐ Maintenance	☐ Discontinuation
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Adju	Adjustment to the buprenorphine-naloxone dose at the end of the protocol:						
	Starting on day (end of the protocol), continue with mg of buprenorphine-naloxone QD.						
	Allow buprenorphine-naloxone tablets/films of mg PRN, to be used as needed but not exceeding a total dose						
	<ul> <li>of 32 mg per day.</li> <li>Do not dispense if the patient is visibly under the influence of alcohol or intoxicated by medication or drugs.</li> </ul>						
	Protocol for a missed dose:						
Missed doses Recommended action(s)							
	Less than 48 hours	Take the missed dose as soon as poss	sible.				
without a dose  Restart the induction schedule from the missed dose.							
	More than 48 hours	Reassess the individual.					
	without a dose	If necessary, contact the prescriber.					
Che	ck the following as needed:						
	Please give the naloxone kit and expla	ain how to use it.					
	Give the following withdrawal kit:						
	Symptom	Drug	Quantity				
	Nausea	Dimenhydriante: mg	tab				
	Diarrhea	Loperamide:mg	tab				
	Anxiety, irritability, perspiration	Clonidine: mg	tab				
		Diphenhydramine:mg	tab				
	Insomnia	Trazodone:mg	tab				
		Quetiapine : mg	tab				
	Pain	Ibuprofen:mg	tab				
	T dill	Acetaminophen:mg	tab				
		OTHER MEDICATION	IS				
Dail	dosage of the other opioid:		mg QD (total quantity for the duration of	of the prescription:			
	mg) given in addition to buprend	orphine-naloxone. Discontinue as per the	e above microdosing protocol.				
Peri		/TO// 					
	DD MM		YYYY				
			served per day or week):ates on which he or she must take the me				
	the pharmacist.	doses at nome between the da	ates on which he of she must take the me	edication in front of			
Be s	ure to list all other opioids prescrib	ped concurrently here.					
		CONFIDENTIAL TRANSMISSION	ON BY FAX				
Dharr	nacv.						
	Pharmacy:						
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		[ Identification of the prescriber's local	ition of practice ]				
Preso	riber's name (block letters):		Permit nº:				
Dross	Prescriber's signature: Date and time:						
riesc	inei s signature:		Date and time:				

# PHARMACEUTICAL PRESCRIPTION FOR BUPRENORPHINE-NALOXONE (SUBOXONE®) MICRODOSING INDUCTION

#### APPENDIX 3

# BUPRENORPHINE-NALOXONE (SUBOXONE®) MICRODOSING INDUCTION

## What is buprenorphine-naloxone microdosing?

Information for the Pharmacist

- → In the context of opioid agonist therapy (OAT), buprenorphine-naloxone microdosing induction is an alternative method to the standard, off-label induction method, which relies on the repeated administration of low doses of buprenorphine-naloxone, concomitantly with the other opioids used.¹ Consumption of the other opioids will be discontinued gradually, or after 7-13 days.
  - The slow accumulation of buprenorphine at mu type (μ) opioid receptors allows for the gradual replacement of pure opioid agonists by buprenorphine without causing significant withdrawal symptoms.<sup>1</sup>
- → The usual average microdosing period is 7 or 13 days, compared with 2 days for standard induction protocols.<sup>2-5</sup> See the prescription.

#### Why use this induction technique?

- Microdosing can be used to:
  - Initiate buprenorphine-based OAT in an individual taking opioids (whether prescribed or not),<sup>45</sup>
  - □ Transfer an individual who is already on another OAT (e.g., methadone, slow-release oral morphine) to buprenorphine.
- Microdosing is particularly indicated for:
  - Individuals for whom the withdrawal symptoms associated with the standard induction method are unacceptable.<sup>5-9</sup>
  - Individuals for whom withdrawal is not recommended (e.g., CAD, induction of a pregnant person).
  - Individuals whose withdrawal is not sufficient for standard induction upon arrival at a clinic or in an emergency room.
    5.10

# What support should be provided to individuals who are following a buprenorphine-naloxone microdosing induction protocol?

- When it is deemed safe to serve all the doses of buprenorphine-naloxone required, the offer can be made to use of a blister pack or dispill.
- In cases where the individual is already taking buprenorphine-naloxone on a daily basis and is prescribed a twice-daily dose, the first dose is generally administered in the pharmacy, and the second dose is given to the individual.<sup>3.11</sup>
- → The individual will also receive a fact sheet detailing the induction schedule, the steps to be followed to ensure that the induction goes well, and some advice, including the following:
  - It is not necessary to observe a strict interval between doses of buprenorphine-naloxone. They can be taken a few hours before or a few hours after the scheduled time.
  - Buprenorphine-naloxone can be taken at the same time as other opioids. It is not necessary to take these drugs at different times.
  - Withdrawal symptoms may be experienced during the process. A withdrawal kit will also be prescribed, and can be used as needed.
- → If consecutive doses are missed over a period exceeding 48 hours, the community pharmacist may reassess the individual and adjust the prescription. If necessary, the pharmacist can contact the prescriber. See: Optimisation du rôle du pharmacien communautaire (in French only).

Missed doses	Recommended action(s)
Less than 48 hours without a dose	Take the missed dose as soon as possible. Restart the induction schedule from the missed dose.
More than 48 hours without a dose	Reassess the individual.  If necessary, contact the prescriber.

Inspired by: Marwah et coll.<sup>3</sup>, Patel et coll.<sup>4</sup>, Cho et coll.<sup>12</sup> et CRDQ<sup>13</sup>.

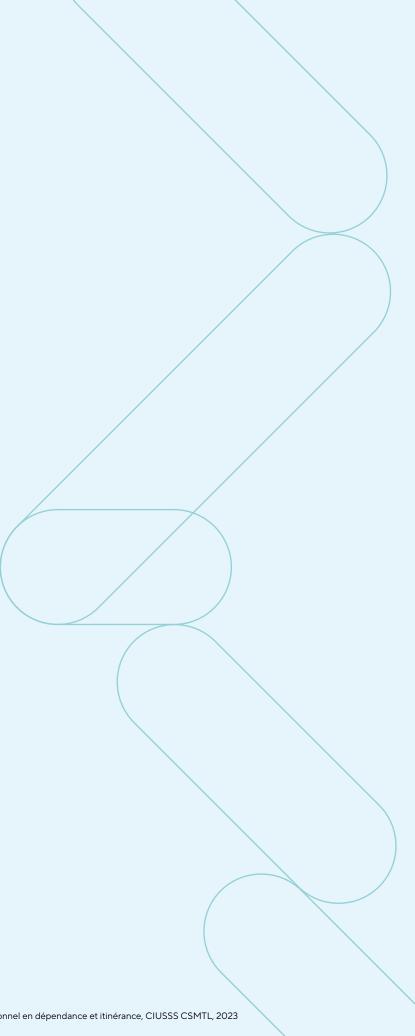
For a complete guide to using the buprenorphine-naloxone microdosing induction method, consult the Dépendence section at <a href="https://dependenceitinerance.ca">https://dependenceitinerance.ca</a> (the site includes many documents in English).

Document inspired by work carried out by the Centre de réadaptation en dépendance du CIUSSS de la Capitale-Nationale.

#### **REFERENCES FOR APPENDIX 3**

- Hämmig R, Kemter A, Strasser J, von Bardeleben U, Gugger B, Walter M, et al. Use of microdoses for induction of buprenorphine treatment with overlapping full opioid agonist use: the Bernese method. Subst Abuse Rehabil. 2016;7:99-105.
- Institut national d'excellence en santé et services sociaux. Guide d'usage optimal – Traitement par agonistes opioïdes [Internet]. Montréal (Québec): Institut national d'excellence en santé et services sociaux (INESSS); 2021 [cited 2022 Jan. 21]. Available from: <a href="https://www.inesss.qc.ca/fileadmin/doc/INESSS/Rapports/Medicaments/GUO TUO FR.pdf">www.inesss.qc.ca/fileadmin/doc/INESSS/Rapports/Medicaments/GUO TUO FR.pdf</a>
- Marwah R, Coons C, Myers J, Dumont Z. Microdosage de buprénorphine-naloxone: Outils pour l'induction du traitement par agoniste des récepteurs opioïdes. Can Fam Physician. Déc. 2020;66(12):e302-6.
- Patel P, Dunham K, Lee K. Buprenorphine/Naloxone Microdosing: The Bernese Method [Internet]. Canadian Mental Health Association; 2019 sept [cited 2021 Sept. 23]. Available from: <a href="https://www.metaphi.ca/wp-content/uploads/Guide-Microdosing.pdf">www.metaphi.ca/wp-content/uploads/Guide-Microdosing.pdf</a>
- MacHealth. Buprenorphine Reference Guide v3.0 [Internet].
   Toronto, ON: University of Toronto & McMaster University; 2021 [cited 2021 Nov. 15]. Available from: machealth.ca/programs/opioids clinical primer/m/buprenorphine rg and course handouts/2403
- Saskatchewan College of Pharmacy Professionals. Opioid Agonist Therapy (OAT) Standards [Internet]. Saskatchewan College of Pharmacy Professionals; 2020. Available from: www.saskpharm.ca/document/5871/REF\_OAT\_Standards.pdf
- Center for Addiction Medicine and Policy. Micro-dosing Guidelines: Buprenorphine Cross-Tapering using a Microdosing Strategy [Internet]. Center for addiction medicine and policy; 2021 [cited 2021 Oct. 3]. Available from: <a href="mailto:penncamp.org/clinical/micro-dosing/">penncamp.org/clinical/micro-dosing/</a>

- Centre for Addiction and Mental Health (CAMH). Opioid
  Agonist Therapy: A Synthesis of Canadian Guidelines for
  Treating Opioid Use Disorder [Internet]. Centre de toxicomanie
  et de santé mentale; 2021 mai. Available from:
  www.camh.ca/-/media/files/professionals/canadian-opioiduse-disorder-guideline2021-pdf.pdf
- Adams KK, Machnicz M, Sobieraj DM. Initiating buprenorphine to treat opioid use disorder without prerequisite withdrawal: a systematic review. Addict Sci Clin Pract. 8 juin 2021;16(1):36.
- College of Physicians & Surgeons of Manitoba. The College of Physicians & Surgeons of Manitoba Buprenorphine/ naloxone Recommended Practice Manual: Recommendations for buprenorphine/naloxone induction using the microdosing method. [Internet]. College of Physicians & Surgeons of Manitoba; 2020 juin. Available from: <a href="https://cpsm.mb.ca/assets/PrescribingPracticesProgram/Buprenorphine%20">https://cpsm.mb.ca/assets/PrescribingPracticesProgram/Buprenorphine%20</a> Specific%20Guidance%20-%20Recommendations%20for%20 Buprenorphine%20Micro-dosing%20Inductions.pdf
- McLean M. OAT Transitions focus on microdosing [Internet].
   2018. Available from: stophivaids.ca/wp-content/uploads/ Microdosing-McLean-BOOST-14-June-2018.pdf
- Centre de réadaptation en dépendance de Québec. Induction de buprénorphine-naloxone (Suboxone<sup>MC</sup>) par microdosage. Centre de réadaptation en dépendance de Québec; 2019.
- Cho E, Lu S. Microdosing of Buprenorphine for Induction (the Bernese Method) [Internet]. BC Pharmacy Association; 2021 juil. [cited 2021 Oct. 3]. Available from: <a href="www.bcpharmacy.ca/tablet/fall-18/microdosing-buprenorphine-induction-bernese-method">www.bcpharmacy.ca/tablet/fall-18/microdosing-buprenorphine-induction-bernese-method</a>



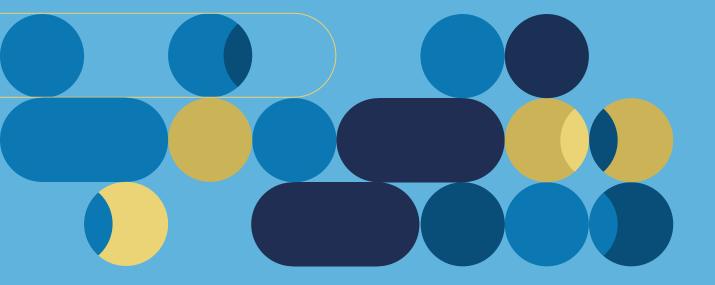
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