

Workshop

Micro-dosing for induction of treatment

Ken Lee

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Our Twitter team will be live-tweeting this session from [@camhEdu](#).

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Buprenorphine Induction Strategies

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DISCLOSURE OF COMMERCIAL SUPPORT

- This program has received financial support from *CAMH & CPSO* in the form of **an educational grant**
- This program has received in-kind support from *CAMH & CPSO* in the form of **logistical support**
- Potential for conflict(s) of interest: **there is no conflict**

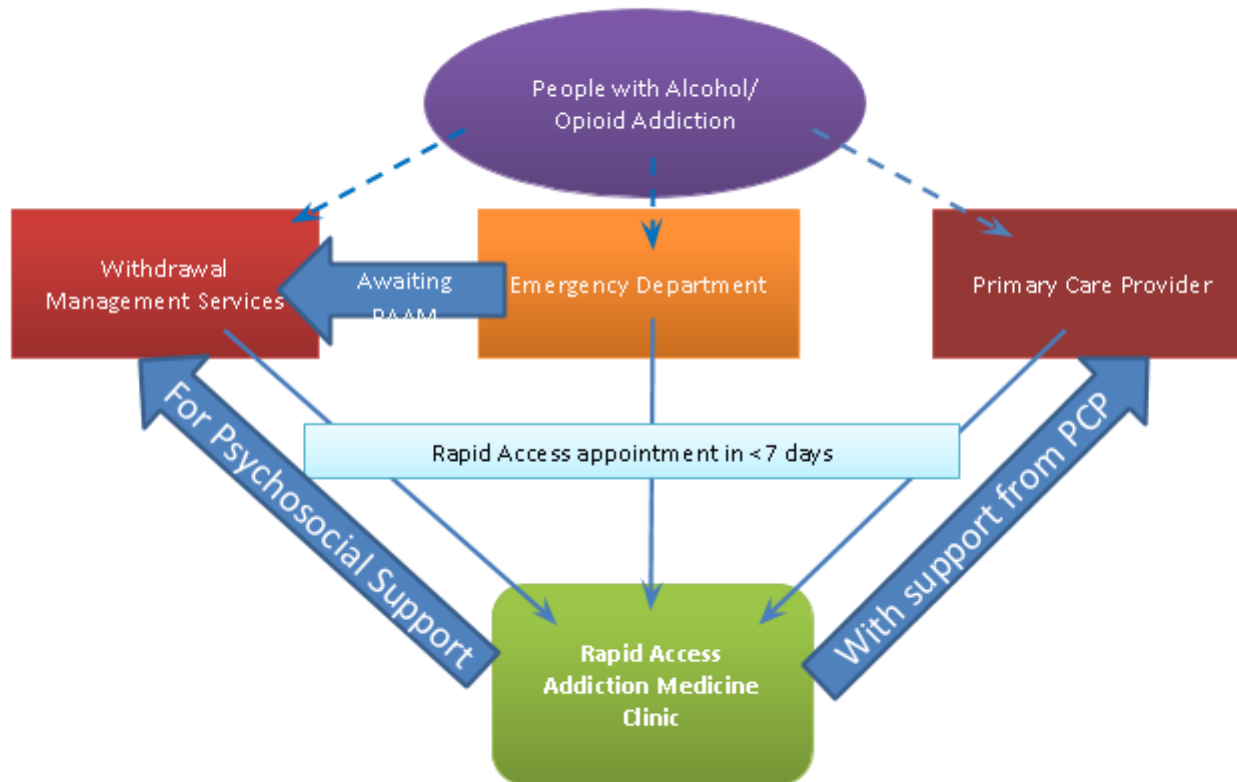
FACULTY/PRESENTER DISCLOSURE

- Faculty: **Dr. Ken Lee**
- Relationships with commercial interests:
 - Grants/Research Support: **ARTIC META:PHI**
 - Speakers Honoraria:
Gilead, AbbVie, Merck, Knight, Indivior

MITIGATING POTENTIAL BIAS

- There is no conflict

META:PHI Care Pathway



The RAAM Clinic

Mondays 12:30pm - 3:00pm

Tuesdays 8:00am - 11:00am

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Induction Scenarios

1. Standard Induction
2. Microdosing Induction
3. Methadone Conversions
4. Street Fentanyl Induction
5. Fentanyl Patch Conversions
6. Butrans Patch Bridging
7. Pill in Pocket Induction

- 35 year old male using **HydroMorph IDU** several times a day
- Last used 12 hours ago
- COWS score 18 (**moderate withdrawal**)

Standard Induction

- Buprenorphine 2 mg to start
- Then Buprenorphine 2 mg q1h until comfortable to a max dose of 12 mg on day 1
- Followup on day 2 and titrate up to 16 mg as needed

- 35 year old male using **HydroMorph IDU** several times a day
- Last used this morning
- COWS score zero (**not in withdrawal**)

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CASE SERIES

Use of microdoses for induction of buprenorphine treatment with overlapping full opioid agonist use: the Bernese method

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Background: Buprenorphine is a partial μ -opioid receptor agonist used for maintenance treatment of opioid dependence. Because of the partial agonism and high receptor affinity, it may precipitate withdrawal symptoms during induction in persons on full μ -opioid receptor agonists. Therefore, current guidelines and drug labels recommend leaving a sufficient time period since the last full agonist use, waiting for clear and objective withdrawal symptoms, and reducing pre-existing full



Buprenorphine/Naloxone Microdosing: The Bernese Method

A Brief Primer for Clinicians

Dosing schedules adapted from the PHS Health Care Columbia Street Community Clinic and St. Paul's /VGH/RAAC clinicians

The theoretical background of this method is based on the following hypothesis:

- Repetitive administration of very small buprenorphine doses with sufficient dosing intervals should not precipitate opioid withdrawal
- Because of the long receptor binding time, buprenorphine will accumulate at the opioid receptor
- Over time, an increasing amount of a full μ -agonist will be replaced by buprenorphine at the opioid receptor

- References:
- Hämmig, R., Kemter, A., Strasser, J., von Bardeleben, U., Gugger, B., Walter, M., Dürsteler, K.M. and Vogel, M., 2016. Use of microdoses for induction of buprenorphine treatment with overlapping full opioid agonist use: the Bernese method. *Substance abuse and rehabilitation*, 7, p.99. [see attached]
- *Dosing schedules adapted from the PHS Health Care Columbia Street Community Clinic and St. Paul's /VGH/RAAC clinicians*

Buprenorphine Microdosing Induction

- Day 1 0.5 mg
- Day 2 0.5 mg
- Day 3 1.0 mg
- Day 4 1.5 mg
- Day 5 2.0 mg
- Day 6 2.5 mg
- Day 7 3.0 mg
- Day 8 4.0 mg

Buprenorphine Microdosing Induction

At Buprenorphine 4 mg:

- Typically able to stop the short-acting opiate
- Titrate Buprenorphine up 2 mg q1h until comfortable to a max of 12 mg that day

Methadone Conversion

- 35 year old male using **Methadone 70 mg/day** and asking to switch to Buprenorphine
- COWS score zero (not in withdrawal)

Methadone Conversion

- Day 1 BUP 0.5 mg + MTD 70 mg
- Day 2 BUP 0.5 mg + MTD 70 mg
- Day 3 BUP 1.0 mg + MTD 70 mg
- Day 4 BUP 1.5 mg + MTD 70 mg
- Day 5 BUP 2.0 mg + MTD 70 mg
- Day 6 BUP 2.5 mg + MTD 70 mg
- Day 7 BUP 3.0 mg + MTD 70 mg
- Day 8 BUP 4.0 mg + MTD 60 mg

Methadone Conversion

- Day 9 BUP 5 mg + MTD 50 mg
- Day 10 BUP 6 mg + MTD 40 mg
- Day 11 BUP 7 mg + MTD 30 mg
- Day 12 BUP 8 mg + MTD 20 mg
- Day 13 BUP 10 mg + MTD 10 mg
- Day 14 BUP 12 mg + MTD 5 mg (or none)
- Day 15 BUP 12 mg + titrate BUP up to 16 mg if needed (Clonidine 0.1 mg tid prn)

- 35 year old male using **Street Fentanyl** several times a day
- Last used this morning
- COWS score zero (**not in withdrawal**)

Street Fentanyl Inductions

- No withdrawal – proceed with microdosing induction
- Lots of withdrawal – start at Buprenorphine 2 mg but will **often get precipitated withdrawal with a 2nd BUP 2 mg dose**. Microdose up from BUP 2 mg. Reassess at BUP 4 mg and make some decisions on how to proceed.

Street Fentanyl Inductions

- No withdrawal – proceed with microdosing induction to 4 mg
- Advise not to use Street Fentanyl (many substitute with other opiates)
- Reassess at BUP 4 mg and decide:
 - Continue BUP microdosing to 8 mg
 - Proceed with a Standard Induction

Fentanyl Patch Conversions

- d/c Fentanyl patch 48 hrs and cover with short-acting opiate equivalents
- No short-acting opiates after midnight
- Proceed with a Standard Induction in the morning

Fentanyl Patch Conversions

- Microdose BUP to 4 mg,
 - Start reducing the Fentanyl patch daily
 - Continue BUP microdosing to 8 mg
 - Titrate BUP up as needed after the Fentanyl patches are gone

Butrans patch bridging

- Day 1 0.5 mg
- Day 2 0.5 mg
- Day 3 1.0 mg
- Day 4 1.5 mg
- Day 5 2.0 mg
- Day 6 2.5 mg
- Day 7 3.0 mg
- Day 8 4.0 mg



Butrans 20 ug/hr
patch

Butrans patch bridging

- Use Butrans 20 ug/hr patch x 1 week
- Can try adding a 2nd Butrans patch
- This avoids the ¼ pill steps
- But the Butrans patch is expensive
- Micro-dose up from BUP 1 mg/day and reassess at BUP 4 mg

Pill in Pocket Inductions

- Patient using opiates (**but not Street Fentanyl**) presents in no withdrawal
- Give the patient a BUP 8 mg tab and tell them to take it when they are in lots of withdrawal
- Come to the RAAM Clinic the next day to complete the BUP induction

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