Acute Pain and Substance Use Disorders

Isabelle Miles MD FRCPC

Peter MacDougall PhD MD FRCPC

Faculty/Presenter Disclosure

- Faculty/Presenter: Dr. Isabelle Miles
- No conflicts to disclose

Outline

- Screening for substance use disorder (SUD)
- Treatment of substance use disorder within the spectrum of stages of change
  - Harm Reduction
  - Engagement of the contemplative patient
  - Options for management of OUD
- Treatment protocols in ER settings
  - Suboxone induction in ER

Screening of Substance Use Disorder (SUD)

Table 1. Opioid use disorder screening tools.

Tool	Author	Population	Methods	Screening Tool Characteristics
Opioid Risk Tool (ORT)	Webster (2005)[14]	Newly enrolled adult patients at a pain clinic. Administered before beginning of opioid therapy for pain management.	Brief self-report, 10 questions (yes, no).	Assesses personal and family history of substance abuse, H/O sexual abuse, and psychological disease.
Revised Screener and Opioid Assessment for Patients With Pain (SOAPP-R)	Butler (2008)[17] Reyes-Gibby (2016)[18] Weiner (2015)[19]	Adult patients with chronic noncancer pain treated at pain clinics. Assessed for feasibility in the ED.	Self-report, 24 questions. Likert 5-point scale ("never" to "very often").	Short (95% completed in <5 min), easy to score, assessed in the ED setting. Sensitivity 0.81, specificity 0.68 (using a cutoff score of 18).
Current Opioid Misuse Measure (COMM)	Butler (2008)[15]	Adult noncancer chronic pain patients. Assesses risk for aberrant drug-taking behavior before the initiation of opioid therapy—chronic pain patients.	17 items, patient self-assessment. Likert 5-point scale.	Sensitivity 0.77, specificity 0.68 (using a cutoff score of 9).
Addiction Behaviors Checklist (ABC)	Wu (2006)[16]	Adult patients with chronic pain already prescribed opioids or sedative analgesics.	20 questions (yes, no).	Assesses addictive behaviors exhibited "since the last visit" and "within the current visit." Longitudinal assessment. Sensitivity 0.88, specificity 0.86 (using a cutoff score of 3).
Alcohol Smoking and Substance Involvement Screening Test (ASSIST V 3.0)	WHO (2002)[20]	Adults with no history of substance use, history of use, and history of dependence.	Interviewer-administered pencil-and-paper questionnaire and screens.	Addresses multiple addictive substances, including opioids. Sensitivity and specificity developed for use/abuse and abuse/dependence. Sensitivity 0.75, specificity 0.65 (for abuse/dependence).
NIDA-Modified Alcohol, Smoking and Substance Involvement Screening Test (NIDA-m-ASSIST)	NIDA[21] Blow (2017)[22] Bogenschutz (2014)[23] Macias-Konstantopoulos (2014)[24]	Intended for adults in the primary care setting. Used effectively in the ED.	Patient interview or online self-assessment.	Patients are asked about street opioids, such as heroin, and misuse of prescription opioids separately. Has not been validated.

NIDA, National Institute on Drug Abuse.

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

NIDA-ASSIST

NIDA *Quick Screen* Question: In the past year, how often have you used the following?	Never	Once or Twice	Monthly	Weekly	Daily or Almost Daily
Alcohol • For men, 5 or more drinks a day • For women, 4 or more drinks a day					
Tobacco Products					
Prescription Drugs for Non-Medical Reasons					
Illegal Drugs					

CRAFFT

1. Have you ever ridden in a **CAR** driven by someone (including yourself) who was "high" or had been using alcohol or drugs?

2. Do you ever use alcohol or drugs to **RELAX**, feel better about yourself, or fit in?

3. Do you ever use alcohol or drugs while you are by yourself, or **ALONE**?

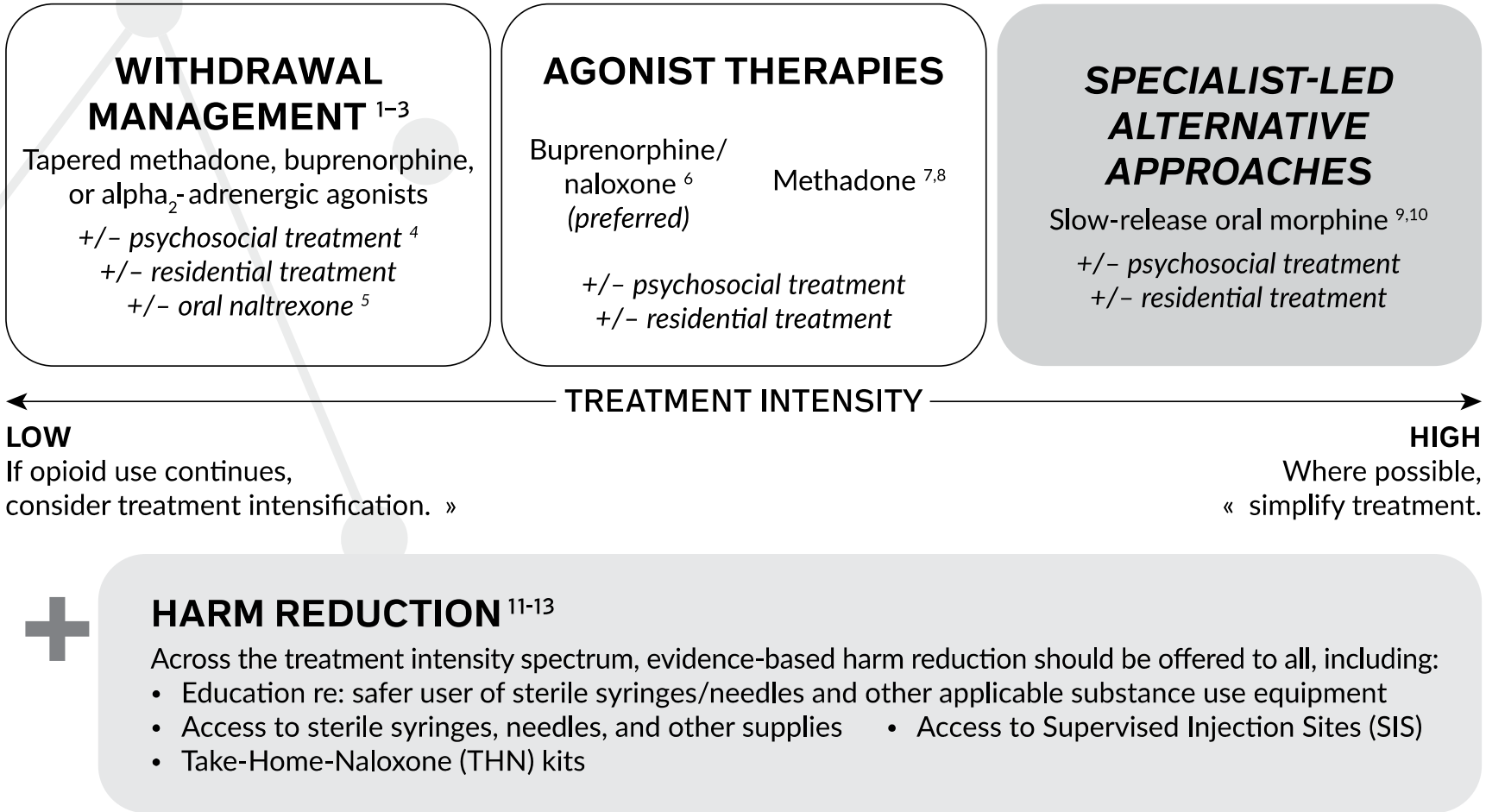
4. Do you ever **FORGET** things you did while using alcohol or drugs?

5. Do your **FAMILY** or **FRIENDS** ever tell you that you should cut down on your drinking or drug use?

6. Have you ever gotten into **TROUBLE** while you were using alcohol or drugs?

SUD – Treating within the Spectrum

Table 1. Clinical management of opioid use disorder



HARM REDUCTION [11-13]

Across the treatment intensity spectrum, evidence-based harm reduction should be offered to all, including:

- Education re: safer user of sterile syringes/needles and other applicable substance use equipment
- Access to sterile syringes, needles, and other supplies
- Access to Supervised Injection Sites (SIS)
- Take-Home-Naloxone (THN) kits

Harm Reduction

- Supervised injection sites/facilities or Supervised consumption sites (SIS)
- Take Home Naloxone
- Management of withdrawal

Supervised Injection Sites/Facilities (SIS)

- Initially implemented to reduce harms related to injection drug use (infection, HCV/HIV transmission) through activism of peers, and societies representing individuals who use substances (VANDU)
- Now key role in opioid crisis in managing increasing rates of overdoses
  - Supervised injection sites
  - Low threshold pop up tents

Models of SIS

- Supervised injection sites
  - Formal establishment
  - Support of medical allied health
  - Address other medical needs beyond overdose (skin infections etc)
  - May provide support for substance use disorder treatment
- Pop up tents
  - Often run by peers
  - Focus in preventing overdoses
  - Unable to address other medical needs and/or interventions

SIS Model Benefits

- Decrease transmission of HIV/HCV
- Decrease rates of skin and soft tissue infection
- Decrease overdose mortality
- Decrease ambulance calls
- Decrease public risk (decrease crime rates, public injecting, dropped needles)
- Increases access to primary care and substance use disorder treatment
- Cost saving and increase quality of life years
- Most beneficial for those who are high risk users and those in the vicinity of the SIS

SIS and overdoses

- 2017 Insite Data
- 175,464 visits by 7,301 individuals
  - 1.2% of visits needed overdose interventions (2,151 visits)
  - 2% resulted in clinical treatment interventions (3,708 visits)
  - 1 in 20 clients accessed onsite detox facility and substance use treatment


WARNING
If you choose to use, please use carefully:
Try not to use alone
If you are using with someone, stagger your dosing
Use just a little at first
Avoid mixing with other drugs or alcohol

CARRY A NALOXONE KIT

CALL 9-1-1

#STOPOVERDOSE

Naloxone

- IM/SC kits
  - 2-3 doses
  - 0.4mg per vial

- Intranasal
  - 2 doses
  - 4mg per vial

Take Home Naloxone

Home Training Admin Portal

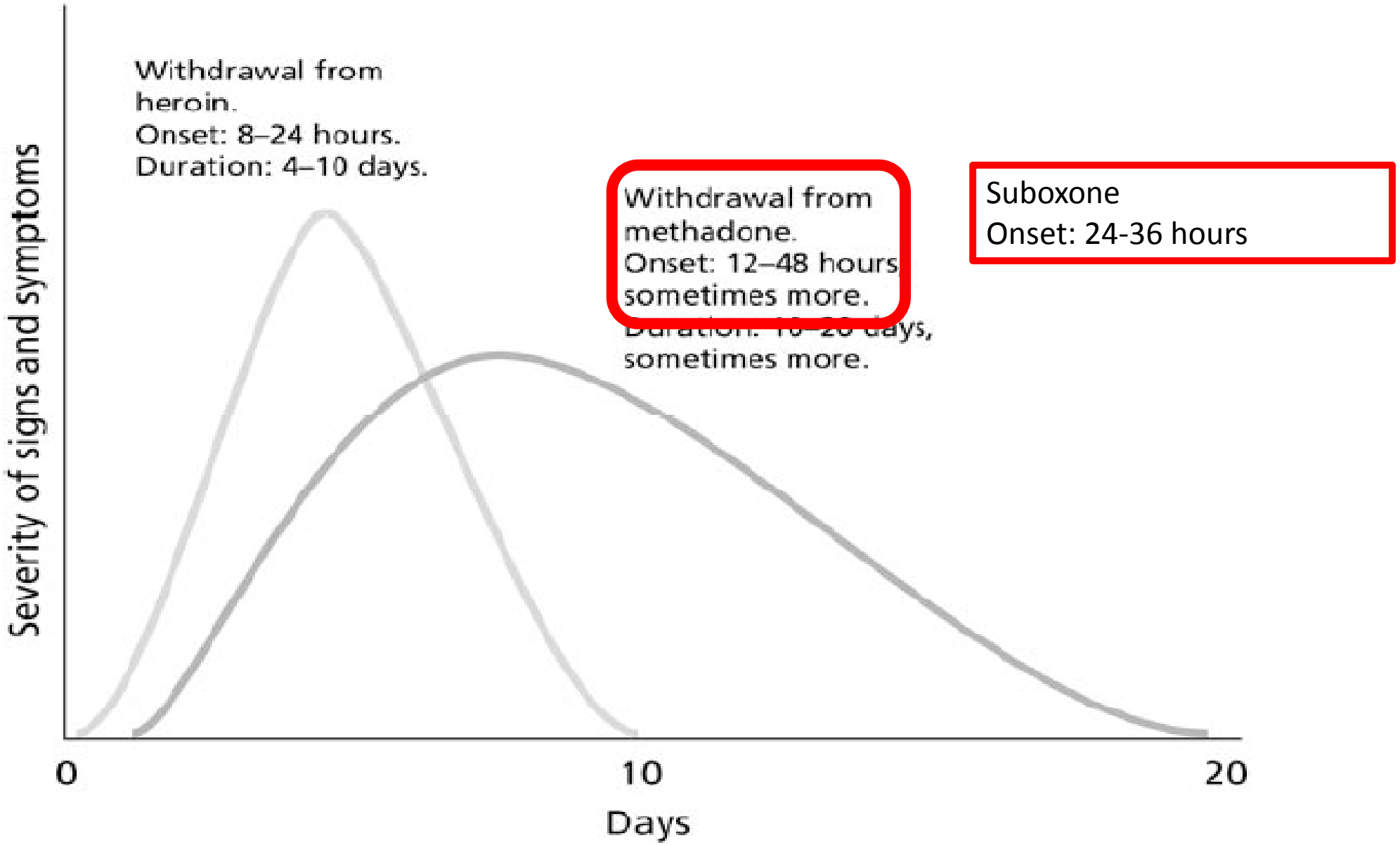
- http://www.naloxonetraining.com/

GET TRAINED TO USE A NALOXONE KIT

Learn how to tell when somebody is overdosing, and how to respond with your Take Home Naloxone kit.

If you're at a hospital or other site to get a kit, you will be able to show an on-screen message that you completed the training. **Make sure you check in with an attendant before you begin.**

Start the Training



Suboxone
Onset: 24-36 hours

Prevention of Withdrawal

- Provide usual dose of OST
- Ask for carry doses
- Confirm dose with pharmacy
- Notify community pharmacy of dispension to prevent double dosing
- May require dose reduction if any missed doses
- Administration of oral liquid opioids if unable to dispense OAT safely and concern withdrawal will be barrier to treatment

Symptom	Management
Nausea and vomiting	Diphenhydramine 25-50 mg PO/IV Maxeran 10mg po/IV *Ondansetron 4-8mg PO/IV (concern QTc)
Myalgias	Ibuprofen 200-400 mg po q6h PRN
Diarrhea	Loperamide 2mg po PRN (max 8mg/day)
Insomnia	Trazodone 25-100 mg po qhs PRN Melatonin 3-20 mg po qhs PRN *Nozinan 5-15 mg po qhs PRN **Avoid benzodiazepines
Anxiety	* Quetiapine 25-50 mg po q4h PRN (max 200mg/day) (concern QTc) *Nozinan 2.5-5mg po QID PRN ** Benzodiazepines at physicians discretion
Autonomic symptoms (and above symptoms)	Clonidine 0.1-0.2 mg po QID PRN

Buprenorphine for the management of opioid withdrawal (Review)

Gowing L, Ali R, White JM

COL ON®

Engagement

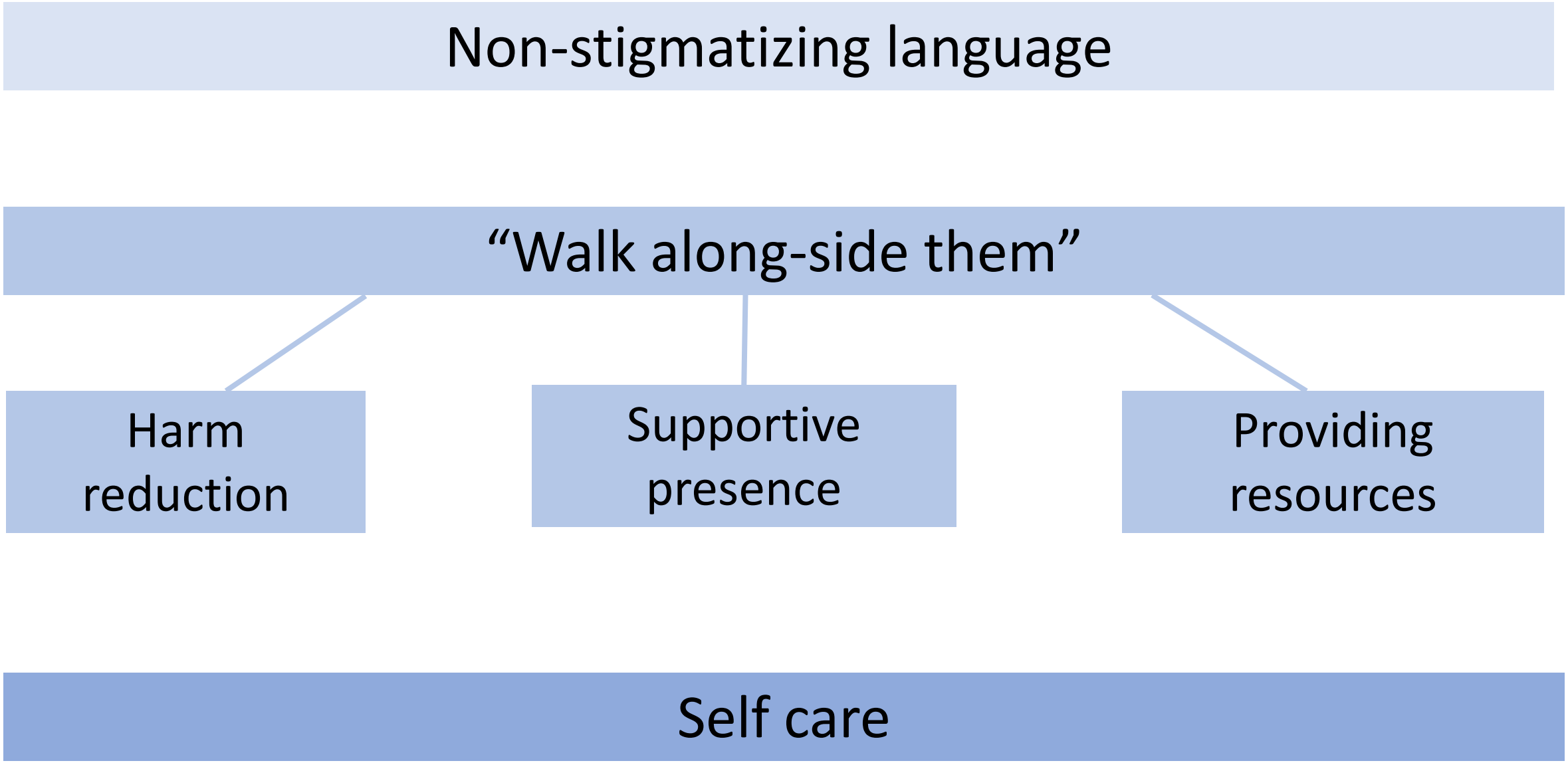
- Referral – SUD services inpatient or outpatient
- Clinical encounters with people who use substances

Substance Use Disorder Services - Inpatient

- Decrease rates of hospital admissions, emergency department visits
- Enhanced referral to outpatient substance use disorder treatment services
- Patients with substance use disorder discharged against medical advice have higher admission re-admission rates and inhospital mortality risk
- Hospital are “at risk environments” for those with SUD:
  - Social and structural factors = inadequate pain and withdrawal management
  - Individuals required to self treat by using substances within hospital
  - Lead to morbidity/mortality risk and enhanced AMA discharge

Substance Use Disorder Services - Inpatient

- Care management that includes bridging strategies decrease re-admission rates, and linking to community services
- Stigma is a significant barrier to accessing treatment, both perceived and self
- Decrease rates of substance use post discharge


Non-stigmatizing language
“Walk along-side them”
Harm reduction
Supportive presence
Providing resources
Self care

Interest in OST

- Methadone and Suboxone
- Initiation of suboxone in ED
- Other Options – SROM, injectable, naltrexone, depot naltrexone

Methadone

- Initiation
  - OUD → max 30 mg
  - ↑ by 10-15 mg q3-5 days
- Optimal dose = ↓ cravings, ↓ withdrawal, minimize side effects
- Retention: >60mg, best 80-100 mg
- Improved retention into treatment and decrease use compared to placebo

Suboxone

- Target dose
  - Decrease cravings, minimize withdrawal
- Titration to ideal dose within 1-2 days given favourable safety profile
- Higher dose (>16mg) and quicker titration = better retention
- Possibility of home induction
- Feasibility of “carries” to continue daily activities (work etc)

Naltrexone

- Mu opioid receptor antagonist
- 50-100 mg daily
- Must have a period free of withdrawal symptoms and without opioids
- Extended release injectable formulation available

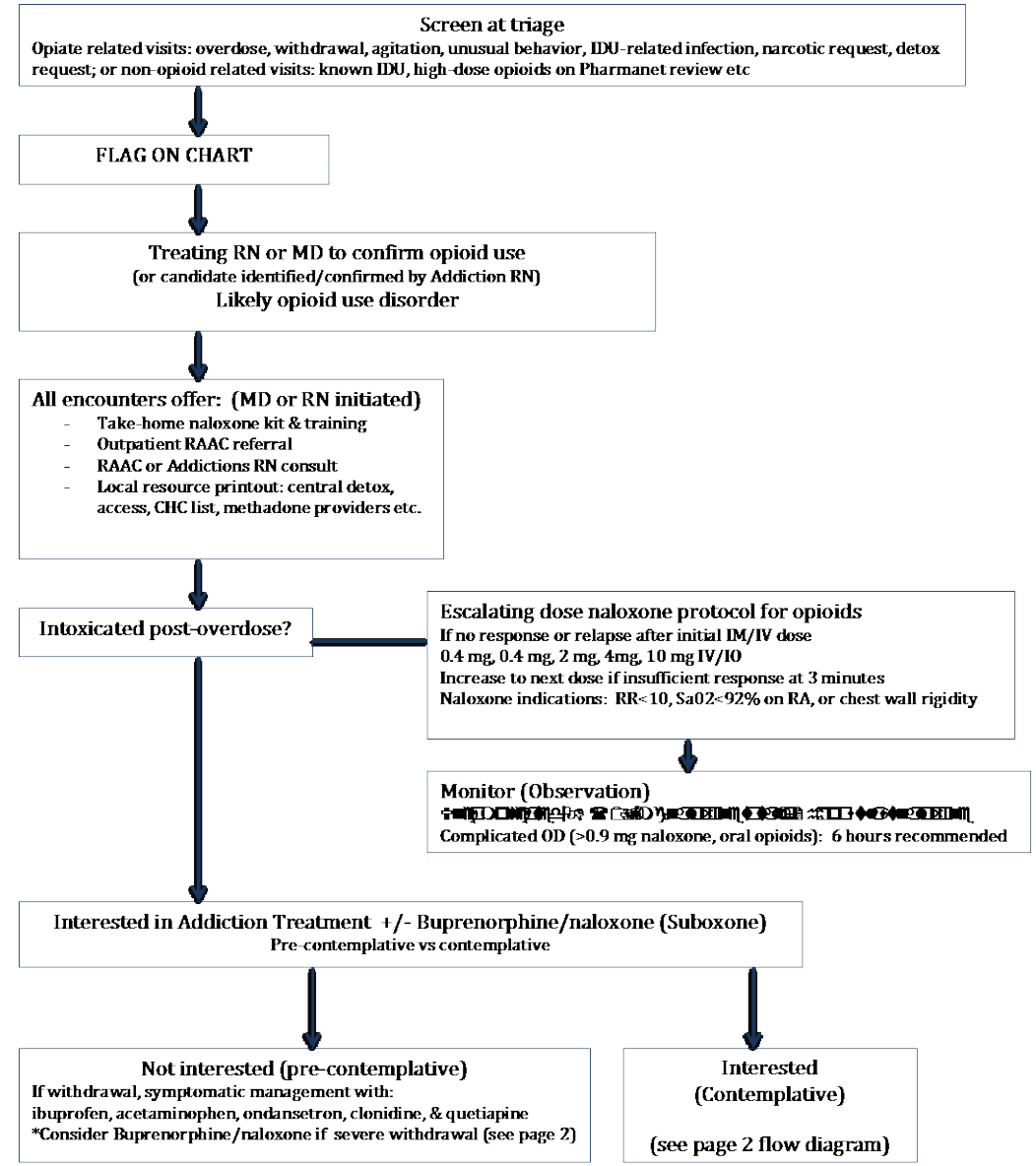
SROM

- As effective as methadone for treatment of opioid use disorder[1]
- Symptoms reduction appears to be more significant for those with severe opioid use disorder
- More adverse effects related with SROM compared to other
- Evidence currently is low quality

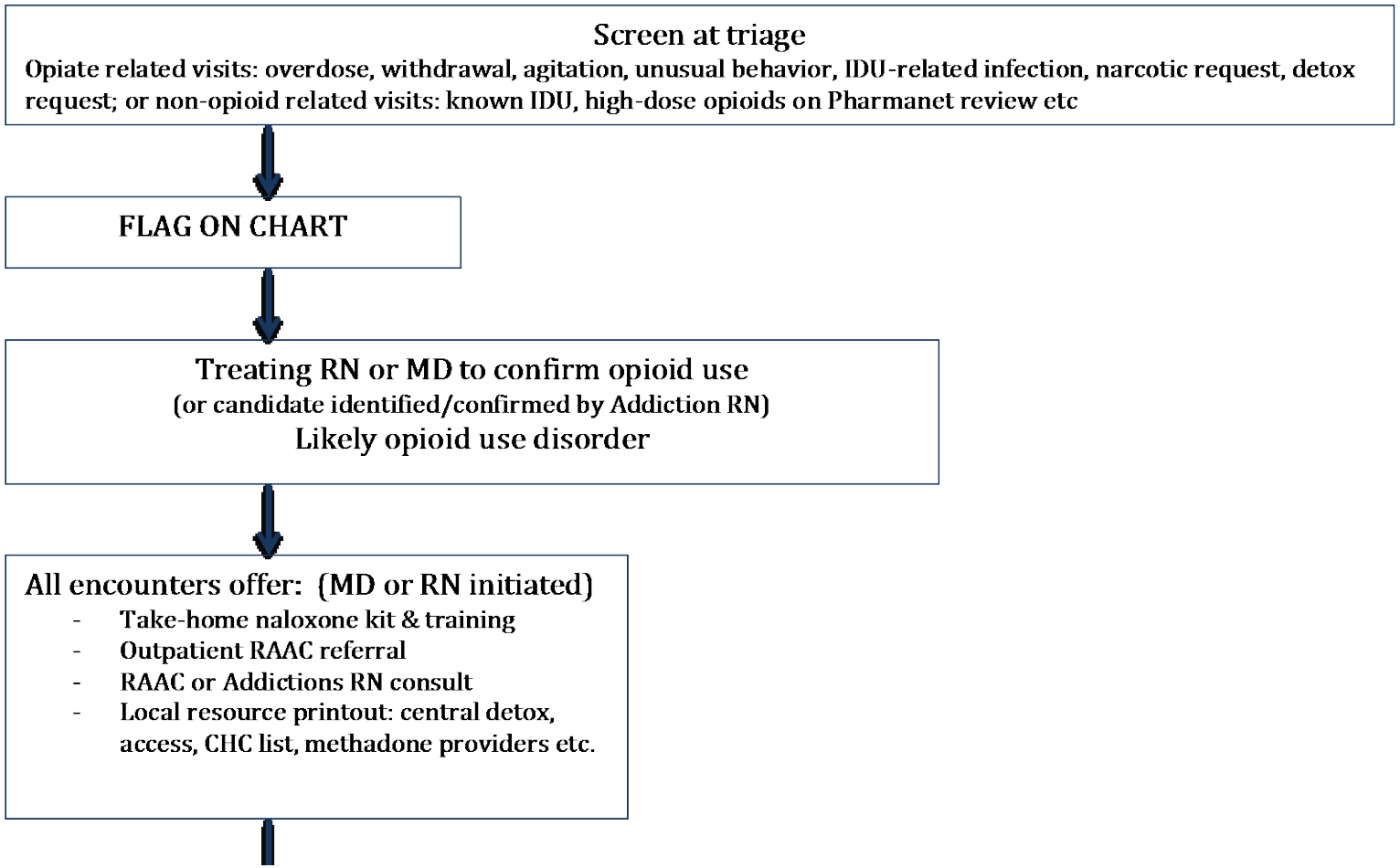
iOAT (Injectable Opioid Agonist Therapy)

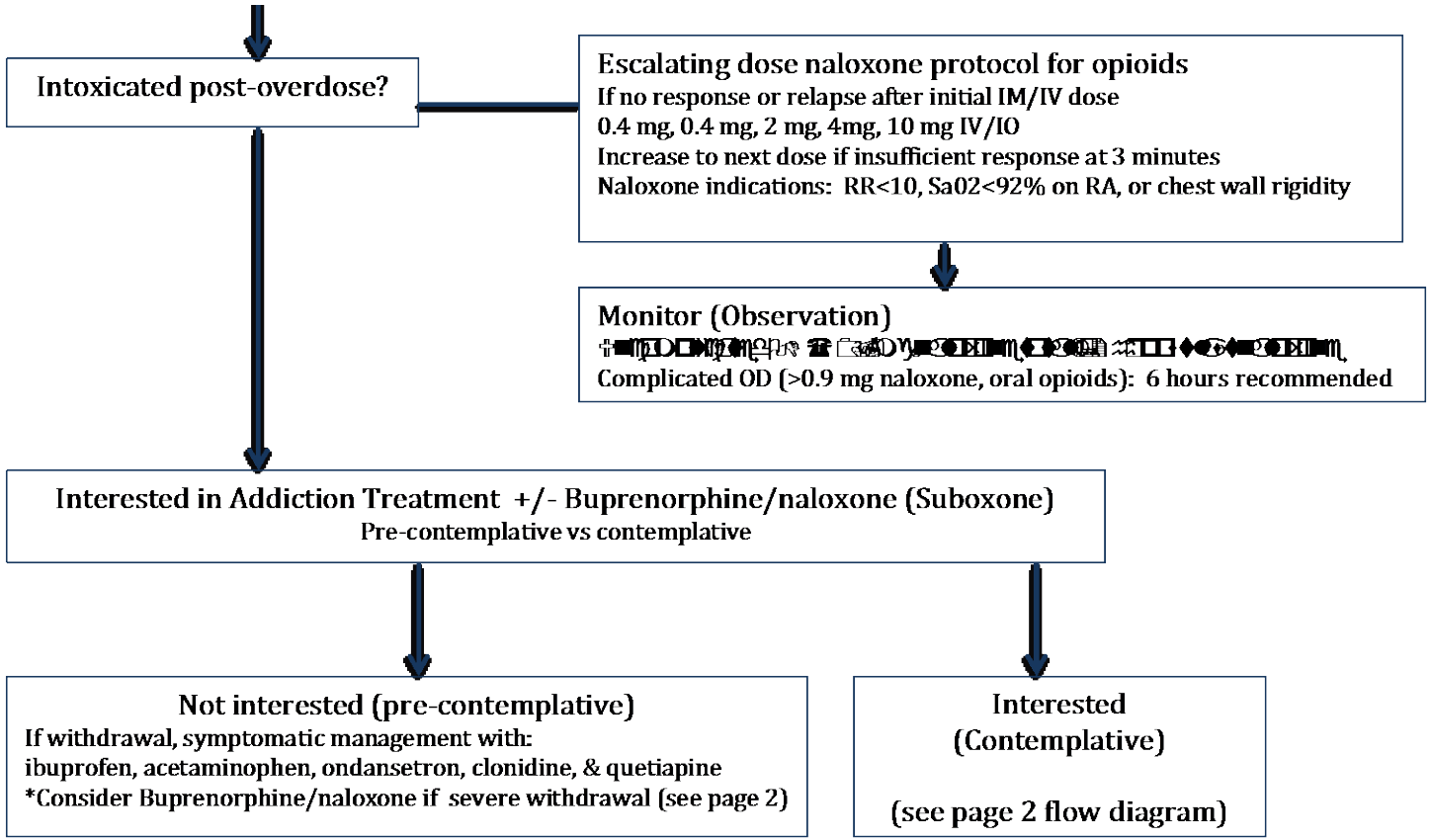
- NAOMI trial: diacetylmorphine more effective than methadone in chronic, relapsing opioid use disorder in retention to treatment, decrease use of illicit opioids and reduction in illegal activity
- Subsequent studies found injectable hydromorphone to be non-inferior to diacetylmorphine
- More cost effective than methadone alone in severe opioid use disorder (reduction in criminal activity and improved quality of life years)
- Improve perception of quality of life and health by participants and engagement in medical care

Management of Opioid Misuse in ED



<u>Outpatient Follow-up</u>: Rapid Access Addictions Clinic (RAAC)
<u>Consult &Phone Advice</u>
ED Addiction RN (first call if available): -Monday-Friday 10:00-6:00pm (variable, check schedule)
MD: -Monday-Friday: 8:30am-4:00 pm RAAC physician on call
-On-call Addiction (AMCT) after hours and weekends
-Avoid Addiction calls between 11pm-7am, unless for immediate Suboxone start or precipitated withdrawal


Screen at triage
Opiate related visits: overdose, withdrawal, agitation, unusual behavior, IDU-related infection, narcotic request, detox request; or non-opioid related visits: known IDU, high-dose opioids on Pharmanet review etc
FLAG ON CHART
Treating RN or MD to confirm opioid use
(or candidate identified/confirmed by Addiction RN)
Likely opioid use disorder
All encounters offer: (MD or RN initiated)
- Take-home naloxone kit & training
- Outpatient RAAC referral
- RAAC or Addictions RN consult
- Local resource printout: central detox, access, CHC list, methadone providers etc.



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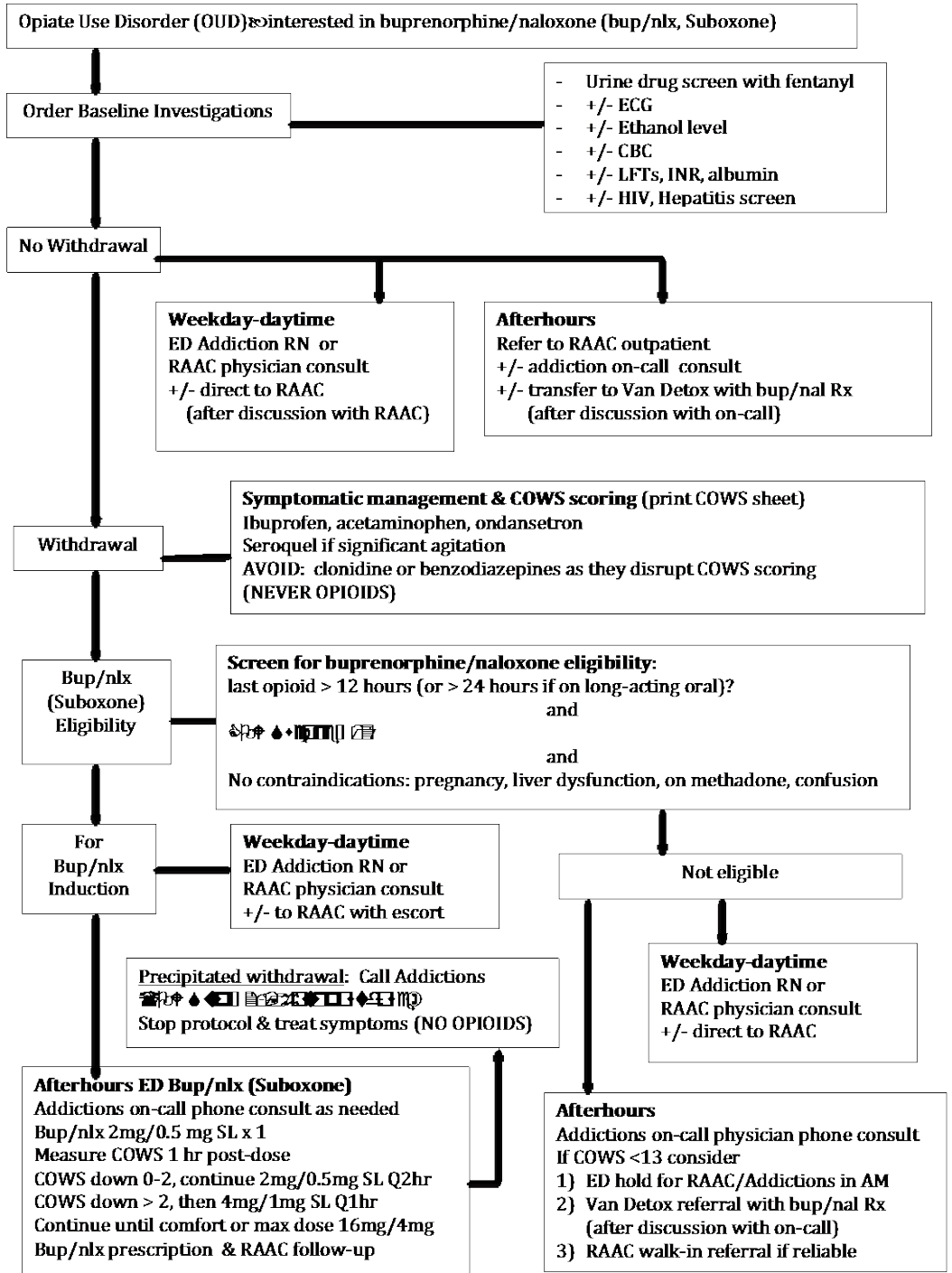
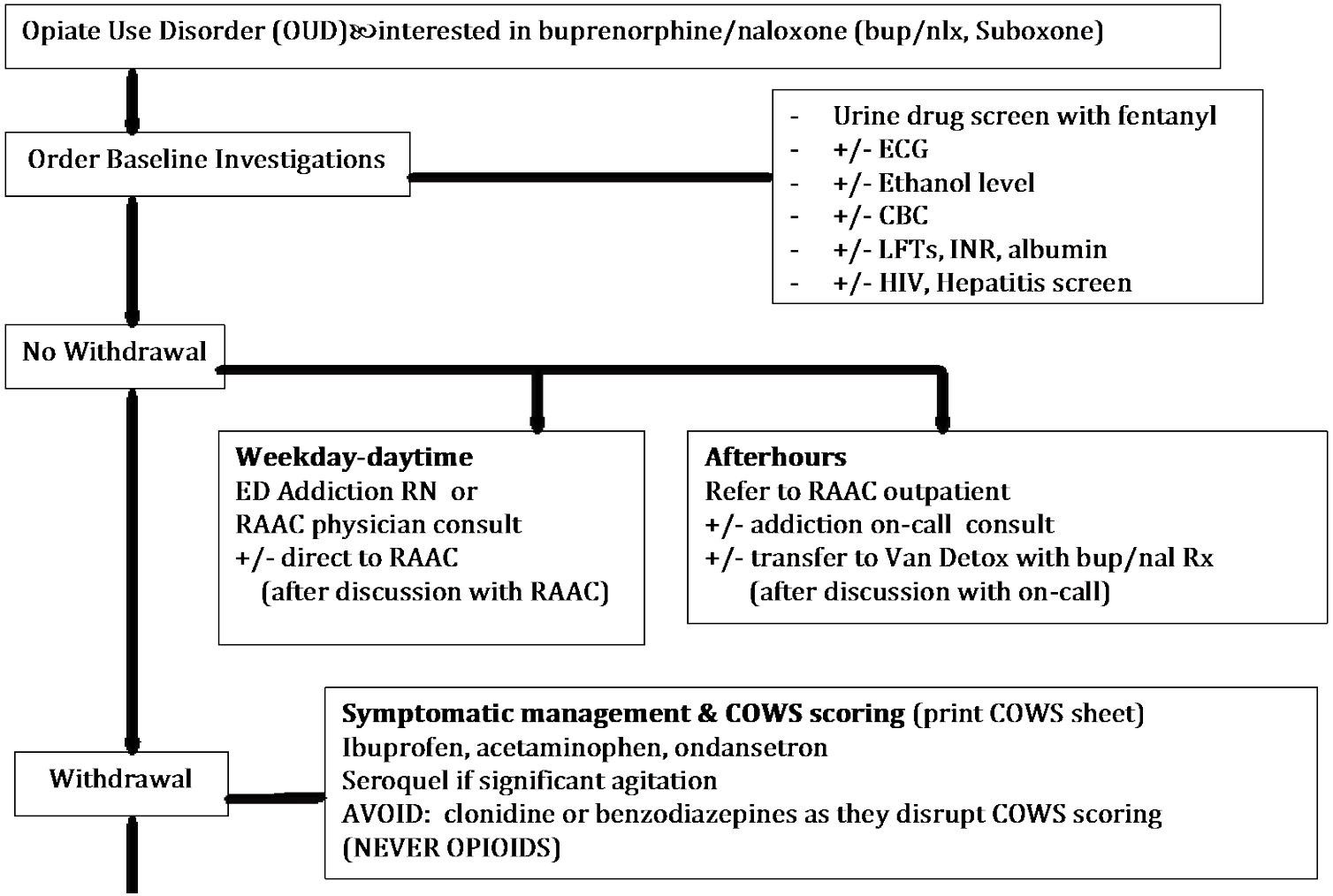

Opiate Use Disorder (OUD) & interested in buprenorphine/naloxone (bup/nlx, Suboxone)
Order Baseline Investigations
- Urine drug screen with fentanyl
- +/- ECG
- +/- Ethanol level
- +/- CBC
- +/- LFTs, INR, albumin
- +/- HIV, Hepatitis screen
No Withdrawal
Weekday-daytime
ED Addiction RN or
RAAC physician consult
+/- direct to RAAC
(after discussion with RAAC)
Afterhours
Refer to RAAC outpatient
+/- addiction on-call consult
+/- transfer to Van Detox with bup/nal Rx
(after discussion with on-call)
Withdrawal
Symptomatic management & COWS scoring (print COWS sheet)
Ibuprofen, acetaminophen, ondansetron
Seroquel if significant agitation
AVOID: clonidine or benzodiazepines as they disrupt COWS scoring
(NEVER OPIOIDS)
Bup/nlx
(Suboxone)
Eligibility
Screen for buprenorphine/naloxone eligibility:
last opioid > 12 hours (or > 24 hours if on long-acting oral)?
and
and
No contraindications: pregnancy, liver dysfunction, on methadone, confusion
For
Bup/nlx
Induction
Weekday-daytime
ED Addiction RN or
RAAC physician consult
+/- to RAAC with escort
Not eligible
Weekday-daytime
ED Addiction RN or
RAAC physician consult
+/- direct to RAAC
Precipitated withdrawal: Call Addictions
Stop protocol & treat symptoms (NO OPIOIDS)
Afterhours ED Bup/nlx (Suboxone)
Addictions on-call phone consult as needed
Bup/nlx 2mg/0.5 mg SL x 1
Measure COWS 1 hr post-dose
COWS down 0-2, continue 2mg/0.5mg SL Q2hr
COWS down > 2, then 4mg/1mg SL Q1hr
Continue until comfort or max dose 16mg/4mg
Bup/nlx prescription & RAAC follow-up
Afterhours
Addictions on-call physician phone consult
If COWS <13 consider
1) ED hold for RAAC/Addictions in AM
2) Van Detox referral with bup/nal Rx
(after discussion with on-call)
3) RAAC walk-in referral if reliable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Ibuprofen, acetaminophen, ondansetron
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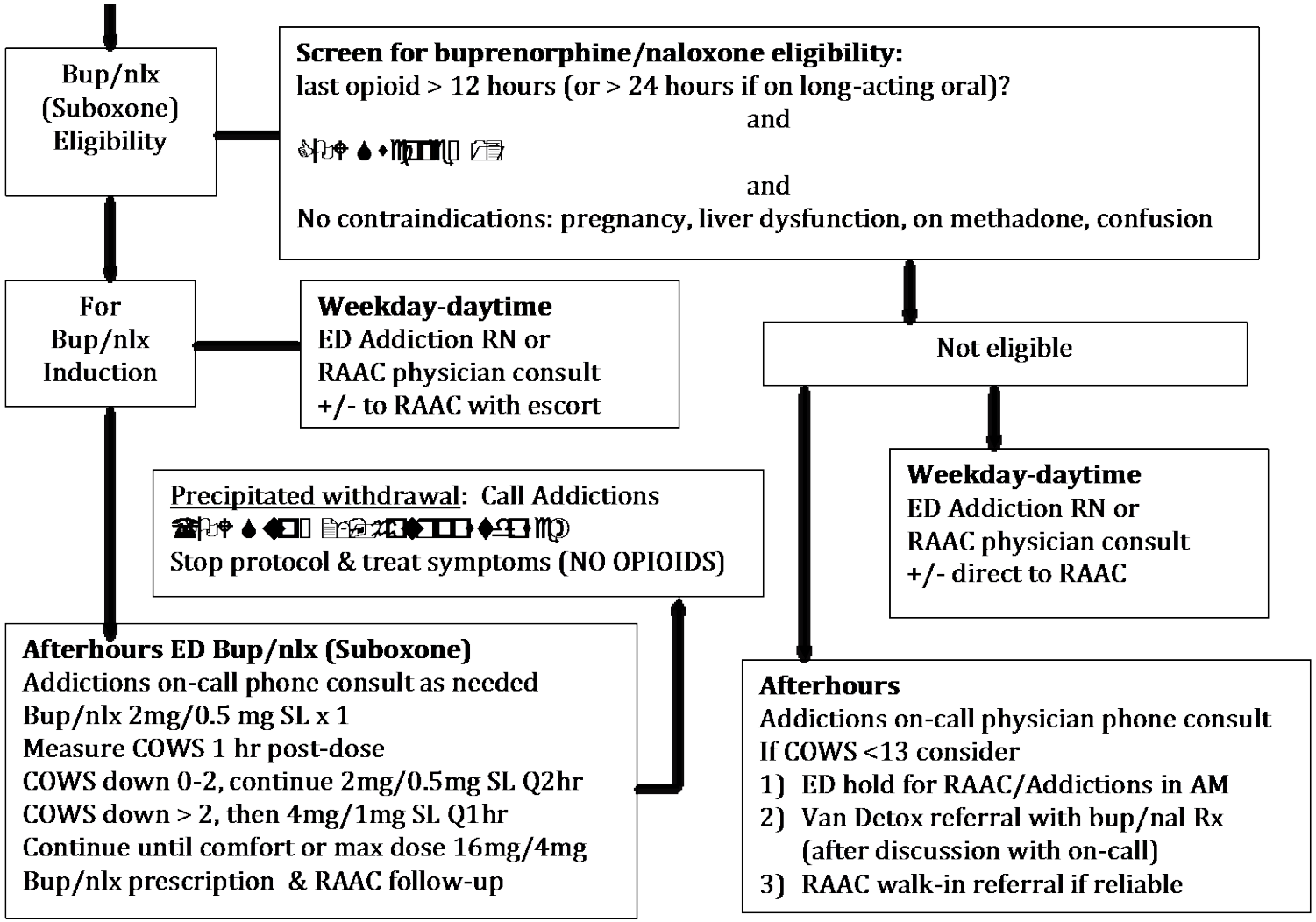
AVOID: clonidine or benzodiazepines as they disrupt COWS scoring
(NEVER OPIOIDS)


Bup/nlx (Suboxone) Eligibility
Screen for buprenorphine/naloxone eligibility:
last opioid > 12 hours (or > 24 hours if on long-acting oral)?
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For Bup/nlx Induction
Weekday-daytime
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+/- to RAAC with escort
Not eligible
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If COWS <13 consider
1) ED hold for RAAC/Addictions in AM
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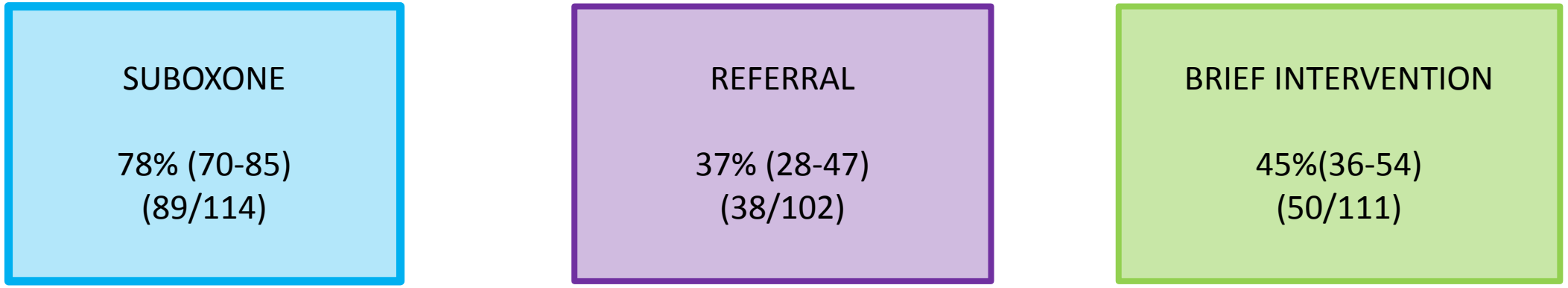
3) RAAC walk-in referral if reliable

Original Investigation

Emergency Department–Initiated Buprenorphine/Naloxone Treatment for Opioid Dependence

A Randomized Clinical Trial

Gail D'Onofrio, MD, MS; Patrick G. O'Connor, MD, MPH; Michael V. Pantalon, PhD; Marek C. Chawarski, PhD; Susan H. Busch, PhD; Patricia H. Owens, MS; Steven L. Bernstein, MD; David A. Fiellin, MD



What are the inclusion criteria for most emergency medicine driven protocols?

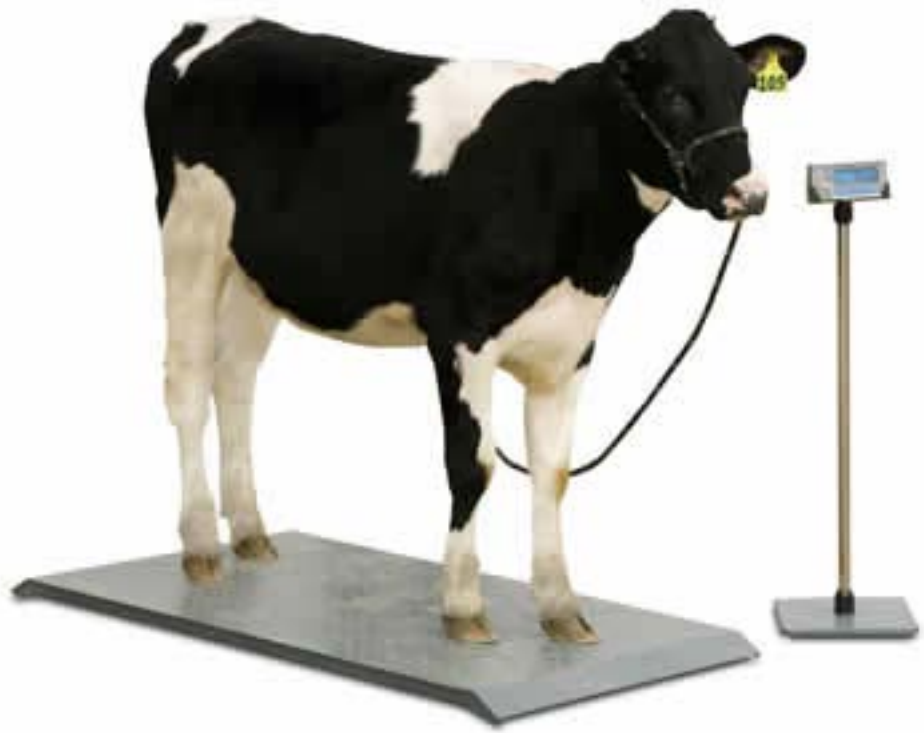
- Ability to provide informed consent
- COWS >12
- Last opiate
  - Short acting >12 hours
  - Long acting >24 hours

What are the exclusion criteria?

- On methadone
- Pregnant
- Liver dysfunction or respiratory dysfunction
- Allergy to bup/nlx
- Intoxication or withdrawal from other substances
- Altered LOC
- Prescribed opioids for chronic pain
- Unable to provide informed consent

- **How do we know when someone is ready?**
  - COWS >12
  - +/- UDS, LFTs, ECG
  - bHCG
- **What are we worried about?**
  - Precipitated withdrawal
  - Partial agonist at mu receptor
  - High receptor affinity, slow dissociation

pulse greater multiple episodes vomiting



- **How is it actually administered?**
  - SL
  - Initial: Buprenorphine/naloxone 2mg/0.5mg 1 tab SL
    - Can do 2 tabs if COWS >24
  - Subsequent: 1-2 tabs SL q1-2h

Treatment of precipitated withdrawal

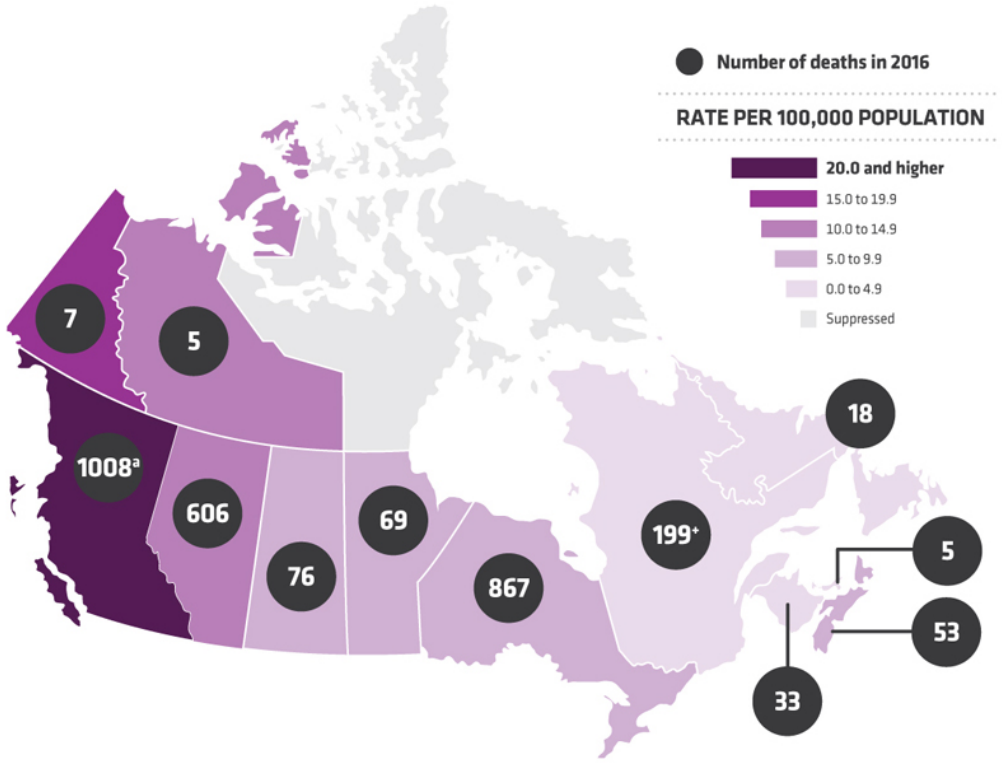
- Hold further doses of suboxone and reassess 4-6 hours later
- Supportive treatment
  - Ibuprofen/tylenol for MSK symptoms
  - Zofran for nausea/vomiting
  - Immodium for diarrhea
  - Seroquel/nozinan for anxiety/sedation
  - Avoid benzos ideally

NEVER TREAT WITH OPIOIDS

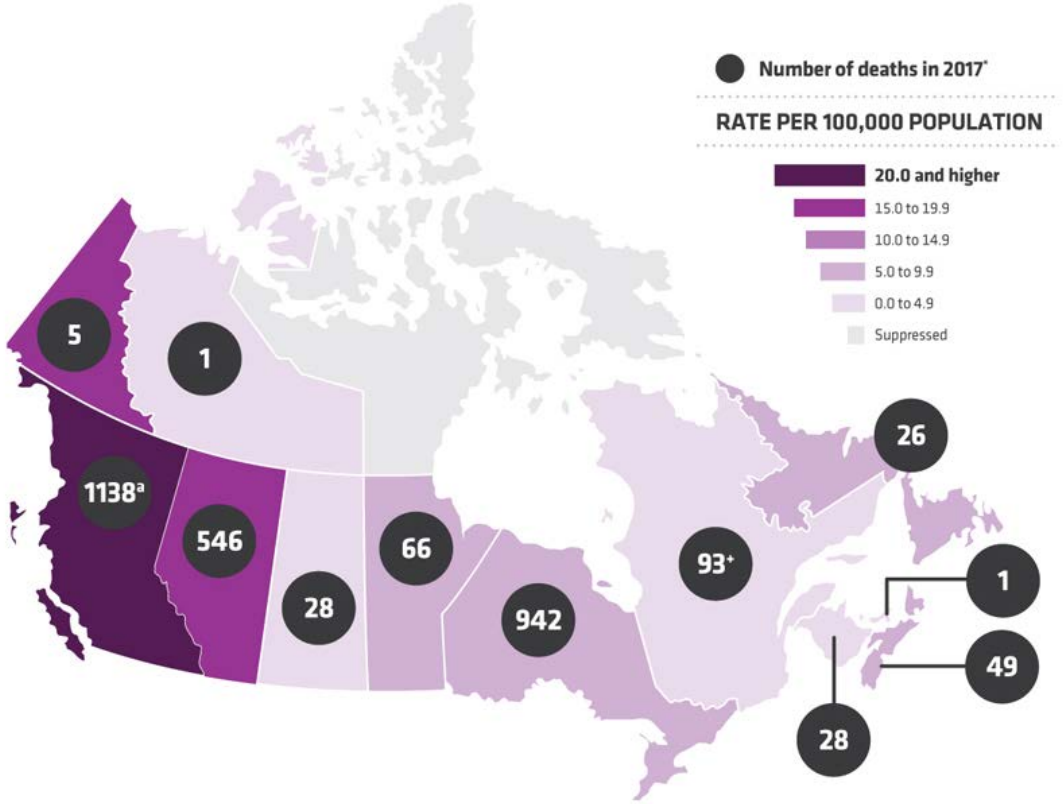
Disclosures

- Nova Scotia Prescription Monitoring Program - Medical Consultant
- CPSNL – Content expert for prescribing course
- Co-Director – The Prescribing Course: Safe Opioid Prescribing
- Director – Atlantic Mentorship Network – Pain and Addiction (2008-2017)

Opioid Deaths in Canada – 2016/2017



[a] British Columbia reports deaths related to all illicit drugs including, but not limited to, opioids.
* Expected to rise



* Includes data from July to September only. For 2017 data, Quebec reports deaths related to all illicit drugs including, but not limited to, opioids. This number is expected to rise.
[a] British Columbia reports deaths related to all illicit drugs including, but not limited to, opioids.
* The estimated annual rates for 2017 are based on available data from January to September.

Supervised Injection Facilities

- Cain report 1995 – recommended exploring SIFs in response to OD crisis
- 2003 – Insite opened in Vancouver
  - Reduced public disorder
  - Reduced ID transmission
  - Reduced OD
  - Increased referrals to detox and treatment programs
- Other cities now developing SIFs in hospital

Kerr et al. Harm Reduction Journal (2017) 14:28

Substance Use Disorder - Definition

- Taking larger amounts than intended
- Want to cut down or stop
- Spending a lot of time obtaining, using or recovering
- Cravings/urges to use
- Not managing expectations at school, work home
- Continued use despite relationship problems
- Giving up social, recreational, occupational activities
- Continued use despite risk/harm
- Continued used despite knowledge of physical/mental d/o caused or made worse
- Needing more – tolerance
- Withdrawal symptoms relieved by the substance

Case 1 – Pt going to the OR

- 46 yo male in pre-op clinic prior to planned Hartmans procedure for diverticular disease
- MMT for 5 years
  - Heroin x 20 years
  - No use for 3 years
- Methadone 120 mg/day
  - 6 day carries

- **What do you advise for his methadone?**
- **How do you manage his pain?**

Case 2 – Patient with Acute on Chronic Pain

- 48 yo female with sickle cell anemia admitted with pain and skin ulcerations awaiting HBO therapy
- Pt. on long term bup/nal 8mg/2mg q8h for “addiction”
  - Had been on L/T sc opioids
  - Does not meet criteria for SUD
- Ketamine infusion at 10 mg/hr
- Hydromorphone 4mg tab 1-2 q3hprn
- Nurses report patient continues to ask for HM and pain poorly treated
- **What are the possible reasons for the undertreated pain?**
- **How do you approach this?**

SUD Prevalence in Inpatients

- Prevalence Day Nov. 2017
  - 595 patients assessed
  - 110 positive
    - ETOH -43
    - Cannabis - 11
    - Opioids – 25
    - Cocaine – 24
    - Benzo – 5
    - Other - 2

Myths And Barriers

Myths

- Requests for opioid analgesia is manipulative drug seeking behavior
- Opioids for acute pain may result in OUD relapse
- Adding opioids for acute pain may cause overdose
- Maintenance opioids will provide adequate analgesia

Alford et al, 2006, Ann Int Med
Drug and Alcohol Review (September 2008), 27, 519 – 523

Barriers to Effective Pain Management

Providers

- Inadequate knowledge
- Requests misinterpreted as drug seeking
- Withdrawal misinterpreted as OUD
- Stigmatization
- Moral judgement

Patients

- Pt withholding information
- Pt not ingesting full dose
  - Risk of OD with full dose
- Physiology
  - OIH
  - Tolerance
- Patient exhibiting active OUD behaviours
  - Injecting
  - Getting drugs from family/friend
  - Trafficking in hospital
  - Sex trade in hospital
- Early D/C AMA

Scimeca et al, 2000, Mt Sinai J Med;
Hines et al, 2007, Drug Alcohol Rev
Eyler, 2013, Am J Addiction
Huxtable et al, 2011, Anaesth Intensive Care
Drug and Alcohol Dependence 157 (2015) 143–149

SUD and Acute Pain Common Problems

- Regular opioid not dispensed or dose lowered
- Analgesics denied
- Analgesics administered at inadequate dose
- Inappropriate opioid prescribed
  - Opioid agonist/antagonists cause severe withdrawal (talwin, buprenorphine)

Eyler, 2013, Am J Addiction;
Holfich et al, 2012, Eur J Pain

Methadone Maintenance Therapy

- Health Canada Section 56 requirement removed
- Provincial regulators continue to provide guidance
- Eg. CPSO
  - Give written notice
  - CAMH course
  - One year assessment
  - Know the Prescribing Drugs policy
  - No telemedicine prescribing until after 1 year assessment

Methadone - MMT

- High rates of pain (>40%)
- More severe methadone than bup/nal
- Reduced pain threshold
- Pain sensitivity long lasting
- Pts with chronic pain have higher pain thresholds
- Acute pain often inadequately managed
- Acute pain may be managed with opioids and non-opioid medications

The American Journal on Addictions, 22: 75–83, 2013
Drug and Alcohol Dependence 157 (2015) 143–149
Anesthesia and Analgesia, May 2018. epub

Buprenorphine/Naloxone

- Mu agonist/partial antagonist – weak opioid effect
- Kappa antagonist
- Binds tightly to the mu receptor displacing other opioid
- Long T1/2 – 966 min vs naloxone – 109 min
- S/L bioavailability 40%:10%
- Drug interactions – CYP3A4
  - Benzodiazepine
  - Antifungals
  - Macrolides
  - Antidepressants

Anesthesiology. 2014 May ; 120(5): 1262–1274

Buprenorphine/Naloxone - SUD

- Advantages
  - Safety margin
  - Early carries
  - Office based
  - More rapid induction

- Disadvantages
  - May cause precipitated w/d
  - Pt must be in w/d prior to start
  - Ceiling effect

Anesthesiology. 2014 May ; 120(5): 1262–1274
http://www.cpso.on.ca/cpso/media/documents/methadone/faqs-prescribing-buprenorphine.pdf.
Buprenorphine/Naloxone for Opioid Dependence: Clinical Practice Guideline, CAMH 2011

Buprenorphine/Naloxone – Rx

- Does not require MMT course in most provinces
- CPSO suggests Bup/Nal course
- Can be provided in MD/NP office

http://www.cpso.on.ca/cpso/media/documents/methadone/faqs-prescribing-buprenorphine.pdf

SROM

- Indications
  - 3rd line after methadone and bup/nal
- Contraindications
  - Allergy to morph
  - Pregnancy/breastfeeding
  - Severe asthma
  - MAOI
- Administration
  - Witnessed as sprinkles
  - Can progress to take home carries

British Columbia Centre on Substance Use and B.C. Ministry of Health. A Guideline for the Clinical Management of Opioid Use Disorder. Published June 5, 2017. Available at: http://www.bccsu.ca/care-guidance-publications/

Approach to Acute Pain

SUD and Acute Pain Principles of Management

- Opioid dependent patients deserve adequate pain relief
- Usual opioid dose will not provide adequate analgesia
- Additional opioid for analgesia does not significantly increase risk of relapse
- Cautious use of opioids is safe

Scimeca et al, 2000, Mt Sinai J Med

Management Goals

- Prevent opioid withdrawal
- Manage acute pain
- Provide SUD support
- Prevent further harm
- Ensure collaborative discharge plan

Huxtable et al, 2011, Anaesth Intensive Care

Options for Pain Management

- Neuraxial
- Regional
- Local infiltration
- Systemic LA
- Systemic

Peri-Operative Pain

- Planning
  - Pre- operative
  - Intra-operative
  - Post-operative
  - Post-operative - outpatient

Acute on Chronic Pain

- Assessment of chronic pain
- Assessment of acute pain
- Review of treatment plan
- Assessment of SUD
- Medication review

Acute Pain Planning

- **Pre – op**
  - Identify
    - Dose
    - Drug
    - Route
  - Educate
  - Plan
    - APS involvement
    - SUD service
- **Intra – op**
  - Maintain baseline opioid
  - Multimodal adjuncts
  - Additional opioids
  - +/- ketamine 10 – 40 mg/hr
  - +/- lidocaine 0.5 – 2 mg/kg/hr
  - Regional/neuraxial techniques

Acute Pain Management

- **Post – op**
  - APS on PACU admission
  - Personalized approach
  - Baseline plus
  - Titrate to effect
- Goals
  - Pain managed to allow cough/deep breathing
- Discharge Planning
  - Ongoing management of OUD
  - Managing prescriptions

Anesthesia and Analgesia, May 2018. epub

Methadone

- **Pre op**
  - Methadone to DoS
- **Intra-op plan**
  - Baseline plus
  - RA
  - Adjuncts
    - NSAIDS
    - Ketamine
    - Lidocaine
- PONV control
  - Consider > 1 agent
  - Avoid ondansetron
- Opioid
  - Same if using with methadone
- **Post-op Plan**
  - Level of care
    - Monitored
  - Restart Methadone ASAP
    - **Oral/NG/Rectal/SL**
  - Pain management
    - Continuous RA
    - PCA
  - **Boundaries**

Methadone in the Perioperative Setting

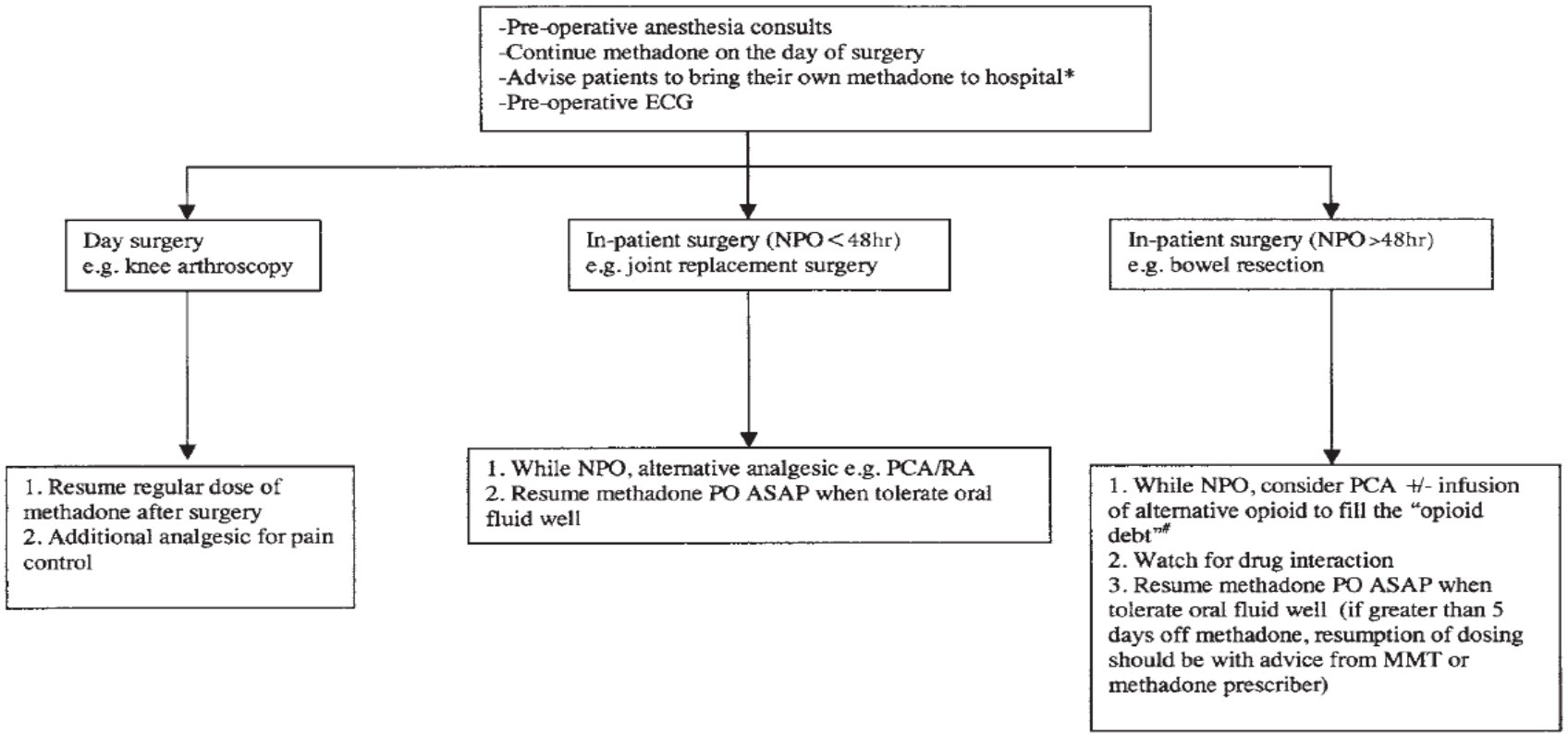


FIGURE 2 Algorithm of managing methadone patients for elective surgery in the perioperative period.

Perioperative Bup/Nal

- Several protocols
  - Continue Bup/Nal and use PCA/regional
  - Stop Bup/Nal day of surgery
    - Give ER/LA opioid po before surgery
    - PCA +/- Regional
  - Stop Bup/Nal 5/7 before surgery
    - Bridge with opioids
    - Regional/neuraxial
    - Return to Bup/Nal provider for re-induction
- Consider
  - Pt stability
  - Surgical urgency
  - Co-morbid pain conditions

Anesth Analg. 2018 May 25. doi: 10.1213/ANE.0000000000003477. [Epub ahead of print]

IV Lidocaine

- 1.5 mg/kg bolus followed by 0.5 – 2 mg/kg/hr infusion
- Alternative to RA
  - Failed or absent RA
  - Trauma
  - Rx ileus
- OUD
- Acute on chronic pain
- Opioid sparing
- Prevention/reduction of ileus

BJA Education, 16 (9): 292–298 (2016)

Ketamine – 2018 Guidelines

- Consider for
  - Patients undergoing painful surgery
  - Opioid dependent or tolerant pts having surgery
  - Opioid dependent or tolerant pts with sickle cell pain
- Dose range </= 1mg/kg infusion and 0.35 mg/kg bolus
- Ketamine may be a useful adjunct to IV-PCA

(Reg Anesth Pain Med 2018;43: 00–00)

Ketamine – 2018 Guidelines

- Contraindications
  - Cardiac disease
  - Pregnancy
  - Psychosis
  - Severe liver disease
  - Raised IOP
- May be used in non- parental forms

(Reg Anesth Pain Med 2018;43: 00–00)

Transitional Pain Service

- Pre-operative
- Post-operative in hospital
- Post-operative outpatient
- Inter-professional team
  - Pain MD
  - AP nurses
  - Physio
  - Psychology

Journal of Pain Research 2015:8 695–702

Harm Reduction and SUD Mgmt

Three P’s of Risk

1. **P**atient
2. **P**ersonnel - Risk to staff
3. **P**ublic and **P**atients’ family

Patient

Risks to patients while admitted to hospital

- **Physical**
  - Overdose
  - Blood borne illnesses
  - Injection risk
  - STD
  - Risk to fetus in pregnancy
- **Emotional**
  - Stigma
  - Withdrawal
  - Conflict

Morbidity and Mortality

- Overdose
- Endocarditis
- Soft tissue infection
- Sepsis
- Renal failure
- Paralysis
- Discitis
- Septic emboli

Personnel

Risk to hospital staff

- **Physical**
  - Needle stick
  - Violence related to:
    - conflict
    - withdrawal
    - visitors
  - Theft

- **Emotional**
  - Fear
  - Avoidance
  - Helplessness
  - Anger

Public

- Cost to society
  - Diversion of drugs
  - Contact with infected materials discarded in community
  - Violence
  - Treatment
  - Legal

Patients' Family

- **Physical**
  - Violence
  - Theft
  - Injury
- **Emotional**
  - Dysfunction
  - Fear
  - Helplessness
  - Financial risk

Harm Reduction Policy

- Screen for SUD
- Offer referral to SUD team
- Education
- Staff safety
- Patient safety – behaviours, use, naloxone kits
- Harassment
- Family and visitors
- Possession of illicit substances

Educate on Harm Reduction

- Not inject into CVAD
- Use clean needles
- Not share needles / pipes / bills
- Not to use tap water for injecting
- Not to inject into the neck
- Safely dispose of needles
- Use condoms
- **NALOXONE KIT**
- Buy less so you use less
- Set a time of day to stop using / drinking
- Eat a meal before using/ drinking
- Gradually lower dosage and frequency
- Plan for drug free days
- **DO NOT USE ALONE**

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SUBSTANCE USE DISORDER SCREENING AND CARE PLAN

Harm Reduction Strategies - Current

- Opioids provided as liquid or ‘sprinkles’
- Witnessed ingestion
- UDT q3d
- Advice not to use alone
- Obtain naloxone kit
- Obtain sharps container

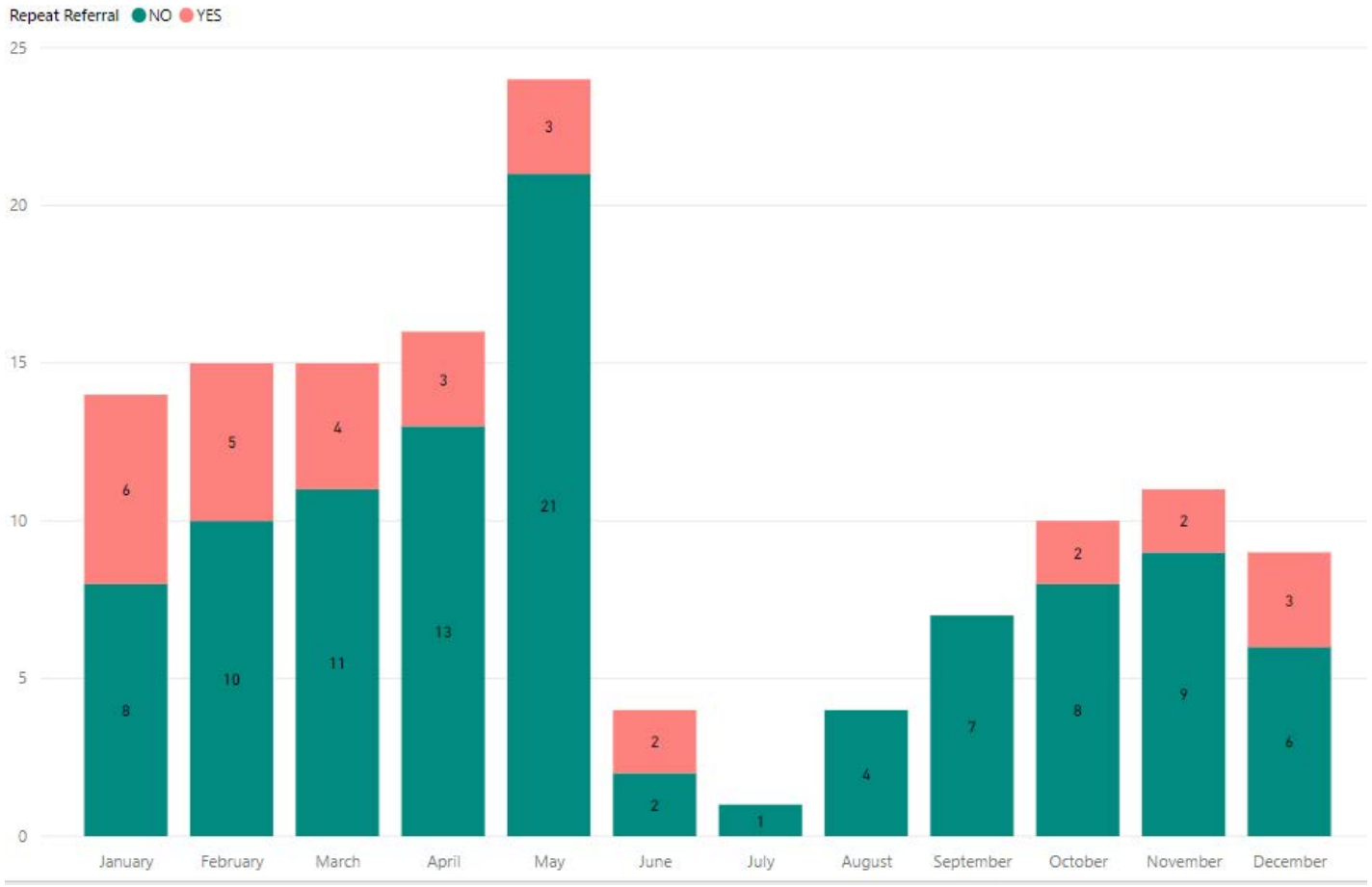
Harm Reduction - Future

- Clean needles
- Injectable opioid
- Supervised injection facility

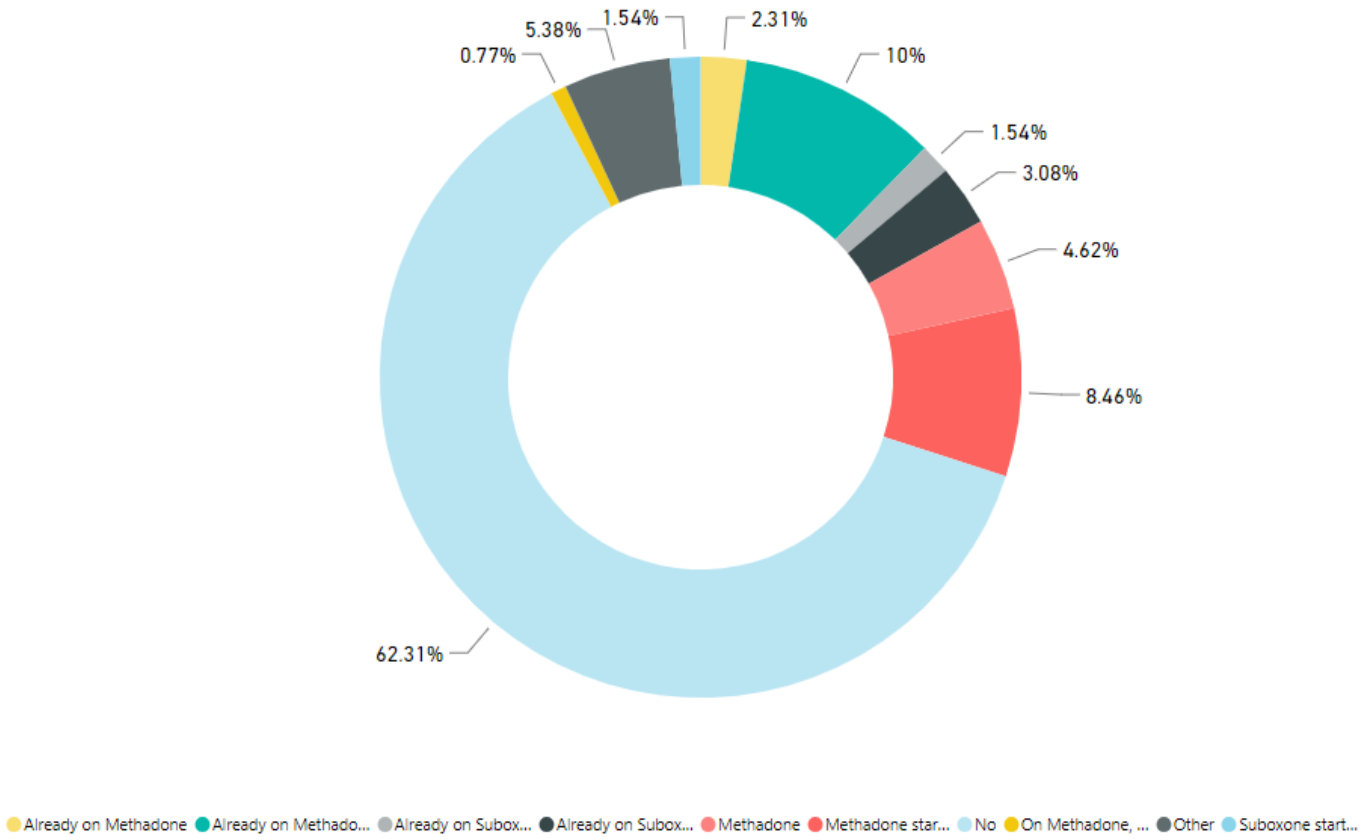
SUD Programs Across Canada

- Staff
  - Single MD programs
  - Comprehensive inter-professional program
    - MD/RN/addiction workers/psychology
- Program home
  - Family med
  - Psych
  - Anesthesia
  - Medicine
- Services
  - Consultation
  - Community referral and case management
  - Treatment initiation
  - Harm reduction and SIS
- Funding models

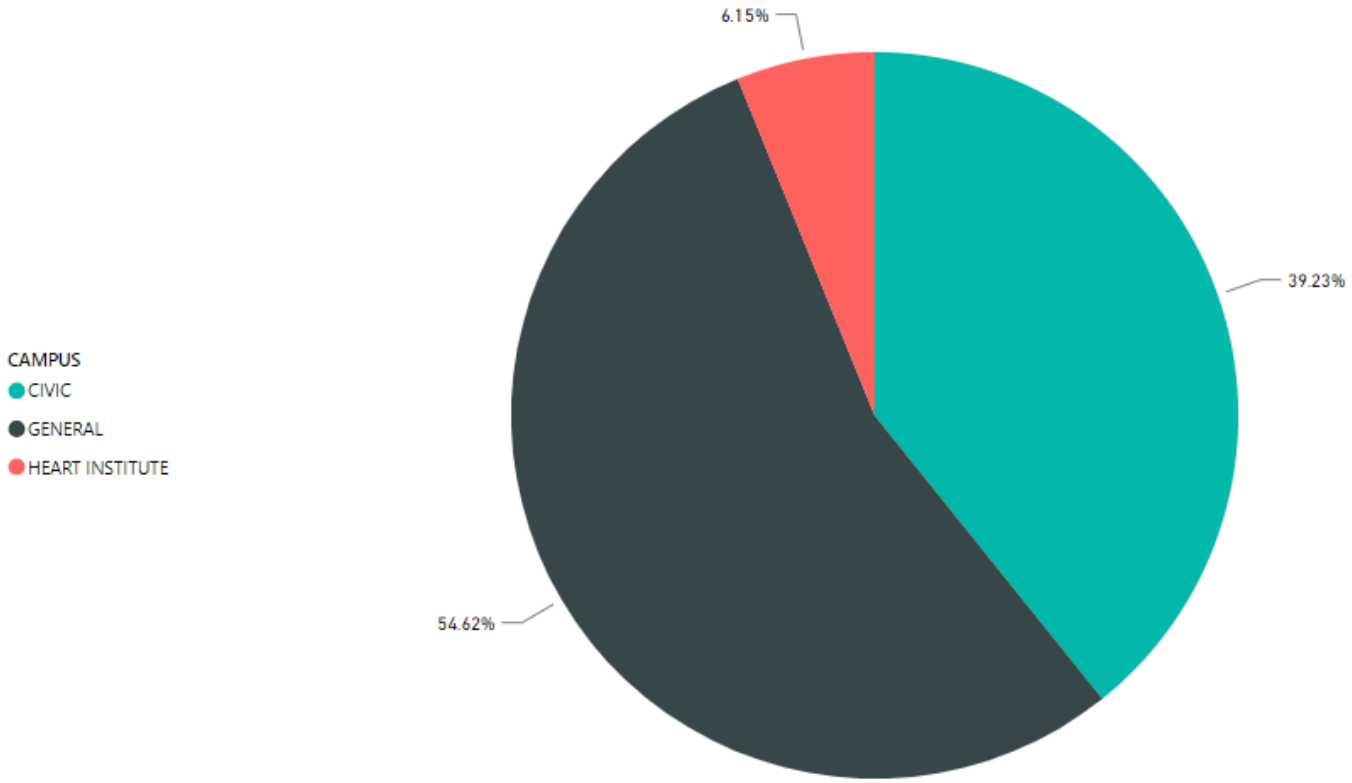
Consultation Requests



Opioid Use/Treatment



Distribution of Consultations



Case 1 – Pt going to the OR

- 46 yo male in pre-op clinic prior to planned Hartmans procedure for diverticular disease
- MMT for 5 years
  - Heroin x 20 years
  - No use for 3 years
- Methadone 120 mg/day
  - 6 day carries

- **What do you advise for his methadone?**
- **How do you manage his pain?**

Case 2 – Patient with Acute on Chronic Pain

- 48 yo female with sickle cell anemia admitted with pain and skin ulcerations awaiting HBO therapy
- Pt. on long term bup/nal 8mg/2mg q8h for “addiction”
  - Had been on L/T sc opioids
  - Does not meet criteria for SUD
- Ketamine infusion at 10 mg/hr
- Hydromorphone 4mg tab 1-2 q3hprn
- Nurses report patient continues to ask for HM and pain poorly treated
- **What are the possible reasons for the undertreated pain?**
- **How do you approach this?**

Questions?