Buprenorphine
an important option in
Opioid Replacement Therapy

CPSO Methadone Provider’s Conference
2012

Dr. Chris Sankey
Professional Associations

- Satellite Clinic
- First Step Clinics
- University of Toronto, CAMH, CPSO, OMA
- Advisory Board of Reckitt Benckiser
  - Kendle INC Research
Properties of Buprenorphine
Properties of Buprenorphine

• Partial mu-opioid agonist

• High affinity/occupancy (95% at 16mg)*

• Moderate Intrinsic Activity

• Kappa antagonist

* Greenwald et al, 2003
BUPRENORPHINE: A PARTIAL MU OPIOID RECEPTOR AGONIST

- Partial mu opioid agonist
  - Kappa receptor antagonist
- Less dopamine release
  - Heroin, methadone produce maximum dopamine release
  - Buprenorphine produces less dopamine release
- High affinity for mu receptor
  - Can displace most other full agonist opioids, such as heroin
  - Dissociates slowly from the receptors
- Low intrinsic activity
  - Ceiling on agonist effects

Heroin, methadone (Full agonist)  Buprenorphine (Partial agonist)

Red balls = mu opioid receptors
Yellow balls = heroin
Green shapes = buprenorphine

BUPRENORPHINE: A “SAFE CEILING”

• Unlike full agonists, agonist effects of buprenorphine reach a ceiling\(^1\)
• Less likely to cause respiratory depression in overdose

Ceiling can be compromised by concomitant alcohol or other central nervous system depressants, or when buprenorphine is misused\(^2\)

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\(^2\)Suboxone® Product Monograph.
Mortality & Overdose

• Partial mu agonist effect—shouldering
• Respiratory depression still occurs

• French data indicates that from 1994 to 1998 the death rate from methadone was three times greater than the death rate from buprenorphine.
Depression

“Buprenorphine seems to be more effective than Methadone in patients affected by depressive traits and dysphoria, probably due to the antagonist action on the kappa-opioid receptors.”

Interactions with Benzodiazepines

“10 and 20mg diazepam does result in comparable subjective experience of greater sedation...in both patient groups, and had minimal impact on physiological measures”

“Howe, diazepam had greater peak effects on performance measures...in the methadone-treated than the buprenorphine-treated patients.”

“Diazepam may significantly alter the response to opioid substitution treatment with methadone or buprenorphine.”

Lintzeris et al., Interactions on mixing Diazepam with Methadone or Buprenorphine in Maintenance Patients, J of Clinical Psychopharmacology, 2006; 26(3):274-283
Contraindications to Buprenorphine/Naloxone

- Pregnancy (buprenorphine/naloxone specifically)
- Allergy to Bup, Nx, acesulfame
- Severe liver dysfunction
- Acute severe respiratory illness
- Decreased level of consciousness
- Paralytic ileus
- Inability to provide informed consent
- Possibly elevated transaminases beyond 3–5x ULN
acesulfame

Ace K  Crystatl Light  Sweet One
Benefits of Buprenorphine

• Expedited Induction to full therapeutic dose
• Less QTc prolongation
• Less Toxicity in isolated overdose
• Increased Blockade/attenuation of other opioids
• Reduced cognitive effects
• Reduced sexual side-effects
• Reduced toxicity re. BZD or ETOH co-ingestion
• Reduced Kappa mediated dysphoria
Benefits of Buprenorphine

• Increased access to pharmacy dispensing
• Increased portability (air travel)
• Increased ease of inspection of carries
• Decreased stigma
• Increased access to methadone-adverse pts.
• Possible increased access—primary care setting
Benefits of Buprenorphine

• Milder withdrawal
• Reduced tolerance & dependence

Walsh & Eisenberg, 2003
Challenges of Buprenorphine

- Precipitated withdrawal during Induction
- Management of Acute Pain eg. surgery
- Burden of Payment—ODB, EAP, LU
- (Less mental clouding)
- See contraindications
## LU Code Indications

<table>
<thead>
<tr>
<th>Reason for Use Code</th>
<th>Clinical Criteria</th>
</tr>
</thead>
</table>
| 437                 | For the treatment of opioid dependence in patients who have failed, have significant intolerance, have a contraindication to, or who are at high risk for toxicity with methadone.  
  
  **Note:** High risk for toxicity with methadone defined as: use of benzodiazepines, alcohol abuse or dependence, elderly, patients who are dependent on codeine or abuse opioids on a less than daily basis, on medications that interfere with methadone metabolism, at high risk for prolonged QT interval.  
  
  **Note:** Physicians should complete an accredited course on opioid addiction and buprenorphine treatment before prescribing Suboxone.  
  
  LU Authorization Period: 1 year. |
| 438                 | For the treatment of opioid dependence when a methadone maintenance program is not available or accessible (i.e. No methadone maintenance programs available in the area, or waiting list is 3 months or longer).  
  
  **Note:** Physicians should complete an accredited course on opioid addiction and buprenorphine treatment before prescribing Suboxone.  
  
  LU Authorization Period: 1 year |
Clinical Use of Bup/Nx
Buprenorphine Detox

• More effective than clonidine

When compared to Methadone Detox
• Retention equal in both groups
• Resolution of withdrawal was more rapid

Gowing, Ali, White et al, Buprenorphine for the management of opioid withdrawal (Cochrane Review)
Potential Predictors for Successful Medical Detoxification

- are dependent only on opioids, and in particular oral opioids
- have a brief duration of dependence (i.e., less than one year)
- are a younger age
- have no major psychiatric comorbidity
- are socially stable with a supportive network
Dangers of Detox vs ORT

• ORT is statistically superior re:
  • sustained abstinence
  • reduced morbidity
  • retention

• Short-term detox programs result in loss of tolerance yet provide insufficient psychodynamic and behavioral changes to prevent relapse—thus result in increased risk of overdose.
Retention in Treatment

Buprenorphine in Opioid Addicted Youth

• 36% attrition by week 4 – detox group
• 8% attrition by week 4-Bup. Group

Efficacy of Buprenorphine Maintenance Treatment

54% of patients abstinent at 6 months

- N=99
- 2 Primary Care Settings
- Onsite & Offsite Counseling

Use of Bup for Opioid Taper

“there is some evidence that the withdrawal symptoms tapering off buprenorphine may be less prolonged than when tapering off methadone”

It is important to note that buprenorphine/naloxone has not been approved by Health Canada specifically as a detoxification agent in Canada.

CAMH
Induction on Bup/Nx
General Patient Demographics

- Oral Opioids
- Shorter Duration of Addiction
- Less involvement with “Drug World”
- Less Concurrent Mental Illness
- Access to 3rd Party Insurance Coverage
- Higher Global Function
- More Motivated
- Adolescents / Young Adults
Medical Indications

* high risk for toxicity with methadone: use of benzodiazepines, alcohol abuse or dependence, elderly, patients who are dependent on codeine or abuse opioids on a less than daily basis, on medications that interfere with methadone metabolism, at high risk for prolonged QT interval

* Ontario Exceptional Access Program Application Form / LU Code 437
LU Code 438

* no methadone maintenance programs available in the area, or waiting list is 3 months or longer

* Ontario Exceptional Access Program Application Form / LU Access
Dx before Tx!

- DSM IV Criteria for Substance Dependence
- Pseudo-Addiction considered
- Detox, Withdrawal Management considered
Clinical Assessment

• Comprehensive clinical assessment
• Establishing that the client meets the DSM-IV criteria for opioid dependence
• Urine drug test, specifically for opioids including methadone and buprenorphine
• Pregnancy test
• Liver enzymes
• Hepatitis B, Hepatitis C and HIV testing
Identify and explore any concurrent diagnoses that may complicate the induction process:

• use of other substances of abuse, in particular alcohol and/or benzodiazepines
• the presence of concurrent psychiatric disorders
• the presence of a chronic pain problem
• current pregnancy
• pre-existing liver disease
• general medical health
Pregnancy & Bup/Nx

• naloxone cannot be used in pregnancy
• risk of withdrawal induced miscarriage
  • due to a precipitated withdrawal Rxn
  • due to abstinence pre induction
• Pregnancy is a contraindication to start Bup
• Methadone is the standard of care**
Hepatic Issues

• toxic hepatitis (IV misuse of Bup)
• baseline values
• rule out contraindication
• “consider monitoring”
• patients at risk for Hep A, B, C.
Assess the patient’s psychosocial functioning:

- may influence the choice of opioid agonist treatment
- provides a baseline to demonstrate improved function with treatment.
Bup/Nx Induction & Treatment
Safe Induction

- No driving during induction
- Patient education re Precip. W/D
- Rule out contraindications
- Follow dosing protocol
Precipitated Withdrawal

• very unlikely—if follow precautions
• not life threatening
• treatment: non-opioid symptom relief
• resolves within 12 hours
• can undermine therapeutic relationship
Avoiding Precipitated Withdrawal

• **Avoid Precipitated Withdrawal**
  – No short-acting opioids for ≥ 4 hours
  – No methadone for ≥ 24-48 hours
  – **COWS ≥ 12** *

• **Predictors of Precipitated Withdrawal**
  1. Too short an interval since last full opioid agonist
  2. High level of opioid dependence
  3. Higher buprenorphine dose

Avoiding Precipitated Withdrawal

- 6–12+ (preferably 12) hours for immediate release opioids
- 12–24+ (preferably 24) hours for delayed release
- “3-5 days for patients on methadone (after being tapered to < 30mg/day)”

CAMH Guidelines
# Opioid Withdrawal Scale

<table>
<thead>
<tr>
<th>Grade 1</th>
<th>Grade 2</th>
<th>Grade 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweating</td>
<td>Nausea</td>
<td>Nausea, Vomiting, Diarrhea</td>
</tr>
<tr>
<td>Yawning/Sneezing</td>
<td>Dilated Pupils</td>
<td>Dilated Pupils</td>
</tr>
<tr>
<td>Lacrimation</td>
<td>Piloerection</td>
<td>Tachycardia, Tachypnea,</td>
</tr>
<tr>
<td>Rhinorrhea</td>
<td>Muscle Spasms &amp; Aches</td>
<td>Hypertension, Pain</td>
</tr>
</tbody>
</table>
Buprenorphine Induction

• Avoid Precipitated Withdrawal
  – COWS ≥ 12
  – Counseling & Patient Education

• Rapid Titration to Full Therapeutic Dose
  – Day 1: 2 to 4 mg first dose, repeat in 2-3 hrs prn x1
  – Day 2: range: (1 to 2x dose on Day 1) as per Sx
  – Day 3: range: up to 24mg (most patients ≤ 16mg)
    (assumes no contraindications)
Rate of Induction

• shorter induction period
  • improves retention

• more effective dose increases
  • reduces relapse

• Leonardi et al., Drug and Alcohol Dependence. 2008;94(1-3):125-132
• Compton et al., American Journal on Addictions. 1996;5(3):220-230
Optimum Bup Dosing

- 24mg
- 16 – 24mg
- < 16mg
Induction Day 1 Dosing

If necessary, the patient is reassessed after approximately three hours to assess effectiveness of the initial dose and consider prescribing an additional observed dose (to a maximum of 8 mg on the first day).

Alternatively, the prescriber may consider prescribing one or two 2 mg tablets of buprenorphine/naloxone for the patient to take home on that first induction day in case withdrawal symptoms emerge later in the evening (again, not exceeding 8 mg total on the first day).

CAMH p.37
First Day Dosing – Carries?

“One could argue that it makes little sense to deny a patient 2–4 mg of buprenorphine/naloxone to take home during their first induction day to use if opioid withdrawal symptoms emerge in the evening or overnight.”

CAMH p. 36
CAMH Recommendations

- A structured approach to initiation
- Informed Consent
- Once stabilized consider alternate day dosing
- Pt.-centered drug testing
- Structured risk-stratification strategy re. provision of carries
Carries

Daily Supervised vs. Weekly Carries

Weekly Carries from Initiation:

• no increase in retention
• serious adverse effects 5:1 [carry : obs]
• 18 cases of diversion
• 5 cases of IV Bup. use

Bup/Nx Maintenance
Maintenance Dose

• 24mg is maximum daily dose in Canada
• average daily dose is 8-12mg
• Consider **alternate day dosing** once stable
  • eg. if 8mg / day daily
    • 16mg on Mon, Wed, Fri
    • 8mg Sun
• Daily Max (Health Canada) 24mg
Daily vs. Alternate Day Dosing

“no significant difference between alternate day vs. daily dosed buprenorphine in terms of retention in treatment and illicit opioid use.”

CAMH Bup Guidelines
Frequency of Visits

**Induction**
- 1 to 2 per week

**Maintenance**
- weekly to alternate weeks
- “once stable and beginning to achieve carries...visits every one to three months”

CAMH p.38
Bup / Nx Carries
Maintenance Phase Carries

• in MMT carry level adjustment is effective at encouraging abstinence
• limited research with Bup.
Clinical Stability

Clinical stability is determined by certain patient characteristics, namely:

- no evidence of ongoing problematic substance use, including alcohol
- no evidence of acute or unstable psychiatric symptoms
- stable behaviour and social situation
- secure enough housing to safely store the medication.
Maintenance Phase Carries

“In order to provide unsupervised dosing while minimizing diversion there needs to be good clinical assessment of appropriateness for take-home doses and ongoing careful clinical monitoring. This can take the form of: client self-report, physical examination, urine drug testing, adherence with dosing schedules and behaviour at the point of dosing.” [88]

CAMH Recommendations

Three Categories of Stability

Least Stable  No initial carries (1st 8/52)
More Stable   Carries for w/e & holidays
Most Stable   Carries in excess of above
CAMH Recommendations

**Least Stable** No initial carries (1st 8/52)
recent injection
recent suicidality
cognitive impairment
unstable housing
ongoing opioid use
other active alcohol or drug dependencies.
CAMH Recommendations

More Stable Carries for w/e & holidays

Defined as not having any of the features of the least-stable group
CAMH Recommendations

**Most Stable** Carries in excess w/e and holidays

- clinical stability beyond category 2
- dependent on prescribed opioids from one MD
- exhibits stabile behavior in office an pharmacy
- no severe psychiatric symptoms
- particularly stable social situation
- work and family responsibilities make daily dosing restrictive—risk of treatment drop out
CAMH Recommendations

“Against-Label” Carries

• CAMH received legal opinion
• thorough clinical assessment
• sufficient stability
• clear benefit
• informed consent of “against-label” use & potential risks: diversion, OD, IV use, death of self or others
• gradual delivery of carries
• ongoing monitoring of stability and benefit
• all of the above well documented
CAMH Recommendations

It is preferable to have tighter boundaries which subsequently loosened in response to patient stability than to have initially looser boundaries subsequently tightened in response to patient non-stability.

CAMH p.42
CAMH Recommendations

Typical Maximum Consecutive Consecutive Carries

One to Two Weeks

CAMH p.42
## MISSED DOSES

*Table 1: Suggestions for Managing Missed Doses [19]*

<table>
<thead>
<tr>
<th>Buprenorphine Dose</th>
<th>Number of Consecutive Days Missed</th>
<th>New Starting Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt; 8 mg</td>
<td>&gt; 7 days</td>
<td>4 mg</td>
</tr>
<tr>
<td>&gt; 8 mg</td>
<td>6–7 days</td>
<td>8 mg</td>
</tr>
<tr>
<td>6–8 mg</td>
<td>6 or more days</td>
<td>4 mg</td>
</tr>
<tr>
<td>2–4 mg</td>
<td>6 or more days</td>
<td>2–4 mg</td>
</tr>
</tbody>
</table>
DIVERSION MANAGEMENT

• REMOVE CARRIES
• REDUCE DOSE BY 25 – 50%
• “CONSULT ADDICTION PHYSICIAN”

CAMH
Bup in Pregnancy
Use in Pregnancy

Bup mono-product vs. methadone RCT
• As effective as methadone
• Less NAS (shorter stay, lower scores, less Tx)

However...
• Health Canada indicates methadone
• Induction issues re. required withdrawal
• Access requires Special Access Program HC & RB

Buprenorphine in Pregnancy

To access the Bup monoprod:ct:

• Health Canada
  • Special Access Program - Form A

• Reckitt Benckiser
  • Special Access Program Form
  • Patient Consent Form
  • Physician Agreement
Managing Pain in Bup Patients
Acute Emergent Pain

- Discontinue bup/nx
- Consider non-opioid analgesics +/- opioids
- Consider managing opioid requirements with methadone 20-40mg per day
- Manage analgesic needs with short-acting high potency opioids via PCA
- Fentanyl may be best choice
- Initial opioid needs may be higher than expected
- Expect decreased opioid need / increased potential for toxicity over 24 to 72 hrs

Monitor carefully

- Restart bup/nx when it is appropriate to do so
Anticipated Acute Pain

• Attempt to hold bup/nx for 24-36 hours prior to surgery (creating opioid debt)

• Initially larger doses of other opioids may be needed, this may decrease over 72 hours as buprenorphine is being eliminated

• Avoid drug of choice, small amount dispensed, know usual time line of recovery
Appendix A: The University of Michigan Protocol for the Management of Sublingual Buprenorphine (Suboxone and Subutex) in the Acute Perioperative Setting for Elective Surgery

**Elective Surgery**

- **Minimal to no pain**
  - Preoperatively: Surgical team should assess anticipated post-operative pain and opioid requirements
  - Ask the patient if they are still taking their buprenorphine

- **Moderate to severe pain**
  - Ask the patient if they are still taking their buprenorphine

**Still taking buprenorphine**
- Surgeons ensure that the physician writing the buprenorphine is aware of surgery
- Continue the buprenorphine for post-op pain
- Do not routinely prescribe supplemental opioids
- Consider adjuncts- Acetaminophen and/or NSAIDs

**Off buprenorphine**
- Assess the amount of time since the last dose of buprenorphine
- If ≥ 5 days off buprenorphine, treat with traditional opioids
- Surgeons should contact the physician prescribing buprenorphine and ensure that they are aware of surgery
- After post-op pain normalizes, the patient may work with their physician to reinstitute buprenorphine therapy

**Still taking buprenorphine**
- Cancel surgery
- Patient should return to the physician that prescribes their buprenorphine; coordinated by surgical team
- Should be taken off of buprenorphine and transitioned to short-acting opioids for ≥ 5 days prior to surgery by physician prescribing buprenorphine
- Coordinate follow-up post-operatively with buprenorphine provider

**Off buprenorphine**
- Anticipate patient’s course will be similar to opioid tolerant patient
- Surgeons should ensure appropriate outpatient follow-up
Appendix B: The University of Michigan Protocol for the Management of Sublingual Buprenorphine (Suboxone and Subutex) in the Acute Perioperative Setting for Emergent Surgery

Preoperatively:
Surgical team should assess anticipated post-operative pain and opioid requirements

Minimal to no pain
- Ask the patient if they are still taking their buprenorphine

Moderate to severe pain
- Ask the patient if they are still taking their buprenorphine

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- Surgeons should ensure that the physician writing their buprenorphine is aware of surgery
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- Assess the amount of time since the last dose of buprenorphine
- If ≥5 days off buprenorphine, treat with traditional opioids
- Surgeon should contact the physician prescribing buprenorphine and ensure that they are aware of surgery
- After post-op pain normalizes, the patient may work with their physician to re instituted buprenorphine therapy

Still taking buprenorphine
1. Discontinue buprenorphine

2. Start PCA - Will likely require high doses; may require some continuous opioid infusion, however, would avoid high-dose continuous opioids and instead allow the patient to use PCA, PCA to be managed by Acute Pain Service (APS).

3. Patient should be in a monitored setting with close nursing monitoring (ICU or 8D only)
   - Duration of ICU/monitored setting time will vary
   - Half-life of buprenorphine will vary by patient and dose (24–60 hours); anticipate decreased opioid requirements after buprenorphine clears

4. Regional Anesthesia - Consider continuous catheters

5. Maximize Adjuncts
   - Dexmedetomidine for ICU patients used according to ICU protocols
   - Acetaminophen ATC
   - Consider gabapentin or pregabalin

6. Continue traditional opioid therapy for post-op pain after discharge - Coordinate follow-up with pain physician prescribing buprenorphine for eventual opioid wean and re instituted buprenorphine therapy

Off buprenorphine
- Anticipate patient's course will be similar to opioid tolerant patient
- Surgeons should ensure appropriate outpatient follow-up
Primary Care Rx of Bup/Nx
Primary Care Prescribing

• There is a great need for increased treatment
• Safer medication—less OD deaths
• Increased Risk of Diversion?
• Same Illness—addiction
• What is sufficient training?
• What is sufficient monitoring?
Primary Care Prescribing

“There is evidence that this medication can be prescribed as safely and effectively from appropriately trained or experienced practitioners in a primary care clinic as it can be in a specialized opioid agonist clinic.”

CAMH p.4 (level1, Grade A data)
Primary Care Prescribing

There is an increasing emphasis in the medical literature on making Bup/Nx available through primary care physicians for the treatment of opioid addiction.

Primary Care Prescribing

“The fact that many patients can receive efficacious care in a primary care, office-based setting with weekly brief counseling and medication dispensing is important”

Primary Care Prescribing

Counseling plus Buprenorphine–Naloxone Maintenance Therapy for Opioid Dependence

Primary Care Prescribing


• selection bias
  • 497 eligible for bup/nx
  • 296 were excluded re. ETOH, other addictions or psych issues
  • of the remaining 201, only 166 entered into the trial

• 77% of patients “eligible for Bup/Nx” were excluded

• even then 10% were transferred out to an addiction team
Primary Care Prescribing


• **Research setting not typical of “primary care”**
  • Primary Care Team (research) from Yale
  • team of nurses and psychologist with extensive training
  • nurses uses a manualized counseling protocol
  • nurse-patient interactions videoed and monitored
  • counseling 3 /wk x 2 wks for 20 to 45 min then randomized
  • physician-patient counseling 20 min monthly
  • weekly team meetings with psychologist, MD, RNs
  • medication bottles APREX microchip monitoring
Primary Care Prescribing

Long-term outcomes of office-based buprenorphine/naloxone maintenance therapy


• specialized research setting
• initiation by specialized team in hospital for 24 to 48 hrs
• first 5 weeks of intensive counseling 3hrs/day 4 days/wk
• then 12 weeks of weekly structured counseling
• attendance at 12 step meetings 3x per week
• lower SES patients required to spend first 1 – 2 months in halfway house
Primary Care Prescribing

Home- versus office-based buprenorphine inductions for opioid dependent patients


• Inner city Bronx Health Centre experienced in research
• 298 patients considered for treatment –only 38% included
• Induction process (office based) lasted 2 to 4 hours
• No difference in home vs. office based inductions
Primary Care Prescribing

“Use of buprenorphine/naloxone in primary care settings is efficacious, safe, and feasible within reasonable time constraints.”

Citing the Kakko study
Simon Ducharme et al Canadian Family Physician • Le Médecin de famille canadien | Vol 58: january • janvier 2012
A Stepped Care Strategy Using Buprenorphine and Methadone Versus Conventional Methadone Maintenance in Heroin Dependence: A Randomized Controlled Trial


• Stepped care with Bup then moving to Methadone is equally effective as standard MMT in retention and outcomes

• **This study does not provide any info re. delivery in the average primary care setting**

• “all patients received intensive behavioral treatment”

• research team, careful UDS monitoring, case managers...
Primary Care Delivery

Comparison of methadone and high dosage buprenorpheine users in French care centres

KARINE BARRAU et al., Addiction (2001) 96, 1433–1441
KARINE BARRAU et al. France 1998

- 1998 4 weeks of interviews
- 424 on MMT  616 on HighDose Bup
- Bup monoproduct

**Abuse of Maintenance Medication**
- no MMT reported IV or Nasal misuse
- HDBup:
  - 100 reported IV use
  - 23 reported nasal use
• Of the 616 HD Bup group
  – 559 were acquiring via medical care “in Protocol”

Was there a difference between pts in Tx Centers vs. Primary Care?

“The subjects attending a centre presented a pattern of consumption behaviour similar to that of the methadone subjects.”
“Furthermore, the subjects managed by a GP presented consumption behaviour similar to the buprenorphine “outwith protocol” subjects.”
“No specialized qualifications or experience are required for GPs to prescribe buprenorphine, unlike methadone prescription, which requires specialized training.”
Diversion and Abuse of Buprenorphine

• Prescriptions for buprenorphine/naloxone have increased dramatically from 2002 to 2010¹

• Emergency room mentions of buprenorphine and combinations have increased 10× from 2004 to 2008²

DAWN = Drug Abuse Warning Network.
IV Abuse

• There is a higher risk of IV abuse of Bup. than methadone.
• This is even true of Bup/Nlx.
• Observation is less reliable than with methadone
Misuse, Abuse, and Diversion

(buprenorphine and naloxone) Sublingual Tablets and (buprenorphine) Tablets

DAWN Mentions

Poison Control Center Exposures
American Association of Poison Control Centers (n=61)

DAWN=Drug Abuse Warning Network.
More Than Half of Physicians Surveyed Were Unaware of Illicit Buying and Selling of SUBOXONE® (buprenorphine and naloxone) Sublingual Tablets (CIII) in Their Communities

Effects of Pediatric Exposure

- Signs of overdose have been reported in children age <6 years
- Naloxone generally reversed effects\(^1\)
- Pediatric exposures have been increasing, even when adjusted for the number of doses distributed\(^2\)

Pediatric Exposures

2008 Study: 86 pediatric exposures
• no fatalities
• 7% - serious respirator or CNS Symptoms
• more recent studies have shown pediatric fatalities in the US

Bup/Nlx Film

In the USA
the Bup/Nlx tablet in bottles
Replaced by
Film in Blister Packs
56% reduction in all exposures
77% reduction in pediatric exposures
Data provided by the Researched Abuse, Diversion and Addiction-Related Surveillance (RADARS) System.
Primary Care Prescribing

What can we do as addiction physicians?

• Encourage research
• Address our limitations
• Assist our Primary Care Colleagues
Summary
Benefits of Buprenorphine

• Expedited Induction to full therapeutic dose
• Less QTc prolongation
• Less Toxicity in isolated overdose
• Increased Blockade/attenuation of other opioids
• Reduced cognitive effects
• Reduced sexual side-effects
• Reduced toxicity re. BZD or ETOH co-ingestion
• Reduced Kappa mediated dysphoria
Benefits of Buprenorphine

• Increased access to pharmacy dispensing
• Increased portability (air travel)
• Increased ease of inspection of carries
• Decreased stigma
• Increased access to methadone-adverse pts.
• Possible increased access—primary care setting
Suggested Training

www.suboxonecme.ca

www.camh.net (Buprenorphine/Naloxone for Opioid Dependence: Clinical Practice Guidelines)
Thank You