Identification and Management of Prescription Opioid Misuse and Addiction

Dr. Karine Meador
MD  CCFP  DABAM
Assistant Director; Inner City Health and Wellness Program, Royal Alexandra Hospital
Edmonton, AB
Faculty/Presenter Disclosure

- Faculty: Dr. Karine Meador
  - Assistant Director; Inner City Health and Wellness Program, Royal Alexandra Hospital
  - Consulting Physician, Pain and Addiction Medicine; LifeMark Health Institute
  - Clinical Lecturer; University of Alberta, Department of Family Medicine

- Grant support
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- Relationship with commercial Interest
  - Speaker’s Honorarium: Reckitt Benckiser
Disclosure of Commercial Support

- This program has received no financial or in-kind support.

- Potential for Conflicts of Interest:
  - Dr. Karine Meador has received a speaker’s honorarium from Reckitt Benckiser whose products are being discussed in program
Mitigating Potential Bias

- Recommendations are based on best available evidence
Methadone is Awesome!!!
Objectives

- Screening for misuse and addiction
- Clinical features of prescription opioid misuse and addiction
- Structured opioid therapy
- Opioid tapering
- Treatment options for opioid addiction; prescription and otherwise
Canadian Guideline for Safe and Effective Use of Opioids for Chronic Non-Cancer Pain

http://nationalpaincentre.mcmaster.ca/opioid/
Prescription Opioids

- North America consumes approximately 80% of the world's opioids.
- Canada is the second largest consumer of prescription opioids, according to the International Narcotics Control Board (2010).
- Prescription opioid-related deaths doubled in just over 10 years in Ontario, from 13.7 deaths per million people in 1991 to 27.2 deaths per million people in 2004.

Prescription Opioids

Opican cohort study, 7 Canadian cities, 2001-2005

- Among IV opioid users, prescription opioids were more commonly used than heroin

Where are these drugs coming from??

Fischer, B., et al. CMAJ November 21, 2006 vol. 175 no. 11
Changing patterns in opioid addiction; Characterizing users of oxycodone and other opioids

Differences and over-time changes in levels of prescription opioid analgesic dispensing from retail pharmacies in Canada, 2005-2010

Figure 1. Mean annual total of POAs prescribed in DDDs per 1000 population/day in Canada and by province, 2005–2010

Differences and over-time changes in levels of prescription opioid analgesic dispensing from retail pharmacies in Canada, 2005-2010

Figure 2. Trends in annual “weak opioid” and “strong opioid” prescribing in DDDs per 1000 population/day in Canada and by province, 2005–2010
DSM – V; Opioid Use Disorder

1- taken in larger amounts or over a longer period than intended
2- unsuccessful efforts to cut down or control use
3- time spent in activities to obtain, use, or recover from the effects
4- cravings
5- failures at work, school, or home
6- continued use despite social problems
7- social activities or work given up
8- physically hazardous use
9- continued use despite physical or psychological harm
10- tolerance
11- withdrawal
Withdrawal + Tolerance = Physical Dependence

Physical Dependence

≠

Addiction

(also used interchangeably with “opiod dependence”.....)

**Tolerance to analgesic effects develops slowly.**
**Tolerance to euphoric effects develops rapidly.**
Addiction

- A chronic relapsing disorder with genetic and environmental factors influencing its development and manifestations
- Characterized by:
  - Craving
  - Loss of Control of amount or frequency of use
  - Compulsion to use
  - Use despite Consequences
Screening for misuse and addiction

Canadian Guideline for Safe and Effective Use of Opioids for CNCP

- Current Opioid Misuse Measure (COMM)
- Screener and Opioid Assessment for Patients with Pain (SOAPP-R)

Common questions: preoccupation with opioids, mood, concerns of others about use, taking medications not as prescribed, aberrant behaviours
### Aberrant Prescription Opioid Use Behaviours

<table>
<thead>
<tr>
<th>Category</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Altering the route of delivery</strong></td>
<td>• Injecting, biting, crushing</td>
</tr>
<tr>
<td><strong>Accessing opioids from other sources</strong></td>
<td>• Friends, relatives&lt;br&gt;• The street&lt;br&gt;• Double-doctoring</td>
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<tr>
<td><strong>Unsanctioned use</strong></td>
<td>• Dose escalations&lt;br&gt;• Binge use</td>
</tr>
<tr>
<td><strong>Drug seeking</strong></td>
<td>• Prescription losses&lt;br&gt;• Aggressive complaining about dose&lt;br&gt;• Harassing staff&lt;br&gt;• nothing else “works”</td>
</tr>
<tr>
<td><strong>Repeated withdrawal symptoms</strong></td>
<td>• Dysphoria, myalgias, GI symptoms, craving</td>
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<tr>
<td><strong>Accompanying conditions</strong></td>
<td>• Polysubstance use&lt;br&gt;• Underlying mood or anxiety disorders</td>
</tr>
<tr>
<td><strong>Social Features</strong></td>
<td>• Deteriorating or poor social function&lt;br&gt;• Concern expressed by family members</td>
</tr>
<tr>
<td><strong>Views on the opioid medications</strong></td>
<td>• Acknowledges being addicted&lt;br&gt;• Strong resistance to tapering or switching opioids despite evidence of negative effects</td>
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Urine Drug Screens

- Patients usually don’t object if it’s routine and part of a treatment agreement
- Useful for the detection of:
  - Abuse of other drugs eg. cocaine
  - Diversion and non-compliance
    - Double-doctoring
Urine Drug Screens

Key Points

- Immunoassay vs. chromatography
- Detection time
- Metabolites
- False positives
IV Track Marks
IV Track Marks
Identification – Key Points

In primary care, the diagnosis of addiction is most often a diagnosis that occurs over time and not after one or two visits.

Screen everybody.
Structured Opioid Therapy

- Prescribing opioids with specific controls in place:
  - Patient education
  - Treatment agreement
  - Short dispensing intervals (daily or weekly) and no early refills
  - Frequent monitoring
  - Urine drug screening, pill counts
Structured Opioid Therapy - Indications

- Well known to the physician
- Well-defined pain condition for which opioids have been shown to be effective
- Past history of addiction
- Aberrant behaviours but not accessing opioids from other sources and not altering route of delivery (injecting, crushing)
- Struggling with other substance abuse (eg. cocaine)
Opioid Tapering - Indications

- Opioids have not been effective
- Risks/harms/side effects of opioids outweigh the benefits of ongoing treatment
- Ongoing aberrant behaviours despite structured opioid therapy
- Not accessing opioids from other sources and not altering the route of delivery
- Not the first choice in pregnancy
Tapering – Before Starting

- Review withdrawal symptoms and reassure that these symptoms will resolve
- Goal: to reduce pain, to improve mood and function
- Arrange for frequent follow-up
- Have an agreed upon end date
Withdrawal

- Physical symptoms; “flu-like”, myalgias, abdominal cramps, diarrhea, nausea, chills
- Psychological symptoms; anxiety, cravings, insomnia, fatigue, depression
- Objective signs; lacrimation, rhinitis, yawning, sweating, piloerection, restlessness, uncomfortable, mild tachycardia/hypertension
- Risks; relapse, overdose, suicide, miscarriage/premature labour
Withdrawal

- Physical symptoms peak at 2-3 days after last use and resolve by 5-10 days
- Symptomatic treatment: clonidine, imodium, antiemetic, acetaminophen/NSAID’s, benzodiazepines
Tapering - Rate

- Fastest; decrease by 10% of the total daily dose per day
- Slowest; decrease by 10% of the total daily dose every 2 weeks
- Once about 1/3 of the original dose is reached, slow the taper (eg. 5% or less of the total daily dose)
- Decreases can be held if appropriate but remember your end date goal
Tapering – Key Points

- Scheduled doses, not prn
- Short dispensing intervals (daily to weekly)
- No early refills
- Use controlled-release formulations
Management - Addiction

- Avoid defensiveness and anger…. but do not avoid the issue
- Need to be comfortable setting boundaries and saying “no”

- BRIEF INTERVENTION DOES WORK

Screening, brief interventions, referral to treatment (SBIRT) for illicit drug and alcohol use at multiple healthcare sites: Comparison at intake and 6 months later (Madras, B. et al., Drug and Alcohol Dependence, 2009)
Addiction Treatment - Options

- Medical detoxification
- Outpatient treatment programs/groups
- Residential treatment programs
- Opioid antagonist (naltrexone)
- Opioid agonist treatment (methadone, buprenorphine)
Methadone Treatment

- Years of evidence; effective treatment for decreasing drug use, treatment retention, decreased transmission of HIV/Hep C, decreased overdose and premature mortality, decreased criminal behaviour

- Harm reduction (substitution treatment)
  - Maintenance treatment → opioid agonist treatment (chronic disease management)
Methadone

- Full agonist, long-acting, high risk of overdose in opioid naïve users or if misused
- Does not induce euphoria in dependent patients
- Goal is to reach a stable dose where withdrawal and cravings are suppressed for 24 hours
- Goal is not to have patients sedated by their dose
- Will provide some blocking effect against the euphoric effects of other opioids
- Will not treat acute pain
Key Points about prescribing methadone

- You need a special exemption from Health Canada to prescribe methadone (can receive temporary exemption for inpatients), requirements vary by province.
- Patients lose their tolerance to methadone within 3 days – do not order a dose until you have spoken with either the dispensing pharmacy or the prescribing physician to confirm the last dose.
- Risks increase when combined with other CNS depressants.
Buprenorphine

- Partial agonist, ceiling effect, safer in terms of overdose
- High receptor affinity, good blocking effect of other opioids
- Longer acting than methadone
- Goal is to reach a stable dose where withdrawal and cravings are suppressed for 24 hours
Buprenorphine formulations

- Subutex; sublingual, buprenorphine only, available through Health Canada’s Special Access Program

- Suboxone; sublingual, buprenorphine and naloxone (opioid antagonist) in a 4:1 ratio
  - Naloxone is not significantly bioavailable when taken sublingually or when swallowed
  - Active when used intravenously (to help fight diversion and injection use)
Key Points about prescribing buprenorphine

- Requirements to prescribe differ by province
- Patient needs to be in moderate opioid withdrawal prior to starting
- May make acute pain management more difficult due to it’s blocking effect
Precipitated Withdrawal

**Intoxication**
Significant amount of opioid bound to receptors  
“Volume” on max

**Withdrawal**
Most receptors unbound  
“Volume” on low

**Buprenorphine**
Binds preferentially to receptors  
“Volume” on medium

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1. Blocks the effect of illicit and other opioids
2. Precipitated Withdrawal
   Relative to intoxication, Buprenorphine “turns on” receptors less  ∴ patient feels withdrawal

Induction: relative to withdrawal, Buprenorphine “turns on” receptors more ∴ patient feels better

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Graphics adapted from NAABT, Inc. (naabt.org)
Buprenorphine vs. Methadone

Perception?
Buprenorphine vs. Methadone

Reality!
Choosing Buprenorphine or Methadone

- Advantages of buprenorphine over methadone:
  - Less side effects
  - Less risk of QTc prolongation
  - Less risk of overdose
  - Faster titration/stabilization period
  - Better blocking effect
  - Longer duration of action can mean more flexible dosing
  - In theory, less withdrawal when tapering (?in practice)
Choosing Buprenorphine or Methadone

- Disadvantages of buprenorphine over methadone:
  - COST $$$
  - Have to be in withdrawal to initiate
  - Ceiling effect

**It is far easier to transition from buprenorphine to methadone, than from methadone to buprenorphine**
Efficacy of Methadone and Buprenorphine

• We understand a lot about the neurobiology of addiction diseases
• Pharmacological mechanisms of methadone and buprenorphine are well understood
• The evidence for efficacy of methadone and buprenorphine is clear

...So why is there such stigma surrounding their use?
Questions?

Pig in Australia Steals 18 Beers from Campers, Gets Drunk, Fights Cow

Craig ONeil, Flickr Forget crocodiles and snakes, the real animal threat in Australia is wild pigs. At least if you’re camping. At a campground in Western Australia over...