OPIOID BASICS
For RNAO
October 24, 2013
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Learning Objectives
Increase knowledge and understanding about:
• What opioids are
• Problematic use
• Who is using opioids
• Risk and protective factors
• Health promotion
• Opioids and pregnancy
• Treatment approaches
• Overdose prevention
• Supporting Full Recovery
• Opiate Substitution Therapies

What are Opioids?
Opioids:

- Are psychoactive chemicals that work by binding to our natural opioid receptors.
- Are types of painkillers, or analgesics, that are sometimes called "narcotic pain relievers."
- Have positive effects associated with their analgesic qualities.
- Have risks associated with misuse and with the drug’s depressant qualities.

"Opiate" is a synonym for "opioid." True / False

Four Classes of Opioids

<table>
<thead>
<tr>
<th>Naturally produced in the body</th>
<th>Opiates, derived from opium poppy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Endorphins</td>
<td>Codeine</td>
</tr>
<tr>
<td></td>
<td>Morphine</td>
</tr>
<tr>
<td>Fully synthetic</td>
<td>Semi-synthetic</td>
</tr>
<tr>
<td>Demerol</td>
<td>Percocet</td>
</tr>
<tr>
<td>Suboxone</td>
<td>OxyNeo</td>
</tr>
<tr>
<td>Fentanyl</td>
<td>OxyContin</td>
</tr>
<tr>
<td>Methadone</td>
<td>Percodan</td>
</tr>
<tr>
<td></td>
<td>Dilaudid</td>
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<td></td>
<td>Oxycodeone</td>
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<td>Dilaudid</td>
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<td>Oxycodeone</td>
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</table>

Common Prescription Opioids and Their Ingredients

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Tylenol #2, #3, #4</td>
<td>Codeine with acetaminophen</td>
</tr>
<tr>
<td>Percocet</td>
<td>Oxycodone with acetaminophen</td>
</tr>
<tr>
<td>OxyNeo OxyContin</td>
<td>Oxycodone in a time-released formula</td>
</tr>
<tr>
<td>Dilaudid</td>
<td>Hydromorphone</td>
</tr>
</tbody>
</table>

Since a common sign of acetaminophen toxicity is vomiting, it is not possible to be seriously harmed from taking too much Tylenol or Percocet. True / False
Other Prescription Opioids and Their Ingredients

<table>
<thead>
<tr>
<th>Other Prescription Opioids</th>
<th>Their Ingredients</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS Contin, M-Esol</td>
<td>Morphine</td>
</tr>
<tr>
<td>Duragesic patch</td>
<td>Fentanyl</td>
</tr>
<tr>
<td>Talwin</td>
<td>Pentazocine</td>
</tr>
<tr>
<td>Demerol</td>
<td>Meperidine</td>
</tr>
</tbody>
</table>

Intended Use of Opioids:

1) Physical pain management
2) Treatment of addiction to other opioids

More resources about pain:

- Understanding Pain: What to do about it in less than five minutes? (5 min) [http://www.youtube.com/watch?v=4b6oB7b7DKc](http://www.youtube.com/watch?v=4b6oB7b7DKc)
- Non-pharmacologic Therapy and Chronic Pain (54 min) [https://camh.adobeconnect.com/_a829238269/p41da49y1da/?launch=false&fcsContent=true&pbMode=normal](https://camh.adobeconnect.com/_a829238269/p41da49y1da/?launch=false&fcsContent=true&pbMode=normal)
- Chronic Pain and Treatment (51 min) [https://camh.adobeconnect.com/_a829238269/p2z32qxd7w7/?launch=false&fcsContent=true&pbMode=normal](https://camh.adobeconnect.com/_a829238269/p2z32qxd7w7/?launch=false&fcsContent=true&pbMode=normal)
Problematic Use

"There is a relationship between the amount of opioid medicine prescribed in Canada and the increasing level of opioid abuse and opioid-related deaths among youth in Ontario."

(Dhalla, Mamdani, Sivilotte, Kopp, Qureshi & Juurlink, 2009)

What are the risks of opioid use/abuse?

- Dependence
- Addiction
- Overdose
- Withdrawal
- Health risks
- Diversion

Most people who use opioids go on to develop dependence or addiction. True / False
Substance Use Continuum

Individuals move up and down this continuum at any time.

No use  
Occasional use / Circumstantial use / Experimentation  
Regular use / Long-term use / Problematic use  
Tolerance  
Dependence / Addiction

Why are opioids prone to abuse?

To numb physical pain  
To numb emotional pain  
For relaxation  
For the euphoric effect  
To avoid withdrawal: Sudden cessation results in uncomfortable/painful withdrawal symptoms

Everyone is different. Reasons for using may vary.

What are the Warning Signs of a Problem?

- Early renewal of prescriptions
- Double-doctoring
- Diversion
- New pain symptoms
What are the Withdrawal Effects?

- They are **uncomfortable** but not life threatening.
- They usually subside after a **week**.
- They often drive people to use again.
- They can occur even after first use.

<table>
<thead>
<tr>
<th>Exhaustion</th>
<th>Insomnia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression / hopelessness</td>
<td>Anxiety / restlessness / agitation</td>
</tr>
<tr>
<td>Diarrhea</td>
<td>Sweating</td>
</tr>
<tr>
<td>Chills, shivering, clammy skin</td>
<td>Muscle cramps and spasms / Body aches / Bone aches</td>
</tr>
</tbody>
</table>

What is Tolerance?

- It’s the need for higher doses for the same effect.
- Tolerance increases the risk of physical and psychological dependence.

**Note:** Since tolerance for euphoria increases more rapidly than respiratory depression, individuals may continue to seek the euphoria of the drug while ignoring overdose cues (i.e. slowed breathing). This puts them at risk of overdose.

What does Addiction Impact?

- Leisure
- Social relationships
- Legal status
- Education
- Finances
- Employment
- Emotional health
- Physical health
- Family relationships

Determining whether drug use is a problem isn’t always about how often or how much it is used but more about how it is negatively impacting various life areas.
Who Is Using Opioids?

“Ontario is in the midst of a public health crisis—a crisis stemming from the inappropriate prescribing, dispensing and illicit use of opioids and other narcotics.”

- Dr. Jack Mandel, President College of Physicians and Surgeons of Ontario (September 2010)

Opioid Use in Ontario

Between 1991 and 2009, the number of prescriptions in Ontario for oxycodone drugs rose by 850%.

Between 1991 and 2004, deaths in Ontario from opioid use doubled from 13.7 deaths per million residents to 27.2 deaths per million.

In 2009–2010, MOHLTC spent $156 million on narcotics for Ontario Drug Benefit Program recipients, $54 million on OxyContin alone.

*Dhalla, I., et al, 2009
**CBC investigative report (CBC Radio 1, 1730 hour News, June 2, 2009)
Opioid Use in Ontario

Between 2000 and 2004, controlled-release oxycodone increased from 3.8% to 55.4% of the total opioid admissions.

Long-acting oxycodone was associated with a five-fold increase in oxycodone-related mortality.

Note: Since March 2012, OxyContin began being removed from the market in Ontario and has been delisted from the Ontario Drug Benefit Program.

Prescription Opioid Misuse

Prescriptions opioid misuse has been Ontario’s fastest-growing problem substance, and the third top presenting problem substance for new admissions (DATIS, 2012).

Due to discontinuing OxyContin in 2012, DATIS expects to be observing a different trend.

Entering Treatment

Clients presenting at addiction treatment using opioids

- % of clients using prescription opioids
- % of clients using heroin
- % of female clients using opioids
- % of male clients using opioids

Due to discontinuing OxyContin in 2012, DATIS expects to be observing a different trend.
Opioid misuse among general population in Ontario

Reported Use among Youth (Ages 19-24)

Therefore, when assessing and treating, it is important to speak to females about the nature of their drug use.

Ontario Student Drug Use and Health Survey
Past Year Use 2011

<table>
<thead>
<tr>
<th>Substance</th>
<th>% of Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>55%</td>
</tr>
<tr>
<td>Cannabis</td>
<td>22%</td>
</tr>
<tr>
<td>Opioid pain relievers (NM)</td>
<td>14%</td>
</tr>
<tr>
<td>Cigarettes</td>
<td>9%</td>
</tr>
<tr>
<td>Stimulants (NM)</td>
<td>4%</td>
</tr>
<tr>
<td>Sedatives (NM)</td>
<td>2%</td>
</tr>
</tbody>
</table>

NM = non-medical

www.camh.net
Ontario Student Drug Use and Health Survey 2011

- Approximately 14% of Ontario students in Grades 7–12 report using prescription opioid pain relievers such as Tylenol#3 and Percocet for non-medical purposes
- Almost 67% report obtaining the drugs from home

Resources For Parents

Key messages on how to prevent problems:
1) Build healthy relationships
2) Clear rules – never take someone else’s medicine
3) Store opioids in a safe secure place and keep track of pills
4) Clean out medicine cabinet at least once a year
5) Get help early – call Drug and Alcohol Helpline 1.800.565.8603

About Percs, Oxys and other Pain Pills

http://knowledgex.camh.net/amhspecialists/resources_families/Documents/about_percs_oxys.pdf
Risk and Protective Factors*

*Remember, these don’t have a simple cause-and-effect relationship.

Risk Factors

- Life events / environmental stressors
- Psychological vulnerabilities (personality traits)
- Other illness and medications

Note: If we are aware of risk factors we can target prevention and education specifically to these areas.

Protective Factors

- Personal and social competence
- Feeling in control of one’s life
- Optimism
- Ability to detach from conflict
- Willingness to seek support
Populations at greater risk

- Adolescents
- Older adults
- People with a family history or personal history of substance use issues
- People with a personal history of mood or anxiety disorders

(From Kahan et al., 2011)

Concurrent Disorders

From Ontario data, non-medical prescription opioid use has been reported to be significantly higher among those reporting elevated psychological distress (Shield et al., 2011)

Health Promotion

Aimed at empowering individuals to improve their health

(From Shield et al., 2011)
What Works?

- Building resiliency and protective factors
- Balancing health and safety
- Setting goals based on evidence / best practices
- Using a comprehensive approach (a range of strategies)
- Supporting collaborations (sectors, governments, NGOs)
- Addressing the determinants of health
- Using a population health approach
Opioids and Pregnancy

Note: Opioids cross the placenta.

Risks of Withdrawal

Risks to fetuses and infants:
• Withdrawal has the same physical effects on the fetus as it does on the woman.
• Neonatal Abstinence Syndrome (NAS) – occurring in some infants born to mothers who are dependent on opioids

Risks to the mother:
• Withdrawal is also associated with placental abruption and could be life-threatening for the mother.

Opioids in Pregnancy

Prenatal
If tapering has to be done:
• The safest time is between 14 and 32 weeks*
• The dose should be tapered at a rate of:
  • No more than 10% reduction per day*
  • No more than 5-10 mg per week as an outpatient, or
  • No more than 1-2 mg per day as an inpatient
• Switch to an immediate release preparation at the end of the taper to allow for finer titration*

Monitor closely and stop tapering if any adverse consequences are reported!
During Pregnancy

- Minimize withdrawal
- Prevent relapses
- Use maintenance medications

Safety Considerations

- Provide prenatal care and psychosocial treatment
- Monitor for partner’s use of drugs and/or violence in the relationship
- Consider taking action if the child is at risk under the Child and Family Services Act
- Poly-drug use and tobacco (high risk for SIDS)

Resources on Treating Pregnant Clients with Opiate Addictions

For more information and resources on opioids and pregnancy, visit:
https://knowledgex.camh.net/opioid_alert/2012/Pages/pregnancy_pro_april2012.aspx

Webinar: Management of Perinatal Opioid Addiction
http://camh.adobeconnect.com/3luzntXkLk/
Treating Opioid Dependence

Stages of Change

What is the Overall Goal of Harm Reduction?

To increase awareness of the risks of behaviour and provide people with tools and resources they can use to decrease the risk of harm to themselves and/or others.
How does Harm Reduction relate to Substance Use?

- Harm Reduction is considered the “best practice” approach to addiction.
- It takes into account individual preference.
- It can include – but is not limited to – abstinence.

“Harm reduction means focussing on the most immediate and achievable changes that can reduce the threat to the health and well-being of the user and of society.”

(Substance Abuse Network of Ontario)

What are the Core Principles of Harm Reduction?

- Attitude
- Autonomy
- Pragmatism
- Flexibility in treatment options
- Redirection
- Broad perspective
- Focus on harms
- Evaluation
- Address stigma, prejudice & discrimination

(Adapted from CAMH, 2002, 2005)

Why Take a Harm Reduction Approach?

- More stability
- More positive relationships
- Less costly to society
- Helps avoid crises
- More hope
- Less isolation
- Addresses personal priorities
- Start where a person’s at, NOW

(Adapted from CAMH, 2002, 2005)
Overdose Prevention / What is Naloxone?

- It can prevent death in the case of an opioid overdose.
- It acts as an opioid inverse agonist.
- It is commonly administered/self-administered intravenously.

Note: While Naloxone was included in overdose prevention kits distributed to agencies in Ontario in 2012-13 by the Ontario Harm Reduction Distribution Program (OHRDP), the MOHLTC is now looking into alternative Naloxone delivery models for Ontario due to regulatory issues.

What are Some Treatment Approaches?

- Controlled use
- Tapering
- Withdrawal management (residential or community)
- Opiate Substitution therapies (ie. Methadone and Suboxone)
- Alternative Therapies

Controlled Use

- Taking drugs “as prescribed”
- Involves some tapering
- Makes use of alternative pain management strategies, such as
  - Acupuncture, TENS
  - hot/cold compresses
  - physical activity
  - relaxation
  - distraction
**Supported Tapering/Withdrawal**

- Slowly decreasing opioid use with the intent to quit
- The ideal approach includes planning with the client, the service provider/physician, and a support person
- The client is monitored closely throughout the tapering process and meets frequently with the service provider

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**Preparing for Withdrawal**

Develop a solid practical plan based on resources available to the person, including:

**Supports**
- Consider the “whole person” when putting supports in place (E.g. Does the person need mental health supports, spiritual supports, physical support?)
- Explore self-help options, peer support and family/friend support

**Education**
- Ensure the client knows that there’s a high risk of overdose if the person relapses to the original dose (due to there being a loss of tolerance following withdrawal).
- Educate client about the withdrawal process, and prepare an “at home kit” of what might be helpful for them.

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**Other Strategies for Successful Withdrawal**

- Prepare a safe and comfortable environment
- Ensure access to a support person
- Get lots of rest
- Decrease noise levels
- Cool clothing
- Warm compresses
- Baths
- Stay hydrated by drinking water
- Consult with a physician about medications that can support withdrawal symptoms
Supporting Full Recovery

Full recovery requires a continuum of care including:
- Initial contact
- Stabilization
- Withdrawal Management
- Treatment (in or outpatient)
- After care
- Relapse prevention
- Education and ongoing support
- Alternatives for pain management if necessary
- Adjunct Therapy support

3 Common Substitution Treatment Options

1. Methadone
2. Buprenorphine
3. Suboxone

What is METHADONE?
Methadone

- A long-acting oral opiate analgesic
- Given in the appropriate dose to opioid-dependent patients
  - Dose is usually once daily
  - Suppresses symptoms of opioid withdrawal for 24-36 hours
  - Reduces cravings
  - Does not induce sedation, intoxication or euphoria at the correct dose
  - Reduces pain for short periods of time
  - Cross-tolerance to other opiates

Components of a Successful MMT Program

- MMT = Methadone Maintenance Treatment
- Counselling which involves education and support for both the client and his/her family
- Urine drug screens
- Integrated medical, counselling and administrative services
- Availability of a variety of psychosocial services if required
- Highly trained staff and involvement of support people
- Long term involvement from clients

Benefits of MMT

- Decreased illicit drug use
- Decreased criminal activity
- Improved employment rates
- Improved psychological status
- Decreased mortality (11x less)
- Suppression of withdrawal symptoms
- Reduced craving for opiates
- Does not induce sedation or euphoria
Who is Methadone helpful for?

- Those who have tried other treatment options who may be more motivated to try MMT because of past failings
- Those with persistent pain who are able to commit to the treatment regime *
- Individuals with a safe stable living environment
- Individuals who able to get to the clinic or pharmacy without difficulty
- Individuals who are motivated to commit to a long term program **
- Individuals who have support from a family member or case manager

Methadone Dispensing

- Daily oral dose is administered at a pharmacy
- Administration is supervised by a nurse or a pharmacist
- Policies and professional/client contracts are in place to ensure safety and adherence to program

What is a “Carry” and what are the general guidelines?

- A ‘carry’ is a take-home dose of methadone
- Not recommended in first 2 months of treatment
- Client will receive 1 extra carry/week for each month of the program if there are no issues
- Maximum 6 carries/week

(Methadone Maintenance Treatment Program Standards and Guidelines, 2011)
How does MMT help improve lives?

- More effective in retaining client in treatment
- More effective in the suppression of opioid use
- Reduced drug-related criminal behaviours
- Reduced mortality rates among individuals receiving treatment
- Improved physical and mental health
- Reduced risk behaviours for HIV, HCV, and STI’s
- Improved pregnancy outcomes
- Improved social functioning and quality of life

(Health Canada, 2013; Mattick et al., 2003)

Methadone Summary

- Methadone is effective
- It is a long-acting opioid agonist that is administered daily
- Treatment is very specific to the individual
- There is a high risk of relapse if treatment is discontinued, and withdrawal symptoms can be severe
- The induction period is a particularly dangerous time
- With long term supports in place, treatment outcomes are very good
- Some individuals will use methadone for the rest of their lives

What is BUPRENORPHINE?
Buprenorphine

- Buprenorphine is a partial agonist
- Alternative to Methadone
- Blocks effects of opioids to help reduce cravings
- Suppresses withdrawal symptoms for a duration of approximately 6-12 hours with relief in about 15 minutes
- Lower potential for abuse/overdose risk

What is SUBOXONE?

- Suboxone is a partial opioid agonist
- Contains naloxone to deter injection
- Theoretically, less severe withdrawal than methadone
- Clients often state that suboxone feels less emotionally addictive than methadone
- There is a ceiling on Suboxone activity making it safer
- Not suitable for those who need a high dose to avoid withdrawal
Resources mentioned in this tutorial:

**Brochures**
- About Percs, Dugs and other Pain Pills: [http://knowledgex.camh.net/amhspecialists/resources_families/Documents/about_percs_oxys.pdf](http://knowledgex.camh.net/amhspecialists/resources_families/Documents/about_percs_oxys.pdf)
- Youth and prescription painkillers: What parents need to know: [http://knowledgex.camh.net/amhspecialists/resources_families/Documents/YouthandMisuse%20E.pdf](http://knowledgex.camh.net/amhspecialists/resources_families/Documents/YouthandMisuse%20E.pdf)

**Videos**
- Prescription for Addiction: [https://knowledgex.camh.net/videos/Pages/prescription_addiction.aspx](https://knowledgex.camh.net/videos/Pages/prescription_addiction.aspx)
- Understanding Pain: What to do about it in less than five minutes? [http://www.youtube.com/watch?v=4b8oB757DKc](http://www.youtube.com/watch?v=4b8oB757DKc)

**Webinars**
- Management of Perinatal Addiction: [http://camh.adobeconnect.com/p3uznlolk6k](http://camh.adobeconnect.com/p3uznlolk6k)
- Chronic Pain and Treatment: [https://camh.adobeconnect.com/_a829238269/p2z32qxd7w7/?launcher=false&fcsContent=true&pbMode=normal](https://camh.adobeconnect.com/_a829238269/p2z32qxd7w7/?launcher=false&fcsContent=true&pbMode=normal)

References

CAMH. CAMH and Harm Reduction. 2002. Available at: [http://knowledgex.camh.net/amhspecialists/resouces_families/Pages/harm_reduction.aspx](http://knowledgex.camh.net/amhspecialists/resouces_families/Pages/harm_reduction.aspx)


Canadian Guideline for Safe and Effective Use of Opioids for Chronic Non-Cancerous pain: [http://nreatoncentre.mcmaster.ca/opioid](http://nreatoncentre.mcmaster.ca/opioid)


References


Methadone Maintenance Treatment, Client Handbook. Centre for Addiction and Mental Health 2003


References


