Opioid Addiction and Methadone: Myths and Misconceptions

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Learning Objectives

• By the end of this presentation you should be able to:
  • Understand how opioids work
  • Describe the characteristics of opioid dependence
  • Describe the place in therapy of opioid analgesics
  • Understand how methadone and buprenphine are used in addiction
Opioid Addiction in Canada

- Until the 1990s heroin was the major opiate of abuse
- Mid-1990s Oxycontin was introduced with big marketing campaign
- Addiction epidemic started on east coast and moved westward.
- In 2000- 3.8% of admissions to the Medical Withdrawal Management Service at CAMH were for Oxycontin addiction
- In 2004- 55.4% of admissions were for Oxycontin addiction.
What are opioids

• Chemicals that act on the opioid receptors—primarily in CNS/PNS and digestive tract.
• May be naturally occurring (ie morphine), semisynthetic (oxycodone), or synthetic (fentanyl)
• Human body produces 3 types of opioids (endorphins, enkephalins, and dynorphins)
How do opioids work

- Act on opioid receptors to produce their effects
  - Analgesia
  - Cough suppression
  - Respiratory depression
  - Euphoria
  - Sedation
  - Constipation

* Image borrowed from Wyeth library
Place in medical therapy

• Analgesics used for moderate to severe pain (codeine, morphine, oxycodone etc)
• Cough suppression (dextromethorphan)
• Anti-diarrheal (loperamide)
• Treatment of opioid dependence (methadone, buprenorphine/naloxone, naltrexone)
Illicit use

• Swallowed, snorted, crushed, injected.
• Shift to prescription medications (oxycodone, fentanyl)
• Burden on society (crime, health, workforce)
Substance Dependence/Opioid Dependence

- Typically long lasting disorder causing significant distress and disability
- Long-lasting abnormalities in brain structure/function
- Compulsive drug seeking and use
- Treatable
- Tolerance/withdrawal alone do not constitute opioid dependence.
Treatment of Opioid Dependence

• Abstinence

• Harm Reduction:
  – Methadone Maintenance Therapy (MMT)
  – Suboxone (buprenorphine/naloxone)
MMT - Pros

- Oral
- Long – acting
- Legal
- Safe source
- Affordable
- Normalized physical and psychological functioning
MMT - Cons

• Side Effects
• Stigmatized
• Inconvenient
• Many underserviced areas
MMT in Manitoba

- Manitoba Guidelines
- MINE
- CARI
- 2008-only 62 methadone pharmacies in Manitoba
- Until 2008 there was no waitlist for methadone therapy at the MINE program
- Currently, the waitlist is > 150 patients
Methadone

- Uses- analgesia and withdrawal management in opioid dependent individuals
- No rush/euphoria in stabilized patients
- Blocks euphoria from heroin and other opioids
- Excellent oral bioavailability
- Long duration of action allows once daily dosing in methadone maintenance therapy (MMT)
Adverse Effects of Methadone

- Sweating
- Sedation
- Constipation
- Weight gain
- Insomnia
- Sexual dysfunction
- Dental
- cardiac
Methadone dispensing

• Patients will initially come in daily to pharmacy for their “drink”
• As they stabilize on the program they will be granted “carries”
• Daily dispensing is often seen as negative and interfering with their lives but it is important not just to prevent overdoses/diversion but also to provide structure
• Covered by Pharmacare and most 3\textsuperscript{rd} party payers
Methadone patients are people too!!!

- Always treat your methadone patients with the same respect you would treat any patient
- Understand that they have a medical problem that they are getting treated
Safety issues

• After 3 missed doses tolerance is lost
• A single starting dose is enough to kill a child
• Normal treatment doses can be enough to kill an opioid naïve adult
• Doses accumulate over 5 days
Goals of Therapy

• Decrease costs to society (crime, disease, apprehended children)
• Stabilize life situations
• Become contributing members to society
• The goals for some people may never include tapering off methadone
Buprenorphine

- Alternative to methadone
- SL tablet
- Combined with naloxone in 4:1 ratio
- Mint flavour
- Initially come in daily for observed dosing
- More difficult to overdose (partial agonist)
- Restricted formulary access (WRHA)
- More expensive than methadone
Take home messages

• Patients do not get high on methadone
• Do not judge methadone patients just because they are on methadone—they have taken a huge step to get treatment!
• Methadone can be very dangerous for someone who does not normally take methadone
Questions?