CSAM-SCAM
Fundamentals of Addiction 2021

OPIOID USE DISORDER

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- No support from commercial sources
- No conflicts of interest

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Outline

- Opioid use disorder
  - Harms
  - Assessment
  - Management
- Opioid prescribing for chronic pain
  - Risks
  - Safe opioid prescribing
  - Opioid tapering

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Opioid Crisis

1. Opioid use disorder
   - Overdose deaths (fentanyl)
2. Chronic pain
   - Overprescribing

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Opioid Use Disorder

Global burden, 2017

	Prevalence (millions)	Incidence (millions)	Years Living with Disability (millions)
Opioid use disorder	40.5	4.1	16.8
Alcohol use disorder	107.4	52.4	10.7
HIV	36.8	1.9	3.9
Motor vehicle accidents	42.0	16.2	2.6

Lancet 2018;392:1789–858

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Opioid Use Disorder - Harms

- Mortality
  - overall (SMR) 9.9
  - IVDU (SMR) 14.1
- HIV 17.8%
- HCV 52.3%
- Endocarditis 0.5 to 11.8%
- Non-fatal OD 41.5%
- Crime (rate ratio) 5.84

 Degenhardt et al. Lancet. 2019;394:1560–79

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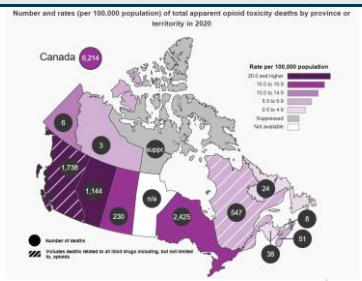

 https://health-infobase.canada.ca/substance-related-harms/opioids-stimulants/maps

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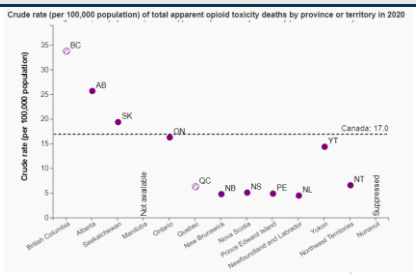

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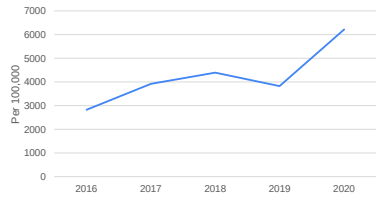
Opioid Overdose Rates



CSAM – SMCA Fundamentals https://health-infobase.canada.ca/substance-related-harms/opioids-stimulants/maps

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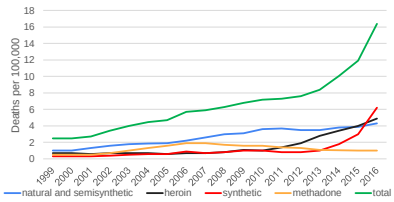
Opioid Overdose Mortality - USA



CSAM – SMCA Fundamentals Volkow et al. JAMA Psychiatry. 2019;76:208-216

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Opioid Use Disorder - Assessment

- Opioid use
  - DSM-V criteria
    - Continued use despite harm
  - Risk behaviour
- Other substance use
- Co-morbidities
  - HIV, HCV
  - Cardiac
  - Hepatic
  - Chronic pain
  - Mental illness

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Opioid Use Disorder - Assessment

- Examination
  - Cardiac
  - Liver
  - Skin
- Investigations
  - Serology (liver, BBP, HAV/HBV immunity)
  - Urine drug screen
    - Adherence
    - Substance use

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Collateral Information

- Other physicians
- Pharmacists
- Provincial pharmacy databases
- Spouse, family

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Opioid Use Disorder - Management

- Stage of change
- Motivational interviewing
- Management
- Collaboration
  - Pharmacist

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Opioid Use Disorder - Management

Pre-contemplative or contemplative

- Motivational interviewing
- Harm reduction
  - Safer needle use education
  - Needle exchange
  - Supervised consumption sites
  - Naloxone kits
  - "Low threshold" opioid agonist therapy
  - Safe supply

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Opioid Agonist Therapy

- Treatment of choice for opioid addiction
- Buprenorphine/naloxone or methadone
- Rational
  - Eliminates withdrawal and craving
  - Little euphoric effect
  - Blocks euphoric effect of other opioids
  - Once daily dosing
- Equal efficacy

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Opioid Agonist Therapy - Outcomes

Opioid use	decreased	RR	0.48
HIV incidence	decreased	RR	.046
HCV incidence	decreased	RR	0.50
Crime	decreased	SMD	-0.57
OD mortality	decreased	RaRa	0.25
Mental health	improved	SMD	0.49
Quality of Life	improved	SMD	0.29

Degenhardt et al. Lancet. 2019;394:1560–79

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Methadone

- Advantages
  - Better retention rates
  - Indicated for more severe opioid use disorder
- Disadvantages
  - Higher risk of overdose
  - Longer to get take home doses
  - Less accessible
  - QT prolongation

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Buprenorphine/Naloxone

- Advantages
  - Lower risk of overdose
  - More rapid dose stabilization
  - Quicker take home doses
  - More accessible
  - More flexible dosing
    - Daily sublingual tablets
    - Monthly subcutaneous injection
    - Six monthly implants
- Disadvantages
  - Precipitated withdrawal
  - Poorer retention rates

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Opioid Agonist Therapy

- Buprenorphine/naloxone
  - First line in primary care
- Methadone
  - Severe opioid use disorder

https://crism.ca/wp-content/uploads/2018/03/CRISM_NationalGuideline_OUD-ENG.pdf
http://nationalpaincentre.mcmaster.ca/guidelines.html

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Methadone

- Dosing
  - Initial dose 10 to 30 mg
  - Stable dose 80 to 120 mg
- Highest risk of overdose during induction
  - Long half life → drug accumulation
- Missed doses
  - Can loose tolerance
- QT prolongation – indication for ECG
  - Admission
    - History or signs of cardiac disease
    - QT prolonging medications
  - During treatment
    - Higher dose (> 100 mg)

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Buprenorphine/Naloxone

- Precipitated withdrawal
  - In withdrawal before first dose
  - Micro-dose induction
- Stable dose 16 to 24 mg
- Maximum dose 24 mg
  - Literature suggests 32 mg

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24 Hour Morphine (SROM)

- Off label
- Equal to methadone in retention and heroin use
  - Klimas et al. BMJ Open. 2019;9:e025799
- Failed buprenorphine/naloxone and methadone trials
- Advantage
  - Once daily dosing effective for chronic pain

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Opioid Agonist Therapy Monitoring

- Opioid use
- Opioid withdrawal
- Adverse effects
  - Constipation
  - Sedation
- Urine drug screening
  - Immuno-assay
  - Mass spectrometry

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Co-Morbidities

- HIV
- Hepatitis C
- Chronic pain
- Mental illness
- Other substance use disorders

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Psycho-Social

- Repairing broken relationships
- Learning coping skills
- Dealing with mental illness ± trauma
- Filling idle time
- Inadequate housing
- Legal issues
- Financial insecurity

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Psycho-Social

- Supportive counselling
- Formal counselling
  - Individual
  - Group
- Advocacy

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Tapering off Opioid Agonist Therapy

- Chronic, relapsing disease
- Relapse rates high (~70%)
- Tapering off opioid agonist therapy is not a goal

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Tapering off Opioid Agonist Therapy

1. Right reason
2. Right time
   - Medical, psychological and social stability
3. Right way
   - Slow
   - Patient driven

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Naltrexone

- Opioid receptor antagonist
- Treatment of both opioid use disorder and alcohol use disorder
- Oral tablet - daily
- IM injection - 1 month
- Subcutaneous implant - 6 months

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Abstinence-Based Treatments

- Medical detoxification
  - Increased mortality
  - Increased HIV seroconversion
- NA, AA, counselling
  - Little evidence for benefit in opioid use disorder

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Chronic Pain and Opioid Use Disorder

Admission for methadone maintenance

- 80 to 88% report pain
- 55 to 61% report chronic pain
  - 20% prevalence in general population
- 24 to 39% report moderate to severe chronic pain

Eyler. Am J Addict. 2013;22:75-83

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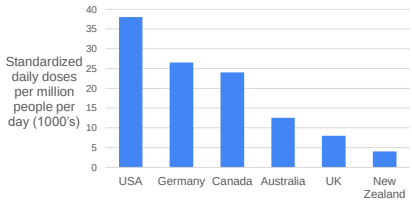
Global Opioid Prescribing



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Prescription Opioid Crisis

- 12% Canadians use prescription opioids
- 5 to 8% patients prescribed opioids use them for non-medical purposes

Fischer et al. Int J Drug Policy. 2016;27:23-35

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Opioid Complications

- Sedation
- Cognitive dysfunction
- Falls
- Sleep apnea
- Depression
- Hypogonadism
- Addiction
- Overdose

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Opioid Mortality in Chronic Pain

- All-cause mortality 2.4/100 person years
- Overdose mortality 0.6/100 person years
  - Rate increases with increasing dose
    - 50 to 99 mg OR 1.92 (1.30-2.85)
    - 100 to 199 mg OR 2.04 (1.28-3.24)
    - ≥ 200 mg OR 2.88 (1.79-4.63)
- Overdose or life-threatening respiratory depression 1/2500

Degenhardt et al. Lancet. 2019;394:1560–79
Gomes et al. Arch Intern Med. 2011;171:686-691
Zedler et al. Pain Med. 2018;19:68-78

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Benzodiazepines

- Benzodiazepine + opioid
  - 10 times greater risk of overdose than opioid alone
- Opioid dose < 100 mg OME
  - Almost all overdose deaths involve benzodiazepines

DO NOT prescribe benzodiazepines concurrently with opioids

Dasgupta et al. Pain Med. 2016;17:85

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Risk of Opioid Addiction when Prescribed for Chronic Pain

- Overall 5.5%
- Active addiction 8.9%
- No risk factors <0.2%

- DSM-V criteria not useful for diagnosis

http://nationalpaincentre.mcmaster.ca/guidelines.html

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Aberrant Behaviours

Aberrant behaviours	Likely diagnosis
• Changes route (IV, nasal)	• Addiction
• Purchases from street	• Diversion
• Double doctoring	
• Illicit drug use	
• Forging or stealing	
• Selling	
• Multiple lost prescriptions	
• Presents intoxicated	
• Multiple aberrant behaviours	

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Aberrant Behaviours – Less Serious

Aberrant behavious	Possible diagnoses
• Dose increases	• Undertreated pain
• Early releases	• Increased activity
• Specific opioid	• Tolerance
• Purchase from pharmacy	• Chemical coping
• Non-adherence	• Hyperalgesia
• Withdrawal	• Withdrawal
• Sedated	• Failed trial

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Chronic Pain vs Opioid Use Disorder

It can be hard to tell these two populations apart

- Time
- Collateral information
  - Pharmacist
- Objective information
  - UDS
  - Provincial data-bases
- Careful monitoring

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Most Common Causes of Opioid Related Problems

1. Prescribing opioids too early in the treatment process
2. Prescribing opioids to high risk patients
3. Prescribing high opioid doses

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Opioid Prescribing for Chronic Pain

Prescribing too early in the treatment process

- Limited evidence for long term opioid therapy
- Initiate only after failed non-opioid trials
  - Non-pharmacologic
  - Pharmacologic
- Prescribe only as a trial

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Opioid Prescribing for Chronic Pain

Prescribing to high risk patients

- Avoid opioid prescribing when there is defined risk
  - Personal history of addiction
  - Family history of addiction
  - History of mental illness
  - History of childhood sexual abuse
- Do not prescribe opioids to patients with active addiction

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Opioid Prescribing for Chronic Pain

Prescribing high opioid doses

- 90 mg oral morphine equivalents maximum dose for most patients
  - If no significant pain reduction and functional improvement, discontinue opioid
- Consider doses above 90 mg OME only after consultation

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Opioid Prescribing for Chronic Pain

- Opioid treatment agreement
- Provincial pharmacy databases
- Urine drug screens
- Monitor and respond to aberrant behaviours
  - Dispensing interval
  - UDS
  - Blister packs and pill counts

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When to Taper

- Failed trial
  - No significant reduction in pain or increase in function
- Complications
  - Depression
  - Sedation
  - Sleep apnea
  - Sexual dysfunction
  - Falls
  - Constipation
  - Cognitive dysfunction
  - Opioid induced hyperalgesia
  - Osteopenia
  - Overdose
- High dose (>90 mg OME)

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Goal of Taper

- Failed trial
  - Taper to zero
- Complications
  - Taper until complications resolve
  - Assess efficacy of opioid therapy
- High dose
  - Taper to lowest effective dose
    Good outcomes without complications
  - DO NOT use 90 mg OME as target
  - DO NOT destabilize

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How to Taper

- Provide opportunity to express anxiety
- Regularly review benefits of lower doses and harms of higher doses
- During taper, review
  - Positive outcomes
  - Opioid withdrawal
  - Pain
  - Function

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How to Taper

- Give control of the taper to the patient
  - Which opioid to taper
  - How often to reduce
  - How much to reduce
  - When to take a break
- Start slow: ≤ 5%
- Go slow: ¼ time on opioids

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Summary

- Opioid use disorder
  - Buprenorphine/naloxone or methadone
- Chronic pain
  - Prescribe opioids only after non-opioid trials
  - Avoid opioid therapy in high risk patients
  - Conduct opioid trial to a maximum of 90 mg OME
  - Monitor for benefits, harms and aberrant behaviours
  - Taper patients on high doses to lowest effective dose, but do not destabilize

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