

Changes in compliance to clinical dosing guidelines during a public health emergency on illicit drug overdose death in British Columbia, Canada

Category: Oral Presentation

Abstract Body

Background: In 2016, a public health emergency was declared in British Columbia (BC) due to a significant increase in overdose fatalities, highlighting the critical need for a well-coordinated, evidence-based approach to managing Opioid Use Disorder (OUD). The British Columbia Centre on Substance Use (BCCSU) released updated clinical guidelines for OUD management in 2017, amidst a rapidly evolving illicit drug supply where stronger synthetic opioids mixed with other additives comprised an increasing share of the illicit opioid market. We aim to illustrate changes in Opioid Agonist Treatment (OAT) dosing practices during a period of rapidly changing illicit drug potency and composition in BC, focusing on trends in initiation into an OAT program, drug titration, maintenance dosage and take-home dosage.

Methods: We conducted a population-level retrospective cohort study using linked health administrative data on all individuals initiating OAT from 2014-2021. We examined compliance with guidelines on starting doses; the rate of titration (set by the number of days between dose increases within 12 weeks of OAT episode initiation); the maintenance dose (the highest dosage maintained for at least 4 weeks within an OAT episode); and the duration of take-home doses. Each measure was stratified by medication type: buprenorphine/naloxone (BNX), methadone and slow-release oral morphine (SROM). The Cochran-Armitage test and Spearman-Rank correlation test were used to assess statistically significant trends for each measure.

Results: A total of 361,385 OAT episodes were initiated by 50,756 individuals from 2014-2021. Starting dose guideline compliance declined over time, most notably for methadone (-12.9%) and SROM (-23.0%). Compliance to dose titration guidelines also declined, most notably for SROM (-26.6%), but declines were also observed for BNX (-5.3%) and methadone (-8.8%), indicating faster titration than recommended across medications. Guideline compliance for maintenance dosing for SROM had a large increase (31.9%) and trends towards higher maintenance dosing were observed across medications. We also observed trends towards longer take-home doses for BNX and methadone.

Conclusion: These results suggest prescribers are adjusting dosing practices based on client needs rather than explicit adherence to clinical guidelines, emphasizing the need for updated clinical guidance and the importance of shared decision-making in OAT dosing to ensure sustained retention.

Key Words

- Opiate Agonist Therapy
- Opioids/Opiates
- Policy

Learning Objective # 1

Understand BC guidelines on starting doses, dose titration, maintenance dosing and take-home dosing.

Learning Objective # 2

Examine how OAT dosing practices have changed over time in British Columbia, Canada.

Reference # 1

Nosyk B, Min JE, Pearce LA, Zhou H, Homayra F, Wang L, Piske M, McCarty D, Gardner G, O'Briain W, Wood E. 2022.

Reference # 2

British Columbia Centre on Substance Use. 2017. A guideline for the clinical management of opioid use disorder. BCCSU. Available at: https://www.bccsu.ca/wp-content/uploads/2017/06/BC-OUD-Guidelines_June2017.pdf . Last accessed 28 April 2023.

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