

# Duration of use and outcomes among people with opioid use disorder starting on methadone and buprenorphine in Ontario

## Background

- Opioid agonist therapy (OAT) using either methadone or buprenorphine/naloxone is an effective first-line treatment for opioid use disorder (OUD).
- Despite the availability of these two forms of OAT, there are few population-based studies to guide clinicians with respect to treatment selection and none that compare their long-term effects in preventing fatal overdose in the current context of an unregulated supply dominated by fentanyl.

## What did we investigate?

Treatment patterns and outcomes among people starting treatment with methadone versus buprenorphine/naloxone to characterize the comparative risks and benefits of these OAT first-line treatment options.

## Key findings

- Although staying on treatment is higher among methadone recipients, overdose risk while receiving treatment is also higher compared to buprenorphine recipients.
- Overdose is particularly high after stopping treatment of both forms of OAT. This is particularly important given the relatively low amount of people who remain on both methadone and buprenorphine within the context of an increasingly unpredictable drug supply in North America.

## How was the study conducted?

*Design:* Population-based propensity-score matched cohort study

*Population:* Residents of Ontario, Canada aged 18 years and older who were newly prescribed OAT.

*Study period:* Between October 2016 and December 2018.

*Exposure:* Methadone versus buprenorphine/naloxone.

*Primary outcome:* Opioid overdose (fatal and non-fatal) while on treatment.

*Secondary outcomes:* Opioid overdose within the first 30 days of treatment, stopping treatment, healthcare interactions related to OUD, receiving a weekly supply of take-home doses, and opioid overdose within 30 days of stopping treatment.



## What did we find?

- Overall, 7,517 people starting on buprenorphine/naloxone were matched to an equal number of methadone-treated individuals.
- People starting on buprenorphine/naloxone had a 50% lower risk of opioid overdose while on treatment or within the first 30 days of treatment compared to methadone recipients.
- In their first year of treatment, people starting on buprenorphine/naloxone (compared to people starting on methadone) had a:
  - 43% higher risk of stopping treatment within the first year (104 days vs 265 days average time to stopping treatment),
  - 27% lower rate of healthcare interactions for OUD (186.5 vs 254.4 per person-year), and
  - Much higher likelihood of starting on weekly take-home doses.
- Overdose rates in the month after stopping OAT were 4 to 10 times higher than those observed while on treatment, but did not differ significantly by OAT type.

## Recommendations

Ongoing engagement with clinicians and people with opioid use disorders is needed to identify opportunities for improving OAT access, supporting remaining in treatment, and ensuring safe tapering and access to harm reduction services for people choosing to discontinue therapy.

## For more information

Gomes, T., McCormack, D., Bozinoff, N., Tadrous, M., Antoniou, T., Munro, C., Campbell, T., Paterson, M., Mamdani, M., & Sproule, B. (2022). [Duration of use and outcomes among people with opioid use disorder initiating methadone and buprenorphine in Ontario: A population-based propensity-score matched cohort study.](#) *Addiction*.

