FACTSHEET

PUBLICATION TITLE:	**Impact of fentanyl use on initiation and discontinuation of methadone and buprenorphine/naloxone among people with prescription-type opioid use disorder: secondary analysis of a Canadian treatment trial.**
REFERENCE:	M.E. Socias, E. Wood, B. LeFoll, R. Lim, J.C. Choi, W.Y. Mok, J.Brun eau, J. Rehm, T.C. Wild, N. Bozinoff, A. Hassan, D. Jutras-Aswad, OPTIMA Research Group within the Canadian Research Initiative in Substance Misuse. Impact of fentanyl use on initiation and discontinuation of methadone and buprenorphine/naloxone among people with prescription-type opioid use disorder: Secondary analysis of a Canadian treatment trial. Addiction (Abingdon, England) (2022), 10.1111/add.15954
QUICK FACTS:	• The goal of this study was to examine the effect fentanyl exposure had on beginning treatment and staying in treatment among people with prescription type opioid use disorder. • This study was a secondary analysis of the OPTIMA trial data which was a 24 week randomized control trial. • Participants were more likely to be exposed to fentanyl if they identified as non- white, if they were younger, unemployed or homeless, and if they used additional drugs such as stimulants. • Fentanyl exposure before initiation of treatment significantly increased over the course of the study, between 2017 and 2020. . • The study found that fentanyl exposure did not poorly impact treatment initiation or treatment retention.
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WHAT THE RESEARCHERS DID

The researchers in this study examined data from the OPTIMA randomized control trial which was conducted over a 24 week period. The study compared two medications; a flexible model of buprenorphine/naloxone and standard supervised consumption of methadone, and then compared the medications with urine drug screens.

Participants provided informed consent, provided a urine drug screen test, and completed a baseline questionnaire. They were randomized into both study groups using a one to one ratio. There was an open window of 14 days for medication starts, to allow people who may not have been mentally prepared to start medication for opioid use disorder the exact same day as being placed in a study group.

Medication was dispensed using local, provincial, and national guidelines but physicians were free to adjust prescriptions to be able to meet participant needs. Once the trial started, participants attended bi-weekly study groups in which they answered a questionnaire on demographics, substance use, quality of life, criminal activity, medication dispensing, and more. They also completed urine drug screen tests which were analyzed with a rapid response (drug dip tests) drug tests. The researchers wanted to determine the impact that fentanyl exposure had on treatment for individuals starting medication for opioid use disorder or the level of impact it had on retaining individuals.

WHAT THEY FOUND

- Out of the 272 eligible participants, three were excluded from the trial because they were missing results from their urine drug screen test and were therefore excluded, resulting in a total sample of 269 participants of the trial.
- The average age was 38 years, 176 participants identified as male and 181 participants self-identified as white. Of the 85 participants self-identifying as Black, Indigenous or People of Colour, a large proportion (70.6%) self-identified as Indigenous.
- Almost all participants had an opioid use disorder diagnosis and roughly half had prior experience with treatment for their opioid use.
- Fentanyl exposure dramatically increased over the duration of the study, it was 11.1% in 2017 and rose to 66.4% in 2019/2020.
- Fentanyl exposed participants were more likely to identify as a Black, Indigenous or People of Colour. They were also more likely to be younger, to be homeless or without stable means of employment, to be lifelong heroin users, to have a history with medication for opioid use disorder, and more likely to be concurrently using other drugs such as stimulants.
- The trial randomized 131 participants to start supervised methadone, and 106 people actually started it within 14 days. On the other hand, 138 people were randomized to start buprenorphine/naloxone, and 103 people actually started the medication. There were a total of 41 participants that switched medications during the trial, with more switches among people who were previously exposed to fentanyl.
- The average duration of people staying on a medication before they switched was 168 days but for fentanyl exposed participants, the average was only 27 days before they switched medications.

The study found that there was no correlation between flexible models of care of methadone and buprenorphine/naloxone and negative impacts associated with initiation of treatment and retention of treatment. Other measures of fentanyl exposure may be driving negative health and social

outcomes. Therefore, the researchers suggest that both methadone and buprenorphine/naloxone should be considered first line treatment for people with prescription type opioid use disorder that have tested positive for fentanyl consumption.

WHY IT MATTERS

Particularly in North America, the drug supply has been contaminated with fentanyl and other fentanyl analogues. While more people become dependent on opioids and start looking to engage in treatment, it's extremely important to align their care with what they have been using and/or have been exposed to in the illicit drug supply to maximise treatment outcomes. This includes understanding the impacts fentanyl can have on the medication they may be initiating. This can help support individuals at the beginning of treatment and for the duration of treatment. Furthermore, buprenorphine with naloxone is currently considered first line treatment for people with prescription type opioid use disorder. However, the evidence points to considering both methadone and buprenorphine as first line treatment options available to people with prescription type opioid use disorder.

WHAT'S NEXT?

- [ ] Future research should seek to more comprehensively look at socio-demographic and clinical differences as well as the different treatment responses in these two groups of people with prescription type opioid use disorder that are on methadone and buprenorphine with naloxone. Understanding these differences could allow researchers to identify potential factors impacting fentanyl-exposed patients and help improve their clinical outcomes.
- [ ] Additionally, different patterns of fentanyl use such as desired use and frequency of use should be examined in future research. This study only looked at baseline fentanyl exposure divided into two answers: yes or no. To better understand fentanyl exposure on medication for opioid use disorder, there should be research conducted looking at fentanyl exposure and different doses of medication for opioid use disorder.