

Clustering of Methadone and Buprenorphine Prescribing for Opioid Maintenance Therapy in Ontario

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Background

Why is this important?

- Opioid maintenance therapy (OMT) using methadone or buprenorphine is the recommended treatment for opioid use disorder in Ontario and many jurisdictions around the world. In Ontario, buprenorphine may be prescribed by all licensed physicians, while methadone may only be prescribed by physicians with a federal exemption.
- Because of the increasing demand for OMT, the Ontario government introduced financial incentives to physicians to provide this therapy in 2011. Following this change, OMT services expanded.
- However, in addition to helping thousands of people, these clinics also generated controversy surrounding their high patient volumes and numerous urine drug screens, calling into question the quality of care provided to these patients.
- Despite these controversies, little is known about the physicians who prescribe methadone and buprenorphine across Ontario and their practice patterns.

What were we investigating?

- The distribution of OMT services in Ontario, the characteristics of physicians who provide OMT, and the frequency of office visits and urine drug screens for patients seeking OMT in Ontario.

Methadone vs. Buprenorphine Maintenance Therapy

Methadone is a full opioid receptor agonist and thus carries a higher risk of overdose than buprenorphine, a partial opioid receptor agonist. Because of this, patients on methadone maintenance therapy are subject to stricter regulations such as daily visits to the pharmacy for a dose of methadone and more frequent physician visits than patients on buprenorphine maintenance therapy.

Study Details

How was the study conducted?

- We conducted a population-based, cross-sectional study among physicians who prescribed methadone or buprenorphine to people eligible for public drug coverage in Ontario in 2014.
- Our primary outcome was the total days methadone and buprenorphine was prescribed by eligible physicians. We constructed Lorenz curves to determine the distribution of methadone and buprenorphine prescribing in Ontario. The top 10% of prescribers were classified as high-volume prescribers, the middle 51-89% were considered moderate prescribers and the lower 50% of prescribers were classified as low-volume prescribers.
- We reported physician demographics (ie. age, location of practice, physician specialty) and billing characteristics (ie. patient volume, number of urine drug screens and office visits billed) based on OMT prescribing volume.



What did we find?

- In 2014, 10% of all Ontario methadone prescribers provided 56% of the total days of methadone while 10% of buprenorphine prescribers provided 61% of the total days of buprenorphine.
- High-volume methadone prescribers conducted, on average, 97 office visits per day, 74 of which were for methadone patients. In contrast, high-volume buprenorphine prescribers conducted 51 office visits per day, 6 of which were for buprenorphine patients.
- High-volume methadone prescribers billed an average of \$648,352 for physician services for their OMT patients (average \$1,490 per patient per year), while high-volume buprenorphine prescribers billed an average of \$65,947 (average \$1,030 per patient per year). Among all high-volume OMT prescribers, over 40% of physician billings were attributed to urine drug screens.

Key Points

- OMT prescribing is highly clustered in Ontario, with 10% of OMT physicians caring for 56% and 61% of the total days methadone and buprenorphine was dispensed, respectively.
- High volume prescribers see 50 to 100 patients per day, and over 40% of the total billings for their OMT patients were for urine drug screens in 2014.

Recommendations

Policymakers and Clinicians

- The majority of people in Ontario who receive OMT are treated by a small number of physicians who see very high numbers of patients per day. This concentration of OMT services is important, as any changes that affect high volume OMT prescribers may directly affect a large number of OMT patients. Urine drug screens are driving a large percentage of costs for physician services for OMT, despite the fact that frequent screening may be inappropriate among individuals who are stabilized on therapy.

For more information

Guan Q et al. Patterns of Physician Prescribing for Opioid Maintenance Treatment in Ontario, Canada in 2014. *Drug and Alcohol Dependence*, 2017.

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