The effect of person, treatment and prescriber characteristics on retention in opioid agonist treatment: a 15-year retrospective cohort study

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BACKGROUND

- Opioid agonist treatment (OAT) is effective in reducing potential drug-related harms and mortality among people with opioid dependence
- Long-term retention is recommended but some people are not retained and cycling in and out of treatment is not uncommon

AIM

This study aimed to estimate retention in buprenorphine and methadone treatment and its relationship with person, treatment and prescriber characteristics.

METHODS

Sample: 22,577 people entering OAT for the first time in NSW between Aug 2001 & Dec 2015.

Outcome: Time in an OAT episode, with an episode defined as continuous treatment with <7-day break.

Variables

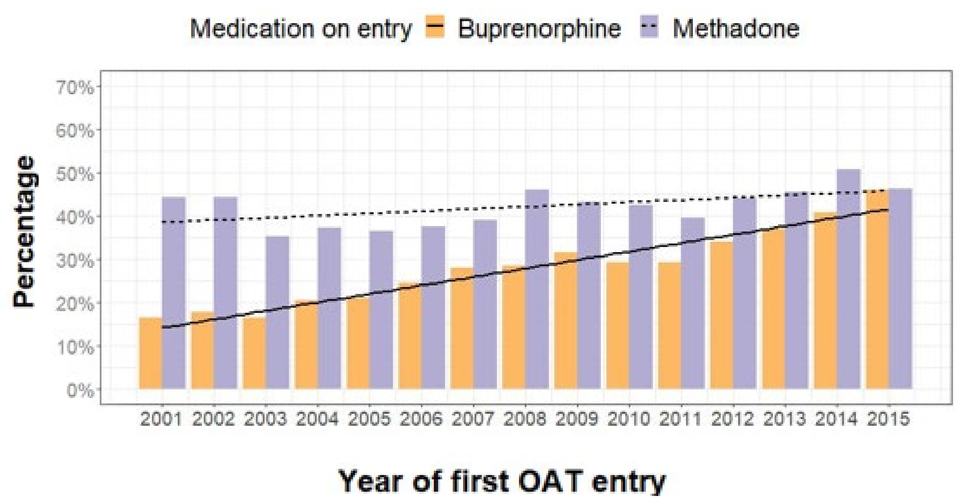
- **Person:** Sex, age at first entry, indigenous status, whether living in a major city, number of offences in year before first OAT entry, and comorbidities in year prior to any OAT entry (as indicated by a presentation to health services)
- **Treatment:** Medication type, dosing point, year of first OAT entry, & cumulative days spent in prior treatment episodes
- **Prescriber :** Evaluated at the start of a treatment episode or where there was a change in prescriber mid-episode –
  - Tenure of OAT prescribing,
  - Number of other prescribers working in the practice, &
  - Whether prescribing from multiple locations.

Analysis:

- Discrete-time survival analysis using generalized estimating equation models with person-day as the unit of analysis.
- Controlled for time, episode, and their interaction.
- Variance estimates accounted for clustering within people and prescribers.

Retention in opioid agonist treatment is affected not only by characteristics of the person and their prescriber.

Figure 1. First episode 12-month retention rates by medication on entry and year of entry



RESULTS

Improved retention observed among people…

- Whose prescriber had a longer tenure of OAT prescribing,
- Received dosing in a justice health setting compared to a public dosing point,
- Who spent more time in prior treatment episodes, and
- Had an anxiety/mood or other substance use disorder-related presentation to health services in the year prior to OAT entry.

Decreased retention observed among people…

- On buprenorphine compared to methadone – though this varied by date of first OAT entry (see **Figure 1**),
- With more criminal offences in year prior to first OAT entry,
- Who were younger at first OAT entry, and
- Had a psychosis-related presentation to health services in the year prior to OAT entry.

LIMITATIONS

- Confounding related to non-random treatment assignment
- Restricted to variables routinely collected

CONCLUSIONS & IMPLICATIONS

- In New South Wales, Australia, retention in buprenorphine, compared with methadone, has improved over time since its introduction in 2001
- A longer tenure of OAT prescribing is likely to reflect a greater level of knowledge and experience which may result in an increased capability of recognizing and responding to people's clinical needs
- Greater education and mentorship programmes to support prescribers of OAT are possible strategies to improve retention of people in OAT

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DOI: 10.1111/add.15514