

The relationship between opioid agonist therapy and cessation of injecting drug use: Evidence from a prospective cohort study of people who inject drugs

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Introduction. Previous research with samples recruited in primary care and treatment has shown that opioid agonist therapy (OAT) reduces injection drug use frequency. We sought to model transitions between states of drug injecting and non-injecting over time and the impact of OAT on these transitions in a community-based cohort of people who inject drugs.

Methods. Data come from SuperMIX, an ongoing prospective cohort study involving annual interviews with people who inject drugs in Melbourne. Directed Acyclic Graphs established a data-generating process to test for a causal effect between OAT engagement and cessation and resumption of any injecting drug use between annual interviews. We then modelled transitions between states of injecting and non-injecting to test for causal effects of OAT engagement on these transitions.

Results. From 1496 participants with 4875 person-period follow-up (FU) observations, we observed 281 injecting cessation and 139 injecting resumption events. Preliminary analyses provide evidence of a time-dependent positive association between any OAT engagement and injecting cessation (adjusted Hazard Ratio [aHR]=2.29, 95% confidence interval [95%CI] = 1.08, 4.84 at 7-years follow up). Similarly, sustained engagement in OAT increased likelihood of cessation (aHR=1.12, 95%CI=0.99, 1.26). Any OAT was found to increase injecting cessation among those who identified as Aboriginal or Torres Strait Islander (aHR=5.99, 95%CI=1.07, 33.6). There was a small to moderate correlation ($r=.28$) between each of the state-specific random effects indicating participants were most likely to belong to one of two groups: frequent movers (high probability for both states – short periods of cessation and resumption) or non-movers (low probability for both states – longer periods of cessation and resumption).

Conclusion. We found evidence of a causal relationship between OAT and cessation of injecting drug use, and weaker evidence of a similar relationship for sustained OAT engagement, in a community-recruited cohort of people who inject drugs.