

The impact of opioid agonist treatment on fatal and non-fatal drug overdose among people with a history of opioid dependence in NSW, Australia, 2001-2018: findings from the OATS retrospective linkage study.

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Objectives

There are critical periods of mortality risk at onset and cessation of opioid agonist treatment. We aim to determine whether non-fatal overdose followed the same pattern as fatal overdose, comparing the first 4 weeks of treatment and treatment cessation and the remainder time off treatment, with the remainder treatment time, to determine intervention markers.

Approach

Retrospective cohort study of people with a history of opioid agonist treatment using linked New South Wales data. The incidence of non-fatal overdose hospitalization; emergency department presentation; and fatal overdose from national death records were compared. Rates were calculated using generalized estimating equations adjusting for demographics, year, and recent health and incarceration events.

Results

The rate of an emergency department drug overdose presentation was highest. It was more than three-fold the rate of opioid non-fatal overdose hospitalisation and 14 times higher than fatal opioid overdose. It was also twice the rate of non-opioid non-fatal overdose hospitalisation.

Fatal overdose was lowest while in treatment. This differed from the measures of non-fatal overdose, the overdose rate was elevated in the first four weeks in treatment as well as the first four weeks post treatment.

Conclusion

Retention on opioid agonist treatment is protective against drug related overdose. There is elevated risk of non-fatal overdose at treatment initiation that is not evident for fatal overdose, however the first month of treatment cessation is a critical period for both non-fatal and fatal overdose. These findings emphasize the importance of treatment retention and interventions for polysubstance overdose at cessation.

