

Prescription opioid discontinuation and mortality due to suicide or unintentional overdose

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Introduction: There is a growing focus on deprescribing opioid medicines; however, there is limited and conflicting evidence about associations between opioid discontinuation and fatal adverse outcomes. In these studies, associations between prescription opioid discontinuation among long-term exposed individuals and death due to suicide or unintentional overdose were investigated.

Methods: Two nested case-control studies were undertaken within a population-based cohort study linking dispensing data to health and mortality datasets for 371,048 New South Wales adults prescribed opioids for ≥6-months between 01/07/2003-31/12/2018. Cases were individuals with a suicide death or fatal unintentional overdose, matched using risk-set sampling to ten controls by age, sex, and time. Opioid discontinuation, versus ongoing use, was measured using time-varying periods of opioid exposure quantified from dispensing records.

Results: Over the study period, 523 people died by suicide (median age 50-years (IQR 39-66), 368 male (70.4%)) and were matched to 5230 controls. Compared to people with ongoing opioid use, discontinuation was not associated with increased odds of experiencing a suicide death (adjusted OR 0.88, 95% CI 0.72-1.07). Additionally, 671 people experienced a fatal unintentional overdose (median age 42-years (IQR 35, 50), 395 male (58.9%)) and were matched to 6710 controls. Opioid discontinuation was associated with reduced odds of experiencing a fatal unintentional overdose (adjusted OR 0.45, 95% CI 0.37-0.54), relative to ongoing use, with the magnitude of this effect greatest when people were unexposed to opioids for >90-days.

Discussions and Conclusions: In these population-based studies of people using opioids long-term, opioid discontinuation was not associated with suicide and was associated with reduced odds of fatal unintentional overdose.

Implications for Practice or Policy:

In the first studies of their kind outside of North America, these findings provide evidence that opioid discontinuation is not necessarily associated with adverse mortality outcomes and may instead be protective against fatal overdose.

Disclosure of Interest Statement:

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