Changes in drug-related hospitalisations and drug-induced deaths following the onset of the COVID-19 pandemic in Australia

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Introduction: The COVID-19 pandemic and associated public health measures have sparked concerns about a potential increase in drug-related harms. The aim of this study was to determine whether the rates of drug-related hospitalisations and drug-induced deaths changed with the onset of the COVID-19 pandemic in Australia.

Method: Hospitalisations of £60 days with a drug-related principal diagnosis were extracted from the National Hospital Morbidity Database. Drug-induced deaths were extracted from the Cause of Death Unit Record Files. Crude monthly rates (per 1,000,000 population) of hospitalisations or deaths between January 2017 and April 2021, overall and by drug involvement, were analysed in an interrupted time series analysis for level shift from April 2020 and a counterfactual forecast.

Results: The overall monthly rate of drug-induced deaths decreased (-0.7 [-1.3, -0.2] per 1,000,000) during the COVID-19 pandemic period but the overall rate of drug-related hospitalisations did not change significantly. The rates of: drug-induced deaths involving heroin (-0.6 [-0.9, -0.3] per 1,000,000), heroin-related hospitalisations (-1.2 [-2.3, -0.2] per 1,000,000) and amphetamine-type stimulant (ATS) related hospitalisations (-9.0 [-17.7, -0.3] per 1,000,000) decreased during the COVID-19 pandemic period; these decreases were more pronounced from the latter half of 2020 onwards. The rate of cannabinoid-related hospitalisations increased (4.3 [2.2, 6.5] per 1,000,000); this increase was more pronounced in the first 6 months of the pandemic.

Discussions and Conclusions: The decreases in heroin and ATS related hospitalisations and/or deaths during the COVID-19 pandemic may be related to other evidence that suggests disruption to heroin and methamphetamine markets early in the pandemic. We need a longer time series to determine whether trend persists.

Implications for Practice or Policy: Disruptions to drug use, markets and harm reduction services can impact on drug-related harms but the direction and time over which the impact may be evident can vary depending on the drug involved.

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