

OPIOID CONSUMPTION IN SOUTH AUSTRALIA – AN ANALYSIS OF WASTEWATER AND PRESCRIPTION DATA, 2011-2018

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Introduction and Aims: There are concerns about pharmaceutical opioids in Australia, and harms associated with their use. The rate of accidental opioid overdoses more than doubled between 2006 and 2016, and emergency department (ED) presentations have increased.

The aim of this paper is to investigate trends in pharmaceutical opioid use by measuring consumption levels in wastewater, supplemented by data on prescription rates.

Design and Methods: Wastewater data have been collected bi-monthly from four metropolitan treatment plants in Adelaide since December 2011. Twenty-four-hour composite samples were taken over a week in each period, analysed for drug metabolites and converted to doses/week/1000 people.

Prescription data from 2011 to 2017 were obtained from the Department of Human Services, comprising community based prescriptions from pharmacies and all South Australian hospitals under the Pharmaceutical Benefits Scheme (PBS).

Key Findings: Oxycodone and fentanyl consumption levels in wastewater increased to 2015, decreasing after that time. Morphine, methadone and codeine consumption levels decreased over time.

Between 2011 and 2017, the prescription rate for fentanyl, morphine, methadone and codeine decreased or remained relatively stable across Adelaide and the rest of South Australia. Oxycodone was the only opioid where the prescription rate increased over time.

Discussions and Conclusions: Wastewater data indicate that pharmaceutical opioid consumption levels increased to 2015, with decreases thereafter. PBS data show no change or decreases from 2011 for most opioids, but increases for oxycodone. These data suggest that in recent years, there has been no significant increase in the use of most pharmaceutical opioids despite increases in harms such as overdoses and ED presentations.

Disclosure of Interest Statement: N/A

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