

MI-CRE 2023 Annual Research Symposium and Policy Forum

Initiation and long-term use of opioids after hospitalisation or emergency department presentation.

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Disclosure of Interests Statement: DC receives intellectual property and consultant payments from Mayne Pharma International Pty Ltd, and consultancy fees from Specialist Therapeutics Pty Ltd and Helsinn Pharmaceuticals. In the past 3 years, LD has received untied educational grant funding from Seqirus and Indivior for the study of new opioid medications in Australia. SAP is a member of the Drug Utilisation Sub-Committee (DUSC) of the Pharmaceutical Benefits Advisory Committee (PBAC). The other authors have no conflicts of interest to declare

Is Presenter an HDR Student? No

Has Research been submitted/presented elsewhere: No

Abstract

Background and Aims: About half of all opioid initiations in Australia follow a hospital or emergency department (ED) visit. This study describes the natural history of opioid use after hospital or ED visits in New South Wales (NSW), by patient, admission and clinical characteristics.

Design and Methods: Population-based new user cohort study linking medicine dispensings, ED visits, hospitalisations, deaths and cancer notifications from NSW between 2014–2020. We ascertained opioid initiation based on an opioid being dispensed in a seven-day window from discharge and defined long-term opioid use (LTOU) as continuous opioid exposure for ≥90 days in the period 90–270 days after initiation, accounting for individualised dosing regimens. We stratified outcomes by sociodemographic factors, type of hospital encounter and comorbidities.

Results: The cohort comprised 16 153 096 hospital and ED visits (16.8% hospitalisations via ED, 44.2% direct hospitalisations and 39.0% ED presentations without hospitalisation). Of the admissions, 8.2% resulted in opioid initiation. Opioid initiation decreased from 8.7% in 2014 to 7.3% in 2020. Within encounter type strata, initiation was lowest in obstetric admissions without surgery (1.0%), and highest among trauma admissions (25.4%), obstetric admissions with surgical intervention (19.8%), surgical admissions (12.0%), and ED alone (6.2%). Of the opioid initiations, 0.6% resulted in LTOU. The proportion progressing to LTOU decreased from 0.7% in 2014 to 0.4% in 2020. LTOU was highest among medical admissions with prior ED (2.4%), trauma admissions (1.7%) and ED alone (0.5%) and low after obstetric admissions with or without surgical intervention (<0.1%).

Conclusions: Opioid initiation and LTOU decreased over time. Trauma admissions had high initiation rates and high LTOU. Compared with other Australian estimates, we found low LTOU, likely relating to our strict criterion of 90 days continuous use.

Impact: This naturalistic view of adults presenting to NSW hospitals and emergency departments will inform opioid stewardship interventions.