

Opioid Overdoses Attended By Ambulances Among People Who Inject Drugs: A Prospective Observational Study

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Introduction and Aims: Rates of non-fatal opioid overdose have been increasing in Victoria, Australia, indexed through a range of data sources including ambulance attendances. In this study we present the first examination of non-fatal opioid overdoses attended by ambulances experienced in a cohort of people who inject drugs.

Design and Methods: Longitudinal data from 1322 participants of the Melbourne Injecting Drug User Cohort Study (SuperMIX) were linked with VACIS ambulance attendance data for the period from 2008 to 2019. Information on primary assessment, vital signs and naloxone administration and effectiveness were extracted from VACIS records to define opioid characteristics.

Results: 658 ambulance attendances were classified as "overdose" based on primary assessment. Naloxone was administered in 332 (50.5%) of these events but was deemed effective in 300 (90.4%) occasions with 277 (92.3%) events showing improved vital signs. Naloxone was administered at 456 events which were classified as "possible opioid overdose" or "likely opioid overdose" and was effective in 392 (86.0%) of these occasions with at least one vital sign improved in 346 occasions. The naloxone administration protocol was started for 932 ambulance attendances out of 10,014 and it was refused or withheld in 144 (15.5%) occasions.

Discussions and Conclusions: This is the first examination of ambulance attendances for opioid overdoses among a cohort of people who inject drugs. Findings highlight the difficulties in defining opioid overdose using ambulance attendance data that have implications for ongoing surveillance and monitoring of service effectiveness.

Disclosure of Interest Statement: The authors acknowledge funding from the National Health and Medical Research Council (NHMRC) for this project. PD has received investigator-initiated support from Gilead Sciences and an untied educational grant from Indivior for work unrelated to this study. PD is an NHMRC Senior Research Fellow.