

# Hospital admissions with opioid toxicity disproportionately involve vulnerable patients, and place a large financial burden on public hospitals

## Characteristics of hospital admissions involving opioid toxicity in SA. 01/06/17 – 31/08/20



**Number of admissions**  
2046 admissions involving opioid toxicity were identified over 38 months.



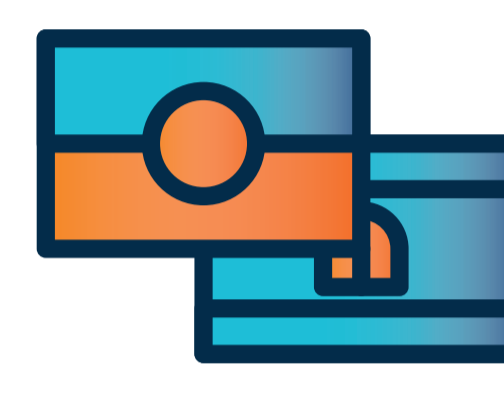
**Age and sex**  
Most common age range on admission was 40-49 years. 56% of patients were female.



**Paediatric admissions**  
1.1% of admissions involved patients under the age of 10 years.



**Geographical location**  
One fifth of admissions occurred outside of metropolitan Adelaide.



**Indigenous patients**  
7.3% of admissions were for patients who identified as Aboriginal and/or Torres Strait Islander. (vs 2% of SA population).



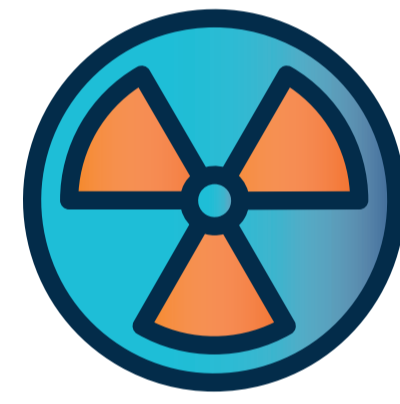
**Socioeconomic status**  
27.8% of admissions were for people living in areas of lowest relative socioeconomic advantage (vs 2.6% for highest).



**Primary diagnosis**  
Where opioid toxicity was the primary diagnosis, the responsible opioid was unspecified for 70% of admissions.



**Causative opioid**  
Heroin-related toxicity was the primary diagnosis in 23% of admissions where the opioid responsible was identified.



**Heroin toxicity**  
26.2% of indigenous patients experience toxicity attributed to heroin (vs 11.9% non-indigenous patients).



**Length of stay**  
Over half of admissions required a stay >24 hours and 19% were admitted for ≥5 days.



**Intensive care**  
20% required intensive care, almost 10% required mechanical ventilation and 1.3% died during admission.



**Admission costs**  
Admissions were estimated to cost approximately 5.6 million dollars annually.

## Introduction

- Australia is facing increasing morbidity and mortality from consumption of both prescription and illicit opioid use.
- In 2019, opioids were implicated in three out of five drug-induced deaths.
- Literature characterising opioid toxicity-related hospital admissions in Australia is scarce.

## Aim

- To quantify and describe opioid toxicity-related hospital admissions in SA over approximately 3 years.

## Method

- International Classification of Disease codes (T40.0-T40.4 per local coding practice) were used to identify admissions involving opioid toxicity across all public hospitals in SA between 01/06/17-31/08/20.
- Data were summarised using descriptive statistics.
- Chi-squared tests were used to compare characteristics between admission subgroups.
- Cost estimates were calculated using Independent Hospital Pricing Authority data.

## Conclusions

- These findings highlight the significant burden opioid-toxicity related hospital presentations place on the healthcare system and individuals involved.
- Demonstrates the critical need for judicious opioid prescribing, education regarding safe storage of opioids and opioid-related harm minimisation strategies, such as real-time prescribing monitoring safe injecting sites and take-home naloxone.

Graph shows an increased number of admissions involving opioid toxicity (y-axis) for patients living in a postcode region of relative socioeconomic disadvantage, as determined by a lower socio-economic index for areas (SEIFA) score (x-axis)