

Diagnosis-based emergency department alcohol harm surveillance: what can it tell us about acute alcohol harms at the population level?

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Introduction and Aims: Acute harm from alcohol consumption is an increasing focus of public health policy, but capturing timely data is challenging. This study evaluated the precision of rapid administrative emergency department (ED) data in the surveillance of alcohol harms.

Design and Methods: A random sample of 1,000 ED presentations assigned an ED diagnosis code for alcohol harms in the New South Wales (NSW) ED surveillance system was selected. Nursing triage notes were manually reviewed to classify presentations into 'acute' or 'chronic' harms. The positive predictive value (PPV) for acute harm was calculated and predictors estimated using logistic regression.

Results: The PPV of the alcohol syndrome for acute harm was 53.5%. Independent predictors of acute harm were ambulance arrival (adjusted OR [aOR] =3.4, 95% CI 2.4–4.7), younger age (12-24 years versus 25–39 years: aOR=3.4, 95% CI 2.2–5.3), not admitted (aOR 2.2, 95% CI 1.5–3.2) and arriving between 10p.m. and 5.59a.m. (aOR 2.1, 95% CI 1.5–2.8). The PPV among 12-24 year-olds was 82%.

Discussion and Conclusions: The ED alcohol syndrome provides moderate precision as an indicator of acute alcohol harms presenting to the ED. Precision is improved by filtering the syndrome by the strongest independent predictors of these presentations.

Implications for Practice or Policy: The alcohol syndrome in the NSW ED surveillance system has historically been used to indicate the level of acute alcohol harms presenting to the ED, but it includes chronic harms. Additional variables offer a means of improving precision to identify acute alcohol harms and contribute to trend monitoring for policy and program evaluation purposes.

Disclosure of Interest Statement: No grants were received for this study.