

The prevalence of alcohol and other drugs in intentional self-harm fatalities in Victoria, Australia

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Introduction and Aims: Alcohol and other drug (AOD) use is a recognised risk factor for intentional self-harm fatalities. While AOD prevalence in suicides has been explored, research has focussed on specific drugs and suicide methods. This study examined the prevalence, incidence and temporal trends of AODs in suicide over a ten-year period.

Design and Methods: Data from the Victorian State Trauma Registry were linked with autopsy data from the Victorian Institute of Forensic Medicine for intentional self-harm fatalities from July 1 2006 to June 30 2016. Poisson regression models were used to determine the change in population-adjusted drug incidence rates during this time.

Results: Of the 4,034 cases with complete data, the most common suicide methods were hanging (63%), penetrating injury (11%) and transport-related injury (11%). Blood alcohol levels exceeded 0.05% in 24% of cases. After alcohol, antidepressants were most common (23%), followed by benzodiazepines (22%), opioids (11%), tetrahydrocannabinol (9%), amphetamines (6%), antipsychotics (4%), cocaine (0.3%) and ketamine (0.2%). Other drugs were present in 78% of alcohol-positive cases, with alcohol commonly detected alongside benzodiazepines (48%) antidepressants (44%), and tetrahydrocannabinol (19%). The incidence of alcohol-positive cases remained stable (IRR=0.99; 95%CI: 0.97-1.01). There were significant yearly incidence increases for antipsychotics (IRR=1.31), opioids (IRR=1.10), amphetamines (IRR=1.09), tetrahydrocannabinol (IRR=1.08), antidepressants (IRR=1.07) and benzodiazepines (IRR=1.04).

Discussions and Conclusions: AOD use is common in intentional self-harm fatalities. Furthermore, the incidence of drug-positive intentional self-harm fatalities has increased, highlighting a potential need for improved harm minimisation and suicide prevention strategies, particularly for people who use pharmaceutical drugs.

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