Trends and characteristics of alprazolam-related harms in Victoria, 2012-2023: evidence from ambulance and toxicological surveillance systems

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Introduction: Due to overprescribing, diversion and misuse, the Australian Government implemented regulatory changes to alprazolam prescribing in 2014 and 2017. More recently, there have been concerns about increased harms due to non-prescribed alprazolam products and the emergence of falsified products containing novel benzodiazepines (NBZDs). This study examines trends and characteristics of alprazolam-related harms in Victoria from 2012 to 2023.

Method: We compared monthly alprazolam-related ambulance attendances (National Ambulance Surveillance System) to rates of alprazolam dispensing (Pharmaceutical Benefits Scheme) in Victoria from 2012 to 2023. To measure the presence of NBZDs, we examined toxicological surveillance data from emergency department (ED) presentations involving self-reported alprazolam use in 2022 and 2023 (Emerging Drugs Network of Australia - Victoria).

Results: Alprazolam-related ambulance attendances (n=7,825) declined following the 2014 rescheduling, from 13.2 per 100,000 population in 2013 to 4.4 in 2015. Since March 2020, attendances have returned to pre-rescheduling levels (14.1 in 2021), despite persistently low alprazolam dispensing. These diverging trends occurred alongside changing characteristics of ambulance patients, who are increasingly younger (mean age 26), male, and more likely to report polydrug use with amphetamines, GHB, and cocaine. Toxicological surveillance of ED patients (n=358) identified NBZDs in 62.6% of samples, most commonly bromazolam (28.2%), clonazolam (22.6%), and clobromazolam (21.5%).

Discussions and Conclusions: Rescheduling initially reduced alprazolam-related ambulance attendances. However, since 2020, elevated harms, low dispensing, and NBZD adulteration in the majority of ED patients, suggest a shift toward non-prescribed or falsified products.

Implications for Practice or Policy: Changing patient demographics and polydrug use patterns and the increased detection of NBZDs highlight the need to expand drug checking services and peer-led harm reduction initiatives, particularly those tailored to younger people. Ongoing toxicological and population-level surveillance is required to detect and respond to emerging drug trends.

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