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Trends in prescription benzodiazepine and z-hypnotic use in Australia: a nationwide analysis (2014-2024)

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Abstract

Background and Aims: The risk of harms due to benzodiazepine use varies by age and sex with an elevated risk of harm associated with the use of certain benzodiazepines, long-term use and concurrent medicine use particularly in vulnerable groups, including older adults and young people. Quality Use Medicine (QUM) initiatives have been implemented to minimise these harmful patterns of use. However, there is a lack of contemporary population-level data on benzodiazepine initiation and associated patterns of use in Australia.

In this study, we aimed to describe trends (2014—2024) in incident benzodiazepine use by medicine category, sex and age groups, and to characterise duration of use and concurrent psychoactive medicine use among benzodiazepine incident users in 2023.

Design and Methods: We used a 10% random sample of individual-level nationwide dispensing records to estimate the annual incidence (no dispensing in 12 months prior) of benzodiazepines by sex, age group (10–14, 15–18, 19–24, 25–39, 40–64, ≥65 years) and medicine categories (short-/long-acting; anxiolytics/sedative-hypnotics). Among incident users in 2023, we characterised duration of use and concurrent use of psychoactive medicines and quantified the extent of polypharmacy. Concurrent use was defined as the dispensing of at least one psychoactive medicine of interest within 30 days of the first benzodiazepine dispensing.

Results: From 2014 to 2024, benzodiazepine initiation declined across all sex and age groups (relative change: –22.8% among females, –28.2% among males), yet remained more frequent among females than males (39.6 per 1,000 females, 24.7 per 1,000 males) and highest in older adults, particularly those aged 65 and over (62.6 per 1,000 females, 42.7 per 1,000 males). Despite most benzodiazepine incident users receiving only one dispensing, polypharmacy was common; approximately half had concurrent

psychoactive medicines, with a median of ≥ 2 co-dispensed classes, most frequently SSRIs and opioids (19.8%, 17.5%, respectively).

Conclusion: The findings revealed overall initiation declined, but potentially harmful patterns, such as repeated use and polypharmacy with psychoactive medicines persist across sex and age groups. A multi-level strategy, aligned with QUM principles, is needed to reduce harm and ensure evidence-based, patient-centred prescribing of benzodiazepines among specific groups.