**Prevalence and factors of potentially inappropriate medication use in people with dementia.**

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Introduction. People with dementia are high users of medications; however, some medications may be potentially inappropriate, increasing the risk of adverse outcomes.

Aims. To estimate the prevalence and risk factors associated with the use of potentially inappropriate medications (PIMs) in people with dementia.

Methods. Linked 2021 Census and Pharmaceutical Benefits Scheme (PBS) data were used in this cross-sectional study. People with dementia aged 65 or over in 2021 were included. Dementia was defined based on self-reported dementia diagnosis in the 2021 Census or any dispensing of an antidementia medication between 2016 and 2021. PIMs were defined using 2023 Beers Criteria and the 2024 Australian list of PIMs (AUSPIM). Age, gender, socioeconomic level, education, geographical remoteness, country of birth, language spoken at home, living arrangement, Aboriginal and/or Torres Strait Islander status, need for assistance with core activities and self-reported medical conditions were included in a logistic regression model to explore factors associated with increased likelihood of using PIMs.

Results. A total of 177,809 people with dementia were included in this study (median age 84 [interquartile range: 78-89], 59% female). Overall, half were using at least one PIM according to the Beers Criteria (49%) and AUSPIM (51%). After stratification by age, the prevalence of Beers criteria medications and AUSPIM were highest in those aged 85-89 (50%) and 90-94 (54%), respectively. Factors associated with the use of PIMs were consistent across the two criteria. People with dementia who were female, with higher socioeconomic level and higher education level were less likely to use PIMs while people with dementia who were living in non-private dwellings, required assistance with core activities and have other comorbidities were more likely to use PIMs.

Discussion. One in two people with dementia were using PIMs, with risk higher in certain sociodemographic groups. Clinicians should carefully balance the risks and benefits when prescribing PIMs to ensure equitable and quality use of medications in this vulnerable population.