

A population-based study examining injury among older adults with and without dementia

Meuleners, Lynn¹ and Hobday, Michelle^{1*}

¹Curtin University

Objective

To estimate the incidence and risk factors for injuries among older adults with and without dementia.

Methods

A retrospective, population-based cohort study was undertaken using the Western Australian Data Linkage System (WADLS). Cases included 29,671 (47.9%) older adults with an index hospital admission for dementia, aged 50+ years between 2001 and 2011. Comparison participants without dementia included a random sample of 32,277 (52.1%) older adults aged 50+ years from the State Electoral Roll. The outcome of interest was a hospital admission to a metropolitan tertiary hospital in Perth Western Australia for at least 24 hours with an injury as the principal diagnosis. Descriptive statistics were used to compare participants with and without dementia in terms of socio-demographic characteristics, co-morbid conditions, injury severity, cause of injury and length of stay in hospital. Population rates were calculated based on the relevant WA population data from the Australian Bureau of Statistics. Poisson regression with robust standard errors was used to examine risk factors for injuries in those with and without dementia, after adjusting for relevant confounders.

Results and discussion

The age-standardised injury rates for older adults (60+ years) were 117 per 1,000 population with dementia and 24 per 1,000 population without dementia. The majority of injuries were caused by falls for both the dementia (94%) and non-dementia (87%) groups followed by transport-related injuries and burns. The results of the multivariable modelling found that older adults with a diagnosis of dementia had over double the risk of hospital admission for an injury compared to those without dementia (IRR=2.05; 95% CI=1.96-2.15). Other significant predic-

tors of an admission for all-cause injury were older adults aged 85+ years (IRR=1.43; 95% CI=1.13-1.81), being unmarried (IRR=1.07; 95% CI=1.03-1.12) and a history of falls (IRR=1.03; 95% CI=1.01-1.06). Females were at reduced risk of injury (IRR=0.92; 95% CI=0.87-0.97).

Conclusions

Older adults with dementia were at increased risk of an admission for an injury compared to those without dementia. Multifactorial injury prevention programs should target older people with dementia, those over 85 years, living alone and with a history of previous falls.

*Corresponding Author:

Email Address: michelle.hobday@curtin.edu.au (M. Hobday)

