International Journal of Population Data Science

Journal Website: www.ijpds.org

Measuring cumulative anticholinergic medicines burden in older Australian women

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Objectives

Anticholinergic medicines burden is common, can have negative impacts, and is problematic to identify. Many medicines used by older women have anticholinergic effects. Importantly for older women, where multimorbidity and use of multiple medicines is common, even when anticholinergic effect of an individual medicine is small, the anticholinergic effects of multiple medicines may be additive, constituting cumulative anticholinergic burden. This study describes medicines contributing to and predictors of anticholinergic burden among community-dwelling older Australian women.

Approach

Retrospective longitudinal analysis of data from the Australian Longitudinal Study on Women's Health linked to Pharmaceutical Benefits Scheme medicines data from 1 January 2008 to 30 December 2010; for 3694 women born in 1921âĂŞ1926.Anticholinergic medicines were assigned anticholinergic potency levels 0 to 3, according to the Anticholinergic Drug Scale. Anticholinergic Drug Scale ratings for all medicines used by each woman were summed across each six months to give an Anticholinergic Drug Scale score. Commonly used medicines were identified for women with high ADS scores (defined as 75th percentile of scores). Predictors of high ADS scores were analysed using generalised estimating equations.

Results

During 2008-2010, 1126 (59.9%) of women used at least one anticholinergic medicine. Median Anticholinergic Drug Scale score was 4. Most anticholinergic medicines used by women who had a high anticholinergic burden (Anticholinergic Drug Scale score > 9) had a low anticholinergic potency (Anticholinergic Drug Scale level 1). Increasing age, cardiovascular disease, and number of other medicines used were predictive of a higher anticholinergic burden.

Conclusion

High anticholinergic medicines burden in this group was driven by use of multiple lower anticholinergic potency medicines rather than use of higher potency medicines. While we might expect that doctors would readily identify anticholinergic burden risk for those using high potency medicines, they may be less likely to identify this risk for users of multiple low potency anticholinergic medicines. The paper will also discuss how GPs view these findings, and how to translate them into the prescribing setting.

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http://dx.doi.org/10.23889/ijpds.v1i1.167