

EP25.01

Prevalence of drug-related problems in residential care facilities for the elderly: a systematic review

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Background & Aim: Multi-morbidity and polypharmacy of the elderly population enhances the probability of elderly experiencing drug-related problems (DRPs). The objective of this research is to systematic review the literature in order to assess the prevalence of DRPs in residential care facilities for the elderly.

Method: Databases (MEDLINE, EMBASE) were searched for literature from 2004 to 2014 to identify studies examining DRPs in residential care facilities for the elderly. Studies were eligible when relying on Beers criteria, STOPP, START, PRISCUS list, ACOVE, BEDNURS or MAI. DRPs are defined in accordance with the criteria of inappropriate medication use as defined by the seven instruments.

Results: Nineteen out of twenty-one studies meeting inclusion criteria, assessed DRPs relying on criteria defined by Beers et al.. Considering all versions of Beers criteria, studies report residents experiencing DRPs from 2.26% up to 82.6% (median 41.4%). A smaller range, from 14.5% up to 63.0% (median 34.9%), is reported considering solely – the most frequently referred to – Beers criteria updated in 2003. Prevalence varies from 23.7% up to 70.8% (median 53.8%) in studies relying on – the second most referred to instrument – “STOPP”.

Conclusions: Beers criteria updated in 2003 and “STOPP” are most frequently used in residential care facilities to determine DRPs. Prevalence of DRPs strongly varies, even when considering similar studies. Despite heterogeneity in data, hampering meta-analysis, this review suggest that researchers are aware of the necessity of careful drug monitoring in residential care facilities for the elderly.