Potentially inappropriate prescribing in nursing homes residents in Tuscany

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Background. The occurrence of 'Inappropriate Prescribing' (IP) is a well-documented problem in older adults, although its definition in the geriatric population is still debated. The aim of avoiding medications whose risks outweigh benefits in the elderly patients has stimulated the development of different criteria to identify IP. The most known are an American-based screening tool, the Beers criteria[1], and an European physiological system-based screening tool, the 'Screening Tool of Older Person's Prescription' (STOPP) criteria[2]. Compared to Beers' criteria, STOPP ones identify an higher proportion of patients requiring hospitalization as a result of IP-related adverse events, and are more suitable for European settings.
Aim. To determine the prevalence of IP in residents of Tuscany Nursing Homes (NHs) using a subset of 10 indicators of STOPP criteria.
Methods. This was a retrospective study on 2527 subjects (72% female, 78% 70-94 years old) living in 67 NHs. Database from an ad hoc survey was merged with that from the administrative archives of the Local Health Authority. Data recorded included: all reimbursed drug prescriptions and hospital admissions (from claim databases), current and previous medical conditions and general characteristics (from survey database). We also compared IP criteria before and after NHs admission.
Results. After NHs admission, IP prevalence was less than 5% for the following indicators: #1 '*risk of symptomatic heart block*', #2 '*risk of bronchospasm*', #3 '*risk of severe constipation*', #4 '*likely to worsen extra-pyramidal symptoms*', #6 '*may exacerbate glaucoma*', and #10 '*risk of acute exacerbation of glaucoma*'. The prevalence was 22% for the #9 'risk of gastrointestinal bleeding' indicator, 23% for the #5 '*may lower seizure threshold*', 28% for the #7 '*risk of exacerbation of heart failure*', and 34% for the #8 '*risk of deterioration in renal function*'. These prevalence figures were higher before HNs admission even if statistically significant differences emerged only for few indicators.
Conclusion. Findings of the present study show a generally good appropriate prescribing in the elderly, further improved after NHs admission. There were only few caveats regarding the use of phenothiazines in patients with epilepsy (indicator #5); and the use of non-steroidal anti-inflammatory drug in patients with either heart failure (indicators #7), chronic renal failure (indicators #8), or coexistent warfarin treatment (indicator #9).

References

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