

Potentially inappropriate medication in nursing homes: application of the Beers criteria

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Introduction

The elderly population is frequently polymedicated, including with potentially inappropriate medications (PIM). The use of explicit criteria can play an important role in the identification of areas for pharmaceutical intervention.

Objectives

To characterize and to quantify the occurrence of PIM detected during medication review in a sample of institutionalized elderly patients.

Methods

Ethical approval

Invitation of 4 nursing homes

Population (n=224)

Application of elegibility criteria: aged ≥65 and using ≥5 medicines → Sample (n=161)

Cross-sectional study

Analysis of Clinical files

Medication review using Beers criteria⁽¹⁾

Description and quantification of PIM

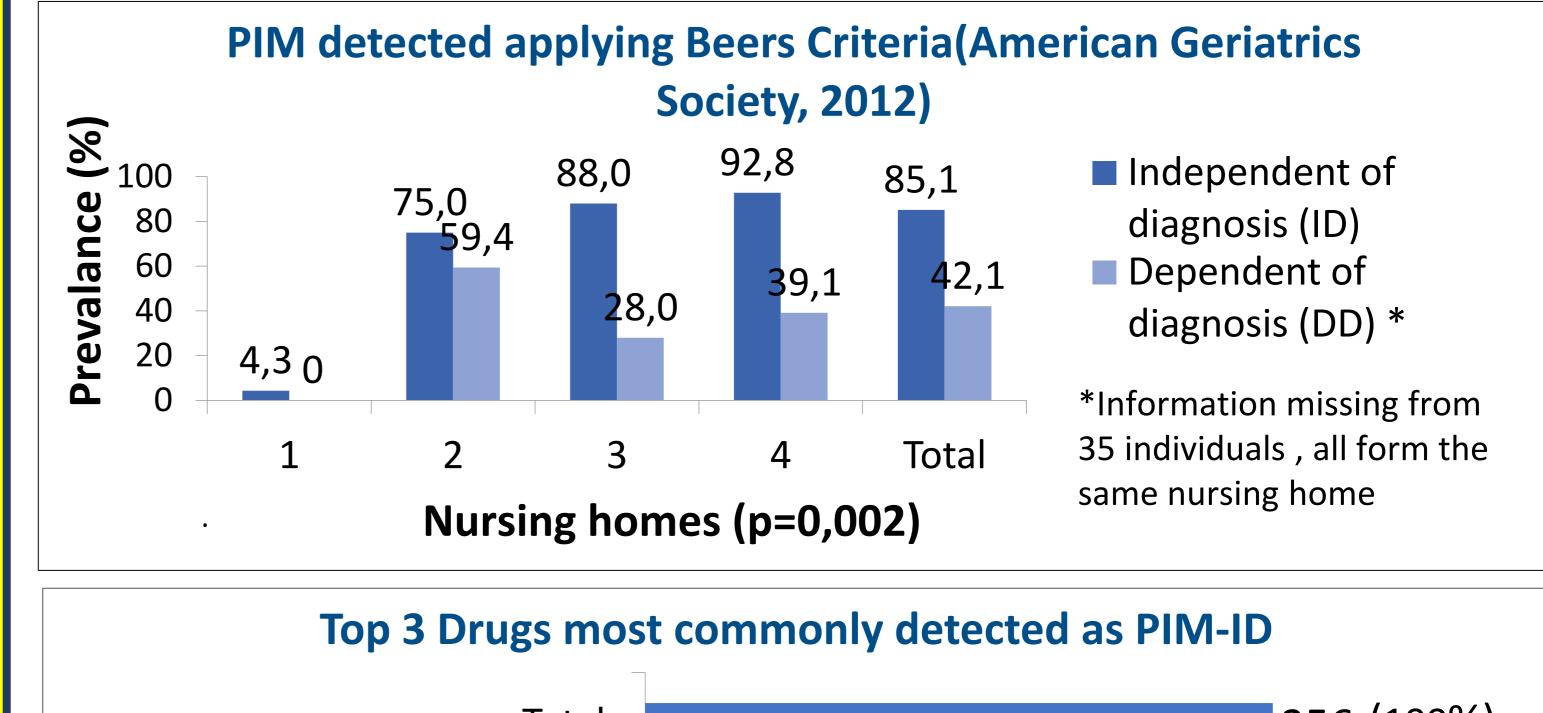
Data analysis (χ², Spearman, One-way ANOVA, Mann-Whitney U and Kruskal-Wallis). CI 95%

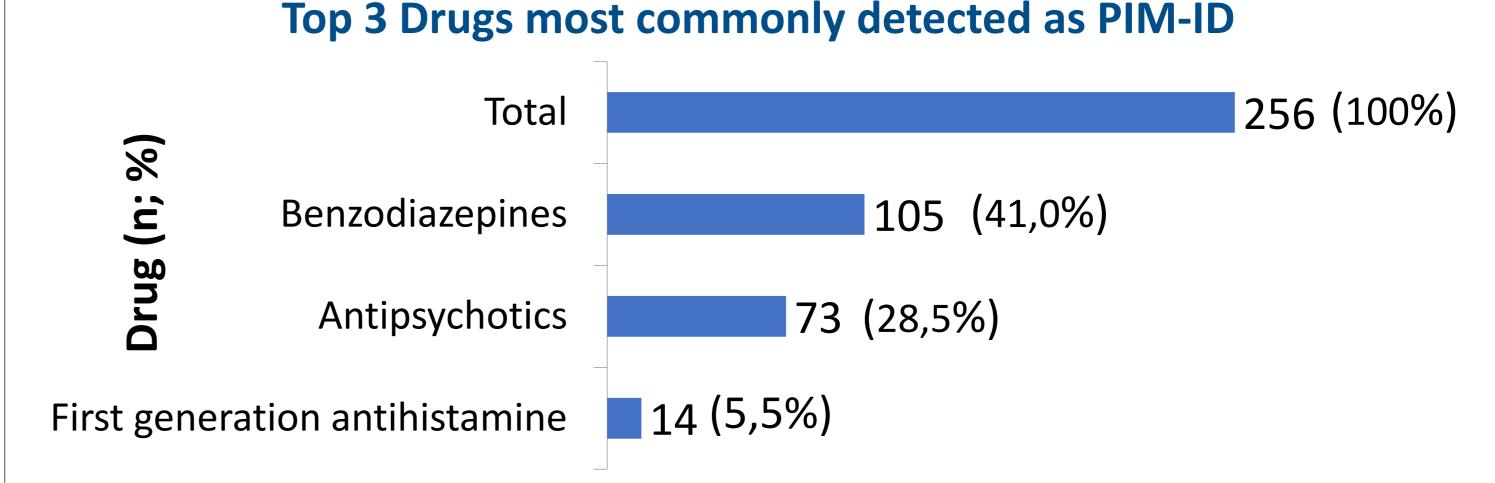
References

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Results

The mean age was 84.7 years (SD=6.35), 68.9% of the recruits were female, had 4.1 diseases (SD=2.14), used 10.1 medicines (SD=3.89) taken in 12.3 daily doses (SD=5.76).





Nearly half of the sample (42.1%) taking PIM were patients with a history of fractures. The location of the nursing home had no impact on the distribution of PIM-ID. The number of PIM was neither influenced by patients' socio-demographic characteristics, nor by the number of comorbidities, but directly correlated, although weakly, with the number of medicines prescribed (Pearson r=0.241; p=0.002).

Discussion/Conclusions

The application of the Beers criteria in an elderly sample enabled the identification of a considerable number of PIM, consistent with previous studies ^(2,3). The most commonly detected drugs as PIM can lead to falls and fractures and nearly half of the sample with PIM were patients with a history of fractures, as reported elsewhere⁽³⁾. Therefore, this specific aspect of geriatric patient care should be more carefully addressed. This study did not address interdisciplinary collaboration in the resolution of PIM detected, an issue to be explored in future studies which may enable the development of pharmaceutical competencies for the care of geriatric patients with unquestionable benefit for patient safety.

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