

# Potentially Inappropriate Medications in Chinese Older Outpatients according to Beers Criteria: A Cross-sectional Study

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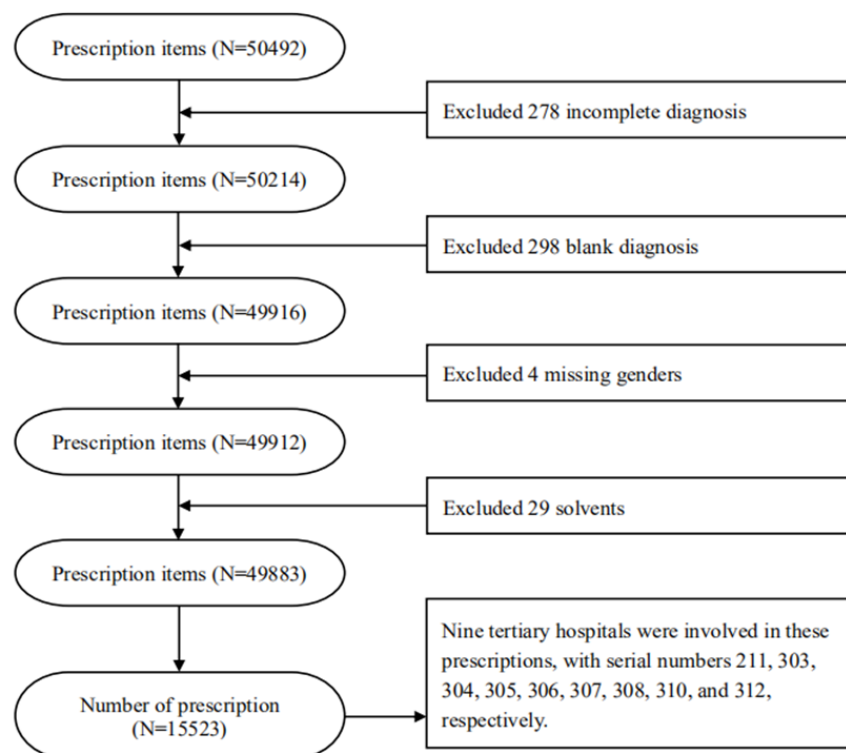
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## Abstract

**Objectives:** Multimorbidity and polypharmacy in older adults always increase the prevalence of potentially inappropriate medications (PIMs) and affect the quality of life of the older adults. The purposes of this study were aimed to investigate the prevalence of PIMs prescription and the most frequent PIMs among outpatients according to Beers criteria and to explore related risk factors for PIMs prescription. **Methods:** The cross-sectional retrospective study was conducted among elderly outpatients in Chengdu (a city in China) from January 2018 to December 2018. The 2015 Beers criteria was used to assess PIMs in elderly outpatients. Univariate analysis and multivariate logistic regression analysis were adopted to determine the factors that may affect the prevalence of PIMs in elderly outpatients. **Results:** A total of 15523 patient prescriptions were enrolled, of which 4654 (29.98%) were identified with at least one PIM based on Beers criteria, and 6460 PIMs were detected. Of these PIM prescriptions, 76.32% were detected to receive 1 PIM, 16.54% were detected to receive 2 PIMs, and only 7.13% were found to have at least 3 PIMs. Benzodiazepines (2371, 50.95%), diuretics (1197, 25.72%), and selective serotonin reuptake inhibitors (439, 9.43%) were three common types of drugs that were the most frequent PIMs used. Sex, age, number of diseases, number of medications, and diseases or disease states were risk factors for PIMs in outpatients. **Conclusion:** The results of the study showed that the phenomenon of PIM was common among elderly outpatients in Chengdu. Risk factors for PIM in elderly outpatients include gender, age, number of diseases, number of medications, and sleep disorder.

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