

The Potential of Inappropriate Medication Use In Outpatient Geriatric Based On Beer's Criteria 2019

ABSTRACT

Background: As the degree of health and welfare of the population increases, it will affect the increase in life expectancy (UHH) in Indonesia and the increasing number of geriatric populations in Indonesia from year to year. An increase in the percentage of the geriatric population has an impact on increasing health problems. With increasing age, geriatrics are more vulnerable to various physical complaints, both natural factors and due to degenerative diseases. Inappropriate drug use in geriatrics is a serious health problem because it can increase morbidity, mortality, and health costs. The potential for inappropriate drug use will result in an increased risk of adverse drug events and death. Beer's criteria are one of the tools that can be used to evaluate the incidence of potential inappropriate drug use in geriatrics. Since 2012, the Beers criteria have been updated every 3 years. The 2019 Beers criteria are an update of the 2015 Beers criteria. The aim of this update is to improve therapy in geriatrics by reducing the incidence of PIM in patients who can cause unwanted reactions.

Objectives: This study aims to identify the prevalence of PIM in geriatric outpatients based on the 2019 Beers criteria and identify risk factors associated with PIM such as gender, age, and number of drugs used.

Materials and methods: A cross-sectional method was conducted in this research with the study population in the form of prescriptions for geriatric outpatients who purchased drugs at PKU Muhammadiyah Hospital Yogyakarta. The sample was in the form of geriatric outpatient prescriptions for drugs in December 2022 to February 2023. Inclusion criteria in the study were prescriptions for geriatric outpatients who were aged ≥ 65 years who redeemed drugs at PKU Muhammadiyah Hospital, the prescription was legible and complete, and if there was a prescription, repeated with the same patient's name, the latest prescription was taken. The sampling technique was carried out by purposive sampling based on the inclusion criteria. Data analysis was carried out using descriptive analysis.

Results: There was an incidence of PIM in outpatient geriatric patients at PKU Muhammadiyah Hospital Yogyakarta. The category of PIM was found in category 1, category 2, category 3, and category 5. The types of drugs found as PIM events were Alprazolam (0.99%), Glimepiride (2.97%), Meloxicam (14.85%), Diazepam (3.96%), Theophylline (4, 95%), Omeprazole (2.97%), Mefenamic acid (0.99%), Furosemide (6.93%), HCT (2.97%), Tramadol (8.91%), Gabapentin (21.78%), and Ranitidine (9.90%).

Keywords: Beer's criteria, geriatrics, potential inappropriate drug use