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ASSOCIATION BETWEEN POTENTIALLY INAPPROPRIATE MEDICATION (PIMs) DEFINED BY BEERS CRITERIA AND
LENGTH OF STAY IN HOSPITALIZED GERIATRIC PATIENTS AT UGM ACADEMIC HOSPITAL YOGYAKARTA
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ABSTRACT

Potentially inappropriate medications (PIMs) are linked to negative clinical outcomes and consequently, there will be an increase in morbidity, mortality, prolonged hospital stays, admission rates, and healthcare cost burden. The main objective of this research is to determine the relationship between PIMs and length of stay (LOS) in hospitalized geriatric patients using Beers Criteria 2019.

The study design was cohort with a retrospective approach. Data related to sociodemographic characteristics, clinical profile, and medication of geriatric patients aged ≥ 60 years who were hospitalized at UGM academic hospital Yogyakarta was collected from the patient's medical records. Patients who died, were forced to return, and were referred elsewhere were excluded from the study. PIMs use was identified according to the Beers criteria 2019. Data was analyzed by Chi- square statistic test. Multiple logistic regression was used to determine the predictors of LOS.

The total number of patients who met the inclusion criteria of the study was 146, of which 103 were prescribed PIM and 43 were among the non-PIM group. The highest rates of prescribing potentially inappropriate medications were among female patients (44%) more than among male patients (27%). A high prevalence of PIMs was found in this study (70.5%). Most of the PIMs identified by the Beers Criteria 2019 were associated with the use of sliding scale insulin (43.1%) and furosemide (28.7%). The study found a significant causative association between the use of PIMs and LOS with a P-value of 0.008; OR 3.730; 95% CI 1.346-10.337. The number of prescribed medicines was identified as the predictor of prolonged LOS (OR: 2.939, CI: 4.193-85.244, P=0.000). This study found a high prevalence of PIMs in geriatric patients hospitalized at RSA UGM. There was an association between the use of PIMs and LOS. The number of prescribed medicines was the predictor of prolonged LOS.

Keywords: geriatrics, potentially inappropriate medications, Beers Criteria 2019, length of stay