Potential Drug-Drug Interaction and Associated Factor Among Geriatric Outpatient

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Abstract

Drug interactions are changes that occur in the pharmacological activity of a drug due to its concomitant use with other drugs, herbal medicines, food or beverages. The drugs most commonly involved in potential drug interactions are those that are used on a daily basis in the clinical management of geriatric patients. The purpose of this study is to evaluate the incidence profile of drug-drug interactions with prescribed drugs in outpatient geriatric patients at Ummi Bengkulu General Hospital in 2022. This research method uses a cross sectional research design and retrospective data collection using a research sample of 100 geriatric patients. The potential drug interaction was analyzed using medscape and drugs.com and the predictor factors of drug interaction potential were analyzed using the chi-square test. The results showed that out of 100 geriatric patients, 76 patients (76%) experienced drug interactions, with a total of 204 interaction events. Based on the mechanism of interaction, it was found that there were 104 (51%) pharmacodynamic interactions and 100 (49%) pharmacokinetic interactions. Based on the severity, it was found that the moderate category was 155 (76%), minor as many as 30 (14.7%), and major as many as 19 (9.3%). The conclusion of this study is that most of the drug-drug interactions are seen in the prescriptions of geriatric patients. Comorbidities and polypharmacy were identified as predictors of potential drug interactions with a value of ($p<0.05$).

Keywords

Drug Interaction, Geriatric, Polypharmacy, Comorbid Disease