

ABSTRACT

POLYPHARMACY IN GERIATRIC PATIENTS WITH DIABETES MELLITUS: DRUG COMPLIANCE REVIEW

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Geriatric patient is defined as a patient older than 60 years old who has multiple disease or 70 years old who has one physical disease with or without psychological disorders. The existing of multiple disease and complication of diabetes lead to the use of polypharmacy in geriatrics. Polypharmacy is defined as the use of five or more medication daily. The use of multiple drugs daily can increase drug-related problems, one of them being drug non-compliance. The aim of this study were to analyze the level of drug compliance, the types of non-compliance, the causes and the consequences of non-compliance in geriatrics with diabetes mellitus who received polypharmacy. This study used an observational method with prospective study. This study was conducted at the Geriatric Clinic of Airlangga University Hospital started from March until May 2020 and the data was collected from interviewing geriatric patients. The drug compliance was evaluated by MMAS-8 and pill count methods. This study also has been reviewed and issued of “ethical clearance” by the Research Ethic Committee in Airlangga University Hospital. The result showed that the level of drug compliance was 50% for high compliance. Drug non-compliance was identified in 56% of the interviewed patients. The types of non-compliance included: forgetting to take medication (21%), intentionally not taking medication (16%), taking the incorrect dose (9%), taking medication at the wrong time (7%), discontinued medication (6%), improper used of insulin pens (6%), reduced the frequency of medication (4%), and increased the frequency of medication (4%). The drugs which caused these non-compliance were insulin, acarbose, glimepiride, metformin, and bisoprolol. The most common causes of patient’s non-compliance were forgetfulness and the occurrence of ADRs/drug interactions. The consequences of drug non-compliance in geriatrics were uncontrolled blood pressure, increased blood glucose, and hypoglycemia. In this study, 90% of drug non-compliance problems were resolved by interprofessional collaboration.

Keywords: geriatrics, polypharmacy, non-compliance, insulin, glimepiride.