ABSTRACT

POTENTIAL DRUG INTERACTIONS IN PRESCRIPTIONS DISPENSED AT HOSPITAL X DIABETIC OUTPATIENT DEPARTEMENT SURABAYA

Diabetes mellitus (DM) is a chronic metabolic disease which increase blood glucose levels as a result of abnormalities in insulin secretion, insulin action, or both. Frequently, DM pharmacological treatment requires a polypharmacy that leads to the increase of the potential of drug interactions. Drug interaction is the effect of a drug due to another drug given earlier or administered simultaneously or when two or more drugs interact. As the results, the effectiveness or toxicity of the drugs might be affected. This study was aimed to observe drug interactions that potentially occur in DM prescriptions. The data was collected retrospectively from prescriptions record in January to September 2021. The potential of drug interactions was analyzed using *medscape app* and *drugs.com webpage*. Among 73 prescriptions, 48 potential drug interaction were found using *medscape* app and 80 potential drugs interaction were obtained from *drugs.com*. The most frequent potential drug interactions based on its mechanism was pharmacodynamics as much as 68.75% (*medscape*) and 70,00% (*drugs.com*) with the most severity was closely monitored (*medscape*) and moderate category (*drugs.com*) as much as 100.00% and 92.75% respectively. The most common interaction was between metformin and glimepiride as much as 31.17% which can lead to risk of hypoglycemia. Therefore, in order to increase the success of the treatment, it is recommended to strengthen the collaboration between the clinician and pharmacy staff to minimize drug interactions during treatment and the patients should be advised to routinely check their blood sugar at least once every 3 months.

Keywords : Diabetes mellitus (DM), potential drugs interactions, prescriptions, outpatients