ABSTRACT

(LITERATURE REVIEW)

POTENTIAL DRUG INTERACTIONS FOR TYPE 2 DIABETES MELLITUS

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Diabetes mellitus is one of many diseases that are currently be a special concern in developing countries such as Indonesia. Diabetes mellitus is a condition in which blood sugar levels are higher than normal condition caused by metabolic disorders that occur chronically or chronically because the body does not have enough insulin or impaired insulin secretion that doesn't work properly.

Most type 2 diabetes mellitus is coused by an unhealthy lifestyle. Treatment of type 2 diabetes mellitus uses a combination of oral antidiabetic drugs or a combination of insulin. So that it can cause drug interactions that can harm the patient but some are beneficial. Drug interaction are considered clinically important if they result in increased toxicity, reducing drug effectiveness when it comes to drugs with a narrow margin of safety (low therapeutic index). The potential for drug interaction with diabetes mellitus has been widely studied, but all published journal studies have different results, so a more comprehensive review is needed to be able to analyze the result. This study was aimed to determine the potential for drug interactions in patients with type 2 diabetes mellitus from various published articles in terms of prevalence data and mechanisms of potential drug interactions.

This research is a literature review by searching for manuscripts through official database and library sources relevant to the research topic. The database used include Google Scholar. A total of 3 articles have been reviewed in this study.

Based on the results of review of the three articles, the largest percentage of drug interaction was insulin and metformin then metformin and glimepiride. This interaction belongs to the pharmacodynamic mechanism of moderate severity. With the potential for drug interactions, it is suggested that pharmacy technicians should be more careful in preparing drugs and consult with pharmacist if they encounter problems in prescribing. And it is hoped that further research will be carried out using more articles so that they can be discussed more comprehensively.

Keywords: drug interactions, antidiabetic drugs, type 2 diabetes mellitus