## ABSTRACT

## POTENTIAL DRUG INTERACTION STUDY OF ANTIDIABETIC DRUGS IN COMBINATION WITH ANTIHYPERTENSIVE DRUGS AT BPJS OUTPATIENT PHARMACY RSPAL dr. RAMELAN SURABAYA (From September-November 2021)

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Comorbidity of diabetes mellitus (DM) and hypertension usually treated with combination of medication that usually classified as polypharmacy. The use of the combination frequently lead to the potential drug interaction The purpose of this study was to observe the potential drug interaction of antidiabetic drugs with antihypertensives at BPJS Outpatient Pharmacy RSPAL dr. Ramelan Surabaya. This research method was carried out retrospectively by taking prescription data on patients with comorbid dm hypertension from September to November 2021. Retrieval of patient prescription data by screening drug interactions in prescriptions that have met the criteria using the Medscape application. A total of 88 recipes have been analyzed. Of the 88 prescriptions, which had potential drug interactions, 48 prescriptions (54.55%) of those prescriptions were observed at 52 potential drug interaction events. The potential for drug interactions based on mechanisms (78.85%) of antagonistic pharmacodynamic interactions, (9.62%) are synergistic pharmacodynamic interactions. Of the 88 prescriptions, which had potential drug interactions, 48 prescriptions (54.55%) of those prescriptions were observed at 52 potential drug interaction events. Based on its severity, 44 (84.62%) potential drug interaction cases had closely monitor severity and as many as 8 (15.38%) cases had minor severity. The results of the data obtained that the most potential interaction was found in the administration of diabetes drugs with the combination hypertension drug metformin with amlodipine (CCB group) with 35 cases (67.31%). Amlodipine may decrease the effects of metformin resulting in high blood sugar levels (hyperglycemia). It is expected that there will be monitoring and evaluation in the prescribing of antidiabetic drugs to overcome drug interactions. Laboratory results must be carried out continuously in monitoring patients' blood sugar levels, as well as good cooperation between health workers so as to improve treatment success.

**Keywords:** Diabetes, hypertension, potential drug interactions