

UNIVERSITI TEKNOLOGI MARA

ABILITY OF PHARMACY STUDENTS OF UNIVERSITY OF TECHNOLOGY
MARA (UiTM) TO IDENTIFY POTENTIAL DRUG-DRUG INTERACTIONS IN
ANTI-DIABETIC DRUGS.

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ABSTRACT

Introduction: Diabetes mellitus (DM) is a worldwide health disease as it causing significant mortality and morbidity globally. The number of diabetic patients was predicted around 135 million and 154 million in year 1995 and 2000 respectively. However, it is expected to reach 300 million in year 2025. The increase in developed countries is projected to 42% but it is estimated to be increase in 170% in the developing countries like Malaysia. A large number of medications become appropriate therapy when patients are diagnosed with diabetes and the likelihood of drug interactions will increase. The ability to identify potentially harmful drug interaction is a crucial role of the pharmacist's job since there are guardians of patient health and safety. This study is a cross sectional in terms of determined knowledge toward the drug-drug interaction (DDI) in anti-diabetic drugs among third and fourth year pharmacy students of University of Technology MARA (UiTM) Puncak Alam, Malaysia. **Methods:** A closed-ended questionnaire designed to measure DDI knowledge in anti-diabetic drug was disseminated to 181 of third and fourth year pharmacy students of UiTM Puncak Alam. The 20 questions consisted of statements on basic pharmacology of DDI and drug base pair form different classes of anti-diabetic drugs interact with drug that is commonly prescribed to diabetic patients. **Results:** A total of 181 valid questionnaire were collected, showed that 80.1% (n=145) of students had adequate knowledge and 19.9% (n=36) had inadequate knowledge towards basic pharmacology involving DDIs as well as the ability to identify the severity of DDIs in anti-diabetic drugs. **Conclusion:** Third and fourth year pharmacy students University of Technology MARA (UiTM) Puncak Alam had adequate knowledge towards drug-drug interactions related problem.

Key words: Knowledge, Anti-diabetic drug, Drug-drug Interaction, Pharmacy students, UiTM

CHAPTER 1

INTRODUCTION

1.0 Introduction

When an effect of one drug is altered by the prior or concurrent administration of another drug it defined as drug interaction. Undesirable effects on the patient or negate desired responses is the result of interactions. However, not all of the interactions that happen in patient are harmful. Drug interactions associate with a significant medical care problem. Potentially interacting drug combinations which were identified in a recent study of outpatient pharmacy medication records shows the number of cases nearly 17,000[1]. Pharmacokinetics is the studies involve in absorption, distribution, metabolism as well as the excretion of a drug, while pharmacodynamics is the studies involve the correlation between the drug and its receptors, its mechanism of action and therapeutic effect. Both have an impact in drug–drug interactions[2].

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