

UNIVERSITI TEKNOLOGI MARA

**DRUG-RELATED PROBLEMS IN CHRONIC
KIDNEY DISEASE (DRPs): A PRESCRIPTION
ANALYSIS.**

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ABSTRACT

Background: Chronic Kidney Disease (CKD) is a progressive condition where the kidney function is deteriorate over time because no careful monitoring is done to the patients and they need to consume multiple medications due to presence of comorbidity as CKD is associated with cardiovascular disease, diabetes mellitus and other diseases resulting in increased prevalence of potential and actual drug-related problems (DRPs), posing significant challenge to health care providers.

Objective: The study is finding of occurrences of DRPs, the common types of DRPs occurs in chronic kidney patients (CKD) and does the variables such as age, gender, the total number of medications and class of drug has influences in involvement in DRPs.

Methodology: Retrospective study design is used by the collection of prescription from outpatient pharmacy department of Tengku Ampuan Rahimah Hospital. The prescriptions are selected based on inclusion criteria needed which patients are having CKD at all stages including patients undergo hemodialysis and post renal transplantation. The obtained prescriptions are then analyzed by using modified PNCE classification v5.1 to classify and identify DRPs. Descriptive analysis was done for age, gender, the total number of medications prescribed and class of drug and Chi Square test of non-parametric test was used to assess the association between risk factors and DRPs. The p-value, $p < 0.05$ was used to indicate statistical significance or to find relationship between them.

Results: The percentage of DRPs (81.9%) obtained is higher compared to non-DRPs (18.1%). The result of p-value of chi-square test showed that only gender had no influences in involvement in DRPs. Meanwhile, the risk factors which are age, total number medications prescribed and class of drug had influences to get DRPs.

CHAPTER 1

INTRODUCTION

1.1. Background of study

The main issues occur in pharmaceutical care is drug related problems and it can originate during prescribing, dispensing or drug use process. The purpose of prescribing drugs to patients is treatment, diagnosis or prophylaxis of medical conditions but these drugs may have negative effects on patients if not used appropriately. Prescribing problems originate usually from the physicians' because of their lack of knowledge may cause such problems, at times possibly also losing laboratory data and sometimes lack information about the full therapeutic profile of the patient. Nurses may also cause DRPs by not giving medication as prescribed or wrongly copying the physicians' instructions on an order or chart form. Dispensing problems also are often a result of carelessness usually by the pharmacists. They may misinterpret the physicians' handwriting, doing the calculation of dosage incorrectly, not performing a drug use review or taking the wrong box or bottle. Drug use problems by the patient probably is a major contribution in drug-related problems. In general, half of the patients do not adhere or compliance to the pharmacotherapy or instructions by medical staff (van Mil, 2005).