UNIVERSITI TEKNOLOGI MARA

DRUG RELATED PROBLEMS (DRPs) in PEDIATRICS: A CLINICAL PRESCRIPTION ANALYSIS

NURSYUHAIDAH BINTI RAMLI

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TABLE OF CONTENTS

ABSTRACT

DRP is an event or circumstance involving drug therapy that actually or potentially interferes with desired health outcomes (PCNE). It can occur in any group of patient (eg. pediatrics, geriatric, chronic kidney disease patient or psychotic patient) and population that represent a high risk of DRPs are pediatric patients (Prot-Labarthe et al., 2012). Pediatric patients are more vulnerable to DRPs due to their developmental differences and unique challenges. Pediatric patients are different in psychosocial influences towards drug therapy selections, pharmacodynamics and pharmacokinetics and also treatment options. Out of 113 of pediatric patients, 44 patients were detected having DRPs, while 70 patients remain none. The most common types of DRPs that occur among pediatric patients are drug-drug interaction, too low dose, too high dose, suboptimal dosing scheme, and unnecessary drug. The highest percentage of DRPs among pediatric patients were drug-drug interaction that accounts for 46.5%. The second highest DRPs were too low dose that account for 34.9%. The third highest DRPs were too high dose and unnecessary drug that account for 7% respectively, and the lowest DRPs were suboptimal dosing scheme.

CHAPTER ONE

INTRODUCTION

1.1 Background of Study

Drug-related problems (DRPs) can occur in any patients including pediatrics, adolescents and adults. Suffering and decreased in quality of life often resulted in patient that are subjected to DRPs due to harmful, failed or suboptimal drug therapy (Westerlund et al., 2012). DRPs or medication error are preventable ("Drug Related Problems in Sulaimani Pediatric Teaching Hospital, Iraq," n.d.). Thus, DRPs or medication error can be defined as any event that are preventable and if it occurs, it may lead to the patient harm or medication use that are inappropriate as the drug is under the control of consumers, patients or health care professional. This preventable event may be related to the medication use system, procedures, health care products and professional practice which include compounding, dispensing, prescribing, product labeling, the order of communication, packaging, administration, use and education (National Coordinating Council for Medication Error Reporting and Prevention). DRPs are common and can occur in any patient resulting in injury or harm and also high care cost (Westerlund et al., 2012). 44,000 to 98,000 of people are estimated being an experience of medication error which consequently making medication error as eight leading factors of death. This statistic alarming us that it is necessary to include safer health care system among public and as well as a part of national agenda (Kohn LT,