

Determination of Incidence and Characteristics of Preventable Adverse Drug Reactions : A Study in Phrae Hospital

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ABSTRACT

The characteristics of preventable adverse drug reaction (pADR) in hospitalized patients in Phrae Hospital were identified by a retrospective descriptive analysis. All ADR report forms of patient during fiscal year 2003 were explored. From 189 reports, 188 ADR reports were analyzed. Sixty-eight cases (36.17%) were classified with Schumock and Thornton criteria as pADR. Mean age of pADR patient was 42.97 years. Female was of the same number as male. Top- three underlying diseases were chronic renal failure, HIV and hypertension. Eight pADR (11.76%) were related to hospital admission and mostly (80.88%) considered non-serious ADR. Nine cases (13.24%) were considered severe to initial or prolonged hospitalization and required life-threatening management. The relationship of pADR to drug exposure was determined to be probable. Half of them occurred in skin and appendage system and body as a whole-general disorders system organ class of WHO. Most outcome (91.18%) was recovered without sequelae. "Antibiotics", "contrast media" and "miscellaneous" were top-three classes of drugs causing pADR. The third high-priority pADR code which accounted for 90% of all reports were (1) required therapeutic drug monitoring or other necessary laboratory tests were not performed or not performed frequently enough criteria (45.95%), (2) dose, route or frequency of administration was not appropriate for the patient's age, weight or disease criteria (24.32%), and (3) drugs involved were not appropriate for the patient's clinical condition criteria (19.82%). The data from this study reflected the importance and urgency for better understanding of pADRs in Thai-hospitalized patients and suggestion of the better interventions or model to prevent patients suffering from ADRs. Further nationwide studies are needed to determine ADR-associated factors and to develop strategies for prevention of pADR in hospitalized patients.

Key words: Characteristic, Incidence, Preventable Adverse drug reaction

INTRODUCTION

Adverse drug reaction (ADR) is an important type of drug-related problems resulting in undesirable effects in patients and discontinuation of medication. Epidemiological studies indicate that ADRs are the leading causes of admission