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