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AREE PANRONG : INCIDENCE AND COST IMPACT OF ADVERSE
DRUG REACTION AT QUEEN SIRIKIT NATIONAL INSTITUTE OF CHILD
HEALTH. THESIS ADVISORS : CHALERMSRI PUMMANGURA, M.S.,
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The objectives of this study were to identify drug-related problems especially adverse drug reactions and the additional patient expense due to adverse drug reactions.

This study was conducted as a concurrent prospective investigation at Queen Sirikit National Institute of Child Health (QSNICH) in 3 medical wards from August 1st to December 31st, 1998. The number of patients included in this study was 536. The mean age of patients was 1 year and three months.

The results showed that actual and potential drug-related problems were 65.3% (350/536) and 602 drug-related problems occurred. The categories of drug-related problems were over dosage (49.7%), under dosage (20.8%), drug interaction (16.6%), untreated indication (6.6%), adverse drug reaction (3.8%), improper drug selection (1.3%), drug use without indication (1.0%), and failure to receive drugs (0.2%). Incidence of adverse drug reactions in this study was 3.7% (20/536). Nearly all were adverse drug reactions after admission. Only one adverse drug reaction caused patient admission. Antibiotics and anti-infective agents caused 47.8% of adverse drug reactions. Skin disorders were found in 60.9% of all reactions. Type A adverse drug reactions were 39.1% and only 17.4% of all reactions were preventable. Regarding severity, 82.6% of reactions were moderate and no reaction resulted in death in this study. Patients' hospital stays were extended by adverse drug reactions for 33 days and total direct medical costs as additional patient resources utilization due to the reactions were 33,949 baht, 43.2% was lab test costs and 36.5% was drug treatment costs. Sixty-three percent of these expenditure (21,428 baht) could be preventable.

It can be concluded that adverse drug reaction is an important cause of patients illness and increase their treatment costs. It is necessary for pharmacists to monitor patients' drug therapy which could help in reducing preventable type A reactions and avoid the repetitive occurrence of type B reactions.