

4136359 PYHP/M : MAJOR : HOSPITAL PHARMACY; M.Sc. in Pharm.
(HOSPITAL PHARMACY)
KEY WORDS : COST-BENEFIT ANALYSIS / ADVERSE DRUG
REACTION MONITORING PROGRAM / ADVERSE
DRUG REACTION

WORAPORN PROMMEENATE : COST-BENEFIT ANALYSIS OF THE
ADVERSE DRUG REACTION MONITORING PROGRAM AT LERDSIN
HOSPITAL IN 1999. THESIS ADVISORS : CHA-ONSIN SOOKSRIWONG;
Dr.PH., SAOWANIN INDRABHAKTI, M.D. 113 P. ISBN 974-664-690-7

The objective of this study was to determine the cost-benefit ratio of The Adverse Drug Reaction (ADR) Monitoring Program at Lerdsin Hospital in 1999. This study was a descriptive quantitative study, which was performed retrospectively. Costs and benefits of the program were determined in monetary terms. The study population was the patients who experienced ADRs from 1 October, 1998 to 30 September, 1999. Data were collected from the ADR reports sent to the FDA, patients' charts, financial documents and by interviews with the practitioners.

The results showed that there were 113 cases of ADRs reported to the FDA, 42 cases were in-patients and 71 cases were out-patients. Sixty-four of them were female, 48 were male and one case was not specified sex. Seven cases (6.19%) were repeated cases while 106 cases (93.81%) were new cases. The categories of severity were severe (2.65%), moderate (49.56%) and mild (46.02%) ADRs. Preventable ADRs occurred at 13.27%, and non-preventable at 86.73%. The activities performed when ADRs occurred were documenting the ADRs (54.87%) and sticking the label of "drug allergy" to the patients' charts (23.01%). About 7.96% of the reports had no patients' hospital numbers and 14.16% of patients' charts were lost. 37.17% of the cases experienced ADRs from antibiotics, and 28.32% from neuro-muscular group. Rash drug, angioedema+urticaria, palpitation and nausea/vomiting were common ADRs found. The costs of the adverse drug reaction monitoring program (ADRMP) were 250,199 baht, including labor cost (150,199 baht), material cost (100,000 baht) but excluding the capital cost of physical layout because there was no specific area for the program. The benefits of the program were calculated from the difference between the cost of treating undetectable ADRs (369,015 baht), which could be determined from Diagnosis Related Groups, and the cost of treating ADRs that occurred (89,575 baht). The benefits of the ADRMP were 279,440 baht. Therefore, the benefit to cost ratio of the program would be 1.12 to 1. However, if there were pharmacists responsible for the activities and there was a specific area for the program, the ADRs activities would be done more completely and perhaps more ADRs could be detected. These had effects to costs, benefits and cost-benefit ratio of the program. The benefit to cost ratio range would increase to 47.84-373.01 to 1.

It could be concluded that the benefits were great compared with the costs and resources employed. However, the findings suggest that the ADRMP should be performed intensively leading to more quantity of ADR reports. Also, the data or information on ADRs should be documented completely, and the standard procedures on ADR monitoring for this research setting should be established.