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BONGKOT YAEMPHAKA : PHARMACIST'S PRESCRIPTION SCREENING PROGRAM TO DETECT ADVERSE DRUG REACTIONS. THESIS ADVISORS: BUSBA CHINDAVIJAK, Ph. D., JITTI KOSITCHAIWAT, DIP. THAI BOARD OF INTERNAL MEDICINE. 140 P. ISBN 974-665-018-1

Pharmacist's prescription screening program to detect adverse drug reactions(ADRs) was performed at Prapokklao Hospital, a 700-bed teaching hospital in Chantaburi province. Aim of the study was to implement the the pharmacist's role in ADR monitoring and to determine the effectiveness of prescription screening for Alerting Orders (AOs) as the program to detect ADRs. The study was performed in 2 phases with an equal period of 12 weeks. Descriptive prospective study design was used. The 21 kinds of AOs were used. Phase I study was performed with an intensive ADR monitoring concomitant with AO screening. The four parameters to validate the AO screening method, i.e., sensitivity, specificity, positive predictive value, and negative predictive value were determined. ADR incidence rate was also calculated. Phase II study was performed to detect ADRs and determine ADR incidence rate only in patients with AOs. Naranjo and Thai-FDA algorithm were used to assess the level of probability. There were 752 patients in Phase I study and 892 patients in Phase II study. The number of male patients were 20 fold to female patients. Mean age of patients was 46 years old. An average of 5.9 patient charts and 29.2 prescriptions with AOs were seen by pharmacist per day. The results of 76.2 % sensitivity, 43.2 % specificity, 18.5 % positive predictive value, and 91.4 % negative predictive value were found. The AOs that could identify most of ADRs were drug discontinuation, metoclopramide, and chlorpheniramine. ADR incidence rate found with AOs was 11.0 % in Phase I study and 9.0 % in Phase II study. Gastro-intestinal system was the most common body system affected by ADRs. Antiinfectives were associated with the highest number of ADRs.

It is concluded that Pharmacist's prescription screening program to detect adverse drug reactions is an effective method in increasing ADRs detection by pharmacist when appropriate AOs are selected.