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PONGSRI KITTIPICHAI : DRUG USE EVALUATION OF FOUR
PARENTERAL CEPHALOSPORINS FOR INPATIENTS AT
METTAPRACHARAK HOSPITAL. THESIS ADVISORS : BUSBA
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Drug use evaluation (DUE) of four parenteral cephalosporins was performed at Mettapracharak Hospital, a 200-bed community hospital. Aim of the study was to evaluate the appropriateness of use of cephalosporins. Criteria for the appropriate use of cephalosporins were developed in the study, reviewed and approved by the pharmacy and therapeutic committee. Retrospective evaluation of the use of cephalosporins before an implementation of DUE program (Phase I study: May 1 to August 31, 1998) and concurrent evaluation after the implementation (Phase II study: October 15, 1998 to February 14, 1999) were performed. DUE newsletters, physician information sheet inserted in patient chart, and formal oral presentation in physicians' meeting were used as three educational interventions. There were 168 courses of therapy in 155 patients during Phase I study and 143 courses of therapy in 127 patients during Phase II study. The overall appropriateness of cephalosporins was increased from 20.8% in Phase I study to 42.6% in Phase II study. The incidence of use which was not changed to a less expensive drug or equally effective drug was 17.4% in Phase I study and reduced to 9.8% in Phase II study. The inappropriate dose and dosage interval was reduced from 48.9% in Phase I study to 31.7% in Phase II study. There was no change in the incidence of inappropriate use (Phase I vs Phase II) in which the drug was not changed to a more effective drug (12.0% vs 12.2%), no order of culture & sensitivity test (56.5% vs 56.1%), and inappropriate duration of cephalosporin use (19.6% vs 21.9%). None of the patients of either phases received cephalosporin without indication. The overall cost of inappropriate use was decreased from 68.1% of total cost (396,072 Baht) in Phase I study to 38.3% of total cost (185,783 Baht) in Phase II study. This resulted in the difference of 210,289 Baht.

It is concluded that a DUE program could control the use of cephalosporins to be appropriate as well as decrease the cost of inappropriate use.