

**P9 UTILIZATION OF RESTRICTED ANTIBIOTICS IN A UNIVERSITY HOSPITAL IN THAILAND**

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**ABSTRACT**

Antibiotic resistance, a major negative consequence of antibiotic overuse, is one of the mainstay problems worldwide. Various means have been used to control antibiotic usage including the use of an antibiotic order form (AOF), restricted antibiotic formularies and provision of educational information. The present study was designed to evaluate the use of antimicrobial in a 1,000-bed university hospital. Antimicrobial agents which are likely to be abused namely ceftazidime, cefepime, cefoperazone/sulbactam, imipenem/cilastatin, meropenem, ciprofloxacin, netilmicin, vancomycin, azithromycin and clarithromycin were selected for evaluation. A simple AOF with educational information was used as a mean to follow-up the treatment. The investigator collected data from the filled AOF and the patient's charts, Department of Internal Medicine from June – November 2000, and all relevant data were assessed. The appropriateness of antibiotic use was assessed according to the criteria specified in the AOF showed that 74% of these antibiotics were prescribed appropriately. This may prove the effectiveness of the system used in the present study. However, 348 of the 430 prescriptions (80.9%) were prescribed empirically at the initial stage for treatment of nosocomial infections in patients with serious conditions like pneumonia, sepsis and febrile neutropenia. Drugs that were frequently used empirically were ceftazidime (37.9%), imipenem/cilastatin or meropenem (19.3%), and cefoperazone/sulbactam (12.1%) respectively. Ceftazidime and imipenem/cilastatin or meropenem were also frequently used inappropriately among 111 prescriptions that were classified as an inappropriate prescribing. The most common misuses were prescriptions of the drug that did not follow the specified indications (70 prescriptions), no dosage adjustment in patients with renal impairment (39 prescriptions), improper dose (12 prescriptions) and improper dosing interval (9 prescriptions). The results suggested overuse of certain antibiotics remain to be an unsolved problem. A better monitoring and strictly control the use of the problematic antibiotics, i.e. ceftazidime, imipenem/cilastatin or meropenem and vancomycin are essential to promote the rational drug use as well as to reduce drug resistance.