Poster Abstracts

PO-86

ONE-DAY SURVEY OF POTENTIAL DRUG-DRUG INTERACTIONS IN INTERNAL MEDICINE WARDS IN A TERTIARY–CARE HOSPITAL

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Objectives: To study the prevalence of drug-drug interactions (DDIs) in internal medicine wards in a tertiary-care hospital

Methods: A one-day cross-sectional survey of medication given in the four major internal medicine wards (ward A, B, C and D) of King Chulalongkorn Memorial Hospital (KCMH), a tertiary-care hospital with 1,200 beds. The demographic data were collected together with the comprehensive details of medication of each patient. The lists of drug were analyzed by Micromedex Drug-Reax® System to detect DDIs which were categorized by severity into 4 groups. The statistics used were prevalence, chi-square, and regression analysis which were done by using SPSS® software.

Results: From 530 prescriptions for 76 patients, 37.73% of which happened to have DDIs which the incidence corresponded to the 40% incidence of DDIs in tertiary-care hospitals in central Asia and Europe. Spearman's correlations show statistically significant increased numbers of DDIs as numbers of medications prescribed, independently of gender. The most frequent number of DDIs for a patient is 2-3, with the average and maximum of 2.59 and 12 respectively. Severe DDIs accounted for 32.89% of all interactions. Most frequently found interactions were medication affecting cardiovascular system e.g. clopidogrel-aspirin. The difference between the prevalence of DDIs comparing ours to other studies were interactions between anti-tuberculous and psychotropic agents e.g. rifampicin-isoniazid, quetiapine-trazodone. In addition, one contraindicating DDI between metoclopramide-trazodone which increases extrapyramidal reactions were ordered but finally not given to the patient.

Conclusion: Currently, patients have easier access to a number of medications, which in turn give rise to more incidences of DDIs. In KCMH, we found less incidence of DDIs compared to other hospitals, and most of which were somewhat unavoidable but predictable since they came from necessary medications to be administered together such as isoniazid and rifampicin, aspirin and clopidogrel. Anyhow, many severe interactions found in our study were preventable. Since it was a one-day study, the recorded DDIs were not really took place and the prescription with contraindicating DDI was aborted. We believe that a more thorough drug-administration circuit development would help a healthcare system deliver the safest treatment for the patients.