Evaluation of medication errors in an infectious diseases ward of a teaching hospital in Iran

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Abstract: medication errors (MEs) and adverse drug reactions (ADRs) are among the main causes of adverse events in hospitals, leading to disability and death in up to 6.5% of hospital admissions. Application of appropriate measures for identifying medication errors and assessing potential adverse drug events is of clinical interest. Evaluation of medication errors in an infectious diseases ward of a teaching hospital in Tabriz-Iran. This was an observational study performed in the infectious diseases ward of Emam Reza Hospital in Tabriz during the July 2012 to February 2012. Medical files and drug charts of 200 patients were reviewed, and errors in physician and nursing levels were determined. To extract Medication errors, treatment regimens of patients were evaluated, and then compared with the standard practice guidelines and drug references. Presence of any incompatibilities were considered as MEs. During the study period, 126 MEs (0.63 errors per patient) were detected, occurring as incorrect time (38.1%), incorrect dose (29.37%), omission (11.9%), administration error (9.52%), incorrect dosage form (4.76%), incorrect drug (2.38%) and incorrect route (3.97%). Physicians and nurses were responsible for 48 (38.1%) and 78 (61.9%) of medication errors, respectively. It is concluded that MEs occur in all steps of drug therapy, including prescription, dispensing, preparation, transcription and administration, causing a great concern for hospitalized patients. Strict controlling, training programs for medical students and nurses regarding rational use and prescription of drugs, and presence of clinical pharmacists are highly recommended for preventing these types of errors.

Keyword: Medication error, Clinical pharmacist, Teaching hospital