

Inpatient Drug Related Problems and Pharmacist Intervention at a Tertiary Care Teaching Hospital in South India: A Retrospective Study

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Abstract : Background: Nowadays drug related problems were seen very commonly within the health care practice. These could result in the medication errors, adverse events, drug interactions and harm to patients. Pharmacist has an identified role in minimizing and preventing such type of problems. Objectives: To detect the incidence of drug related problems for the hospitalized patient, and to analyze the clinical pharmacist interventions performed during the review of prescription orders of the general medicine, psychiatry, surgery, pediatrics, gynaecology units of a large tertiary care teaching hospital. Methods: It was a retrospective, observational and interventional study. The analysis took place daily with the following parameters: dose, rate of administration, presentation and/or dosage form, presence of inappropriate/unnecessary drugs, necessity of additional medication, more proper alternative therapies, presence of relevant drug interactions, inconsistencies in prescription orders, physical-chemical incompatibilities/solution stability. From this evaluation, the drug therapy problems were classified, as well as the resulting clinical interventions. For a period starting November 2012 until December 2014, the inpatient medication charts and orders were identified and rectified by ward and practicing clinical pharmacists within the inpatient pharmacy services in a tertiary care teaching hospital on routine daily activities. Data was collected and evaluated. The causes of this problem were identified. Results: A total of 360 patients were followed. Male (71.66%) predominance was noted over females (28.33%). Drug related problems were more commonly seen in patients aged in between 31-60. Most of the DRP observed in the study resulted from the dispensing errors (26.11%), improper drug selection (17.22%), followed by untreated indications (14.4%) Majority of the clinical pharmacist recommendations were on need for proper dispensing (26.11%), and drug change (18.05%). Minor significance of DRPs were noted high (41.11 %), whereas (35.27 %) were moderate and (23.61 %) were major. The acceptance rate of intervening clinical pharmacist recommendation and change in drug therapy was found to be high (86.66%). Conclusion: Our study showed that the prescriptions reviewed had some drug therapy problem and the pharmacist interventions have promoted positive changes needed in the prescriptions. In this context, routine participation of clinical pharmacists in clinical medical rounds facilitates the identification of DRPs and may prevent their occurrence.

Keywords : drug related problems, clinical pharmacist, drug prescriptions, drug related problems, intervention

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