

Abstract

Analysis of drug related problems identified by pharmacist during provision dispensation and the influence of pharmacist's intervention on prescribing doctors

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Introduction: Drug problems (drug related problems, DRPs) shall mean all the circumstances involving drug therapy that can actually or potentially interfere with the expected outcome of therapeutic intervention. The solution DRPs (risk of pharmacotherapy) includes their detection, risk assessment and selection of the appropriate intervention and belongs to the one of the fundamental activities of a pharmacist.

Aim of study: The aim of this work was to analyze DRPs, their use as a tool for discussion with doctors and subsequent evaluation and estimation of the limits of this model of cooperation between doctor and pharmacist.

Methods: A prospective observational study was conducted in the village Chrastava (1 public pharmacy). Record DRPs detected pharmacist during provision dispensation was conducted in two equally long periods (2 x 30 working days) by using electronic databases (including data of patient, patient used drugs, pharmacist intervention). The educational seminar focused on the prescribing doctors has been organized between these two periods in order to discuss DRPs from the first observational part. Subsequent evaluation of the data consisted in analysis of each case, their classification, the impact of educational seminar for prescribing doctors and any limits of this model.

Results: During the first phase of the project, 168 cases of DRPs by 1146 patients with a total number of 1780 LP have been found, in the second phase 157 cases of DRPs by 1282 patients with 1975 LP have been detected. The dosing has been identified as the most frequent type of DRPs (40 % of cases) and further was the problem with the selection of drugs (35 % of cases). The most appropriate interventions represents drug dose adjustment (16,3 % of cases). After the consultation

with the doctor, pharmacist's intervention was in the most cases accepted (85 % of cases). The educational seminar was held in March 2012 with the participation of five doctors and three pharmacists. We can see the positive impact in connection with the prescribing doctors presented by the lower number of DRPs detected cases in the second phase of project related to the cases discussed at the seminar.

Discussion and conclusion: The results of such analyses showed that the risks of pharmacotherapy (DRPs) can represent the useful bridge between pharmacist and general practitioners. The positive effect of the educational seminar in terms of reducing risk and enhancing safety of pharmacotherapy has been proved by monitoring the prescribing habits of doctors and by performance of analysis of identified DRPs. Many factors like the size of the village, the structure of patient and personal relationships of physicians and pharmacists have contributed to the positive outcome of this project.

Keywords: drug related problems, safe pharmacotherapy, effective pharmacotherapy, Czech Republic.