

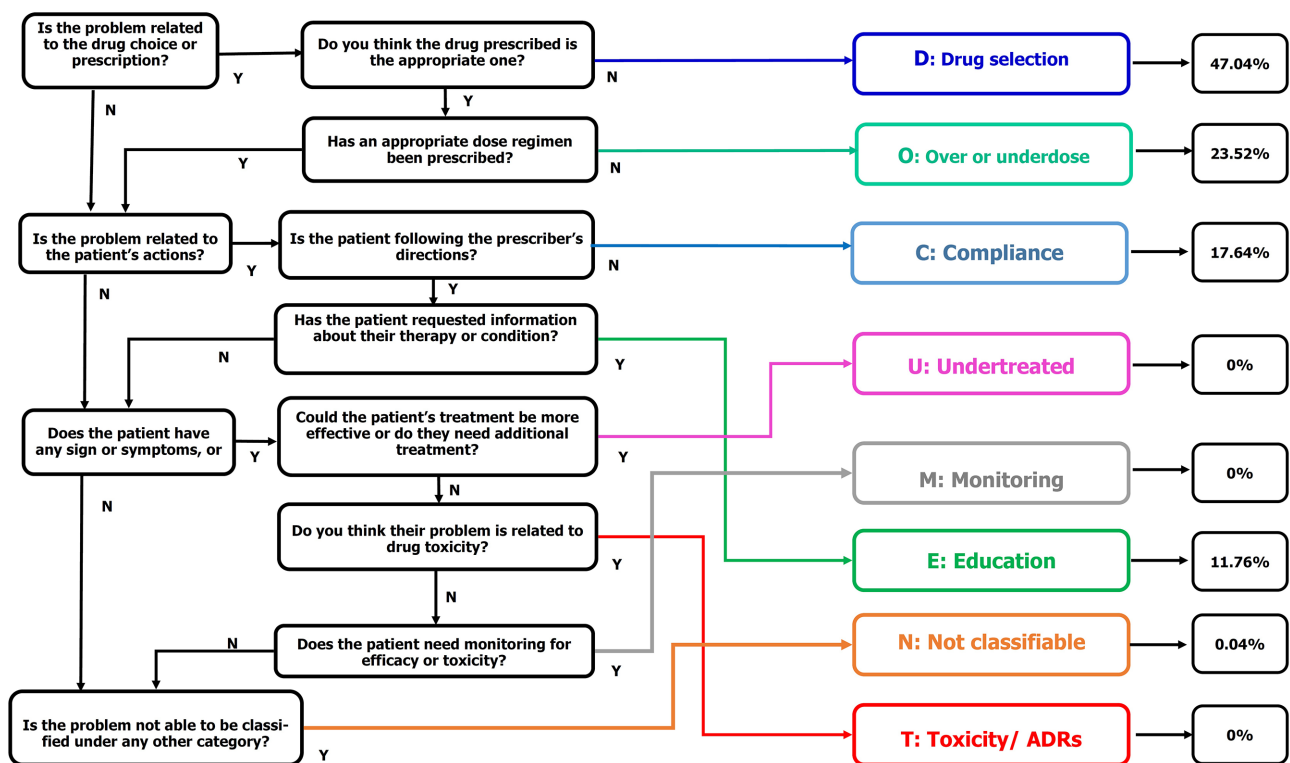
Pharmacist-Physician Organic Cooperation Is an Effective Strategy to Reduce the Medication-related Problems, An Experience in CKD Patients

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Dear Editor,

As almost all patients with chronic kidney disease (CKD) having the criteria of polypharmacy with a complex protocol. It has been evidenced that CKD patients averagely take 10 medications concurrently.¹ Also, several physicians are involved in the patients' care independently. Hence, the risk of Medication/Drug-Related Problems (MRPs) increases. MRPs are defined as "an event or circumstance involving drug therapy that actually or potentially interferes with desired health outcomes".² Regarding abovementioned explanations, it is necessary to detect and solve MRPs effectively. Among studied strategies, pharmacist-led medication therapy management (MTM) services

showed some satisfying results.³ However, up to now, direct and close cooperation of pharmacist and physician in the format of MTM is not studied in CKD patients. For this aim, an educated pharmacist and a nephrologist jointly visited the CKD patients referring to CKD outpatient clinic of Shahid Labbafinejad hospital. This clinic is one of the most known referral nephrology medical centers in Iran. Totally, 100 CKD patients who referred for a routine medical visit participated in this study after signing the informed consent form. The pharmacist reviewed the medications in the first visit and MRPs detected and classified them according to DOCUMENT system.⁴ The pharmacist notified the physician about existing



It determines the flowchart of Medication Related Problems (MRPs) classification according to DOCUMENT system and recorded results (Y, Yes; N, No).

MRPs and discussed to solve or consider them. The pharmacist tried to convince the physician through online evidence-based clinical judgment. Finally, some of the MRPs were solved by accepting the recommendation of a pharmacist or rejecting them. In this regard, 64% of patients had not any MRPs, 25% had one MRP, 6% had two MRPs, and 5% had three MRPs in their medication review. The pharmacist and physician came to an agreement regarding MRPs solving in 90.38% of pharmacist recommendation on detected MRPs. The flowchart of classification and the result of each MRP are shown in Figure.

The findings of this study suggest that the close cooperation of pharmacist and physician has good efficacy to decrease the MRPs in CKD patients. The main advantages of this method are direct and evidence-based organic cooperation with a physician. This method may enhance physician compliance regarding pharmacist recommendation in comparison with traditional written methods. Although this method is time-consuming, the final outcomes reduce the MRPs. Also, the outcome may be a better and more effective individualized treatment. There are some studies which aimed to assess the MRPs in inpatient setting,⁵⁻⁷ however this is the first study regarding pharmacist-physician organic cooperation in the management of MRPs in CKD patients who referred to outpatient clinic through MTM intervention. Promising results of the current study suggest close organic cooperation and consultation of pharmacist with a physician in CKD clinics.

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