Assessment of physicians’ response to text alerts in patients with reduced renal function by using a text message alerting system

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Adverse drug events are mostly dose-dependent and preventable. About 50% of these adverse effects are due to inappropriate dosing especially in patients with renal failure. We aimed to determine the impact of short message alerting on physicians’ drug dosing of patients with decreased renal function. Eighteen physicians accepted to enroll in the study. Their patients who received at least one of the six selected drugs were selected for evaluation. The patients with an estimated glomerular filtration rate of 50 ml/minute or lower were randomly divided into two groups of case and control. An alert was sent to the physician in charge of the intervention (case) group. Physicians’ reactions was recorded as “dose adjustment”, “discontinuation of medication” or “none” and were compared in both groups. The reaction time of physicians before and after receiving alerts was recorded as well. 137 patients entered the study. The study results showed a significant difference in overall changes between the two groups (*** P<0.001). The rate of dose adjustment increased significantly after sending alerts to physicians (*** P<0.001). However, there was not a significant difference regarding discontinuation of medication between groups (P=0.76). On the other hand, prompt reaction of physicians (0-6 hours after sending short message) significantly increased after intervention (* P<0.05). Nevertheless, physicians’ reaction time in 6-24 hours and 24-48 hours was not changed significantly after intervention. The results of this study show that informing physicians about the renal function of the patients leads to appropriate dosing.

Biography
Aida Sefidani Forough has received her PharmD degree from Shahid Beheshti University of Medical Sciences which is ranked as the second best medical university in Iran. Currently, she is the Chief Manager at a hospital pharmacy after a 3-year experience of community pharmacy work. She serves not only as a part of the medical team but also is engaged in tasks such as drug utilization evaluation program, antibiotic resistance program and also is a member of the hospital’s drugs and therapeutics committee. She has one published paper and one under review.

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