Clinical pharmacy service is a unique service in all home health care services in the Middle East

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Introduction: Clinical pharmacy service is a unique service in all home health care services in the Middle East, created a pharmaceutical care plan for better medication therapy management and minimizing drug harm by preventing drug-related problems.

Objective: The impact of clinical pharmacist's interventions on drug-related problems, potentially inappropriate medication (PIM), rate of hospital admission and acceptance rate.

Methods: Clinical pharmacists developed a modified pharmaceutical care plan; detected drug-related problems using Norwegian classification system for about 400 patients under Home Health Care Services (HHCs), retrospectively from December 2013 to February 2014 and prospectively from March to June 2014, focused on drug information programs education for healthcare providers & weekly discussion with multidisciplinary team about drug-related problems from March 2014. The rate of acceptance of interventions and the clinical relevance of recommended interventions were evaluated. Quantitative variable means between two related groups (pre and post interventions) were compared using paired t test. Two sided p-value<0.05 was considered as statistically significant. All statistical analyses were done using SPSS 21.0

Results: Four hundred patients were included, the majority were Qatari females (n=263; 56.8%) with mean age 73±14.4 years, the mean number of medications was 10.3±4.2 ranging from 2 to 24. There was a significant decrease observed in drug related problems at post education programs compared to pre education programs (1.78±1.2 vs. 1.12±1.1; p<0.001). Significant decrease observed in PIM and rate of hospital admissions at post education compared to pre education programs (p<0.05). The most common drug-related problems was unnecessary drugs mostly for proton pump inhibitors (n=100, 15%). The most common type of recommendations concerned adding drug to treatment mostly was for antiplatelet (n=108, 23%). About (n=302, 75.5%) of clinical pharmacist interventions are accepted by a specialist geriatric physician. The clinical relevance of the recommendations assessed as possibly important (n=229, 57.3%), possibly low relevance (n=118, 29.5%), and possibly very important (n=48, 12%), not relevant (n=8, 2%) and adverse significance (n=2, 0.5%).

Conclusion: Findings of the study support the importance of clinical pharmacist position in decreasing drug-related problems, PIM, rate of hospital admissions and enhance patient care in spite of clinical pharmacist limited availability.

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Association between catechol-O-methyltransferase (COMT) Val/Met genotype and smoking cessation treatment with nicotine: A meta-analysis

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COMT is one of the major degradative pathways of dopamine and COMT Val/Met polymorphisms are associated with the enzyme activity, which is related to dopamine involvement in the nicotine addiction process. However, the reported results of several genetic studies are not consistent. We reviewed the smoking cessation outcomes among previously reported studies by comparing COMT polymorphism. A total of five studies were assessed in the present meta-analysis and the Met/Met, Val/Met or Val/Val genotype were compared with respect to smoking cessation outcomes. As the results, any significant association between COMT polymorphism and smoking cessation were not observed. In the subgroup analysis, three studies were assessed for the association between the COMT polymorphism and smoking-cessation treatment with nicotine by comparing two groups (Met/Met vs. Val/Met plus Val/Val). A significant association between COMT polymorphism and smoking cessation was observed (odd ratio=1.871 and 95% confidence interval 1.382–2.534). In conclusion, the COMT polymorphisms are associated with the outcomes following smoking cessation treatment with nicotine.

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