Dental Education 2018: Relationship between Omission, Commission Errors and Number of Drugs Prescribed - Ibrahim Alowayyed-King Abdul-Aziz Medical City Ministry of National Guard Riyadh

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Abstract

Prescriptions are the primary means for communicating medication instructions between prescribers (healthcare professionals) and pharmacists, therefore; the prescription paper should be complete, legible, precise and unambiguous in its interpretation to minimize drug errors. The global number of prescriptions written increases annually, as well as the number of errors, in which there was a large percentage of outpatient paper prescriptions contain one or more errors, resulting in millions of prescriptions with the potential harm to patients . Errors occur in different stages, so every stage of the medication use process (prescription, dispensation, administration, monitoring of a drug) is vulnerable to errors. Errors are an integral part of human life, therefore the classification of the type of error that occurs, based on an assessment of the actions that led to that error, 5 an unintentional action may lead to an error due to a failure of attention (slip) or memory (lapse) and an intentional action may lead to an error due to a failure or lack of expertise (mistake) or a deliberate rule break (violation). Prescribing errors are worldwide highly prevalent problem in the health care system 1, it is often associated with a health professional's inexperience and lack of knowledge regarding the medication in general (dose, frequency, strength, interaction, etc.) and other factors such as tiredness and lapse of memory. In addition to prescription drugs, consumers self-prescribe and take drugs they buy over the counter. Sometimes these drugs can cause an adverse events particularly when taken with other drugs. Dosing errors are the most common type of prescribing error, it is widely recognize in the prescription errors. It is difficult to statistic the errors accurately, many of previous studies use the incident reporting to identify the rate of errors1, but the accurate methods for identify and assessing the types and the rates of prescribing errors are different, but according to previous studies, retrospective review of prescriptions by pharmacists is noted to be the most effective method.

This research is explorative the study conducted in security force hospital in Riyadh, to assess the quality of the medications prescribing in the security force clinics. Population and Sampling Populations The population of this study is all outpatients prescriptions arrive to central pharmacy of security force hospital in Riyadh city. Sampling Procedure The researcher will use the convenience sample method. ResearchInstruments. The suitable tool for collecting information of this study is a prospective reviewing which is selected by the researcher. It consists of 2 parts or sections: Section 1: Evaluate the errors of omissions (Quality of prescription form) by researcher. Section 2: Evaluate the errors of commissions (Errors of drugs writing) by specialist pharmacy. Instrument Validity and Reliability To assure the validity, the following procedures were conducted, first review was made of the relevant literature. And the previous instrument were examined to develop drafts, secondly the method was reviewing by professors specialized in same field. Reliability Collection of Prescriptions Achievement of the research involved a collection of 300 prescriptions form during the work hours from central pharmacy, the prescription will include all departments in the hospital. The study was carried out by visiting the hospital and collecting different prescription from 13-9-2015 to 13-12-2015. All information related to patients and hospitals were kept confidential, also all prescriptions were included without exclusion criteria, being these prescriptions obtained from outpatient. Statistical Treatment The prescriptions will be evaluated into two steps

and then the data was also analyzed using of SPSS version 20 program descriptive and inferential analysis. Each item was scored one or zero with a total score of 16 for evaluate prescription form and 8 for evaluate the drugs prescription errors. If the omission or commission item was present and clear, it was given a score of zero. If it was absent or not readable, a score of one was given.

Prospective cross-sectional study was performed in the security force clinics in Riyadh, The 300 prescriptions were collected from the central pharmacy with convenience sampling procedure to select the prescriptions and the study used a descriptive and inferential analysis to answer the research questions. Results: A total of 759 drugs were prescribed, in which 4118 errors were discovered in the prescriptions (2408 omissions errors, 1710 commissions errors), the most common omissions errors in the prescription under study was omit patient gender, in which nearly all the prescription didn't determine the gender of patients, following by omit name of department 298 (99.3%), the most common commission errors was illegible writing 650 (86%) in the prescriptions under study, following by omit strength of drugs 464 (61.4%), omit route of drugs administrations 417 (55.2%), the most common drugs prescribed through the study periods were analgesics 203 (26.9%) and the second highest category of drugs were antibiotics (antibacterial) 136 (18%), the most common drugs subjected to prescribing errors were analgesic 27.10%, antibiotics 15.20% and bronchodilators 10.70%, there is a strong positive correlation between the number of drugs prescribed and the number of commission errors

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Note: This work is partly presented at 22nd International Conference on Dental Education April 09-10, 2018 held at Amsterdam, Netherlands.