

## Chapter 57

# Patients' Medication Errors: How Patients' Inadequate Information about their Prosthetic Heart Valve Diseases Affects their Healthcare

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### ABSTRACT

*Patients' awareness and informed involvement may reduce the prevalence of patients' errors. The aim of this study is to identify the occurrence of patients' medication errors in one of the leading tertiary care educational superspeciality hospitals in Iran during one year from October 2010 to October 2011. This is a retrospective study. Patients' medical records were investigated to identify the reported errors in taking medication. A total of 140 medical records of patients who were hospitalized in Madani Heart Hospital of Tabriz University of Medical Sciences were investigated. Then the errors were categorized into three groups including: Reporting, Recklessness/adherence, and Preference. Descriptive analysis was used to analyze data. Out of total 140 patients' records, 16 (11%) patient medication errors were identified. Most of these errors were related to communication and reporting followed by non-adherence to the medication prescriptions. The least errors were related to patients' preference. The study suggests that these errors could have been prevented by involving patients in decision making and self-care through information prescription.*

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## INTRODUCTION

In the taxonomy of medical errors, there should be a concept for patient errors, in which patients are known as the cause of errors. Medical errors and even medication errors are not always the mistake of healthcare providers which occur in the hospital or health center on treatment, diagnoses and prescribing stages. Medication errors can also occur by patient (his/her care giver) in any stage of health care pathway. A medication error is known as a failure in the treatment process that leads to, or has the potential to lead to, harm to the patient (Ferner & Aronson, 2006). Medication errors are the single most important preventable cause of patient harm. Medication errors are broadly defined as any error in the prescribing, dispensing, or administration of a drug, irrespective of whether such errors lead to adverse consequences or not. Lack of knowledge of the prescribed drug, its recommended dose, and of the patient details contribute to prescribing errors (Williams, 2007).

Patient error is one of the medication errors that can be prevented, controlled and reduced through patient awareness. Information prescription provides knowledge and awareness to patients and care givers about the importance and role of right and appropriate intake of medication in their healthcare outcomes. Through this awareness patients attain the responsibility for their own health instead of reliance on their prescription. To prevent and control patient errors, it is essential to determine the pattern of errors. The reality is that most of the time, especially in developing countries, medical errors are neither reported nor documented. Therefore, the various types of errors, their prevalence and the causes are unrecognized and repeatable in these countries (Gavvani & Biswas, 2013).

Previous studies have classified errors differently such as physician errors (Runciman et al, 1993; Eldern, 2002) including prescribing, dispensing and administrating errors (William, 2007) and knowledge or rule-based errors (Weingart et

al., 2000). However, none of them identify and classify the patients' errors in which the patient can be recognized as a responsible person harming himself/herself. Buetow et al. (2009) have developed the taxonomy of patient errors with 3-level system encompassing 70 potential types of patient error. The first level classifies eight categories of error into two main groups: action errors and mental errors. The action errors, which result in part or whole from patient behavior, are attendance errors, assertion errors, and adherence errors. The mental errors, which are errors in patient thought processes, comprise memory errors, mindfulness errors, misjudgments, and—more distally—knowledge deficits and attitudes not conducive to health. Gavvani and Biswas also presented a taxonomy for patient errors (2013) in their book i.e. “Information Therapy for Patient-Centered Healthcare: Evidence Based Framework” in which they classified the errors that can happen by patients lack of knowledge, recklessness and poor communication with health providers into three Communication errors, rule based errors, and skill based errors. They have emphasized that “in a holistic approach each and every piece of healthcare system, as a chain, is involved with a good or bad event. Focusing on the health workers alone and ignoring the role of patients in the outcomes is itself susceptible to error. Health consumer specifically the patient who is treated by health provider needs to be actively involved in the care pathway.” The majority of patients' errors are based on their knowledge base besides being categorized in communication, rule and skill base according to Gavvani-Biswas (2013). If patients become informed and knowledgeable about their health, they will actively take the responsibility of their health care. However, there was no taxonomy for patient's medication errors in the literature. Therefore, here we only deal with medication errors that may occur due to patient errors and can be prevented by patients' informed involvement, believing that patients'

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