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**INDO AMERICAN JOURNAL OF  
PHARMACEUTICAL SCIENCES**<http://doi.org/10.5281/zenodo.3560527>Available online at: <http://www.iajps.com>**Research Article****MEDICATION ERROR**<sup>1</sup>Haseena Majeed, <sup>2</sup>Ms. Sana Sehar, <sup>3</sup>Muhammad Afzal, <sup>4</sup>Dr. Syed Amir Gilani<sup>1</sup>Student, The university of Lahore, <sup>2</sup>Assistant professor, The university of Lahore, <sup>3</sup>associate professor. The university of Lahore, <sup>4</sup>Dean faculty of allied health sciences. The University of Lahore.**Article Received:** September 2019    **Accepted:** October 2019    **Published:** November 2019**Definition:***A medication error is any preventable event that may cause or lead to inappropriate medication use or patient harm while medication is in the control of health care professional. (NCC, 2019).***Corresponding author:****Haseena Majeed,**  
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**INTRODUCTION:****Scenario:**

On 15/02/2019 I was assigned in male medical ward as a charge nurse. On that day only two charge nurses were there to take care of patients. It was 6 p.m. I was busy in receiving new admission from emergency and other charge nurse was doing shift medication. There were two patients with same name in the ward. One patient named Arshad Mujtaba 45 years old was admitted with the diagnose of uncontrolled hypertension and the other patient named Arshad Mubarak 38 years old was admitted with the diagnose of acute gastroenteritis.

While doing medication, the staff nurse gave injection ranitidine to hypertensive patient and injection Lasix given to the patient of gastroenteritis mistakenly. After fifteen minutes of medication, the attendant of patient with gastroenteritis came to the staff nurse and said that patient suddenly fall after coming back from washroom. He also stated that it was happened only due to injection. The staff nurse checked vital sign of the patient. The blood pressure of the patient was 60/20. Being a charge nurses we also assured that medication administered wrongly to both patient and in results patient become hypotensive.

Immediately patient shifted to emergency. Doctor checked the patient and advised medicines given to him. After 1 hour of medication patient gets stable. On the other hand the duty doctor asked about the medication which administered to him. I thought for a moment about what to do or say, but by the time I had summoned enough courage to say something, I thought it was too late as patient was already suffered.

On being informed the error my initial feeling were disbelief and horror. Latter, while I assured that this was genuine medication error which put the patient on risk. On the other hand I felt intimidated because I felt that the other charge nurse was also experienced as a charge nurse; and I didn't want to embarrass her. Also, I didn't want to make patient concerned by confronting the doctor in front of him.

Later I discussed this incidence with nursing manager and head nurse of the department. Nurse Manager suggests we need to speak with the charge nurse together for positive change. In results the charge nurse said it happened due to workload and she promised that, I change my practice to avoid drug error occurring in the future. She also said that, I will never let this or any other incident occurs due to lake of concentration again in my practice.

Nurses had to ensure before administering that was giving the medication to the right patient and at the correct dose that it was at the right time and route. All of these had to be done to guarantee that competent in ability to administer medication. This also gave me the opportunity to carry out this task in order to achieve this. I have observed that she has now changed her practice as a result of this incident.

**DISCUSSION:**

Nurses are responsible for patient safety while administering the medication because they are final point of contact. So, nurses should double check the prescription, administration and documentation of each medicine before administering the drug to the each patient (Kim & Bates, 2013).

Nurses should also require education on how to handle workload and prioritize the tasks for the patient safety and to deliver the quality of care to patients. Moreover, they should follow the safe medication practices such as five rights of medication administration as well as they should know the pharmacokinetics of drug before administering such as dose, route, frequency, side effects of drug (Latimer, Hewitt, Stanbrough, & McAndrew, 2017).

Nurses should know important of the five rights of medication administration even though they are in the busy working situation and should not rush to while administering drug to prevent medication errors. Nurses should also double check routine medication order as well as dose thoroughly before administrating of medication to prevent medication errors as well as to deliver the quality of care to patients (Kim & Bates, 2013).

Drug administration forms a major part of the clinical nurse's role. Medicines are prescribed by the doctor and dispensed by the pharmacist but responsibility for correct administration rests with the registered nurse (Hayes, Jackson, Davidson, & Power, 2015).

Nurse-related factors were the most effective factors on medication errors, but nurses are one of the members of health-care providing team, so their performance must be considered in the context of the health-care system like work force condition, rules and regulations, drug manufacturing that might impact nurses performance, so it could not be possible to prevent medication errors without paying attention to our health-care system in a holistic approach (Blignaut, Coetzee, Klopper, & Ellis, 2017).

The most important factors that can be effective on the medication errors in nurses are: fatigue due to high workload, the large number of critically ill patients, doctor's damaged and unreadable orders and the low nurse: patient ratio. The most important causes of medication errors in nurses were the staff deficiency, fatigue due to high workload and high workload in the ward (Hosseinzadeh, Ezate Aghajari, & Mahdavi, 2012).

But proper planning and a monitoring and caring system can reduce the errors and prevent the dangerous results of errors in time of occurrence. Medication errors lead to distrust of the patient and his family toward the healthcare system and also lead to increasing the costs that this problem relates to different causes such as lack of awareness and knowledge and not paying attention to the drug prescription standard (Sutherland, 2013).

Many studies has been conducting to reduce the medication error in hospitals but I prefer to apply Lean Sigma Six process to minimize medication error. To minimize medication errors, enhance patient safety and reduce operational costs, Lean Sigma Six is an effective process that could be applied by health care sectors. Lean and Six Sigma tools play a major role in improving and sustaining the medication process.

DMAIC (Define-Measure Analyze-Improve-Control) method is commonly used in six Sigma methodologies. It has five stages: To Define opportunities, To Measure performances, To Analyze opportunity, To Improve performances and To Control performances.

Define phase is to identify the process that needs improvement. For this study, the nature of the problem determined to be that medication error occurred while administering medicines. In the define phase, baseline data is gained to recognize the incidence of medication errors in the health care sectors.

In Measure phase, baseline data is collected through a data collection sheet. In this phase type of medication error recognized and it is also identified that at which process step the medication error occurred. Measure performance phase focused on the distribution, collection and refinement of the different types of medication errors. In analyze phase, the process is critically analyzed to fix the cause due to which medication errors occurred. The Improve phase mainly involves brainstorming potential solutions. It also involves best risk reduction opportunities, testing and evaluating the implemented actions. The purpose of control phase is to sustain the improvement obtained from previous process. (Al Kuwaiti, 2016).



**Recommendation:**

Recognizing areas for improvement is a positive rather than a negative realization. All people make mistakes, and there are many situations that people wish that they had approached differently. However,

it is by critical reflection and retrospective analysis that the most effective learning occurs. This is greatly enabled with the aid of a sympathetic nursing manager, who can bolster the physical and emotional knowledge acquisition of subordinates.

As a result of this incident, I realized that nurses should attend an education and training to be a competent and confident nurse to perform safe medication administration practice for patient safety. In the future, I aim to be more proactive in dealing with a situation face on regardless of my role within the team or level of experience.

Moreover, I will address the needs and alter how I approach a patient in the future by ensuring that I use the different methods of communication and undertake some independent research on their specific needs; the information of which I can use in my nursing practice.

#### REFERNCES:

1. Blignaut, A. J., Coetzee, S. K., Klopper, H. C., & Ellis, S. M. (2017). Medication administration errors and related deviations from safe practice: an observational study. *Journal of Clinical Nursing*, 26(21-22), 3610-3623.
2. Hayes, C., Jackson, D., Davidson, P. M., & Power, T. (2015). Medication errors in hospitals: a literature review of disruptions to nursing practice during medication administration. *Journal of Clinical Nursing*, 24(21-22), 3063-3076.
3. Hosseinzadeh, M., Ezate Aghajari, P., & Mahdavi, N. (2012). Reasons of nurses' medication errors and persepctives of nurses on barriers of error reporting. *Journal of hayat*, 18(2), 66-75.
4. Kim, J., & Bates, D. W. (2013). Medication administration errors by nurses: adherence to guidelines. *Journal of Clinical Nursing*, 22(3-4), 590-598.
5. Latimer, S., Hewitt, J., Stanbrough, R., & McAndrew, R. (2017). Reducing medication errors: Teaching strategies that increase nursing students' awareness of medication errors and their prevention. In: Elsevier.
6. Sutherland, K. (2013). Applying Lewin's change management theory to the implementation of bar-coded medication administration. *Canadian Journal of Nursing Informatics*, 8(1-2).
7. Al kuwaiti, a. (2016). application of six sigma methodology to reduce medication errors in the outpatient pharmacy unit: a case study from the king hahd university hospital, saudi arabia. *international journal for quality research*, 10(2).