

Global Pharmacovigilance 2018: Medication prescribing errors in the medical intensive care unit - Oumer Sada - Tikur Anbessa Specialized Hospital.

Oumer Sada¹

¹Tikur Anbessa Specialized Hospital, Ethiopia

Abstract:

Pharmaceutical care is the responsible for the facility of drug therapy for the purpose of realizing definite outcomes that is improve patients the quality of the life. Any suboptimum treatment leads to the medication error. Medication errors are defined as any unnecessary event that may cause or lead to the inappropriate medication harm or usage the patient, while in the control of the health care expert, patient or consumer. High error rates with the serious consequences are mostly liked to occur in intensive care units (ICUs) but errors are minimized in the presence of intensivists. Various studies have been carried out to find out the impact of MEs but the issue are established maximum attention in the immediate years after the Organization of Medicine (IOM) report 1999 was published.

Prescribing errors was the serious care units are serious, frequent and expected; for the meantime these patients are prescribed twice as many medicines as patients outside critical care. In the ICU, patients experience 1.7 errors per day and nearly all they suffer a potentially life threatening error at the some point during their stay than patients in other hospital districts due to their reduced physiological reserves which increase the risks of harm from medication related errors. However, there is wide difference in the meaning of errors and the methods used to detect them.

literature has long maintained the concept of pharmacist participation in the prescribing stage of the medication orders, aiming to reduce the number of prescribing errors Few epidemiological data are available regarding the occurrence and the type of causes MEs in ICUs of developing countries including Ethiopia. This study focused on prescribing errors because, prescription is hand written and susceptible to error during prescription writing process and the absence of any system to support and care suggesting physicians who are the typically trust on their memory to the ensure correct prescribing practice.

Methods:

This study was lead in the medical ICU of TASH. It is the main and Largest specialized hospital in Ethiopia, offers a tertiary level to transfer treatment with over 700 beds and serves as the training centre for the student and the postgraduate medical students, nurses, midwives, dentists pharmacists, radiology scientists, medical laboratory technologists and others who shoulder the health problems of the civic and the country at large.

All medication prescribing interventions by the all recommending physicians for patients admitted to the medical ICU of TASH during the one year period were included in the study. Patients with age 12, irrespective of diagnosis and gender all

who was admitted in the medical ICU in the one year period and given medication were included. Patient cards and medication charts with misused variables, incomplete information, lost cards and with no medication order were accepted from the study.

Potential clinical consequence:

A four scale unambiguous organization system was developed including the following categorie potentially fatal, potentially serious, potentially significant and potentially non-significant. Definitions of the possibly fatal and possible serious errors were in the accordance with international definitions of possible. The principal investigator and one of the internist classified in these errors in these 4 categories.

Ethical considerations:

This study was official by the Ethical review board of the School of pharmacy, Addis Ababa University). The collected data to use in the exclusively by the researchers, assuring the secrecy of the information obtained.

Discussion:

The rate of the prescribing errors found in this study (40.7 %) is a comparatively low frequency compared to the results of a recent study done in medical ICU of Jimma University Specialized Hospital (JUSH) involving 69 patients with error rate of the 52.5 % .While, comparing this result with those from a study by Bates by using observational method in an adult patient population, our education had a higher rate of medication errors .The systematic review the of ME incidence in different ICU types have to found a wide variation in reported rates of MEs. The difference could be due to the differences in definitions of errors, methods used to the detect errors, level and the type of ICUs, level of the prescribing physicians and availability of facilities for patient care

Concerning the error types is the most common types of medicine prescribing errors were oversight of dose, frequency, route (42.89 %) it was the wrong combination of drugs (28.13 %) of which 57 (15.88 % were drug interactions and 44 (12.26 %) duplication errors, wrong contractions (13.37 %), dose error [8.36 % over dose (3.89 %) and under dose (4.46 %)], wrong the frequency (5.01 %) and wrong indication (2.23 %). The present study was indicated that with the omission and combination errors account for about 71 % of the entire error types. This result is advanced than the discovery of the study from Jimma (49.5 %). High number of the omission and mixture errors might be the attributed to the documentation problem, high turnover of prescription episodes and absence of any system to support prescribing physicians, who usually rely on their memory

Finally, it should be noted that errors during prescription writing the process due to the documentation problem might have been interrupted by prescribing physician with the informal orv oral communication with the nurse. The use of the guidelines rather than clinical opinions to determine the error must also be noted.

Conclusions:

The present study was establishes that prescribing errors were highly prevalent in the ICU of TASH. The errors reported in this study clearly show that there are multiple causes for advising errors in the ICU of TASH. Approximately one-third of the errors were potentially significant. Oversight errors are the most common to follow by wrong combination errors. Cardiovascular drugs were the classes with the high error rate followed by antimicrobials. In of Age and poly-pharmacy were the strongest predictors of suggesting is error. These results can be used to improve the quality of the health care delivery. Hospital managers should strive to create the better awareness about the possibility of medication errors at the prescribing phase among health care professionals. More prospective study involving the other components of medication error is also recommended.