Abstract

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A pharmacoepidemiological approach to evaluate drug-drug interactions in a specialized stroke unit in Pakistan

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Abstract

Stroke is one of the common diseases responsible for morbidity and mortality worldwide. (Mukherjee and Patil) It is a problem in both developed and developing countries despite advancements in its treatment and management through drug therapy or surgical intervention. (Murray and Lopez) Drug interactions in stroke patients present a unique challenge as the patient's already critical condition makes concomitant drug administration risky. The main aim was to determine the prevalence of potential drug-drug interactions in stroke unit, and to identify clinically significant drug-drug interactions which have the potential to produce adverse drug events. One year cross-sectional study was carried out in a stroke unit of a tertiary care hospital. Patient medication charts were evaluated for potential drug-drug interactions and clinically significant potential drug-drug interactions using Micromedex DrugReax. Statistical analysis of the data was carried out using IBM SPSS Statistics for Windows, Version 20. A 70.8% prevalence of potential drug-drug interactions was observed in the patients of stroke unit. Furthermore, patients with cerebrovascular accident presented with a high risk of potential drug-drug interactions. Clinically significant interactions were present in 58.2% patients which was attributed to 58 drug pairs. Logistic regression analysis revealed that patients prescribed 6 or more drugs or of age 40 years or more were 6 and 4 times significantly more likely to have a drug-drug interaction respectively. A high prevalence of potential drug-drug interactions especially clinically significant interactions was present in stroke unit and could be avoided by management of a limited number of drug pairs.

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Biography

Faisal Shakeel has completed his PhD at the age of 30 years from Department of Pharmacy, University of Peshawar, Pakistan. He is one on the youngest PhD holders from the department. He also is one of the pioneers to start research in the field of pharmacy practice in Pakistan. He organized a team and made way for the establishment of the first Drug Information and Poison Control Center in the province of Khyber Pakhtunkhwa, Pakistan, which served its purpose and benefitted many health professionals as well as the general public. He also has multiple papers in reputed journals.

