



Pharmaceutical Care Research Group, University of Basel.

Drug Associated Risks: The Quest for Risk Factors.

Master Thesis in Pharmacy 2012.

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Abstract.

Introduction and Objectives: Drug-related problems constitute a frequent issue among hospitalised patients. As a part of drug-related problems, medication errors appear in about 5% of all drug administrations during hospital-stay, 6% of all hospitalised patients experience an adverse drug event, and a median of 46.5% of the adverse drug reactions are judged to be preventable. These circumstances eventually lead to an increased duration of hospital-stay with higher costs for the hospital and the society and to higher rates of fatalities. If the risk factors for medication errors and preventable ADEs were known, they could guide preventive measures, which would help to lower their occurrence rate. The goal of this master thesis is the determination of risk factors which contribute to the occasion of drug-related problems as a part of the development process of a screening tool.

Methods: A triangulation process of 3 methods was realised: An expert panel was conducted, using the nominal group technique and qualitative analysis, to gather risk factors of drug-related problems, the literature was searched for supplementing risk factors, and a Delphi panel was realised to select the risk factors for the planned screening tool. The nominal group comprised a disciplinary mix of ten practitioners in healthcare, including pharmacologists, hospital and general physicians, nurses, community pharmacists and clinical pharmacists. The Delphi panel was composed of the same participants.

Results: The nominal group resulted in 33 items with additional 14 risk factors from the qualitative analysis of the discussions. The literature search delivered another 39 unique risk factors. The 86 risk factors were refined to produce 42 statements for the Delphi exercise. Of these, 28 risk factors were judged to be “important” or “rather important”.

Conclusion: We were able to determinate 28 risk factors which contribute substantially to the occurrence of drug-related problems. The triangulation process enhances the accuracy of our findings and the use of expert panels ensures their practice-orientation. The gathered risk factors provide the basis for a planned screening tool which will assess the risk of drug-related problems.