

Risk-based Approach to Inappropriate Prescribing

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INTRODUCTION

The use of medications is an integral part of healthcare and if used inappropriately may lead to situations where the risks outweigh the benefits.⁽¹⁾ Appropriate prescribing may be assessed through patient outcomes and assessing treatment benefits versus risks. Medical errors result in consequences where patients suffer increased morbidity and mortality.⁽²⁾ Assessing the risk associated with inappropriate prescribing is important to help assure patients of appropriate treatment.

AIMS

- To evaluate and quantify the risks of medication errors

METHOD

A Medication Error (MedErr) documentation sheet was developed and validated by five people; three pharmacists; two working in the community and one working in the pharmaceutical industry, one general practitioner and one lay person.

Private prescriptions presented to the pharmacist during observational studies carried out were analysed and implemented within the MedErr sheet, and categorised to facilitate their quantification.

Ten cases, based on the level of the researcher's perceived risk, were presented to a focus group comprising of six pharmacists and six general practitioners.

A 5x5 risk matrix, comprising of the severity of consequences and probability of the risk occurring was filled in by the focus group and a risk priority number (RPN), which is the product of severity and probability, was obtained.

RESULTS

The focus group made use of a risk matrix to rank risks. The risk matrix represents severity and probability which were rated on a 5-point Likert scale, with a RPN of 1-5 denoting a low-risk score, 6-15 a medium-risk score and 16-25 a high-risk score (Table 1).

Table 1: Risk Priority Number

Risk Rating Score	Colour Code	Level of Risk
1-5	Green	Low
6-15	Yellow	Medium
16-25	Red	High

Twelve members participated in the focus group. From the 10 medication errors presented to the focus group, 5 of the errors were considered to be of high risk by 5 or more of the participating members.

Table 2 shows the risks that the focus group classified as being high (>16).

Table 2: Errors classified as High Risk (>16) by healthcare professionals (N=12)

Type of Error	Example	Number of Healthcare professionals
Error in Naming of Drug	Prescription: Co-amoxiclav 1g - once daily for 3 months ↓ Prescription should have read amitriptyline 10mg once daily for 3 months	7
	Prescription: Flupentixol 0.5mg stat and miconazole cream BD for seven days ↓ Prescription should have read Fluconazole 150mg stat	6
Drug- Drug Interaction	Prescription: ranolazine 500mg and clarithromycin modified release once daily for 7 days ↓ Contraindicated	5

CONCLUSION

Pharmacists can help through their knowledge of medicines to identify medication errors and associated risks, and can contribute within a multidisciplinary team to provide mitigation strategies to improve patient safety.

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