

A CLINICAL PHARMACIST-LED MEDICATION RECONCILIATION SERVICE IN GERIATRIC PATIENTS UPON ADMISSION TO HOSPITAL

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INTRODUCTION

At the points of admission and discharge from hospital, patient or medication-related factors such as older age and an increased number of drugs can lead to medication errors.¹ In 2006, the World Health Organisation initiated the High 5s Project where it recommended medication reconciliation to prevent medication errors at transition points.²

OBJECTIVE

To implement and evaluate a clinical pharmacist-led medication reconciliation service in geriatric patients upon admission to hospital, in terms of frequency, type and potential severity of the medication errors identified.

METHOD

Phase 1 - Medication reconciliation interview

The research pharmacist recorded the best possible list of all the medications the patient was taking upon admission to hospital. Sources of information used were the patient, carer, medication sheets, entitlement cards, medication packages and discharge letters. This medication list was then compared with the drug history initially recorded by the physician in the patient's hospital medical record. Any discrepancies between both records were considered as medication errors. Finally, the physician was contacted to make the appropriate changes.

Phase 2 - Classification of medication errors

The research pharmacist classified the medication errors according to their type - drug, dose, frequency, form, therapeutic duplication and drugs without indication. Medication errors were also classified by therapeutic group as stated in the WHO ATC classification system.

Phase 3 - Severity rating

Two clinical pharmacists collaboratively rated each medication error for its potential severity using the NCC MERP Index. These were followed by two specialist trainee physicians, who also rated collaboratively. Disagreements between the pharmacists and physicians were independently re-rated by a fully specialised geriatrician to acquire the final potential severity rating.

RESULTS

- 154 medication reconciliation interviews were conducted. The frequencies of the information sources used are illustrated in Figure 1.
- 136 (88.31%) patients had at least 1 medication error. In total there were 498 errors (mean of 3.23 errors/patient). The most frequent type was drug omission (n=252, 50.60%).
- The therapeutic group with the highest number of errors was the alimentary tract and metabolism (n=132, 26.51%).
- With regards to severity, 208 (41.77%) of the medication errors were rated as potentially requiring monitoring or intervention to prevent harm while 33 (6.63%) had the potential to cause harm (Figure 2).
- Medication errors were found to be correlated with the number of drugs at admission and total number of information sources used ($p < 0.05$).

Figure 1: The frequencies of the information sources used

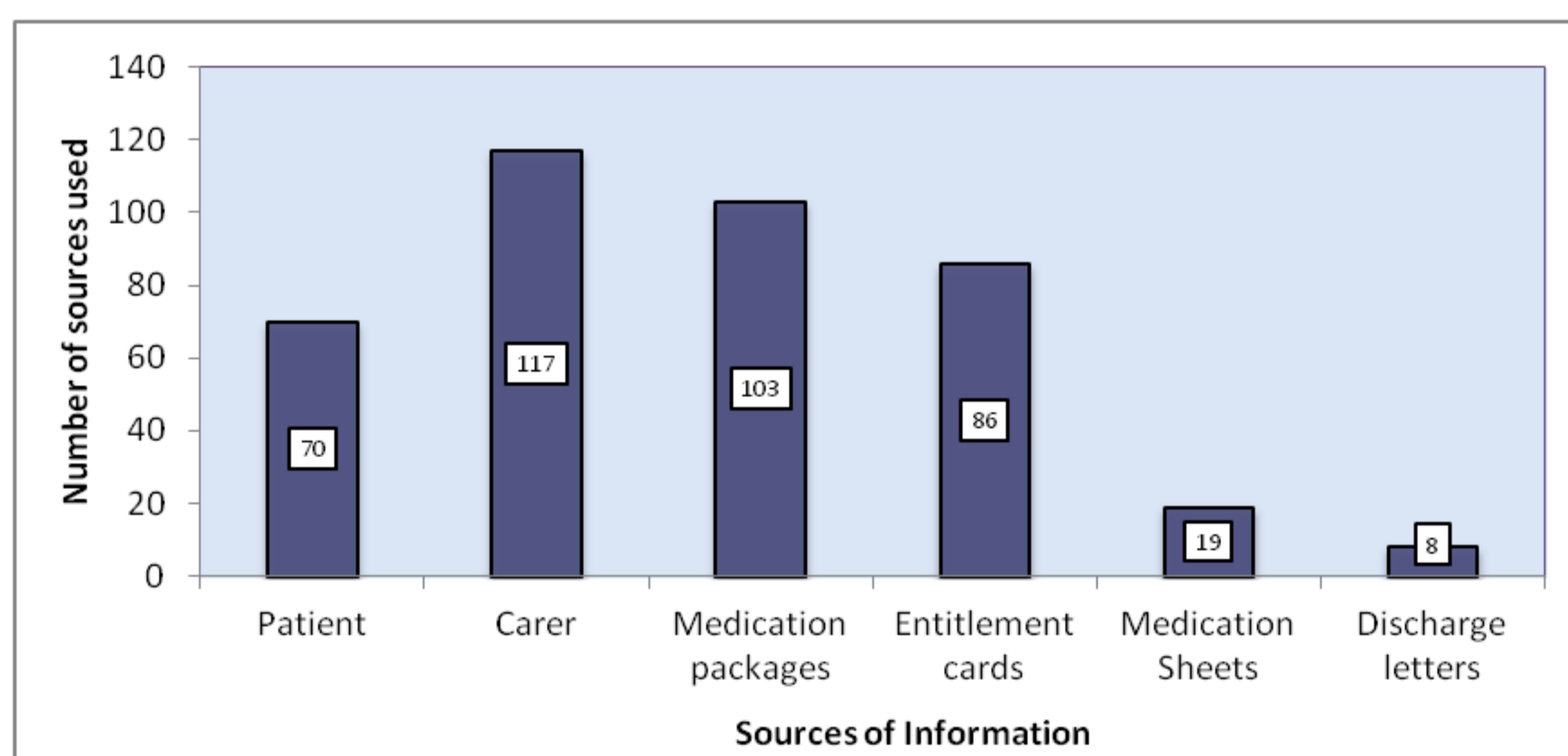
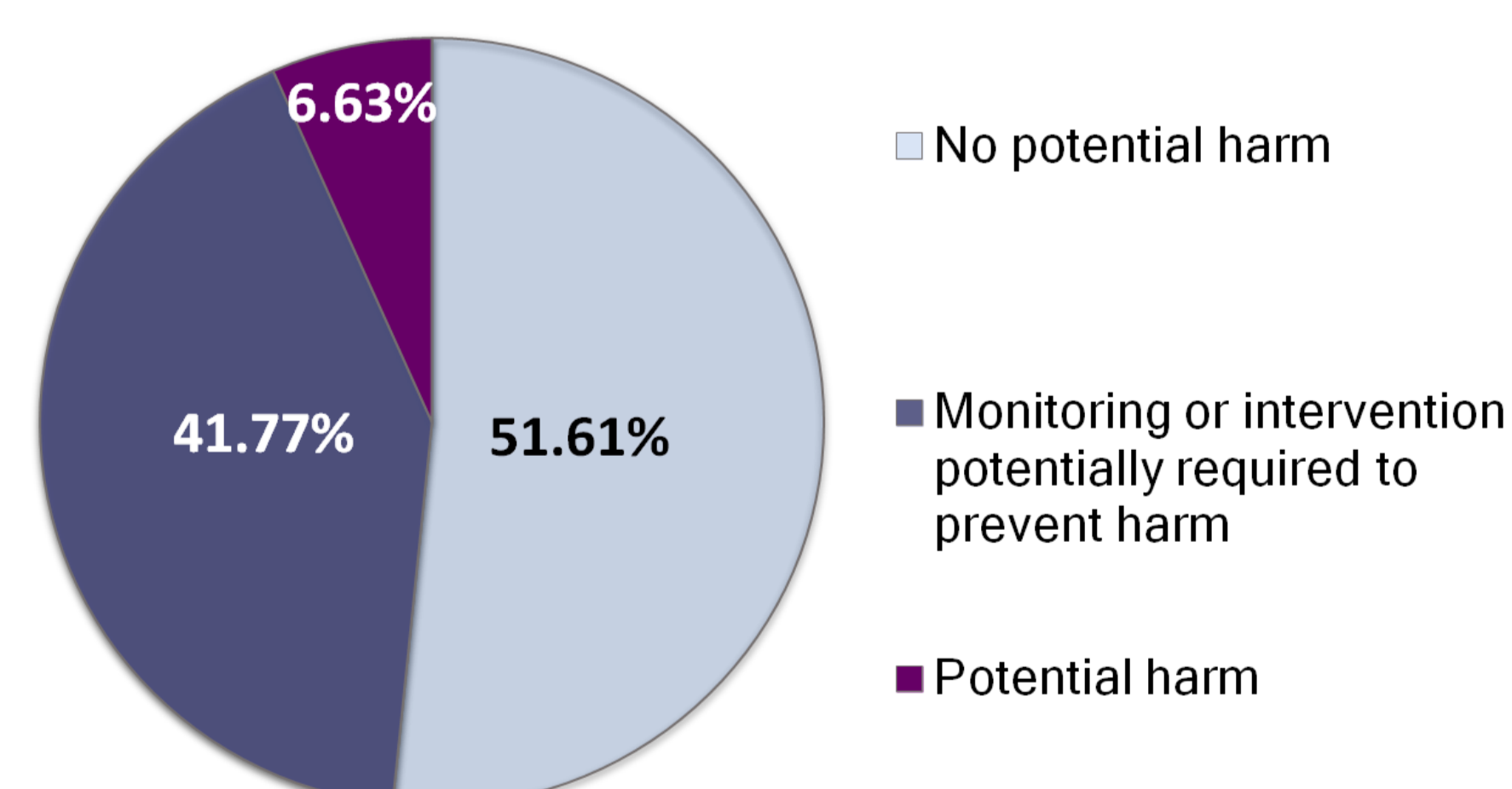


Figure 2: Severity rating of medication errors (N=498)



CONCLUSION

A clinical pharmacist-led medication reconciliation was an effective procedure to identify and resolve medication errors. Results obtained formed the basis for the development of such a service to optimise patient care and safety. This study showed that using various sources of information helped to produce an accurate list of all the drugs a patient was taking. Patients who benefited the most were those consuming the highest number of drugs.

REFERENCES

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