

INTRODUCTION

In any hospital, a drug distribution system is needed in order to dispense the drugs to every patient. A measure of the quality of any drug distribution system is the incidence of medication errors.¹

A system that limits risks of medication administration errors (MAEs) is desired. Direct observation studies are an effective and accurate way of detecting MAEs and examining their nature.²

AIM

To compare the current drug administration systems at a rehabilitation hospital (RHKG) and an elderly residence (SVPR) by identifying and measuring the incidence of medication administration errors.

METHOD

SVPR uses a ward pharmacy system where drugs are sent in bulk from the pharmacy store to the ward stock where the nurse prepares the medicines. The nursing officer then administers the drugs to the patients. RHKG uses an individualised system where after reviewing the ward prescription record sheet, the pharmacist prepares the medicines for each patient which is then administered by the nursing staff. An observation sheet developed by Meli (2011) for use at RHKG was adopted, re-evaluated and re-validated by 3 pharmacists.

A prospective direct observation study was set up which involved observing nurses during treatment administration for a period of 2 months. Eight wards from RHKG and SVPR were visited. Morning and evening sessions were chosen with 30 observations done for both RHKG and SVPR giving a total of 60 observation sessions.

All data was recorded on the sheet during administration and then compared with what was prescribed on the treatment chart. Any discrepancies were noted as MAEs. The medication error rate was found and the data was analyzed using PASW® version 18.

RESULTS

At RHKG, 625 opportunities for error were encountered with a medication error rate of 48.9% (95% CI 46.5% and 54.3%). The most common errors were 'drug left next to the patient' (28.6%; n=90), 'oral medications not administered with recommended fluid' (26.7%; n=84) and 'wrong time (\pm 45mins)' (23.8%; n=75).

At SVPR, 829 opportunities for error were encountered with a medication error rate of 72.9% (95% CI 70% and 75.8%). The most common errors were 'wrong time (\pm 45mins)' (62.7%; n=379), 'oral medications not administered with recommended fluid' (25.2%; n=152) and 'more than one medication crushed in the same container' (29.6%; n=179).

At both RHKG and SVPR, the majority of MAEs were that of solid dosage forms with a 30.0% (n=234) and 69.8% (n=546) error rate respectively.

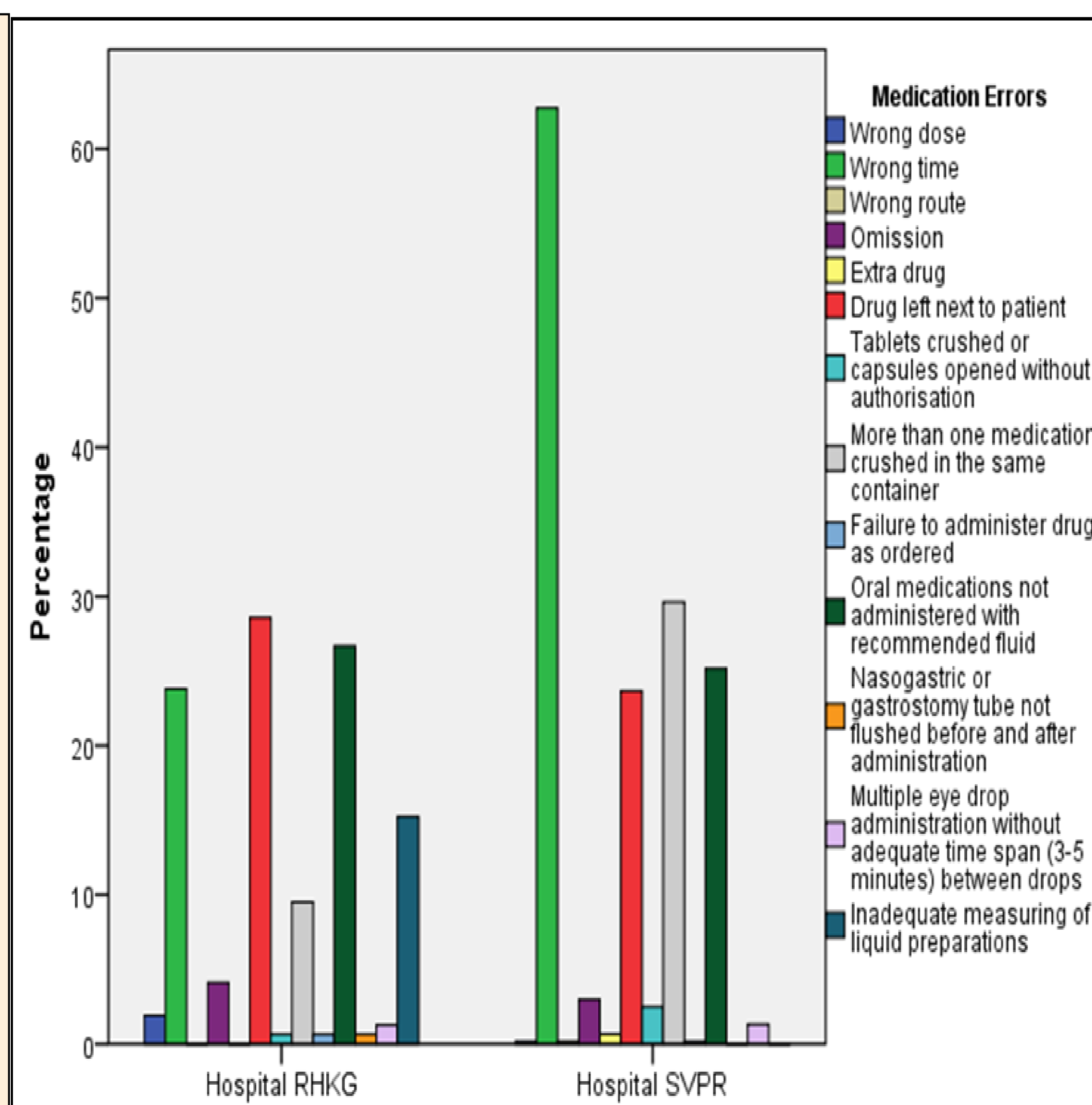


Figure 1. The comparison of the type of medication errors encountered at both RHKG and SVPR.

CONCLUSION

MAEs were common and their identification could lead to the improvement of drug administration systems at both institutions. There was a difference in the medication error rate at both hospitals showing that SVPR can acquire suggestions from the drug administration system at RHKG where a strong pharmacy service is being carried out.

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References

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