Impact of a ward-based clinical pharmacy service in reducing drug-related hospital re-admissions in patients with chronic non-communicable diseases: evidence from a controlled trial in Sri Lanka

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Introduction and objectives: Literature showed that pharmacists' interventions helped to reduce drug related hospital re-admissions. The objective of this study was to determine the impact of a ward-based clinical pharmacy service on drug related hospital re-admissions in Sri Lanka.

Method: This was a part of a controlled trial conducted in a tertiary care hospital in Sri Lanka to evaluate the clinical pharmacy service. The intervention group (IG) received a clinical pharmacist's service in addition to the standard care provided to control group (CG). The pharmacist performed a prospective medications review of patients with chronic non-communicable diseases during hospital stay and made recommendations to the health care team when appropriate. At discharge reconciliation of discharge prescription was done. Patients were educated about discharge medicines to improve knowledge and compliance. Both groups were followed up monthly for six months to identify drug-related hospital re-admissions.

Results: Of 137 drug-related re-admissions, 93 (involving 87/356 patients) were from the CG, and 44 (involving 42/361 patients) were from the IG ($P < 0.001$). Non-compliance was the main reason for re-admissions in the CG. Significantly higher incidence of non-compliance per patient were recorded in CG (CG vs. IG: 13.8% vs. 4.2%; $P < 0.001$). There was a significantly higher percentage of re-admissions per patient in the CG due to unintentional omission of drugs on discharge prescription (CG vs. IG: 4.5% vs. 0.3%; $P < 0.001$). The percentage of re-admissions per patient due to adverse drug reactions was similar in the two groups.

Conclusion: The ward-based clinical pharmacy service is useful in reducing drug related hospital re-admissions in patients with chronic non-communicable diseases.