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A Pilot Cohort Study: The Impact of Pharmacist Interventions on Reducing Medication Discrepancies, Drug-Related Problems and Improving Drug Compliance of Medical Rehabilitation Patients

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Introduction

Polypharmacy is common in geriatric patients which is associated with the risk of medication discrepancies at the transfer of care, drug-related problems due to possible drug interactions and problematic drug compliance. Studies have shown the role of pharmacist in performing medication reconciliation and review during ward admission, and in conducting discharge counseling and education to improve medication compliance in elderly patients. This pilot prospective study was based on streamline pharmacist interventions in a male medical rehabilitation ward in Caritas Medical Centre.

Objectives

It was to evaluate the impact of pharmacist interventions on medication discrepancies, drug-related problems and drug compliance in medical rehabilitation patients.

Methodology

Patients who resided at home and did not receive home support service from the Integrated Care & Discharge Support were recruited. Pharmacist conducted medication reconciliation on admission and medication review for each recruited patient during hospital stay. Doctor's acceptance rate on pharmacist recommendations was calculated. During discharge, recruited patients were assigned to either the intervention group or the control group. Intervention group patients received discharge counseling and education conducted by pharmacists in addition to the usual hospital discharge care; whilst control group patients underwent usual hospital discharge care only. One-week post-discharge medication compliance was measured as the primary outcome through telephone interview using a standardized questionnaire. Secondary outcome was defined as patient satisfaction to the discharge service.

Result

During the 19-week study period, 197 patients were recruited to Medication Reconciliation and Medication Review. Pharmacist made 78 and 57 interventions for unintentional medication discrepancies and drug-related problems; doctor's acceptance rate was 60.3% and 66.7%, respectively. Sixty-six patients participated in Discharge Counseling and Education in which the intervention group demonstrated a significantly higher number of patients with high compliance level, compared to the control group. Patients were more satisfied with the discharge service involving pharmacist counseling and education with statistical significance. In addition, results in patient satisfaction survey called for pharmacist counseling service to help patients combat difficulties encountered when taking their medications.

Pharmacist interventions reduced unintentional medication discrepancies and drug-related problems. Discharge counseling and Education significantly improved patients' one-week post discharge medication compliance and patients' satisfaction to the hospital discharge service. This study suggested that pharmacist had a role to enhance medication safety and patient medication adherence in geriatric medical rehabilitation patients.