Impacts of Pharmacist Interventions at In-patient Discharge on Readmission Rate in Geriatric Patients in a Medical Ward
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Keywords:
Pharmacist Interventions
Readmission Rate
Geriatric Patients

Introduction
The Medication Reconciliation Service in a medical ward has been started for patients aged ≥ 70 in Prince of Wales Hospital since January 2014. Patient drug compliance was assessed by clinical pharmacist. As many as one-fourth (26%) of the patients were found to be non-compliant in an evaluation conducted in 2014/15. Non-compliance with medications is associated with exacerbation of Congested Heart Failure (CHF) or Chronic Obstructive Pulmonary Disease (COPD) which are the most common conditions leading to hospital admissions. Strategies to empower patients with CHF or COPD to prevent future drug misadventure post-discharge have been initiated since March 2015.

Objectives
This project aims to examine the impacts of these strategies by clinical pharmacist on the rate of hospital readmission.

Methodology
Patients aged ≥ 70 admitted with CHF and/or COPD exacerbations to a medical ward and were receiving at least 5 chronic medications on admission between May 2015 and April 2016 were included in this study. Clinical pharmacist intervention at the point of patient discharge consisted of verification of the discharged medication orders against patient’s most updated medication regimen during hospital stay for completeness and appropriateness. For discharged home cases, bedside face-to-face medication counseling is provided to patients and/or their caregivers. For those patients who are discharged outside the service hours, telephone counseling by pharmacist is arranged the next day after discharge. Follow-up phone calls are arranged to reinforce medication compliance at 2-4 weeks post-discharge for the identified non-compliant patients. For patients residing in old-aged home (OAH), medication information focusing on the change(s) of medication regimens (switch of medications, dosage increase or decrease) is
delivered to patient’s caregivers in OAH on telephone.

**Result**
A total of 131 patients (mean age 83 years, male 61%) were included in the study. The mean number of medications received was 8.1 and 21% of them resided in OAH. Both all-cause unplanned readmission rates within 30 and 90 days of discharge are lower in intervention group (34% vs. 41% for within 30 days of discharge, 59% vs. 70% for within 90 days of discharge) compared to control group. More patients in the control group (51% vs. 43.9%) were readmitted due to exacerbation of CHF and/or COPD. Pharmacist intervention in Medication Reconciliation Service has a potential positive impact on reduction of hospitalization within 30 and 90 days post-discharge in geriatric patients with CHF and/or COPD.