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The Impact of a Targeted Approach on Pharmacist-Led Medication Reconciliation Service in Surgical Wards

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Introduction

Medication errors are prevalent upon transitions of care during hospital stay. Clinical pharmacist involvement in medication reconciliation has been shown to enhance medication safety by identifying and rectifying medication errors. Surgical patients are particularly at risk due to transfer of patients in and out of operating theatre, change of medications before and after surgical intervention and frequent use of high risk medications. However, upon expansion of service, pharmacist involvement at all stages of the reconciliation process for every patient may not be feasible. This study evaluated a targeted approach in selecting high-risk patients in an effort to reduce unintended medication discrepancies.

Objectives

To determine the percentage of incidence and the severity of unintended medication discrepancies before and after targeting high risk patients in surgical wards.

Methodology

This was a single-centre, pre-post intervention study conducted at the surgical wards in the United Christian Hospital. High-risk patient criteria include at least one of the followings: 1) Patients older than 65 years of age; 2) Concurrent use of five or more regular medications; 3) An active order of anticoagulants, insulin or dual antiplatelets. High risk patients were recruited for pharmacist-led medication reconciliation service. Drug-related problems were documented according to Pharmaceutical Care Network Europe (PCNE) version 6.2. Following institutional review board approval, pre-intervention data (From ward A) were collected retrospectively over 3 months from December 2013 to February 2014; while post-intervention data (From ward A and B) were collected prospectively over 3 months from December 2014 to February 2015. The potential severity of the unintended medication discrepancies were rated

by pharmacists and classified into 3 levels according to NCC MERP index.

Result

A total of 1183 and 1033 cases in the pre-intervention and post-intervention group were screened respectively. When comparing the pre-intervention (Ward A) and post-intervention group (Ward A and B), the percentage incidence of unintended medication discrepancies increased from 5.32% to 7.35% (p-value 0.056). Statistical significance was shown when comparing ward A patients only, the percentage of incidence increased from 5.32% to 8.15% (p-value 0.021). There was no statistically significant difference in terms of the severity level of medication discrepancies between pre-intervention and post-intervention group (Ward A and B: p-value 0.295; Ward A only: p-value 0.388).

Targeting high risk patients in medication reconciliation process in surgical wards is a feasible approach given limited time and resources for pharmacists, resulting in a higher percentage of incidence of unintended medication discrepancies being detected, although the detected severity level of the discrepancies may not be altered.