



## Service Priorities and Programmes Electronic Presentations

**Convention ID:** 562

**Submitting author:** Ms Chung Yuet May YU

**Post title:** Pharmacist, Queen Elizabeth Hospital, KCC

### **Implementation of Pharmacist-managed Medication Review and Reconciliation Service in Orthopaedic Wards in Queen Elizabeth Hospital**

*YU CYM(1), LEUNG WYS(1), CHUNG WFK(1), KEI KMC(1), LAW KY(2), CHAN PH(2), WONG PYE(2), YEUNG E(2), LI W(2)*

*(1)Pharmacy Department, (2)Department of Orthopaedics and Traumatology, Queen Elizabeth Hospital*

#### **Keywords:**

Medication reconciliation

Drug-related problem

Medication review

Orthopaedics

Pharmaceutical care

#### **Introduction**

Unintentional medication discrepancy during transition of care and drug-related problems (DRPs) could contribute to adverse drug events in hospitalized patients. Previous literature demonstrated the positive impact of pharmacist-led medication reconciliation, mostly in medical or geriatric units. In 2014, pharmacist-managed prescription screening and medication reconciliation service was introduced in two orthopaedic wards in QEH.

#### **Objectives**

This study aimed to investigate the impact of new clinical pharmacy service in orthopaedic wards.

#### **Methodology**

For 2 hours every weekday morning, a pharmacist and an intern pharmacist performed medication reconciliation at points of admission, discharge and transfer. Patients with  $\geq 5$  chronic medications were included in admission reconciliation. New drug orders were screened for any clinical DRPs. For each unintentional discrepancy and DRP identified, interventions would be proposed to the physicians or nurses. The clinical significance of interventions was rated by two clinical pharmacists not involved in the service, using the literature-based scale reported in American Journal of Health-System Pharmacy. DRPs were classified using the Pharmaceutical Care Network Europe Classification V6.2.

#### **Result**

From 10 June to 28 November 2014, 348 and 428 patients underwent medication reconciliation at admission and discharge/ transfer respectively. Forty seven (13.5%) and 49 (11.5%) patients had at least one unintentional medication discrepancy identified. The commonest type of unintentional medication discrepancy was omission

of chronic medications. Among the total 162 discrepancies identified, 69.1% were rated as clinically significant. It was estimated that only 6.8% of all discrepancies were identifiable during prescription vetting in main pharmacy. Using multivariate regression analysis, patients with >12 chronic medications were found to be 4.9 times more likely to have unintentional discrepancy on admission (adjusted OR = 4.89, p = 0.003). One hundred and nineteen DRPs were identified from 1266 charts screening, and 90 (75.6%) were considered clinically significant. The commonest causes of DRPs were 'drug dose too high' and 'inappropriate duplication of therapeutic group'. Overall, 89.4% of interventions proposed were accepted by prescriber. To conclude, the study demonstrated that pharmacist-managed medication reconciliation and review in orthopaedic wards could identify and resolve clinically significant unintentional medication discrepancies and DRPs. The effectiveness of service is supported by high physician's acceptance rate of pharmacists' intervention.