



Service Priorities and Programmes
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Submitting author: Ms Chung Ying CHAN

Post title: Pharmacist, Queen Mary Hospital, HKWC

Improving Medication Safety and Diabetes Management in Hong Kong — A Multi-disciplinary Approach

Chung AYS(1), Chan ACY(2), Chan PWL(1), Tan KCB(3), Wong ICK(1), Wong FF(2), Chui CM(2), Chan EW(1)

(1)Department of Pharmacology and Pharmacy, Li Ka Shing Faculty of Medicine, The University of Hong Kong; (2)Department of Pharmacy, Queen Mary Hospital, Pokfulam; (3)Department of Medicine, Queen Mary Hospital, Pokfulam, Hong Kong SAR, China

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Introduction

Diabetes mellitus is a prevalent chronic disease worldwide. Successful diabetes management requires collaboration between healthcare professionals. Pharmacists are ideally-positioned to conduct medication reconciliation and reviews to identify drug-related problems (DRPs), which could intervene with medication safety and efficacy. While overseas studies have revealed the impact of pharmacists' early interventions on resolving or preventing DRPs, relevant local data have been limited.

Objectives

To characterise drug-related problems and their clinical significance among patients with diabetes in Hong Kong; and explore clinical pharmacists' role in the multi-disciplinary diabetes management team by evaluating the outcome of their interventions.

Methodology

A five-month observational study was conducted in the Diabetes Clinic at Queen Mary Hospital. Through weekly screening, high-risk patients with diabetes were selected to be interviewed by a clinical pharmacist prior to doctors' consultations for medication reconciliation and review. DRPs were identified and documented by the clinical pharmacist, who presented recommendations to doctors to optimise patients' drug regimens and resolve or prevent potential DRPs. The incidence and categories of DRPs, drug classes involved, clinical significance of the problems and the outcome of clinical pharmacists' interventions were analysed.

Result

Results: A total of 203 patients were analysed and 216 DRPs were identified in 127 patients. The incidence of patients with DRPs was 62.6% and the mean number of DRPs per patient was 1.1 ± 1.2 . The most common categories of DRPs were related to dosing (52.3%), drug choice (18.1%) and drug use (drug not taken/administered at all: 14.4%). Nearly half (47.7%) of the DRPs were due to patient-related factors. Drugs targeting the cardiovascular and endocrine systems were most frequently involved. The majority (67.6%) of DRPs were found to have moderate clinical significance and 32.4% were considered minor problems. DRPs were fully resolved by doctors' acceptance of clinical pharmacists' recommendations (50.9%), partially solved (12.0%) or received acknowledgement from doctors (10.2%). Conclusions: Over half of the DRPs identified were dosing problems and most DRPs had moderate clinical significance. Through collaboration within the multi-disciplinary team, clinical pharmacists demonstrated positive impact on identifying, resolving and preventing DRPs in patients with diabetes. Future plans for sustaining the pharmacy service in the Diabetes Clinic would enable more local research to enhance medication safety, optimize patients' medication regimens and improve therapeutic outcomes in diabetes management.