Evaluation of Pharmacists’ Impact on Medication Management in Patients with Type 2 Diabetes Mellitus on Empagliflozin

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Keywords:
Pharmacist counselling
Type 2 diabetes mellitus
New Medicine Service
Empagliflozin
Medication management

Introduction
Empagliflozin lowers blood glucose level by reducing renal glucose reabsorption, presenting a different adverse drug event profile from conventional antidiabetic agents. A new medicine service was implemented to promote safe and effective use of empagliflozin in a Hong Kong public hospital.

Objectives
(1) To examine the local utilization pattern and tolerability of empagliflozin; (2) to evaluate the role of pharmacists in type 2 diabetes management from new medicine service.

Methodology
Our study retrospectively reviewed data of cases under care of the new medicine service from December 2016 to June 2017. The service consisted of a baseline consultation and two telephone follow-ups at week 4 and 8. Outcomes measured included frequency and types of drug related problems identified, intervention performed by pharmacists and change in patients’ medication adherence.

Result
34 patients were referred to the service and a total of 67 pharmacist consultations were performed. 59 drug-related problems were identified. Most frequent drug-related problems included adverse drug reactions (46%), medication non-adherence (27%) and inadequate knowledge on hypoglycemia management (13%). Most commonly reported adverse drug reaction was increased urination. 7 cases experienced signs and symptoms of hypoglycemia. 33 interventions were performed by pharmacists, including 5 cases of physician referral, and the rest of advice to patients. Medication adherence showed trend of improvement, but the change was not statistical significant. Pharmacists played a role in identifying drug-related problems with prompt management in patients with type 2 diabetes. Detailed education and early follow-ups are important to reinforce medication adherence and to ensure efficacious and safe
use of drugs.