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A Study on the Impact of Pharmacists' Interventions Through Inpatient Medication Order Entry (IPMOE): Experience of a Local Hospital in Hong Kong

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Introduction

In-Patient Medication Order Entry (IPMOE) is a newly launched electronic system in Hospital Authority that interfaces prescribing, order verification and drug administration.

Objectives

The study is aimed to demonstrate the trend of prescribing errors and provide insight into the prevention of drug-related incidents by evaluating the drug-related problems (DRPs) found in daily routine of medication order validation through IPMOE. Also, by addressing the acceptance rate of prescribers, the compliance of pharmacists' interventions and inter-disciplinary collaboration would be shown.

Methodology

Over a 2-month period (from 1st August 2016 to 30th September 2016), pharmacists interventions in pending and suspending orders at Tseung Kwan O Hospital were analysed. From the data collected, pharmacists' interventions regarding to DRPs were classified and the prescribers' acceptance to the interventions made was assessed.

Result

A total of 905 interventions were documented in the 2-month period. The most common DRPs identified by the pharmacists were related to dose selections (38.2%) and drug selections (30.8%). As for the interventions made by pharmacists, dosage adjustment (40.7%) was the most common interventions made, followed by drug discontinuation (25.7%). Drugs frequently involved in interventions were mainly used for infections (37.6%), cardiovascular system (11.3%) and central nervous system (10.9%). For clinical significance, 56.2% of the interventions were ranked as 'significant' or above. The finding showed that prescribers' acceptance rate of pharmacists' proposed action was 86.5%.

The study revealed the positive impact of pharmacists in identifying DRPs and preventing potential medication errors and harm to patients. The high prescribers'

acceptance rate of the pharmacists' interventions highlighted the value of pharmacists and acceptance by the medical staff. Areas of improvement for IPMOE are indicated. Education and system enhancement by adding more clinical decision support features would be keys for preventing DRPs.