



Service Priorities and Programmes Electronic Presentations

Convention ID: 118

Submitting author: Mr Charles LO

Post title: Senior Pharmacist, UCH, KEC

Improving Medication Safety Knowledge by a Structured Education Programme Provided by Clinical Pharmacists for Nurses Working on Paediatric Wards in the Hospital Authority

Paediatric Service Working Group, Coordinating Committee for Pharmaceutical Services

Hospital Authority, Hong Kong

Keywords:

medication safety
clinical pharmacist
paediatrics
nurse

Introduction

Medication incidents represent a substantial portion of the preventable medical errors that occur with children, who are more at risk than adults. A previous local study found that drug-related problems occurred in 21% of hospitalized children, of which 81.7% were deemed preventable. Further efforts were therefore needed to reduce medication errors in children. Clinical pharmacy service was introduced to the paediatric wards in the Hospital Authority (HA) since 2011. Educating healthcare professionals to improve medication safety is one of the key roles of paediatric clinical pharmacists.

Objectives

To evaluate the effectiveness of a structured education programme on medication safety knowledge provided by clinical pharmacists for nurses working on paediatric wards.

Methodology

Medication incidents and near misses involving children that occurred in HA hospitals with paediatric departments from June 2012 – June 2015 were collected retrospectively and analyzed by clinical pharmacists. Topics for training were then chosen according to the frequency and severity of the incidents. The pharmacists then conducted training using two interactive presentations for the targeted participants, namely nurses practicing in all 14 paediatric departments in HA, during February – May 2017. Two sets of quizzes of different questions but covering the same topics with similar level of difficulty were given to the participants before and after each presentation to assess their medication knowledge and practice competence. The change in scores were analysed by the paired-t test. A programme evaluation form was also used to solicit feedback from the participants.

Result

A total of 1,649 nurses were recruited in the programme, representing more than 50% of all targeted participants. The proportion of correct answers from the quizzes increased significantly from 71.7% before the training to 85.4% afterwards ($p < 0.001$). Eighty-nine percent of participants agreed/strongly agreed that the programme achieved its stated objective, while 77% agreed/strongly agreed that it met their training needs. Moreover, 69% would recommend the programme to other colleagues. The most applicable learning points cited by the participants were medication calculations, conversion of units, and intravenous drug and fluid compatibility. On the other hand, a number of participants suggested that the topic on abbreviations could be deleted. Based on the positive results, an online version of the programme could be considered to improve medication safety knowledge of more nurses.