



Service Priorities and Programmes
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Cluster-wide Drug Infusion Safety Training for Nurses

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Introduction

Medication errors involving intravenous (IV) medicated infusions can result in serious harm to patients. IV medicated infusions such as inotropes, anticoagulants, insulin and opioids are examples of high-alert medications and their administration is proposed by seven clusters as top clinical risk. Many experts in the field of patient safety recommend education related to medication safety as one important approach to prevent medication errors. Therefore, drug infusion safety training was provided to nurses.

Objectives

To equip nurses with the knowledge and skills in drug infusion safety.

Methodology

Training sessions were provided to nurses in Kowloon Central Cluster. Lectures were provided to 591 nurses to equip them with the basic knowledge about drug infusion safety. Train-the-trainer workshops were also provided to 149 nurses to prepare them with adequate skills such that they could become a resource person in their own workplace to train other nurses. The workshop consisted of a workstation that helped nurses to develop essential skills in preparing IV medicated infusions and using infusion devices properly. Afterwards there was a scenario-based problem solving workstation that helped nurses identify unsafe clinical situations and potential errors before they actually occur. Nurses' knowledge and attitude regarding administration of IV medicated infusions before and after the workshop were compared. Self-reported questionnaire was used to collect data. Statistical analysis was performed using the statistical software package SPSS. Paired-samples t test was used to compare the means of the questionnaire results before and after the workshop. The level of significance was taken as $P < 0.05$.

Result

A total of 91 nurses completed the questionnaire. Their knowledge improved significantly after the workshop ($P < 0.05$). The overall average percentage mean score increased from $42.2\% \pm 22.8$ to $62.7\% \pm 18.9$ after the workshop. In terms of nurses' attitude, significant increase in mean scores in all aspects were noted after the workshop ($p < 0.05$). These aspects include confidence in: accessing the electronic

copy of the IV Drug Dilution Guideline, interpreting the guideline, preparing IV medicated infusions according to the guideline, choosing appropriate infusion devices and using syringe pumps. Conclusion: Drug infusion safety training has significantly increased nurses' knowledge and confidence in administration of IV medicated infusion. Further studies to support its effectiveness in promoting nurses' compliance to proper practices and reducing medication errors may be needed.