



## Service Priorities and Programmes Electronic Presentations

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### **Medical Equipment Safety Project**

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Infusion devices operation

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Safety culture

Staff training

#### **Introduction**

Smart pump' has been used in conjunction with standard concentrations for continuous infusions in Haven of Hope Hospital since 2015. Nevertheless, there is no risk-free infusion device. Support nurses to gain competence and confidence in using infusion devices seems to be a more practical and effective way to create a safer and more efficient measure of working for both staff and patients. Hence, a 'Medical Equipment Safety Project' was developed to create a learning opportunities to strengthen the competence of all nurses in Haven of Hope Hospital.

#### **Objectives**

1. Strengthen good practice principles for safe and effective IV therapy and use of infusion devices.
2. Enhance an ability to use the drug library to deliver high risk and high alert medication competently.

#### **Methodology**

1. All nurses involved in the direct care of patients receiving therapy via infusion devices were included.
2. The project covered all the infusion devices which are currently used in Haven of Hope Hospital.
3. The training program was device specific and consisted of 2-hour theoretical input, skill demonstration and individual assessment on operating the infusion devices.
4. All nurses were officially released from duty to attend the learning and individual infusion assessment sessions.

#### **Result**

1. A total of 220 (84%) nurses attend the six identical infusion devices training sessions. 138 (63%) participants were RN, 60 (27%) participants were ENs and whereas others were NO or APNs (n=22, 10%).
2. 65.52% respondents showed 'agree' to 'strongly agree' that they were satisfied with

this program as a whole. 66.99% respondents found the contents useful and appreciated the learning activities for instance; case sharing and demonstration of smart pump operation being adopted in the training sessions.

3. The post-test result indicated that the mean total knowledge score from 5.68 at pre-test to 7.83 at post-test.

4. For the individual assessment, 133 participants (60.5%) passed in the first attempt whereas 87 participants (39.5%) were required to retake the examination and passed the individual assessment.

4. In addition, we noticed that the practice of 'finger-pointing' can enhance the accuracy of reading the prescription and verifying the program setting.

In conclusion, this Medical Equipment Safety Project has great potential to improve nurses' knowledge and skills in the use of infusion devices safely and competently. With the advances in information technology, the learning materials will be uploaded onto the nursing web for new staff orientation and continue education program.