Background

Studies have shown that Smart Pump technology in infusion pumps is an effective strategy if used appropriately to administer precise dose of medication to the patient. However in SGH, there has been an increase of medication events related to the use of this device.

In 2016, there were 22 medication errors. A team of nurses was formed to look into eliminating programming errors related to the use of infusion pumps.

Mission Statement

To eliminate medication errors related with infusion pump within a year in SGH.

Analysis of problem

Medication error events was analyzed using the 5-Whys diagram.

Interventions

PDSA 1: The team train a group of nurses using simulation on real case scenarios. The nurses will go back to their area to conduct competency assessment to increase the awareness of programming errors.

A guide on the information available in the Drug Library was created and uploaded in the Nursing Intranet for reference.

PDSA 2: Mass competency was adopted and done for all nurses. A set of guided questions with steps was given to all assessors so that standardize the teaching and competency done.

Results

Although the team did not achieve their mission to eliminate the medication errors, there is a reduction on the average no of the incident per month. The average was reduced from 1.8 to 0.8.

Sustainability Plans

Standardization of practice and competency methods have been maintained throughout the structured competency training programme.

The training and guide was widely accepted as nurses felt more confident and their knowledge improved. Although medication errors are still occurring, the team will continue with the competency to ensure that the mission for zero error is achieved.