Improvement Program for Nursing Care of Paediatric Patients with Chest Drain

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Introduction
Chest drain care is a common activity in paediatric cardiac units; appropriate chest drain management is required to maintain respiratory function and hemodynamic stability of post-cardiac-surgery patients. Hence, nurses should be enriched with knowledge and skills for handling patients with chest drains. Thus, an improvement program of care for paediatric patients with chest drains was implemented in Department of Paediatric Cardiology (DPC) of Queen Mary Hospital.

Objectives
1) To refresh and enrich nurses' knowledge and skills on handling Underwater Sealed Drainage System (UWSD).
2) To improve nurses'™ competency in set-up of UWSD

Methodology
The program was conducted in DPC from 5/7/2015 to 23/1/2017. A comprehensive booklet was compiled by a task group of experienced nurses, and served as guidelines on proper handling of chest drains.
Nurses were asked to demonstrate the practice and understanding of UWSD in two-stage. In stage I - "Changing Underwater Seal Chest Drainage Unit", DPC nurses were requested to set up a new set of UWSD and then demonstrate how to change a chest drain on a chest drain insitu simulated baby; in stage II - "Caring for Paediatric Patients with Chest Drains™", nurses were asked about how to tackle different problems on the UWSD in different scenarios. Two-staged auditing was used to measure nurses™™ practice and understanding of UWSD.

Result
Twenty-two nurses were recruited to complete the program with 100% of participation
rate. The compliance rate of Stage I was 99.78%; because one nurse did not perform hand washing before the procedure. Therefore, enhancement on the five moments on Hand Hygiene™ was reinforced together with chest drain knowledge and skills. The compliance rate of Stage II audit was 100%. The overall result was satisfactory. In conclusion, the booklet is a useful reference for the nurses, especially newly graduated nurses, on caring patients with UWSD. DPC nurses were refreshed and enhanced their knowledge and skills to achieve competency in handling UWSD system. Then, safety and quality of patient care could be delivered by competent nurses in DPC.

For enhancement of this program, an audit will be conducted on real patients in the future to evaluate its outcomes. And, this program will be incorporated in DPC orientation program for new nurses.