A Comprehensive Training Program for Continuous Renal Replacement Therapy enhances safe and quality delivery of Renal Therapy in Paediatric Intensive Care Unit

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Introduction
Continuous Renal Replacement Therapy (CRRT) has emerged as the standard of care for managing paediatric patients with acute kidney injury in Paediatric Intensive Care Unit (PICU). Due to staff turnover, 18 out of 29 trained nurses stayed in PICU in 2012 and there was an ultimate need to train more nurses. A modified and comprehensive training program for nurse trainers was developed in 2013. CRRT order form and flowsheet was also incorporated in the Clinical Information System in collaboration with nephrologists.

Objectives
To build up the competency and clinical knowledge and skills of PICU nurses to deliver a quality and safe CRRT service in PICU by a comprehensive training program

Methodology
Starting from 2012, the procedure guidelines, order form, flowsheet and documentation for CRRT procedure were modified. A comprehensive CRRT training program is also implemented. Potential and qualified trainee was selected for training. Pre-reading material would be given to trainee one month before the workshop. Then a one-day training workshop including illustration of CRRT theory, demonstration and return demonstration of practical skills, self-practice and assessment which are conducted by the qualified trainer would follow. Each trainee must perform the first 5 sessions of clinical practice under the supervision of a qualified trainer. The trainee must pair up with a qualified CRRT operator to perform 15 sessions of clinical practice in order to become an independent CRRT nurse. The qualified CRRT nurses and their CRRT performance are recorded.

Result
From 2013 to 2015, five nurses had attended the one-day training workshop. Totally 113 episodes of paediatric CRRT had been performed in PICU. The Qualified CRRT nurses had gained 372 sessions of clinical experiences to perform initiation,
discontinuation and provide monitoring of CRRT system in PICU. No adverse complication related to CRRT was reported during the training period, and our unit is able to provide 24-hour nursing support for emergency paediatric CRRT service since the implementation of the training program.