



**Service Priorities and Programmes**  
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**Enhancement Safety Practice on Continuous Renal Replacement Therapy in Intensive Care Unit**

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**Introduction**

The treatment of acute kidney injury by Continuous Renal Replacement Therapy (CRRT) is commonly adopted in ICUs. Of 722 patients admitted to the intensive care unit of the North District Hospital in 2013, 84 (12%) underwent CRRT. It is a high volume and high risk procedure (Santiago et al., 2009). In order to avoid the adverse events from this therapy, safety practice on patient receiving CRRT should be enhanced. Thus, a standardized and structured safety practice had been implemented in our clinical setting.

**Objectives**

1. To establish the safety practice in initiation, caring and discontinuation of CRRT.
2. To decrease and early recognize the adverse events in CRRT.

**Methodology**

Data collection 1. Review the existing practice and guideline of CRRT and collect the data of past adverse events and incident reports related CRRT. 2. Discuss with different levels of nurses to collect their suggestions and concerns on safety practice of CRRT. Operational aspect: 1. Re-design the CRRT prescription and monitoring form in June 2013, an additional part related to safety checklist was included. 2. A safety checklist for the CRRT was developed. The items of the checklist provide guidance for shift in-charge to conduct clinical supervision on safety check for CRRT. Based on the checklist, the procedure of initiation, caring and discontinuation of CRRT should be checked and signed by two trained nurses to secure the safety. 3. The safety checklist was introduced to all ICU nurses and doctors in August 2013 and it was implemented in September 2013.

**Result**

**Result:** No significant adverse event was reported after adopting the new practice of safety checklist. An audit of the implementation of the safety checklist was conducted in December 2013. Total 14 cases were audited. The overall compliance rate was 89%. The lower compliance rate was the documentation of CRRT. **Conclusion:** Although the compliance rate of safety checklist was satisfactory, further education in

documentation of CRRT is required. The safety checklist can act as a systematic and standardized tool for nurses to enhance patient safety and reduce variance in practice of CRRT. Thus, further development of other safety checklist will be considered in our unit.