Continuous Renal Replacement Therapy Education to Improve Parental Understanding and Satisfaction

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Abstract

Initiation of pediatric continuous renal replacement therapy (CRRT) for a critically ill child represents an escalation in level of care that may be anxiety provoking for families. Despite a detailed procedural explanation performed by a nephrologist before initiating CRRT, there is no currently available means by which to measure basic parental/guardian understanding and comfort level pertaining to performance of CRRT. Additionally, while there is literature describing means by which to educate members of the hospital care team, no published literature exists demonstrating an approach to educating families about CRRT. We have developed an informational handout in both English and Spanish to be given to the families of our patients who are treated with CRRT. Complementing the patient education material is a guide for nurses educating the family. We hypothesize that provision of this handout will alleviate anxiety – especially those associated with alarms/display panels/lines - and increase understanding of provision of CRRT to a child with acute kidney injury (AKI). To determine the effectiveness of supplying this additional information to families, we plan to proceed with our usual standard of care to each patient, which includes a detailed procedural explanation performed by a nephrologist/fellow before initiating CRRT when consent is obtained. For patients less than 18 years age, our study team will approach the family to obtain consent for participation, after which a family member will complete a brief Likert scale-based survey to determine their basic understanding of AKI, the CRRT procedure, medical team members involved, and comfort level with the procedure. Upon completion of the survey, the study team will provide the family with our informational handout. Laminated copies of the handout will be attached to the CRRT machine and maintained in the patient's room for others to view as well. CRRT education literature largely focused on new program startup and training staff to perform CRRT.1,2,3 No literature identified detailing educating patient/family about CRRT in pediatric or adult medicine. No literature regarding patient/family attitudes & perceptions surrounding CRRT in pediatric or adult medicine. Studies indicate high parental/familial stress surrounding ICU admissions based on stress-anxiety related scale.4 Studies indicate education programs help reduce hospital-related situational stress and improve satisfaction.5-7,8

Objectives

- Evaluate family perceptions surrounding CRRT before & after providing a CRRT educational handout
- Improve patient/family understanding of CRRT
- Reduce patient/family anxiety regarding CRRT

Methods

- After the decision to initiate CRRT is made and consent has been obtained by the nephrology team, patient family members will be approached to participate in the CRRT Patient Care Quality Improvement Project (QIP)
- 20 families will be recruited for the QIP
- After consent is obtained from a parent/guardian, a study coordinator will review the CRRT educational handout with the family, leaving copies with the family and attached to the CRRT machine
- The CRRT educational handout will be available in both English and Spanish formats
- Prior to and 24-48 hours after review of the handout, a Family AKI/CRRT Comprehension Questionnaire (developed for this QIP) and the State-Trait Anxiety Inventory and will be administered

Results

- STATISTICA® software will be used to analyze the pre- and post-intervention significance (p<0.05) of both the inventory and questionnaire results

Background

- CRRT education literature largely focused on new program startup and training staff to perform CRRT.1,2,3
- No literature identified detailing educating patient/family about CRRT in pediatric or adult medicine
- No literature regarding patient/family attitudes & perceptions surrounding CRRT in pediatric or adult medicine
- Studies indicate high parental/familial stress surrounding ICU admissions based on stress-anxiety related scale.4
- Studies indicate education programs help reduce hospital-related situational stress and improve satisfaction5-7,8

Conclusions

If the statistical analysis of the QIP demonstrates a significant improvement in family AKI/CRRT comprehension and/or a reduction in anxiety related to CRRT, then a departmental program will be instituted for the purpose of training nephrology faculty, fellow, and nursing staff participating in delivery of CRRT so that families of children undergoing CRRT may continue to benefit from additional education pertaining to their child’s medical condition and treatment.

References