

Continuous Renal Replacement Therapy (CRRT)

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Background/Aim

Studies by other investigators have concluded that Continuous Renal Replacement Therapy (CRRT) decreases the mortality rate when limiting disruptions and time off the machine. It produces the best outcomes for CRRT patients. Continuation of the CRRT minimizes hemodynamic instability and provides fluid stability.

Plan/Do

2 patients with Acute Kidney Injury (AKI) were randomly chosen every month over a year. Data was collected on these patients on the length of days they were on CRRT before changing the circuit. The reasons why the circuit was changed was also documented.

Act

The data was gathered as part of a performance quality project. The skills and techniques used provide optimal patient outcomes while receiving CRRT without changing the circuit exceeding 24 to 72 hours. Systems are checked twice daily by the dialysis team. Daily monitoring include patient assessment, reviewing laboratory results, hemodynamic status, flushing of the system to assess patency of filter as needed, and reviewing the sieving coefficient.

Conclusions

This study demonstrates that continuous CRRT without changing the circuit can lead to good patient outcomes such as transitioning to IHD and a decrease in mortality rate. The CRRT Sieving Coefficients were monitored twice daily and kept at a minimum of 80 percent before requiring to be changed. Circuit recirculation was also utilized. After blood is returned to the patient, a CRRT setup can be recirculated for 2 hours only per our policy. Mortality rate on patient on CRRT at UCSD was 35.5% in 2015 which is below the national average.

Study



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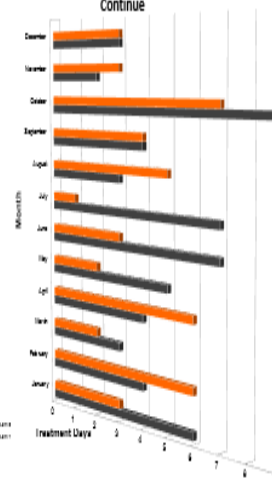


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Month	Longest days per patient per filter	Reason for change/stop
January	Patient 1 - 6 days	Transition to IHD
	Patient 2 - 3 days	Expired
February	Patient 1 - 4 days	Transfer to special Bed
	Patient 2 - 6 days	Expired
March	Patient 1 - 3 days	Expired
	Patient 2 - 2 days	RN assessed to change
April	Patient 1 - 4 days	Comfort care
	Patient 2 - 6 days	Comfort care
May	Patient 1 - 5 days	RN assessed to change
	Patient 2 - 2 days	RN assessed to change
June	Patient 1 - 7 days	Procedural
	Patient 2 - 3 days	Procedural
July	Patient 1 - 7 days	Procedural
	Patient 2 - 1 day	Transition to IHD
August	Patient 1 - 3 days	Procedural
	Patient 2 - 5 days	Transition to IHD
September	Patient 1 - 4 days	Transition to IHD
	Patient 2 - 4 days	Transition to IHD
October	Patient 1 - 9 days	RN assessed to change
	Patient 2 - 7 days	RN assessed to change
November	Patient 1 - 2 days	Transition to IHD
	Patient 2 - 3 days	Transition to IHD
December	Patient 1 - 3 days	Kidney func. Improved
	Patient 2 - 3 days	Comfort care



The reasons for filter change or treatment held were: Procedures (OR, IR, CT), access issues, machine malfunction, kidney recovered, clotting filter, transitioning to IHD, and off treatment for comfort care.