

Early Experience with a Novel Hemodialysis System used for PIRRT Demonstrates Clinical Management at Lower Cost than CRRT and IHD



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INTRODUCTION

- The need for providing dialysis to patients in the ICU has increased over time
- Delivery of this care is challenging to health care systems (HCS) both in costs and logistics

METHODS

- Prospective pilot study of the Tablo[®] Hemodialysis System in 37 critically ill patients deemed appropriate by the physician with no specific inclusion/exclusion criteria
- 79 treatments were performed ranging from 4-12 hours using a Q_b between 200-300 ml/min and Q_d between 100-300 ml/min while recording treatment results and staffing and supply costs

PATIENT & TREATMENT DEMOGRAPHICS

No. of patients (male/female)	37 (19/18)
Age (years, sd)	60 (16)
Weight (kg, sd)	92 (33)
No. of treatments	79
Catheter Use (% of patients)	100
Avg Treatment Time (hrs, range)	6 (4-12)
Blood Flow (ml/min, range)	255 (200-300)
Dialysate Flow (ml/min, range)	300 (100-300)
Total Fluid Removed (L, range)	1.2 (0-3)

DESCRIPTION OF TABLO:

The Tablo Hemodialysis System is an all in one device indicated for use in the hospital and clinic that is designed to expand how, when and where dialysis can be performed. It's unique features include:

- An integrated water purification system
- Ability to produce prescribed dialysate on demand
- Simplified user interface making it easy to learn and use
- Two-way wireless connectivity to simplify documentation



RESULTS

- All 79 treatments were tailored to specific patient need with no specific guidance on prescription
- In 7 cases treatment was terminated early due to patients needs for testing, procedures or machine availability
- 58 (82%) of treatments achieved their target dose of dialysis and UF
- Causes of early termination were related to access issues, clotting, hemodynamic instability or other related factors
- The cost of PIRRT with Tablo was found to be significantly lower than both CRRT and IHD with a traditional dialysis machine

Figure 1: Treatment Target Achieved & Clinical Causes of Early End Treatment

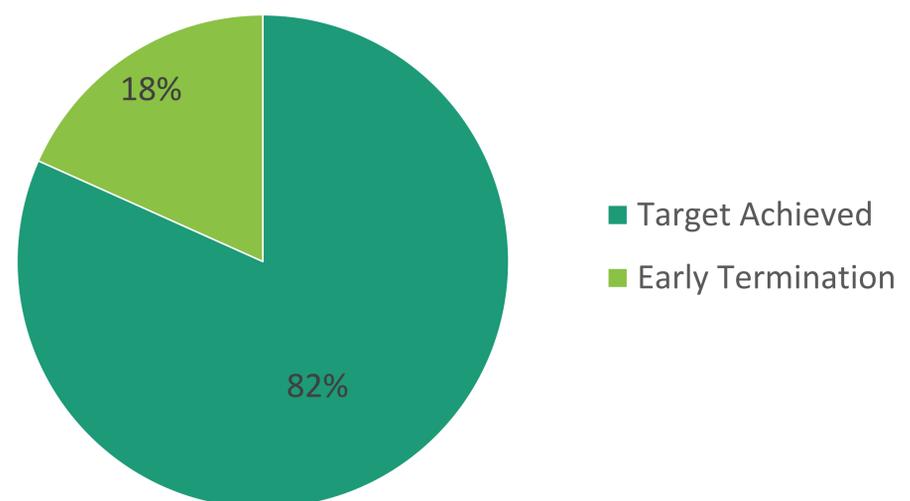
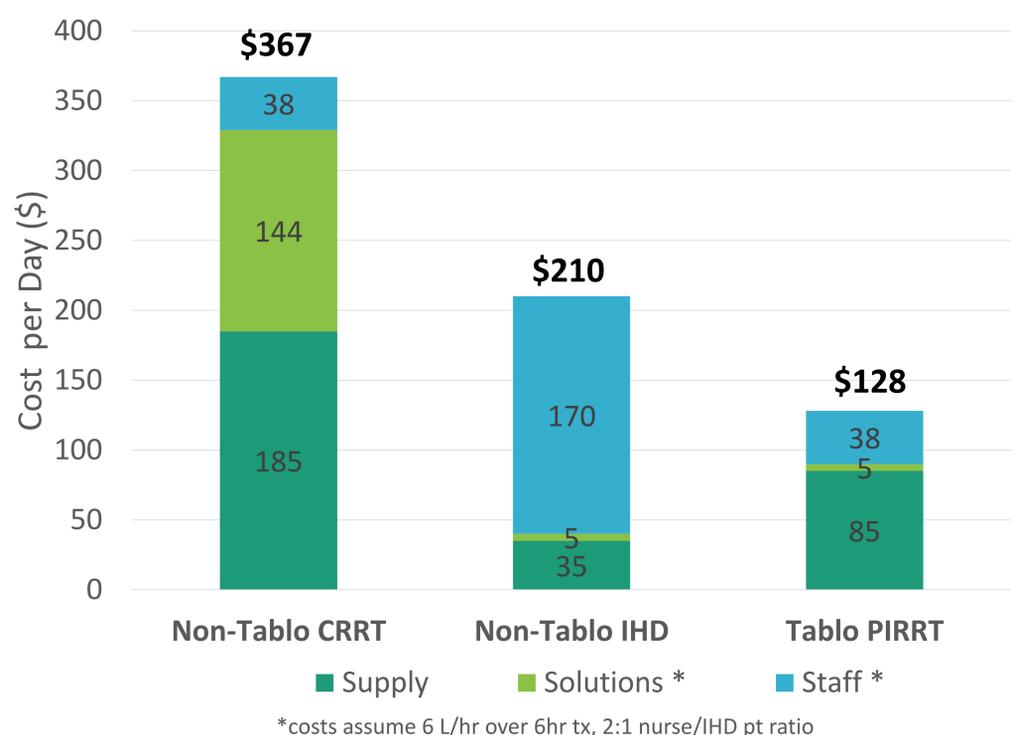


Figure 2: Daily Cost per Treatment Modality



CONCLUSION:

At the Cleveland Clinic, we demonstrated that Tablo can offer clinically effective transitional hemodialysis in a critically ill cohort, many whom were not able to be anticoagulated, reducing overall daily costs. These data suggest that Tablo could provide increased functionality and flexibility for staff constrained ICUs while achieving diverse clinical goals and significantly reducing cost.