

# ECMO Experience with the Tablo Hemodialysis System

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## BACKGROUND

The Tablo® Hemodialysis System (Tablo) is an all in one, easy-to-learn device featuring integrated water purification, on demand dialysate production, two-way wireless data transmission and approved for use in the acute, chronic, and home settings.

Extracorporeal membrane oxygenation (ECMO) is used in critically ill patients presenting with acute cardiac and/or pulmonary dysfunctions. Patients on ECMO are at high risk for acute kidney injury and fluid overload.

The combination of ECMO and renal replacement therapy (RRT) is vital to the survival of this population.

Due to limited vascular access options, it may be necessary to incorporate the dialysis circuit within the ECMO circuit.

## OBJECTIVE

Report on the experience delivering Tablo RRT through the ECMO circuit to critically ill patients requiring both therapies.

## METHODS

A retrospective review of all ICU Tablo treatments was conducted. Cases where the patient received dialysis and ECMO were identified.

Tablo data were collected via real-time transmission to a cloud-based, HIPAA compliant platform and reviewed by site staff.

Treatments were analyzed for achievement of the prescribed treatment time, whether the user ended the treatment, or the device directed the termination.

## RESULTS

- 17 Tablo treatment days in 3 patients on ECMO were observed
- All treatments were prescribed for 24 hours, with a median achieved treatment time of 23.4 hours
- 4 treatments ended early due to user terminations (2) and device-directed terminations (2)
- All terminations were due to unresolvable venous and arterial pressure alarms associated with stopcock positioning during setup of Tablo within the ECMO circuit
- Clinically significant alarms occurred at a rate of 1.8 alarms ( $\pm 1.8$ ) per treatment hour
  - Venous Pressure (57%)
  - Arterial Pressure (42%)
  - Other (1%)
- Mean alarm resolution time was 11 seconds ( $\pm 7$ )

This data supports Tablo can optimize care provision for the sickest patients in the ICU while simplifying care for patients and nursing staff.

## CONCLUSION

Tablo can be successfully integrated within the ECMO circuit in critically ill patients that require both therapies.

FIGURE 1: CLINICALLY SIGNIFICANT ALARMS



FIGURE 2: TABLO INTEGRATION INTO ECMO UNIT

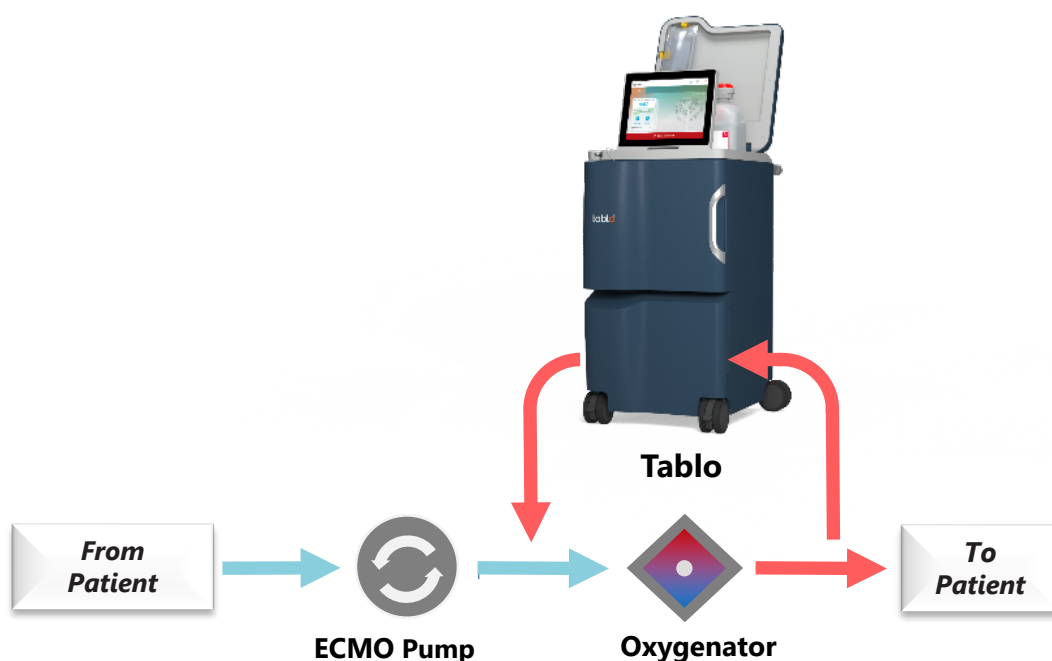


FIGURE 3: ECMO CIRCUIT CONNECTIONS

