Single Center Case Study on Acute Dialysis with a Dialysate Flow Rate of 300 mL/min compared to ≥ 500 mL/min

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BACKGROUND:
Conventional hemodialysis is usually prescribed at a dialysate flow rate (Qd) of 500 mL/min or greater.

The Tablo® Hemodialysis System is an all-in-one system with a max Qd of 300 mL/min designed to facilitate innovation of dialysis care in all settings featuring:
• An Integrated Water Purification System
• On-Demand Dialysate Production
• A Simplified User Interface
• Two-way Wireless Communication

Previously published modeling and real-world data have demonstrated that patients can achieve adequate urea clearance with Tablo in the acute and chronic settings.

OBJECTIVE:
To report on the clinical experience in an acute hospital setting of consecutive patients treated with the Tablo® Hemodialysis System at Qd 300 mL/min.

METHODS:
Retrospective review of patients admitted to St Francis Hospital who, during a single hospitalization, received dialysis treatments on both Tablo and a conventional dialysis device.

To minimize selection bias, patients served as their own controls.

Clinical lab results of blood urea nitrogen (BUN) and potassium (K) were obtained on the day of therapy and the day following therapy.

Timing of dialysis in relation to the timing of the two lab results was not recorded.

RESULTS:
Over 13 months, 105 of 289 patients dialyzed on Tablo also treated on a conventional device during their hospitalization.

Treatments were primarily performed on Revaclear 300 dialyzers with larger dialyzers (Revaclear 400 or F180) used in 25% of Tablo treatments and 28% of conventional device treatments.

Treatment times and blood flow rates were similar.

Table 1

<table>
<thead>
<tr>
<th></th>
<th>Total # of Treatments: 363</th>
<th>Treatments on Tablo: 172</th>
<th>Treatments on Conventional Device: 191</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total # of Patients:</td>
<td>105</td>
<td>299 ± 8</td>
<td>575 ± 79</td>
</tr>
<tr>
<td>Avg Dialysate Flow Rate</td>
<td></td>
<td>309 ± 37</td>
<td>315 ± 44</td>
</tr>
<tr>
<td>(mL/min)</td>
<td></td>
<td>3.3 ± 0.4</td>
<td>3.3 ± 0.4</td>
</tr>
</tbody>
</table>

Table 2

<table>
<thead>
<tr>
<th>Potassium Clearance</th>
<th>Tablo (n=172)</th>
<th>Conventional (n=191)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Pre-K &amp; 24 hr-Post K</td>
<td>5.1 ± 0.1</td>
<td>6.1 ± 0.2</td>
</tr>
</tbody>
</table>

Table 3

<table>
<thead>
<tr>
<th>Urea Clearance</th>
<th>Tablo (n=172)</th>
<th>Conventional (n=191)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Day of BUN &amp; Next Day BUN</td>
<td>75.5</td>
<td>75.2</td>
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</table>

CONCLUSION:
In the less predictable acute environment, the Tablo System at Qd 300 mL/min can be expected to yield similar results to conventional systems at Qd 500 mL/min or greater.