

## SA-PO760

**UK Clinical Experiences of a New Expanded Hemodialysis Therapy with a Novel Medium Cut-Off Dialyzer** Jyoti B. Baharani,<sup>1</sup> Bernard Barrios,<sup>1</sup> Debbie Hopkins,<sup>2</sup> Wyn Passmore.<sup>2</sup> <sup>1</sup>Heart of England NHS Foundation Trust, Birmingham, United Kingdom; <sup>2</sup>Morrison Hospital, Swansea, United Kingdom.

**Background:** Middle molecules are associated with the pathology of uremia, and their removal is enhanced by increased convection with hemodiafiltration (HDF) therapy. However, HDF therapy may not be suitable for, or available to, all patients. A newly developed medium cut-off (MCO) membrane allows hemodialysis (HD) to be expanded in terms of middle molecule removal (HDx therapy) using conventional HD infrastructure. Here, we describe the experience of two UK clinics trialing HDx therapy.

**Methods:** At Heartlands Hospital (HH), the patient demographic (n=8) was: 48–90 years of age, mixed ethnicities, and 1–14 years of HD experience. Patients (treated thrice weekly) were switched from high-flux HD with a polysulfone dialyzer (FX60 or FX80, Fresenius) to HDx therapy with the MCO membrane (Theranova 400, Baxter). At Morrison Hospital (MH), patients (n=18) were 25–91 years of age with 2–16 years of HD experience. Patients who had failed to tolerate (n=14) or tolerated (n=4) HDF therapy were switched to HDx therapy with the MCO membrane. Reduction ratios (RRs) of beta-2-microglobulin ( $\beta$ 2M) and albumin loss were assessed; data are based on averages of 3 dialysis sessions (HH) or 1 dialysis session (MH).

**Results:** At HH, average  $\beta$ 2M RRs (post- vs pre-dialysis level) with HDx therapy were 69.3% (Week 1) and 69.4% (Week 9) vs 48.8% with high-flux HD. At Week 9, serum albumin levels increased during dialysis by 0.8 g/L. Following 9 weeks of HDx therapy, pre-dialysis levels of  $\beta$ 2M were reduced by 11.7%, and no difference in albumin level was seen. At MH, average  $\beta$ 2M RRs with HDx therapy were 71.0% (Week 1) and 73.9% (Week 9). For patients who tolerated HDF, at Week 1  $\beta$ 2M RRs were 72.2% and 73.9% with HDx and HDF therapy, respectively. Based on serum albumin levels, albumin loss in both groups was minimal.\* No adverse events were noted; 1 patient with arthritis did not experience any arthritic flare-ups during HDx therapy.

**Conclusions:** HDx therapy was convenient, simple to implement, and achieved high  $\beta$ 2M RRs with low albumin loss. It offers opportunity for achieving the clearance of middle molecules delivered by HDF, when patient factors exist or HDF is not available. \*Based on 2 of 4 HDF patients and all 14 HDx patients.