

## The effect of patients' preferred dialysis modality on the first dialysis modality they receive

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**Introduction:** It is increasingly recognised that home dialysis therapies, such as peritoneal dialysis (PD) or home haemodialysis have better outcomes<sup>1</sup>. PD, especially now with the availability of assisted PD, provides a better quality of life and preserves the individual's autonomy<sup>2</sup>. PD preserves residual renal function and compared to in-centre haemodialysis (HD), reduces the financial burden on the healthcare system<sup>2</sup>. There is now a drive towards a shared decision making, where the importance of patients' engagement in determining the goals of treatment and decisions regarding their management is recognised<sup>3</sup>. Despite this, Renal Registry data showed that only 5.4% received PD compared to 37.3% on in-centre HD (hospital and satellite)<sup>4</sup>.

The aim of our study was to identify what proportion of pre-dialysis patients who had chosen PD at the time of assessment received PD as their first dialysis when compared to patients who were undecided

**Methods:** We conducted a retrospective observational study of patients with chronic kidney disease (CKD) G4/5 who attended the renal access clinic (to assess suitable access options) in a single UK renal unit from 01/08/2013 to 31/07/2016. Data on baseline demographics, comorbidity, preferred dialysis modality, eGFR and access was analysed on 31/07/2018.

**Results:** 363 patients were included (234 male and 129 female). Based on the MDRD GFR, 73% had CKD Stage G4 and 26% G5. 44% of patients had diabetes mellitus.

147 patients remain pre-dialysis (out of whom 53 died without renal replacement therapy), 69 had been started on PD first, 97 had been started on HD first, 15 had a kidney transplant before dialysis. 35 others had either opted for conservative care, been discharged to GP, moved home or lost to follow-up.

All patients were found to be suitable for HD access and 68 patients opted for HD. Out of the 324 patients who were deemed suitable for PD, 101 chose PD as their dialysis modality of choice. 194 patients (53% of the cohort) were undecided on what modality they would prefer.

At the time of analysis 51 of the 101 patients who had opted for PD had started PD or HD. 81 of the 194 undecided patients were on dialysis. The remainder were still pre-dialysis, had a transplant or died before requiring dialysis, been discharged, moved address or lost to follow up.

39 patients who had opted for PD had started PD compared to 28 patients of those who were undecided ( $p < 0.0001$ ). 12 patients from those who had opted for PD were started on HD compared to 53 of those who were undecided ( $p < 0.0001$ )

There was no significant difference between males and females in choice of dialysis. Patients under 60 were more likely to choose compared to older patients ( $p < 0.05$ )

Discussion: Although a large majority of patients were physically suitable for PD, less than a third chose PD as their first choice for dialysis. Patients who were undecided when approaching ESRD were more likely to start on HD – suggesting the need for better engagement of patients at an earlier stage of their CKD journey.