What patients preferred as RRT modality and what they received? A retrospective cohort study from a single center in the UK

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BACKGROUND:
Peritoneal dialysis is equivalent to hemodialysis in terms of patient outcomes. A considerable number of patients opt for peritoneal dialysis however it is noted that many patients who choose peritoneal dialysis as their modality of choice do not end up on it or are switched to hemodialysis after initiation. This study aims to look at the factors responsible for this mismatch.

METHODS:
A retrospective cohort study of all patients commencing chronic dialysis between June 2009 to June 2019 to discern the difference between chosen and initiated dialysis modality and thereafter at 3, 6 and 12 months after starting dialysis.

RESULTS:
Of the 448 patients receiving pre-dialysis education, 210 decided to have peritoneal dialysis as their preferred modality of renal replacement therapy, 206 selected hospital hemodialysis, 8 planned for home hemodialysis, 20 remained undecided and 4 opted for conservative management.

At the time of initiation of renal replacement therapy, 155 patients received peritoneal dialysis, 270 commenced on hospital hemodialysis out of which 83 had acute unplanned hemodialysis while 187 were elective starters. 18 patients had a preemptive renal transplant and only 2 were established on home hemodialysis.

Out of the 155 patients starting on peritoneal dialysis, 98% continued on it in the next 3 months. However, this figure reduced to 87% and 80% at 6 months and 12 months, respectively.

The most common reason for failure to start on peritoneal dialysis despite choosing it was change of mind (37.5%) followed by surgical contraindication (15%) and acute illness (12.5%).

The commonest reason for discontinuation of peritoneal dialysis within the first year of initiation was PD peritonitis (45%) followed by poor clearance (16%).

CONCLUSIONS:
Although the majority of patients received the renal replacement therapy of their choice, a quarter of patients choosing peritoneal dialysis could not. While the main reason for not starting peritoneal dialysis was the patients changing their preference, the commonest cause of discontinuation after being established on peritoneal dialysis was noted to be PD peritonitis. More work needs to be done about the patients changing their minds by interventions such as peer education and support by dialysis staff.