Patients with established kidney failure (EKF) need renal replacement therapy (RRT) to survive. RRT is a term used to describe treatments that take over the role of the kidneys. RRT includes dialysis (blood cleaning) and kidney transplantation. There are two types of dialysis: dialysis via the abdomen (peritoneal dialysis, PD) or direct dialysis via the blood (haemodialysis, HD). Both of these treatments can be done from home: these are referred to as home therapies (HT). We know from research that HT are beneficial to patients and cost-effective for the NHS.

There is a push towards increased use of HT (versus in-centre haemodialysis (ICHD)) in patients that are healthier and capable of managing HT. However, these same patients are also often the best candidates for transplantation, which is the preferred RRT treatment of choice. This needs to be kept in mind when interpreting changes in use of HT over time.

Until 2015, the proportion of patients on HT was reported as part of another UK Renal Registry chapter. However, given our increasing awareness of the benefits of HT, it was decided a chapter should be dedicated to describing this group of patients. This chapter focuses on three main areas of HT: the number of patients on HT; how these patients compared to the rest of the dialysis patient group; how renal units compared at starting and keeping patients on HT.

**Number of patients using HT**

As of December 2015, there were about 60,000 adults in the UK needing RRT, with almost half (47%) on a dialysis treatment. Of those on dialysis, one in every six patients was using a HT. Three-quarters of HT patients used PD, the rest were on home HD (HHD).

Between 2011 and 2015, there was a 1% fall in the number of patients using HT. The fall seems to be related to a drop in the number of patients using PD. It is not clear whether this fall in HT was due because of a fall in popularity, or whether these patients were simply receiving a kidney transplant (the RRT treatment of choice) instead. Large differences were seen between renal units in the number of patients using HT, ranging from 3% to 20%. This highlights how different practice can be across the country.

**How do HT patients differ from other dialysis patients?**

There were several key differences between HT patients and ICHD patients in 2015. Patients on HT tended to be younger (figure 1) by an average of seven years and had fewer reported medical conditions. Fewer patients of ethnic minority used HT compared with ICHD. Deprivation (poverty) was also seen to affect access to HT: those who were most deprived were less likely to be on HT. Increasing deprivation was also associated with less chance of receiving a transplant within 90 days.
of starting RRT. Interestingly, it appears that at younger ages, HT was used more frequently in women than men, but the reverse happened in the older age-groups (figure 2).

**Figure 1.** Number of patients receiving home therapies (HT), transplant (Tx) and in-centre HD (ICHD) by age in 2015

![Graph showing prevalence rate per million population by age group for HT, Tx, and ICHD.](image)

**Figure 2.** Proportion of dialysis patients by ICHD, HHD and PD according to their age and gender (as of December 2015)

![Bar chart showing percentage of patients by age group and gender for ICHD, HHD, and PD.](image)

How do renal units compare?

To understand this issue, HT needed to be considered separately as PD and HHD. For PD, most patients will start with this treatment: only a quarter of patients will have been on a different type of RRT beforehand. There was about a 13% chance that this treatment type will fail one year after starting RRT, although this varied between renal units (range 0% to 32%).

For patients who were on HHD, 90% had already been on ICHD before moving to HHD. Only 2% of patients started RRT with HHD.

**Conclusion**

HT is associated with improved outcomes and quality of life for patients, whilst also being cost-effective for the NHS. Our report highlights that centres had varying practices when it comes to use of HT. These differences mean that certain patient groups appear to be disadvantaged when it comes to receiving home dialysis. There is a need for research in this area to explore reasons behind these differences and to explore approaches to improve this situation.

For the full annual report chapters, please visit the UKRR website: [www.renalreg.org/reports/2016-nineteenth-annual-report/]