

The Renal Association UK Renal Registry



Adequacy of Haemodialysis in UK Adult Patients in 2016: National and Centre-specific Analyses

Plain English Summary

Patients with kidney failure need to have waste products, like urea, removed from the body. This is done by dialysis. To find out if dialysis is removing enough urea, a blood sample is taken before and after the dialysis session. The urea levels in the two blood samples are then compared. This shows how much urea was removed during a dialysis session. The urea reduction ratio (URR) is often used to measure how well urea is removed from the blood by dialysis and is shown as a percentage. The UK Renal Registry (UKRR) receives URR information from all the renal units in the UK. It is important to report on URR to make sure that all renal units are providing adequate dialysis to patients. It is also important as the survival of patients with kidney failure treated by haemodialysis (HD) is affected by how well urea is removed from the blood. A particular patient may not achieve the target URR during a given dialysis session due to several reasons including dialysis access problems. A small number of patients that perform their own dialysis at home (home haemodialysis) were excluded from this paper.

URR information completeness

Information for URR was available for 74% of all patients receiving HD in the UK in 2016. This compares to 72% in 2015. Some centres provided little or no information on URR and are not included in these results. Work is needed to resolve IT issues which affect the sharing of data with the UKRR.

Number of dialysis sessions per week and time per dialysis session

Most patients on HD had dialysis three times a week, but there were big differences between renal units. Some renal units reported that over 15% of their patients had four or more dialysis sessions a week. Other centres reported that more than 18% of patients had two or fewer sessions a week.

Most patients dialysed between four and five hours each dialysis session, although again there were large differences between renal units in reported time per session.

Changes in URR over time

Clinicians recommend that URR should be greater than 65% when patients are on HD and dialysing three times a week, because this will help patients live longer and stay well. In 2016, 89% of HD patients had a URR greater than 65%, a big increase from the 78% seen in 2002 (figure 1). More women than men reached the recommended URR level: 92% of women compared to 85% of men.

The average URR in 2016 was 75%. Women had a higher average URR than men: 78% for women compared to 74% for men. Average URR has increased from 71% in 2002 to 75% in 2016, but there has been no big increases in the average URR or in the percentage of patients reaching the recommended URR (greater than 65%) between 2011 and 2016 (figure 1).

Variation in the URR recommendation and time on dialysis

More patients reached the recommended URR (greater than 65%) the longer they were on dialysis. Of those patients on dialysis for more than two years, 90% reached the recommended URR (figure 2). Of patients on dialysis for six months, 73% reached the recommended URR of greater than 65%.

Figure 1. Change in the percentage of patients on HD with URR greater than 65% and the average (median) URR between 2002 and 2016

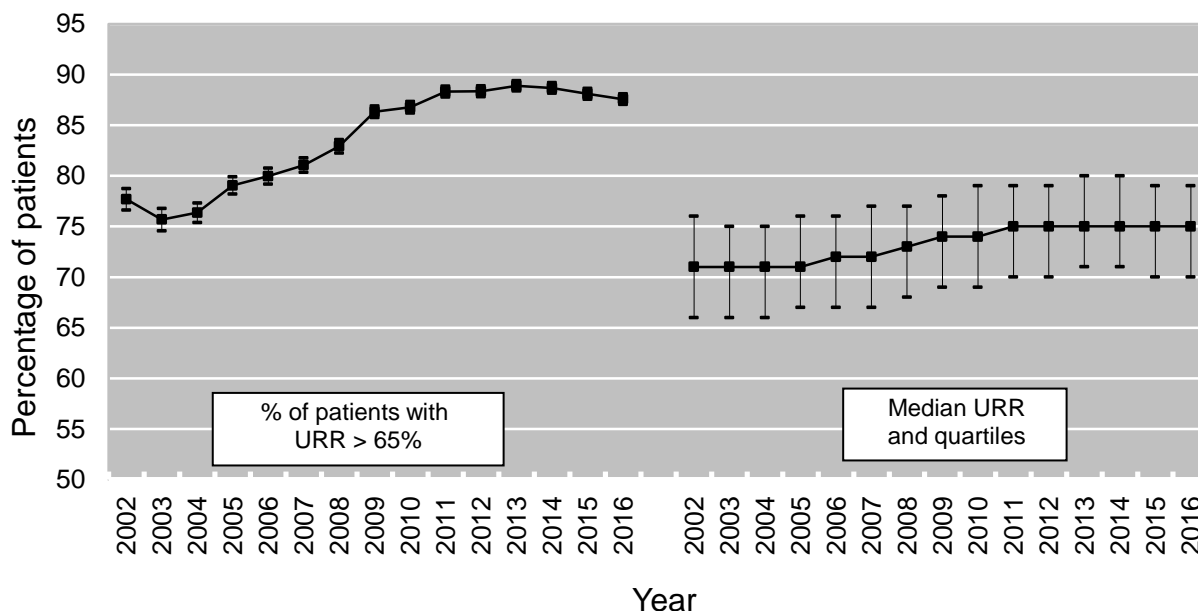
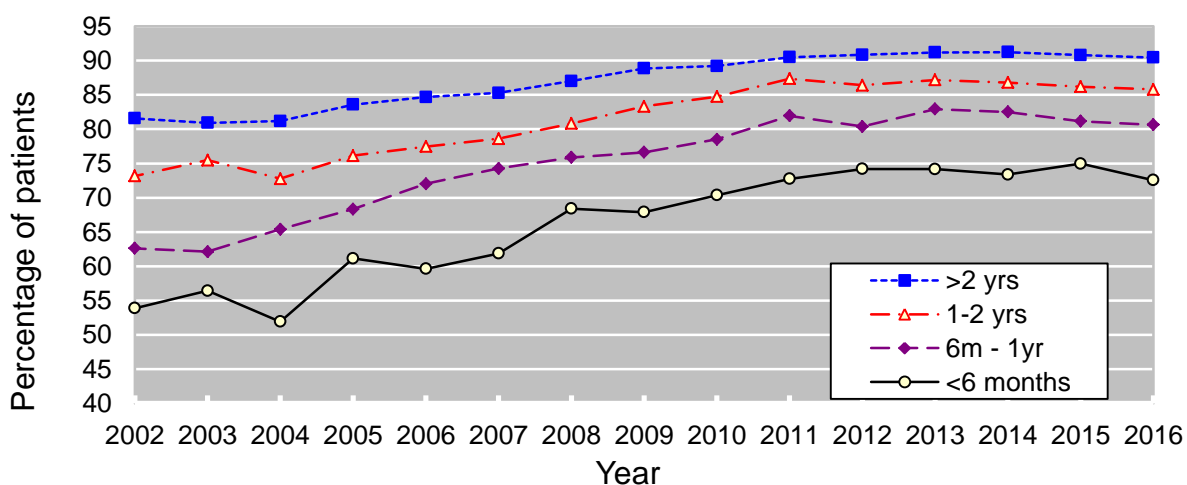


Figure 2. Percentage of patients on HD achieving URR greater than 65% by time on dialysis between 2002 and 2016



Conclusion

The dose of dialysis given to patients, as measured by URR, has plateaued over the 10 years to 2016. Most patients in the UK reached the recommended target URR of greater than 65%, but there were large differences between renal centres.

For the full annual report chapters, please visit www.renalreg.org/reports/2017-twentieth-annual-report/