

The Renal Association

UK Renal Registry



Dialysis and Transplantation in Children in the UK in 2016

Plain English Summary

Severe chronic kidney disease (CKD) is rare in childhood. Renal replacement therapy (RRT) is needed to take over the role of the kidneys. This can be in the form of dialysis (blood cleaning) or a kidney transplant. In 2016, there were 964 UK children aged less than 18 years receiving RRT compared with 63,162 adults. A total of 125 new patients started RRT. These children were managed in 13 kidney units for children across the UK. The main cause for needing RRT was being born with kidneys that did not form properly.

In 2016, for every 100 children treated for severe CKD, 77 had received a kidney transplant and 23 were on dialysis (12 received haemodialysis and 11 peritoneal dialysis). Just over half of children with a transplant had a kidney from a live donor. One in three children received a kidney transplant before dialysis was needed; this is called a pre-emptive transplant. This was roughly the same proportion of children as in previous years. This did not include very young children or those who presented 'late' with kidney disease, as there was not enough time to plan for a pre-emptive transplant before it is needed. At the time that young people moved to an adult kidney unit, 89 out of every 100 had a working kidney transplant.

In terms of growth, children who require RRT are shorter than healthy children of their age. This is more noticeable for children on dialysis. Transplanted children have a normal weight for their age, while children on dialysis are underweight compared to the normal childhood population. Children who have functioning kidney transplants are more likely to be overweight or obese than children on dialysis (almost half of all transplanted children).

Blood tests show when kidney transplants are working well. There is a suggestion that children who are dialysed have more issues with control of bone disease related to their CKD. A lower percentage of children on dialysis have acceptable anaemia control compared with transplanted children. Children on RRT tend to have a higher blood pressure than the healthy population; this is more significant for those on dialysis.

Survival on RRT is improving although it is lower for very young children and those on dialysis. For every 100 children with kidney failure, almost three quarters will have one or more risk factors for heart disease. For transplanted children, being overweight or obese is the biggest problem. For children on dialysis it is the management of high blood pressure. These risks are important to consider for their future health.

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