

Chapter 1: Summary

The 2002 UK Renal Registry report refers to activity in 2001 and covers 72% of the UK adult population. The report on the 2002 data will cover up to 80% of the UK.

Anonymity has been removed from all the adult data except for survival figures in individual renal units. A meaningful comparison of mortality between renal units requires the ability to correct for case mix: robust data are not yet available for this.

The annual acceptance of new patients in the UK has not risen in the past 4 years. At 93.2 per million population (pmp) for adults and 1.7 pmp for children, it is lower than in most other Western European countries. The annual acceptance rates in the (superseded) health authorities vary from 51 pmp to 154 pmp. Differences in age structure and ethnic minority distributions do not fully explain the variation.

Diabetic nephropathy as a cause of renal failure, seen in 18% of new patients, is not increasing and remains lower than in the USA and much of Europe.

The annual growth in the number of those receiving renal replacement therapy (RRT) is 7%, largely occurring for haemodialysis (HD). On 31 December 2001, a minimum of 33,363 patients (566 pmp) received RRT in the UK; 52.8% were treated by dialysis.

Of prevalent White patients, 10% are diabetic compared with 20% from ethnic minorities.

Of prevalent patients, 46.6% are transplanted, 37.1% are on HD and 16.3% receive peritoneal dialysis (PD). PD is more common in the young, especially in diabetics. Connect PD has virtually disappeared, and cycling PD has increased very little.

The number on RRT is predicted to rise for 20 years until a steady state position is reached, with a future prevalence approaching 60,000 patients.

In 2001, there was only a small improvement in the adequacy of delivered dialysis. A survey showed there are diverse post-dialysis urea sampling methods in current use.

The management of anaemia improved further, with 81% of HD and 86% of PD patients achieving the haemoglobin standard of >10 g/dL.

Haemoglobin level prior to the start of RRT has increased over the past 3 years. PD patients had higher prior haemoglobin levels than those starting HD.

Ninety-three per cent of HD and 84% of PD patients achieved a serum ferritin level above 100 mcg/L. This has shown a continuing, albeit small, annual increment.

Of all dialysis patients, 71% had a corrected serum calcium concentration within the standard range, and there was no significant difference between HD and PD patients. Only 50% of patients had a serum phosphate within the standard range, phosphate levels being significantly lower in PD patients. Serum parathyroid hormone fell within the standard range in 58% of dialysis patients. There has been no improvement in the control of these variables in 5 years.

The method of measurement of serum albumin has a major effect on the interpretation of differences between centres and changes with time, The centres using BCP have lower serum albumin readings.

For HD patients, the median serum bicarbonate varied from 18 to 26 mmol/L between centres. More detailed information concerning sample handling by laboratories and units is required to explore this difference in results. Sixty-two per cent of HD patients achieved the recommended standard, as did most PD patients .

In England & Wales, the recommended blood pressure standard was achieved in 42% (inter-unit range 15–68%) of young HD patients and 64% (range 23–84%) of older patients. Of young PD patients, 52% (range 40–75%) achieved the standard, of older patients, 69% (range 45–88%). Variations between units were significant.

For HD, 73% (inter-unit range 47–86%) of patients achieved a cholesterol level of 5 mmol/L or less. Of PD patients, the figure was 56% (range 30–72%). The data show significantly higher cholesterol levels in PD patients.

There is a U-shaped association between cholesterol level and 1 year mortality.

There has been a progressive decline in the proportion of the prevalent RRT stock made up by renal transplant patients, from 51% in 1997 to 46.6% in 2001. Of transplant patients on the Registry database, 21.4% are managed by non-transplanting centres.

The percentage of patients achieving the recommended standard for all the following variables differed significantly between centres: haemoglobin, dialysis adequacy, serum ferritin, calcium, phosphate, bicarbonate and intact parathyroid hormone, and blood pressure.

Patients on RRT show a high relative risk of death compared with the general population. This is most pronounced in the young and diminishes with increasing age. Cardiovascular disease is the most common cause of death, especially in diabetics.

Established renal failure presents at all ages in childhood, with a slow increase with age. Boys significantly outnumber girls in early childhood, but by the teenage years, more females are presenting than males. Renal dysplasia and obstructive uropathy remain the most common causes of RRT in childhood. Most paediatric patients are transplanted. The cadaveric transplantation rate is falling.

The 1 year survival of incident RRT patients ranges from 95% in young adults to 75% in those aged 65–74, and 50% in those over 85. Data from the past 4 years show a small steady improvement in all age groups. Four-year survival is 48% (67% <65 years, 24% >65 years). There is no significant difference in survival between centres, except that one centre has an unexplained good survival in the first year after 90 days.

Multivariate analysis showed that the four comorbidity factors most closely related to poor 1 year survival are age, ischaemic ulcers, malignancy and smoking. A better return of comorbidity data is needed to improve the quality of survival analysis.