Chapter 1
Summary of findings in the 2009 UK Renal Registry Report

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In 2008, all renal centres supplied electronic data extracts to the UK Renal Registry. In all analyses, marked variations between centres are reported.

In 2008, the acceptance rate in the UK was 108 per million population (pmp). Acceptance rates in Scotland (103 pmp), Northern Ireland (97 pmp) and Wales (117 pmp) have all fallen compared to previous years, although Wales still remained the country with the highest acceptance rate. Diabetic renal disease remained the single most common cause of renal failure (24%). The incidence of late presentation (<90 days) has fallen from 28% in 2003 to 22% in 2008.

There were 47,525 adult patients receiving RRT in the UK on 31/12/2008, equating to a UK prevalence of 774 pmp. This represented an annual increase in prevalence of approximately 4.4%. The growth rate from 2007 to 2008 for prevalent patients by treatment modality in the UK was 5.9% for haemodialysis (HD), a fall of 9.2% for peritoneal dialysis (PD) and growth of 4.6% with a functioning transplant. For all ages, prevalence rates in males exceeded those in females, peaking in the 75–79 years age group at 2,582 pmp for males and in the 70–74 years age group at 1,408 pmp for females.

The total number of kidney transplants performed in 2008 was 2,486 compared to 2,218 in 2007 and 2,067 in 2006. Compared to 2007, there were 37 (4%) more transplants from heartbeating deceased donors, 139 (46%) more transplants from non-heartbeating deceased donors and 120 (15%) more transplants from living kidney donors. The number of simultaneous kidney/pancreas transplants fell from 197 in 2007 to 162 in 2008. Analysis of prevalent transplants by chronic kidney disease stage showed 14.7% with an eGFR <30ml/min/1.73 m^2 and 2.1% <15ml/min/1.73 m^2. Of those with CKD stage 5T, 40.4% had haemoglobin (Hb) concentrations <10.5 g/dl, 25.9% phosphate concentrations ⩾1.8 mmol/L, 9.0% adjusted calcium concentrations ⩾2.6 mmol/L and 40.8% PTH concentrations ⩾32 pmol/L.

Reporting of comorbidity at the start of RRT remained incomplete in many centres. Diabetes mellitus and ischaemic heart disease were the most common comorbidities reported at the start of RRT, in 30.1% and 22.7% of patients respectively. In multivariate survival analysis, malignancy and ischaemic/neuropathic ulcers were the strongest independent predictors of poor survival at 1 year after 90 days from the start of RRT.

The age-adjusted survival (adjusted to age 60) of prevalent dialysis patients rose from 85% in 2000 to 89% in 2007. Diabetic prevalent patient survival rose from 76.5% in 2000 to 83.0% in 2007. The age-standardised mortality ratio for prevalent RRT patients compared with the general population was 28.6 at age 30 years (and was lower than in the 1998–2001 cohort

in all age groups up to 45–49) and 4.6 at age 80 years. The median life years remaining for a 25–29 year old on RRT was 20 years and 5 years for a 70 year old.

There has been an increase from 56% in 1998 to 83% in 2008 in the proportion of patients in the UK who met the UK Clinical Practice Guideline for URR (>65%). There was considerable variation from one centre to another, with 9 centres attaining the RA clinical practice guideline in >90% of patients and 5 centres attaining the standard in <70% of patients.

In HD patients, 54% of patients had a Hb $\geqslant$10.5 and $\leqslant$12.5 g/dl in 2008 compared with 53% in 2007. In PD patients, 55% of patients had a Hb $\geqslant$10.5 and $\leqslant$12.5 g/dl in 2008, compared with 52% in 2007. The proportion of patients with Hb $\geqslant$10 g/dl fell in 2008 compared to 2007. The median ferritin in HD patients in England, Wales and Northern Ireland was 436 µg/L (IQR 289–622); 95% of HD patients had a ferritin $\geqslant$100 µg/L. The median ferritin in PD patients in England, Wales and Northern Ireland was 246 µg/L (IQR 141–399) with 84% of PD patients having a ferritin $\geqslant$100 µg/L. In England, Wales and Northern Ireland the mean ESA dose was higher for HD than PD patients (9,166 vs. 6,302 IU/week).

Serum phosphate was between 1.1 and 1.8 mmol/L in 55% of HD and 64% of PD patients, which was similar to 2007. A revised adjusted serum calcium target of 2.2–2.5 mmol/L was achieved by 63% of HD and 65% of PD patients. The audit measure for bicarbonate was achieved in 71% of HD and 82% of PD patients. Overall, 43% of diabetic dialysis patients exceeded the target of 7.5% HbA1c.

In 2008, only 26.3% of peritoneal dialysis and 27.4% of transplant patients achieved the Renal Association guidelines standard of BP <130/80 mmHg.

Since the removal of BP targets for haemodialysis (HD) patients within the Renal Association Clinical Practice Guidelines, there has been a reduction in the number of HD patients achieving BP <130/80 mmHg. In 2008, 43.1% of patients achieved BP <140/90 mmHg pre-HD and 46.8% BP <130/80 mmHg post-HD.

From April 2008 until March 2009 171 discrete episodes of MRSA bacteraemia were identified from the Health Protection Agency database as being potentially associated with patients in established renal failure (ERF) requiring dialysis. Of the 139 episodes amongst confirmed dialysis patients for whom data on vascular access were available, all occurred in patients on haemodialysis. Of these patients, 30.2% were utilising an arteriovenous fistula or graft and 69.8% were dialysing on a non-tunnelled or tunnelled venous catheter. The median centre-specific rate of MRSA bacteraemia was 0.64 (range 0–3.49) episodes per 100 haemodialysis patients per year, and 0.55 (range 0–2.89) episodes per 100 dialysis (haemodialysis and peritoneal dialysis combined) patients per year.

In a pilot study in 9 UK renal centres of 8,810 patients, 1,616 (18.3%) were flagged by criteria based on biochemical values at around the start of RRT, as having a potentially incorrect reported date of start of RRT. Of these, 61.7% had been assigned an incorrect date of start of haemodialysis (HD), 5.7% had evidence of acute RRT being given before the reported date of start of HD and 9.2% had evidence of starting peritoneal dialysis exchanges prior to the reported date of start.

The UK paediatric established renal failure (ERF) population in December 2008 was 905 patients. The prevalence under the age of 16 years was 56 per million age related population (pmarp) and the incidence 7.4 pmarp. The incidence and prevalence for South Asian patients was much higher than that of the White and Black populations. Anthropometric data confirmed that children with ERF in the UK are short compared with their peers with no change in recent trends. In the UK as a whole, the control of blood pressure, anaemia and bone biochemistry is suboptimal, but for some parameters these appear to be better in the 2008 cohort than in the 1999–2008 cohort.