About this Release

This tenth report from the Scottish Renal Registry (SRR) follows the outline of previous reports and presents information about the causes, incidence, prevalence, distribution, methods of treatment and outcome of patients receiving renal replacement therapy (RRT) for established renal failure (ERF) between 1960 and 31 December 2013. It also presents audit data relating to measures of quality of treatment delivered up until 30 June 2014. There is no information in this report about patients with acute kidney injury (AKI) or those with chronic kidney disease (CKD) before RRT is required.

Key Points

- **Incidence:** 96 patients per million population started RRT for ERF in 2013. The incidence of new patients starting RRT per million population has been stable over the past five years. There were no significant differences in the age, sex and SIMD standardised incidence of patients starting RRT in the 5 years 2009-2013 between NHS Board areas. The incidence of new patients starting RRT in 2013 was highest in those aged ≥ 75 years at 266 patients per million age specific population.

- **Prevalence:** On 31 December 2013 there were 4600 prevalent patients receiving RRT. Of these 54.5% of patients had a functioning kidney transplant, 40.5% were being treated with haemodialysis (HD) and 5% with peritoneal dialysis (PD). In contrast to numbers of new patients starting RRT, the numbers of prevalent patients is still rising. There are significant differences in the age, sex and SIMD standardised prevalence of patients receiving RRT on 31 December 2013 between NHS Board areas, with significantly less patients in Lothian, Shetland and the Western Isles.

- **Life expectancy:** There is a significant trend of improving survival for patients starting RRT in the 10 years 2004-2013. However the life expectancy of patients receiving RRT is shorter than that of the general population. The survival of patients is influenced by their age at the time of starting RRT and also by their primary renal diagnosis (PRD).

- **SMARRT:** The Scottish Mortality Audit of RRT (SMARRT) study has collected detailed information about the death of patients receiving RRT since 01 January 2008. In 2013 the majority (69%) of patients receiving RRT who died, died in a hospital, 20% died in their home. Cardiovascular disease was the most common cause of death in dialysis
patients; malignancy was the most common cause of death in those who died with a functioning kidney transplant.

- **Kidney transplantation:** 269 patients received a kidney transplant in Scotland in 2013, 36 (13%) of those transplants were pre-emptive meaning they were performed before the patient had required any other form of RRT.

- **Vascular access for HD:** Vascular access describes the connection between a patient's circulation and a haemodialysis machine. In May 2014 74.1% of HD patients had a form of arteriovenous (AV) fistula which is the best form of access. 25.9% were using central venous catheters which are prone to infection. There were significant differences between renal units. **UKRA guideline: minimum standard - 85% of prevalent haemodialysis patients should receive dialysis via an arteriovenous fistula.** 47% of patients started HD via AV access in the first six months of 2014, 45% started HD via AV access in 2013. There were significant differences between renal units. **UKRA guideline: minimum standard - 65% of incident HD patients should commence HD via AV access.**

### Background

The Scottish Renal Registry (SRR) is a national registry which collects and analyses data on patients who have been diagnosed with ERF. Data has been collected from Scottish renal units since 1960, which is the year when regular and routine renal replacement therapy (RRT) for established renal disease (ESRD) started in Scotland.

All renal units in Scotland fully participate in the data collection of the SRR and all patients receiving RRT for ERF are registered. On 31 December 2013 there were nine adult and one paediatric renal units in Scotland with 25 satellite dialysis units between them.

Through the collection of national data, the SRR aims to improve the quality of renal services provided in Scotland through audit and peer review; plan for the provision of future renal services; undertake research including the production of basic demography and epidemiology statistics and helps support the training of medical staff.

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### Further Information

Further information can be found in the [full report](#), on the [SRR website](#) or on the [ISD website](#).

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### About ISD

Scotland has some of the best health service data in the world combining high quality, consistency, national coverage and the ability to link data to allow patient based analysis and follow up.

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