

Chronic Kidney Disease

Introduction

Chronic kidney disease (CKD) is a common condition in UK primary health care with estimations that 5.9% of our patients have CKD stages 3 – 5¹. By far the commonest stage is stage 3 affecting 5.4% of the population and much lower figures for stage 4 (0.4%) and stage 5 (0.1%). In the NHS Scotland context, an average sized practice of 6,000 patients², will have 354 patients with stage 3, 24 patients with stage 4, but only 6 patients with stage 5 CKD.

CKD is an important condition for primary care clinicians to identify and manage. The risks of declining renal function, leading to end-stage renal disease (ESRD), dialysis or renal transplant, are much less than the risks of dying of associated cardiovascular disease³. Patients with CKD are 5 – 10 times more likely to die prematurely from non-renal causes than they are to progress to ESRD. Over a five year period, less than 2% of people with CKD will progress to dialysis or kidney transplantation, but the risk of death rises exponentially as renal function worsens and is largely secondary to cardiovascular disease. In addition, impaired renal function is associated with poorer psychosocial functioning, anxiety, depression, and reduced quality of life.

All stages of CKD carry an increased risk of hospitalisation, morbidity and all-cause mortality and cardiovascular mortality. Patients with CKD have an increased risk of stroke, increasing by 7% for every 10mL/min/1.73m² decrease in GFR. A 25mg/mmol increase in urinary albumin/creatinine ratio (ACR) is associated with a 10% increased risk of stroke⁴.

For those patients with CKD who do go on to develop ESRD, and require renal replacement therapy (RRT), various factors indicate a reduced survival rate: older age, co-morbid systemic disease and diabetes mellitus show the strongest association with excess mortality⁵. Compared to the general population, the risk of death on RRT increases 25-fold at age 30 - 34, reducing to three-fold for those over 85 years.