key points

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Chronic kidney disease (CKD) is defined as a reduction in estimated glomerular filtration rate (eGFR) for three consecutive months, or evidence of kidney damage alone with preserved renal function. CKD affects 8.5% of the UK population. Early recognition allows intervention that may delay or avoid progression to end-stage disease and modify the cardiovascular risk associated with CKD.

CKD is classified into five stages and the majority of individuals have stages 1-3, many of these will never progress to end-stage renal disease. A decline in GFR with age is expected. The most frequent specific renal diseases resulting in progressive CKD in the UK are: diabetes mellitus, atheromatous renal vascular disease, glomerulonephritis, chronic pyelonephritis and inherited renal disease.

Laboratories in the UK now routinely provide an eGFR with a serum creatinine value in all adult patients. This estimation is based on serum creatinine, age, gender, and ethnicity. Baseline assessment in a patient with newly diagnosed CKD should include: blood pressure, dipstick urinalysis, urine ACR or PCR, glucose, lipid profile and a full blood count. Fluctuation in renal function is common, particularly in elderly patients with CKD. A fall in eGFR can result from any intercurrent illness, medication, or volume depletion. Proteinuria is a very important prognostic marker in CKD, ACR is the preferred measure as it has greater sensitivity for lower levels of proteinuria and is the recommended method in those with diabetes.

The potential health problems associated with CKD can be divided into two main categories: risk of progressive renal disease with the development of renal bone disease and renal anaemia, and risk of overt cardiovascular disease.

An accurate electronic CKD register in general practice is valuable to facilitate appropriate monitoring and allow timely onward referral in the subgroup at risk of progressive disease. To minimise the risk of progression of CKD particular attention should be paid to blood pressure control, reducing proteinuria, management of cardiovascular risk and avoidance of inappropriate prescribing. ACE inhibitor/ARB therapy should be titrated to the maximum tolerated dose in those with proteinuria. The eGFR and potassium should be measured before commencement of therapy and 7-10 days after initiation or a dose increase.