key points

SELECTED BY
Dr Peter Saul
GP, Wrexham and Associate GP Dean for North Wales

Chronic kidney disease (CKD) is defined as either a reduction in measured kidney function (eGFR) or urinary abnormalities (haematuria/proteinuria) or a combination of both, present for more than 3 months. In the most recent NICE guidelines the various CKD stages 1-5 are now represented by G (for GFR) categories (G1-5) which have the same eGFR thresholds as previous CKD guidelines. The ACR category is denoted as A (for albuminuria) with three categories: A1, A2 or A3. The ACR category has been introduced to emphasise that patients with higher levels of albuminuria have an increased risk of progression to end-stage renal disease.

Most cases of CKD in the elderly are caused by the cumulative effect of other disease states, especially hypertension and atherosclerosis. The CKD classification system will identify many elderly patients with a low eGFR but without progressive kidney failure. It is important not to alarm these individuals unduly with a misplaced diagnosis of advanced kidney failure.

Individuals with newly identified reduced eGFR should have AKI excluded. All newly identified CKD patients should have blood pressure (BP), dipstick urinalysis, random urine ACR or urine protein:creatinine ratio (PCR), glucose, cholesterol and full blood count checked at the earliest opportunity. An ultrasound scan should be offered to individuals with increased risk.

Cardiovascular events and progression of CKD are more common if albuminuria or proteinuria is present. Urine ACR has a greater sensitivity for low levels of proteinuria in comparison with PCR. Referral for patients with CKD should be based on assessment of kidney function (eGFR), the severity of proteinuria (urine ACR), concerns about poorly controlled BP, or suspected inherited renal disease.

BP should be treated ideally to < 140/90 mmHg, if ACR > 70 mg/mmol treat BP ideally to < 130/80 mmHg with ACEi or ARBs as first-choice therapy. Caution must be exercised when reducing BP in elderly patients with widespread vascular disease, as kidney perfusion may be compromised by a fall in BP leading to acute kidney injury.

ACEi or ARB therapy should be offered to patients with CKD to reduce proteinuria, a statin should be offered to those with CKD, and an antiplatelet agent considered for secondary prevention of cardiovascular disease. Medication should be reviewed, NSAIDs stopped and doses of medication adjusted according to eGFR.