

Table 2

Important primary care investigations for suspected glomerulonephritis

Investigation	Aim
Urea and electrolytes with eGFR	● Determine renal function
Urinalysis	● Detection of proteinuria ± haematuria and to help exclude urinary infection
Urinary albumin:creatinine ratio (ACR)	● Quantification of proteinuria
Renal tract ultrasound	● Check for renal stones and scarring, exclude obstruction; determine whether evidence of chronic renal disease secondary to glomerulonephritis (likely if kidneys small)
Full blood count	● For anaemia, white cell count for inflammation or infection and platelet count (high in infection/inflammation; low in some types of glomerulonephritis)
CRP and ESR	● Inflammation and infection
LFTs, bone profile and albumin	● Albumin < 30 g/L in nephrotic syndrome
Cholesterol	● Usually elevated (sometimes > 10 mmol/L) in nephrotic syndrome
Glucose	● Exclude diabetes mellitus
ANCA, anti-GBM, ANA	● Check for vasculitic and autoimmune-associated antibodies
C3, C4	● Complement fractions – low in some types of glomerulonephritis
ASOT	● Levels > 200 units suggest recent streptococcal infection and possibility of a post-infectious glomerulonephritis
Immunoglobulins	● IgA levels can be elevated in IgA nephritis. Exclude paraproteinaemia and myeloma
Serum protein electrophoresis	● Hepatitis B associated with polyarteritis nodosa and membranous glomerulonephritis
Hepatitis B, C, HIV	● Hepatitis C associated with cryoglobulinaemia and mesangioproliferative glomerulonephritis
	● HIV associated with focal segmental glomerulosclerosis
Chest X-ray	● Check for pleural effusions, pulmonary haemorrhage, cavitating lesions, lung cancer (potential secondary cause of glomerulonephritis)
Kidneys, ureters, bladder (KUB) X-ray	● KUB X-ray to exclude renal stones

ANCA = anti-neutrophil cytoplasmic antibody; anti-GBM = anti-glomerular basement membrane antibody; ANA = antinuclear antibody; ASOT = anti-streptolysin O titre