

RENAL MEDICINE

National Referral Guidelines

NATIONAL REFERRAL GUIDELINES: RENAL MEDICINE	
Clinical problems to be referred include	Investigations usually required
<ul style="list-style-type: none"> • Haematuria (see investigation 6) • Nephritic syndrome (see Appendix 1) • Proteinuria (see investigation 5) • Nephrotic syndrome (see Appendix 2) • Acute renal failure • Chronic renal failure (see Appendix 3) • Hypertension (suspected renovascular or with renal disease or failure) • Urinary infection (complicated - recurrent) • Abnormal renal structure (scarred or cystic kidneys) • Recurrent stone disease • Symptoms or signs of vasculitis associated with above • Dialysis patients and kidney transplant patients (especially with reference to renal function, blood pressure and infection) 	<ol style="list-style-type: none"> 1. Urine microscopy culture & sensitivity and dipstick (if possible fresh for dysmorphic red cells and casts) 2. Full blood count 3. Plasma biochemistry <ul style="list-style-type: none"> - Electrolytes - Albumin - Urea - Calcium - Glucose - Phosphate - Creatinine - Urate 4. Renal ultrasound (if available within time frame) 5. Quantitation of proteinuria <ul style="list-style-type: none"> - Urine albumin/creatinine ratio (normal <3.5) - 24 hour urine protein or albumin (and creatinine clearance) <p><i>N.B. Microalbuminuria relevant to diabetes - refer diabetic service</i></p> <p>If <1 g check if postural (benign) i.e. disappears on EMU <0.3 gm</p> <p>If >0.5 g refer - urgency increased if associated with BP+, haematuria and/or renal impairment</p> 6. Haematuria -if associated with BP+, proteinuria; renal impairment, age <45 years or >15% dysmorphia. If none of above refer urology (check EMU cytology) 7. Sterile pyuria - check EMU cytology & AFB - refer Urology

Appendix 1.

Acute nephritic syndrome is haematuria, oedema and often hypertension due to proliferative glomerulonephritis. The salt and water retention is caused by a fall in GFR.

Appendix 2.

The nephrotic syndrome is oedema, hypoalbuminaemia (<30 g/l) as a result of heavy proteinuria (>3 g/day). The cause is usually a non-proliferative GN.

Appendix 3.

If creatinine is >0.15 mmol/l check creatinine clearance (by 24 hour urine or Cockcroft and Gault equation). Refer if creatinine clearance if <0.5 ml/sec for management of CRF.

Cockcroft and Gault Equation

For males	creatinine clearance = $\frac{[140 - \text{age}] \times \text{lean body weight (kg)}}{\text{creatinine (mmol/l)} \times 50,000}$
For females	as above x 0.85

Note:

- Patients with a milder degrees of renal impairment should be referred if cause unknown and clinically indicated.
- Muscular individuals may have slightly raised serum creatinine but renal function by creatinine clearance may be confirmed as normal. Conversely in those with low muscle mass a "normal" creatinine can be compatible with significant impaired function.