

Renal Referral: When to refer??

This page summarises 'when to refer' for specialist care. This is dealt with in more detail on the linked pages.

There will be differing local pathways and processes for some referrals. Frequently, advice by email or telephone may help in reaching a decision. Follow local protocols when provided. Seek specialist advice where patients fall outside protocols.

| When to refer to specialist services (summary) | |
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| According to eGFR (ml/min/1.73m ²) | |
| <15 | Usually immediate referral or discussion (exceptions discussed on stage 4-5 page) |
| 15-29 | Urgent referral or discussion; or routine referral if known to be stable (exceptions discussed with further info about management of Stages 4/5 CKD) |
| 30-59 | <p>Routine referral indicated if:</p> <ul style="list-style-type: none">Progressive fall in GFR/rise in serum Creatinine<ul style="list-style-type: none">5ml/min/1.73m² in one year10ml/min/1.73m² in 5 yearsStage 4 reached (GFR <30) more on deteriorating GFRNon-visible haematuria more on haematuriaProteinuria, if ACR>70 or PCR >100mg/mmol more info on ProteinuriaUnexplained anaemia (Hb <110g/l), abnormal potassium, calcium or phosphate <p>Further info about management and referral of Stage 3 CKD</p> |
| 60+ | <p>Referral not required unless other evidence of kidney disease (e.g. likely genetic diagnosis, urinary abnormalities, see below)</p> <p>Further info about management and referral of Stages 1 and 2 CKD</p> |
| Other indications for referral | |
| Acute renal failure | <p>Immediate referral/discussion - most patients with acute renal failure unless the cause and solution are obvious.</p> <p>More on deteriorating renal function</p> |
| Proteinuria | <p>Routine referral - urinary ACR>70 or PCR>100mg/mmol; or ACR>30 or PCR>50mg/mmol with microscopic haematuria</p> <p>Urgent referral - Heavy proteinuria with low serum albumin (nephrotic syndrome).</p> <p>Further info about proteinuria</p> |
| Haematuria | <p>Visible haematuria with negative urological investigations or with strong renal features</p> <p>Invisible haematuria with proteinuria as above</p> <p>Further info about haematuria</p> |
| Hypertension | <p>Immediate referral - malignant hypertension</p> <p>Routine referral - uncontrolled (>150/90) BP despite 4 agents at therapeutic doses in a patient with CKD</p> <p>Further info about hypertension in CKD</p> |
| Systemic illness | <p>Suspicion of renal involvement from a systemic illness should lead to urgent referral or discussion.</p> |

Information that it is valuable to send with referral

- General medical history** - particularly noting urinary symptoms, previous blood pressures, urine testing.
- Medication history**
- Examination**
- Urine dipstick result** for haematuria and quantitation of proteinuria by ACR or PCR
- Blood tests** - Full blood count, urea and electrolytes. HbA1c if diabetic. If available, calcium, albumin, phosphate, cholesterol.

- **Previous tests of renal function** with dates, back to normal renal function if possible (unless electronically available in specialist centre).
- **Imaging** - results of renal imaging if undertaken (according to local circumstances, pre-ordering may speed assessment)

What to do about it

A number of thresholds have been recommended, as summarised here:

| ACR (mg/mmol) | PCR (mg/mmol) | Implication |
|---------------|---------------|---|
| >2.5/3.5 | >15 | Abnormal (ACR values are for male, female): adequate to define CKD 1 or 2. Commence ACEI/ARB if diabetic(**). |
| 30 | 50 | Favour ACE inhibitor/ ARB if hypertensive Suffix 'p' on CKD stage |
| 70 | 100 | Stricter BP limits apply Referral threshold in non-diabetics |
| >250 | >300 | Approximately 'nephrotic range' proteinuria |

- Long term implications are important when considering assessment and management. For example, young adults will have many more years at risk and lower levels of proteinuria are more important.
- **Ratios at lower levels than above**
- Bearing in mind the above, usually manage as CKD, according to stage:

| | | | |
|------------------|------------------------------------|---------------------------------|------------------------------------|
| About CKD stages | GFR>60 Stages 1+2 CKD | GFR 30-59 Stage 3 CKD | GFR<30 Stages 4+5 CKD |
|------------------|------------------------------------|---------------------------------|------------------------------------|

In patients with diabetes

Microalbuminuria (ACR>2.5/3.5)* is an indication for

- treatment with ACE inhibitors (or Angiotensin receptor blockers if those are not tolerated), with titration up to full dose irrespective of initial blood pressure: **more information on treatment with ACEIs and ARBs**
- *Plus* control of hypertension to target (**more info**)
- Good glycaemic control
- ACR or PCR and serum creatinine should be measured annually
- Referral to nephrology only if fulfil usual criteria (**more info**)

Initial assessment of a high creatinine (low eGFR)

Acute renal failure - a decline in renal function over hours or days - needs urgent assessment.

Sometimes the cause is immediately apparent (e.g. bladder outflow obstruction or drugs) and quickly rectifiable. If not, urgent hospital assessment is almost always required. Refer according to local protocols.

Slower rates of deterioration may need specialist assessment: referral guidelines are

- NICE suggests these rates of GFR loss:
 - Loss of GFR of 5ml/min/1.73m² over a year or less
 - Loss of GFR of 10ml/min/1.73m² over 5 years or less
- Or if Stage 4 CKD is reached (GFR<30mls/min/1.73m²)
- Sooner if there is proteinuria and/or haematuria - **more info**