GUIDELINES FOR THE MANAGEMENT OF CHRONIC KIDNEY DISEASE

Stage	eGFR ml/min	Additional Features *	Treatment stage (Discuss/Refer if 'Red Flag' signs present)
1 / 2	>60	Other evidence of kidney damage	Annual review, Cardiovascular risk modification
3A	45-60		6 monthly reviews, Cardiovascular risk modification
3B	30-45		6 monthly reviews, Cardiovascular risk modification Consider seeking advice from Nephrologist
4	15-30		Urgent referral/discussion (unless exceptions present – see below)
5	<15		Immediate referral (unless exceptions present – see below)

*persistent microalbuminuria, proteinuria, haematuria and/or structural abnormalities in renal tract

RED FLAG SIGNS – The presence of any of the following should prompt a referral/discussion:

Immediate/Urgent Referral

- Suspected Acute Renal Failure
- Hyperkalaemia >7.0 mMol/l
- Suspected Malignant Hypertension
- Suspected Nephrotic Syndrome

Routine referral

- **Progression**
  - Fall in EGFR >5 per year or 10 over 5 years (confirmed on >1 sample).
  - >20% rise in Creatinine if eGFR reported as >60
- Microscopic haematuria (with or without proteinuria
- Urinary Albumin Creatinine Ratio (ACR) ≥ 70 or Urinary Protein Creatinine Ratio (PCR) ≥100
- Metabolic complications (hyperkalaemia, abnormal calcium or phosphate)
- Suspected systemic illness
- Unexplained Anaemia (haemoglobin <11 g/dl)
- Uncontrolled hypertension with **3** hypotensive agents
- Known genetic renal disease

NB: 1. Microalbuminuria in diabetic patients does not require renal referral unless indicated by eGFR (see above)

2. Exclude urinary obstruction is symptomatic men e.g. palpable bladder

Exceptions to referral in Stage 4 and 5 CKD (eGFR <30 ml/min/1.73 m2)

- Patients in whom severe renal impairment is part of another terminal illness
- Patients in whom all appropriate investigations have been performed and there is an agreed and understood care pathway (reference NSF Part 1)

- Patients in whom further investigations and changes to management are clearly inappropriate

Valuable information to be included in the referral letter

- General medical history – particularly urinary symptoms, systematic symptoms, previous blood pressures, urine testing
- Medication history
- Urine dipstick result – and ideally, quantification of proteinuria
- Blood test results – FBC, urea and electrolytes, albumin, calcium, phosphate, cholesterol, HbA1c if diabetic, CRP
- Previous tests of renal function with dates (unless electronically available on Basildon Hospital pathology database
- Imaging – results of renal imaging if undertaken (may be appropriate to arrange imaging prior to clinc

PROTEINURIA (see overleaf)

ACR (mg/mMol)	PCR (mg/mMol)	Significance
>2.5 Males or >3.5 Females		Microalbuminuria in a diabetic patient, otherwise normal
≥10	≥15	Diagnosis of CKD at any eGFR
≥30	≥50	ACEi/ARB if Hypertensive or Diabetic. BP target <140/90. Routine referral if haematuria present otherwise consider seeking advice from Nephrologist
≥70	≥100	ACEi/ARB if Hypertensive or Diabetic. BP target <130/80. Routine referral to renal services.
≥250	≥300	Nephrotic Range. Urgent referral to renal services

Notes on the use of ACE inhibitors and ARBS in CKD

ACE inhibitors and ARBs are only indicated as first line anti-hypertensive agents if the patient has significant proteinuria (see above). Biochemistry should be checked 2 weeks after commencing the drug. A rise in creatinine of >20% or Potassium >5.5 mMol/l should prompt withdrawal of the drug and repeat creatinine after 1 week to ensure a return to baseline. Such patients should be discussed with a Nephrologist.

Patients on these drugs should have renal function checked quarterly and during any acute illness. They should be advised to stop the tablets (and any diuretics) if they suffer a gastrointestinal illness lasting more than 24-hours.

WHERE TO GET HELP/ADVICE (Additional guidance can be found at www.renal.org)

Urgent advice or referrals

Contact the on-call renal consultant via hospital switchboard or during office hours call 01268 39 4775/4774

For further non-urgent advice

Write to the renal consultants at the Trust address or by fax on 01268 39 4829

Advice is also available via Choose and Book or SystemOne

Routine referrals should be made through Choose and Book.