CHRONIC RENAL DISEASE

Diagnosis

Mild Chronic Renal Failure (Cr 100-200 µmol/l)
- Treat hypertension vigorously i.e. BP < 130/85 mmHg
- Avoid diuretics unless volume overloaded
  Usually 3 agents required especially when Cr ≥150 µmol/l
  Target BP < 130/85mmHg
- Use ACE inhibitors: retard decline and are anti-proteinuric; more effective if Na+ depleted
  or Calcium antagonist: have proven reno-protective effects, but not anti-proteinuric
- Add thiazide diuretic to augment ACE inhibitor or add β-blocker as combination therapy
- Continue monitoring renal function and blood pressure

Moderate Chronic Renal Failure (Cr 200-400 µmol/l)
- Treat hypertension vigorously i.e. BP < 130/85 mmHg
- Avoid diuretics unless volume overloaded
  Usually 3 agents required, target BP < 130/85mmHg
- Use ACE inhibitors: retard decline and are anti-proteinuric; more effective if Na+ depleted
  or Calcium antagonist: have proven reno-protective effects, but not anti-proteinuric
- Add thiazide diuretic to augment ACE inhibitor or add β-blocker as combination therapy
- Continue monitoring renal function and blood pressure

Severe Chronic Renal failure (Cr >400 µmol/l)
- Continue monitoring renal function and blood pressure
Severe Chronic Renal Failure (Cr > 400µmol/l)

Patients require early nephrological referral for management and assessment for dialysis and transplant

Glossary:
- **ACE inhibitor** – Angiotensin converting enzyme inhibitor
- **Serum Na+** – Serum sodium
- **β-blocker** – Beta-receptor blocker
- **BP** – Blood pressure
- **Hb** - Haemoglobin
- **Cr/Serum Cr** – Serum creatinine
- **Serum Ca++** - Serum calcium
- **1α-hydroxy** – 1-alpha-hydroxy
- **PO4** – Phosphate

Applicable ICD 10 Coding:
- N03 Chronic nephritic syndrome
  - N03.0 Chronic nephritic syndrome, minor glomerular abnormality
  - N03.1 Chronic nephritic syndrome, focal and segmental glomerular lesions
  - N03.2 Chronic nephritic syndrome, diffuse membranous glomerulonephritis
Applicable ICD 10 Coding: (continued)
  o  N03.3 Chronic nephritic syndrome, diffuse mesangial proliferative
    glomerulonephritis
  o  N03.4 Chronic nephritic syndrome, diffuse endocapillary proliferative
    glomerulonephritis
  o  N03.5 Chronic nephritic syndrome, diffuse mesangiocapillary
    glomerulonephritis
  o  N03.6 Chronic nephritic syndrome, dense deposit disease
  o  N03.7 Chronic nephritic syndrome, diffuse crescentic glomerulonephritis
  o  N03.8 Chronic nephritic syndrome, other
  o  N03.9 Chronic nephritic syndrome, unspecified
  •  N11 Chronic tubulo-interstitial nephritis
    o  N11.0 Nonobstructive reflux-associated chronic pyelonephritis
    o  N11.1 Chronic obstructive pyelonephritis
    o  N11.8 Other chronic tubulo-interstitial nephritis
    o  N11.9 Chronic tubulo-interstitial nephritis, unspecified
  •  N18 Chronic renal failure
    o  N18.0 End-stage renal disease
    o  N18.8 Other chronic renal failure
    o  N18.9 Chronic renal failure, unspecified
  •  I12.0 Hypertensive renal disease with renal failure
  •  I13.2 Hypertensive heart and renal disease with both (congestive) heart
    failure and renal failure
  •  O10.2 Pre-existing hypertensive renal disease complicating pregnancy,
    childbirth and the puerperium
  •  O10.3 Pre-existing hypertensive heart and renal disease complicating
    pregnancy, childbirth and the puerperium

Note:

1. Medical management reasonably necessary for the delivery of treatment
described in this algorithm is included within this benefit, subject to the
application of managed health care interventions by the relevant medical
scheme.

2. To the extent that a medical scheme applies managed health care
interventions in respect of this benefit, for example clinical protocols for
diagnostic procedures or medical management, such interventions must –
  a.  not be inconsistent with this algorithm;
  b.  be developed on the basis of evidence-based medicine, taking into
      account considerations of cost-effectiveness and affordability; and
  c.  comply with all other applicable regulations made in terms of the
      Medical Schemes Act, 131 of 1998

3. This algorithm may not necessarily always be clinically appropriate for the
treatment of children. If this is the case, alternative paediatric clinical
management is included within this benefit if it is supported by evidence-
based medicine, taking into account considerations of cost-effectiveness
and affordability.