

## **CHRONIC RENAL DISEASE**

Diagnosis

Mild Chronic Renal failure  
Cr 100-200  $\mu\text{mol/l}$

Moderate Chronic Renal failure  
Cr 200-400  $\mu\text{mol/l}$

Severe Chronic Renal failure  
Cr >400  $\mu\text{mol/l}$

### **Mild Chronic Renal Failure (Cr 100-200 $\mu\text{mol/l}$ )**

Treat hypertension vigorously i.e. BP < 130/85 mmHg

Avoid *diuretics* unless volume overloaded  
Usually 3 agents required especially when Cr  $\geq 150$   $\mu\text{mol/l}$   
Target BP < 130/85mmHg

Use *ACE inhibitors*: retard decline and are anti-proteinuric; more effective if Na<sup>+</sup> depleted  
or *Calcium antagonist*: have proven reno-protective effects, but not anti-proteinuric

Add *thiazide diuretic* to augment *ACE inhibitor* or add  $\beta$ -blocker as combination therapy

Continue monitoring renal function and blood pressure

### **Moderate Chronic Renal Failure (Cr 200-400 $\mu\text{mol/l}$ )**

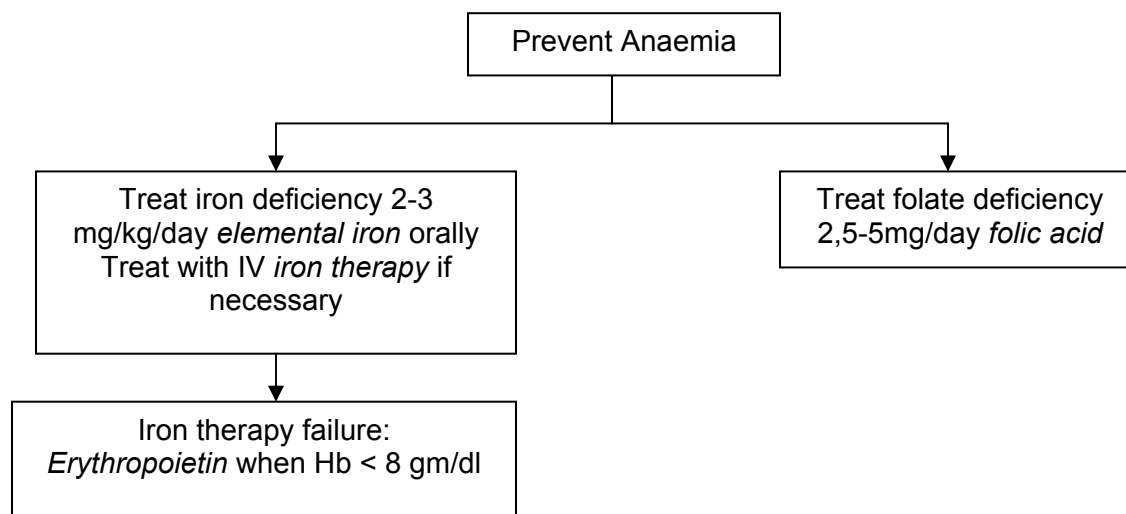
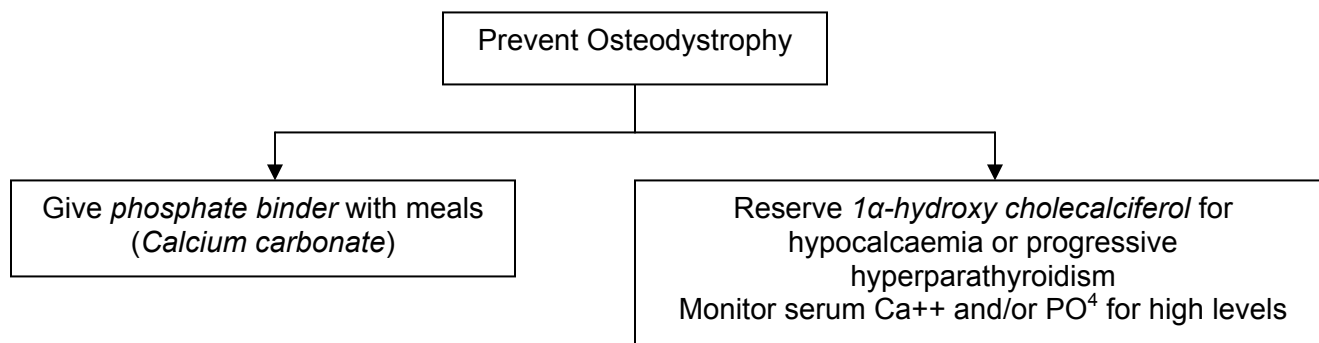
Treat hypertension vigorously i.e. BP < 130/85 mmHg

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<sup>+</sup> depleted  
or *Calcium antagonist*: have proven reno-protective effects, but not anti-proteinuric

Add *thiazide diuretic* to augment *ACE inhibitor* or add  $\beta$ -blocker as combination therapy

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<sup>+</sup> – Serum sodium
- *β-blocker* – Beta-receptor blocker
- BP – Blood pressure
- Hb - Haemoglobin
- Cr/Serum Cr – Serum creatinine
- Serum Ca<sup>++</sup> - Serum calcium
- *1α-hydroxy* – 1-alpha-hydroxy
- PO<sup>4</sup> – 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)

- N03.3 Chronic nephritic syndrome, diffuse mesangial proliferative glomerulonephritis
- N03.4 Chronic nephritic syndrome, diffuse endocapillary proliferative glomerulonephritis
- N03.5 Chronic nephritic syndrome, diffuse mesangiocapillary glomerulonephritis
- N03.6 Chronic nephritic syndrome, dense deposit disease
- N03.7 Chronic nephritic syndrome, diffuse crescentic glomerulonephritis
- N03.8 Chronic nephritic syndrome, other
- N03.9 Chronic nephritic syndrome, unspecified
- N11 Chronic tubulo-interstitial nephritis
  - N11.0 Nonobstructive reflux-associated chronic pyelonephritis
  - N11.1 Chronic obstructive pyelonephritis
  - N11.8 Other chronic tubulo-interstitial nephritis
  - N11.9 Chronic tubulo-interstitial nephritis, unspecified
- N18 Chronic renal failure
  - N18.0 End-stage renal disease
  - N18.8 Other chronic renal failure
  - 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.**