Care Pathway for management of Chronic Kidney Disease

Following publication of national guidelines for management of chronic kidney disease a review meeting was held at the Royal College of Physicians Edinburgh in February 2007 and an updated consensus document issued. The advised changes have been included in the North Bristol Trust CKD care pathways included below.

The major changes from previous advice are as follows:

• It is recommended that the presence of significant proteinuria (PCR>100) is taken into account in assessing frequency of monitoring
• It is recommended that stage 3 CKD is divided into those with eGFR above or below 45ml/min/1.73m² with higher frequency of monitoring for those with lower eGFR
• It is recommended that younger patients with stage 3 CKD are referred to a nephrologist.
• ACEi/ARB are only considered first line for patients <55 years or with significant proteinuria (PCR>100), for other patients long acting calcium channel blockers or diuretics are appropriate
• It is not recommended that PTH or vitamin D are routinely measured in primary care.

Full consensus statement available at: http://www.renal.org/CKDguide/consensus.html#Anchor-Bone-3800

Chronic Kidney disease cannot be diagnosed from a single eGFR. If eGFR is reduced acute renal failure must be excluded
Consider referral if eGFR falling or proteinuria increasing

Fall in eGFR > 12ml in less than 3 years
Fall in eGFR of >15% after starting ACEi or ARB
PCR > 100
Haematuria and PCR>45

Manage in Primary Care
- Patient Information leaflets and advice including lifestyle information, stopping smoking, exercise, weight management
- Treat Hypertension according to relevant hypertension guidelines
  - <55yr or PCR>100 - ACEi first line, ARB if intolerant
  - Treat hyperlipidaemia according to guidelines
  - Aspirin if indicated
- Review medications. Avoid NSAIDs.
- Influenza / pneumococcal vaccine if nephrotic

Pathway for Management of CKD 1 & 2

CKD 1 & 2
eGFR >60ml/min/1.73m²

If creatinine abnormal
Rule out ARF

Known urinary abnormality or renal structural abnormality?

Yes

No

No action
presume normal

Stix Proteinuria
-ve

Stix Proteinuria
+ve

protein:creatinine ratio <45

protein:creatinine ratio 45-100

protein:creatinine ratio >100

Haematuria neg

Haematuria pos

Haematuria neg

Haematuria pos

Age <50yr

Age >50yr

urology

no diagnosis

Age <50yr

Age >50yr

urology

no diagnosis

Discuss with or
refer to
nephrologist

CKD 1 & 2

Consider referral if eGFR falling or proteinuria increasing
Fall in eGFR > 12ml in less than 3 years
Fall in eGFR of >15% after starting ACEi or ARB
PCR > 100
Haematuria and PCR>45

Annual
eGFR,
urine stix and PCR

CKD 1 & 2

Manage in Primary Care
- Patient Information leaflets and advice including lifestyle information, stopping smoking, exercise, weight management
- Treat Hypertension according to relevant hypertension guidelines
  - <55yr or PCR>100 - ACEi first line, ARB if intolerant
  - Treat hyperlipidaemia according to guidelines
  - Aspirin if indicated
- Review medications. Avoid NSAIDs.
- Influenza / pneumococcal vaccine if nephrotic
**Manage in Primary Care**
- Patient Information leaflets and advice including lifestyle information, stopping smoking, exercise, weight management
- Treat Hypertension according to relevant hypertension guidelines
  - <5yr or PCR>100 - ACEi first line, ARB if intolerant
  - Treat hyperlipidaemia according to guidelines
  - Consider calcium and vitamin D3 in older or at risk populations
  - Aspirin if indicated
  - Review medications. Avoid NSAIDs.
  - Influenza / pneumococcal vaccine

**Consider referral if eGFR falling or proteinuria increasing**
- eGFR<45 or, PCR>100
  - 6monthly review and eGFR
- eGFR>45 and PCR<100
  - Annual review and eGFR

**CKD 3**
- Discuss with or refer to nephrologist
- Rule out ARF
- eGFR 30-60ml/min/1.73m²
  - Age >50yr
  - Age <50yr
    - Stix Proteinuria -ve
    - Stix Proteinuria +ve
      - protein:creatinine ratio <100
      - protein:creatinine ratio >100
        - Haematuria neg
        - Haematuria pos
          - urology
          - no diagnosis

**CKD 4 & 5**
- eGFR <30ml/min/1.73m²
  - Discuss with or refer to nephrologist unless clinically inappropriate (e.g. other terminal disease).
  - Influenza / pneumococcal vaccine
  - Review medications. Avoid NSAIDs.
  - Consider prescribing calcium and vitamin D3 in older or at risk populations

**CKD 3**
- Age >50yr
  - eGFR<45 or, PCR>100
    - 6monthly review and eGFR
  - eGFR>45 and PCR<100
    - Annual review and eGFR
- Age <50yr
  - eGFR<45 or, PCR>100
    - 6monthly review and eGFR
  - eGFR>45 and PCR<100
    - Annual review and eGFR

**Pathway for Management of CKD 3, 4 & 5**
- Rule out ARF
  - eGFR 30-60ml/min/1.73m²
    - Age >50yr
    - Age <50yr
      - Stix Proteinuria -ve
      - Stix Proteinuria +ve
        - protein:creatinine ratio <100
        - protein:creatinine ratio >100
          - Haematuria neg
          - Haematuria pos
            - urology
            - no diagnosis