

Adult Acute Kidney Injury Care Pathway for Primary Care

What is AKI?

- AKI is a sudden decline in kidney function over hours or days
- It is most often seen during episodes of acute illness
- It is diagnosed by a rise in serum creatinine as detailed in the table overleaf

Why is AKI important?

AKI occurs in 10-20% of emergency hospital admissions and >20% of these will die during hospital admission. AKI also causes:

- Increased length of hospital stay and costs
- The development or progression of CKD (may lead to needing dialysis)
- Increased cardiovascular risk

Up to two thirds of patients who sustain AKI have already developed it by the time they are admitted to hospital - prevention and management in primary care is essential

1. Risk Assessment

Consider who is at risk

General

- Age >65
- CKD at baseline
- History of previous AKI
- Falls with long lie

Comorbid illnesses

- Diabetes
- Vascular disease
- Heart/liver disease
- Malignancy

Medications/toxins

- ACE/ARBs
- NSAIDs
- Diuretics
- Recent contrast

2. Prevention

In all at risk patients

- Avoid prescription of long term NSAIDs in patients with CKD
- Review the need for nephrotoxic medications and consider alternatives including during acute illness
- Educate patients/carers about the risk of dehydration during acute illness
- Check renal function early during acute illness
- Monitor for deterioration

Beware of sepsis and intervene early in at risk patients

3. Management

Recognise

Stage 1

Creat rise by $\geq 26\mu\text{mol/L}$ within 48 hours
OR
rise $\geq 1.5\text{-}1.9 \times$ baseline

Stage 2

Creat rise $\geq 2\text{-}2.9 \times$ baseline

Stage 3

Creat rise ≥ 3 baseline OR
rise of $\geq 354\mu\text{mol/L}$

Review all AKI

- **Review medications: Consider reducing/stopping:**
 - ACEI/ARBs
 - Diuretics
 - NSAIDs
 - Metformin
 - PPI
- **Complete volume assessment and advise on rehydration if appropriate**
- **Check blood pressure**
- **Complete a urine dipstick**
 - if there is infection do not prescribe trimethoprim or nitrofurantoin
 - If blood +/- protein consider intrinsic renal problem
- **Exclude palpable bladder**
- **Consider the cause!**

Respond

Stage 1:

- Repeat U+Es in 5-7 days

Stage 2:

- Repeat U+Es in 48-72hours
- Organise outpatient USS

Stage 3:

Refer immediately to local renal team for ongoing management advice

Please also refer immediately to local renal team for advice if:

- There is no clear cause of AKI
- New finding of 2+ blood and/or 2+ protein on urine dipstick (in absence of UTI, regardless of stage)
- Systemic symptoms e.g. vasculitic rash, epistaxis, haemoptysis
- Patient has a kidney transplant
- Inadequate response to initial treatment
- AKI on CKD stage 4 or 5

NB- Refer to urology if obstruction suspected.

For referral to local renal team call KCH switch on 02032999000 and ask for the renal referrals SpR on bleep 622 (24/7)

 London Acute Kidney Injury Network <http://www.londonaki.net/>

 Acute Kidney Injury NICE clinical guideline 169: www.nice.org.uk/guidance/cg169

 Think Kidneys: www.thinkkidneys.nhs.uk



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