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Is it true AKI?

Does this fit clinically?

If AKI Stage 1, could this be a false positive result? Consider repeat.

AKI Stage 1	SCr 1.5-2.0 x baseline, or SCr >26 $\mu\text{mol/L}$ within previous 48hrs
AKI Stage 2	SCr 2.0-3.0 x baseline
AKI Stage 3	SCr >3.0 x baseline, or SCr >354 $\mu\text{mol/L}$ with >44 $\mu\text{mol/L}$ increase in <24hrs

An abbreviated biochemical classification of AKI. SCr : Serum creatinine.

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AKI Risk Factors

Non modifiable risk factors for AKI include:

- Age > 75
- CKD
- Diabetes
- CCF

Modifiable risk factors include:

- Medications
- Contrast used in CTs with contrast.

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Acute Illness

Pre-renal AKI accounts for around 70% of all AKI- usually due to sepsis or D&V. Check BP, pulse, and look for other signs of volume depletion.

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Avoid AKI

30% of cases of AKI could be preventable.

Be aware of patients with the combination of

- AKI risk factors and
- Acute Illness

Follow NICE and/or local guidance on avoiding contrast nephrotoxicity

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Trimethoprim...

Causes creatinine to rise. However, AKI may be true, particularly if the patient is unwell.

Trimethoprim also causes hyperkalaemia in patients with CKD (eGFR <20)- strongly consider an alternative.

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Medications

Stop these medicines in a person with AKI

- NSAIDS
- Metformin

If definite AKI review the safety of continuing

- ACEi
- ARBs
- Diuretics inc spironolactone

Recheck renal biochemistry before restarting these medicines to check safe and appropriate. Restart ACEi and ARBs at usual starting doses, with usual subsequent checks of renal function.

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Surgery systems

Ensure your surgery has good handovers of unwell patients, and that the surgery can reliably follow up patients who have AKI.

Code episodes of AKI in the health care record

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Admission

Admit if AKI Stage 3 or clinically required (eg sepsis)

If AKI Stage 2 and suspected obstruction or intrinsic renal disease then consider admission

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Sick Day Rules

Consider the strength of the indication for the following medicines

- ACEi
- ARBS
- Spironolactone
- diuretics

Consider advising individual patients to omit these (or to seek medical advice as to whether they should be omitted) on days when fluid intake is very poor.

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Recovery

Patients who have suffered AKI are at risk of developing CKD in the future, even if their creatinine has returned to baseline. Check patients' renal function at least annually for the next 3 years; if no CKD after this time then this is reassuring.

Monitor patients with CKD as per the NICE CKD guidelines.