Acute Kidney Injury: Management

RC GP LEARNING

Responding to AKI

Consider illness	Consider medication	Consider fluid status
• Sepsis • Hypotension • Intrinsic renal disease (e.g. vasculitis) • Urinary tract obstruction	• Drugs causing AKI, e.g. by tubulo-interstitial nephritis? • Drugs exacerbating AKI, e.g. NSAIDs, diuretics, antihypertensives? • Are they on any medication which may accumulate and cause harm during AKI? • Conduct a medication review	• When did the patient last pass urine? • Can/should the patient increase fluid intake? • Is admission for IV fluids needed? • Does the patient need carer support to improve fluid status?

Management

Place of care	Address cause	Plan review
• Shared decision-making taking into account clinical need, available support and services, and patient preference	• Modify reversible causes • Consider stopping or changing medications both in the short and longer term to reduce the risk of recurrence • Minimise polypharmacy	• For patients who are admitted, follow best practice on post-discharge care • For patients in the community, review and monitoring should be guided by clinical scenario, patient circumstances and progression or resolution of the AKI

Follow-up

Ensure accurate coding	Optimise medication management	Monitoring kidney function
• Establish AKI registers • Identify patients that require timely post-AKI planning • Highlight vulnerable patients that require prompt review when unwell • Top tips for care of patients post-discharge	• Have medicines been stopped during the acute illness? • What were the original indications for these medications? • Are there strong prognostic reasons to restart these medications, and if so, when? • What is the patient's blood pressure? • Should any medications be discontinued? • Is there an opportunity to reduce polypharmacy?	• Patients with AKI are at increased risk of developing/worsening CKD • Greater risk if renal function remains below pre-AKI baseline, AKI is severe/repeated, or with other risk factors for CKD, e.g. diabetes • Repeat U&E and ACR 3 months after AKI: non-recovery indicates new/worsening CKD and NICE guidance on monitoring should be followed

Specific advice

Guidance for patients	AKI and heart failure	Key medications
• Controversy over sick day rules – important to recognise the nuances when discussing with patients • Offer 'How to keep your kidneys safe' advice	• Risk of decompensated heart failure if drugs withheld during AKI are not restarted in timely fashion • Bear in mind the expected effects of heart failure medications on renal function	• Withhold NSAIDs/COX-II if possible • Reduce/stop anti-hypertensives and loop/thiazide diuretics if renal hypo-perfusion • Stop potassium-sparing diuretics • Stop statins – risk of rhabdomyolysis • Digoxin – caution re levels • Metformin – stop if eGFR <30 • Lithium – watch levels and electrolytes

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