

POST-DISCHARGE CARE FOR ADULTS FOLLOWING ACUTE KIDNEY INJURY

Acute kidney injury (AKI) is common, harmful and costly

Placing an AKI diagnosis in clinical context is important to improve outcomes

'Appropriate systems and safety net arrangements should be in place in primary and secondary care'

NHS England Discharge Standards provide a framework to deliver high quality post-AKI care

TOP TEN TIPS



Place AKI in clinical and social context

Before and after discharge, involve all patients (and where appropriate their families, carers, care coordinators and keyworkers) in planning follow-up care.

Key elements of post-AKI care include:

- Timely clinical review of reason(s) for admission
- Identify and address social needs
- Understand AKI and the relevance of kidney health
- Ensure timely drugs review and kidney monitoring
- Support during future episodes of acute illness
- See discharge standard 1 and download information resources



Tailored and timely review

Coordinate follow-up for all people following AKI, with prompt and personalised care for individuals with:

- Heart failure: see Box 7
- Chronic kidney disease (CKD)
- Diabetes, hypertension or established cardiovascular disease
- Other frailty or vulnerability risks

NB. Arrange follow-up appointments prior to discharge if clinical concerns or risk of delays.

See discharge standard 2 **Download Post-AKI Guidance**



Accurate discharge hand over

Hospital clinical teams should have a process in place to confirm or refute the AKI diagnosis prior to discharge. To support continuity and determine urgency of follow-up, key information to communicate to GPs include:

- AKI stage and reason(s)
- Degree of kidney recovery
- Baseline and discharge serum creatinine (SCr)
- Is SCr stable or improving?
- Reasons for medication changes
- Evidence of communication with patients/carers
- See discharge standards 3 to 5 and download discharge standards



AKI coding in general practice

Accurately code AKI to reduce future AKI risk by highlighting:

- Patients who need early post-AKI review
- High risk patients that require early review when unwell

Read codes for AKI 1, 2 and 3 respectively are: k04c, k04d, and k04e

SNOMED CT codes for AKI are:

AKI Stage 1: SCTID: 85193100000010

AKI Stage 2: SCTID: 851941000000103 AKI Stage 3: SCTID: 851951000000100

See discharge standard 6 and download information resources Click here for more information on SNOMED CT



Optimise drugs management

Why were drugs stopped/altered?

- Reduced clearance during AKI (e.g. metformin): restart if eGFR back to baseline
- Risk of hypoglycaemia accumulation of hypoglycaemic agents (e.g. sulphonylureas) - consider monitor blood glucose levels and adjust dose as necessary
- Evidence of nephrotoxicity (e.g. interstitial nephritis): do not restart, code
- Vasoactive drugs: see Box 6
- NSAIDs: restart only if benefits outweigh risks and no alternative



Download guidelines for medicines optimisation



AKI and drugs affecting renin-angiotension-aldosterone system (RAAS)

Review original indication for the drug.

Identify patients with clinical indication for restarting inhibitors ACE-I/ARB (unless there is a new contraindication):

- Heart failure with reduced ejection fraction
- History of myocardial infarction • Diabetes with albumin:creatinine ratio > 3 mg/mmol
- Hypertension with albumin:creatinine ratio >30 mg/mmol
- Albumin:creatinine ratio > 70 mg/mmol irrespective of hypertension or cardiovascular disease

Download guidance on when to restart drugs stopped during AKI

Download guidance on changes in kidney function and serum potassium during treatment



Heart failure with AKI

Ensure early post-discharge clinical review:

- AKI with heart failure is associated with high rates of unplanned readmission • Clinical assessment is key. If oedema is due to heart failure, diuretic treatment
- to correct congestion is justified even if it causes a rise in serum creatinine • Reduce diuretics if there are clinical signs of hypovolaemia
- Before discharge, where available, inform the heart failure team. This is of
- particular importance for those heart failure patients where medication that improves prognosis (ACEI, ARB, MRA) has been stopped or dose reduced.

AKI, heart failure and end of life care

- When a patient with heart failure is approaching end of life, symptom control overrides treatment with potential prognostic impact
- Deteriorating renal function is common
- Diuretics should be titrated to prevent distress from fluid overload, irrespective of renal function

Download heart failure guidance



of kidney function Patients who have had AKI are at risk of

Coordinate monitoring

recurrent AKI and of progressive CKD. Patients at greatest risk are those with:

(e.g. Stage 3; SCr not back to baseline)

More severe and prolonged AKI

- Intrinsic kidney disease or postobstructive kidney disease Those with other risk factors for CKD,
- e.g. diabetes, hypertension, vascular disease Patients require tailored and timely follow-

up of their kidney function including: Repeat blood (electrolytes, SCr and

- eGFR) and urine tests (ACR) Align kidney monitoring with existing
- long-term condition reviews
- $eGFR < 30 \text{ mL/min}/1.73\text{m}^2$

See discharge standard 7 and

Consider liaising with nephrology if persistent poor kidney recovery and/or



three months

significant adverse outcome and is a risk factor for cardiovascular events, end-stage kidney disease and future AKI: • Consider Urine ACR in patients at 3 months post AKI

Residual CKD following AKI represents a

- If albuminuria is present, development and/or progression of CKD should be
- monitored, coded and communicated

Download NICE CKD guidelines



AKI and quality improvement The RCGP case note review templates

provide a structured approach to drive quality improvement in: Medication safety

- Safer transitions of care
- Safety for vulnerable patients
- Consider share learning within Primary Care Networks/GP Clusters and

primary and secondary care. See discharge standards 7 and 8 and download AKI case note review templates

establish safety net arrangements across





Evidence, references and resources www.rcgp.org.uk/aki





download NICE guidance on referral criteria







NIHR National Institute for Health Research

NIHR Collaboration for Leadership in Applied Health Research and Care Greater Manchester

NIHR Greater Manchester Patient Safety Translational Research Centre



Kent Surrey Sussex Academic Health Science

CTHINK

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