

NEPHwork AKI care audit

Audit of acute kidney injury (AKI) against the Renal Association's clinical practice guideline for AKI (2019) in patients with AKI stage 2 and stage 3 admitted to NHS hospital trusts in England and Wales

Audit period: 1st December 2020 – 31st January 2021

Background

The NEPHwork is a new renal speciality trainee ('SpR') driven national audit and research network supported by the UK Renal Registry (UKRR), which is part of the Renal Association. The aim of NEPHwork is to develop, coordinate and deliver simple audit and research projects that answer a specific and simple question on a large scale by coordinating the audit and research activity of a large number of renal trainees nationally. The NEPHwork is financially supported by both the Renal Association and Kidney Research UK.

The NEPHwork AKI care audit is a comparison of care quality in the identification and management of AKI between NHS acute trusts in England and Wales 10 years on from the 2009 NCEPOD report (Acute Kidney Injury: Adding Insult to Injury) in which approximately 1,000 care episodes were reviewed in people who had died in England with an ICD-10 code for AKI (N17) held in Hospital Episode Statistics (HES). From the 2009 NCEPOD report, only 50% of AKI care was considered good by the advisors. There was poor assessment of risk factors for AKI and an unacceptable delay in recognising post-admission AKI in 43% of patients. A fifth of post-admission AKI was both predictable and avoidable and complications of AKI were missed in 13%, avoidable in 17% and managed badly in 22% of cases.

It is anticipated that approximately 20-25 organisations will take part in the NEPHwork AKI care audit with a target of 1,000 care episodes reviewed by a workforce of 30-40 SpRs from the Renal Association SpR club. SpRs working in an NHS Trust who agree to be a member of NEPHwork will register the audit locally using guidance produced by the NEPHwork steering committee. A consultant within the department will need to be the nominal local lead for the audit.

The NEPHwork AKI care audit aims to explore care process and outcomes of patients with the most severe stages of AKI (AKI stage 2 and 3) admitted across a sample of hospital trusts in England and Wales. The audit pro-forma has been developed by the NEPHwork steering committee against the Renal Association's AKI clinical practice guideline 2019 (available from: renal.org/sites/renal.org/files/FINAL-AKI-Guideline.pdf).

Identification of hospitalised AKI episodes and audit process

This is a retrospective case note review. Between 1st December 2020 and 31st January 2021, electronic and paper care-records for patients with AKI episodes admitted to hospital during January 2019, will be reviewed by renal SpRs within each hospital trust against the agreed proforma.

AKI care episodes in England will be identified using the linkage between the UKRR AKI master patient index (MPI) of AKI warning test scores and HES. In Wales, local hospital data will be used to identify cases.

Patients who had an AKI warning score and were admitted to a hospital taking part in the audit during the period 1st-31st January 2019 (extendable to between December 2018 and February 2019 depending on number of cases) will be identified. A patient identifier for each episode will be sent electronically from the UKRR through a specially designed, secure, electronic portal that is accessible to SpRs completing the audit locally. SpRs will review patient notes and records for the selected episodes and then return the data using the electronic pro-forma through the secure UKRR data portal.

These data will be analysed by the UKRR, following a pre-specified statistical analysis plan and a report of results will be released and disseminated by the summer of 2021.

Organisational characteristics

NHS trust

Audit criteria (compliance target 100%)

Care process measures

1. *AKI clinical assessment*
 - a. Reviewed by senior clinicians within 6 hours of hospital admission
 - b. Urine dipstick test
 - c. Medication review
 - d. Fluid balance assessment

- e. Renal ultrasound if indicated
- 2. *Clinical management of established AKI*
 - a. Antibiotics indicated / requested / completed
 - b. IV fluids indicated / requested / completed
 - c. Diuretics indicated / requested / completed
 - d. Bladder catheter indicated / requested / completed
 - e. Nephrostomy indicated / requested / completed
 - f. Nephrology referral indicated / requested / completed
- 3. *Follow-up of hospitalised AKI care episode*
 - a. AKI mentioned in discharge summaries
 - b. 30-day follow-up GP / Renal (dependant on level of CKD)

Outcomes

- 4. Required renal replacement therapy
- 5. Required ITU care
- 6. Patient - discharged alive / died
- 7. Renal outcomes (requiring dialysis, back at baseline, above baseline kidney function)
- 8. Length of stay

Population

AKI care episodes identified and validated at the UKRR (both hospital acquired and community acquired hospitalised AKI) for adult patients (aged ≥ 18 years) admitted to hospital in January 2019 (extendable between December 2018 and February 2019 depending on number of cases), excluding day cases and maternity admissions, with peak to AKI stage 2 or 3 during period of admission to hospital. It is anticipated that more than 1,000 AKI care episodes will be included.

Aim

To explore care process and outcomes of patients with the most severe stages of AKI (AKI stages 2 and 3) admitted across a sample of acute hospital trusts in England and Wales.

Areas of study

- AKI clinical assessment
- Clinical management of established AKI
- Follow-up of hospitalised AKI care episodes.

Objectives

- Description of clinical and sociodemographic features of AKI care episodes stage 2 and 3 across NHS acute trusts in England and Wales.
- Overall attainment of care quality indicators and variation by sites included in the audit.
- Association between clinical and sociodemographic features of AKI care episodes and trust features with attainment of care quality indicators.
- Association between clinical and sociodemographic features of AKI care episodes, trust features and attainment of care quality indicators with individual patient outcomes.

Audit report release

After all data have been returned, checked, and analysed we anticipate reporting the results of the audit by the summer of 2021.

Data protection

The UKRR collects and processes data in line with the provisions of the Data Protection Act 2018, alongside the legislation and guidelines which govern the use of confidential patient data for purposes beyond direct care. Under the Data Protection Act 2018 the UKRR processes personal data under the legal basis of 'legitimate interests' (GDPR Article 6 (1)(f)) and special category data for the purposes of public health (GDPR Article 9 (2)(j)). The UKRR meets the requirements of the common law duty of confidentiality through its secondary use permissions granted by the Health Research Authority's Confidentiality Advisory

Committee under s251 of the NHS Act 2006. These permissions allow the UKRR to collect and process confidential patient information for the purposes of audit, research and quality improvement without first gaining patient consent.

The UKRR ensures the continued confidentiality, availability and integrity of the data it hold through the implementation of policies and procedures in line with the provisions of data protection legislation and to the standards required by the national data guardian.

Feeding back data

NEPHwork will not produce individual trust reports. However, NEPHwork is keen to help trusts assess their overall performance with trust-identifiable aggregated data that will be returned to trusts along with comparative data from the whole study database whenever possible.

Produced by the NEPHwork steering committee