WH1

AKI and Rhabdomyolysis from Quadrupling Rosuvastatin Dose in an Elderly Patient

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WEDNESDAY - Moderated Poster Session, HALL Q, March 11, 2026, 13:45 - 14:45

Background

Statins are a cornerstone of cardiovascular disease prevention, but they can cause muscle-related side effects ranging from mild aches to severe rhabdomyolysis. Factors increasing the risk of rhabdomyolysis include older age, low body mass, chronic kidney disease, hypothyroidism, vitamin D deficiency, and dehydration.

Case Presentation

A 79-year-old woman , weighing 54 kg presented with a one-month history of worsening muscle pain and weakness.Prior to the onset of these symptoms ,she was independently mobilizing long distances (2-3 miles) without aids. Her medical history was notable for a recent transient ischemic attack post which her rosuvastatin dose was increased from her regular dose of 10 mg to 40mg .
On examination, she had generalized muscle weakness with preserved reflexes. No other abnormal findings were noted.
The lab results identified a grossly elevated CK alongside deranged RFTs consistent with an AKI.
Her vitamin D levels ,TFTs and cortisol were within range .No other relevant drug interactions were identified for her symptoms. The diagnostic impression of rosuvastatin-induced rhabdomyolysis complicated by AKI was made.

Management and Outcome

Rosuvastatin was discontinued immediately. The patient was treated with high-volume intravenous fluids (approximately 4 L/day) and diuretics were given as required to maintain urine output. She also received nutritional support and physiotherapy.
Over time, her laboratory values improved and muscle strength recovered. She was discharged to a rehabilitation centre, where she regained her strength and mobility. At follow-up her renal function had returned close to baseline.

Discussion

Rosuvastatin is among the most potent statins, but standard guidelines recommend a maximum daily dose of 20 mg, with lower doses for elderly or renally impaired patients. At 40 mg daily, the likelihood of muscle injury rises considerably.
In this case, the patient's advanced age, low body weight, and possible vitamin D deficiency or dehydration likely contributed to her susceptibility. While statins are highly effective in

reducing cardiovascular risk, cautious dosing and recognition of risk factors are critical to avoid preventable harm.

WH2

Thrombotic microangiopathy in acute pancreatitis: A diagnostic trap with a treatable outcome.

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WEDNESDAY - Moderated Poster Session, HALL Q, March 11, 2026, 13:45 - 14:45

Introduction:
Organ failure brought on by extensive endothelial damage and microvascular thrombosis, thrombocytopenia, and microangiopathic haemolytic anaemia (MAHA) are the hallmarks of thrombotic microangiopathies (TMAs), a class of potentially fatal illnesses. Thrombotic thrombocytopenic purpura (TTP) is one of the subtypes that results from a severe ADAMTS13 deficit, whereas atypical haemolytic uraemic syndrome (aHUS) and secondary TMAs can be brought on by a number of assaults, including infections, autoimmune diseases, cancers, and systemic inflammation. We describe a case of TMA linked to pancreatitis that resulted in severe acute kidney damage (AKI) which was fully recovered with conservative management.

Case details:
We present a 45-year-old man who presented with acute epigastric and right upper quadrant pain, nausea, and vomiting for three days. His past medical history included alcohol-related pancreatitis, depression, learning disability, and previous in-hospital cardiac arrest (ICD in situ). Admission bloods revealed severe AKI with creatinine 780 µmol/L (baseline 64 µmol/L), urea 42.1 mmol/L, and eGFR 7 mL/min/1.73m^2. CT imaging confirmed necrotising acute-on-chronic pancreatitis with small peripancreatic collections. Initial management included IV fluids, analgesia, suspending ACE inhibitor and supportive care for alcohol withdrawal. AKI stage 3 prompted a need for nephrology input. Concomitant anaemia and thrombocytopenia lead to a request for peripheral blood smear which showed presence of schistocytes and raised the possibility of TMA. Further work-up revealed elevated LDH (800 U/L), low haptoglobin (0.17 g/L), and a negative direct antiglobulin test, confirming MAHA. ADAMTS13 activity was normal, ruling out TTP. The results of the autoimmune, viral, and paraprotein screenings were negative and complement levels normal. After consulting with the regional centre, genetic testing for aHUS was requested. The patient was treated supportively without plasma exchange or eculizumab, despite the severity of presentation. Renal function gradually improved, and the patient was discharged with outpatient nephrology follow-up.

Discussion:
Acute pancreatitis is uncommon but becoming gradually well known as a cause of secondary TMA. Since 1978, only 35 instances have been reported in literature. TMA usually appears two to three days after the onset of pancreatitis in these cases. Mechanisms that have been proposed include endothelial damage caused by inflammatory cytokines, ADAMTS13 suppression, temporary complement activation, etc. A common diagnostic difficulty is the overlap in clinical presentation with primary TMA subtypes. Treatment choices, such as complement inhibition with eculizumab or plasma exchange (PLEX), rely on precise

classification. Therefore prompt identification is essential. Remarkably, out of the 35 cases reported, only three have been linked to eculizumab. Data in support of PLEX also come from case reports/series rather than large RCTs.

Conclusion:

This case demonstrates the difficulty in diagnosing TMA caused by acute pancreatitis, an uncommon but treatable cause of AKI. Its clinical similarity to primary TMA subtypes (TTP/aHUS) calls for a methodical evaluation. Our patient's full renal recovery with supportive measures alone adds to the limited literature available in support of conservative management of such scenarios. Raising awareness of this uncommon entity is essential for prompt diagnosis and best possible care for patients.

WH3

Paediatric acute kidney injury – using electronic alert to improve management process

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WEDNESDAY - Moderated Poster Session, HALL Q, March 11, 2026, 13:45 - 14:45

Introduction: Acute kidney injury (AKI) is a significant and common complication in patients, affecting up to 1-in-5 hospital admissions, with 20% of cases deemed avoidable(1,2). Early detection and intervention are key to preventing progression to chronic kidney disease (CKD), but AKI often goes unrecognised and management is inconsistent(1,2).

A prospective audit at Evelina London Children's Hospital (ELCH) from June 2021 to June 2022, excluding PICU and neonatology, showed that AKI occurred in only 1% of admissions following introduction of e-alerts. However, further improvements in AKI recognition and management were needed. Daily AKI reporting supported early recognition, but due to changes in the hospital's IT system, this reporting tool was unavailable from October 2023 to December 2024.

Methods: We relaunched a daily AKI report, led by the nephrology team, reviewing new AKI cases, alerting clinical teams, and documenting in patient notes. An AKI pathway was designed and gradually introduced into clinical practice through education from December 2024 (figure 1). Following this, we performed a prospective AKI audit. Data was collected on patients with an AKI e-alert from January to March 2025, looking at AKI stage, length of admission, duration of AKI, adherence to AKI management guidelines, documentation of AKI report, and whether the AKI pathway was followed. Audit excluded patients in intensive care, neonatology and on dialysis.

Results: Between January and March 2025, 94 patients had an AKI e-alert, and 66 met the inclusion criteria. Of these, 80% had a pre-renal cause, and 89% had no known CKD. AKI staging showed 71% in stage 1, 12% in stage 2, 11% in stage 3, and 6% were unclear if AKI or CKD. The nephrology team documented AKI report in 45% of cases. The AKI pathway was used for no patients. Management methods included twice-daily weights in 17%, medication review in 35%, and once-daily fluid reviews in 45% (figure 2).

Discussion: Despite the addition of daily AKI reporting and signposting by the nephrology team, adherence to trust guidance and use of the AKI pathway remained poor, with overall management suboptimal. Management data was based on clinical documentation, making it difficult to assess whether appropriate management was delivered but not recorded.

Challenges including poor documentation of AKI recognition despite reporting, and limited resources in the current financial climate are a barrier to ensuring daily report reviews. Ongoing education is needed to maintain awareness of available tools for AKI management.

In response, trust AKI guidelines were updated, and targeted teaching sessions were delivered to doctors, nurses, and paediatric nurse practitioners. During the September 2025 AKI Awareness Campaign, a custom wallpaper was displayed on trust computers to raise awareness of AKI, promote the AKI pathway, and signpost users to trust guidance (figure 3). The nephrology team continues to document daily AKI reports, give two monthly feedback to clinical teams and assess the impact of educational interventions. A business case is being prepared for an AKI nurse specialist, and efforts are underway with adult nephrology to embed AKI care within EPIC to improve care across the trust.

WH4

Unraveling disease progression protein pathways of adult cardiac surgery-associated acute kidney injury overt time

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WEDNESDAY - Moderated Poster Session, HALL Q, March 11, 2026, 13:45 - 14:45

INTRODUCTION

Cardiac surgery-associated acute kidney injury (CSA-AKI) is a major postoperative complication linked to increased morbidity, mortality, and hospital stay. This study used plasma proteomics to investigate the still poorly understood temporal dynamics of pathogenic pathways and pathophysiological mechanisms underlying CSA-AKI, aiming to inform targeted preventive strategies.

METHODS

Plasma levels of ~3000 proteins were quantified using Olink Explore in 609 samples from cardiac surgery patients (n=60) with AKI risk factors randomized in the US THRASOS study (NCT01830920) placebo arm. Samples were collected at 11 timepoints from pre-operative to 90 days post-surgery. Patients were stratified by KDIGO criteria: no AKI (n=12), stage 1 (n=13), stage 2 (n=32), and stage 3 (n=3). Differential expression analysis was conducted at each timepoint comparing severe AKI (stages 2–3) with no AKI, followed by over-representation analysis (ORA) of significant proteins.

RESULTS

Reactome ORA on significant proteins comparing severe AKI vs. no AKI patients at each timepoint [Figure 1] showed a strong early immune response, shifting from innate (1-hour post-surgery) to adaptive (6-hour post-surgery) immunity, with anti-inflammatory regulation like IL-10 signaling. By day 3 post-surgery, pathway enrichment shifted to metabolic and

reparative processes (e.g., IGF transport regulation and uptake by IGFBPs, and post-translational phosphorylation), suggesting recovery onset from AKI-induced injury.

CONCLUSION

These findings underscore the role of protein profiling in AKI progression pathways and early biomarkers identification. Further validation in independent cohorts is needed to confirm these results and inform targeted therapeutic strategies.

WH5

From Injury to Disease: Tracking the AKI–CKD Transition with Serial ProteomicsWH5

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WEDNESDAY - Moderated Poster Session, HALL Q, March 11, 2026, 13:45 - 14:45

Introduction: Development of chronic kidney disease (CKD) after acute kidney injury (AKI) is a common and important clinical problem. It remains unclear how to best identify patients at risk of CKD, in part due to a lack of understanding about the pathophysiological processes in the AKI-CKD transition in humans. Proteomics is a powerful discovery tool which allows evaluation of multiple proteins in a single test. Here we aimed to characterise the circulating proteome in a prospective cohort of AKI patients at time of AKI and during recovery.

Methods: We used data and samples from a prospective cohort study that recruited participants at time of AKI who were then assessed at serial timepoints after hospital discharge, between day 30-60 (timepoint 1) and at day 90 (timepoint 2). Outcomes were assessed at one year. From the cohort, 21 participants were purposively sampled for proteomic analysis, according to the presence or absence of Major adverse kidney events (MAKE) at day 90, whilst ensuring similar AKI and clinical characteristics between groups. MAKE was defined as a composite of a GFR drop of >25% from baseline, new kidney replacement therapy and death. Proteomic analyses were performed using stored plasma samples at time of AKI and at follow-up timepoints 1 and 2 using the Olink multiplex proteomics platform that measured 92 inflammatory proteins. Whole cohort patterns of distribution and variation in distribution for those with and without MAKE will be presented with descriptive statistics. Additionally, each protein will be evaluated using logistic regression with correction for multiple testing.

Results: A total of 21 participants (9 female and 12 male) had samples analysed. Median baseline creatinine was 82□mol/l (IQR 69 - 94□mol/l), peak creatinine was 301□mol/l (interquartile range (IQR) 167 – 512□mol/l). 2 participants had AKI stage 1 (10%) 8 participants had AKI stage 2 (38%) and 11 participants had AKI stage 3 (52%). There were no differences in the age, frailty or pre-hospital co-morbidity scores across those with and without MAKE (mean age 63 □ 10 no MAKE vs 66 □ 9 MAKE, p=0.501; Rockwood Frailty index 2.3 □ 0.8 no MAKE vs 3.1 □ 1.4 MAKE, p=0.116; Charlson co-morbidity score 3.6 □ 1.9 no MAKE vs 3.6 □ 1.7 MAKE, p=0.946). Across the measured proteins, different patterns were seen (higher levels at time of AKI with lower levels at timepoints 1 and 2, lower levels at time of AKI with increases at at timepoints 1 and 2, and stable across timepoints). Analysis is currently ongoing to determine significant changes between those with and without MAKE.

Discussion: We present a study using proteomics to identify changes in inflammatory proteins at time of AKI and during recovery. We aim to identify those that have different

profiles in those with adverse outcomes that may provide insights into mechanisms of failed kidney recovery.

WH6

Sailing without a map: A review of the quality of AKI careWH6

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WEDNESDAY - Moderated Poster Session, HALL Q, March 11, 2026, 13:45 - 14:45

Introduction:
The National Confidential Enquiry into Patient Outcome and Death (NCEPOD) underlined national deficiencies in the quality of AKI recognition, assessment and management. This study evaluates the quality AKI care in two tertiary care hospitals of an NHS Trust.

Methods:
Adult patients who met the clinical and biochemical criteria for AKI diagnosis were eligible for inclusion in this study. Criteria for exclusion included patients admitted to the renal ward or ICU, patients with known ESKD and those receiving palliative care. Patients were selected from a database of all reported cases of AKI that occurred during May 2023. Two study investigators independently reviewed case notes and collected data using a proforma based on the NCEPOD audit tool. Uncertainties were discussed with a third investigator to maintain quality assurance. Episodes of AKI were classified as community-acquired if they occurred within 48 hours of hospital admission, or hospital-acquired if onset was after this. Outcomes are reported as proportions and compared between AKI stages.

Results:
90 patient case notes were reviewed, comprising an equal number of cases for each stage of acute kidney injury. Data points were extracted from 84 patients (AKI 1, n = 28; AKI 2, n = 27; AKI 3, n = 29).

One-month mortality was 18% (AKI 1), 15% (AKI 2) and 30% (AKI 3) (p=0.495). Six-month mortality was 38%, 48% and 34% (p=0.595). During risk evaluation, biochemistry was acknowledged in 75%, 85% and 90%. CKD status was acknowledged in 29%, 22% and 59%. Co-morbidities were recognised in 79%, 93% and 83%. On recognition of AKI, acid-base balance was performed in 14%, 44% and 66%. Urinalysis was performed in 11%, 15% and 14%. Renal Ultrasound was performed in 15%, 11% and 31%. Sepsis screening was done in 25%, 33% and 66%. Fluid balance was monitored in 36%, 37% and 55%. Immunology was performed in 4%, 4% and 3%. Management consisted of volume replacement in 61%, 74% and 86%. Diuretics were administered in 15%, 11% and 14%. Diuretics were withheld in 14%, 15% and 18%. Medications review was performed in 21%, 37% and 72%. Renal dosing of medications occurred in 7%, 15% and 62%. Catheterisation was done in 29%, 37% and 72%. A nephrology referral was made in 7%, 45% and 18%.

Discussion:
Significant variation remains in the thoroughness of risk assessment, investigation, and management based on AKI severity. Risk evaluation during the first medical review is not consistently applied or convincingly performed for its purpose of screening for AKI risk. Investigation and management of AKI is suboptimal, with low rates of urinalysis and renal

ultrasound testing, inadequate referrals to nephrology, and high rates of volume replacement in the absence of appropriate fluid balance monitoring. While our mortality rates across AKI stages were not statistically significant, it is evident that the under investigation increases the risk of missed diagnoses of intrinsic kidney disease, inappropriate management and poorer outcomes. We identify a need for improving clinician education in AKI risk assessment, investigation and management principles alongside the indications for specialist input.

WH7

Optimising acute kidney injury care to improve discharge safety, reduce readmissions and enhance patient outcomes

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WEDNESDAY - Moderated Poster Session, HALL Q, March 11, 2026, 13:45 - 14:45

Introduction

Acute kidney injury (AKI) is associated with increased mortality, prolonged hospital stays, and substantial costs to the NHS. National reports estimate that AKI accounts for up to £620 million annually, much of which is related to extended inpatient admissions and complications. Baseline analysis at our trust highlighted poor completion of AKI bundles, inconsistent documentation in discharge summaries, and a lack of structured follow-up planning. The aim of this quality improvement project (QIP) was to expedite safe discharge, ensure appropriate follow-up is arranged, reduce unnecessary length of stay and NHS expenditure, and improve outcomes including inpatient mortality, 3-month mortality, and readmission rates.

Methods

This was a retrospective QIP involving all patients with new AKI between 28/03/2024–15/04/2024. Data were collected from electronic patient records (Lorenzo, ICE), including demographics, AKI stage, comorbidities, bundle completion, discharge documentation, follow-up, readmission, and 3-month mortality. Patients without true AKI were excluded.

Baseline review demonstrated:
-Poor documentation of AKI in discharge letters.
-Very low completion rates of AKI bundles.
-Lack of clear follow-up arrangements, despite national guidelines recommending structured post-AKI review.

Interventions implemented included:
-Development of a protocol for AKI post-discharge care, tailored to kidney recovery status and high-risk factors.
-An easy-to-read poster providing guidance on post-discharge care for patients with AKI to be displayed across all wards.
-Teaching sessions for doctors across the hospital on AKI, discharge documentation, bundle use, and the new trust protocol for AKI post-discharge care.
-Emails sent to all doctors highlighting the new AKI post-discharge protocol.
-Inclusion of AKI guidance in hospital-wide safety briefings to reinforce awareness.
-Clear emphasis that bundle completion is the responsibility of all clinicians involved in patient care.

Results

Baseline data included 121 patients:
-Most had multiple high-risk factors (heart failure, CKD, hypertension, diabetes, etc.).
-Median AKI duration: 2 days; median hospital stay: 12 days.
-AKI bundle completion: 15.7%.
-Inpatient mortality: 16.5% (20/121). Total 3-month mortality: 33.9% (41/121).
-Readmission within 3 months: 36.7%, higher than previously published studies (24–32%).
-52.5% of discharged patients experienced either readmission or mortality within 90 days.

Following interventions, AKI bundle completion improved to 60%. Education and safety briefing initiatives are increasing doctor-led completion. We are currently recollecting data on discharge documentation, follow-up arrangements, 3-month mortality, and readmission rates to assess whether these interventions have translated into measurable improvements in patient outcomes. Updated results will be available by December 2025.

Discussion

This QIP demonstrates that structured post-AKI interventions – including teaching, standardised discharge protocols, safety briefing integration, and ward posters – improve documentation and bundle completion. By promoting shared responsibility among clinicians and clear, personalised post-discharge care plans, we address Recommendations 22–24 from the UK Kidney Association AKI Summit Report 2024 on safe and timely discharge. Early results show improved bundle use, and ongoing data collection will assess impacts on mortality, readmissions, and patient outcomes. For these changes to last, they need to be integrated into routine discharge planning, with shared responsibility among the doctors providing care.

WH8

National Variation in Acute Kidney Injury (AKI) Nursing Services and Use of Care Bundles: Results from a Freedom of Information Request

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WEDNESDAY - Moderated Poster Session, HALL Q, March 11, 2026, 13:45 - 14:45

Background:
Timely and consistent management of Acute Kidney Injury (AKI) is critical to patient outcomes, yet the structure and delivery of AKI services across NHS trusts in England remains poorly described. The UKKA AKI SIG Innovation & Improvement workstream conducted a Freedom of Information (FOI) request to assess the presence of AKI-specific nursing services and whether organisations use structured AKI care bundles across NHS trusts.
Methods:
A FOI request was distributed to 179 NHS trusts in England between January and March 2024 from the UKKA. Trusts were asked several questions including whether they had an AKI service, and if so, how this was made up. They were also asked whether a formal care bundle or pathway was in use for AKI management. Responses were collated and analysed descriptively.
Results:
Of the 179 trusts contacted, 101 (56%) provided responses. Seventy-eight trusts (44%) did not respond, including 30 that were classified as undeliverable or not relevant. Among responding trusts, 64 (63%) reported using an AKI care bundle or structured clinical pathway. Responses described locally developed tools, modified national bundles, or embedded prompts within electronic health records as the most common method of this being delivered.
Only 35 (35%) trusts reported having dedicated AKI nursing service, with wide variation in job titles and banding, ranging from Band 6 Clinical Nurse Specialists to Band 8a Advanced Clinical Practitioners. Several trusts noted part-time or informal AKI roles, indicating inconsistent reporting standards. Some of these organisations had AKI specific services, whilst other had services whose role including the review of patients based on AKI alerts. These included critical care outreach team, ACT teams and ALERT teams.
However, following wider networking to further understand AKI services another 7 trusts reported having AKI services. This demonstrates a process failure point of the freedom of information request- where trust FOI teams were unable to easily identify a person as the AKI lead within an organisation to provide accurate and up-to-date information.

Conclusions:
This FOI analysis highlights significant variability in the adoption of AKI care bundles and variation in AKI nursing roles across NHS trusts in England. A notable proportion of trusts lack formalised AKI services, underscoring the need for standardised national guidance and investment in AKI workforce infrastructure to ensure equitable care delivery.

WH9

Reducing Non-Attendance Rates in a Nurse-led Acute Kidney Injury Follow-Up Clinic: a Quality Improvement Project

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WEDNESDAY - Moderated Poster Session, HALL Q, March 11, 2026, 13:45 - 14:45

Background and Aims

Acute Kidney Injury (AKI) is associated with long-term health risks, including chronic kidney disease (CKD), cardiovascular disease and increased mortality. Despite this, optimal models of post-discharge care remain unclear. Our trust established a post-AKI clinic within secondary care, led by AKI Clinical Nurse Specialists, to provide structured follow-up and comprehensive assessment aimed at improving long-term outcomes. Appointment invitations are sent with a cover letter, AKI information leaflet, and blood and urine forms. A text reminder service is enabled for all outpatients across the trust. However, high non-attendance (DNA) rates threatened effectiveness and wasted resources. We therefore undertook a quality improvement (QI) project to identify reasons for DNA, and design strategies to improve attendance.

Methods

Data were collected for the first 12 months following implementation of a structured assessment proforma and booking system. Clinic data were extracted from electronic records.

A structured telephone questionnaire was designed, including an introduction, the project's aim, and a request for consent to participate. An explanation of AKI was provided, followed by six standardised questions to explore patients' awareness of their AKI diagnosis, receipt of clinic information, appointment reminders, reasons for non-attendance, and suggestions for improvement.

Patients were contacted retrospectively from the most recent appointment to optimise recall. Individuals uncontactable after four attempts were excluded. Data were recorded in a Microsoft Excel spreadsheet.

Results

Between November 2023 and October 2024, 670 face-to-face appointments were booked. Of these, patients attended in 406 (60.5%) instances, 167 (24.9%) were cancelled or rearranged in advance, and 97 (14.4%) were coded 'DNA', including 22 duplicates. We attempted to contact 50 of these patients; contact was unsuccessful in 17 (10 deceased, 7 uncontactable). Of these, 22 agreed to participate, of whom 7 (32%) were unaware they had sustained an AKI, and 10 (45%) did not recall meeting the AKI nurses. Regarding reminders, 7 (32%) remembered receiving a letter, and 3 (14%) recalled a text message reminder.

The most common reason for DNA was unawareness of the appointment (9 patients, 41%), followed by concurrent hospitalisation (6 patients, 27%). Other reasons included believing follow-up was unnecessary due to ongoing specialist care, and administrative errors, including confusion between face-to-face and telephone appointments. Suggested improvements included more reliable correspondence (7 patients, 32%).

These results highlighted a lack of patient awareness and communication as key contributors to non-attendance. We have therefore designed a multi-component intervention: i) strengthening collaboration with the Outpatient department to improve the text message and rebooking pathways; ii) introducing a direct dial contact landline for patients to contact the AKI nurse team; iii) providing an information card prior to discharge; iv) improving accuracy of electronic coding; and v) collecting DNA data in real time.

Conclusion

The study highlights key factors contributing to the DNA rates for the nurse-led AKI clinic, with lack of awareness being the most significant. Interventions to improve communication and patient education aims to reduce DNAs, optimise nursing time, and improve long-term outcomes. We will audit the effect of these changes in 6-12 months following their implementation.

WH10

What does AKI nursing look like in practice? A national snapshot of variation across trusts

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WEDNESDAY - Moderated Poster Session, HALL Q, March 11, 2026, 13:45 - 14:45

Introduction
Acute Kidney Injury (AKI) is a common complication among hospitalised patients and is associated with increased morbidity, mortality and healthcare costs. Specialist nursing services supporting AKI patients have been introduced in many hospitals with the aim of improving early recognition, care coordination and follow-up for AKI patients. Despite this development, there is currently no national mechanism for capturing or comparing AKI nursing provision, no agreed service-level specifications, and limited evidence on the system-wide impact of AKI nursing services.
As part of the UK Kidney Association (UKKA) AKI Special Interest Group's (SIG) Innovation and Improvement workstream, we sought to address this knowledge gap. We developed and distributed a national Freedom of Information (FOI) request to determine the presence or absence of dedicated AKI nursing services across NHS trusts in England.
With this information we sought to explore whether the presence of AKI services (in any format) might be associated with variation in patient outcomes across trusts, using routinely collected national data.

Methods
We conducted a national analysis using data from Table 2.4 of the UK Kidney Association's (UKKA) 2023 AKI Annual Report[1]. Median Length Of Stay (LOS) - proxy of AKI quality improvement [2] - for AKI-related emergency hospitalisations was compared across 120 NHS trusts (the vast majority of hospitalised AKI episodes in the UK), stratified by the presence of a dedicated AKI nurse service (determined by a Freedom of Information (FOI) survey. Correlation analyses assessed the relationship between hospital size (number of emergency admissions) and LOS.
Results
We observed variation in median LOS across hospitals. However, correlation coefficients within groups (with/without an AKI nurse or unknown due to FOI survey not returned) were negligible and non-significant, showing no association between hospital size and LOS. Visual inspection also confirmed no clear separation in LOS performance between hospitals with or without an AKI nurse service.
Discussion
This analysis shows variation in median LOS among hospitals managing AKI-related emergencies, but no consistent relationship with hospital size or AKI nurse availability. The lack of correlation suggests that differences in LOS are not strongly explained by the presence of AKI nurses alone. Instead, other factors—such as patient characteristics, hospital resources, or differences in care practices—may play an important role. It is also important to note that AKI nurse status was derived from FOI survey responses, which may

not be uniformly reliable and could influence findings. Overall, these results suggest that LOS is influenced by a complex set of factors, and while AKI nurse availability may be relevant to patient care, its relationship with LOS is not straightforward in this dataset. Further work is needed to disentangle the contributions of staffing, patient mix, and service organisation to outcomes in AKI management.

For the conference.
We are currently working with the organisations who have AKI services to look at understanding that service and we will include more granulation about AKI services (such as size/ scope of practice) in relation to outcomes in the conference presentation.

WH11

AKI Rates at Arrowe Park Hospital: A Decade in Review

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WEDNESDAY - Moderated Poster Session, HALL Q, March 11, 2026, 13:45 - 14:45

Introduction: Between 2015 and 2025, acute kidney injury (AKI) rates, both in community and hospital settings, increased by approximately 21.5% in the North-West of England, with a 20% increase nationally. AKI is defined as a decrease in kidney function, identified by an increase in serum creatinine by ≥26.5 µmol/L within 48 hours, an increase to ≥1.5 times baseline within the prior 7 days, or urine output <0.5 mL/kg/h for 6 hours [1]. AKI is a common and serious condition associated with increased morbidity, mortality, and healthcare costs [2]. Specifically, AKI carries an inpatient mortality rate of 20%, with inpatient mortality increasing to 35% for those who develop AKI Stage 3 [3]. AKI has many causes, including sepsis, dehydration, medications, and exacerbations of chronic diseases such as diabetes and cardiovascular disease [4,5]. In the North-West of England, an ageing population and high prevalence of comorbidities, combined with socioeconomic deprivation, likely contribute to this rising burden [4]. Distinguishing between community-acquired and hospital-acquired AKI is clinically important, as community-acquired AKI is often preventable through earlier detection and intervention. However, hospital-acquired AKI typically complicates existing illnesses, carries a poorer prognosis and hospital AKI treatment is associated with an average cost of £5000 per person per year [2,5]. Understanding these trends is essential for developing targeted strategies to improve early recognition, optimise management, and reduce AKI-related harm [6].

Methods: We conducted an exploratory analysis of changing rates of AKI, stage distribution and morbidity from data obtained from the trust's automated reports looking at AKI in both inpatients and outpatients at Arrowe Park Hospital, Wirral, Merseyside.

Results: Between 2015 and 2024/25, the total number of AKI episodes at Arrowe Park Hospital decreased by 12%, despite regional AKI rates rising by 21.5% and national rates by 20% during the same period. Stage distribution shifted towards less severe presentations, with Stage 1 AKI increasing slightly (2195 to 2231 episodes), while Stage 2 (546 to 380) and Stage 3 (470 to 215) decreased markedly. Based on regional trends and adjusting for readmissions, an estimated 830 AKI cases were avoided, equating to an estimated £4.15 million annual cost avoidance. Time series data analysis indicated most improvements occurred between 2015 and 2018, followed by a plateau, while regional AKI rates continued to rise by 9% between 2019 and 2024.

Discussion: Arrowe Park Hospital achieved a substantial reduction in AKI rates and severity over the past decade, counter to regional and national trends, suggesting successful local interventions. The plateau in improvement after 2018 highlights the need for renewed quality initiatives. AKI-associated morbidity places a significant financial strain on healthcare services. Further reductions in AKI rates can help reduce associated healthcare costs.

WH12

Audit comparing daily temperature with acute kidney injury (AKI) incidence

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INTRODUCTION

Rising climate temperatures are a growing public health problem in the UK. The impact of ambient heat on kidney health is becoming a critical concern due dehydration following increased perspiration and lack of fluid replacement. Heat exposure can cause stress on the kidneys which alongside lack of rehydration, can result in the development of Acute Kidney injury (AKI) and kidney disease (Johnson et al.,2019). Existing epidemiological studies have shown milder cases of AKI can occur due to heat stress without the need for hospital admission (Hajat et al., 2024). We examine the impact of climate temperature on AKI incidence, which was monitored in hospital and in community settings, highlighting the need for preventive methods like hydration in those at risk.

METHODS

From January to July 2025, the relationship between outside temperature and AKI incidence was assessed using e-alerts, hospital AKI team reviews and the number of Hospital at Home AKI admissions. Daily average temperatures were recorded, and weekly totals of AKI patient reviewed were collected. Patients discussed during weekly MDT hospital at home meetings, attended by a range of staff, which included: a doctor, pharmacist, clinical nurse specialist, GP and nurse. All information was recorded, and weekly averages were plotted to compare temperature with AKI incidence.

RESULTS

A total of 197 community-based AKI reviews and 259 hospital AKI team reviews were recorded during the audit period. Average AKI team reviews increased noticeably during June and July, when average temperatures were highest. The audit found that in the months of January to May, the mean number of hospital at home AKI reviews was 23; In June, this rose to 50 reviews. It was found that when temperatures increased above 24◦C, the number of Hospital at Home AKI reviews increased. However, hospital AKI team reviews did not show any corresponding increase.

DISCUSSION

Rising temperatures pose a risk to kidney health, and the higher incidence of AKI cases in the community shows the importance of monitoring beyond secondary care. High risk patients, including older patients and those with pre-existing kidney disease, need to have earlier identification and hydration. Public health alerts and medication reviews are also crucial for these patients both in hospital and community. One of the key debrief points highlighted the value of collaboration between team members to better manage AKI patients during periods of increased environmental stress. Public awareness and education of patients can allow patients to recognize early signs of dehydration in AKI.

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