Optimising culturally relevant and accessible information for people with hypertension: insights from patients and healthcare professionals

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Enhancing Patient Education: Designing for Empowerment and Engagement, HALLQ, March 10, 2026, 10:30 - 11:30

Introduction: Hypertension is a common long-term condition affecting about 1 in 4 adults living in the United Kingdom and the most important modifiable risk factor for chronic kidney disease (CKD). Yet people with and at risk of hypertension often encounter information that is inaccessible, overly technical, and culturally misaligned. Current resources are typically text-heavy, jargon-filled and fail to reflect diverse lived experiences. This leads to confusion, reduced engagement with self-management, and caregivers feeling underprepared to provide support. We aimed to identify principles for developing more effective hypertension resources by co-designing solutions with patients and health care professionals.
Methods: A series of co-production workshops were conducted between May and August 2025. We engaged two groups; 54 patients and community representatives participated in one of four 90-minute workshops, which were delivered with translators to maximise inclusion. Separately eight diverse HCPs, including pharmacists, care assistants, nurses and doctors participated in two 90-minute workshops. Discussions explored current practices, information gaps, and experiences across the patient pathway and ideated future solutions. In parallel, 54 patients and community representatives participated in one of four 90-minute in-person workshops, delivered with translators to support inclusion and diversity. All workshops were audio-recorded, transcribed verbatim and analysed using reflexive thematic analysis.
Results: Both patients and HCPs reported significant gaps in communication and support. Patients described shock and confusion at diagnosis, with many left unclear about the causes, prognosis, and the purpose of prescribed medicines. There was poor understanding of blood pressure measurement (including misuse of equipment or misinterpreting results) and consultations that were overly focused on medication, leaving little scope for holistic discussion. Cultural, linguistic and socioeconomic barriers limited access to appropriate advice, particularly regarding diet and lifestyle. HCPs acknowledged inconsistencies in diagnostic practice, variation in adherence to guidelines, and a lack of suitable materials to support patient education.
There was a strong consensus on the need for clear jargon free information and culturally tailored lifestyle advice delivered in multiple formats. Video resources presented by HCPs or peers, supported by digital dissemination such as by SMS or QR codes), were seen as credible and highly acceptable. Participants also emphasised the value of group education, repetition of information across care points, and centralised, evidence-based digital hubs accessible to both patients and professionals.
Discussion: This study demonstrates the urgent need for hypertension information that is not only clinically accurate, but also accessible, culturally relevant and adaptable to diverse audiences. Patients and healthcare professionals alike identified shortcomings in the current provision, particularly in areas such as diagnosis, understanding blood pressure monitoring, and lifestyle management. Future resources should prioritise plain language descriptions, inclusivity, and visual formats, delivered digitally while safeguarding against digital exclusion. By co-designing with patients and HCPs, future materials can be more fit-for-purpose, supporting improved engagement and outcomes in hypertension care.

Using the regional renal network infrastructure to support Kidney PREM inspired quality improvement

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Kidney PREM Ten Years On: The Past, the Present, and the Future, QUEENS SUITE 2, March 10, 2026, 10:30 - 11:30

Introduction

The Kidney Patient Reported Experience Measure (PREM), a validated and co-produced annual survey of experience covering 13 themes of care experience, marks its tenth anniversary in 2026 (fig 1).

It aims to give patients a voice and to help shape care based on what matters to them. However, theme scores have remained relatively static, with Transport, Needling, Support and Sharing Decisions consistently scoring more poorly than other themes (fig 2).

In 2024, the Kidney Quality Improvement Partnership (KQIP) launched a 'Kidney PREM improvement' programme, aiming to shift the conversation from data collection to data response, by inspiring and capturing improvements to kidney care across the country.

Methodology

KQIP approached regional kidney networks and devolved nations representatives to deliver a series of nine virtual 90-minute workshops. These aimed to take a closer look at regional PREM results and use quality improvement (QI) tools to make improvements. Attendees were provided with regional and unit PREM data packs, given a live demonstration of available data and shown how to access it. QI managers facilitated unit breakout rooms to discuss their scores, variation in question responses within their lowest themes, and their local context and priorities. Teams were encouraged to produce an action plan, using QI tools such as SMART aims and plan-do-study-act cycles to implement improvements.

Results

160 people from 45 units attended the nine events, comprising patients, network managers and kidney team members. Each unit received their personalised data pack and a 30-60-90-day action plan to progress improvements locally. Examples of improvement activities were shared, which KQIP aims to disseminate via an online knowledge hub currently in development.

These are some examples of how teams used their PREM results to drive improvements:

One team focussed on improving experience of hospital-arranged transport. They presented data from the PREM to the appropriate leads, met with transport providers and implemented clear escalation policies. This resulted in fewer adverse incidents relating to transport and an improved PREM score.

Another team aimed to improve their shared decision-making processes. Their goal was to engage patients in shared decision making by developing a holistic tool, which they then embedded into practice and monitored at clinical governance meetings. The team report year-on-year improvements in scores [from 5.5 to 5.7] in the Sharing Decisions theme.

Other teams made use of the Kidney PREM "You Said, We Did" posters to demonstrate to patients what they did in response to their PREM results (fig 3).

Discussion

These are examples of impactful, Kidney PREM-inspired improvements. However, many patients still report that their unit's PREM results are not fed back or discussed with them . KQIP aims to share case studies of PREM-inspired improvements via an online knowledge hub, and inspire action by continuing to deliver annual regional PREM improvement workshops. Listening to patient voices, and acting on what they say, is key to building fairer, responsive kidney services. Work is still required to ensure this is considered a priority by kidney teams and leadership across the UK.

‘It’s not up to you, it’s up to me’: older patient preferences for kidney replacement therapy decision-making roles in a UK multi-centre study

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Real-World Geriatric Nephrology: Coordinating and Integrating Care for Older Adults Living with CKD, QUEENS SUITE 1, March 10, 2026, 10:30 - 11:30

Introduction

'What I hate is a nurse or a doctor that don’t really explain things to you and gets a bit forceful: “You must have this done. You must have that done”. You think – ‘well, it’s not up to you, it’s up to me’. (David, 65-year-old male, preparing for haemodialysis)

One aspect of shared decision-making is ascertaining and facilitating a person’s preferred role in their healthcare decisions. Research suggests that many with chronic kidney disease (CKD) do not receive the decisional control they would prefer, negatively impacting their treatment satisfaction, but there is little research specifically investigating the decisional preferences of older people with CKD in the UK. We report findings regarding decisional control preferences in this population and clinicodemographic factors associated with preferences, as part of a larger mixed-methods study exploring older people’s preferences for kidney failure treatments.

Methods

Between 2021 and 2024, we surveyed over-65’s with eGFR ≤20 ml/min/1.73m² and no history of dialysis or transplant, recruited from 23 centres across the UK. A questionnaire included measures of decision-making control preference (via the Control Preferences Scale (CPS)); wellbeing (via the ICEpop CAPability measure for Older people (ICECAP-O) score); and socioeconomic deprivation (via the Index of Multiple Deprivation).

The CPS invites participants to choose one of five statements regarding their preferred decision-making role, categorising these as: active (patient-led decision-making), collaborative (shared decision-making), or passive (clinician-led decision-making). We used univariable and multivariable ordinal logistic regression in Stata to assess associations between CPS and factors such as wellbeing, deprivation, age, gender, ethnicity, education, and partnership status.

Results

368 of 524 respondents completed the CPS (70%). Mean age was 77; 66% were male and 82% white. 57% preferred active decision-making, 33% preferred collaboration, and 10% favoured a passive approach. Passive preferences were significantly associated with greater socioeconomic deprivation ($r = –0.12$, $p = 0.01$) and lower wellbeing ($r = –3.48$, $p = 0.00$).

Discussion

Only a minority of participants preferred to defer to their clinician. Those with greater socioeconomic deprivation and reporting lower wellbeing were more likely to prefer passivity. We are not aware of previous studies linking wellbeing to decision-making preferences.

Key strengths include the large, geographically diverse cohort focusing on older people with CKD. Investigation of this cohort’s preferences are important as many are approaching important decisions in kidney failure management. An anonymous postal survey and the simplicity of the CPS likely enabled disinhibited and truthful responses. Limitations include an incomplete response rate, which may not be at random, and overrepresentation of white and less deprived groups compared with the UK CKD population. CPS responses are hypothetical and may not predict actual behaviours.

Older people living with advanced CKD in the UK desire involvement in their treatment decisions. Our novel socioeconomic and wellbeing associations are intriguing in the context of CKD – a disease that reduces wellbeing and disproportionately affects the disadvantaged. Practitioners should seek to support decision-making in the patient’s preferred capacity and acknowledge and attempt to mitigate the disadvantages of those with lower wellbeing or socioeconomic status

Scalable, real-time medicines optimisation for CKD using Eclipse Live's LUCID pathway to enhance prescribing and patient safety

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A Debate: This House Believes in Population Screening for CKD, HALL D, March 10, 2026, 10:30 - 11:30

Introduction

Medicines optimisation ensures patients receive clinically and cost-effective medication, minimising waste and enhancing safety. Eclipse Live - an NHS England-assured prescribing support platform - powers medicines management through risk stratification, structured medication reviews, and cost-effective prescribing guidance across care settings. Eclipse Live is available in 28 Integrated Care Boards within England, representing more than 2,800 GP practices and more than 28.5 million individuals.

Methods

We designed a pathway for CKD ("LUCID") within our ICB to support identification, monitoring, medicines optimisation, and multidisciplinary team (MDT) decision-making. Results are updated on a daily basis for these categories and can be viewed at an individual practice or primary care network or integrated care system level.

Current medicines categories include prescribing for ACEi/ARBs, lipid-lowering and SGLT2 inhibitors. Other patient safety categories include coding for KFRE results, identifying NSAID use with eGFR <45, and meeting biochemical criteria for nephrotic syndrome.

Results

50,651 people are coded for CKD in our ICB (CVD Prevent CKD Outcome 1). Numbers and percentages of eligible individuals receiving ACEi/ARBs, lipid-lowering medications and SGLT2 inhibitors are shown in Figure 1. Of note 16,330 out of 40,532 (40.3%) individuals with type 2 diabetes are receiving an SGLT2 inhibitor and 1,372 out of 7,080 (19.4%) without diabetes.

2,608 out of 30,590 (8.5%) with an eGFR<60 and ACR in the last 12 months have a coded KFRE result. 19 people meet the biochemical definition of nephrotic syndrome from their latest urine ACR and serum albumin results. Of those not on a palliative care pathway, all are known to secondary care nephrology services.

Discussion

Eclipse Live's LUCID pathway offers a robust, scalable approach to medicines optimisation and patient safety for population health management in CKD. Its integration with national prescribing systems and alert infrastructure may improve medicines safety for people living with CKD in primary care.

The LUCID module via Eclipse Live demonstrates a scalable tool for CKD and other long-term conditions to support identification, monitoring, inform MDT discussions, and deliver improved

medicines management. Within our ICB this work is led by the functioning integrated MDT, who review the data and act to support medicines optimisation across primary and secondary care.

Kidney-related outcomes with obinutuzumab in patients with active lupus nephritis: a pre-specified exploratory analysis of the REGENCY trial

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Bring Out the Big (Biopsy) Guns: To Biopsy or Not in Diabetic Kidney Disease?, KINGS SUITE, March 10, 2026, 10:30 - 11:30

Background: Lupus nephritis is the most common, severe, organ-threatening manifestation of systemic lupus erythematosus. The randomised, double-blind, placebo-controlled, Phase III REGENCY trial (NCT04221477) demonstrated superiority of obinutuzumab over placebo for achievement of complete renal response at Week 76 when added to standard therapy (mycophenolate mofetil plus glucocorticoids) in patients with active lupus nephritis. This study assessed the effects of obinutuzumab on time to lupus nephritis flare, time to an unfavourable kidney outcome and annualised estimated glomerular filtration rate (eGFR) slope during the REGENCY trial.

Methods: In this pre-specified analysis of the REGENCY trial, time to lupus nephritis flare was assessed between Weeks 24 and 76 by Cox regression. The composite outcome of death, doubling of serum creatinine or treatment failure was defined as an unfavourable kidney outcome. Time to an unfavourable kidney outcome from baseline to Week 76 was also assessed by Cox regression after stratifying for race and region. Finally, linear mixed-effects modelling was used to assess eGFR slope between Weeks 12 and 76. These analyses were not controlled for type I error.

Results: Between Weeks 24 and 76, the proportion of patients with lupus nephritis flare was lower in the obinutuzumab arm (11.1%) compared with the placebo arm (23.5%), with a hazard ratio of 0.44 (95% CI, 0.24 to 0.82; P=0.0074) (Figure 1A). The proportion of patients with unfavourable kidney outcomes in the obinutuzumab arm (8.10%) was also lower compared with the placebo arm (21.30%), with a hazard ratio of 0.37 (95% CI, 0.18 to 0.75; P=0.0039) (Figure 1B). Numerical attenuation of eGFR decline from Week 12 to Week 76 was observed in the obinutuzumab arm with the annualised eGFR slope calculated as −0.71 (SE=1.454) compared with −4.39 (SE=1.454) in the placebo arm, with a difference in eGFR slope of 3.68 (SE=2.055; P=0.0732), favouring patients treated with obinutuzumab (Table 1).

Conclusion: This pre-specified exploratory analysis of the REGENCY trial demonstrated that obinutuzumab significantly reduced the occurrence of lupus nephritis flares and unfavourable kidney outcomes and attenuated the annualised decline in kidney function compared with placebo-treated patients. Together with the significantly higher proportion of patients achieving a complete renal response in the obinutuzumab arm, these findings suggest that obinutuzumab affords long-term kidney survival benefits compared with standard therapy.

Obinutuzumab demonstrates steroid-sparing effects and consistent benefit in patients with lupus nephritis when using multiple primary endpoint definitions: secondary analysis of phase III trial results

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Personalising Care in Kidney Vasculitides, KINGS SUITE, March 10, 2026, 14:00 - 15:30

Background: The Phase III REGENCY trial (NCT04221477) demonstrated superiority of obinutuzumab (OBI) over placebo (PBO) in achieving complete renal response (CRR) at Week 76 when added to standard therapy (ST) in patients with active lupus nephritis. There is no standardised CRR definition. These post hoc analyses evaluated OBI+ST vs PBO+ST across different renal response definitions from recent studies, the efficacy of OBI+ST vs PBO+ST on each component of the REGENCY CRR definition and the oral prednisone intake over time.

Methods: REGENCY, BLISS-LN and AURORA-1 renal response endpoint definitions were used for analysis of the REGENCY dataset at Week 76. Endpoint definitions are listed in Table 1. The Cochran–Mantel–Haenszel test, stratified by region and race, was used for treatment comparisons. All patients received oral prednisone as part of ST, tapered to 5 mg/day by Week 24.

Results: At Week 76, 46.4% of patients in the OBI+ST (n=135) and 33.1% in the PBO+ST arm (n=136) achieved CRR (adjusted difference: 13.4%, 95% CI, 2.0 to 24.8%; P=0.0232). The proportions of OBI+ST vs PBO+ST achieving modified BLISS-LN primary efficacy renal response were 51.8% and 39.7% (adjusted difference: 12.1%, 95% CI, 0.5 to 23.8%; P=0.0432); modified BLISS-LN CRR were 48.7% and 33.1% (adjusted difference: 15.7%, 95% CI, 4.3 to 27.2%; P=0.0084); modified AURORA-1 CRR were 48.7% and 33.8% (adjusted difference: 15.0%, 95% CI, 3.6 to 26.5%; P=0.0117) (Figure 1).

A higher number of patients achieved the individual components of CRR at Week 76 in the OBI vs PBO arm for all three components (UPCR <0.5 g/g: 47.4% vs 36.0%; eGFR ≥85% of baseline: 83.7% vs 75.7%; no occurrence of intercurrent events: 88.9% vs 75.0% for OBI+ST and PBO+ST, respectively). In both arms, the main reasons for not attaining CRR were UPCR ≥0.5 or eGFR <85% of baseline (54.8% OBI+ST vs 65.4% PBO+ST).

The mean daily prednisone intake was consistently lower in patients in the OBI vs PBO arm from Week 24-76 (Figure 2). The proportions of patients achieving a daily prednisone (or equivalent) dose of ≤5 mg/day were consistently higher in the OBI vs PBO arm from Week 36, reaching a 10-percentage point absolute difference from Week 64-76 (78.5% vs 68.4% for OBI+ST vs PBO+ST; adjusted difference (95% CI): 10.1% (−0.5 to 20.4), P=0.0589).

Conclusion: In a post hoc analysis of the REGENCY trial outcomes, OBI showed consistent benefit across patient subgroups, utilising multiple alternative definitions of CRR and exhibited steroid-sparing properties.

Remission induction for ANCA-associated vasculitis with avacopan and minimal steroid dosing

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Personalising Care in Kidney Vasculitides, KINGS SUITE, March 10, 2026, 14:00 - 15:30

Introduction: The ADVOCATE trial showed avacopan to be non-inferior to high-dose glucocorticoids (GC). However, patients on the avacopan arm received a mean cumulative steroid dose of 1676mg over 12 months. Similarly, real-world avacopan studies to date have employed substantial cumulative GC doses, and outcomes with ultra-low GC dosing remain underexplored. We evaluated the effectiveness and safety of a minimal-GC avacopan regimen versus standard-GC based care in a large UK cohort.

Methods: We conducted a retrospective, two-centre cohort study of 126 newly diagnosed or relapsed AAV patients. 70 patients received an avacopan-based regimen (2023-2025) and 56 patients received high-dose GC (2019-2024). The minimal steroid dosing protocol in the avacopan group was prednisolone 30mg for 1 week, followed by 20mg for 1 week (with no additional intravenous methylprednisolone pulses). Outcomes evaluated included sustained remission at 12 months, survival, relapses, change in renal function, tolerability and safety. Patient-reported outcomes were measured by AAV-PRO in a subset of patients. Urinary soluble biomarkers (CD163, MCP-1, C5a) were analysed by ELISA in a subset of patients.
Results Baseline demographics, ANCA serotype, disease presentation (de-novo vs. relapse), and organ involvement were well-matched between the two cohorts. The 12-month median cumulative prednisolone dose in the avacopan group was 390mg compared to 3535mg in the GC group.
Clinical efficacy was comparable. Sustained remission at 12 months was similar in both groups (92.9% [65/70] in avacopan vs 91.1% [51/56] in GC group; p=0.75). Relapses were not significantly different (5.7% vs 10.7%; p=0.45). Both cohorts demonstrated significant improvements in renal function. Median eGFR in the avacopan group improved from 23 to 44 ml/min/1.73m² at 12 months, similar to the GC group's improvement from 25 to 43 ml/min/1.73m² (p=0.32). This equivalence was maintained in the subgroup of patients with baseline eGFR <15ml/min at diagnosis. In an extended follow-up to 24 months, a subset of the avacopan cohort (n=12) demonstrated sustained and numerically higher renal function, with a median eGFR of 54 ml/min/1.73m² compared to 44 ml/min/1.73m² in the GC cohort (n=42), though this difference was not statistically significant (p=0.65). A multivariable GEE model confirmed that treatment group was not a predictor of eGFR recovery (p=0.657).

Safety profiles were similar, with low rates of severe infections (6% vs 9%) and one death in each group. In the avacopan cohort, treatment was discontinued in 13% (n=10) of patients, primarily for relapsed/refractory disease (n=4) or liver dysfunction (n=3). Patient-reported outcomes (AAV-PRO) were similar between the two groups. Urinary biomarker analysis (CD163, MCP-1, C5a) revealed comparable and sustained reduction in all 3 markers with minimal steroid use.

Discussion: Our findings demonstrate that an avacopan-based induction regimen using a minimal GC protocol delivers clinical outcomes comparable to a high-dose GC regimen. A key finding is that these outcomes were achieved with a cumulative steroid dose that is markedly lower compared to the cumulative steroid exposure of avacopan-treated patients in the ADVOCATE trial. This suggests that

in real-world clinical practice, it is possible to further minimize GC exposure with avacopan without compromising efficacy or safety.

Impact of Embedding a Transplant Clinical Nurse Specialist within an Advanced Kidney Care Service.

Claire McDonald
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Transplant Work-Up: Practical Guidance for Kidney Teams, HALLQ, March 10, 2026, 14:00 - 15:30

LRU provides Renal Services to the population across Hertfordshire, Bedfordshire and West Essex. We have 525 patients with an estimated glomerular filtration rate [eGFR] <20ml/min/1.73m2 within our Advanced Kidney Care [AKC] Service.

LRU is a transplant referral centre affiliated with 3 transplant centres. This abstract focuses on patients within the AKC cohort, excluding those managed conservatively.

Transplant First is widely recognised as the optimal treatment pathway for suitable renal patients [NHS England,2017]. We restructured our transplant coordinators' caseload allocation, embedding a transplant coordinator within the AKC service. The role focused on (1) developing staff and patient transplant awareness, (2) facilitating/supporting early transplant suitability discussions (3) improving documentation of transplant status (4) increasing timely transplant assessment, and (5) maximising opportunities for pre-emptive listing, including Living Donation.

Methods
A Transplant CNS overseeing the AKC patient cohort commenced in September 2024. Several key interventions for service improvement were identified.

[1] Transplant CNS worked alongside the MDT, playing a key role in AKC QA listing discussions, helping review patient's suitability and transplant statuses towards final listing decisions.

[2] We use Clinical Vision (CV) as our renal Electronic Patient Record. A CV report was run to identify AKC patients with eGFR <20 ml/min/1.73m2 categorised by transplant status. If patients had no recorded transplant status, pro-active virtual reviews were undertaken by the transplant coordinator and renal consultant assessing transplant suitability. A transplant status was assigned where clinical documentation was clear. Where necessary, suggestions for further review were communicated to AKC clinicians.

[3] Our transplant suitability pathway consists of several stages of assessment and listing decisions. We refined our transplant status categories [Figure 1] to allow clearer understanding of patients' progress towards a transplant suitability decision.

Results
[1] Early data shows an increase of 32% of AKC Transplant assessment patient referrals. Prior to the role, in January –June 2024, 47 referrals were made, increasing to 70 referrals in January –June 2025.

[2] In November 2024 43% of AKC patients had a documented transplant status, increasing to 87% by August 2025 [Figure 2].

[3] Before implementation of the updated transplant statuses, there was no formal way to identify where patients were within their transplant pathway. Introduction of a structured categorisation system has enabled clear identification of patients' progress, facilitating focused clinical reviews, highlighting potential service bottlenecks and health barriers, and enhancing audit capabilities. [Figures 3&4]

Conclusion:
A positive impact of the Transplant CNS embedded within the AKC service has been acknowledged by the MDT. They play a pivotal role in a 'Transplant First' approach with education, early listing discussions, communicating and reviewing a patient's pathway towards a listing decision.

Within one year there has been a clear improvement in transplant referrals and transplant status documentation. The refinement of transplant status categories will allow future improvements to the pathway with the aim to increase access to transplantation pre-emptive of dialysis.

Reference:
NHS England. (2017). Transplant First: Timely Listing for Kidney Transplantation. Available from NHS England [Accessed 2025 9th September 2025].

Improving chronic kidney disease care in south east London: a proactive, integrated and holistic model of care

Ms Hayley Wells[1], Iesha Lovatt[2], Cameron Bebbington[1], Esther Negbenose[1], Nandini Mukhopadhyay[1], Kathryn Griffiths[4], Robert Elias[3], Ciara Doherty[5]
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Bridging the Gap: Working Better with Primary Care in CKD Management, AUDITORIUM, March 10, 2026, 14:00 - 15:30

Introduction

South East London is ethnically diverse (47.2% non-White), with high levels of socioeconomic deprivation. One third of the population (650,000) are living with a long-term condition (LTC), and over 26,000 have two or more cardiorenal metabolic LTCs. Yet CKD is often missed or mis-coded: local registers capture only half the expected prevalence. People with CKD who are not appropriately coded have double the mortality of those who are. Earlier identification and medical optimisation, particularly with treatments such as ACE/ARBs and SGLT2 inhibitors, can improve clinical indicators and delay the need for dialysis by over 15 years, improving both patient outcomes and NHS sustainability.
Our programme of work builds a person-centred, holistic, horizontally and vertically integrated model of care for people with multiple LTCs, and effectively uses data and risk stratification to improve early identification of CKD and optimisation of modifiable risk factors.

Methods

To develop an integrated model of care, six project sites were identified, one within each SEL borough, across 4 acute hospitals and 72 GP practices. These borough-based Integrated Neighbourhood Teams (INTs) used a validated risk stratification tool (APL-Renal) to identify patients at risk of CKD. Patients were triaged into pathways for targeted optimisation (“long list”) or complex case management (“short list”), supported by primary care, community teams, specialist consultants and multi-specialty pharmacists. Evaluation assessed differences between participating and non-participating practices across a range of quantitative clinical data, using a difference-in-difference method with Z-scores to test the significance of observed changes. Complementary staff and patient surveys were undertaken in participating practices to capture experiential insights.

Results

CKD prevalence increased by 3.9% in participating sites (vs 3.3% elsewhere). Statistical testing indicated this difference was not significant (Z-score 0.9466), meaning the improvement may still reflect natural variation or recognise that there are other push factors to increase CKD prevalence across SEL. Among patients with CKD and diabetes, prescribing of SGLT2 inhibitors displayed a statistically significant (Z-score 2.2144) increase of 13.9% at participating sites (vs 8.3% in non-participating sites), aligning with best practice and supporting delayed progression to dialysis. Blood pressure control saw improvement in ‘long-list’ patients (from 76.6% to 79% within target ranges) although this had not yet achieved statistical significance (Z-score 0.6715). Non-elective admissions in ‘long-list’ patients saw a statistically significant decrease of 20 to 7 per 100 patients (Z-score 7.97). Renal/cardiology/diabetes outpatient attendances also saw a statistically significant decrease (Z-score 3.5774) from 36 to 22 per 100 patients. Patients reported feeling better supported and more involved in decisions about their care and 95% of patients would recommend the service to others. Staff reported improved collaboration, holistic care, and job satisfaction, with many also viewing it as a more sustainable way of working.

Discussion

A proactive, risk-stratified and integrated care model can significantly improve early detection and optimisation for CKD, helping to delay disease progression and reduce reliance on specialist services. This model shows promise in addressing health inequalities, reducing NHS pressures across the system by streamlining care pathways, and supporting more sustainable, personalised care for patients.

Multi-cohort, mixed-ancestry genome wide association study of 1646 people with idiopathic nephrotic syndrome reveals association with developmental and immune loci.

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Understanding the Kidney Through Population and Functional Genomics: Translating Genomes into Therapies, QUEENS SUITE 3, March 10, 2026, 14:00 - 15:30

Introduction:
Idiopathic nephrotic syndrome (INS), encompassing non-monogenic paediatric-onset nephrotic syndrome, adult-onset minimal change disease, and idiopathic focal segmental glomerulosclerosis, is a rare disease with global burden. Using novel methods to permit mixed-ancestry analysis of cases genotyped without matched controls, we have performed two GWAS analyses stratified by genotyping platform, combining data from 13 historic cohorts, allowing inclusion of cases regardless of self-reported ethnicity and in the absence of a pre-specified set of controls.

Methods:
INS cohorts included adults with MCD from the MRC/KRUK National DNA Bank for Glomerulonephritis and cohorts assembled with collaborators in the UK and abroad as previously described. Genotyping of cases was performed on the Illumina Multiethnic Global Array (MEGA) and Global Screening Array (GSA) chips. Controls from the UK Biobank (UKB) were identified using a genomic similarity matching algorithm without reference to self-reported ethnicity. Population and continental labels were applied to each case using genetic features with the UKB as a reference. To maximise the number of intersecting markers between case and control cohorts for imputation, marker positions on the chips were coordinate- and allele-matched to UKB whole genome sequencing data. Extensive marker filtering was performed to address batch effects including a novel linkage-disequilibrium-based filtering step. Imputation of both cases and controls was performed with the UKB 200k phased WGS release as a reference using IMPUTE5. Logistic regression was performed on imputed dosages with REGENIE for the MEGA chip-cohort and PLINK2 for the GSA chip-cohort, with principal components as covariates. An inverse-variance weighted meta-analysis was performed.

Results:
1646 cases (MEGA n=1384 GSA n=262) passing quality control were matched to 16,456 controls from the UK Biobank. The predominant algorithmically-assigned populations were European (49%), South Asian (37%) and African (7%), and 10% of included samples were of mixed ancestry. 6.6 $x10^5$ MEGA and 4.4$x10^5$ GSA high-quality markers were matched to UK Biobank GATK-WGS calls. After imputation against the UKB reference panel, 9.23 $x10^6$ (MEGA) and 9.12$x10^6$ (GSA) common, high quality markers were tested for association with INS and 8.49$x10^6$ combined for meta-analysis (Figure 1). Five loci replicated associations reported in previous GWAS. Of the remaining, three are novel loci and three loci lacked LD support and are unlikely to represent true associations. The NPHS1 locus, encoding for nephrin, is replicated for the first time outside of a predominantly Japanese cohort. FOXP1 is a developmental gene and rare coding variants are associated with brain and cardiac anomalies and more recently with CAKUT and proteinuria. Regional CLEC16A variants have been associated with many immune-mediated diseases.

Discussion:
Our ancestry-inclusive GWAS replicated previous findings and identified novel loci. The loci identified provide support for the hypothesis that INS is an autoimmune-mediated disease, while genetic variation in NPHS1 and FOXP1 suggests structural and developmental contributions to disease risk.

Replication of previously reported loci using these novel methods that addressed batch effects and population stratification demonstrates the feasibility of combining heterogeneous cohorts with UK Biobank controls. This approach may be broadly applicable to other rare diseases.

Comparative Performance of KFRE and CKD-PC for Risk Prediction in CKD: Insights from the NURTuRE-CKD Cohort with Diabetes Stratification

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New Insights into Chronic Kidney Disease and Idiopathic Nephrotic Syndrome from the NURTuRE Collaboration: A National Resource to Accelerate Clinical Research, HALL D, March 10, 2026, 14:00 - 15:30

Introduction

Accurate prediction of kidney replacement therapy (KRT), eGFR decline, kidney failure (KF) and all-cause mortality before KF (ACM) in chronic kidney disease (CKD) is crucial for clinical decision-making. The Kidney Failure Risk Equation (KFRE) and the CKD Prognosis Consortium model (CKD-PC) are two leading risk prediction tools. However, their comparative performance in specific clinical subgroups, especially between patients with and without diabetes, remains under investigation. This study evaluates their 2-year predictive performance in the NURTuRE-CKD cohort with direct stratification by diabetes status.

Methods

We included 2,299 adults from the NURTuRE-CKD cohort (median age 64 years; 59.0% male; 83.5% white ethnicity; 23.7% with diabetes, not necessarily with diabetic kidney disease), excluding patients with baseline eGFR <15 ml/min/1.73m2. Median eGFR and uACR were 35.1 ml/min/1.73m² and 193.9 mg/g, respectively. Outcomes were defined as:

- KRT: Need for dialysis or transplant
- KF: Sustained eGFR <15 ml/min/1.73m2 (≥28 days) or KRT initiation
- eGFR decline: ≥40% reduction from baseline
- ACM: All-cause mortality before KF

KFRE and CKD-PC scores were calculated at baseline with 2-year censoring. Model discrimination was assessed using the concordance index (c-index). Diabetes-stratified analyses were performed due to CKD-PC's different risks equations for diabetic and non-diabetic patients.

Results

KFRE showed higher discrimination for KRT and KF in the overall cohort compared with CKD-PC (c-indices: 0.9 vs. 0.87 and 0.9 vs. 0.84 p-values< 0.001, respectively). CKD-PC better predicted ≥40% eGFR decline (c-index = 0.71 vs. 0.69), although this difference was not statistically significant. Both models showed poor ACM prediction (c-index: 0.55 vs. 0.57, not significant). Subgroup analyses revealed consistent KFRE performance across diabetes status, while CKD-PC showed better KF prediction but worse KRT and ≥40% eGFR decline accuracy in non-diabetic patients [Table 1].

Conclusion

KFRE demonstrated higher discrimination for KRT and KF prediction, while CKD-PC showed marginally better performance for ≥40% eGFR decline prediction, though statistically non-significant. Both models had limited ACM prediction. KFRE maintained consistent performance across diabetes subgroups, whereas CKD-PC showed better KF prediction in non-diabetic patients and better ≥40%

eGFR decline prediction in diabetic patients. The c-indices for eGFR alone confirm eGFR as the primary driver of KFRE's performance for KRT and KF prediction (c-indices: 0.84 and 0.88, respectively), particularly in non-diabetic patients. Performance differences between KFRE and CKD-PC may be driven by model design: KFRE relies primarily on eGFR and uACR, whereas CKD-PC incorporates additional clinical, which reduces the impact of eGFR and uACR in the risk score. These findings highlight that model selection should account for clinical objectives (event prediction vs. progression monitoring), and that KFRE outperformed CKD-PC for KRT and KF risk assessment in our cohort, for both diabetic and non-diabetic patients.

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Establishing a Transition Bay to improve outcomes and experience among patients initiating in-centre Haemodialysis

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Their Wish Is Our Command: Making Shared Care and Peer Support Happen, QUEENS SUITE 2, March 10, 2026, 14:00 - 15:30

Introduction

It is an understated fact that transition from independent renal function to in-centre haemodialysis presents substantial challenges. People need to come to terms with huge lifestyle changes whilst comprehending an influx of new information from the multi-disciplinary team (MDT). This experience can leave people overwhelmed and disempowered which may adversely impact concordance and participation in care.

Effectively managing new dialysis patients demands time, patience and continuity. Rising patient numbers and staffing pressures often restrict us to providing the basics rather than the holistic approach we strive for.

Methods

We collaboratively designed a New Patient Booklet using MDT and patient co-authors. This is given to the patients on their initial session.

The Transition Bay program assigns new HD patients to a dedicated bay with a lower patient:nurse ratio. A timeline was developed to guide the care(Figure 1): this includes initial tests and assessments, multidisciplinary referrals, completion of baseline documentation as well as continuous patient education.

Data were collected on all care aspects and compared with historical cohorts.

Patients experience surveys were distributed with numeric and free text responses collated.

Results

Between December 2024 and September 2025, 45 patients went through the programme, averaging 6 sessions each (range 1-13).

Figure 2 demonstrates improvements in most key tasks.

Completion rates of patient booklets and care plans increased from 11% to 82%, and 14% to 95%, respectively.

Renal Registrar review increased to 82% from 29%. 87% had a target weight set.

Dieticians managed to see 73%, whereas the Pharmacists only reviewed 20%.

Shared care training was started in 58% and 3 patients have progressed to home haemodialysis (HHD).

Feeback from 12 patient surveys demonstrated 58% were feeling anxious and worried initially. All patients found the booklet useful and helpful and benefitted from the sharing of experiences with others in the bay. They described the transition bay as helping between a lot (5) and a great deal (7) with no-one scoring any less positive options. Free text comments on what was useful included, “the staff explaining things”, “being told what to expect”, and “learning how to care for their fistula” with “more comfortable chairs”, “doctors / consultants need to explain to patients more so that we know what to expect before starting dialysis” being reported in answer to what could have been improved.

Discussion

The survey demonstrated a beneficial impact on patient experience with unanimously positive responses. Data collection on key tasks shows notable improvements alongside improved medical and nursing assessments and documentation.

Unfortunately reviews by pharmacists were less well completed reflecting low staffing levels. The data may help persuade the trust managers with investment decisions.

The transition bay was used to promote patient involvement, improving access to Shared Care and we anticipate empowering incentre patients as well as some conversion to HHD, both of which have considerable patient benefit

Additional unforeseen benefits included that patients felt more at ease being cohorted with other fellow new patients as they get to share their worries and concerns and support each other.

Apolipoprotein L1 genetic variants and lupus nephritis: A case-control study in the United Kingdom

Dr Samir Patel[1,2], Dr Hadi Rabee[1], Dr Amrita Ramnarine[1], Dr Dalvir Kular[1], Mr Evangelos Kougiouris[1], Dr Mark Russell[1], Mr Mohammad Al-Agil[1], Dr Maryam Adas[1], Dr Chris Wincup[1], Dr Jonathan Dick[1], Professor Sam Norton[1], Professor James Galloway[1], Dr Patrick Gordon[1], Dr Kate Bramham[1,2]
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Understanding the Kidney Through Population and Functional Genomics: Translating Genomes into Therapies, QUEENS SUITE 3, March 10, 2026, 14:00 - 15:30

Background
High risk apolipoprotein L1 (APOL1) genetic variants are strongly associated with end-stage kidney disease and collapsing glomerulopathy in people with systemic lupus erythematosus (SLE) of African ancestry. However, the relationship between APOL1 high-risk genotypes (HRG) and lupus nephritis (LN) incidence is variably reported among different populations. We aimed to determine the relationship of APOL1 HRG and LN, including progressive renal impairment, in patients of African ancestry living in the United Kingdom (UK).

Methods
We conducted a case-control study of patients with SLE of self-reported African ancestry in a single tertiary centre. We included individuals ≥18 years old with clinician-confirmed SLE. Participants with biopsy-proven LN were defined as cases (N=46) and those with no history of LN or chronic kidney disease were recruited as controls (N=46, age and sex-matched to cases in a 1:1 ratio). Conditional logistic regression was used to estimate the odds ratio (OR) of LN in individuals carrying APOL1 HRG compared to low-risk genotypes (LRG; zero or one risk allele). We modelled trajectories of estimated glomerular filtration rates (eGFR) and urine protein:creatinine (uPCR) over time for those within the LN cohort, by number of APOL1 risk alleles, using a mixed-effects model with restricted cubic splines.

Results
Between August 2022 and April 2025, 92 individuals were recruited. Cases and controls were comparable in age at recruitment (40.2 years, SD 12.2, versus 40.6 years, SD 12.1, respectively) and at SLE diagnosis (30.2 years, SD 11.8, versus 29.9 years, SD 11.1, respectively). The majority of patients were female in both cohorts (95.7%), non-smokers (82.6%) and from the two most deprived quintiles (72.8%). APOL1 HRG frequency was 30% in cases and 15% in controls. APOL1 HRG were associated with increased odds of lupus nephritis on multivariate analysis (OR 3.27, 95% CI 1.02-10.53), although wide confidence intervals reflected limited precision due to small sample size (Table 1).
Among individuals with LN and appropriate data (N=40), longitudinal trends in the geometric means of eGFR and uPCR suggested worse outcomes for those with two APOL1 risk alleles compared to those with no risk alleles (Figure 1). The presence of two risk alleles led to a steep and progressive decline in the geometric mean eGFR compared to other risk allele groups. A slightly shallower decline was seen in the mean eGFR for those with one risk allele, whilst those with no risk alleles displayed a fall in mean eGFR at LN diagnosis which recovered over time. Confidence intervals were wide for all groups, reflecting limited precision, yet trajectories still suggested distinct patterns across risk allele categories. Geometric mean uPCR was elevated at diagnosis across all risk allele groups, though slightly higher in the two-risk allele group and fell for all groups at 4 years.

Conclusions
Our study indicated an association between APOL1 HRG and LN. These findings may partly explain the ethnicity-based inequalities observed within LN incidence and progression. This report suggests that APOL1 genotyping could inform clinical risk stratification, targeted screening approaches, and earlier intervention strategies to mitigate these well-described health disparities.

Estimated GFR equations misclassified CKD stage in one third of an ethnically diverse population living with diabetic kidney disease

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New Insights into Chronic Kidney Disease and Idiopathic Nephrotic Syndrome from the NURTuRE Collaboration: A National Resource to Accelerate Clinical Research, HALL D, March 10, 2026, 14:00 - 15:30

Introduction

Diabetic kidney disease (DKD) is the leading cause of end-stage renal failure in the UK. Therapeutic decisions in DKD, including preparation for renal replacement therapy, depend upon glomerular filtration rate, typically estimated (eGFR). Significant attempts have been made to improve eGFR equations, particularly in specific ethnic groups, leading to the adoption of the CKD-Epi 2021 equation. Despite this, performance remains variable across populations. We therefore aimed to determine the accuracy of commonly used equations in a representative inner London population with biopsy proven DKD taking part in The East and North London Diabetes Cohort study (HEROIC).

Methods

Participants in the HEROIC study were invited to undergo measured and estimated GFR at several time-points. For this interim analysis we used each participant's first mGFR only. eGFR was calculated using creatinine-based equations: MDRD, CKD-EPI 2009 (with and without race co-efficient), and CKD-Epi 2021. mGFR was assessed by DTPA clearance . We evaluated accuracy of estimating equations using bias (mGFR – eGFR), root-mean-squared error (RMSE), and P30 (proportion within 30% of mGFR). To illustrate clinical impact, we estimated the proportions of patients with misclassified KDIGO CKD grades and the ability of each equation to improve classification (net reclassification index, NRI). Metrics were adjusted for the time interval between mGFR and eGFR measurements using linear regression. Confidence intervals for bias were derived from linear models; for other metrics they were calculated by bootstrapping.

Results

Among 165 participants (mean age 56; ethnicity: 10% Black, 46% South Asian, 14% White, 30% other), all equations demonstrated poor accuracy with P30 varying from 68.9% (61.6, 76.2) with CKD-Epi 2021 to 75.6% (68.3, 82.3) with MDRD (Table 1). Estimates of incorrect classification ranged from 34.1% (27.4, 42.1) with MDRD to 41.5% (33.5, 48.8) with CKD-Epi 2021 (Table 1). NRIs had wide confidence intervals crossing 0, indicating no significant differences.

Discussion

To our knowledge this is the first study of patients with biopsy-confirmed DN in the UK to compare the performance of mGFR and different eGFR equations. All creatinine-based GFR estimations performed poorly. Compared to the CKD-Epi 2021 validation cohort, the CKD-Epi 2021 equation's bias (-4.3 vs -3.1) and P30 (68.9% vs 86.6%) were worse in our cohort. Similarly, when compared to other global studies focusing on DKD our P30 values appear to be lower indicating poorer equation

performance in our cohort. This likely reflects differences between our population and those in which these equations were developed. Specifically, the MDRD population was 88% white Americans and CKD-Epi 2021 equation was developed from studies where participants were dichotomised as Black or non-Black ethnicity. We have demonstrated that all equations result in a substantial rate of misclassification of CKD stage, but that no one equation performed substantially better than the others as demonstrated by their NRIs. A limitation of this study is that we used only creatinine-based equations, reflecting current testing available in North Central London and current NICE guidelines. Additional research is needed to validate cystatin-C-based equations and to identify the optimal GFR estimation tools for the British DKD population.

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From Paediatrics to Adults: Co-Designing a Dialysis Choices Shared Decision-Making Pathway

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Their Wish Is Our Command: Making Shared Care and Peer Support Happen, QUEENS SUITE 2, March 10, 2026, 14:00 - 15:30

Background

A diagnosis of chronic kidney disease (CKD) requiring renal replacement therapy is life-changing for families. Many patients and parents turn to the internet for guidance, only to find information focused on older adults, leaving them feeling lost and overwhelmed. Over half of patients and families report feeling excluded from decisions about their care, adding to their distress. To address this, a multidisciplinary team (MDT) of parents, charities, and paediatric and adult healthcare professionals came together between 2020–2022 to co-develop a dialysis choices shared decision-making (SDM) pathway tailored for children and families. Designed with health literacy principles at a reading age of nine years, the pathway standardises information, alleviates anxiety, and empowers informed dialysis choices.

Aim

To develop and implement an SDM resource that supports families navigating dialysis decisions by:

- Providing clear, accessible, and child-friendly educational materials
- Reducing stress and uncertainty during decision-making
- Improving parental experience and involvement in care
- Standardising information delivery across healthcare settings
- Measuring impact using the SDM-Q9+1 tool, a validated questionnaire assessing how involved patients feel in shared decision-making

Methods

The MDT co-designed the resource, incorporating videos featuring paediatric patients, families, and healthcare professionals. These addressed common concerns and frequently asked questions. Additional resources included visual aids, simple explanations, and interactive opportunities, with families able to see and engage with dialysis equipment. The Ask 3 Questions framework (bit.ly/Ask3Qs) encouraged families to take an active role in discussions. A discussion record provided a way to document and audit decisions.

Results

Early paediatric data collection is underway (n=5 to date). Initial feedback showed reduced family stress, improved understanding, and higher SDM-Q9+1 scores, with families reporting a mean involvement score of 82% (range 75–90%) with 100% saying they found the infomation useful.(Figure

1). Patients and parents described the process as “less stressful and less overwhelming…brilliant”, with one reflecting “for the first time we felt listened to, not just told what would happen.” Another commented that “seeing the equipment in advance took away the fear and gave us confidence to talk about what dialysis would mean for our child.” Families also valued flexibility in home haemodialysis: “it gave me freedom to choose when to dialyse and reduced the stress of being in centre.” Healthcare professionals reported clearer, more productive discussions, with one noting that the pathway “changed the tone of the consultation — families came prepared and more confident to ask questions.”

Conclusion

This SDM resource bridges a crucial gap in dialysis decision-making. By prioritising accessibility, clarity, and real patient voices, it transforms an overwhelming process into one where families feel empowered and actively involved. Early adoption across the UK highlights its potential to standardise decision-making support in paediatric renal care. From 2023/24, the pathway has been adapted for adult services through the UKKA Young Adults Specialist Interest Group. The adult pathway is now available, although patient voice resources are still being developed; data collection has not yet commenced, with the programme due to start in 2026 if progress continues as planned

Untargeted proteomics to explore cardiovascular risk in incident glomerulonephritis

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Cardiorenal–Metabolic: Whose Role Is It Anyway?, QUEENS SUITE 1, March 10, 2026, 14:00 - 15:30

Introduction: Cardiovascular disease is the leading cause of death associated with chronic kidney disease (CKD) across the life course. In the United Kingdom, glomerulonephritis is the commonest primary renal disease in the prevalent kidney replacement therapy population, with an incidence of 19.5%. Glomerulonephritis carries an increased cardiovascular risk due to the pro inflammatory milieu, persistent proteinuria, dyslipidaemia, immunosuppressive medication, and CKD. There is an unmet need to identify and risk stratify patients at the greatest risk of cardiovascular disease in association with glomerulonephritis.

Methods: This cross-sectional analysis was based on a cohort of incident glomerulonephritis patients and healthy controls recruited at the Royal Liverpool University Hospital as part of the GLOM-OMIC study (REC: 23/PR/0490). Plasma samples underwent a solid-phase-enhanced sample-preparation (SP3) protein digest and peptides were analysed by untargeted high throughput liquid chromatography mass spectrometry (LC-MS) proteomics. FragPipe software converted peptide mass-to-charge (m/z) ratios into protein identifications. Statistical analysis, including gene ontology analysis was performed using R software to identify pathways of interest and correlation with clinical parameters.

Results: Plasma samples from 73 participants were included in the analysis (41 glomerulonephritis, 32 healthy controls; Table 1). The glomerulonephritis cohort included: Anti-glomerular basement membrane disease (Anti GBM) 2 (4.88%), Anti-neutrophil cytoplasmic antibody vasculitis (ANCA)10 (24.9%), Focal segmental glomerulosclerosis (FSGS), 2 (4.88%), IgA nephropathy 12 (29.3%), Lupus nephritis 4 (9.76%), Membranous Nephropathy 9(22%), Minimal change disease 2 (4.88%).
A total of 532 proteins were identified in the analysis and following data filtering 310 proteins remained. In glomerulonephritis 97 proteins were differentially expressed with results reaching statistical significance (adjust $p < 0.05$), 86 proteins were more abundant in glomerulonephritis relative to HC and 11 less abundant. Known kidney biomarkers Neutrophil gelatinase-associated lipocalin (log2fc 1.120, adj. p- value <0.001) Cystatin C (log2fc 1.182 adj. p- value <0.001) showed greater differential abundance in glomerulonephritis. Proteins associated with disease mechanism and kidney fibrosis (CD44, Leucine-rich α-2 glycoprotein 1), inflammation (Serum Amyloid A, Calprotectin), lipid regulation (Apolipoprotein A-IV, Apolipoprotein(a) Apolipoprotein C-II) demonstrated association with atherosclerotic risk. (Figure 1)

Conclusion: The results of this proteomics analysis provides data driven hypotheses for the increased risk of cardiovascular events in patients with glomerulonephritis. Further longitudinal and targeted proteomic analysis of selected proteins will evolve this important workstream.

Evaluating the impact of delayed diagnosis and management in early-stage CKD: A retrospective cohort study in North West London

Dr Tarun Rangan[1], Dr Andrew Frankel[2], Dr Benjamin Pierce[3], Dr Naj Rotherham[1], Dr Lianheng Tong[1]
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Bridging the Gap: Working Better with Primary Care in CKD Management, AUDITORIUM, March 10, 2026, 14:00 - 15:30

Introduction

Chronic kidney disease (CKD) affects approximately 10% of the UK population and is associated with 40,000-45,000 premature deaths annually. Early CKD, including stage G2, represents a critical but often overlooked window for intervention. Individuals with eGFRs between 60–89 mL/min/1.73m² fall within CKD stage G2 when additional markers of kidney damage are present, representing an important group for early risk assessment and intervention. In this study, we identified patients in North West London with eGFR values consistent with stage G2, mapped their interactions across the health system and evaluated how clinical practice at this early stage relates to long-term cardiovascular and renal outcomes.

Methods

We conducted a retrospective observational cohort study using anonymised electronic health records from linked data sets in the North West London Discover-Now Secure Data Environment which contains records for 2.8 million patients across 344 GP practices.
507,863 patients from the dataset had at least one cardiovascular disease, type 2 diabetes mellitus, hypertension, CKD related code, hospitalisation or prescription between 1 January 2015 and 30 April 2024. Of this cohort, 91,018 patients had at least two eGFR measurements of 60-89 mL/min/1.73m2 spaced at least three months apart and were included in the study.
The primary outcome was the number of patients with eGFRs of 60-89 mL/min/1.73m2 who developed at least one significant cardiovascular (myocardial infarction, heart failure, stroke) or renal (end-stage renal failure, renal replacement therapy/transplant) event within five years.

Results

Of the 91,018 patients, 52% had no evidence of a urine albumin-to-creatinine ratio (uACR) test performed at an eGFR between 60-89 mL/min/1.73m2, representing a missed opportunity for early CKD detection and risk stratification. Additionally, 18% of the 91,018 patients in the study progressed to CKD stage G3, of whom 49% did not receive appropriate treatment with a RAAS inhibitor or SGLT2 inhibitor within five years of eligibility, indicating an underutilisation of guideline-recommended treatment. Furthermore, 29% of the 91,018 patients in the study developed at least one significant cardiovascular or renal outcome within five years.

Discussion

We found that 52% of eligible patients did not receive uACR testing at an eGFR consistent with stage G2, representing a missed opportunity to stratify risk and implement interventions to slow disease progression. Nearly half of those who progressed to stage G3 did not receive guideline-recommended treatment within five years of eligibility. Given CKD is a major risk factor for cardiovascular events, and cardiovascular disease remains the leading cause of death in CKD patients, this undertreatment may increase the risk of disease progression and significant cardiovascular and renal outcomes. Such outcomes affected nearly one third of our cohort within five years. We found that patients with early CKD exhibit a high risk of significant cardiovascular and renal events within a 5-year window, underscoring the need to focus clinical attention at this early stage. The findings also suggest that this group may benefit from more proactive and effective clinical intervention strategies to alter disease trajectory and improve long-term health outcomes.

Association of Peripheral Vascular Disease with Clinical Outcomes in Non-Dialysis Dependent Chronic Kidney Disease

Miss Tanushri Suresh[1,2], Dr Han Sean Lee[1], Dr Rajkumar Chinnadurai[1,2], Dr Smeeta Sinha[1,2]
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Cardiorenal–Metabolic: Whose Role Is It Anyway?, QUEENS SUITE 1, March 10, 2026, 14:00 - 15:30

Background: Chronic kidney disease (CKD) and peripheral vascular disease (PVD) are two chronic conditions with rising global prevalence. Previous studies have explored the interplay between these diseases, highlighting potential bidirectional effects. However, there remains a need for larger and more contemporary investigations, particularly within the UK population, to better define these associations. Our study aims to investigate the characteristics of PVD and associations with clinical outcomes (cardiovascular events, all-cause mortality and renal progression) in patients with non-dialysis-dependent CKD.

Methods: The study was conducted on a cohort of 454 patients with non-dialysis dependent CKD stages 2-5 enrolled in the Salford Kidney Study (SKS) between January 2015 and December 2019. Data recorded at baseline (the date of enrolment) included demographics, comorbidities, and laboratory variables. All patients were followed until the study's end points, including reaching end-stage kidney disease, death, the last follow-up date, or an arbitrary endpoint date of 25th April 2025, to record the occurrence of a new non-fatal cardiovascular event (NFCVE) defined as myocardial infarction, peripheral vascular disease, congestive cardiac failure or cerebrovascular accident/stroke. Baseline characteristics were analysed using the Mann-Whitney U test and the Chi-square test. The Kaplan-Meier survival graphs were used to compare outcomes between CKD patients with or without PVD.

Results: Out of 454 patients, 21 (4.6%) had a history of PVD at baseline. Patients with PVD had a higher median age (77 vs 70 years; $p = 0.004$). The cohort had a predominance of males (63%). A higher proportion of patients with PVD had a history of hypertension (90.4 vs 79.4%) and a history of smoking (71.4 vs 55%). Patients with PVD had a lower baseline eGFR (25.4 vs 32 mL/min/1.73 m^2). Over a median follow-up of 51 months, a higher proportion of patients with PVD had an NFCVE (38% vs 15.9%; $p = 0.006$) (Figure 1). Kaplan-Meier curves did not show a significant difference in mortality patterns between the groups (log-rank $p > 0.05$) (Figure 2). Additionally, there was no difference between the groups regarding the development of ESKD.
Discussion: This study shows that CKD patients with PVD have a higher risk of developing future cardiovascular events, and this can lead to progression of CKD and worsen mortality. The study is being expanded to a larger cohort to evaluate these associations further.

Recombinant zoster vaccine (RZV) confers persistent immune responses with no safety concerns 4 to 8 years after vaccination of adults with renal transplant

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Transplant Work-Up: Practical Guidance for Kidney Teams, HALLQ, March 10, 2026, 14:00 - 15:30

Introduction
In immunocompromised populations, vaccination remains an important tool for the prevention of herpes zoster (HZ). RZV is immunogenic and is approved for vaccination of adults 18 years and older who are at increased risk of HZ including those who are immunocompromised due to their underlying diseases or therapy. To understand the durability of protection, long-term data is necessary. We evaluated the persistence of immunogenicity of 2 doses of RZV 4–8 years after vaccination, as well as long-term safety in renal transplant recipients.

Methods
This open-label, long-term extension study (NCT04176939) enrolled renal transplant recipients on chronic immunosuppressants who received 2 doses of RZV in the primary study (NCT02058589). Immunogenicity persistence was evaluated for 2 years: at enrolment day (D) 1 which started 4-6 years after RZV vaccination in the primary study, month (M) 12, and M24. Results were also analysed by year post-dose 2. Immunogenicity was assessed by humoral immune (HI) response (anti-glycoprotein E [anti-gE] antibody geometric mean concentration [GMC]) and cell-mediated immune (CMI) response (frequencies of gE-specific CD4+ T-cells expressing ≥2 markers among IFN-γ, IL-2, TNF-α, CD40L). Long-term safety after RZV vaccination was also assessed up to M24. Suspected HZ was defined as a new HZ rash clinically diagnosed as per standard of care with no alternative diagnosis. Confirmed HZ cases were evaluated per study algorithm.

Results
A total of 68 participants who received the 2-dose RZV vaccination series were enrolled. The mean geometric increase in anti-gE antibody concentration was 2.93, 2.75, and 2.44 over pre-vaccination levels at D1, M12, and M24, respectively. Yearly assessments collectively with data from the primary study showed HI responses (anti-gE antibody GMC) peak at 1M post-dose 2, which declined by 12M post-dose 2, then remained at a lower, stable plateau from 4 to at least 8 years post-dose 2 and remained above pre-vaccination levels at all time points. At D1, M12, and M24, CMI median frequency remained above pre-vaccination levels, showing the same pattern as HI responses (Table). Three (4.4%) participants had suspected HZ episodes from the last visit in the primary study to D1. From D1 to M24, 3 (4.4%) participants had confirmed HZ episodes. There were 2 (2.9%) cases of rejection: 1 acute antibody-mediated rejection and 1 acute T-cell mediated rejection. Both incidents began more than 2000 days post-dose 2 and were deemed unrelated to RZV vaccination. Both participants recovered with treatment, and graft function was preserved. Fatal outcomes due to unrelated serious adverse events (SAEs) were reported for 6 participants. No related SAEs were reported since the last visit in the primary study up to M24.

Discussion
RZV induced a persistent long-term immune response in renal transplant recipients on chronic immunosuppression. At 4–8 years after RZV vaccination, HI and CMI responses remained at stable

levels above pre-vaccination. No safety signals were identified during the long-term follow-up after RZV vaccination.

Assessing eGFR vs measured GFR in a diverse UK multi-centre cohort (The AIM CKD UK study): Time for a change?

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BEST CLINICAL ABSTRACTS, AUDITORIUM, March 11, 2026, 11:15 - 12:45

Introduction

Accurate assessment of kidney function using estimated glomerular filtration rate (eGFR) is fundamental for diagnosis, staging and management of chronic kidney disease (CKD). However, the accuracy of creatinine-based equations is variable. The National Institute for Health and Care Excellence (NICE) has highlighted lack of evidence on equation performance in young adults and minority groups calling for research to guide future practice. The AIM CKD UK study (IRAS 320215) was designed to address this question.

Methods

We conducted a multi-centre, cross-sectional study across 11 UK sites. Inclusion criteria were adults who underwent mGFR testing with a paired serum creatinine (± 30 days) between 2009-22. eGFR was calculated using five common creatinine-based equations: MDRD, CKD-EPI-2009, CKD-EPI-2021, EKFC, and Lund-Malmo Revised (LMR).

Primary outcome was agreement with mGFR determined through assessing bias (eGFR-mGFR), precision (variability of the bias), 30% accuracy (P30) and limits of agreement. Results were stratified by ethnicity (White, Black, South Asian, East Asian, Other/Not Stated). The UK Health Research Authority provided ethical approval (23/PR/0324).

Results

There were 15,879 participants included (mean age 54 ±16 years; 56% male). Mean mGFR was 77 ± 24 mL/min/1.73m², with 23% (n = 3648) below 60 mL/min/1.73m² (Table 1). All equations systematically overestimated mGFR (Table 2). LMR showed the least bias (1.4 mL/min/1.73m²) and highest accuracy (P30 = 86.0%), followed by EKFC (bias 5.1 mL/min/1.73m²; 83.6%). Accuracy for CKD-EPI-2009 (76.0%), MDRD (73.5%) and CKD-EP-2021 (70.1%) were significantly worse ($p<0.001$).

There were significant differences in performance between ethnicity groups. In White participants, LMR and EKFC achieved P30 values of 87% and 85% respectively, compared to 77% with CKD-EPI-2009 and 71% with CKD-EPI-2021. In Black participants, bias was lowest, but accuracy of CKD-EPI-2021 and MDRD remained below KDIGO thresholds (both P30≈74%), while EKFC and LMR reached 82–83%. South Asians had significantly poorer performance (Figure 1), highlighted by CKD-EPI-2021 overestimating mGFR by 17.7±16.9 mL/min/1.73m² with accuracy only 58%. CKD-EPI-2009 achieved 65%, whereas LMR achieved the highest at 79%.

Subgroup analyses showed consistently reduced performance in younger adults (<25 years), where accuracy of CKD-EPI equations fell to 54–65% (Figure 2), while LMR and EKFC retained superiority (P30>75%). Low BMI (<20 kg/m²) and hypoalbuminaemia (<20 g/L) were associated with substantial overestimation across all equations, highlighting the limitations of creatinine as a biomarker in these contexts.

CKD-EPI equations correctly classified CKD stage in 55% and 60% of cases, compared with 65% using LMR, with particularly poor performance in South Asians (51% with CKD-EPI-2021 vs 79% with LMR).

eGFR equation impacted prescribing eligibility, with dapagliflozin initiation delayed in up to 29% (LMR) to 52% (CKD-EPI-2021) of participants.

Conclusion

This study, which represents the second largest and most ethnically diverse evaluation of eGFR equations worldwide, highlights that reliance on CKD-EPI equations risk delaying CKD diagnosis, underestimating severity and may lead to inequitable access to treatment, particularly for South Asian populations. LMR and EKFC consistently demonstrated superior performance across ethnicities and clinical subgroups, which suggests that implementation of either of these equations in UK practice would improve overall outcomes in CKD.

Can haemodiafiltration convection volume be individualised?

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BEST CLINICAL ABSTRACTS, AUDITORIUM, March 11, 2026, 11:15 - 12:45

Background:
There is emerging evidence of survival benefit in high convection volume Haemodiafiltration (HDF) compared to high flux haemodialysis (HD). Convective middle molecules clearance may be driving this benefit. However, large randomised controlled trials comparing HDF vs HD have failed to show a consistent reduction in pre-dialysis β2Microglobulin (a surrogate middle molecule) in HDF. This inconsistency may be because most of these studies did not take residual kidney functions (RKF) into consideration, which is not only a predictor of serum β2M levels but also of survival.
Additionally, despite the benefits of HDF linked to delivered convection volume, the relationship between convection volume and β2M clearance is not reported in any of the studies.
Given the knowledge gap on the interrelation between HDF convection volume, RKF and clearance parameters, HDF prescription currently relies to achieving 'all or none' high convection volume (23 Litres) irrespective of RKF. Understanding the relative contribution of HDF and RKF in β2M clearance (using β2M kinetic modelling) is the next logical step to rationalise and potentially individualise the prescription of HDF.
Methods:
We performed β2M kinetic modelling in 220 participants on maintenance haemodialysis, receiving post-dilutional HDF for >4weeks. During single observed dialysis session, we recorded the convection volume and measured serum pre- and post-dialysis β2M. All participants had RKF measured using interdialytic urine collection.
We developed a 2-pool β2M kinetic model using Altair Embed®(Figure1). Generation rate and pool volumes were iterated to fit measured data. Individual's Glomerular Filtration Rate (GFR) was used as renal β2M clearance. Diffusive and convective components of HDF β2M clearance were calculated using European dialysis working group (EuDial) equations. Non-renal clearance was estimated using a novel approach which takes into consideration of saturation of this route of clearance at low GFR. Kinetic modelling was performed to assess β2M mass removed during the observed dialysis session, as well as to assess the weekly β2M mass removed via all clearance routes (Renal, Non-renal, diffusive and convective)

Results:
In a multivariable linear regression model, the significant predictors of sessional and weekly β2M mass removed were convection volume, GFR and body weight ($p<0.001$, R2 0.6)(Table1).
Relative contribution of HDF on sessional and weekly β2M mass removal increased with reducing GFR and increasing weight and was maximum in anuric patient with large body weight (>80 kg) (Figure2,3).
The difference in weekly β2M mass removed between high (≥23 Litres) vs Low (<23 Litres) convection volume was only significant in anuric patients (1225mg Vs 1015mg, $p<0.001$)(Table1).
Discussion:
This study shows that high convection volume is important in removing middle molecules in anuric patients with large body weight. In relatively small patient with significant RKF, small convection volume or even conventional high flux HD may be sufficient to achieve the required middle molecules clearance.
This principle can potentially be used as a guide for patient selection for high convection volume HDF and can also be used to individualise dialysis prescription by starting dialysis with conventional high flux HD and incrementally switching to high convection volume HDF as RKF decline.

Development of a paediatric kidney patient reported experience measure for under 18-year-olds: Methods used in focus groups with children and young people

Ms Amanda Busby[1], Rebecca Flanagan[1], Suzi Turton[1], Dr Jennifer Heath[1], Lucy Mackintosh[1], Dr Lucy Plumb[3], Dr Ben Reynolds[4], Dr Yincent Tse[5], Dr Caroline Jones[6], Dr Zainab Arslan[7], Anna Brooks-Fahy[1], Catherine Stannard[8], Retha Steenkamp[8], Dr Andrew Lunn[2], Prof David Wellsted[1]
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Demystifying Research: Pathways, Proposals, and PPIE, QUEENS SUITE 2, March 11, 2026, 11:15 - 12:45

Introduction
The Kidney Patient Reported Experience Measure (Kidney PREM) is a key tool in helping units understand the adult (17+ years) patient experiences of kidney care and identify areas for improvement. Children and young people also want to provide feedback about their hospital experiences; despite this, few PREMs exist that capture their views. Facilitating the expression of opinions on important elements of healthcare within this young group is important to influence and inform current and lifelong kidney patient care but requires the use of methods that are interactive and age appropriate.

Methods
A mixed-methods observational study (two-phases) was conducted to develop the pilot version of the Paediatric Kidney PREM. The first phase collected data from children and young people, parents/carers and professionals via focus groups and age-specific semi-structured interviews. Methods relevant to individuals aged 17 years and under (the focus of this presentation) were developed by a member of the research team, an adult kidney patient with experience of paediatric care and extensive experience as a teacher. A semi-structured topic guide was utilised following its development through reviewing literature on existing paediatric PREMs. Activities were designed to minimise embarrassment, invoke confidence and provide reassurance and familiarisation to effectively explore their views of kidney care and perspectives on factors impacting their experiences. The environment was carefully considered, and interactions were designed to promote inclusion, provide encouragement and an element of intrigue when communicating with the research team and peers. Children and young people interacted with a large selection of props, each purposefully selected to support the expression of views and ideas about aspects of care that were important to them.

Results
These methods were used to deliver focus groups and semi-structured interviews across two age groups, ages 7-11 years (one focus group, two interviews) and 12-17 years (two focus groups, and one interview). The age groups were chosen to enable individuals to feel comfortable, encourage interaction with their peers and minimise differences in knowledge, experience and comprehension. Sessions were held in person at study sites and individual age-specific semi-structured interviews were also offered, either face-to-face or online. Table 1 and Figure 1 shows examples of quotes received from children/young people during these sessions. The data were combined with that from similar groups of parents/carers and members of the paediatric nephrology multidisciplinary team to develop a thematic map. This identified 10 thematic categories which informed the development of the pilot Paediatric Kidney PREM.

Discussion

A key lesson learned from these sessions is the importance of providing an alternative way of asking questions when conducting research with children and young people. Captivating material, which is engaging, age appropriate and relevant, as prompts to stimulate conversation is key. Due to the nature of focus groups, finding the strengths of young individuals can be challenging, so ensuing there is a range of pictorial/verbal and physical activities, may increase the richness of the data provided from focus groups held with children and young people in healthcare settings.

Renal Social Work: A patient view. The lived experience of kidney patients and their engagement with specialist adult renal social work services

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Left to Get On with It? Bringing Psychosocial Care to the Fore, QUEENS SUITE 1, March 11, 2026, 11:15 - 12:45

Introduction: This in-depth qualitative study explored kidney patients' lived experience of social care support, examining whether current renal social work (RSW) provision in Wales meets their psychosocial needs. Whilst it is widely accepted that psychosocial care is beneficial for people with long term health conditions, there is limited research to support this notion, especially from the patient's view of RSW.
The setting has been shown to have a higher-than-average ratio of RSWs to patients in comparison with the UK in general. However, staffing levels are still well below that recommended in the UK Kidney Association (UKKA) renal workforce planning document (2020). The aim of this research was to explore patient experience of social care support within the current model of RSW service delivery. The purpose was to inform the development of national best practice models and generate a greater evidence base of social care need, influencing the future of RSW provision, in line with the UKKA recommendations (2020).
Methods: A social constructivist framework was adopted using an interpretative phenomenological analysis (IPA) approach, requiring the researcher to take a reflective position, acknowledging worth and dignity in the participants' experiences and views. Eleven semi-structured interviews were carried out with patients who had recently experienced support from RSW. Participants were recruited from current caseloads, new referrals to the service and from the retrospective monthly activity data.
IPA involves the participants making sense of their own world, alongside the researcher interpreting how participants construct their view on the world. The data was then analysed on an individual case by case basis to pull out personal experiential themes (PETs). Once this had been completed, these PETs were then examined across the dataset to establish group experiential themes (GETs) which are still firmly grounded in the individuals' experiences. This enabled the researcher to gain an in-depth, rich understanding of kidney patients' experience of support delivered by RSWs.
Results: Three key themes emerged from the data. Firstly, the value participants placed on the RSW being situated outside the clinical team and separate from their caregivers. This effectively created a bridge between hospital and home with RSW acknowledged as providing a different, valued approach from the clinical team. Secondly, the importance of the breadth of knowledge held by the RSW team. This enabled participants to seek support with a wide range of social care issues, often achieving tangible outcomes within the context of living with kidney disease. Thirdly, by providing a detailed insight into both positive and negative aspects of accessibility to the service which impacts on the ability of RSW to work collaboratively towards positive change.
Discussion: The findings greatly increase our understanding of the psychosocial needs of people living with CKD, building on existing evidence about the RSW role. New knowledge was generated directly through the voice of kidney patients using RSW services suggesting alternative methods for best meeting future patient need, for example the need to follow the UKKA workforce planning RSW staffing levels and better and earlier distribution of information on RSW service.

Retrospective cohort investigation of immunohistochemistry for alternative antigens in PLA2R-negative membranous nephropathy

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Renal Pathology Clinicopathological Correlation: Case Discussions from the UK Renal Pathology Slide Club, HALLQ, March 11, 2026, 11:15 - 12:45

Introduction:
Membranous nephropathy (MN) is a frequent cause of nephrotic syndrome. The phospholipase A_2 receptor (PLA2R) is the target antigen in approximately 60% of cases, and anti-PLA2R testing is now integral to clinical practice in the United Kingdom (UK). However, a substantial proportion of patients, including up to 83% of secondary MN cases, are PLA2R-negative.

Recently identified glomerular antigens, including thrombospondin type-1 domain-containing 7A (THSD7A), neural epidermal growth factor-like 1 (NELL1), and exostosin 1/2 (EXT1/2) have been implicated in PLA2R-negative MN, with reported links to malignancy (NELL1) and lupus nephritis (EXT1/2). There are currently no protocols for the serological or histological detection of these antigens in UK practice.

We aimed to optimise immunohistochemistry (IHC) protocols for detection of THSD7A, NELL1 and EXT2 in native renal biopsies, and apply them to a retrospective cohort to assess prevalence.

Methods:
IHC protocols were optimised and applied to 90 retrospective renal biopsies collected between 2018 and 2025 at a UK tertiary renal centre. These comprised 48 cases of non-lupus PLA2R-negative MN and 42 cases of Class V lupus nephritis. Sections underwent antigen retrieval and were stained with commercially available monoclonal antibodies against THSD7A, NELL1 and EXT2. Antigen positivity was defined by distinct glomerular granular capillary wall staining. Samples without glomeruli were excluded from analyses.

Results:
In PLA2R-negative MN, THSD7A was positive in 2 of 33 samples (6.1%), NELL1 in 10 of 30 (33%), and EXT2 in 1 of 32 (3.1%). In the lupus nephritis cohort, EXT2 was positive in 9 of 38 cases (24%), NELL1 in 1 of 14 (7.1%), and THSD7A in none.

Discussion:
This study represents one of the first UK cohorts to systematically apply IHC for THSD7A, NELL1 and EXT2 in PLA2R-negative MN. Our preliminary findings on positivity rates are consistent with international data. We are now analysing additional retrospective cases alongside clinical data to confirm clinical associations; investigating a prospective cohort to assess impact on clinical decision making; and developing corresponding serological assays to support future integration of these antigens into routine PLA2R-negative diagnostic pathways.

Sibeprenlimab for the treatment of IgA nephropathy: VISIONARY phase 3 interim and prespecified subgroup analyses

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BEST CLINICAL ABSTRACTS, AUDITORIUM, March 11, 2026, 11:15 - 12:45

Introduction:

Sibeprenlimab, a humanized IgG2 monoclonal antibody, selectively binds to and inhibits the biological actions of the cytokine A Proliferation-Inducing Ligand (APRIL), a key driver of IgA nephropathy pathogenesis. The efficacy and safety of sibeprenlimab versus placebo in adults (≥18 years) with IgA nephropathy are being investigated in the ongoing phase 3 VISIONARY trial (NCT05248646). In a prespecified interim analysis (IA), sibeprenlimab led to a 51.2% (P<0.0001) placebo-adjusted reduction in 24-hour urine protein creatinine ratio (uPCR-24h) at 9 months. Here, we report on uPCR-24h, disease activity, and biomarkers up to 12 months of treatment and across prespecified subgroups.

Methods:

VISIONARY is a multicenter, double-blind, placebo-controlled trial in adults with biopsy-proven IgA nephropathy on maximally tolerated supportive therapy. Eligible patients were randomized 1:1 to subcutaneous sibeprenlimab 400 mg or placebo every 4 weeks from Day 1 through Week 100. uPCR-24h reduction and remission (<0.5 g/d on 24-h urine collection), spot uPCR, hematuria by dipstick (positive=1+, 2+, 3+, and trace), time to dipstick-negative status (Kaplan-Meier estimate), serum immunoglobulins, APRIL, galactose-deficient IgA (Gd-IgA1), and safety were assessed up to 12 months. uPCR-24h responses were assessed across prespecified subgroups, including demographics, baseline uPCR-24h, screening uPCR-24h (uPCR ≤2.0 vs >2.0 g/g), estimated glomerular filtration rate (eGFR), sodium-glucose cotransporter 2 inhibitor and prior immunosuppressant use.

Results:

In total, 320 patients were included in the IA (sibeprenlimab N=152; placebo N=168). At 12 months, sibeprenlimab achieved a 56.6% reduction in uPCR-24h (95% CI: 50.8 to 61.7) versus 5.1% with placebo (95% CI: −6.7 to 15.7) (Figure 1). Spot uPCR showed progressive reductions starting at 4 weeks and sustained through 12 months (Figure 1). Proteinuric remission at 12 months was achieved in 34.3% of sibeprenlimab versus 12.7% of placebo-treated patients (OR 5.3, 95% CI: 2.4 to 11.6; Figure 1). Improvements in uPCR-24h were seen across high and low proteinuria levels, including in patients with uPCR-24h ≤1 g/g at baseline (Figure 2).

Sibeprenlimab markedly reduced Gd-IgA1 (Figure 3A) and APRIL (Figure 3B) at Week 48, as well as the proportion of hematuria-positive patients, compared with placebo. The IA cohort comprised 238 hematuria-positive (dipstick) patients (sibeprenlimab n=119/152; placebo n=119/168) at baseline. By Week 48, 19.8% (n=22/111) of sibeprenlimab versus 69.0% (n=89/129) of placebo-treated patients remained dipstick-positive. Kaplan-Meier estimates showed higher cumulative probability rates of being hematuria-negative with sibeprenlimab than placebo from early time points, sustained through

48 weeks (Figure 4), and a median time-to-negative of 25 weeks (95% CI: 24.1 to 32.0) with sibeprenlimab; median time for the placebo group could not be estimated, as an insufficient number of patients achieved hematuria-negative status by Week 48. No deaths occurred; safety was comparable between groups.

Discussion:

Sibeprenlimab led to sustained reduction in proteinuria and higher rates of hematuric and proteinuric remission up to 12 months. Proteinuria reduction across demographics, disease activity, and treatment history, combined with marked reduction in disease biomarkers, highlights sibeprenlimab's disease-modifying potential and broad clinical benefits. Safety findings were comparable to placebo; long-term safety and efficacy (eGFR) outcomes will be assessed at 24 months in the ongoing VISIONARY trial.

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Can an ICB wide collaboration improve SGLT-2 inhibitor prescribing confidence and rates of prescribing in eligible CKD populations?

Sinead Burke[1], Dr Sarah Morgan[2], Sarah Milne[1], Dr Mark Jesky[1], Satya Bobba[2]
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Exploring SGLT2 Inhibitor Prescribing: Who Is Missing Out?, HALL D, March 11, 2026, 11:15 - 12:45

Introduction

Across both primary and secondary care, there is growing focus on the "size of the prize" (NHSE, PHE, 2022) in reducing cardiovascular mortality. Chronic kidney disease (CKD) is recognised as a high-risk condition in cardiovascular disease (CVD) prevention. Interventions that reduce blood pressure and proteinuria can positively impact both cardiovascular outcomes and the progression of kidney disease.

With expanded eligibility for SGLT-2 inhibitors in CKD, we launched an ICB-wide, time-limited initiative, supported by NHSE funding, to increase prescribing in eligible populations.

The aims of the project are to:
1) Increase general practice confidence levels in prescribing SGLT-2 inhibitors with an education program.
2) Increase the number of eligible patients prescribed an SGLT-2 inhibitor using a standardised protocol (minimum target to increase from 31% to 41%).

This abstract shares data from the first 8 months of the project.

Methods

A standard operating procedure was developed to guide PCNs through three steps: identifying suitable patients, confirming eligibility via desktop review, and conducting a shared decision-making appointment (discussion appointment).

Clinicians worked with GP IT teams to build EMIS Web searches to identify eligible patients. Coding was embedded into Long-Term Conditions (LTC) review templates to capture the number of desktop reviews and SGLT-2i prescriptions initiated (project aim 1). A conversion rate target of 60% was set.

The secondary care kidney team was commissioned to deliver 35 educational sessions, offered as one-hour webinars and face-to-face training. These sessions were open to all primary care prescribers and focused on clinical evidence and practical prescribing considerations. Prescribing confidence was surveyed before and after training (project aim 2).

Results

Between January and August 2025:
454 primary care clinicians were trained, (see Table 1) with 86% being pharmacists and GPs.

Prescribing confidence improved considerably following training. Among respondents, the proportion rating their confidence as "fairly" or "very" high in prescribing SGLT-2 inhibitors for patients with CKD and type 2 diabetes increased from 39% to 82%. For prescribing in CKD without diabetes, confidence rose from 17% to 78% (see Figures 1 and 2).

Since January 2025:

3,638 desktop reviews were completed.
SGLT-2i prescribing has already increased from 31% to 39% of the eligible population.
Conversion rate from review to prescription was 40.57%, below the 60% target.

Common barriers included concerns about patient age and history of UTIs. An early error in EMIS search criteria also contributed to lower conversion rates, and was corrected in May 2025.

Discussion

This collaborative initiative has shown encouraging early results, with improvements in both clinician confidence and prescribing rates following attendance of a one hour interactive education session. The corrected EMIS search criteria, introduced in May 2025, and iterative adaptations to the educational content (to respond to clinician concerns) are expected to improve conversion rates as the project enters its final months.

We believe this work demonstrates a successful ICB-wide innovation, enabling more eligible patients to access SGLT-2 inhibitors - an important intervention for CVD prevention in our population.

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A real-world pilot study comparing the predictive utility of a point-of-care device in the diagnosis of PD peritonitis

Joanne Collier[1], David Lewis[1], Rajkumar Chinnadurai[1]

Dragons' Den: Pitching to the Registry, KINGS SUITE, March 11, 2026, 11:15 - 12:45

Introduction:
Timely diagnosis and initiation of treatment are crucial in the management of peritoneal dialysis (PD) peritonitis. Point-of-care tools, such as the QuickCheck device, provide a rapid estimation of peritoneal fluid white blood cell count (WBC) for the diagnosis of PD peritonitis. In this pilot study, we aim to evaluate the predictive utility of the QuickCheck device compared to conventional laboratory-based white cell count (WCC) measurements in PD peritonitis at our centre.

Methods:
We conducted a comparative analysis between cell counts detected by the QuickCheckTM device (MicroBioSensor), and laboratory WCC at our centre on 25 PD patients presenting with suspected peritonitis (Nov 2024 and April 2025). Patient demographics, PD modality (APD vs. CAPD), symptom status, bedside clinical findings (e.g., read-through bags), and clinical outcomes were recorded. Sensitivity, specificity, positive predictive value (PPV), and negative predictive value (NPV) were calculated. The correlation of cell counts was assessed using Spearman's correlation coefficient and a Bland-Altman plot. Area under the curve (AUC) analysis was performed to evaluate overall diagnostic performance.

Results:
The median age of the cohort was 56 years, with a predominance of males (60%) and white ethnicity (88%). 80% were on automated PD. The sensitivity, specificity, positive predictive value (PPV), and negative predictive value (NPV) of QuickCheck device results were 87%, 80%, 76% and 89%, respectively. The Bland-Altman plot indicates that the QuickCheck device generally tracks lab results closely, but exhibits notable variation at the high and low ends of the range. The Spearman's correlation coefficient was 0.871, $p<0.001$ (strong correlation) (Figure 1). The AUC value was 0.907 (excellent discrimination) (Figure 2)

Discussion:
The results suggest that the QuickCheck device is highly accurate in mimicking or predicting lab-based diagnoses. This supports the use of the QuickCheck device for screening or rapid decision-making, especially when lab tests are slow or unavailable.

Sarcoidosis with PLA2R and IgG4 Positive Membranous Nephropathy: A Case Report

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Renal Pathology Clinicopathological Correlation: Case Discussions from the UK Renal Pathology Slide Club, HALLQ, March 11, 2026, 11:15 - 12:45

Introduction
Renal sarcoidosis is classically associated with granulomatous lesions or tubulointerstitial nephritis on kidney biopsy. Glomerular pathology with sarcoid is rare, but when seen, membranous nephropathy is the commonest glomerular manifestation. Interestingly, sarcoidosis-associated membranous nephropathy has been associated with anti-PLA2R antibody serum negativity but histological positivity. The mechanism driving this glomerular pathology in sarcoidosis is not fully understood.

Case Report
A 48 year old man was referred to the medical team with a three-day history of bilateral ankle pain and redness. His general practitioner expressed concern of an autoinflammatory cause. He had previously been fit and well. On examination, there was minimal erythema and swelling over the medial aspect of both feet and ankles.

Urinalysis showed 4+ blood and 3+ protein. Bloods showed normal excretory renal function (creatinine 70umol/L and eGFR>90ml/min/1.73m^2), hypoalbuminaemia (albumin 26g/L) and a mildly raised CRP (34mg/L) with normal white cell count (9x10^9/L). Corrected calcium was normal (2.4mmol/L) and remained normal throughout.

A renal autoimmune screen was sent and he was discharged with follow-up in 5 days. However, he re-presented only two days later with severe leg pain, requiring crutches to walk. On examination he was febrile and the erythema had worsened, with reduced range of movement in both ankles. By this time, significant proteinuria had been quantified (uACR 271mg/mmol) and the renal autoimmune screen had returned normal.

After a short admission to rule out septic arthritis, he was followed-up in the renal rapid-access clinic. Here he was noted to have developed erythema nodosum on his lower limbs. A serum PLA2R had returned normal (4RU/ml).

An urgent renal biopsy was organised, after which he was admitted with an anticipated diagnosis of sarcoidosis. A CT chest was supportive, confirming bilateral hilar enlargement. However, on light microscopy, there was no evidence of tubulointerstitial nephritis, including no granulomata, and glomeruli appeared normal.

Electron microscopy revealed small, segmental, subepithelial electron dense deposits, consistent with membranous nephropathy. Immunohistochemistry later confirmed diffuse, strong subepithelial positivity for IgG4 and PLA2R.

Given the key differential diagnosis of lymphoma, glucocorticosteroids were withheld pending a chest lymph node biopsy. Once this confirmed non-caseating granulomas, he started an 8-week weaning course of prednisolone alongside warfarin. He responded excellently with complete resolution of symptoms and normalisation of his serum albumin and CRP. Warfarin was then stopped. His excretory kidney function and serum PLA2R level remained normal. His proteinuria is currently down-trending (latest 318mg/mmol from 483mg/mmol pre-treatment).

Discussion

This was an unusual presentation of acute sarcoidosis with nephrotic syndrome and histologically PLA2R and IgG4 positive membranous nephropathy. Caseating granulomas were seen in chest lymph node biopsy but not in the kidney and serum calcium remained normal.

The excellent response to glucocorticoids aligns with the clinical course observed in small cohorts of patients with sarcoidosis-associated membranous nephropathy.

Ruling out lymphoma did delay treatment by a few weeks, but was considered imperative prior to glucocorticoid treatment.

This case shows the critical importance of urine dipstick testing. Without it, the diagnosis would have been delayed.

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Evaluation of haematuria in patients treated with ravulizumab in the phase 2 SANCTUARY trial

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Dragons' Den: Pitching to the Registry, KINGS SUITE, March 11, 2026, 11:15 - 12:45

Introduction: In a phase 2 trial (NCT04564339) in adults with IgA nephropathy (IgAN), ravulizumab, a complement C5 inhibitor, led to reduction in proteinuria. Haematuria may reflect morphological changes at the glomerular filtration barrier, could be toxic to the tubules, and may be valuable in assessing prognosis and response to treatment. Evaluating haematuria could enhance understanding of the benefits of complement blockade in IgAN.

Methods: In this phase 2 trial, patients were randomized (2:1) to ravulizumab (intravenous; q8w) or placebo) for 26 weeks followed by a 24-week open-label ravulizumab treatment period. Single void collections for random spot urine samples were used for haematuria evaluation, assessed by examination of the spun urine sediment by microscopy (expressed as red blood cells [RBCs]/high-power field [HPF]). The number of RBCs in urine was summarised by treatment group using frequency statistics for categorical variables. Pre-specified analysis included the percentage of patients with <10 RBCs/HPF on urine sediment from spot samples, as reported by the central lab from baseline (BL) to Week 50.

Results: In the ravulizumab group, 76.7%, 87.8%, and 90.2%, at BL, Week 26, and Week 50, respectively, had <10 RBCs/HPF (Figure). In the placebo group, 69.6% and 77.3% had <10 RBCs/HPF at BL and Week 26, respectively; at Week 50, following crossover to ravulizumab, 100% had <10 RBCs/HPF.

Conclusion: A trend in reduction in haematuria with ravulizumab treatment might reflect the anti-inflammatory effect and improved disease control under complement inhibition.

Transplant outcomes in the UK Rare Renal Disease registry (RaDaR) examined by vintage and native kidney diagnosis

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BEST CLINICAL ABSTRACTS, AUDITORIUM, March 11, 2026, 11:15 - 12:45

Introduction
Improvement in renal transplant outcomes requires detailed assessment of trends over time and key predictive factors. We have previously presented data showing differences between transplant outcomes in glomerular disease and ADPKD and correlations with proteinuria at 1 year post transplant. Here we present transplant outcomes in the UK Rare Renal Disease registry (RaDaR) population mapped to date of transplant (vintage) and precise diagnoses underlying native kidney failure (KF).

Methods: In the total RaDaR population 8814 patients were identified who had received a first renal transplant, 7083 of these transplanted since 2005. Individual diagnostic cohorts were identified with primary glomerular diagnoses (GD) of idiopathic nephrotic syndrome (INS), IgA Nephropathy (IgAN), ANCA nephritis, Membranoproliferative GN/C3 Glomerulopathy (MPGN), Alport Syndrome (AS), Anti-GBM disease and Membranous GN (PMN), and genetic diagnoses of autosomal dominant polycystic kidney disease (ADPKD), autosomal recessive polycystic kidney disease (ARPKD) and autosomal dominant tubulointerstitial kidney disease (ADTKD). Analyses stratified by disease are restricted to patients transplanted from 2005 and transplant survival defined as a composite of no KF, no sustained eGFR<15, and no death.

Results: Figure 1 shows Kaplan Meier (KM) plots for outcomes of transplantation (survival without KF, censored for death) for the full RaDaR cohort stratified by year of transplantation. Inspection of this reveals no discernible outcome differences among vintages since transplant year 2000, with inferior outcomes prior to this: 5-year survival (95% CI) for transplantation before and after year 2000 respectively 0.83 (0.80-0.85) and 0.90 (0.89-0.91). The median (IQR) age at transplant has risen from 42 years (30-51) in 2000-2004 to 52 years (39-61) in 2020-2024. Figure 2 shows KM transplant survival outcomes for (A) 7 individual GD and (B) 3 genetic kidney diseases. Outcomes vary considerably by individual GD with the most favourable in Alport syndrome and worst in INS, PMN and MPGN as seen in Fig 2(A). In contrast outcomes in individual genetic diseases (Fig 2(B), Table 1) are remarkably consistent and tend to be superior to the overall outcomes in GD.

Conclusions: UK renal transplant outcomes in the rare disease population of RaDaR do not appear to have improved since year 2000. Changes in criteria for access to transplantation may influence this and makes interpretation difficult as casemix may vary with time. Nevertheless, there appears to be an unmet need for improvements in long term transplant survival. Within the RaDaR cohort of patients with underlying glomerular disease, the precise diagnosis is correlated with variations in transplant outcome. Disease recurrence is likely to contribute to this, but other factors such as age and co-morbidity also warrant further study. Transplant outcomes in cystic renal disease do not appear to depend upon precise native kidney diagnosis.

Mapping psychosocial provision across the Midlands Renal Network: A thematic analysis of multi-site stakeholder interviews

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Left to Get On with It? Bringing Psychosocial Care to the Fore, QUEENS SUITE 1, March 11, 2026, 11:15 - 12:45

Introduction

Psychosocial support plays an important role in kidney care, helping people engage with treatment, maintain their quality of life and prepare for transplant. Yet provision across the UK is patchy, fragile and often dependent on individual effort rather than stable systems. The Renal Services Transformation Programme (RSTP) have highlighted the benefits of strengthening psychosocial support, but there has been little systematic mapping of what currently exists, how it is experienced and where the gaps lie. This service improvement project explored the configuration, accessibility and perceived adequacy of psychosocial care across multiple renal units, with the aim of informing future service development and workforce planning.

Methods

A qualitative review was carried out across ten renal units in the Midlands, including both hub centres and satellite sites. Semi-structured interviews were conducted with service leads and frontline staff, guided by questions on current provision including psychology, social work, counselling, youth work, psychiatry and peer support. The interviews also explored transplant psychosocial assessments, mental health pathways, workforce capacity, training needs and future plans. Interviews were transcribed and analysed using reflexive thematic analysis, with an inductive coding approach and iterative theme development.

Results

Eight overarching themes were identified (Table 1).

Staff described widespread loss of embedded psychosocial roles, particularly psychology and social work, alongside the reduced welfare advice and peer support. Provision was highly variable between sites, with some having no dedicated posts. Emotional care had defaulted to frontline staff, who carried this hidden workload without training, protected time or supervision.

Teams reported escalating patient complexity, including severe mental illness, trauma and aggression, without any parallel increase in specialist provision. Psychiatric input was often only available to inpatients, forcing units to admit people purely to access care. Staff spoke of feeling unsafe and “left holding very risky situations alone.” Pathways into wider mental health services were fragmented and unclear, and psychosocial assessments for transplant were often outsourced to external centres, creating delays, bottlenecks and ethical tensions.

In contrast, a few sites had more established models, including fully staffed psychology teams, embedded social work, youth provision and clear pathways for vulnerable groups. These were seen as transformative, improving engagement, reducing crises and lifting pressure from the wider MDT. Despite funding constraints, there was strong enthusiasm to develop psychosocial support, particularly through Level 1 psychosocial skills training and shared learning networks.

This project's strengths include representation all midlands units, giving a rich view of current provision. Limitations include reliance on staff perspectives rather than patient views, and variation in how much detail participants could provide about services outside their direct role.

Discussion

This project highlights major inequities, instability and unmet need in psychosocial provision across regional renal services, alongside clear commitment to improving this area of care. Regional priorities include implementing Level 1 psychosocial skills training, building a network of psychosocial champions with access to regular training and peer learning, and improving staff awareness of available pathways. National priorities identified include developing stable funding, workforce capacity, integrated pathways and early intervention.

Piloting a pharmacist-led virtual clinic to optimise CKD medicines: improving outcomes, reducing delays, and enhancing patient experience

Miss Charlotte Aitchison, Dr Harsha Wodeyar, Dr Daniel Kimber

Exploring SGLT2 Inhibitor Prescribing: Who Is Missing Out?, HALL D, March 11, 2026, 11:15 - 12:45

Background:
A January 2023 audit of 100 CKD patients at University Hospitals of Liverpool Group (UHLG) found suboptimal use of evidence-based therapies. Only 13% were prescribed maximum-dose ACEi/ARB; among the remainder, 47% had suboptimal BP control, with no documented reason for under-dosing in 71% of patients. SGLT2i use was 11%, although 60% of untreated patients met NICE criteria. No patients received finerenone despite 19 being eligible. These findings highlighted an unmet need for medicines optimisation in CKD.

Clinic letter recommendations for medication initiation or adjustments were not consistently implemented in primary care. Around half of patients experienced waits ≥30 days or no action at all, underscoring the need for timely prescribing, improved communication, and better coordination across the secondary-primary care interface.

Project Aims:
1. Increase the uptake of guideline-directed therapies.
2. Reduce prescribing delays across care sectors.
3. Evaluate patient experience, adherence, and satisfaction.
4. Explore wider benefits, including collaboration and environmental impact.

Methods:
A pharmacist-led, protocol-driven virtual CKD medicines optimisation clinic was piloted at UHLG in collaboration with community services, delivered via clinical telehealth systems. Optimisation focused on: initiation/titration of ACEi/ARBs, SGLT2i, and finerenone; BP optimisation; and post-AKI medication re-initiation. Patients were referred at any stage of care and remained until fully optimised before discharge.

The clinic and simplified prescribing pathways supported primary care optimisation and direct pharmacist-MDT communication. To reduce implementation delays, templated EMIS clinic letters enabled rapid GP correspondence. Outcomes were captured in real time using dedicated templates, with prescribing data extracted from pharmacy IT systems.

Results:
From December 2024 to July 2025, 172 patients generated 486 clinic appointments. 69% of patients required follow-up with a median of 2 appointments per patient.

99% of patients reported good adherence and 100% rated satisfaction as 5/5. The virtual, telehealth-supported model avoided an estimated 2,739 miles of patient travel for first appointments alone. Median time from referral to first appointment and prescription was 26.5 days. Prescriptions were primarily issued at UHLG outpatient sites, with 24% directed to GPs without additional delay.

By July 2025, 79 patients had been discharged; 66 (84%) were fully optimised on maximum-tolerated, guideline-directed therapy. Reasons for non-optimisation included non-engagement, patient choice, and prolonged admission. Median time to discharge was 55.5 days.

Discussion:

The pharmacist-led virtual CKD clinic improved access to evidence-based therapies, reduced prescribing delays, and achieved excellent patient outcomes and satisfaction. Templated EMIS letters strengthened GP communication, reducing delays in implementing recommendations and ensuring continuity of care.

The virtual model also supported the NHS Green Plan by reducing patient travel and associated carbon emissions. Telehealth delivery provided efficient, patient-centred care with greater accessibility and convenience, reduced hospital exposure, and increased emphasis on patient satisfaction. EMIS access to issue prescriptions directly to community pharmacies is expected to enhance patient experience and local access.

Simplified prescribing pathways and collaborative working promoted consistent adoption of evidence-based therapies, resource efficiency, and long-term sustainability. The model has been shared with primary care, and through the North-West Kidney Network and CORE Kidney Initiative, work is underway to scale this approach regionally.

Exploring Telomere Dynamics in Donor-Recipient Pairs: Implications for Kidney Graft Longevity

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Rare Early-Onset Lower Urinary Tract Conditions: An Important Cause of Kidney Failure in Children and Young Adults, QUEENS SUITE 3, March 11, 2026, 11:15 - 12:45

Introduction
The protective telomeres at chromosome ends are key to cell aging and replication ability. The progressive reduction in their length during cellular division is linked to age-related illnesses and impairment of organ function. In the realm of organ transplantation, telomere length has surfaced as a potential biomarker for predicting both graft survival and recipient longevity. Gaining insight into the interplay of telomere dynamics and transplant success could provide new insights for the enhancement of long-term graft function and patient outcomes.
Methods
We analysed DNA from 274 renal transplant recipients of European heritage, with donor/recipient relative telomere length (TL) measured using monochrome qPCR. Recipient DNA pre-transplantation was obtained at the time of wait listing for transplant; donor DNA was obtained at the time of transplantation, and recipient DNA post-transplantation was obtained more than three months after transplantation. Statistical analysis was conducted to investigate the association between donor/recipient TL and long-term graft survival.
Results
Donor TL was not significantly associated with graft survival in Kaplan-Meier or Cox regression analyses. However, shorter donor TL was consistently linked to a higher incidence of adverse post-transplant outcomes, and recipient pre-TL varied significantly across outcome groups, suggesting potential biological relevance independent of donor TL. Donor age was a consistent and significant predictor of graft failure (HR = 1.02, 95% CI: 1.01–1.03). In contrast, post-transplant recipient TL exhibited a significant association with graft survival. Patients in the long post-TL group showed improved long-term outcomes (log-rank p = 0.04). In multivariable Cox regression, longer post-TL was linked to a 90% reduction in graft failure risk (HR = 0.10, p = 0.021).
Conclusion
The study findings emphasise the prognostic implications of telomere length in renal transplantation. Despite donor telomere length's limited predictive power, recipient TL—specifically post-transplant—was identified as a significant predictor of long-term graft survival. Independently, a longer recipient telomere length correlated with a considerably lower risk of graft failure, suggesting that telomere dynamics in recipients could identify key biological processes that influence transplant outcomes. The results highlight the potential of TL as a biomarker to refine risk stratification and guide long-term patient management in renal transplantation.

AKI recovery and 5 year outcomes

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BEST CLINICAL ABSTRACTS, AUDITORIUM, March 11, 2026, 11:15 - 12:45

Introduction

After acute kidney injury (AKI), the recovery of kidney function is an important risk modifier of subsequent long-term outcomes. However, different definitions of recovery have been used in the literature, with a return to within anywhere between 10%-50% of baseline creatinine described. Few studies have investigated different definitions of recovery from AKI. We aimed to compare different definitions of recovery of kidney function after AKI and their association with clinically important outcomes, to determine which may be most relevant to clinical practice.

Methods

We performed a secondary analysis of a prospective observational study that included 506 participants who had AKI during hospitalisation and were followed up for five years. We tested different threshold definitions of AKI, for each comparing outcomes in an unrecovered group with a recovered group. We defined different definitions of recovery based on percentage increase in serum creatinine at 3-months after AKI as compared to baseline (pre-AKI) creatinine value (range 0-30% at 10% intervals). We tested for clinically significant outcomes, including kidney failure, mortality and a combined endpoint of kidney failure and death. Kidney failure was defined as a doubling of serum creatinine, commencement of kidney replacement therapy, or eGFR < 15 ml/min per 1.73m2. Multivariable modelling was conducted to determine whether each definition of recovery was independently associated with the outcomes of interest. The models were adjusted for age, baseline eGFR, presence of albuminuria at 3 months, comorbidity score, and sex.

Results

The average age was 71 years (IQR 58-84) and 297 (58.7%) were male. The baseline eGFR was 69.42ml/min/1.73m² (SD 21.28) and 144 (28.5%) had CKD by eGFR criteria at baseline.
In the study population 58.1% of patients had a stage 1 AKI, 25.3% had a stage 2 AKI and 16.6% stage 3 AKI.
After 5 years, 28 patients (5.5%) had kidney failure 133 (26.3%) died and 149 (29.4%) experienced the combined outcome.
At a recovery definition of creatinine returning to baseline creatinine or lower there were no significant associations between non-recovery and any of the outcomes.
At a recovery definition of creatinine within 10% of baseline there was a significant increase in adjusted hazard ratio (HR 1.493, 95% CI 1.072-2.080, p=0.018) for the combined outcome of kidney failure and death in those without recovery, as well as an increase in the adjusted hazard ratio for kidney failure (HR 3.590, 95%CI 1.412-9.113, p=0.007). (Table 1, figure 1)
At a recovery definition of creatinine within 30% of baseline, death also became independently associated with non-recovery. (Table 1)
As thresholds of recovery became higher, the hazards of each outcome progressively increased (Table 1).

Discussion

Failure to recover kidney function after AKI is strongly and independently associated with long-term outcomes of kidney failure and mortality, with greater degrees of non-recovery conferring increased risk. A threshold definition of creatinine returning to within 10% of baseline by three-months after

AKI is independently associated with kidney failure and a combined outcome of kidney failure and death, which supports its wider use in certain clinical care pathways and research settings.

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Developing an effective “Frailty and Advance Care Planning” service for haemodialysis patients in West London

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Demystifying Research: Pathways, Proposals, and PPIE, QUEENS SUITE 2, March 11, 2026, 11:15 - 12:45

Introduction
Discussions and decisions about ceilings of care in dialysis patients often happen during emergency admissions rather than when patients are stable and capacitous. Frailty is frequently underestimated in this group. Frailty and advance care planning reviews (ACP) help patients, families and staff to consider likely health trajectories and plan proactively.

Aim
To offer a dedicated appointment for frailty and ACP reviews to at least 10% of haemodialysis patients in our centre in the first year period of the project.

Methods
A senior dialysis nurse with palliative care experience and a nephro-geriatrician developed and offered the service together, with support from renal colleagues.

1) Education and training: All dialysis teams were assessed to identify learning needs and the level of staff confidence regarding frailty and ACP. Appropriate training was then locally delivered. A multidisciplinary training day with over 75 attendees was organised.
2) Delivering ongoing, sustainable support for HD patients and staff: A running referral system and rota for clinics in each unit was initiated with 1 hour slots per patient. Relatives are invited to attend. After each meeting, a letter is written to the GP, with initiation/completion of the Universal Care Plan (UCP) where appropriate. The Frailty / ACP service is embedded within the resident doctor training and within the cross-site Mortality and Morbidity reviews.

Results
In the first year of the project, 318 appointments have taken place across 8 sites, involving 266 patients. 72% of all patients seen had a clinical frailty score of 6 or higher.
A UCP was initiated for 45% (n=121) of those seen, of which 79% (n=96) included an agreed DNACPR decision.
17% (n=45) of patients seen died during the study period. 55% (n=25) of these patients who died had received input from palliative care. 91% (n=41) had a DNACPR agreed, either prior to (48%, n=22), or during their final admission (42% n=19).

Discussion

Since the implementation of this dedicated Frailty / ACP service a fifth of established haemodialysis patients in our centre have now had appointments. The clinic has supported a number of patients to access services in the community that they were previously unaware of and it has brought a truly holistic model of care into our dialysis units.
Feedback from staff, patients and relatives, although difficult to quantify, has been universally positive. Even among those who felt unable to make decisions in the outpatient setting, in many cases appointments had very usefully prepared the way for sensitive conversations around withdrawal/ palliation which occurred later, during an acute admission. Recognition of severe frailty,

and support and preparation for a likely imminent death is increasingly becoming a standard part of the care offered to dialysis patients.
Coaching for a small number of dialysis nurses is now being planned with a view to carefully disseminating the Frailty / ACP service. Significant experience, skills and data have been accrued which are being used to teach and support staff with varying levels of confidence and experience, across disciplines, so that this valuable work continues.

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A randomised study of rituximab and belimumab sequential therapy in PR3 ANCA-associated vasculitis

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BEST CLINICAL ABSTRACTS, AUDITORIUM, March 11, 2026, 11:15 - 12:45

Background:
B cell activating factor (BAFF) antagonism combined with CD20 B cell depletion may enhance B cell targeting in ANCA-associated vasculitis (AAV) leading to better ANCA suppression and clinical disease control.

Methods:
In this multicentre, randomised, double-blind, placebo-controlled trial, adults with PR3-ANCA positive AAV received rituximab plus belimumab or rituximab plus placebo, with a standardised corticosteroid taper and no maintenance immunosuppression. Therapy was given for 52 weeks, followed by 52 weeks of observation. The primary endpoint was time to ANCA negativity (<2.0 IU/L). Secondary endpoints included B cell kinetics, remission, relapse, and safety endpoints.

Results:
Thirty-five patients were randomised; 34 were evaluable. In the per protocol cohort (n=32), PR3-ANCA negativity occurred in 5/17 (29.4%) on rituximab–belimumab compared to 2/15 (13.3%) on rituximab–placebo (HR 4.70, 95% CI 0.65–33.8; p=0.12). ANCA levels at 52 weeks were 3.4 iU (IQR 2.5-12.4) and 12.0 iU (IQR 6.2-29.5) in rituximab-belimumab versus rituximab placebo. Both groups achieved B cell depletion by week 12; belimumab delayed B cell reconstitution, with reduced total and naïve B cell counts at 12 and 18 months. In the intention to treat population (n=34), 0/17 rituximab-belimumab and 3/17 rituximab-placebo had progressive disease before remission. Remission was achieved faster with rituximab-belimumab (42 vs 91 days; HR 2.29, 90% CI 1.08–4.85; p=0.031). Relapse occurred in 6/17 (35%) patients in the rituximab–belimumab arm versus 9/17 (53%) in the rituximab–placebo arm (HR 0.64; 95% CI 0.23–1.80; p=0.40). In belimumab patients, ANCA re-emergence occurred after belimumab withdrawal, in 4/5 patients. No relapses occurred during ANCA negativity. Rates of serious adverse events were comparable.

Conclusions:
Combination therapy with rituximab–belimumab was associated delayed B cell reconstitution and a trend towards greater PR3-ANCA negativity. There was a faster time to remission and a trend towards lower relapse rates in the rituximab-belimumab group.

Bridging the gap: why physical activity is not routine in chronic kidney disease care – a systematic review using the Consolidated Framework for Implementation Research

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Bridging the Translation Gap: How Do We Move from Evidence to Practice?, QUEENS SUITE 1, March 11, 2026, 14:45 - 15:45

Introduction
Physical activity (PA) provides substantial physical and psychological benefits for people with chronic kidney disease (CKD) and is recommended in international guidelines. Yet, despite over three decades of evidence, PA remains underutilised in routine CKD care. Various factors at individual, organisational, and system levels contribute to this implementation gap. To explore these influences, a systematic review was conducted using the Consolidated Framework for Implementation Research (CFIR), a comprehensive and widely used framework for identifying implementation determinants and guiding tailored strategies for sustainable integration.

Methods
A systematic search was conducted across MEDLINE (Ovid), EMBASE (Ovid), CINAHL (EBSCO), APA PsycINFO, and Web of Science for papers published from inception to June 2025. Eligible studies were English-language publications examining the implementation of PA in adults with CKD, across all modalities and stages. Quantitative and qualitative studies, review articles, and clinical guidelines were included. Each study was charted and deductively coded against CFIR's five domains (Figure 1) to capture factors influencing PA delivery and to identify key gaps contributing to its limited implementation in clinical practice.

Results
Seventy-six studies were included: 30 (39%) observational studies, 23 (30%) qualitative studies, 9 (12%) reviews/editorials, 8 (11%) feasibility studies, guidance documents, or other reports, and 6 (8%) real-world evaluations. Most studies focused on intradialytic exercise (n=39, 51%), with smaller numbers addressing PA among transplant recipients (n=10, 13%), individuals with non-dialysis CKD (n=8, 11%), and those on peritoneal dialysis (n=5, 7%). Nine studies (12%) examined broader rehabilitation models, while five (7%) explored PA in a general or cross-setting CKD context. Analysis revealed a complex interplay of factors across CFIR domains. Within the innovation domain, programme cost, adaptability, complexity, and design influenced uptake. In the outer setting, funding, policies, and economic conditions played important roles. The inner setting domain highlighted the importance of staff access to knowledge and information, compatibility with existing workflows, and the availability of funding, equipment, and space within organisations. At the individual level, capability, opportunity, and motivation of both staff and patients shaped delivery and engagement. Finally, implementation processes such as tailoring strategies, engaging stakeholders, adapting programmes and workflows, and systematically evaluating progress were critical for sustaining PA initiatives in CKD care. Notably, some CFIR constructs were not represented in the included studies. In particular, external pressures such as performance measurement to drive implementation, and organisational factors such as mission alignment and incentive systems to support implementation, were absent from the evidence base.

Discussion

This review highlights that implementing PA in CKD care is a complex process shaped by factors across individual, organisational, and system levels. Strong clinical evidence and guideline recommendations alone are insufficient to integrate PA into routine care. The application of implementation science frameworks, such as CFIR, provides a structured lens to identify factors influencing implementation while also highlighting important gaps. Such understanding establishes a foundation for multifaceted, evidence-informed strategies and policy actions to bridge the longstanding translation gap and achieve sustainable integration of PA in CKD care.

Effects of Tirzepatide on Ultrafiltration Volumes in patients on Haemodialysis

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All You Need to Know About Glycaemic Profiling on the Dialysis Unit, KINGS SUITE, March 11, 2026, 14:45 - 15:45

Introduction

High ultrafiltration rate (fluid removal) during haemodialysis is a critical determinant of cardiovascular morbidity and mortality. Even modest reductions in fluid removal per session can meaningfully reduce the hemodynamic stress on the heart. Tirzepatide (Mounjaro®), a dual GIP and GLP-1 receptor agonist, has multiple pleotropic effects that translate into major clinical benefits including weight loss and improved cardiovascular morbidity and mortality. However, it's effect on fluid removal requirements in patients requiring long-term kidney replacement therapy with haemodialysis has not been studied. We evaluated the impact of tirzepatide on UF volumes in maintenance haemodialysis patients.

Methods

We conducted a single-arm pre–post cohort study of maintenance haemodialysis patients who commenced tirzepatide. For each patient, we calculated the mean ultrafiltration (UF) per dialysis session from all sessions in the 3 months before and 3 months after tirzepatide initiation. The primary outcome was the within-patient change in mean UF indexed to body weight (UF/kg), calculated by dividing mean UF volume (mL) by mean post-dialysis weight (kg) to standardise fluid removal for patient size. Absolute UF volume (litres per session) was assessed as a secondary outcome. Pre- and post-treatment differences were analysed using a two-sided paired t-test after confirming the normality of paired differences.

Results

Data was available for 17 patients (7 males, 10 females) from five dialysis units. Median age was 55 ± 12 years, ethnicity was Asian (n=7), White (n=9), Black (n=1). Tirzepatide was being prescribed for weight management (n=10) or managing Type 2 diabetes (n=7) in accordance with NICE guidelines. Tirzepatide initiation was associated with a highly significant reduction in the primary outcome. Mean UF/kg decreased from 26.88 ± 7.11 mL/kg pre-tirzepatide to 17.76 ± 5.48 mL/kg post-tirzepatide. The mean within-patient change was –9.12 mL/kg (95% CI –11.60 to –6.64; $p<0.0001$). Similarly, mean absolute UF volume decreased significantly from 2.78 ± 0.77 L to 1.88 ± 0.61 L, representing a mean within-patient reduction of –0.90 L (95% CI –1.14 to –0.66, $p < 0.001$).

Discussion

In this cohort, commencing tirzepatide was associated with a major and likely clinically meaningful reduction in both weight-indexed and absolute ultrafiltration volumes. These findings suggest that tirzepatide may decrease the haemodynamic stress of fluid removal during dialysis. The potential for this intervention to improve cardiovascular outcomes in haemodialysis patients warrants investigation in larger, prospective trials.

The UK Kidney Association 2025 Academic Census: a national survey to identify workforce improvements

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Getting Kidney Disease on the Government's Agenda: A Collaborative Approach, AUDITORIUM, March 11, 2026, 14:45 - 15:45

Introduction

A better future for patients depends on advances in healthcare outcomes, which require an adequately trained workforce. Achieving a strong academic workforce has always been a challenging area, however it has worsened significantly in the past 10 years and even further following the financial impact of the global pandemic. The aim of this project was to conduct a national survey to capture a snapshot of the workforce to gain an insight into research capacity and inform a workforce planning strategy.

Methods

An anonymous survey, hosted on a Google survey form, was distributed aimed at any health care professional, clinician scientists and/or basic scientists who spent the majority (>50%) of their working time in the kidney field. The survey was distributed via the UK Kidney Association, Kidney Research UK, British Association of Paediatric Nephrology e-newsletters and via direct emails. The survey was open for a period of 8 weeks.
Questions included demographic data, information about the respondent's job, highest level of qualifications, rating of current success or skill level in certain areas, barriers and motivators to research, and organisational support. Data was analysed and represented in graphical form using Microsoft Excel.

Results

A total of 225 responses were recorded, of which 30.4% (n=68) were over the age of 50 years, 32.6% (n=73) were age 41-50 years and 28.6% (n=24) age 31-40 years. Just 8.4% (n=19) of respondents were under the age of 30 years. Half of respondents (50%, n=112) were medical doctors, 10% (n=23) were nurses, 21% (n=48) were allied health professionals and 18.7% (n=42) were scientists. Of the cohort, 25.8% (n=58) worked in paediatric medicine. Over half (52%, n=118) had a PhD or MD, and 41.8% (n=94) had over 20 years' professional experience. The age distribution and experience indicated that most respondents were in the latter stage of their careers. The survey established barriers preventing academic careers and these included a lack of institutional recognition, lack of time (64.4%, n=145), lack of research funding (60%, n=135) and competing work roles (53.3%, n=120). On an institutional level, a lack of clinical academic positions (24%, n=54), a lack of university tenure positions (18.7%, n=42), a lack of a coordinated approach to research careers (17.3%, n=39) and rotational posts (6.2%, n=14) were the leading barriers. Further, a lack of awareness of funding opportunities (28%, n=63), lack of support from managers (28%, n=63), a lack of mentorship (20.9%, n=47), and uncertainty on how to access support (16.9%, n=38) were reported, with 16.4% (n=37) feeling that they lacked the skills for research and 10.2% (n=23) feeling intimated by research. These issues were mainly raised by AHPs, and some doctors.

Conclusion

This academic survey has estimated the academic workforce for nephrology research in the UK, highlighting concerns for the future of renal academics. Areas for improvement include signposting to resources on developing research skills and research opportunities, support with research skill development, identifying research mentors and research funding opportunities. Work is ongoing via UKKA in conjunction with KRUK to address some of these.

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The Association of Physical Activity and Cognition in Chronic Kidney Disease (CKD) and structural and functional changes in brain MRI: A UK Biobank study

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Prescribing and Describing Exercise in CKD: A Practical Workshop, HALL Q, March 11, 2026, 14:45 - 15:45

Background: Cognitive dysfunction is common in people with CKD. It progresses steadily with advancing CKD, affecting up to 80% of people with end-stage kidney disease. Physical activity (PA) reduces the risk of cognitive impairment in the general population. Using the well characterised UK Biobank data, we aimed to assess the association of PA with cognition in adults with CKD as well changes in the structure and functional activity of the brain.

Methods: Cognition was assessed by fluid intelligence, numeric memory (NM), reaction time tests and a composite of all 3. CKD was classified into stages 1-5 and "No CKD" based on eGFR and albumin creatinine ratio. PA was measured by the International Physical Activity Questionnaire and classified into high, moderate and low PA levels. Multilinear regression was performed, with the Cohen's d, with the No CKD group as reference, reported. A Wald test was used to test the interaction of CKD stage and PA on cognitive function. Anatomical and functional changes in the brain were assessed by analysing structural and functional MRI images taken at various time points during follow up.

Results: Of the 501,520 participants, 692, 749, 7389, 299 and 51 had CKD stages 1-5 respectively. In the CKD groups 1-5 and No CKD the median ages were 55, 62, 65, 65, 62 and 58 respectively, diabetes rates of were 23.7%, 31.4%, 21.9%, 40.8%, 49% and 5.4% respectively and hypertension rates of 46.1%, 68.9%, 69.3%, 83.3%, 86.3% and 26.2% respectively.

The percentage of participants in the high and moderate PA groups were 39.7 and 40.1 for Stage 1, 34.8 and 40.7 for Stage 2, 33.7 and 40.6 for Stage 3, 23.4 and 43.8 for Stage 4, 15.7 and 37.3 for stage 5 and 40.7 and 41.5 for those without CKD.

After adjustment for risk factors, cognitive scores tended to decrease with advancing CKD (table 1). Apart from NM in Stage 5 CKD, where high PA negatively affected cognitive impairment, these associations did not significantly differ by PA level.

Early analysis MRI images suggest decreasing volume of the hippocampus with advancing CKD stages. Ccomplete analysis including functional activity of fMRI will be presented at the UKKW.

Conclusions: The trend towards decreasing cognitive scores with advancing CKD did not significantly differ by PA apart from NM in Stage 5, although numbers were small in this group. Initial analysis suggests decreasing cognitive scores with advancing CKD stages were associated with decreasing hippocampal volume.

Cystatin-C vs Creatinine in deceased donors: drivers of the discrepancy between the markers and associations with post-transplant outcomes

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Silent Signals: How Laboratory Medicine Reveals Renal Disease, QUEENS SUITE 2, March 11, 2026, 14:45 - 15:45

Introduction: Accurate donor kidney assessment is vital for transplant success. Creatinine-based estimated glomerular filtration rate (eGFR) is currently the standard of care in donor risk assessment, however it is not a reliable indicator of kidney quality. On the contrary, Cystatin-C offers superior prognostic value of kidney function as it better reflects underlying injury.
These markers often diverge in critically ill patients, but this discrepancy has not been systematically studied in deceased donation. We aimed to explore whether this discrepancy reflects underlying injury and to compare the predictive value of Creatinine-, Cystatin-C-, and combined GFR estimates for transplant outcomes.

Methods: We analyzed 429 pre-transplant plasma samples from deceased donors who offered kidneys to 839 recipients from the QUOD biobank. GFR was estimated using CKD-EPI equations (Creatinine, Cystatin-C), and ΔGFR was defined as their difference. At the donor level, we assessed the associations of these GFR estimates and ΔGFR with markers of inflammation (TNFα), tubular injury (TIMP1, β2-microglobulin, Uromodulin), and endothelial activation (Angiopoietin-2). We then evaluated their prognostic value for transplant outcomes, including primary non-function (PNF, n=113), delayed and immediate graft function, and 12-month graft function (n=726). The predictive performance of Creatinine-based GFR (eGFRcreat), Cystatin-C–based GFR (eGFRcys), and the combined equation (eGFRcreat-cys) was compared using ROC curves, Net Reclassification Improvement (NRI), and Integrated Discrimination Improvement (IDI).

Results: Deceased donors had a median age of 53 (IQR: 19) years; 46.5% were females, 52% were DBDs. The median ΔGFR was 11.35 ml/min/1.73 m² (IQR: 31), indicating systematic overestimation of Creatinine-based GFR relative to Cystatin-C. This discrepancy was significantly greater in DBD than in DCD donors ($p<0.001$). Inflammatory and injury markers showed consistent associations; TNF-α ($r=-0.29$), TIMP1 ($r=-0.15$), and β2-microglobulin ($r=-0.44$) correlated inversely with ΔGFR (all $p<0.02$), whereas Uromodulin ($r=0.23$) and Angiopoietin-2 ($r=0.18$) were correlated positively (both $p\leq0.003$) with the difference.

Cystatin-C–based GFR showed superior accuracy for predicting PNF (AUC=0.74) compared with creatinine-based (AUC=0.58) and combined equations (AUC=0.69) (Figure 1), with significant improvements in NRI and IDI (both $p<0.001$). For predicting poor 12-month graft function (eGFR ≤30), Cystatin-C remained the strongest predictor, with no incremental value from creatinine.

Discussion: In our large cohort of 429 donors, Cystatin-C identified kidneys at risk of primary non-function and those likely to have poor performance in the first-year post-transplant. Discrepancies between Creatinine- and Cystatin-C–based GFR estimates were associated with inflammation, tubular stress, and endothelial injury, highlighting distinct biological pathways. Across all analyses, Cystatin-C–based GFR consistently outperformed Creatinine, underscoring its superior prognostic value. These findings support the incorporation of Cystatin-C into donor risk assessment, at least in combination with creatinine, to improve identification of high-risk kidneys, as a biologically and clinically superior tool for donor quality evaluation.

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Cytomegalovirus driven immunomodulation amplifies kidney damage in ANCA-associated vasculitis

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New Scientific Approaches to Tackling Viral Diseases in Kidney Transplantation, QUEENS SUITE 3, March 11, 2026, 14:45 - 15:45

Background:
Cytomegalovirus (CMV) is a widely prevalent herpesvirus. We have previously shown that asymptomatic CMV reactivation occurs in 25% of CMV seropositive patients with ANCA-associated vasculitis (AAV) in remission, and that CMV specific CD4+CD28null T cells associated with poor outcomes.
We hypothesised that asymptomatic CMV reactivation may amplify kidney damage in active AAV through CMV driven immune signatures in peripheral blood and kidney tissue.

Methods:

50 CMV seropositive and 20 CMV seronegative patients were recruited within 14 days of AAV disease presentation to an observational study. Serial quantitative CMV PCR was performed on blood and urine over 12 months. Peripheral blood mononuclear cells (PBMC) were phenotyped by flow cytometry. Urinary soluble (us) CD163 and MCP-1 were measured by ELISA. Multiplex immunofluorescence was performed on kidney tissue at diagnosis.

Results:

There was no difference in renal involvement or degree of kidney injury between CMV seropositive and CMV seronegative patients. 52% of CMV seropositive patients had evidence of asymptomatic CMV reactivation in blood or urine, with 96% of reactivation occurring in the first 3 months. CMV reactivation was 3x more common in those with renal involvement (47 vs. 14%; p=0.014). Patients without evidence of CMV reactivation had better eGFR recovery at 12 months, compared to those that reactivated (3.5ml/min difference; p<0.001).

In a combination of in vivo flow cytometry and in vitro CMV stimulation experiments we identified CD4+CD28null T-cells as a pro-inflammatory, cytotoxic, endothelial homing subset. Increased CD4+CD28null T-cell percentage in peripheral blood associated with lower eGFR at 12 months (r=-0.3440, p=0.026), and CD4+CD28null T-cells increased by 1.7-fold (IQR 1.23-2.99) following asymptomatic CMV reactivation. CMV lysate stimulation of PBMC co-cultured with glomerular endothelial cells revealed a CD4 dependent increase in glomerular cell death in CMV seropositive compared to CMV seronegative patients (17% difference; p=0.017). Moreover, glomerular cell death was directly correlated to the percentage of CD4+CD28null T-cells in culture (r=0.7500, p=0.026). Preliminary tissue analysis results show that CD4+CD28null T cell infiltration is strongly correlated with lower eGFR (r=-0.7866, p=0.007).

At baseline, a lower percentage of classical monocytes in peripheral blood correlated with lower eGFR at 12 months (r=0.5258, p=<0.001). Lower percentage of classical monocytes at baseline

correlated with increased usMCP-1, suggesting chemotactic migration of monocytes into kidney tissues, and was directly related to increased usCD163 indicating monocyte induced kidney damage. The percentage of CD4+CD28null T cells was inversely related to that of classical monocytes in peripheral blood ($r=-0.3229$, $p=0.031$), suggesting that CMV reactivation may polarise monocytes to an inflammatory endothelial homing phenotype. CMV lysate stimulation of PBMC from CMV seropositive patients led to increased surface expression of MPO on monocytes indicating that CMV infection may prime monocytes for activation by ANCA autoantibodies.

Conclusions:

We show that asymptomatic CMV reactivation is associated with reduced kidney function recovery in AAV. Our findings suggest that CMV reactivation may amplify kidney damage by promoting the expansion of pro-inflammatory, cytotoxic CD4+CD28null T-cells and by priming monocytes for ANCA-driven inflammation, highlighting a novel and potentially reversible mechanism of injury in AAV.

Heat-related acute kidney injury in England: demographic variations and risks among hospitalised patients in a nationwide analysis of 947,342 AKI alerts

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Acute Kidney Injury in Vulnerable Populations: Early Insults, Lifelong Risks, HALL D, March 11, 2026, 14:45 - 15:45

Background:
Acute kidney injury (AKI) is a critical global health issue, affecting an estimated 21% of adults and 33% of children during hospital episodes. In England, incidence is rising to ~13,000 cases per million population annually, with mortality reaching 35% for AKI stage 3. Seasonal fluctuations in AKI are well documented, with heat-related dehydration a key driver, particularly in frail populations. The prevalence and outcomes of kidney disease in the UK vary across demographic groups, yet ethnic and clinical modifiers of heat-related AKI remain poorly understood. As climate change increases the frequency of extreme temperatures, identifying high-risk groups is crucial to inform public health interventions and service planning
Methods:
We analysed AKI episodes (April–September 2017–2021) reported to the UK Renal Registry. Episodes were defined from laboratory AKI e-alerts using KDIGO criteria and linked to Hospital episode statistics (HES) and postcode-level daily maximum temperature from HadUK-Grid. A time-stratified, bidirectional case-crossover design with conditional logistic regression and distributed lag models estimated odds of AKI per 1°C rise above 25°C. Analyses were stratified by AKI stage, age, sex, ethnicity, deprivation, community vs hospital acquisition, and primary admission diagnosis.
Results:
Among 947,342 AKI episodes, 66% were community-acquired. Each 1°C rise above 25°C increased AKI risk (OR 1.038, 95% CI 1.036–1.040), with stronger effects for stage 3 (OR 1.047, 95% CI 1.039–1.055).Figure 1 shows that children (<15y) and older adults (>85y) were most vulnerable: OR 1.021 (95% CI 1.004–1.038) and OR 1.054 (95% CI 1.049–1.060) respectively, the latter twice the risk of those aged 45–64. Sex–age interaction was evident: men overall had higher risk (OR 1.041 vs 1.035 in women), but differences were most pronounced in the 45–65-year group (p-interaction=0.003). Risk varied by admission diagnosis as shown in figure 2, being highest for delirium (OR 1.061, 95% CI 1.029–1.094) and respiratory disease (OR 1.044, 95% CI 1.037–1.052), and lowest for cancer (OR 1.018, 95% CI 1.009–1.027) . Ethnicity-specific effects showed Chinese patients to be most sensitive (OR 1.054, 95% CI 1.012–1.098), followed by White (1.041), Indian (1.033), Pakistani/Bangladeshi (1.027), Caribbean (1.024), and African (1.001). Age-stratified analyses in figure 3 suggested some disparities reflected underlying age structure, with wide confidence intervals. Among patients aged ≥65 years, risk was lowest in Black (African/Caribbean) individuals (OR 1.014, 95% CI 0.98–1.05), and higher in Indian (1.040, 95% CI 1.023–1.058), White (1.046, 95% CI 1.043–1.049), and Pakistani/Bangladeshi (1.047, 95% CI 1.024–1.070) groups, with Chinese patients at greatest risk (1.091, 95% CI 1.036–1.150).

Conclusion:
Heat exposure increases AKI risk in England, with marked variation by stage, age, sex, ethnicity, and admission diagnosis. Our analysis reveals increased risks among the very elderly, children, and a sex–age interaction with excess male risk in middle age. Ethnic disparities were partly explained by age distributions but also suggest a more complex interplay. These findings support development of kidney-specific heat-health guidance, integrating sick-day rules, hydration advice, and early warning systems for high-risk groups. Climate resilience measures are necessary to mitigate the immediate and long-term impacts on kidney health.

A Service Evaluation of Anti-Xa Measurements in Patients with Kidney Impairment in A Tertiary Centre

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Anticoagulation in Kidney Disease: Why? When? With What?, QUEENS SUITE 1, March 11, 2026, 17:30 - 18:30

Background: Pre-emptive dose reduction of low-molecular weight heparins (LMWHs) is often utilised in those with renal impairment to prevent bioaccumulation. We report on the association of a pre-emptive dose reduction of dalteparin and its effect on anti-Xa range. We also correlated anti-Xa values with clinical outcomes.

Methods: We undertook a service evaluation of patients with renal impairment (eGFR < 30 ml/min/1.73m2) receiving therapeutic dose dalteparin. Demographic and clinical variables such as age, sex, weight, creatinine clearance (Cockcroft-Gault), dalteparin dose and frequency were recorded. Anti-Xa monitoring includes both peak and trough levels. Trough anti-Xa levels are drawn immediately before the third dalteparin dose using a chromogenic assay, with a target of less than 0.25 U/mL for twice daily dosing. Peak levels are measured four hours after the third dose in accordance with standard pharmacokinetic monitoring practice. Major bleeding (fatal bleeding, critical site bleeding, Hb drop > 20 g/L, or transfusion of ≥ 2 units) and clinically relevant non-major bleeding (CRNMB, not meeting the major bleeding definition but requiring medical intervention by a healthcare professional, leading to increased level of care, or prompting an evaluation) were defined by ISTH criteria. All cause mortality was assessed through three months post initiation. Bleeding and thrombosis events were noted while the patient was on dalteparin. A multivariate Cox proportional hazards model was employed to assess the relationship between anti-Xa levels and the incidence of bleeding and mortality.

Results: A total of 103 patients were identified over a two-year period. Seventy-eight (75.7%) had anti-Xa monitoring done. Trough anti Xa distribution was within target in 58 (75.6%). Patients on dialysis had a higher incidence of bleeding (19 vs 12, $p < 0.05$). Weight ≤ 55kg vs > 55kg ($p = 0.729$) and BMI ≤ 18 vs > 18 ($p = 0.519$) were not correlated with bleeding events. None had a thrombotic event while on dalteparin.

Bioaccumulation of dalteparin, defined as a subsequent trough anti-Xa level exceeding 0.25 U/mL in patients whose initial trough level was ≤ 0.25 U/mL, was observed in 12 patients. Three of whom were on dialysis. The median time to bioaccumulation was 19 days.

Patients with bleeding had significantly higher median anti Xa trough (0.26 vs 0.13 U/ml, $p < 0.01$). The same was not found in median anti Xa peak (0.39 vs 0.36 IU/ml, $p = 0.436$). In multivariate Cox models, only anti Xa trough remained an independent predictor of bleeding (OR = 1.47 per 0.1 U/ml, 95 % CI: 1.05-2.15; $p < 0.05$). No predictors of mortality were identified.

Conclusion: In this report, trough anti Xa measurement of dalteparin independently predicts bleeding in patients with renal impairment. Patients receiving dalteparin for longer durations, particularly beyond 19 days, may be at increased risk of accumulation-related bleeding. Further prospective, larger studies are warranted to validate these results before it can be universally recommended in clinical practice.

Phenotype-Specific Survival in Peritoneal Dialysis versus Haemodialysis: Evidence from the UK Renal Registry with Health-System Comparisons to Western Europe

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Harmful PD Solutions: Consequences Beyond Technique Failure, QUEENS SUITE 3, March 11, 2026, 17:30 - 18:30

Background
Whether peritoneal dialysis (PD) offers a survival advantage over haemodialysis (HD) remains debated, with earlier studies producing conflicting results and few phenotype-specific analyses in the modern era. Contemporary UK evidence is scarce, and modality choice is further shaped by health-system factors such as infrastructure, equity, and costs.

Methods
We analysed 96,810 adults initiating dialysis in the UK Renal Registry between 2007 and 2021. Using k-prototypes clustering of baseline variables (age, sex, race, primary kidney disease, haemoglobin, albumin, transplant-listing), we identified reproducible patient phenotypes. Within each cluster, we compared survival between PD and HD using Kaplan–Meier curves and restricted mean survival time (RMST). To place findings in context, we extracted incidence, prevalence, dialysis facility density, and treatment costs for the UK and Western Europe from the ISN Global Kidney Health Atlas 2023.

Results
Three distinct phenotypes emerged. In younger, racially diverse patients (mean age 43 years), PD conferred the greatest survival benefit, with 5-year survival of 78% versus 62% on HD ($p<0.001$). In older patients with preserved nutritional status (mean age 66 years; haemoglobin 116 g/L; albumin 35 g/L), PD advantage was sustained (50% vs 42%; $p<0.001$). Among the oldest and frailest (mean age 74 years; albumin 32 g/L), PD showed an early benefit that diminished by year 5. RMST analyses confirmed consistent survival gains, with HD patients achieving 88–90% of PD survival time over 5 years (all $p<0.001$).

System-level comparisons revealed a paradox. The UK has higher incidence and prevalence of kidney failure than Western Europe (151 vs 135 pmp; 1293 vs 1034 pmp) but the lowest dialysis facility density (1.0 vs 7.7 HD centres pmp). Despite this, costs are substantially lower across all modalities: first-year transplant costs are nearly five-fold lower in the UK ($14,012 vs $74,089), and annual HD costs are 30% lower. Notably, however, PD costs have risen by 25% since 2019 in the UK, while falling by 18.8% across Western Europe.

Conclusion
In contemporary UK practice, PD is associated with superior survival across phenotypes, especially in younger and nutritionally preserved patients. Yet uptake remains low, despite PD's survival and economic advantages. Aligning practice with evidence will require renewed investment in PD infrastructure, cost stabilisation, and integration with transplantation pathways. Lessons from the UK's efficiency, and from Western Europe's stabilising PD costs, highlight how system design can improve both outcomes and sustainability.

Changing Culture, Cutting Carbon: A Multi-Site Green Nephrology Sustainable Quality Improvement Project

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Kidney Care on Our Changing Planet: An Update from the UKKA Sustainable Kidney Care Programme, QUEENS SUITE 2, March 11, 2026, 17:30 - 18:30

Background:
Haemodialysis is lifesaving but resource-intensive, consuming ~500 L of water and producing ~2.5 kg of waste per treatment. The NHS commitment to net-zero by 2040 requires clinical services to address their disproportionate carbon footprint. In May 2025, the Oxford Kidney Unit (OKU), a 7-site haemodialysis service, launched a green initiative applying sustainable quality improvement (susQI) methodology to reduce the environmental footprint of haemodialysis while engaging patients and staff.

Methods:
Baseline audits (May–July 2025) captured machine practices and consumable use, alongside staff and patient questionnaires assessing awareness, confidence, and willingness to engage in sustainable practices. A driver diagram (Figure 1) was developed after scoping our units and drawing on resources from the Centre for Sustainable Healthcare (CSH) to identify domains for intervention: (1) staff and patient engagement, (2) dialysis machine practices, (3) waste management, and (4) pharmaceuticals.

Results:
- Staff & patient engagement: Teaching sessions based on CSH case studies and resources, supported by online material and nominated “green champions,” improved awareness. Staff confidence rose from 33% → 96% post-awareness, with “green practice” now routine at handovers. Patient surveys (n=41) showed >90% willingness to change once informed (Figure2), with many now bringing mugs or blankets.
- Dialysis machine practices: Online priming at Unit 2 eliminated saline bags for priming (~£1,400/week saved); an audit at Unit 1 showed standby use rose from 2 to 24/24 machines after awareness campaigns; Draft protocols for once-daily heat disinfection on B. Braun/Baxter machines are under review. Applied to our 24-machine Unit 1, this could save ~9,934 kWh, 96,360 L of water, and ~£2,582 per year, according to workshop measurements.
- Waste management: Unit 2 replaced disposable cups with reusables (~300 cups/week, ~£960/year saved). Unit 3 is procuring mugs and a dishwasher. Blanket initiatives saw uptake in 36% of patients at Unit 3 (20/56) and 100% at Unit 2 (50/50), reducing hospital-laundered blanket use. Awareness corrected misconceptions about bicarbonate cartridge disposal, reducing inappropriate clinical waste. Acid canister recycling is being explored.
- Pharmaceuticals: Erythropoiesis-stimulating agent (ESA) audit showed once-weekly dosing maintained haemoglobin, reduced workload, and avoided hundreds of syringes, though drug costs were unchanged. We are also switching to pre-filled syringes, expected to halve the carbon footprint of saline flushing while cutting packaging waste and simplifying workflow.

Discussion
This project has shown that meaningful sustainability gains can be achieved without new funding by focusing on culture change and awareness. Key learning was that engaging staff and patients early, and giving each unit flexibility to choose interventions suited to their setting, was critical to success. Piloting initiatives in one unit first, then spreading to others, built staff confidence and avoided

overwhelming sites with simultaneous changes. Visible early wins — such as standby adoption and reusable mugs — created momentum and trust, which in turn enabled development of larger projects needing governance and investment, like once-daily heat disinfection. For other units, the message is clear: start small, choose simple and achievable projects, celebrate early progress, and use this as a foundation to scale up more ambitious sustainability interventions.

Acute kidney injury and renal outcomes in paediatric cardiology patients following the Norwood procedure

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Development of an AKI Hospital-at-Home Service in Collaboration with Community Services, HALLQ, March 11, 2026, 17:30 - 18:30

Background: Acute kidney injury (AKI) is a frequent complication following the Norwood (NW) procedure and is associated with adverse outcomes, morbidity and mortality. The NW procedure, performed in neonates with hypoplastic left heart syndrome or functionally single-ventricle congenital heart disease, is among the most complex neonatal cardiac surgeries. To date, no published UK data describe the prevalence and characteristics of AKI, nor renal outcomes in this population. This study evaluated AKI, renal outcomes and follow-up practices at a leading UK paediatric cardiac surgical centre.

Methods: A retrospective review of clinical notes and electronic records was conducted on 36 neonates having a primary NW procedure between June 2017 and June 2024. Using Kidney Disease: Improving Global Outcomes (KDIGO) criteria, we examined perioperative AKI (number, timing, duration, severity) and the use of renal replacement therapy (RRT). Renal outcomes were assessed both in-hospital and post-discharge, including renal tract imaging, referral to Paediatric Nephrology, and evidence of chronic kidney disease (CKD) at follow-up.

Results: Of patients with postoperative renal data, 96.9% experienced at least one AKI episode, and 18.8% had two or more. AKI severity was classified as 32.4% Stage 1, 37.8% Stage 2, and 10.8% Stage 3. Mean duration was 5.6 days (±5.7), with 70% persistent (>48 hours). Longer duration correlated with greater severity. Twenty-three patients received postoperative RRT (for any reason). Twelve patients had a postoperative renal ultrasound performed. Structural abnormalities and signs of acute tubular necrosis (ATN) were identified in two scans, respectively. Ten patients (29.4%) were referred to Paediatric Nephrology at any stage, at a median of 113 days post-NW (range 15–2,692). Six patients remained under Nephrology follow-up at the time of review, with two demonstrating evidence of Stage 2 CKD (both classed as G2A1). Two patients had mild proteinuria and no patients were found to be hypertensive.

Conclusions: AKI was highly prevalent following the Norwood procedure, with evidence of renal dysfunction in several patients. Current postoperative renal imaging, referral, and follow-up practices were variable. Monitoring of long-term renal outcomes is required in this high-risk patient group. Additional comparative analysis of AKI prevalence and characteristics in paediatric cardiology patients undergoing a hybrid surgical approach would be beneficial. Development of standardised renal monitoring and referral guidelines, as well as improved education may help optimise kidney health and long-term outcomes in this population.

KFiT- Enhancing access to transplantation for End Stage Renal Patients living with obesity

Miss Denise Cunningham[1]
[1]Royal Free Hospital

Everything a Non-Transplanting Centre Needs to Know About Caring for Kidney–Pancreas Recipients, KINGS SUITE, March 11, 2026, 17:30 - 18:30

Introduction:
Obesity is one of the greatest public health challenges of the 21st century. In patients with end-stage kidney disease(ESKD), obesity poses additional challenges particularly for those needing kidney transplantation.
Patients living with obesity have increased risk of perioperative complications and may have worse short- and long-term outcomes.1
Currently there is no consensus on the degree of obesity above which the risk of perioperative complications outweigh the benefit, and obesity is often the sole barrier to kidney transplantation.
UK medical weight loss programs have been shown to be less effective compared to bariatric surgery.2 However local Trust data shows less than 17% of eligible patients are successfully referred to bariatric services.
Trust data shows 52% of patients who are suspended from the transplant list are ineligible solely due to obesity, leading to inequitable service and poor quality of life.3
This highlights the need for a structured weight loss programme for these patients. There is also emerging evidence supporting the use of GLP-1 receptor agonists for managing obesity in renal patients.
The Royal Free London have developed, to our knowledge, the first weight management programme combining psychology, dietetics, physiotherapy and pharmacology to treat this ever increasing population.
Method:
- K-Fit employs An MDT approach, integrating psychology, dietetics, physiotherapy, and pharmacology.
- Patients have set weight or waist-to-height ratio targets for transplant list activation.
- Patients are initially assessed by the MDT to assess suitability and ensure obesity is the sole barrier to transplantation.
- They are then reviewed by psychology for suitability and motivation.
- Patients follow a rotating schedule with a dietitian, physiotherapist, and pharmacist monthly for 6-12 months.
- Semaglutide is prescribed for up to 1 year to support weight loss.
- Weight, BMI, Duke Activity Status Index(DASI), handgrip and waist circumference are assessed at regular intervals.
- Additional psychological support and ‘Mood and Food' sessions are also offered.

Results:
31 patients are currently progressing through the programme, 12 have been discharged due to non-attendance or adherence(fig1). We report on 17 patients who have reached 6 months(fig 4). Results demonstrate improvements in weight(kg), waist to height ratio, Duke Activity Status Index(DASI), physical activity and handgrip (fig5+6). 12 patients have met their target weight and have been activated, and 2 have been transplanted.
Conclusion:
K-Fit demonstrates that a structured, MDT led programme combining psychological support, dietary interventions, physiotherapy, and pharmacology can significantly enhance access to kidney transplantation for ESRD patients living with obesity, and can offer a viable alternative to bariatric surgery. In a 12 month period 12 patients have met their target weight and have been activated on

the Tx wait list with 2 being transplanted and many more are heading towards the same goal. We have also shown that GLP-1 agonists are a promising and safe weight loss tool for ESRD patients.

The telenutrition kidney health study: a randomised controlled trial comparing a digital health intervention on serum phosphate in patients on dialysis. (Telekinesis Study).

Mrs Joanne Beer[1], Dr Kelly Lambert[2], Dr Wai Lim[3], Professor Neil Boudville[3,4]
[1]Nutrition and Dietetics, Sir Charles Gairdner Hospital, [2]Faculty of Science, University of Wollongong, [3]Department of Renal Medicine, Sir Charles Gairdner Hospital, [4]University of Western Australia

CKD–MBD in Clinical Practice: Case-Based Challenges and Expert Insights, AUDITORIUM, March 11, 2026, 17:30 - 18:30

Introduction
Hyperphosphatemia is one of the most prevalent metabolic complications in patients with chronic kidney disease (CKD), with elevated serum phosphate levels consistently associated with an excess risk of cardiovascular disease and all-cause morbidity and mortality. Reports indicate that over half of patients on haemodialysis have pre dialysis hyperphosphatemia.
Timely and effective dietary intervention is a critical strategy in its treatment, however, managing dietary needs is complicated by the complexity of the diet, risk of malnutrition, common co-morbidities and inequality of access to dietitians. Given these challenges there is a need for novel co-designed evidence based approaches to support patients and that can be integrated in to routine clinical practice. The aim of this study was to determine if the use of digital health was an effective and acceptable method to deliver dietary advice for hyperphosphataemia.
Methods
This was a six-month multi-centre co-designed randomised controlled trial. Participants were recruited across 23 dialysis units throughout Australia. Inclusion criteria included receiving maintenance dialysis for at least three months, over 18 years of age, have a serum phosphate level ≥1.60 mmol/L (based on average of two measurements), English speaking and have access to a smart phone for the duration of the study.
Participants were randomised 1:1 either to the intervention group (IG) or control group (CG). The IG received standard care plus access to the TELEKINESIS App that delivered twice weekly dietary information on phosphate management via text, infographics and quizzes, for three months. The CG received standard care alone.
Primary outcomes were change in serum phosphate at three months and six months. Secondary outcomes included acceptability, engagement and quality of life.
Results
From 190 people recruited, 99 (52%) were randomised to receive the intervention. Demographics were 60% male, median age 57.6 years (IQR 47.5, 67.1) and 60.1 years (IQR 47.5, 70.3) in the IG and CG respectfully, 54% on dialysis for ≥ 2 years, median baseline serum phosphate 2.1 mmol/L (IQR 1.9, 2.5) in the IG and 2.2 mmol/l (IQR 1.9, 2.6) in the CG. Low attrition was observed with 91.6% (174/190) assessed at month three and 84.2% (160/190) completed the study at month six.
Both groups significantly reduced their serum phosphate at month three of which the IG was stronger (IG: 2.24 mmol/L reduced to 2.09 mmol/l, p=0.009, CG: 2.22 mmol/L reduced to 2.08 mmol/L p=0.012). The IG also significantly reduced serum phosphate at month six to 2.03 mmol/L (p=<0.001), three months after the intervention ceased, whilst the CG increased to 2.11 mmol/L at month six. In the IG, females, under 65 years showed highest mean serum phosphate reduction of -0.31 mmol/L (-0.44, 0.18, p=<0.001).
Discussion
Digital health has the potential to support individuals with CKD by optimising diet related health management. The TELEKINESIS Study demonstrated that delivering dietary advice through a novel co-designed digital health solution can effectively reduce and sustain a reduction in serum phosphate, offering an acceptable approach to behaviour change. This extensive study also ensured a broad examination of the intervention's effectiveness across varied demographic groups.

Improving how clinicians communicate about treatment options in advanced kidney disease: Views, experiences and impact of the Talk CKD Options training intervention

Dr Samuel Westaway[1,2,3], Dr Chloe Shaw[1], Dr Barny Hole[1,2,3], Professor Fliss Murtagh[4], Professor Fergus Caskey[2,3], Professor James Tulsky[5], Professor Ruth Parry[6], Dr Rebecca Barnes[7], Professor Lucy Selman[1]

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Evolving Excellence: Defining and Standardising Advanced Clinical Practice in Renal Care, HALL Q, March 12, 2026, 12:00 - 13:00

Introduction

For older people with kidney failure and multiple co-morbidities, transplantation is rarely an option; most must decide whether to choose dialysis or conservative kidney management. Existing research highlights inconsistencies and bias in clinicians' communication about these treatment options, with dialysis often presented as the default, despite providing modest or uncertain survival benefits in this population. The Optimising Staff-Patient Communication in Advanced Renal Disease (OSCAR) study was a 5-year NIHR-funded study that developed an evidence-based communication training intervention for renal clinicians to enable the consistent provision of person-centred treatment decision-making support: Talk CKD Options. This pilot aimed to implement the intervention and investigate clinicians' views and experiences of Talk CKD Options and its impact.

Methods

Talk CKD Options comprised a 3-hour online, interactive session delivered by three facilitators with expertise in the training content, plus two pre-recorded pre-training presentations supporting the learning objectives. Recruitment was via national and regional networks, targeting a sample size of 25. A pre-training survey explored clinical experience, previous relevant communication training, and self-reported knowledge, skill and confidence communicating about treatment options. A post-training survey re-assessed self-reported outcomes, and collected feedback on the training format, structure and delivery. Participants were invited to take part in a semi-structured interview with a researcher independent from the training faculty. Interviews were conducted ≥2 weeks post-training, to allow participants to reflect on impact and to assess skill and knowledge retention. Interview data were analysed using thematic analysis.

Results

Twenty-eight clinicians, from 20 centres in England, consented. Twenty-seven (96%) attended the training and completed a pre-training survey: 8 consultants, 1 registrar, 17 nurses, 1 clinical psychologist, with a median of 5 years' experience with a specific role in CKD care (IQR 3-10). 74% reported they had received no previous formal training in communicating with patients about treatment options. Most attendees were white (81%) and female (81%). Twenty-five (93%) completed the post-training survey and 24 (89%) participated in an interview (median 21 days post-training, IQR 14-32).

Surveys demonstrated improvements in self-reported knowledge ($p=0.0001$), skill ($p<0.01$) and confidence ($p<0.01$) in communicating with patients about treatment options for advanced kidney disease. Ninety-six percent were likely to recommend the training to a colleague, and all reported it would influence their practice; 68% indicated it would do so "to a great extent". Key qualitative themes included: the value of training as a multidisciplinary team, the effectiveness of virtual breakout group-work, and the benefit of watching real consultation footage to facilitate learning.

Suggested improvements included providing a summary handout and access to additional consultation examples.

Discussion

Talk CKD Options was highly rated and well-received, reported as influencing the practice of all who attended and improving self-reported knowledge, skill and confidence in communicating treatment options. Although participants were highly experienced and likely to be interested in clinical communication skills, three quarters had never received training on communicating about treatment options, demonstrating the need for and value of the intervention. Next steps are to widen training access and participation, including less experienced clinicians from a range of demographic backgrounds.

Modelling expected outcomes following a decision to accept or decline a deceased donor kidney

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The Alpha and Omega of Renal Transplantation: Challenges and Opportunities at the Beginning and End of the Graft, KINGS SUITE, March 12, 2026, 12:00 - 13:00

The clinician-patient decision of whether to accept or decline an offered deceased donor kidney is one of the most complex decisions in transplantation. Though many attempts have been made to risk stratify based on donor and recipient characteristics as well as other methods, reliance on clinical intuition remains high. We used a novel statistical modelling technique to better understand potential outcomes for patients from the point of offer deceased donor kidney transplantation and following acceptance or decline of an organ offer in the UK.

We used UK Transplant Registry data and looked at adult patients listed for kidney transplantation in the UK, deceased donor kidney offers and post-transplant outcomes. Multivariable models to demonstrate 5-year transplant survival (a composite of graft and patient survival) for patients from the point of offering and post-transplant survival were developed using a Cox proportional hazard techniques. Waiting time to a “better” offer was modelled using a micro-simulation approach for patients and donors with different profiles, incorporating the points system from the current UK kidney offering scheme. Rates of patients arriving on the waiting list, leaving the list and being transplanted were obtained, as well as characteristics of waitlisted patients and organ donors. Simulations were then run to ascertain potential outcomes from the point of offer for an index patient for scenarios characterised by offers from donors with differing profiles.

The outcomes of an index patient if they accept an organ offer from a donor with the demonstrated characteristics compared with potential outcomes if the next offer is accepted.

This is a novel method to help visualise potential outcomes for patients listed for deceased donor kidney transplantation. This work can be beneficial in facilitating discussions between patients and clinicians regarding decision making at the time of organ offering and may ultimately improve organ utilisation. Further evolution of this work would involve contributing to an online interactive decision aid which would help clinicians and patients at the time of consenting and at organ offering.

Urinary biomarker analysis reveals rapid intrarenal anti-inflammatory and anti-fibrotic effects of sparsentan in IgA nephropathy (IgAN) in the SPARTAN study

Chee Kay Cheung[1], Stephanie Moody[2], Neeraj Dhaun[3], Sian V. Griffin[4], Alexandra Louise Howson[1], Radko Komers[2], Alex Mercer[5], Matthew Sayer[3], Smeeta Sinha[6], Lisa C. Willcocks[7], Jonathan Barratt[1], Dr Chee Kay Cheung

[1]University of Leicester & Leicester General Hospital, [2]Travere Therapeutics, Inc., [3]Department of Renal Medicine, Royal Infirmary of Edinburgh, [4]Department of Nephrology and Transplantation, University Hospital of Wales, [5]JAMCO Pharma Consulting, [6]Department of Renal Medicine Salford Royal Hospital Northern Care Alliance NHS Foundation Trust, [7]Department of Renal Medicine, Addenbrooke's Hospital, Cambridge University Hospitals

It's Friday, 5 pm and the Phone Rings, AUDITORIUM, March 12, 2026, 12:00 - 13:00

SPARTAN (NCT04663204) is a trial designed to study the effects of sparsentan (SPAR), a dual endothelin and angiotensin receptor antagonist, on pathogenic pathways in IgAN, incorporating a biomarker-focused approach to the evaluation in adults newly diagnosed with IgAN. SPAR is licensed in the UK for the treatment of adults with primary IgAN with a urine protein excretion ≥1.0 g/day (or urine protein-to-creatinine ratio ≥0.75 g/g). We previously reported that SPAR treatment resulted in rapid and sustained proteinuria reductions of ~70% over 24 weeks. Findings are presented on urinary biomarkers to this timepoint. Twelve adults with biopsy-proven IgAN within 6 months, proteinuria ≥0.5 g/day, estimated glomerular filtration rate ≥30 mL/min/1.73 m2, and no prior angiotensin-converting enzyme inhibitors/ angiotensin II receptor blockers treatment were enrolled. SPAR treatment was for 110 weeks. One patient discontinued early due to hypotension. Changes in urinary biomarkers measured by ELISA, normalised to creatinine concentration, were analysed in the remaining 11 patients at baseline, 6, 12 and 24 weeks. Rapid and sustained reductions in urinary biomarkers of inflammation and fibrosis were observed after starting SPAR (Table). Protein–protein network mapping reveals a close relationship between affected biomarkers, suggesting a coordinated effect of SPAR on modulation of intrarenal inflammatory and fibrotic pathways within multiple nephron segments. Reductions in B cell activating factor and C5b9 imply actions on B-cell and complement activation. Dual endothelin and angiotensin receptor antagonism targets key intrarenal pathways promoting inflammation and fibrosis as well as B-cell and complement activation pathways. This enhances the scope of the SPAR mode of action to cellular effects well beyond haemodynamic actions. SPAR may offer the possibility of limiting the consequences of IgA immune complex deposition within the glomerulus and tubule.

Vascular Access–Related Infections and Outcomes in Home Haemodialysis: A 13-Year Retrospective Cohort Study

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Understanding and Managing Haemodialysis Non-Attendance: The Potential Benefits of a Trauma-Informed MDT Approach, QUEENS SUITE 2, March 12, 2026, 12:00 - 13:00

Introduction:
Home haemodialysis (HHD) improves patient autonomy, quality of life, and survival for end-stage renal disease (ESRD) patients and recent UK policy initiatives have encouraged its wider adoption. However, the impact of vascular access (VA) type on infectious complications and modality survival in the home setting remains uncertain. This study investigates the association between VA type, modality survival and infections in a UK HHD cohort over a decade.

Methods:
We conducted a retrospective cohort study in line with the STROBE checklist for adult patients initiating HHD at the Wessex Kidney Centre from 2010 to 2020, with follow up through to 2023. VA types were categorized as tunnelled haemodialysis lines (THL) and arteriovenous fistula/grafts (AVF/G). VA episodes were defined as periods during which a single access type (AVF/AVG, or THL) was used. The primary outocome was modality failure, defined as death or stopping HHD. Patients were censored for access type change, transplantation or relocation out of area. Secondary outcomes were: A)Time to first VA-related bacteraemia when data were censored as before in addition to death unrelated to access related infection. B) Infection rates per 1,000 access days. Multivariable Cox regression models were adjusted for age, diabetes, Charlson Comorbidity Index, and transplant history. Infection events were microbiologically confirmed and independently validated.

Results:
From 273 patients, 348 VA episodes were recorded (140 THL, 208 AVF/G). Patients requiring a THL had a higher comorbidity burden with a median CCI of 5 compared to 4 in the AVF/G (p=0.02) (Table 1).Button hole technique was the most used needling method in the AVF/G group, accounting for 162 of the 185 where the cannulation technique was documented.
The composite modality survival did not differ significantly by VA type after adjustment. Age ≥70 years (aHR 2.43, 95% CI 1.21–4.84) and diabetes (aHR 2.27, 95% CI 1.51–3.41) were independent predictors of modality failure (Figure 1).
VA-related bacteraemia incidence was low and comparable between access types: 0.3/1,000 access days (AVF/G) versus 0.4/1,000 (THL) (Table 2). Time to first bacteraemia was not significantly different (p=0.3). Methicillin-sensitive Staphylococcus aureus predominated (43% bacteraemia, 61% exit-site infections), with prior exit-site infection increasing bacteraemia risk sevenfold (aHR 7.22; 95% CI 3.72–14.0) (Figure 2). AVF/G users experienced higher transplant rates (43% vs 32%) and lower mortality (20% vs 29%) compared to THL users.

Discussion:
This large study provides robust long-term data on VA outcomes in UK HHD patients. The findings challenge assumptions that THL carry higher infection risk or worse survival, underscoring that both THL and AVF/G can be used safely with appropriate training and support. Age and diabetes influence modality survival. The study's strengths include comprehensive microbiological validation, longitudinal follow-up, and adjustment for confounders. Limitations include the single-centre retrospective design, and possible underestimation of exit site infections due to exclusion of culture-negative events.

Conclusions:
These findings suggest that the safety profiles of THL and AVF/G in HHD are comparable, with no significant differences in modality survival or infection risk. This supports flexible, patient-centred vascular access strategies, without bias towards any specific access type.

Assessing the completeness of body mass index data in UK kidney services: Insights from the UK Renal Registry

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Inside the UKKA Registries: Data, Collaboration, and Patient Insight, QUEENS SUITE 1, March 12, 2026, 12:00 - 13:00

Introduction
Body mass index (BMI) is a key indicator for chronic kidney disease (CKD), with higher BMI contributing to progression to kidney failure (KF) and need for kidney replacement therapy ([KRT] dialysis or kidney transplant). Conversely lower BMI is linked with poorer outcomes and higher mortality. Obesity can also preclude transplant eligibility. Despite its clinical relevance, comprehensive BMI data for patients undergoing KFT is lacking. This study aimed to examine the completeness of weight, height and BMI data submitted to the UK Renal Registry (UKRR) in 2023.

Methods
A retrospective analysis of 2023 UKRR data was conducted to assess completeness of weight, height and BMI in adults receiving KRT. Completeness was calculated by kidney centre, age and ethnicity, IT-system used and treatment modality. Height was included if any adult measurement (≥18 years) was available, while weight was considered complete with at least one entry in 2023; this included haemodialysis (HD) sessional data (pre- and post-HD weight). Descriptive statistics and chi-square tests assessed differences across groups with logistic regression looking to identify predictors of BMI data completeness. Scottish kidney centres were excluded due to lack of collection of weight data.

Results
Overall, 63,706 KRT patients were included. BMI data completeness varied widely across UK kidney centres (range 1.0-97.1%), as did height (8.2-98.1%) and weight (2.4-100%). Median completeness per centre was 51.3% for weight (interquartile range (IQR) 40.7, 97.6), 75.2% for height (IQR 50.0, 93.0) and only 41.0% for BMI (IQR 16.2, 80.9).

Overall, 39.4% of patients had a recorded BMI, 58.5% had weight data and 63.5% had a height data. BMI completeness was higher in transplant referral centres (44.0%) than transplant centres (36.0%; p<0.0001). Data completeness was greater for patients undergoing HD (53.1%; p<0.0001) compared to peritoneal dialysis (28.1%) and transplant (30.8%).

Older patients (≥70 years) had greater BMI completeness than younger patients (<70 years; <0.0001), while patient from White ethnicity (42.9%) had greater BMI completeness, compared to patient from ethnic minority groups (p<0.0001). No significant differences were found by deprivation quintile, IT system or sex. Logistic regression identified younger age, lower deprivation, White ethnicity and undergoing haemodialysis as predictors of BMI data completeness (p<0.0001).

Conclusion
This is the first UK-wide analysis of BMI data completeness in patients with KF receiving KRT, revealing that only 39.4% had a recorded BMI. Completeness varied significantly across centres with inconsistencies in height and weight data contributed to low BMI reporting overall.

Notably, patients from ethnic minority groups and more deprived areas had lower BMI data completeness, highlighting potential social inequalities in data capture. Patients undergoing HD had

higher completeness likely due to routine sessional weight measurements, which also confounded the observed association between younger age and BMI completeness.

Improving the capture of height and weight data is essential to better understand the role of BMI in patient outcomes and access to care, particularly in transplant eligibility. Targeted interventions at the centre level are likely needed to address these gaps and reduce inequities.

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Mood disorders as a risk amplifier in young adults with chronic kidney disease: a propensity-matched cohort study.

Dr Lino Merlino, Dr Francesco Rainone, Dr James Tollitt, Dr Michael J Kalra, Dr Sarah Wilford, Dr Francesca Rusconi, Dr Graziana G Battini, Dr Ross A Dunne, Prof Philip A Kalra, Prof Constantina Chrysochou

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Caring for Patients with Severe Mental Illness Across the Spectrum of Kidney Disease, HALL D, March 12, 2026, 12:00 - 13:00

Introduction:
Anxiety and mood disorders (AMD) have a high prevalence in patients affected by chronic kidney disease (CKD), plausibly worsening outcomes. Prior evidence linking AMD to adverse events comes from older populations, where vascular damage confounds inference. It is unclear whether, in young CKD adults with greater physiologic resilience, pre-existing AMD shapes morbidity. Clarifying this relationship could position AMD as a risk enhancer in young-adult CKD, motivating prevention-oriented care.

Methods:
Using the TriNetX Global Collaborative Network, we identified young adults (18–30 years) with stage 3–4 CKD and no prior transplant or dialysis, grouped as: (1) AMD documented before CKD (n=1,377) and (2) no-AMD before CKD (n=2,611). Outcomes were evaluated from day 1 up to 10 years and included mortality, ischaemic heart disease, arrhythmia, stroke/TIA, hypotension, acute kidney failure, dialysis, pneumonia, a dementia composite, encephalopathy, epilepsy, sleep disorders, and restless legs syndrome. 1:1 propensity score matching on demographics, race/ethnicity, baseline eGFR, BMI, cardiometabolic/respiratory conditions, and behavioural/psychiatric comorbidity resulted in 734 and 734 well-balanced patients. Risks and time-to-event differences were analysed using Kaplan–Meier and Cox proportional hazards models.

Results:
Median follow-up was 1741 days in the AMD cohort vs 1319 days in comparators. Mortality did not differ (HR 1.00 (0.72–1.39)). Non-fatal morbidity was consistently higher with MAD: ischemic heart disease HR 1.75 (1.31–2.33); arrhythmia HR 1.69 (1.41–2.02); pneumonia HR 1.57 (1.19–2.07); stroke HR 1.66 (1.16–2.37); hypotension HR 1.76 (1.36–2.27). Kidney outcomes were worse: AKI HR 1.42 (1.23–1.64); dialysis HR 1.59 (1.28–1.98). Neurocognitive events were elevated: dementia composite HR 4.19 (2.18–8.04), encephalopathy HR 2.06 (1.41–3.01).

Discussion:
Among young adults with stage 3–4 CKD, pre-existing AMD identify a high-risk phenotype with accumulation of cardiovascular, renal, infectious, and neurocognitive morbidities. Findings underscore the need for mental-health–informed care to mitigate downstream risks.

DDX1 associates with kidney volume and functionally links to cell cycle and metabolic regulation in proximal tubules

Conor J. Sugden[1], Heather Cordell[2], Rachel Lennon[1], Sushant Saluja[1], Dr Anna Li[1]
[1]University of Manchester, [2]Newcastle University

Tubulophiles Unite! Celebrating the Nephron's Unsung Hero, QUEENS SUITE 3, March 12, 2026, 14:00 - 15:30

Introduction: Genome-wide association studies (GWAS) have identified numerous loci associated with CKD, yet many reside in non-coding regions, presenting a challenge to functional interpretation. Total kidney volume correlates closely with kidney function and represents the composite outcome of nephron endowment, injuries leading to nephron loss, and adaptive compensatory hypertrophy, which occurs mainly in proximal tubular cells. We aimed to investigate the genetic underpinnings of kidney volume using whole-genome sequencing (WGS) data and MRI-derived kidney volume data from the UK Biobank, and to functionally validate candidate genes.
Methods: We conducted a GWAS on 10,760 UK Biobank participants with WGS data and with cultured human kidney tubular epithelial cells (HK2) we performed short hairpin (sh)RNA-mediated knockdown of our lead candidate gene. The transcriptomic consequences of knockdown were assessed using bulk RNA-sequencing and we determined differential expression using DESeq2. We performed pathway analyses using Gene Set Enrichment Analysis against the Human Molecular Signatures Database, Canonical Pathway, and Hallmark collections. We further evaluated gene expression in normal, CKD and acute kidney injury (AKI) states using publicly available single-cell RNA-seq data from the Kidney Precision Medicine Project (KPMP).
Results: We identified two genome-wide single nucleotide polymorphisms (SNPs) associated with kidney volume. These were at high significance ($p < 5x10^{-8}$) and in high linkage disequilibrium within the DDX1 gene: rs1236686910 and rs56019566. The lead SNP, rs1236686910, is a novel association with kidney volume and rs56019566 was previously associated with markers of kidney function and identified as an expression quantitative trait locus (eQTL). With bioinformatic colocalisation analysis we found the effect on kidney volume was mediated through DDX1 gene expression. Our subsequent transcriptomic analysis of DDX1-knockdown HK2 cells revealed suppression of numerous canonical pathways, including those for the ribosome, spliceosome, and cell cycle, alongside suppression mTORC1 signalling, corresponding with a transcriptomic signature of G1 cell cycle arrest. In addition, our analysis of KPMP single-cell transcriptomic data revealed that DDX1 mRNA expression was significantly upregulated in proximal tubule cells from CKD (mean expression = 0.178) and AKI (mean expression = 0.196) patients compared to healthy controls (mean expression = 0.168) (in log-normalised unit; ANOVA $p = 2.24 \times 10^{-9}$).
Conclusion: Our findings link a novel GWAS signal for kidney volume to fundamental cellular mechanisms. The observed upregulation of DDX1 in human kidney diseases suggests its involvement in the cellular stress response to kidney injury. We therefore propose that a genetically determined basal expression level of DDX1 may affect the adaptive response to injury in kidney proximal tubular cells.

Golgi outposts help to organise the secretory pathway in podocytes

Dr. Conor Sugden[1], Maryline Fresquet, Sushant Saluja, Anna S. Li, Alana Stevenson Harris, Maxine Addo, Zena Al-Sarawan, Martin Lowe, Rachel Lennon
[1]Manchester Cell-Matrix Centre, The University of Manchester

BEST SCIENCE ABSTRACTS, KINGS SUITE, March 12, 2026, 14:00 - 15:30

Introduction: The unique morphology of podocytes is fundamental for the function and maintenance of the glomerular filtration barrier. The size and complexity of mature podocytes present challenges for several biological processes, including protein secretion, as the distance from the Golgi to the foot processes is considerable. In addition, podocyte foot processes require a complex cytoskeletal architecture, which cannot be achieved from a single centrosome in the cell body. Despite these questions, the basic mechanism of foot process formation and peripheral protein trafficking remains elusive.

Methods and results: Here, we provide the first evidence of Golgi outposts in podocyte extensions in vitro and demonstrate Golgi marker distribution throughout podocytes in mouse glomeruli. Using cultured human podocytes, we found deployment, elongation, and fission of the Golgi apparatus preceding the generation of Golgi outposts in the tip of podocyte extensions. We confirmed expression of recognised cis and trans-Golgi markers in outposts, specifically GM130, Golgin-84, TGN46, and β-COP. Additionally, the presence of the COPII coat component Sec31 surrounding podocyte Golgi outposts suggests active protein trafficking. Confirming the presence of atypical Golgi elements in mouse glomeruli, we observed the dispersed cytoplasmic localisation of Golgi components in podocytes co-labelled with nephrin. Moreover, we found nucleation of microtubules colocalising with Golgi markers, suggesting a role for the microtubules in cytoskeletal organisation of podocyte processes. Additionally, we found deposition of collagen IV in and around podocyte extensions in vitro, suggesting a role for Golgi outposts in localised protein secretion at areas distant from the cell body. Finally, we revealed that the Golgi outpost protein TPPP (tubulin polymerizaiton promoting protein), which has known roles and phenotypes in neuronal cell types, is associated with podocyte foot process maturation and kidney disease phenotypes. Specifically, we found that expression of TPPP increases with podocyte maturation and is present in the glomeruli of adult mice. Using publicly available datasets (OpenTargets Platform and FinnGen r12) we revealed a signal for TPPP across multiple kidney phenotypes. We therefore hypothesise that TPPP is required for the maintenance of mature podocyte foot processes.

Conclusion: Golgi outposts have been described in neurons, muscle cells and oligodendrocytes. Here we provide evidence for Golgi outposts in human and murine podocytes. This discovery exposes a potential mechanism of localised protein secretion at the podocyte-basement membrane interface and a genetic risk factor for kidney disease.

Urine and Serum Proteomics for Paediatric IgA Vasculitis Nephritis

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BEST SCIENCE ABSTRACTS, KINGS SUITE, March 12, 2026, 14:00 - 15:30

Introduction: IgA vasculitis (IgAV) is the most common form of childhood vasculitis, typically presenting with a purpuric rash. Around 50% of children develop kidney inflammation (IgAV-Nephritis: IgAVN) with the risk of chronic kidney disease (CKD). Urine samples are non-invasive, making it preferable for paediatric cohorts compared to venepuncture-based blood sampling. However, current biomarkers for both sample types, such as proteinuria and CRP, are non-specific and may reflect established kidney damage. Additionally, paediatric clinical trials are estimated to be approximately 10 years behind that of adults, due to funding limitations for paediatric research, and the additional challenges that come with involving children in clinical research. This means that there is a great requirement for the identification and development of biomarkers for kidney diseases, which may provide a greater insight into pathophysiology or act as druggable targets. This study aims to evaluate paediatric IgAVN to provide comprehension into the pathophysiology.
Methods: Urinary proteins were precipitated using acetone (250 µL urine, 1 mL acetone) and both plasma (5 µL) and urine samples were digested using a Trypsin/LysC SP3 protocol and peptides analysed by EvoSep LC (30 sample per day)-Bruker timsTOF MS/MS with a 1.79 second cycle time. The results were then processed using Fragpipe V22.0 against the Human-1-gene-per-protein database. The cohort was made up of participants from the IgA Vasculitis study (REC 17/NE/0390 IRAS: 236599), the samples were grouped into IgAV (Urine n=14, Plasma n=9), IgAVN (Urine n=15, Plasma n=15) and Healthy Control (HC) (Urine n=11, Plasma n=16) categories.
Results: In serum proteomics, 63 proteins were significantly ($Q<0.05$, fold change>1.5) altered between IgAV and HCs, 74 between the HC and IgAVN cohorts and finally 64 between IgAV and IgAVN. In urine proteomics, a total of 212 proteins were found to be significantly different ($Q<0.05$, fold change>1.5) between the HC and IgAV cohorts, 303 between the HC and IgAVN cohorts, and 339 between the IgAV and IgAVN cohorts. Gene Ontology analysis identified that predominantly immune response linked proteins were upregulated when comparing HC/IgAV and IgAVN proteomes, including the complement system, B-cell mediated immunity, immunoglobulin mediated immunity, leukocyte mediated immunity, phagocytosis and more. Additionally, proteins highlighted in IgA Nephropathy research (a disease histologically identical but more common in adult patients), such as angiotensinogen, complement factor 3 and epidermal growth factor, were also shown to be significantly differentially abundant between cohorts.
Conclusions: Proteomics analysis revealed multiple pathways of interest to guide therapeutic targeting and improve the understanding of IgAV progression to IgAVN. Use of urine provided greater depth of proteomic insight than serum and therefore is recommended for future studies. Proteins highlighted by both this study, and IgA nephropathy research should be further evaluated to try and reduce the gap between paediatric and adult research.

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Ten-year epidemiology of glomerulonephritis before and after COVID-19 pandemic in a single tertiary paediatric centre in the United Kingdom

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Kidney Pathology for the Generalist: Update on Podocytopathies, QUEENS SUITE 1, March 12, 2026, 14:00 - 15:30

Aims / Purpose:
Several glomerular diseases have been reported in adult studies to be associated with COVID-19 infection. The impact on different types of glomerulonephritis (GN) in childhood remains unclear. We describe the epidemiological differences across all biopsy-proven GN subtypes in a large paediatric nephrology unit, comparing the pre- and post-COVID-19 eras, as well as changes in management over time.

Methods:
This single-centre retrospective study included all the patients with childhood-onset (<18 years old) biopsy-proven glomerulonephritis. Patients' electronic records between 1 January 2015 and 31 December 2024 were reviewed and medical data were collected anonymously. We used 1 January 2020 as the dividing point to classify patients into pre-COVID-19 and post-COVID-19 subgroups. Frequency, demographic characteristics, and seasonal distribution of different GN subtypes were assessed and compared retrospectively using descriptive statistics. Chi square test was used to compare incidence rates of GN subtypes and management, with statistical significance, $P<0.05$.

Results:
A total of 205 GN cases were identified, 107 pre- and 98 post-COVID-19, with the majority of post-COVID-19 GN cases presenting in 2024 (N=27). The overall demographic distribution of GN was similar in both periods, with 54% pre- and 60% post- for females and 53% pre- and 50% post- for White British ethnicity. The age of presentation was similar pre- and post-COVID-19 pandemic, whereas there was a trend for a seasonal shift to winter months recorded, with 13 cases post- versus 6 pre-COVID-19 pandemic presenting in January ($p>0.5$) and 6 post- versus 16 pre-COVID-19 presenting in July ($p>0.5$).
The most frequent GN type in both eras was IgA Vasculitis Nephritis, with 24 [22%] and 18 cases [18%] respectively ($p=0.15$). During the post-COVID-19 period, there was a trend for increase in the number of post-infectious GN (from 3 to 7, $p=0.2$) and ANCA associated GN (from 6 to 11, $p=0.23$). With regards to unspecified immune mediated GN, the frequency went up from 7 pre- to 9 post-COVID-19 ($p>0.5$), with five of the post-COVID-19 cases presenting with nephrotic syndrome, hematuria and normal complement serology, following a presumed viral upper respiratory tract infection. Plasma exchange was used more frequently pre COVID-19 (6 versus 1, $p=0.06$). Whilst rituximab was used more frequently post COVID-19 (14 versus 26, $p=0.05$).

Conclusions:
The alteration in the seasonal pattern of GN post-COVID-19 may be influenced by both the pathogenic mechanisms of COVID-19 infection and social or environmental factors related to the post-pandemic era. Although not statistically significant, an increase in specific GN types, along with the development of a certain clinical phenotype associated with unspecified immune-mediated GN, is highlighted. These findings may indicate immune dysregulation related to COVID-19 infection, which has already been recognized in adult cohorts. Furthermore, a change in practice was noted with increased use of rituximab post pandemic ($p=0.05$) and lesser use of plasma exchange ($p=0.06$).

Future analyses incorporating vaccination and active infection data are required to explore the potential influence of COVID-19 infection on pediatric GN.

Mendelian disorders explain a minority of kidney stone disease cases

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Kidney Stones: Between a Rock and a Hard Case, HALL Q, March 12, 2026, 14:00 - 15:30

Background: The genetic contribution of monogenic disorders to kidney stone disease (KSD) is poorly understood. We investigated the role of rare variants in known KSD-associated genes in the UK Biobank.

Methods: We interrogated the 35-gene NHS Genomic Medicine Service "Nephrocalcinosis or Nephrolithiasis" panel (R256), for rare (minor allele frequency≤3%), pathogenic or likely-pathogenic variants (ACMG variant classification). We compared the prevalence of these variants in KSD cases and controls and calculated the number of KSD cases needed to test (NNTest) to identify any Mendelian diagnosis. Panel R256 includes SLC34A1 and SLC34A3. Variants in these genes are associated with hypophosphataemia and KSD; thus, we examined genotype-phenotype correlations to appraise the value of biochemical versus genetic testing in KSD.

Results: We identified 13,681 individuals with KSD and 455,614 controls. Under an autosomal-dominant model of inheritance, pathogenic or likely-pathogenic variants were present in 96/13,585=0.7% KSD cases versus 2,112/453,502=0.46% controls ($p=3.95x10^{-4}$) and NNTest was 132. KSD cases with SLC34A1 or SLC34A3 pathogenic or likely-pathogenic variants have lower serum phosphate than those without (SLC34A1-carriers: mean=1.03mmol/L, standard deviation (SD)=0.13 versus SLC34A1-non-carriers: mean=1.12mmol/L, SD=0.17, p=0.03; SLC34A3-carriers: mean=1.06mmol/L, SD=0.17 versus SLC34A3-non-carriers: mean=1.12mmol/L, SD=0.17, p=0.03). Using the lower limit of normal of theUK reference range for serum phosphate testing (0.8mmol/L) would detect 0/14 SLC34A1- and 4/47 of SLC34A3-genetically confirmed KSD cases in the UK Biobank.

Conclusions: Mendelian disorders account for a minority of KSD cases. Biochemical testing is insufficient to detect most monogenic KSD and we need more data to guide who to offer genetic testing to increase diagnostic yield.

Efficacy of avacopan therapy beyond 12 months in ANCA-Associated Vasculitis: Insights From Real-World Practice

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Journal Club Gold 2026, AUDITORIUM, March 12, 2026, 14:00 - 15:30

Background/Aims:
In the ADVOCATE phase 3 randomised, placebo-controlled trial in ANCA-associated vasculitis (AAV), avacopan was associated with superior sustained remission, improved eGFR and was glucocorticoid sparing at week 52. The impact of extending avacopan use beyond 52 weeks has not been evaluated in clinical trials.

Methods:
We performed a retrospective single-centre case series to assess the impact of avacopan continuation beyond 52 weeks. All patients completing 52 weeks of avacopan were identified from our hospital database, and MDT decisions to continue or discontinue at 52 weeks were recorded. For patients continuing avacopan beyond 52 weeks, clinical and laboratory data were extracted from electronic medical records.

Results:
Fifty-two patients completed a 52-week course of avacopan. Following MDT approval, 17/52 (33%) continued to receive avacopan beyond 52 weeks. Of these, 13/17 (76%) had chronic relapsing/refractory disease with severe multi-system involvement, with vasculitic manifestations including subglottic/endobronchial disease, orbital involvement, cavitating pulmonary lesions, pulmonary haemorrhage, myocarditis and glomerulonephritis. All 13 had had extensive prior exposure to immunosuppression (median 3 agents; range 1–8); 6/13 had received ≥8 g rituximab and 5/13 ≥8 g cyclophosphamide, 5/13 had been steroid-dependent for more than 5 years. Additional prior therapies included abatacept, adalimumab, alemtuzumab, infliximab and IVIG.

Reasons for continuing avacopan beyond 52 weeks were substantial benefit after refractory disease, ongoing active disease, ongoing glucocorticoid tapering, and potential for further improvement in renal parameters.

At the time of data capture, 15/17 had completed ≥ 18 months of avacopan; mean age 56.2 ±17.2 years; 9/15 (60%) male. Diagnoses were GPA in 8/15 (53.3%), MPA in 6/15 (40%), and dual anti-GBM/PR3-ANCA in 1/15 (6.6%). At avacopan initiation, 11/15 (73.3%) had chronic relapsing/refractory disease and 4/15 (26.7%) were newly diagnosed. Concomitant maintenance therapy during avacopan treatment was rituximab in 12/15, methotrexate in 1/15, IVIG in 1/15, prednisolone alone in 1/15.
Mean prednisolone dose decreased from 32.6 ± 23.8 mg/day at avacopan initiation to 9.3 ± 15.1 mg/day at 12 months and 3.3 ± 4.0 mg/day at 18 months. Patient not receiving glucocorticoids were 2/15 (13.3%) at avacopan initiation, 6/15 (40%) at 12 months and 8/15 (53.3%) at 18 months. In nine patients with baseline eGFR <90mL/min/1.73m², mean eGFR improved from 39.2 ± 21.2mL/min/1.73 m² at avacopan initiation to 46.11 ±20.55mL/min/1.73m² at 12 months and 48.0 ± 23.3mL/min/1.73m² at 18 months; urine ACR declined from 124.1 ± 98.7mg/mmol at baseline to 90.97 ±92.5mg/mmol at 12 months and 53.8 ± 79.2mg/mmol at 18 months. No unexpected safety events occurred.

Conclusion:

Extended use of avacopan beyond 52 weeks was associated with further glucocorticoid reduction, improved disease control, and renal benefit in this complex set of ANCA vasculitis patients.

Impact of histology on efficacy of sparsentan therapy in IgA nephropathy: central biopsy review of patients in the PROTECT trial

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Kidney Pathology for the Generalist: Update on Podocytopathies, QUEENS SUITE 1, March 12, 2026, 14:00 - 15:30

Background: In PROTECT, sparsentan (SPAR), a non-immunosuppressive, dual endothelin angiotensin receptor antagonist, resulted in significant reduction in proteinuria and preservation of kidney function when compared to irbesartan in adults with IgA nephropathy. Here we investigate the impact of biopsy histology of PROTECT participants on the clinical efficacy of SPAR.
Methods: Clinical sites provided biopsy slides or whole slide images from 107 participants for central review. Biopsy scoring was carried out on digital slides by a single pathologist who was blinded to clinical and treatment data. Fifteen histological data items were included in the analysis (Oxford Classification MEST-C scores, podocytopathic changes, continuous MEST-C data and vascular lesion scoring).
Results: Of 107 biopsies, 18 contained <8 glomeruli and were inadequate for MEST-C scoring. Of the remaining biopsies, 12% were scored M1, 22% E1, 80% S1, 23% T1, 4% T2 and 21% C1. The median (Q1, Q3) time from adequate biopsy to enrolment was 4 (1, 8) years; 30% of biopsies were performed within 12 months of study entry. Baseline (BL) estimated glomerular filtration rate (eGFR) was significantly lower in participants with T1/T2 vs T0. The % tubular atrophy/interstitial fibrosis and % of glomeruli showing segmental sclerosis showed a significant negative correlation with BL eGFR, while % of glomeruli showing endocapillary hypercellularity positively correlated with BL eGFR. The reduction in proteinuria at 36 weeks in participants treated with SPAR (n=47) was consistent across MEST-C scores or continuous histological data; participants showed treatment benefit in all groups (Figure 1).
Conclusion: While histological features are associated with BL eGFR and proteinuria, the therapeutic efficacy of SPAR is independent of biopsy findings, including the Oxford Classification MEST-C scores.

Achievement of Proteinuria Targets ≤0.4 g/g in Lupus Nephritis: A Post Hoc Analysis of the AURORA 1 Study of Voclosporin

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Nephrology Trials: Harnessing Clinical Study Groups and Networks, QUEENS SUITE 2, March 12, 2026, 14:00 - 15:30

Introduction:
Early proteinuria reduction following treatment initiation is associated with improved long-term kidney survival and overall mortality in lupus nephritis (LN). Guidelines define complete renal response (CRR) as Urine Protein-to-Creatinine Ratio (UPCR) <0.5–0.7 g/g after 12 months. However, studies demonstrate that significant histologic activity can persist even at UPCR levels <0.5 g/g. Even low proteinuria levels are linked to chronic kidney disease (CKD) progression and mortality. Therefore, lower UPCR targets may be clinically meaningful.

Voclosporin, a second-generation calcineurin inhibitor, is approved for the treatment of active LN, and voclosporin-based immunosuppressive regimens are recommended in recently updated treatment guidelines as an option for initial LN therapy. The 52-week, Phase 3 AURORA 1 study showed that the addition of voclosporin to low-dose glucocorticoids and mycophenolate mofetil (MMF) led to significantly greater and earlier reductions in proteinuria compared to treatment with low-dose glucocorticoids and MMF alone.

This post hoc analysis of AURORA 1 aimed to show that achieving UPCR <0.5 g/g is feasible and improved with voclosporin.

Methods:
Key inclusion criteria for the AURORA 1 study included biopsy-proven active LN, UPCR ≥1.5 g/g (≥2 g/g for Class V) and estimated glomerular filtration rate (eGFR) >45 mL/min/1.73 m². Participants received voclosporin (23.7 mg) or placebo twice daily, plus MMF (2 g/day) and low-dose glucocorticoids (intravenous methylprednisolone on Days 1 and 2 [total 1 g], followed by oral prednisone at a starting dose of 20–25 mg/day, tapered to ≤2.5 mg/day by Week 16).

Achievement of UPCR targets ≤0.4 g/g, ≤0.3 g/g, ≤0.2 g/g was assessed. Safety was assessed in participants achieving UPCR ≤0.4 g/g.

Results:
Nearly half (49.0%) of participants in AURORA 1 achieved a UPCR ≤0.4 g/g at least once during the 52-week study. In the voclosporin group, 109 (60.9%) achieved UPCR ≤0.4 g/g. In the control group, 66 (37.1%) participants achieved a UPCR ≤0.4 g/g (mean [SD] minimum, 0.18 [0.098] g/g).

The median time to UPCR ≤0.4 g/g for the voclosporin group was 7.0 months; a median time was not determinable for the control group as less than 50% achieved the endpoint within the study period (difference between groups hazard ratio [HR] 2.15; 95% confidence interval [CI] 1.58, 2.93; p<0.0001). Similar trends were observed regarding achievement of UPCR ≤0.3 g/g (HR 2.04; 95% CI 1.46, 2.84; p<0.0001) and UPCR ≤0.2 g/g (HR 2.04; 95% CI 1.40, 3.00; p=0.0002).

Adverse event rates were similar in both groups achieving ≤0.4 g/g (voclosporin, 89.9%; control, 83.3%); mean eGFR remained stable and within the normal range in both groups.

Discussion:
Nearly half of the AURORA 1 population achieved a UPCR ≤0.4 g/g at least once during the 52-week study, surpassing treatment targets recommended by current guidelines for the management of LN. A greater proportion of participants treated with voclosporin achieved UPCR ≤0.4 g/g and did so significantly earlier than control-treated participants, with comparable rates of adverse events. Participants achieving this target also demonstrated stable mean eGFR throughout the 52-week study. Findings suggest lower UPCR targets are feasible and improved with voclosporin-based therapy.

3D imaging and single-cell transcriptomics reveal downregulation of LYVE1 by lymphatics as a conserved feature of human and mouse polycystic kidneys

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BEST SCIENCE ABSTRACTS, KINGS SUITE, March 12, 2026, 14:00 - 15:30

Lymphatic vessels maintain interstitial fluid balance and regulate immune responses. Mutations in PKD1 and PKD2, the genes responsible for most cases of autosomal dominant polycystic kidney disease (ADPKD), also impair migration and vessel formation of lymphatic endothelial cells (LECs) in culture and in mouse models. However, the organisation and molecular phenotype of lymphatics in human ADPKD kidneys remain poorly defined.

We examined three-dimensional (3D) lymphatic architecture in five human ADPKD kidneys explanted to facilitate transplantation. Tissue was processed by wholemount immunolabelling for the lymphatic marker PDPN, optical clearing and lightsheet microscopy. In parallel, we analysed publicly available single-nucleus RNA sequencing (snRNA-seq) data, comparing 408 LECs from ADPKD kidneys with 50 control LECs using the Wilcoxon rank-sum test. To corroborate molecular findings at earlier disease stages, we applied our 3D imaging workflow to kidneys from the orthologous Pkd1RC mouse model and developed a camelid-derived single-domain antibody (nanobody) targeting the candidate glycoprotein LYVE1.

In all five human kidneys, 3D imaging revealed disorganised $PDPN^+$ lymphatic networks within the pericystic microenvironment. snRNA-seq analysis identified 185 differentially expressed genes (16 upregulated and 169 downregulated). Among these, LYVE1, critical for lymphatic trafficking of immune cells, was significantly downregulated ($\log_2$ fold-change = -3.03, adjusted $p = 3.70 \times 10^{-8}$). In 3-month-old Pkd1RC mice with established cysts but preserved kidney excretory function, immunolabelling with a newly generated LYVE1-specific nanobody confirmed reduced LYVE1 expression on kidney lymphatics ($p = 0.01$).

These results demonstrate that lymphatic vessels are a conserved feature of the cystic microenvironment in both human ADPKD and the Pkd1RC mouse model. In ADPKD, kidney lymphatics exhibit reduced LYVE1 expression, with putative consequences for immune cell trafficking. Crucially, LYVE1 loss precedes decline in kidney function in the cystic disease, supporting LYVE1 as a candidate therapeutic target in ADPKD.

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Pharmacodynamic effects of obinutuzumab on B cells and serological markers in patients with active lupus nephritis: results from a phase III trial

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Nephrology Trials: Harnessing Clinical Study Groups and Networks, QUEENS SUITE 2, March 12, 2026, 14:00 - 15:30

Background: Lupus nephritis is marked by kidney inflammation and damage. Obinutuzumab, a type II CD20 antibody demonstrated effective B-cell depletion, reduced serum anti-double-stranded DNA (anti-dsDNA) antibodies and increased complement C3 and C4 levels in the NOBILITY (NCT02550652) trial. The Phase III REGENCY trial (NCT04221477) of obinutuzumab plus standard therapy in patients with LN demonstrated significant improvement in complete renal response and an acceptable safety profile. Exploratory analyses of B-cell populations and serological markers were performed for the REGENCY trial.

Methods: Adults with active lupus nephritis received placebo or obinutuzumab plus standard therapy. Peripheral B cells and B-cell subsets were assessed using validated high-sensitivity flow cytometry (HSFC) assays minimal residual B-cell panel (MRB)1.1 and BCP2.2. The lower limit of quantification (LLOQ) of CD19+ B cells by MRB1.1 is 0.441 cells/µL. Complement and anti-dsDNA antibody levels were measured by nephelometry and enzyme-linked immunosorbent assay. Peripheral B-cell and serum biomarker assessments were performed at Weeks 0, 4, 12, 24, 50 and 76.

Results: Baseline biomarker levels were comparable between arms and no patient had B-cell levels below LLOQ. At Week 4, mean total CD19+ B-cell levels were reduced with obinutuzumab (mean cells/µL [SD]: 4.7 [45.6], −99.8 median % change from baseline) vs placebo (mean cells/µL [SD]: 317.8 [338.5], −4.2 median % change) and remained low up to Week 76 (Figure 1A). Similar decreases in B-cell subsets were observed with obinutuzumab vs placebo from Week 4-76 (Figures 1B-D). Obinutuzumab treatment also showed greater reductions in anti-dsDNA antibody levels and increases in complement C3 and C4 vs placebo. In patients with abnormal baseline serologies, higher normalisation rates for C3 (43% vs 14%), C4 (70% vs 39%) and anti-dsDNA antibody levels (45% vs 11%) were observed at Week 12 vs placebo, which were sustained or further improved through Week 76, with normalisation rates of 62% vs 29% for C3, 88% vs 55% for C4 and 56% vs 16% for anti-dsDNA antibody levels at Week 76 (Table 1).

Conclusion: Obinutuzumab plus standard therapy induced rapid and sustained depletion of total peripheral CD19+ B cells and B-cell subsets in patients with active lupus nephritis. Obinutuzumab treatment demonstrated increases in serum C3 and C4 levels and reductions in anti-dsDNA antibody levels over placebo in all patients. Among patients with abnormal baseline marker values, obinutuzumab led to earlier and greater normalisation rates vs placebo. These data suggest that deep B-cell depletion with obinutuzumab contributes to the observed improved clinical responses.

TTV viral load predicts both rejection and opportunistic infection after kidney transplantation

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Tubulophiles Unite! Celebrating the Nephron's Unsung Hero, QUEENS SUITE 3, March 12, 2026, 14:00 - 15:30

Introduction

Torque teno virus (TTV) is emerging as a biomarker for immune monitoring after organ transplantation. We evaluated the role of TTV as a biomarker for immunocompetence by relating serial TTV levels to rejection and infection outcomes.

Method

In the single-centre TTV: A Biomarker for Immunosuppression study, 268 kidney recipients had TTV DNA quantified at protocol weeks 0, 2, 4, 6, 8, 12, 18 and 24 (log copies/ml; serum pre-transplant, plasma post-transplant). We fitted mixed-effects logistic models to account for repeated measures and, and as sensitivity analyses, simple logistic models for three outcomes: biopsy-proven rejection, any infection, and opportunistic infection. Effects are reported as odds ratios (OR) per 1-$\log_{10}$ TTV with 95% CIs. Model performance was assessed with AUC and net reclassification improvement (NRI). Results are displayed as forest plots.

Results

Cohort summary: median age 52.2 years (IQR 18.8); 59% male; ethnicity—White 26.1%, South Asian 25.7%, Afro-Caribbean 24.6%, Other/Unknown 23.5%. ESKD aetiology included diabetes 20.5%, immune-mediated (non-IgA) 18.7%, structural/urological 11.9%, IgA nephropathy 11.6%, cystic disease 8.2%, infection/malignancy/recurrent disease 4.1%, hypertension/vascular/unknown 25%. Pre-transplant diabetes was present in 28%; 16.8% received a pre-emptive transplant.

Higher TTV associated with lower odds of rejection in mixed-effects models (univariable OR 0.60, 95% CI 0.45–0.80; multivariable OR 0.72, 0.53–0.97). In simple logistic models, the association was not significant after adjustment. In the multivariable mixed effect model (MMM), each log increase in TTV viral load was associated with 28 % reduction in the risk of rejection.

In simple logistic models, TTV was not independently associated with infection. In mixed-effects models, a positive univariable association (OR 1.14, 1.06–1.23) attenuated after adjustment (OR 1.04; $p>0.05$).

TTV was a strong positive predictor in mixed-effects models (univariable OR 1.54, 1.30–1.82; multivariable OR 1.23, 1.04–1.44). In simple logistic models, the adjusted effect was not significant. In the MMM, every log increase in TTV viral load increased the odds of opportunistic infection by 23 %.

Discussion

Serial TTV behaves like an immune thermometer: higher titres associate with lower rejection and higher risk of opportunistic infection, independent of clinical covariates. These signals are strongest when longitudinal correlation is modelled in mixed-effects models, suggesting individual trajectory matters more than a single "target" value. These opposing gradients support TTV viral load as a biomarker of the net immunosuppressive effect. On top of routine clinical predictors, TTV's independent predictive contribution is modest, so its value is in contextualising immunosuppression rather than serving as a stand-alone risk score.

Limitations of the study include single-centre design, observational analyses with potential residual confounding, and incomplete pairing across visits.

Conclusion

Serial TTV viral load provides a single, patient-level signal of immunosuppressive burden, with opposing risks for rejection and opportunistic infection. Mixed-effects modelling supports TTV as a useful adjunct for interpreting immunosuppressive burden and guiding early monitoring. A randomised multicentre trial testing individualised TTV-guided immunosuppression is warranted.

Exploring weight stigma of healthcare providers in the United Kingdom towards people living with obesity.

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Kidney Stones: Between a Rock and a Hard Case, HALL Q, March 12, 2026, 14:00 - 15:30

Introduction

Weight stigma is a pervasive issue in healthcare, adversely impacting access to care, patient engagement, and the quality of the patient-practitioner relationship. Despite its broad implications, there is currently limited awareness of weight stigma within kidney healthcare providers. This study aimed to address this knowledge gap by investigating explicit weight stigma among UK kidney healthcare providers, specifically towards patients living with obesity.

Methods

A national UK prospective cross-sectional survey was conducted of UK kidney centres between July 2024 to December 2024, using purposive and snowball sampling. Inclusion criteria were that participants were healthcare providers at a general nephrology and/or kidney transplant centre within the UK and aged between 18 to 70 years. Weight stigma was measured using the Fat Phobia Scale – short form (F-Scale), a 14-item measure of explicit weight bias. Average scores for the 14 items were calculated (1 to 5), scores of 2.5 indicating a neutral attitude, scores >2.5, a negative attitude and scores <2.5 indicated a positive attitude.

Results

Two hundred and twenty-seven participants responded to the survey (female [77.5%], mean age 44.6 years [standard deviation (SD) 10.5]; White ethnicity [81.9%]; median 15.0 years [interquartile range (IQR) 6.0, 20.4] since registration).

Overall participants reported explicit weight bias attitudes, with a mean F-Scale of 3.42 (SD 0.46). Nearly all participants (99.5%) showed negative attitudes towards people living with obesity, with over a third (35.7%) having moderate or high fat phobia (31.4% and 4.3%, respectively).

Multivariable linear regression analysis showed that ethnicity and professional role were predictors of the F-scale ($p=0.007$ and $p < 0.001$, respectively). People from ethnic minority groups have a 0.22 (95% CI 0.06 to 0.38) higher F-Scale compared to those from white ethnicity. Allied health professionals (AHPs) have lowest fat phobia, with a -0.22 lower F-Scale (95% CI -0.38 to -0.05) compared with nephrologists. Surgeons, and other professionals had a lower fat phobia compared with nephrologists (-0.10; -0.16 F-scale respectively), and kidney nurses had the highest, with a 0.18 higher F-Scale (95% CI –0.00 to 0.36), though these were not statistically significance

Discussion

This represents the first UK study to examine weight stigma among kidney healthcare providers, revealing the presence of stigmatising attitudes towards people living with obesity and kidney failure receiving haemodialysis. These attitudes have significant implications for clinical care, potentially limiting referrals to obesity management services, compromising equitable access to kidney transplantation, and undermining the quality of patient-practitioner interactions. The findings underscore an urgent need to recognise and address weight stigma within UK kidney services and to develop and implement targeted interventions aimed at reducing its potential impact on patient care.

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Changing Epidemiology of Anti-Glomerular Basement Membrane Disease

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Seeing Is Believing: How Advanced Imaging Is Shaping the Future of Nephrology, HALL D, March 12, 2026, 14:00 - 15:30

Background/Aims:
Anti-GBM disease is rare. Dual anti-GBM and ANCA-positivity is observed in about a third of cases; 70-80% historically were MPO-ANCA. With increasing availability of highly sensitive serological assays, more low-titre or false-positive anti-GBM antibody results are being reported.

Methods:
Case series assessing all new first positive anti-GBM results (January 2017 and July 2025) identified from a central immunology database and measured using the EliA fluoroenzyme immunoassay (Phadia 2500/5000) with recombinant human α3(IV) collagen; clinical and laboratory and data were obtained from electronic health records.

Results:
159 patients had at least one positive anti-GBM antibody titre; 72 (45.3%) had confirmed anti-GBM disease (54% (n=39) confirmed on biopsy and the remainder had a consistent clinical phenotype and were treated); 72 (45.3%) did not have confirmed disease. 15 (9.4%) were excluded due to insufficient data. In seropositive patients without anti-GBM disease (n=72), false positives were linked to recent aortovascular/valvular pathology or intervention (n=20), bland urinary sediment with preserved renal function (n=15), ≥4 additional autoantibodies (n=30), and alternative biopsy findings (n=21); categories were not mutually exclusive, and counts reflect available data.

Of 72 patients with anti-GBM disease, 49% (n=35) were female, median age 64 years and 32% (n=23) were ANCA-positive; 18% (n=13) PR3-ANCA and 14% (n=10) MPO-ANCA. More than half of PR3-positive cases were diagnosed from 2024 onwards (54%, n=7). Between 2017-2023, 49 cases were diagnosed (median 7 annually, range 5–9). However, in 2024, 10 cases were observed and in the first 7 months of 2025, 13 cases have already been identified. Median serum creatinine at presentation was 700µmol/litre (range 35-3494µmol/litre). Pulmonary haemorrhage occurred in 26% of cases (n=19). A smoking history was documented in 53% (n=38).

Conclusion:
False-positive anti-GBM antibody results, due to non-specific multiple auto-antibody binding, are increasingly recognised, highlighting the need to interpret serology within the clinical context. Our findings may indicate rising incidence of anti-GBM disease and a greater proportion associated with PR3-ANCA.

Podocytes express Tau which becomes detrimentally upregulated and hyperphosphorylated in diabetes.

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BEST SCIENCE ABSTRACTS, KINGS SUITE, March 12, 2026, 14:00 - 15:30

Introduction
Pathological accumulation and hyperphosphorylation of Microtubule Associated Protein Tau (MAPT) in neurones is a hallmark of Alzheimer's Disease. There is a strong clinical association between diabetes mellitus, chronic kidney disease and proteinuria with Alzheimer's and we hypothesized that accumulation and hyperphosphorylation of this protein in neurons and podocytes represents a common molecular link between these conditions.

Methods
Transgenic mouse and drosophila models along with in vitro human cell culture studies were used to investigate the effect of tau expression on podocyte/nephrocyte function.

Results
Initial work revealed exclusive podocyte expression of tau in glomeruli. Proteomic and RNA Sequencing data demonstrated a significant increase in tau expression in podocytes cultured in insulin resistant conditions. This was mirrored in glomeruli from native American early-stage diabetic patients where tau mRNA levels negatively correlated with GFR. Furthermore, immunohistochemical analysis of kidney biopsies from diabetic patients indicated increased phosphorylation of tau compared with controls.
Diabetic db/db mice with podocyte-specific expression of human tau developed significantly more severe albuminuric renal disease by 12-16 weeks of age than db/db littermate controls, associated with tau phosphorylation. Nephrocyte-specific expression of human tau in drosophila was also highly detrimental, causing significant loss of nephrocyte number by 7 days and reduced nephrocyte function as assessed by silver nitrate uptake survival assays. This was exacerbated by diabetes.
Overexpression of tau in cultured human podocytes resulted in a significant 33% cell loss, together with reduced cell motility compared with controls. Unbiased proteomic analysis predicted mitochondrial dysfunction as a key driver of pathology. Further investigation revealed that tau over expressing cells had smaller mitochondria with altered morphology and abnormal perinuclear accumulation. Analysis of key mitochondrial functional parameters using a Seahorse flux analyser showed reduced basal respiration, maximal respiration and spare respiratory capacity in these cells compared to wild-type podocytes.

Discussion
In summary, podocyte tau is overexpressed and hyperphosphorylated in diabetes and this is detrimental to renal function revealing a novel potential role for this protein in the pathogenesis of diabetic nephropathy.

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Bioimpedance guided fluid management in clinical practice: audit of measurement frequency, clinical decision-making and outcomes

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Seeing Is Believing: How Advanced Imaging Is Shaping the Future of Nephrology, HALL D, March 12, 2026, 14:00 - 15:30

Introduction

Fluid status is associated with mortality and morbidity in haemodialysis (1), although optimising target weight (TW) remains challenging. The Body Composition Monitor (BCM) uses bioimpedance to estimate fluid status and can support TW prescription. Leeds Teaching Hospital NHS Trust was an early adopter of the BCM which has been used routinely for nearly 20 years. This retrospective study aimed to review the current use of BCM in the haemodialysis service.

Methods

This audit analysed data from the renal unit IT system (Vitaldata), including all BCM results from patients on haemodialysis over the last two years (n=4206). To investigate the consistency by which BCM are conducted, we compared the proportion of patients who had a BCM assessment within a 6-month period from each centre. To consider whether the frequency of BCM was similar across the population, we used logistic regression to look for associations between BCM assessment and age, sex, ethnicity and BMI.
To evaluate the impact of BCM assessments on clinical decision-making, we looked for changes in TW within two weeks of all BCM measurements. The direction of change in TW (increase, decrease, or no change) was compared with the euvolemic weight suggested by BCM. Based on concordance between clinician-set TWs and BCM recommendations, six comparison groups were defined. We examined whether haemodynamic variables, namely pre-dialysis systolic blood pressure (SBP) and intradialytic hypotension (IDH), varied across these six groups. Changes in SBP and IDH were assessed by comparing the month before and after BCM assessment.

Results

There was considerable variation across the eight centres, with a mean of 69% (range 46-85%) patients having a BCM in a 6-month period. There was no association between age, sex or ethnicity and having a BCM measurement, but individuals with a BMI > 40kg/m2 were half as likely to have had a measurement in the last 6 months (odds ratio 0.5; 95% CI 0.3-0.8).
Following BCM measurement, 67% of cases had a change in TW, with 7% of changes disagreeing with BCM-estimated euvolemic weight. TW achievement was similar across groups (range 64-68%), regardless of direction or consistency with BCM. Statistically significant differences were observed in pre-dialysis SBP when TW was changed in agreement with BCM. IDH event frequency reduced significantly when TW decreased in agreement with BCM (Table 1).

Discussion

BCM is widely used in our haemodialysis service across age, sex and ethnicity. Over two-thirds of patients are having at least 6-monthly BCM, although frequency varied considerably between centres – likely reflecting differences in expertise, resources or the use of alternative diagnostics. The validity of the BCM has been questioned at extreme BMI (2) and we found less frequent measurement at high but not at low BMI. In the majority of cases, TW was changed following BCM measurement, and TW changes contrary to BCM-estimated euvolemic weight were uncommon, suggesting that BCM is

influencing clinical decision-making. Supporting existing literature (3), we observed SBP changes consistent with BCM-directed TW change, and a significant reduction in IDH when TW was decreased in line with BCM.

Targeting fibronectin RNA splicing in human proximal tubule epithelial cells and a mouse model of aristolochic acid nephropathy

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BEST SCIENCE ABSTRACTS, KINGS SUITE, March 12, 2026, 14:00 - 15:30

ABSTRACT BODY:
Background: EDA+ isoform of fibronectin (Fn) is overexpressed in tissue injury and fibrosis. In this work we evaluate the efficacy of RNase H independent 'splice switch' antisense oligonucleotides (ASO) designed to block EDA exon inclusion in an in vitro model of human proximal tubule epithelial cells and in vivo model of aristolochic acid nephropathy (AAN).
Methods: Experimental Conditions:
PBS, Negative control ASO (NC-ASO), Targeting ASO (T- ASO)- Designed to block 'splicing in' of EDA exon.
In Vitro: EDA Fn expression in basal conditions and in response to TGFβ1 was assessed by RT-PCR and Western blotting. Cells were transfected with 100nM NC or T-ASO to assess the efficacy of targeting ASO.
In Vivo: CD1 mice aged 8-10 weeks were injected with IP AA 3.5mg/kg on days 1 and 5 followed by SC PBS (n=6) or 50mg/kg NC-ASO (n=12) or T-ASO) (n=12) injections at D -1 and 3 and then twice weekly for the first three weeks; followed by weekly until cull at day 96.
Kidneys were subjected to RNA extraction and RT PCR for target genes, bulk RNA sequencing (Illumina NextSeq platform), histopathological and immunohistochemical (IHC) analysis of EDA+ Fn staining. Sections stained with EDA+ Fn antibody were imaged with Elyra 7 super-resolution microscope, acquired under Widefield (WF) mode with brightfield illumination. To quantify stains in whole slide images, we employed colour deconvolution to isolate the Hematoxylin (H, nucleus) and DAB (D) components, annotated entire kidney sections and cortex only, expressed stain quantification as D(DAB-Brown=EDA Fn)/ B (Haematoxylin=Blue=Nuclear stain) ratio.
Results: Targeting antisense oligonucleotides designed to block EDA exon inclusion in fibronectin pre mRNA were
effective in reducing the amount of TGFβ1 -induced cellular EDA + fibronectin RNA and secreted EDA +
fibronectin protein (assessed by western immunoblotting and immunocytochemistry) in human proximal tubule
cells in an in vitro cell culture model. The effect was selective for EDA + exon with no effect on EDB + fibronectin
RNA and total fibronectin mRNA. TGFβ1-induced pro-fibrotic events were attenuated by targeting ASO designed to block EDA inclusion.
AA induced tubular injury and mild fibrosis with significant increases in EDA+ mRNA and protein at D96 compared to D0.
1.RT-PCR: Compared to D0, there was a significant increase in EDA+/EDA- RNA ratio in early ($P<0.0001$) and late ($P<0.01$) time points. D96-Significant upregulation ($P<0.01$) of EDA+Fn, TGFbeta1, LTBP1, αSMA, MMP2, MMP9, col1a1. T-ASO reduced EDA+ mRNA compared to NC ASO and PBS (Vs D0, $p<0.01$) along with reductions in TGF β1 & LTBP1 ($P<0.01$).
2. RNAseq: Analyses of DEGs (T ASO Vs NC ASO) demonstrated significantly reduced expression of genes associated with inflammation, immunity and phagocytosis with upregulation of genes associated with organic anion transport and fatty acid metabolism.
3. IHC: 58% increase in EDA+ Fn in C ASO compared to D0($P<0.001$). 32% ($P<0.0001$) reduction in EDA+ staining by T-ASO compared to NC-ASO treated mice.

Conclusion: Pro-fibrotic EDA+Fn production and deposition is inhibited by ‘splice switch’ ASOs in human PTECs and in a mouse model of AA induced tubular injury and early fibrosis.

Integrin alpha1 beta1 promotes cyst growth and interstitial fibrosis in a mouse model of polycystic kidney disease

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BEST SCIENCE ABSTRACTS, KINGS SUITE, March 12, 2026, 14:00 - 15:30

Background: Autosomal dominant polycystic kidney disease (ADPKD) is the most common potentially lethal inherited disorder, affecting approximately 1 in 1,000 individuals worldwide. Disease progression is relentless: by age 60, nearly 50% of patients require dialysis or kidney transplantation, and ADPKD accounts for about 10% of all kidney transplants. Tolvaptan, the only approved therapy, slows cyst expansion but does not prevent kidney failure. Additional treatments are urgently needed. Our work focuses on integrins, a family of heterodimeric cell-surface receptors formed from 18 α- and 8 β-subunits that assemble into 24 unique integrin receptors. Integrins mediate interactions between cells and the extracellular matrix (ECM) and regulate key processes such as proliferation, survival, and differentiation. We identified integrin α1β1 as a potential driver of ADPKD progression.

Methods: To explore ECM remodelling during disease, we applied mass spectrometry–based proteomics to kidneys from Pkd1nl/nl mice, a model of ADPKD, and age-matched controls. Analyses were performed at postnatal day 1 (P1) and P28 to capture temporal changes. We complemented proteomics with single-cell RNA sequencing (scRNA-seq) and immunofluorescence to map expression of integrin α1. Finally, we generated a double-mutant line (Pkd1nl/nlItga1-/-) to define the functional role of integrin α1 in vivo.

Results: Proteomics revealed no overt fibrosis or abnormal ECM deposition in P1 kidneys. By P28, however, Pkd1nl/nl kidneys showed extensive ECM accumulation and upregulation of fibrosis-associated proteins, including Acta2, Lcn2, Serpine1, and Postn. Strikingly, integrin α1 was strongly upregulated at this stage, alongside other cell–matrix adhesion receptors. Integrin α1 has not previously been implicated in ADPKD.
In human kidney biopsies, integrin α1 localized to interstitial mesenchymal cells in both healthy and ADPKD tissue. scRNA-seq confirmed that expression was restricted to fibroblasts and myofibroblasts, cell types central to fibrosis and cyst expansion.
Functional analysis in Pkd1nl/nlItga1-/- mice revealed marked protection compared with Pkd1nl/nl animals. Double mutants exhibited reduced kidney weight, smaller cysts, and improved kidney function as measured by blood urea nitrogen (BUN). Histological analysis showed significantly less interstitial fibrosis, with αSMA staining demonstrating a striking reduction in myofibroblast numbers. Loss of integrin α1 also suppressed proliferation across multiple kidney cell types. PCNA staining revealed reduced fibroblast and myofibroblast proliferation, while phospho-ERK analysis showed decreased MAPK signalling and proliferation in cystic epithelial cells. These findings suggest that integrin α1 drives both fibroblast activation and epithelial proliferation, thereby amplifying fibrosis and cyst growth.

Conclusion: Our study identifies integrin α1 as a previously unrecognized regulator of ADPKD progression. Its loss mitigates fibrosis, cyst expansion, and kidney dysfunction in vivo by suppressing proliferative signalling in both fibroblasts and epithelial cells. These results highlight integrin α1 as a promising therapeutic target with dual anti-fibrotic and anti-cystic potential.

Improving end of life prescribing in advanced CKD: A renal-adjusted anticipatory medication orderset

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Challenges in the Delivery of Renal Care in DGHs, HALLQ, March 12, 2026, 15:30 - 16:30

Introduction

Anticipatory medications are crucial for symptom control and patient comfort at the end of life. In patients with significant renal impairment (eGFR <30), doses must be reduced and intervals prolonged due to reduced renal clearance. Incorrect dosing can cause drug toxicity, over-sedation, respiratory depression, and increased suffering. Accurate prescribing is therefore critical to prevent patient harm. Despite national and local guidelines, our trust showed inconsistent application and errors in renal-adjusted prescriptions. Our Quality Improvement Project aimed to improve prescribing accuracy for patients with eGFR <30, targeting <10% of incorrect prescriptions according to our local trust guidelines.

Methods

We used a Plan-Do-Study-Act (PDSA) method for quality improvement. We collected baseline data retrospectively from electronic patient records and the electronic prescribing system (ePMA) from July to September 2023 across three renal wards within our Trust. We subsequently consulted with the Renal, Palliative Care and Pharmacy teams to create and incorporate a renal-adjusted anticipatory medication orderset into ePMA as our intervention.

The orderset included pre-selected drug choices, pre-populated doses adjusted for renal function and indication for medication based on Trust guidelines as follows:
1. Morphine Sulphate 1-2mg SC PRN 1 hourly, max 12 doses/24 hrs (pain)
2. Midazolam 1mg SC PRN 1 hourly, max 12 doses/24 hrs (agitation)
3. Glycopyrronium 200mcg SC PRN 2 hourly, max 6 doses/24 hrs (respiratory secretions)
4. Levomepromazine 2.5mg SC PRN 2 hourly, max 6 doses/24 hrs (nausea and vomiting)

The orderset was approved by the local Governance team and Medicines Management Group and became live in March 2024. Communication was provided to prescribers within the Trust to ensure awareness. Post-intervention data was collected between March and June 2025.

Results

Our baseline data found 19 patients with an eGFR <30 were prescribed anticipatory medications. The mean eGFR was 13.9. A total of 66 anticipatory medication prescriptions were made during this time period. 63.6% of prescriptions were incorrect in either dosing, frequency or maximum dose per 24 hours. Morphine sulphate was the most common anticipatory medication prescribed, accounting for 27.3% of all prescriptions. The anticipatory medication associated with the highest proportion of errors was Glycopyrronium, of which 76.5% of prescriptions were incorrect.

Post intervention, 22 patients with eGFR<30 were prescribed anticipatory medications with a mean eGFR of 13.5. A total of 90 anticipatory medication prescriptions were made during our data collection period. The proportion of incorrect prescriptions decreased to 8.9% following orderset implementation, of which Glycopyrronium accounted for only 4.5% of incorrect prescriptions.

Discussion

Embedding a renal-adjusted anticipatory medication orderset into our electronic prescribing platform led to a marked improvement in prescribing accuracy. Our project highlights that integrating guidance directly into prescribing systems is a significantly more effective strategy than

relying on prescriber recall or external reference documents. The pre-populated orderset standardised practice, reduced variability across clinicians of different experience levels, and required minimal additional training, thus facilitating rapid adoption on the renal wards. Future efforts will focus on clinician awareness and education, with subsequent data re-analysis to ensure sustainable change is maintained.

Age and Frailty Drive Mortality Risk in Acute Kidney Injury Requiring Haemodialysis: A Survival Analysis

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Kidney Replacement Therapy: From the Cradle to the Grave, QUEENS SUITE 1, March 12, 2026, 15:30 - 16:30

Background: Acute kidney injury (AKI) represents a significant healthcare burden, affecting nearly 600,000 people annually in England. UK Renal Registry data reveals AKI is associated with poor survival outcomes, with 30-day mortality ranging from 13% for stage 1 to 35% for stage 3 AKI. AKI requiring hemodialysis (AKI-D) represents the most severe spectrum, with UK studies reporting mortality rates exceeding 50% and costs of £434-620 million annually to the NHS. However, limited contemporary national data exists analyzing outcomes in the AKI-D population and associated risk factors. We aimed to identify key predictors of mortality, specifically examining correlations with age, frailty scores, and comorbidities, while analyzing time-specific mortality at 30, 60, 90, and 180 days.
Methods: We conducted a retrospective cohort study of all patients with AKI-D at Peterborough City Hospital over a 2-year period (2023-2025). Patients with pre-existing end-stage kidney disease were excluded. Primary endpoints were 30-day, 60-day, 90-day and 180-day mortality. We assessed associations with age, gender, frailty (Clinical Frailty Scale), and comorbidities including heart failure (HF), ischemic heart disease (IHD), and chronic kidney disease (CKD). Statistical analysis included Kaplan-Meier survival curves, Cox proportional hazards regression, and hazard ratios with 95% confidence intervals to evaluate the impact of all risk factors.
Results: Eighty AKI-D patients were identified over a two year period (mean age 68.2±15.4 years, 63.7% male). Overall mortality was 57.5% (46/80 patients). Time-based mortality rates were: 30-day 23.8%, 60-day 30.0%, 90-day 32.5% and 180-day 43.8%. Early mortality predominated, with the majority of deaths occurring within 6 months. Age emerged as a strong predictor of mortality. Patients aged 65-79 years (n=31) had 58.1% mortality, while patients ≥80 years (n=21) experienced 71.4% mortality. Frailty demonstrated an even stronger dose-response relationship with mortality. Low frailty patients (CFS 1-3, n=33) had 36.4% mortality, moderate frailty patients (CFS 4-5, n=38) had 65.8% mortality, while high frailty patients (CFS 6-7, n=9) experienced 77.8% mortality. Cox regression analysis revealed significant hazard ratios for: age ≥80 versus <65 years (HR 1.67, 95% CI 0.78-3.56), and most notably, CFS 6-7 versus 1-3 emerged as the strongest predictor (HR 2.26, 95% CI 0.94-5.44, p=0.068). Traditional comorbidities including heart failure (HR 1.06) and chronic kidney disease (HR 1.04) showed minimal association with mortality.
Conclusions: Our 23.8% 30-day mortality aligns closely with national NHS data and international literature reporting 25-35% mortality in AKI-D cohorts. The overall 57.5% mortality is consistent with UK studies demonstrating >50% mortality in dialysis-requiring AKI. Clinical Frailty Scale emerged as the strongest mortality predictor, surpassing traditional comorbidity measures. The combination of advanced age (≥80 years) and significant frailty (CFS ≥6) creates an ultra-high risk profile warranting careful prognostic consideration. These findings emphasize the critical importance of early, honest discussions with patients and families regarding realistic outcomes, incorporating age and frailty assessment into treatment planning. For highest-risk patients, timely consideration of palliative care approaches alongside supportive measures may be more appropriate than aggressive interventions.

The role of awareness campaigns in reaching those living with undiagnosed chronic kidney disease

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UneXplained CKD (CKDx): What You Need to Know, KINGS SUITE, March 12, 2026, 15:30 - 16:30

Introduction
One million people in the UK live with undiagnosed chronic kidney disease1 (CKD). Despite kidney disease killing more people than breast cancer or prostate cancer there is a woeful lack of awareness, and without action, CKD will be the fifth leading cause of premature death from non-communicable diseases worldwide by 20402.

Objectives
We developed an awareness campaign to celebrate the vital role kidneys play; to raise awareness of kidney disease; to empower people to identify their risk of CKD via our online Health Checker; to support people to reduce their risk; and to actively participate in their health.

Methods
The campaign started with an initial launch period, centred around online and social media promotion, out of home posters with QR codes in relevant locations with longer dwell times (service centre and shopping centre washrooms in areas of higher deprivation or prevalence of CKD risk factors). This was followed up by frequent sustained periods of promotion and profile raising via media and social media. Following significant support we also started working more closely with healthcare professionals, kidney networks and policymakers to amplify the campaign.

Results
At the time of submission:
- Almost 250,000 people have completed the online Health Checker.
- Approx 50% identified as being at increased risk.
- Most common primary risk factor identified: high blood pressure
- Most common secondary risk factor identified: frequent NSAID use.
- 3,000 scans of QR codes on posters.
- 300+ pieces of media coverage.
- Over 20 presentations given to NHS stakeholder groups, politicians and partners.

Discussion
The success of the campaign shows an appetite to raise awareness of the importance of kidney health and active participation in reducing risk. Some of those who completed the Health Checker have already confirmed they have received a CKD diagnosis. This demonstrates the power an awareness campaign can have in changing behaviour, helping raise awareness, and empowering people to engage with their kidney health. Future development will focus on how we can reach more people in at risk groups, and other ways we can work with networks, pharmacies and partners to reach and engage with the missing million currently living unknowingly with CKD.

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Determinants of progression to kidney failure or death among an ethnically diverse, high-risk CKD population in the UK: Results from a 10-year prospective cohort study

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Challenges in the Delivery of Renal Care in DGHs, HALLQ, March 12, 2026, 15:30 - 16:30

Introduction:
Patients with advanced or rapidly progressive CKD face competing risks of kidney failure and premature death, yet long-term outcomes remain poorly described in high-risk prospective cohorts. We aimed to identify key determinants of these outcomes in an ethnically diverse UK population.

Methods:
In 2010 we established the Renal Impairment in Secondary Care (RIISC) study, a 2-centre prospective study, recruited from a multi-ethnic population with high socio-economic deprivation. Unlike other CKD cohort studies, the recruitment criteria were designed to enrol those at high risk of progression to kidney replacement therapy (KRT). Accordingly, we prospectively followed 930 participants with stage 4–5 CKD, or stage 3 CKD with a decline in eGFR of ≥5 mL/min/year or ≥10 mL/min/5 years, or urinary albumin:creatinine ratio (uACR) ≥70 mg/mmol.

Extensive baseline clinical, demographic, socioeconomic, quality of life, and laboratory data were collected. Predictors of progression to KRT and death before KRT were analysed using Cox proportional hazards models, with follow-up until KRT, death, or study end.

Results:
Participants had a median age of 65 years [IQR 52–76]; 61% were male; 68% White, 22% South Asian, and 9% Black; and 47% were in the most deprived IMD quintile. Median baseline eGFR was 30 mL/min/1.73 m² [IQR 22–42] and uACR 34 mg/mmol [IQR 7–133].

Over 10 years, 435 participants (47%) commenced KRT. Independent predictors of progression included younger age (HR 0.96 per year, 95% CI 0.95–0.97, p<0.001), male sex (HR 2.02, 95% CI 1.54–2.65, p<0.001), Black ethnicity (HR 1.89, 95% CI 1.29–2.76, p<0.001), polycystic kidney disease (HR 4.07, 95% CI 2.31–7.18, p<0.001), higher systolic blood pressure (HR 1.01 per mmHg, 95% CI 1.01–1.02, p<0.001), lower eGFR (HR 0.93 per mL/min/1.73 m², 95% CI 0.92–0.94, p<0.001), and higher uACR (HR 1.004 per mg/mmol, 95% CI 1.003–1.004, p<0.001).

A further 324 participants (35%) died before KRT. Independent predictors of mortality were older age (HR 1.06 per year, 95% CI 1.04–1.07, p<0.001), lower eGFR (HR 0.98 per mL/min/1.73 m², 95% CI 0.97–0.99, p<0.001), higher uACR (HR 1.001 per mg/mmol, 95% CI 1.000–1.003, p=0.032), and greater comorbidity burden (malignancy HR 1.42, 95% CI 1.05–1.92, p=0.024; peripheral vascular disease HR 1.78, 95% CI 1.22–2.59, p=0.03). South Asian ethnicity appeared protective in univariate analysis but was not significant in multivariable analysis.

At 10 years, only 19% of the cohort were alive without KRT.

Conclusion: In this high-risk CKD cohort, both progression to KRT and premature death were common, with substantial competing risks. Black ethnicity remained an independent risk factor for progression after adjustment, while South Asian ethnicity was not. These findings highlight the extremely poor long-term outcomes of high-risk CKD and underscore the need for personalised risk stratification incorporating both progression and mortality risks when counselling patients and planning care

Acute Kidney Injury Clinical Nurse Specialist (CNS) Service in an Acute General Hospital: Impact on Mortality and Chronic Kidney Disease Progression

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[1]Walsall Manor hospital

AKI Recovery: Do Definitions Define Practice?, HALL D, March 12, 2026, 15:30 - 16:30

Introduction:
Acute kidney injury (AKI) is associated with increased morbidity, mortality, and significant healthcare costs. National reviews, including the NCEPOD report Adding Insult to Injury, highlighted that only 50% of AKI-related deaths in the UK received good care, with a substantial proportion deemed avoidable. To address these challenges, Walsall Healthcare NHS Trust established a dedicated AKI Clinical Nurse Specialist (CNS) service. This abstract reports hospital and post-discharge outcomes following the introduction and expansion of this service, benchmarked against national data.
Methods:
Data were prospectively collected on all patients reviewed by the AKI CNS team between January 2023 and December 2024 at (redacted) (558 acute beds, serving a population of ~287,000 with high deprivation indices). The team provides daily AKI triage and same-day assessment, with structured follow-up via nurse- and consultant-led HOT clinics and 90-day post-discharge blood monitoring. Outcomes included in-hospital mortality, 90-day mortality, and progression to chronic kidney disease (CKD).
Results:
A total of 1,923 patients with AKI were reviewed. In-hospital mortality was 20% overall (Stage 1: 16%, Stage 2: 36%, Stage 3: 41%), higher than national averages (Stage 1: 5%, Stage 2: 13.7%, Stage 3: 24.8%). Ninety-day mortality was 5% (Stage 1: 10%, Stage 2: 40%, Stage 3: 42%), substantially lower than reported national ranges (27.3–34.5%). CKD progression at 90 days occurred in 2% of the total cohort and 35% of severe AKI cases, below the national benchmark of ~40%.
Conclusion:
The dedicated AKI CNS service has demonstrated a positive impact on longer-term patient outcomes, with lower 90-day mortality and CKD progression compared to national averages. Although in-hospital mortality remains higher than expected, this is likely influenced by the high burden of comorbidity, frailty, and socioeconomic deprivation in the local population. These findings suggest that specialist nurse-led AKI services, with structured follow-up and community integration, can deliver improved post-discharge outcomes in high-risk populations.
Keywords: Acute kidney injury, clinical nurse specialist, mortality, chronic kidney disease, service evaluation

Developing an African and Caribbean kidney friendly recipe magazine with patient and public involvement: lessons on dissemination

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Developing Family-Favourite Kidney-Friendly Recipes for Children with CKD: A Collaborative Approach, QUEENS SUITE 2, March 12, 2026, 15:30 - 16:30

Introduction:
African and Caribbean communities in the UK are disproportionately affected by chronic kidney disease (CKD) due to higher rates of hypertension, diabetes, and cardiovascular disease. These groups also face health inequalities, particularly in access to culturally relevant dietary resources. Previous Kidney Kitchen recipe magazines provided support for ethnic minority groups but were typically developed without structured patient and public involvement (PPI). To address this, Kidney Care UK (KCUK), with the Kidney Dietitian Specialist Group (KDSG), created the first African and Caribbean recipe and dietary advice magazine shaped by patient voices from the outset.
Methods:
Standard Kidney Kitchen development processes were followed, including input from a culturally appropriate working group, KDSG renal dietitians, a chef, food stylist, photographer, and administrator. Recipes were nutritionally analysed using online food analysis software and compared against agreed per-portion parameters for potassium, phosphate, protein, fat, and salt.
A structured PPI process was undertaken. A total of 1,593 Black African/British/Caribbean patients with CKD were identified in an East London trust and invited by text to complete a survey. Questions covered challenges in adapting foods for kidney disease, interest in engaging with a kidney-friendly recipe magazine, preferred dishes, and peer-to-peer tips.
Results:
297 people (19%) completed the questionnaire. Findings informed development of 20 recipes spanning African and Caribbean cuisines, from staples (ugali, patties, moin moin) to celebratory meals (jollof rice, red snapper with dumplings), and sweet options. Recipes were modified to meet renal dietary requirements without losing cultural authenticity and placed online and in print.
In the first three months post-publication, the African and Caribbean feature page received 830 unique views. Compared with small niche food blogs, numbers were modest, but the specialist medical and cultural focus means the audience pool is smaller. In contrast, 1,400 printed copies were distributed, largely to individuals on request, suggesting stronger offline reach.
Discussion:
This project shows African and Caribbean patients are eager to shape resources when invited, reflected in the strong response rate. However, robust PPI in design did not translate into equivalent digital uptake, suggesting a mismatch between content and dissemination. Judging success solely on web hits risks underestimating the value of culturally relevant resources and may discourage funders. Funders increasingly support Black health initiatives, but investment must extend beyond creation to culturally tailored marketing and dissemination. Otherwise, projects risk underuse not from lack of interest but from lack of visibility in trusted spaces. Future approaches should co-design dissemination with communities, using partnerships with Black health organisations, churches, barber shops, and salons (with QR codes), alongside collaborations with celebrity chefs and accessible print formats.
Conclusion:
Embedding PPI ensured cultural relevance, but limited online uptake shows the equal importance of tailored marketing and dissemination. Resources must both reflect patient voices and reach patient hands if we are to reduce kidney health inequalities.

Baseline analysis of the HEROIC study: a 5-year observational cohort study aimed at identifying novel factors that drive diabetic kidney disease

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Digging Deep for Prevention: Reaching Out to the Community, AUDITORIUM, March 12, 2026, 15:30 - 16:30

Introduction:

Diabetic kidney disease (DKD) is the leading cause of end-stage renal failure (ESRF) in the UK. The diagnosis is often clinical rather than biopsy-confirmed and there is therefore significant heterogeneity in both the underlying pathology and clinical outcomes. This heterogeneity translates into the clinical research field with the majority of published work including patients with clinical, as opposed to biopsy-confirmed, diagnoses. Biopsy cohorts tend to be retrospective and of clinically indicated biopsies, therefore only sampling a small proportion of the disease spectrum. In contrast The East and North London Diabetes Cohort study (HEROIC) study aimed to capture a representative cohort of high risk patients with diabetic nephropathy and perform a range of deep phenotyping investigations including MRI, digital histology, and 'omics. Here we present here the baseline data.

Methods

Patients were recruited from secondary-care nephrology clinics if they had an eGFR > 30mL/min/1.73m² and high or moderate risk of progression. Participants underwent renal biopsy and only those without clinically significant non-diabetic lesions were included. Biopsies were assessed using the Renal Pathology Society (RPS) scoring system. Routine clinical measurements and laboratory testing were performed at initial visit (or nearest outpatient measurement where data were missing). The UK re-calibrated 4-variable Kidney Failure Risk Equation (KFRE) was calculated. Comparisons between groups were made using Kruskall-Wallis tests or ANOVA based on normality.

Results:

Median age of the 188 participants was 57. The cohort is ethnically diverse: 9.0% Black, 46.3% South Asian, 14.9% White and 29.8% other ethnicity. Though the median ACR was 170.2mg/mmol there was a wide range (IQR 77.3 - 281.3) and a sub-population of 18 patients with an ACR < 30mg/mmol. There were statistically significant differences in median BMI ranging from 27.5 (24.7, 31) in South Asian participants to 31 (29.1 - 36.4) in Black participants and in median diastolic BP which varied from 76 mmHg (68, 83) in South Asian individuals to 84 mmHg (77, 89) in Black participants (Table 1). Systolic BP was not significantly different. Median KFRE was 3.4% (0.7, 11.1). Pathology was varied: class III (nodular sclerosis) was the most common glomerular lesion (33%), while grade 1 (<25% interstitium) was most frequent IFTA class (46.8%) (Table 1).

Discussion:

In contrast to previous studies, our cohort is ethnically diverse and representative of our population. The American TRIDENT study, another biopsy-confirmed prospective cohort, reported multi-ethnic recruitment though their initial results show a primarily white cohort and hence their findings may

not be generlisable to ethnically diverse areas of Britain. Given previous studies of biopsy-confirmed DN cohorts tend to be confined to clinically indicated biopsies, our cohort is more varied with a wide range of proteinuria observed, including a small non-proteinuric population. Despite a low median KFRE, 25% have a 5-year risk >11%. Overall, participants in the HEROIC cohort are at substantial risk of progression and will provide an opportunity to examine the utility of novel diagnostic tools such as MRI, whole slide biopsy image analysis and multi-omic approaches in a deeply phenotyped, representative population.

Assessing the Number and Proportion of Kidney Transplant Recipients Returning to Haemodialysis (HD): A UK Renal Registry (UKRR) Analysis, 2008–2022

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Challenges in the Delivery of Renal Care in DGHs, HALLQ, March 12, 2026, 15:30 - 16:30

Introduction
In the UK, the growing demand for haemodialysis (HD) services necessitates a detailed understanding of patient pathways that contribute to service pressure. One such pathway is the return to HD among kidney transplant recipients, whether following irreversible graft failure or during episodes of transient graft dysfunction. This study used national UK Renal Registry (UKRR) data to quantify the annual proportion of prevalent transplant recipients who commenced HD in the subsequent year, investigating temporal changes over a 15-year period.
Methods
We analysed UKRR kidney replacement therapy (KRT) data for the period from 2008 to 2022. For each year, the denominator was the number of prevalent transplant recipients (functioning graft) on 31 December of the index year. The numerator was the number of those patients who commenced HD during the following calendar year. The primary outcome was the crude annual proportion returning to HD, calculated as:
Proportion =(Number returning to HD)/(Prevalent transplant recipients) x100
HD episode durations were censored at death; their temporal trends were assessed descriptively. HD return rates were indirectly age/sex standardised against the pooled 2008-2022 population. Expected returns were calculated by applying reference age/sex-specific rates to each year's demographic structure. Standardised Incidence Ratios and indirectly standardised rates were computed to assess temporal trends adjusted for population composition changes.
Standardised Incidence Ratios (SIR) =(Observed number of patients returned to HD)/(Expected number of patients returned to HD)
Indirect standardised rate=SIR x Overall Crude rate of patients returned to HD after transplant failure
Results
Between 2008 and 2022, the UK prevalent transplant population grew from 22,305 to 37,881, peaking at 38,787 in 2019 (Table 1). Total HD days after transplant failure rose from 93,068 in 2008 to 151,814 in 2022, largely reflecting the expanding transplant population.
The proportion of recipients returning to haemodialysis each year remained between 2.0% and 2.4%, showing no sustained upward trend (Figure 1). Age/sex standardised HD return rate stays constant, confirming demographic changes did not drive observed trends. Log-scale analysis revealed parallel growth patterns indicating proportional increases, with notable deviations in 2014 and 2017-2018 where return rates temporarily exceeded transplant growth rates.
Conclusions
Between 2008 and 2022, although HD return rates have remained stable, the absolute number of patients returning to HD after transplant failure has increased substantially. Parallel growth patterns on a log scale demonstrate that increased HD returns primarily result from increasing prevalence of the transplant population. Temporary elevations in 2014 and 2017–2018 warrant further investigation, while recent stabilisation of the transplant cohort points to a consistent pattern in this subgroup. This pattern suggests that capacity pressures for HD will continue to rise in line with transplant population expansion, representing a predictable source of long-term demand and highlighting the need to plan for future service capacity.

Ultrasound-guided renal artery administration of angiopoietin-1 RNA therapy slows glomerular disease in a model of Denys Drash Syndrome

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Glomerular Disease: Common Mechanisms for Intervention, QUEENS SUITE 3, March 12, 2026, 15:30 - 16:30

Denys-Drash syndrome (DDS) is a rare paediatric glomerular disease caused by mutations in Wilms Tumour 1 (WT1), leading to severe urinary protein loss and glomerular scarring. Currently, no therapies exist and affected children rely on dialysis or transplantation. We aimed to develop a new non-viral treatment in a mouse model with an orthologous human mutation in WT1 (Wt1+/R394W), that replicates the glomerular pathology of DDS. We established a new platform for glomerular therapy utilising lipid nanoparticles (LNP) which were size- and charge- optimised for glomerular entrapment and engineered with a surface peptide ligand to target and efficiently deliver mRNA to podocytes and glomerular endothelial cells, the two main cell types implicated in DDS. This LNP platform was used to perform an interventional pre-clinical trial in 4-week-old Wt1+/R394W mice, delivering angiopoietin-1 (Angpt1) mRNA, a vascular growth factor critical for glomerular health and whose expression is reduced in Wt1+/R394W podocytes. Three therapeutic doses of Angpt1-LNP therapy over 4 weeks were delivered through a non-surgical ultrasound-guided renal artery injection to enable precise and specific kidney localisation. Angpt1-LNP therapy significantly reduced albuminuria, preserved glomerular endothelial integrity, prevented podocyte loss, and alleviated glomerulosclerosis in Wt1+/R394W mice. These findings demonstrate a new non-viral therapeutic strategy for DDS, using vascular growth, Angpt1. This work provides a crucial foundation for developing targeted therapeutic strategies and lays the groundwork for clinical translation to improve outcomes in glomerular diseases.