THD1

Evaluation of the renal pharmacist's role in the haemodialysis new starter reviews: a scoping review

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THURSDAY - Moderated Poster Session, HALL Q, March 12, 2026, 10:00 - 11:00

Individuals with end-stage kidney disease on haemodialysis are prone to several complications, including cardiovascular morbidity, mineral bone disease, renal anemia, and pruritus. Additionally, they tend to experience polypharmacy, commonly defined as the concomitant use of ≥5 medications. Of note, polypharmacy is associated with medication-related adverse events, increased risk of hospitalisation, and poorer quality of life. This is further complicated by the frequent changes in medications when transitioning to haemodialysis. The haemodialysis new starter review in the dialysis unit is routinely undertaken by junior doctors. Current medicines optimisation efforts led by pharmacists are often retrospective and limited. There is a paucity of data to demonstrate the clinical benefits of medicine optimisation in haemodialysis patients. The aim of this service evaluation was to explore the types of pharmacist input required within new starter reviews and assess the feasibility of embedding a pharmacist-led medication review for all haemodialysis new starters.

Methods:

Individuals newly started on in-centre haemodialysis were identified using a clinical 'watchlist', set up on the Cerner® electronic prescribing system. The watchlist was populated by the junior doctors following the haemodialysis new starter review to enable a subsequent pharmacist medication review (Table 1)

Two specialist pharmacists were involved in this project across two dialysis units. The medication review outcomes (changes to medications, therapeutic drug monitoring, counselling) were documented by pharmacists on the new starter review proforma. Prospective anonymised data was collected, using Excel, between 01 January and 31 March 2025. Data collected included the types of clinical pharmacy activities performed in the haemodialysis new starters, the time taken for each review and time to review from day of initiation of haemodialysis. Descriptive statistics were analysed using Excel.

Results:

Out of the 49 new starters, 47 individuals were referred to pharmacists for medication review. The average time taken for the pharmacists to conduct a new starter medication review was 35 minutes (range: 15-50 minutes). The audit showed that 34 (71%) patients were reviewed within 2 days of the dialysis initiation (range: 2-4 days). Main areas of output in medication reviews have been divided into different categories (Figure 1). Medication education on adequate timing of medication administration and indications for newly started medications was performed in 17 (36%) individuals. The most common condition managed by pharmacists in the new starter review was renal anemia, with input on dosing and dose adjustment of erythropoiesis-stimulating agents and intravenous iron in 45 (96%) individuals. All individuals (n=7) with failing transplant had their immunosuppressant regime adjusted following the medication review, alongside consultation with the named nephrologist.

Discussion:

This scoping review elucidates the wide-ranging input of renal pharmacists into haemodialysis new starters reviews. With an ever-increasing haemodialysis population, the results highlighted the considerable amount of time required for renal pharmacists performing these reviews. Current renal workforce planning guidance produced by the British Renal Society is under review, and evaluations such as this provide vital information on pharmacy resource needs for haemodialysis services. Mixed-method studies should be considered to further analyse patient outcomes and experience in future research.

THD2

Are the British Society Antimicrobial Chemotherapy (BSAC) Good Practice Recommendations for Outpatient Parenteral Antimicrobial Therapy (OPAT) relevant to the haemodialysis population?

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Introduction
Outpatient parenteral antimicrobial therapy (OPAT) is now considered standard of care across UK hospitals, supporting NHS priorities around antimicrobial stewardship and patient flow by reducing admissions and enabling early discharge. The British Society of Antimicrobial Chemotherapy (BSAC) has played a pivotal role in the development and standardisation of Outpatient Parenteral Antimicrobial Therapy (OPAT) services in the UK; first publishing Good Practice Recommendations (GPRs) for adult OPAT in 2012, followed by paediatric guidance in 2015. These were updated in 2019, resulting in a combined set of recommendations for adult and paediatric OPAT services, reflecting evolving clinical practice, safety standards, and service delivery. The OPAT GPRs outline key quality standards describing service structure, patient selection, antimicrobial delivery, monitoring and clinical governance to support safe and effective OPAT delivery. However, they do not specifically address the haemodialysis (HD) population, despite outpatient intravenous antibiotic (IVAB) administration through dialysis being common place in renal services.

This project aimed to evaluate how HD-delivered OPAT (HD-OPAT) is currently managed across UK renal centres, assess the applicability of the OPAT GPRs to HD-OPAT, and identify areas requiring adaptation for this unique patient population.

Method and Results
A national survey was sent to lead renal physicians and pharmacists in 70 UK renal services. Thirty responses were received; 28 (93%) centres reported regular use of HD-delivered IVABs either to avoid patient admission or facilitate early discharge. However, only one centre was aware of the OPAT GPRs or had considered them in service delivery.
The OPAT GPRs comprise 43 recommendations across 5 domains: service structure (10), patient selection (6), antimicrobial management and delivery (15), patient monitoring and clinical governance (6). Of these, 37 (86%) were deemed applicable to HD-OPAT, though some required adaptation to reflect the unique considerations of dialysis patients (See figure 1).
Antibiotic dosing and monitoring were primarily overseen by renal physicians, with only 6/28 (21%) renal services reporting involvement from infection specialists or OPAT teams.

Discussion:
While HD-OPAT appears to be commonly used among those UK renal services that responded to the questionnaire, its delivery often lacks the formalised governance and multidisciplinary oversight seen in standard OPAT pathways. This raises important concerns

around patient safety, particularly regarding antimicrobial stewardship, monitoring for adverse effects, and ensuring appropriate follow-up.

Although 86% of the OPAT GPRs were deemed applicable to HD OPAT, their implementation in dialysis settings is inconsistent. The absence of tailored guidance may contribute to variability in practice and potential safety risks. Given the complexity of HD patients - including altered pharmacokinetics, frequent vascular access either via an arteriovenous fistula or central venous catheter, and high co-morbidity burden - a robust governance framework and clear inclusion criteria are essential for in-centre haemodialysis.

To safeguard patient safety, renal and infection services must collaborate to develop HD-specific OPAT standards. These should include defined roles for renal specialists and infection specialists, structured monitoring protocols, and mechanisms for clinical oversight. Embedding these into service design will help ensure that HD-OPAT is delivered safely, effectively, and in line with national stewardship priorities.

THD4

The implementation of a supplementary prescriber kidney dietitian in a dialysis unit.

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THURSDAY - Moderated Poster Session, HALL Q, March 12, 2026, 10:00 - 11:00

Introduction

Since 2016, dietitians have been able to become supplementary prescribers (SP). However, until 2025, only 3.6% of all UK registered dietitians were SP. Kidney dietitians are members of the multiprofessional team managing patients receiving kidney replacement therapies, especially within the management of chronic kidney disease-mineral bone disease (CKD-MBD). This service evaluation aimed to assess the impact of a SP kidney dietitian in a haemodialysis (HD) unit (n=154).

Methods

A kidney dietitian completed the non-medical prescribing course in 2021, and after local implementation of a clinical management plan (CMP), the main changes in clinical practice delivery were identified. From March 2023 to March 2025, the number of patient assessments, including new prescriptions, amendments and deprescribing of prescription-only medicines (POMs) by the SP kidney dietitian were collected monthly. The type of medications and number of incidents were also recorded.

Results

The changes in practice are summarised in figure 1. Over 24 months, an average of 56 patients per month were assessed by the SP kidney dietitian (between 31 and 88 patients per month). In the first year, on average, 44 patients were reviewed per month, and in the second year, the average was 71 (figure 2). The most common POMs assessments included: calcimimetics (oral and intravenous), phosphate binders, vitamin D analogues, sodium zirconium cyclosilicate, followed by dialysate changes, phosphate enema, pancreatin enzyme therapy and intra-dialytic parenteral nutrition. No incidents were recorded over the 2 years. As experience of the SP kidney dietitian grew, the number of interventions by the renal consultant reduced over the course of the 2 years: from 10-12 to 0-3 patients per month.

Discussion

The implementation of a SP kidney dietitian streamlined delivery of care for patients receiving HD (figure 1). The number of patients assessed by the SP kidney dietitian increased over two years, which is probably a reflection of increasing confidence and expertise. Originally, the role aimed to focus on CKD-MBD (phosphate binders, Vitamin D analogues and calcimimetics). However, opportunities emerged to include more POMs, demonstrating the dynamic and evolving role of the SP kidney dietitian. This change in practice appears safe, with no recorded incidents. Complex cases were discussed with the lead renal consultant, highlighting the importance of multiprofessional working and continued learning opportunities.

A disadvantage of this practice is the dietitians cannot become an independent prescribers, and the SP role comes with a significant amount of administrative work, linked to the implementation and annual review of the CMP. If dietitians were able to be independent prescribers this annual administrative work would be circumvented, saving time that could then be spent with patients.

THD5

Regional haemodialysis hub: bringing the gap in providing emergency renal support for West Midlands Hospitals without haemodialysis facilities.

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THURSDAY - Moderated Poster Session, HALL Q, March 12, 2026, 10:00 - 11:00

Background: Patients with Chronic Kidney Disease(CKD) and Acute Kidney Injury(AKI) often require urgent/emergency haemodialysis treatment. Many hospitals across the West Midlands do not have on-site dialysis facilities, creating challenges and serious risk in delivering timely renal replacement therapy.

Methods: referrals for haemodialysis were received from Acutes Renal Medical Team after receiving referral from parent hospital and continous communication and follow up whilst dialysis dependent patients are still admitted to the other hospital.

- Referral Pathway : medical referral(Norse, email, phone)

- Coordination: clinical handover and triage by HD Unit Nurse In Charge through telephone call from parent hospital and organise patient transport with the West Midlands Ambulance Service (WMAS).

- Patient Flow: medical review in dialysis unit when the patient arrives, depending on bed availability, patients are either admitted for on going care or returned to their local hospital after dialysis.

Over a year period from September 2024 - August 2025, retrospective review of service data, focusing on referral volume, patient categories, haemodialysis treatments provided and clinical outcomes. review of daily acute referrals,weekly HD plan/list and treatments data reports from Clinical Governance audit, Patient Informations Communications System(PICS).

Results: Out of 343 referrals, total of 1,142 haemodialysis treatments was completed covering Metropolitan Midland University Hospital (formerly City and Sandwell Hospitals) Hereford County Hospital, Worcestershire Royal Hospital, Alexandra Hospital Redditch, Rowley Regis Hospital,Royal Orthopaedic Hospital Birmingham, Kidderminster Community Hospital, Leominster Community Hospital, Ross On Wye Community Hospital, Walsall Manor Hospital(other trust cover) and total of 24 admissions to QEHB.

- high volume of referrals was managed, reflecting strong regional demand.

- Haemodialysis referral pathway enabled rapid communication and safe triage.

- collaboration with MWAS ensured timely transfer, minimising treatment delays. haemodialysis treatment within six(6) hours from referral.

-Bed pressures influenced whether patients were admitted or returned to parent hospital, but safe continuity of care was maintained on both pathways.

Discussion: A regional haemodialysis hub can effectively bridge gaps in renal service provision. By following referral pathways and liaising with the parent hospitals, coordinating ambulance transfers ensures equitable and timely access to haemodialysis treatment across the West Midlands. Reduces delays, prevents complications, and supports hospitals without dialysis capacity.

-Capacity pressure on the Haemodialysis Unit, increase work load due to satellite returner inpatients and other specialist 1 to 1 treatment

-Plan for in-house haemodialysis facility in Worcestershire Royal Hospital.

-Transport issues with Welsh patients when admitted to English hospitals.

-Delays in answering phone calls and receiving handover from other hospitals.

Conclusion: QEHB's role as haemodialysis hub has established itself as the regional centre for haemodialysis provision in the West Midlands, ensuring timely and safe treatment for patients admitted to hospitals without dialysis facilities. this service highlights the importance of collaboration and communication in delivering specialist renal care across the region.

THD6

The Specialist Occupational Therapist Role within a Renal Unit: a review after Four Years

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THURSDAY - Moderated Poster Session, HALL Q, March 12, 2026, 10:00 - 11:00

Kidney Replacement therapy (KRT) and its associated complications have substantial impact on physical function, quality of life and psychological wellbeing. Occupational Therapists (OTs) treat people holistically, (physically, psychological and socially) and are therefore in a good position to enhance overall wellbeing. The workforce document, which the UK Kidney Association revised in 2020, identifies and supports that all Renal Units should have a full time OT with an understanding of the effects of KRT. Nevertheless, this role remains rare nationally and we therefore report on activity and impact within the role over 4 years to strengthen the case for implementation in other units.

A referral system was developed, whereby staff or patients could refer their problems to the OT, and these were screened to assess whether they were appropriate. Screening also identified whether people required OT treatments or could be signposted to a different relevant agency to meet their needs. Management pathways were developed and adapted over time as service configurations changed. Data is collected regarding the monthly number and source of referrals as well as number of patients seen. Progress was reviewed and challenges discussed in a monthly mentoring meeting with a consultant nephrologist.

A significant challenge been a substantial (37%) increase in the in-centre haemodialysis (ICHD) population over 4 years leading to increasing demand for OT support. Most referrals were from ICHD but over time the number of referrals from home haemodialysis and low clearance clinic increased. As the role has developed it was clear there was substantial unmet need, and the OT role expanded to address more complex issues. These have included social issues e.g. childcare issues hindering the parent attending dialysis, working with children's services. Engagement work, problem solving with the people who were missing dialysis sessions. People struggling with everyday life issues, like cluttered environments which led to working with public health. Psychological issues which require referrals to talking therapies or completing single session therapy to establish their needs. Involvement in home therapies providing supporting letters for appropriate housing to complete KRT at home. Giving support for people starting dialysis to address problems at an early stage. A recent audit of frailty was conducted in all people receiving ICHD which identified a high prevalence (30%). The OT had seen majority of people with frailty but this area needs expanding in the future.
The specialist OT role has evolved further than expected, highlighting many and varied needs of the people we support and is now an integral part of the renal unit. Now, having a clear vision of needs on the unit, data has been collected to support business cases for the other MDT members. Frailty has been highlighted as an area of need, which we plan to meet by establishing an OT frailty clinic. We will continue to work with people living with

KRT to help improve their experience and quality of life. We hope that our experience and data will be helpful to other Renal Units seeking to establish a similar service.

THD8

A Multidisciplinary Quality Improvement Project to Reduce Central Venous Catheter Use through Improved Access Planning

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THURSDAY - Moderated Poster Session, HALL Q, March 12, 2026, 10:00 - 11:00

Introduction

The Oxford Kidney Unit (OKU), a seven-site haemodialysis (HD) network, saw tunnelled central venous catheter (CVC) use rise to 42% by April 2023, from a historical norm of 30% due to reduced surgical capacity and lack of real-time vascular access planning. This project aimed to reduce CVC prevalence to ≤30% and ensure every CVC-dependent patient had a documented, actively managed plan for dialysis access.

Methods

Sequential Plan–Do–Study–Act (PDSA) cycles were implemented between September 2022 and August 2025. Primary outcome was monthly CVC prevalence, monitored using statistical process control (SPC – Figure 1). Process measures were proportion of CVC-dependent patients with a documented access plan, tracked using run charts (Figure 2). Informal staff feedback served as a balancing measure.

- PDSA-1 (Sep 2022–Mar 2023): "CVC category" field in the HD prescription (options: awaiting AVF surgery, AVF maturing, planned PD, declined AVF, no plan). Nurses completed this at catheter insertion and reviews. Simultaneously, a "CVC Dashboard" extracting data from electronic patient record (EPR) was developed and distributed.
- PDSA-2 (Apr–Jun 2023): Access discussions were incorporated into existing monthly multidisciplinary team (MDT) meetings. Nurses flagged "no plan" and "awaiting surgery" patients, agreed actions with clinicians, and updated records immediately, shifting decision-making from infrequent outpatient reviews to a monthly rhythm.
- PDSA-3 (July – September 2023): Nephrology, surgical, and administrative teams co-designed referral listing criteria (Category A- Very Urgent – <2 weeks; Category B – Urgent <6weeks; Category C – Routine – 6-12 weeks; Category D: Not for listing), prioritising patients on clinical need.
- PDSA-4 (October 2023 – February 2024): Joint meetings with surgical and administrative teams reviewed backlogs, triaged theatre booking, and secured additional or cancelled slots.
- Maintenance phase (March 2024 – August 2025): Monthly dashboard and MDT reviews continued, with quarterly surgical liaison. Staff feedback informed iterative refinements, including simplified data entry, clarified definitions, and improved usability.

Results:

CVC prevalence declined from 42% to 38% by August 2025, though the project goal of ≤30% was not achieved. Nevertheless, process reliability improved significantly with number of CVC-dependent patients without a documented plan falling from 23 to 2. Patients "awaiting

surgery" or with "AVF maturing" also fell as MDTs expedited referrals and reassessed fistula readiness. Patients needing urgent dialysis and those dependent on CVCs benefited from triage-driven prioritisation and closer theatre list coordination. 60 (12%) patients were documented as declining or unsuitable for AVFs, reflecting frailty, comorbidity, or informed choice. Staff reported improved visibility, reduced administrative burden, and greater ownership compared with legacy spreadsheets.

Discussion:
Embedding access planning within EPR supported by MDT processes and triage criteria improved access planning and reduced CVC dependence across a multisite HD network. Although <30% target was not met, the project strengthened oversight and standardised processes. Sustainability is supported through regular monthly MDT reviews, quarterly surgical liaison, and governance integration. Our findings align with recent guidelines advocating locally determined rather than rigid national targets. Given the complexity of our ageing HD population, we pragmatically revised the target to 35%, balancing clinical feasibility with patient choice.

THD9

Management of arteriovenous access after kidney transplantation

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THURSDAY - Moderated Poster Session, HALL Q, March 12, 2026, 10:00 - 11:00

Background: There are no guidelines published on how to optimally manage arteriovenous fistulae (AVF) or arteriovenous grafts (AVGs) after kidney transplantation. In our local trust, Greater Glasgow and Clyde, there is no proactive monitoring or surveillance of AV access after kidney transplantation and as such there is a reactive model when complications arise.

Aims: Our aim is to assess the prevalence of complications of AV access in the post-transplant population to assess the need for active surveillance and monitoring.

Methodology: We have conducted a retrospective analysis of patients who received a kidney transplant between January 2019 and December 2020 who had a functioning AVF or AVG at the time of transplant and who remain under follow-up within Greater Glasgow and Clyde. Data was collected from our prospectively maintained West of Scotland Electronic Renal Patient Record (SERPR). Case notes were analysed for a primary outcome of complications of their vascular access during follow-up after transplant until December 2024.

Results: A total of 124 transplant patients were identified. A total of 51 patients (41%) developed a complication related to their vascular access following transplantation. Complications identified were aneurysm (n=26), thrombosis (n=13), steal syndrome (n=4), high output cardiac failure (n=2), stenosis (n=2), pseudoaneurysm (n=2), ligation for cosmesis (n=1) and infection (n=1). In patients with a previously known vascular access issue (n=57), 58% (n=33) went on to develop a complication with this access. In contrast, in patients with no previously known vascular access issues (n=67) only 27% (n=18) developed a complication.

Conclusion/Recommendations: Complications of AVF and AVG are common and occur more frequently in patients with pre-existing vascular access issues. In light of this we are implementing a change to a proactive model of vascular access surveillance following kidney transplantation.

THD10

‘Save the Vein’: QI project to improve vein preservation for inpatients in a single kidney centre

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THURSDAY - Moderated Poster Session, HALL Q, March 12, 2026, 10:00 - 11:00

Introduction

It is well recognised that arteriovenous fistula (AVF) is the preferred vascular access option and a crucial lifeline for patients undergoing haemodialysis treatment. Venepuncture and IV cannulation can damage arm veins and limit options for future AVF formation. This has been highlighted by national campaigns including the Save Your Vein Campaign.

Inspired by this we undertook a QIP with the SMART aim of reducing the number of patients on the renal ward undergoing inappropriate venepuncture or IV cannulation by July 2025.

Methods

We undertook process mapping to understand the patient pathway of venepuncture and IV cannulation. Our inclusion criteria were all patients on our renal ward with CKD 4 & 5 or receiving renal replacement therapy (dialysis or transplant). Data collection was undertaken by patients self-reporting their most recent venepuncture and in situ IV cannula and showed that most patients vascular access was inappropriate (defined as outside the dorsum of hand).

PDSA cycle 1 study question was “Does a ‘Save the Vein’ educational poster attached to the vascular access trolly reduce inappropriate siting of IV cannulation and venepuncture”.

PDSA cycle 2 study question was “Does reducing medical jargon and clearly highlighting the dorsum of the hand on the poster decrease inappropriate siting of IV cannulation and venepuncture.” (see figure 1)

PDSA cycle 3 study question was “Does distributing ‘Save your Vein’ campaign awareness cards decrease inappropriate siting of IV cannulation and venepuncture?”.

Results

Initial data showed 27% appropriate IV cannulation and 33% appropriate venepuncture. After intervention 1, 36% of IV cannulas and 54% venepuncture were appropriate. Post intervention 2, 41% of IV cannulation and 29% of venepuncture was appropriate. After intervention 3, 75% IV cannulation and 63% of venepuncture was appropriate.

(See Figure 2)

Conclusion

This QI project was successful in reducing inappropriate venepuncture and IV cannulation sites in order to help preserve patients' veins for future AVF formation. The 'Save the Vein' educational poster improved appropriate siting of IV cannulas, though had variable benefit improving venepuncture. The 'Save your Vein' cards showed improvement of appropriate IV cannulation and venepuncture. These are simple, low-cost interventions which could improve ongoing care for kidney patients in inpatient and outpatient settings locally and could be extended to other regions.

Unintended benefits of this project included highlighting the importance of vein preservation for kidney patients with our Doctors Assistant colleagues (DA's) who undertake most ward venepuncture and IV cannulation. A limitation was the data relied on patient self-reporting; re-call reliability could be affected in the context of confusion and critical illness.

We hope that this project will lead to sustainable improvement, however, further change ideas could include a formal DA/phlebotomy and wider patient education programme with distribution of 'Save the Vein' educational posters and 'Save Your Vein' reminder cards within the local outpatient setting.

THD11

Improving Arteriovenous Fistula Outcomes with Regular Transonic Surveillance (Ultrasound Dilution Method)

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Introduction
Arteriovenous fistulas (AVFs) remain the preferred vascular access for hemodialysis due to superior long-term patency and lower infection rates. However, complications such as stenosis, high flow and recirculation can compromise AVF function. Early detection is critical to prevent access failure and avoid emergency interventions. Transonic ultrasound dilution technology allows for non-invasive, real-time assessment of access flow and recirculation. This study aimed to evaluate the impact of routine Transonic surveillance on AVF outcomes in a hemodialysis cohort.

Methods
This quality improvement project was conducted at Sunderland Royal Hospital between February and July 2025. A total of 77 hemodialysis patients with AVFs were enrolled. Transonic assessments were performed every three months. Action thresholds were defined as flow <600 mL/min, flow >2 L/min or any recirculation detected. Abnormal findings prompted further ultrasound evaluation and clinical intervention. Outcomes were compared to two control sites—Durham (n=40–43) and Washington (n=35–36)—which did not implement surveillance. Pre-intervention data (November 2024–January 2025) was also collected.

Results
Surveillance group (Sunderland):

February–April 2025 (n=77):
-8 patients referred for ultrasound fistula assessment
-High flow: 3 cases; 2 required banding
-Low flow: 5 cases; 2 required fistuloplasty, 1 venoplasty for central stenosis, 1 new fistula created

May–July 2025 (n=71):
-11 patients referred
-High flow: 5 cases; 3 required banding
-Low flow: 4 cases; 3 required fistuloplasty
-Recirculation: 1 case; required fistuloplasty

Control group:
Durham:
-Feb–Apr: 3 fistuloplasties, 1 steal syndrome

-May–Jul: 2 fistuloplasties, 2 converted to tunneled central venous catheters (undesirable outcome)
Washington:
-Feb–Apr: 3 fistuloplasties, 1 high flow (banding), 3 with difficult needling, 1 prolonged bleeding
-May–Jul: 2 fistuloplasties, 1 converted to tunneled catheter

Despite a higher number of elective interventions in the surveillance group, no AVFs were lost and no patients required conversion to a tunneled catheter during the study period.

Discussion
Routine Transonic surveillance is a practical and effective method to identify AVF dysfunction early, enabling pre-emptive intervention and preventing emergency access failure. Compared to control units, the surveillance group experienced fewer complications necessitating urgent procedures or catheter conversion. While surveillance increased the number of elective interventions, it facilitated AVF preservation, underscoring its clinical value. These findings support the expansion of Transonic surveillance programs and further evaluation of their long-term clinical and economic impact.

THD12

“Recirculation as an Early Marker of Arteriovenous Fistula Thrombosis in Haemodialysis Patients”

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THURSDAY - Moderated Poster Session, HALL Q, March 12, 2026, 10:00 - 11:00

Background:
Arteriovenous fistula (AVF) is the preferred vascular access for haemodialysis due to superior patency and lower complication rates compared to grafts and catheters. However, AVF thrombosis remains a major cause of access failure, resulting in increased morbidity, mortality, and healthcare costs. Early detection and intervention are crucial to prevent complete thrombotic occlusion and preserve AVF function. Recirculation, a phenomenon where dialyzed blood re-enters the extracorporeal circuit, is an indicator of access dysfunction, often associated with stenosis and reduced fistula blood flow. . An acceptable recirculation value, as measured by the thermodilution method (like the Blood Temperature Monitor, BTM), is generally considered to be less than 10 %. While recirculation is observed in dysfunctional AVFs, its role as an early predictive marker for impending thrombosis, particularly for proactive intervention, requires further investigation.

Objective:
To investigate the relationship between recirculation measurements and AVF thrombosis, aiming to establish recirculation as a reliable tool for early intervention to prevent thrombotic events. A recirculation value above 10 percent by a non-urea-based method should prompt fistulography.

Methods:
It is single centre study. Data from 38 patients were analysed, including the 3-month Recirculation Average prior to confirmed fistula thrombosis (zero values excluded) and the number of dialysis sessions during this period. The patients were selected with confirmed diagnosis of thrombosed fistula requiring intervention. Recirculation averages were categorised into three groups: ≤10%, 10.1–19.9%, and ≥20%. Recirculation was measured using non-urea-based thermodilution methods. Descriptive statistics were used to assess patient distribution, total session counts, and mean sessions per group. Pearson’s correlation coefficient was calculated to evaluate the relationship between recirculation and session frequency.

Results:
Of the 38 patients, 8 had recirculation ≤10%, 19 had 10.1–19.9%, and 11 had ≥20%. Mean session counts were 24.0, 30.7, and 27.4, respectively, with the 10.1–19.9% group contributing the greatest total session burden (583 sessions). Pearson’s correlation between recirculation and number of sessions was $r = 0.015$ ($p = 0.93$), indicating no significant linear relationship. These findings suggest that elevated recirculation is associated with AVF thrombosis risk independently of dialysis session frequency.

Conclusion:
Recirculation did not correlate with session frequency, indicating that high recirculation may reflect thrombosis risk independent of dialysis exposure. These results support its potential as an early marker of AVF dysfunction and highlight the need for prospective studies to validate its predictive value, guiding timely interventions and fistula care pathways to preserve access patency. It also gives an opportunity to analyse average recirculation values 1 month and 2 weeks prior to clotting of fistula in comparison to recirculation values for patients without clotted fistulas.