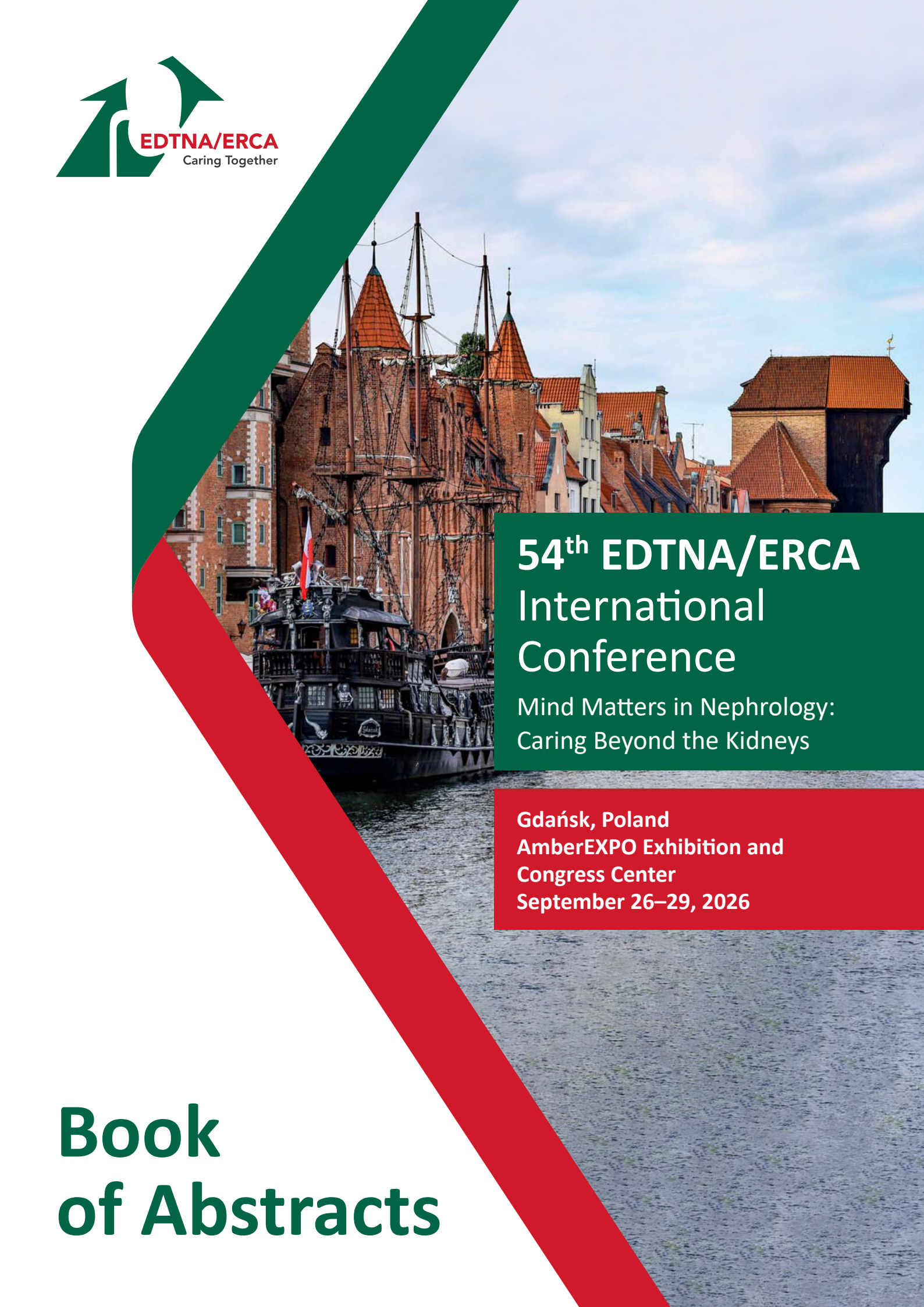


The background of the cover is a photograph of a historic wooden sailing ship with multiple masts and rigging, docked in a canal. In the background, there are historic brick buildings with red-tiled roofs and a tall wooden water tower. The sky is blue with some clouds. A large green diagonal stripe runs from the top left towards the bottom right, and a red diagonal stripe runs from the bottom left towards the top right, meeting at the bottom center.

54th EDTNA/ERCA International Conference

Mind Matters in Nephrology:
Caring Beyond the Kidneys

Gdańsk, Poland
AmberEXPO Exhibition and
Congress Center
September 26–29, 2026

Book of Abstracts

CONTENT

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ACKNOWLEDGEMENTS – SPONSORS

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FOREWORD

Dear Colleagues,

On behalf of the EDTNA/ERCA Scientific Board, it is my great pleasure to welcome you to the 54th EDTNA/ERCA International Conference in Gdańsk, Poland, and to present this year's Conference Abstract Book.

Our conference theme, "Mind Matters in Nephrology: Caring Beyond the Kidneys," reflects an important message: excellent kidney care is about more than treating kidney disease. It is about seeing and supporting the whole person – their physical and psychological health, their everyday life, their relationships and caregivers, and their individual needs and preferences.

This year, we are proud to present 275 accepted abstracts from 37 countries across five continents, demonstrating the truly international reach of the EDTNA/ERCA community. The Scientific Programme includes 106 oral presentations and 60 e-posters selected for oral presentation, while a further 94 e-posters will be available for delegates to explore throughout the conference.

The diversity of these contributions is reflected throughout the Scientific Programme, spanning mental and psychosocial health, symptom management, patient education and engagement, caregivers and families, patient safety, vascular access, transplantation, home therapies, nutrition, workforce challenges and digital innovation. The programme also includes scientific sessions, workshops, symposia, corporate education sessions and a dedicated Polish National Day, providing many opportunities to exchange knowledge and experience across disciplines and countries.

The conference opens with a plenary session showcasing current EDTNA/ERCA initiatives and projects, followed by the Opening Ceremony and the guest presentation "I Am More Than a Kidney": Why Psychosocial Health Matters in Kidney Disease – a fitting introduction to this year's theme.

We are particularly proud of the international and multidisciplinary character of our conference. Bringing together nurses and other healthcare professionals, researchers, educators, people living with kidney disease and their caregivers creates a unique opportunity to learn from one another and to strengthen kidney care across professional and geographical boundaries.

We are also pleased that this year's conference has been accredited by the International Council of Nurses (ICN). Participants attending the Scientific Sessions can be awarded a maximum of 21 International Continuing Nursing Education Credits (ICNECs).

The Abstract Book brings together the scientific contributions presented during the conference and reflects the commitment, curiosity and diversity of our kidney care community. I encourage you not only to read the abstracts, but also to meet the authors, join the discussions and use the conference as an opportunity to exchange ideas, build networks and establish new collaborations.

I would like to express my sincere thanks to all authors, guest speakers, session chairs and EDTNA/ERCA volunteers who have contributed their knowledge, time and enthusiasm to the programme. I also extend our appreciation to our industry partners for supporting educational activities and the exhibition, to the Conference Department for their professional collaboration, and to my colleagues on the Scientific Board and Executive Committee for their dedication throughout the planning of the conference.

Most importantly, I hope these days in Gdańsk will inspire us to think beyond the kidneys – to listen, learn and work together towards kidney care that combines scientific excellence with compassion, partnership and attention to what truly matters to the people we care for.

I wish you an inspiring conference and a very warm welcome to Gdańsk.

Jeanette Finderup

Clinical Nurse Specialist & Professor

EDTNA/ERCA Scientific Programme Chair

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SCIENTIFIC PROGRAMME HIGHLIGHTS

PLENARY SESSION

Chairs: Anastasia Liossatos & Edita Noruise

Peritoneal Dialysis Retention: The Impact of Nursing Assessment and Follow-up Models

Ilaria de Barbieri

A Guidebook on Home Haemodialysis (HHD) for Nephrology Care Team

Joana Fontes

Health Literacy: A guide for the professionals in Kidney Care

Maria Arminda Tavares & Suzanne Pearce

Recommendations for Emergency Preparedness for Kidney Care in Climate- and Conflict-Affected Settings

Jitka Pancirova

Dialysis Vascular Access Handbook: Evidence, Knowledge and Innovation

Ricardo Peralta & Ruben Iglesias

Examining the Evidence on Nurses' Workload in Haemodialysis Units: A Scoping Review

Afra Masia Plana

The perspective of people with chronic kidney disease (CKD) undergoing haemodialysis on CKD-aP: a qualitative study

Ilaria de Barbieri

Haemodialysis Nursing Sensitive Indicators

Jeanette Funderup

The MOSAIC Study: Mapping Global Depression Identification and Kidney Care

Claire Carswell

OPENING CEREMONY

"I Am More Than a Kidney": Why Psychosocial Health Matters in Kidney Disease

GS: Dr. Emma Coyne (UK)

Guest speakers

Kidney Transplantation Care

"Patient Education in Kidney Transplantation: A Field in Transition"

GS: Kristin Hjorthaug Urstad

Vascular Access Care I

"Clinical Vascular Access Competency Assessment"

GS: Boštjan Leskovic

Nutrition & Fluid

“Nutritional Management and Fluid Balance in Dialysis Patients”

GS: Prof. Sylwia Małgorzewicz, Poland

Peritoneal Dialysis & Home Therapies

“Our Home, Our Life, Our Dialysis”

GS: Malene Deelee, Denmark

EDTNA/ERCA Accreditation of Renal Education Programs - come learn more!

Symptom Management

“Rethinking Symptom Care in Advanced CKD”

GS: Professor Marques Ng, Hong Kong

Assessment, Screening & Digital Innovation

“AI-Powered Kidney Care: Where Mind Matters and Technology Empowers Teams Connecting Patient Needs, Nursing Expertise, and Multidisciplinary Collaboration”

GS: Professor Joanna Gotlib-Małkowska, Poland

Lunchtime Discussion

GREEK SYMPOSIUM

SESSION 1:

Chairs: Tsougia Panagiota, Vovlianou Stavroula

Cognitive Dysfunction in Chronic Kidney Disease

Despina Karassavidou, MD, PhD, Nephrology Department, General Hospital of Ptolemaida, Ptolemaida, Greece

SESSION 2

Chairs: Kokkinidi Eirini Eftychia, Eleftheroudi Marianna

Screening for Cognitive Dysfunction in Chronic Kidney Disease

Evangelia Papadopoulou, RN, MSc, Deputy Head Nurse, Nephrology Department, General Hospital of Ptolemaida, Ptolemaida, Greece

PDOPPS SYMPOSIUM – VANTIVE

Overview

Anna Marti Monros, Spain

Thyago Proenca De Moraes, Brasil (Pre-recorded)

CAPD/APD – clinical

CAPD/APD - QoL

Ahmad Makeen, Saudi Arabia (Pre-recorded)

The worldwide nursing shortage: From Workforce Crisis to Policy Action

Ilaria de Barbieri, Italy

WORKSHOPS

Breathing Again: Caregiver Stress Relief and Empowerment in Dialysis

Session chair: Sotiroula C. Glikli

Patient Safety in Nephrology Nursing: From Clinical Incidents to Resilient Practice

Session chair: Panagiota Tsikala

From Itch to Action: Recognising, Assessing and Addressing CKD-aP in Nursing Practice I

Session chairs: Nancy Helou, Jeanette FINDERUP

Ultrasound Guided Cannulation of Vascular Access for Haemodialysis I

Session chair: Ruben Iglesias

Haemodialysis Nurses: What Challenges Do They Face? (Clinical Cases)

Session chair: Joana Fontes, Hanadi Mezher, Karen Pugh Clarke

Managing Renal Support and Nutrition in times of War and Mass Disasters

Session chair: Chrysanthi Avrami, Kalliopi-Anna Poulia

Ultrasound Guided Cannulation of Vascular Access for Haemodialysis II

Session chair: Ruben Iglesias

From Itch to Action: Recognising, Assessing and Addressing CKD-aP in Nursing Practice II

Speakers: Afra Masia Plana, Panagiota Tsikala

CORPORATE EDUCATION SESSION

Corporate education session Fresenius Medical Care

Elevating Renal Care: From Technical Delivery to Integrative Care

A Live Talk Show Experience

Four hosts, four fast-paced segments, honest conversation.

Suzanne Mitrovich — Listening First: What Do Patients Really Want?

- “5 Minutes for the Patient” — Sabina Frumen Pivk, Slovenia
- “ePROMs” — Alessandro Pizzo, Italy
- “You Said, We Did” — Nicola Rowland, Australia

João Fazendeiro — Delivering Integrated Care in Practice

- Nursing Care in Outpatient CKD Practice — Alena Kendrick, Czech Republic
- Primary Nursing Model — Silvia Pastorova, Slovakia
- Digital Ecosystem — Hendrik Dannemeyer, Germany

Lisa Webb — Empowering Patient Choice

- Shared Care — Beth Lodge, United Kingdom & Ireland
- Home Dialysis — Adrienne Grieve, United Kingdom
- Dialysis in Isolated Areas — Bronwyn Smaill, Australia

Raquel Ribeiro — The Value of Integrative Care

- Marjelka Trkulja, VP Nursing and Quality
- Marcin Mariak, VP General Manager EMEA Central East
- Björn Englund, President, Care Delivery International

EDUCATION SESSION

Chairs: Anna Marti Monros & Jeanette Finderup

Raising Awareness of CKD-Associated Pruritus: Understanding, Recognition and the Patient Experience

Epidemiology and identification of CKD-Associated Pruritus

Justina Mikelaite, Lithuania

Understanding the Lived Experience of Individuals with CKD-Associated Pruritus: A Qualitative Perspective

Ilaria de Barbieri, Italy

The Patient Experience of CKD-Associated Pruritus: Challenges, Impact and Unmet Needs

Daniel Gallego, Spain

Panel Discussion

Corporate education session DIAVERUM

Transforming Nursing Care: A Quality Leap with POCUS (Point of Care Ultrasound)

Chair: Suzanne Pearce

(Corporate Nursing Director Diavium)

Israel Silva – Corporate Nursing Director

Meshal Alkhulayfi – Corporate Nursing Director

Anetta Cekała – Country Nursing Director Poland

Monica Silva – Country Nursing Director Portugal

Sokica Gregovska – Country Nursing Director North Macedonia

SCIENTIFIC PROGRAMME

Saturday, September 26th, 2026

16:00-17:15	Hall B	Plenary Session
17:30-19:30	Hall B	Opening Ceremony
19:30-21:15	Hall B	Welcome & Exhibition Opening

Sunday, September 27th, 2026

9:00-10:30	Hall 4	CES Fresenius Medical Care
9:00-10:30	Hall 1A	Patient Safety, Infection & Risk Management
9:00-10:30	Hall 1B	Polish National Day
9:00-10:30	Hall 1C	Patient Education, Engagement & Self-Management
9:00-10:30	Hall 3	Workshop: Breathing Again: Caregiver Stress Relief and Empowerment in Dialysis
11:00-11:30	Hall 4	CES CSL VIFOR
11:00-11:30	Hall 1A	Kidney Transplantation Care
11:00-11:30	Hall 1B	Polish National Day
11:00-11:30	Hall 1C	e-Poster Session: Quality, Safety & Service Improvement
11:00-11:30	Hall 3	Workshop “Patient Safety in Nephrology Nursing: From Clinical Incidents to Resilient Practice”
12:30-14:00	Hall 1A	GREEK SYMPOSIUM
14:00-15:30	Hall 4	Vascular Access Care I
14:00-15:30	Hall 1A	PDOPPS Symposium Nursing Improving Outcomes in Peritoneal Dialysis
14:00-15:30	Hall 1B	Polish National Day
14:00-15:30	Hall 1C	e-Poster Session: Haemodialysis Care I
14:00-15:30	Hall 3	Workshop – VIFOR From Itch to Action: Recognising, Assessing and Addressing CKD-aP in Nursing Practice
16:00-17:30	Hall 4	Haemodialysis Care I
16:00-17:30	Hall 1A	Nutrition & Fluid
16:00-17:30	Hall 1B	Polish National Day
16:00-17:30	Hall 1C	e-Poster Session: Patient Experience, Education & Engagement
16:00-17:30	Hall 3	e-Poster Session: Workforce, Systems, Epidemiology & Innovation

Monday, September 28th, 2026

9:00-10:30	Hall 4	Haemodialysis Care II
9:00-10:30	Hall 1A	Peritoneal Dialysis & Home Therapies
9:00-10:30	Hall 1B	Caring for Patients and Care Teams
9:00-10:30	Hall 1C	e-Poster Session: Mental Health, Psychosocial Care & Well-being
9:00-10:30	Hall 3	Workshop: Ultrasound guided cannulation of vascular access for haemodialysis
11:00-12:30	Hall 4	CES DIAVERUM
11:00-12:30	Hall 1A	EDTNA/ERCA Accreditation of Renal Education Programs - come learn more!
11:00-12:30	Hall 1B	Caregivers, Families & Social Support
11:00-12:30	Hall 1C	e-Poster Session: Vascular Access Care
11:00-12:30	Hall 3	Workshop: Haemodialysis Nurses. What challenges do They Face? (Clinical Cases)
12:30-14:00	Hall 1C	Workshop: Managing Renal Support and Nutrition in times of War and Mass Disasters
14:00-15:30	Hall 4	Symptom Management
14:00-15:30	Hall 1B	Epidemiology & Service Delivery
14:00-15:30	Hall 1C	e-Poster Session: Transplantation, Advance Care & Complex Pathways
14:00-15:30	Hall 3	Workshop II: Ultrasound guided cannulation of vascular access for haemodialysis II
16:00-17:30	Hall 4	Vascular Access Care II
16:00-17:30	Hall 1A	Assessment, Screening & Digital Innovation
16:00-17:30	Hall 1B	Complex, Holistic & Evolving Models of Kidney Care
16:00-17:30	Hall 1C	e-Poster Session: Nutrition, Comorbidities & Symptom Management
16:00-17:30	Hall 3	Workshop: VIFOR From Itch to Action: Recognising, Assessing and Addressing CKD-aP in Nursing Practice

Tuesday, September 29th, 2026

9:00-10:30	Hall 4	Nursing Workforce, Roles & Professional Development
11:00-12:30	Hall 4	Health & Psychological Well-being
12:30-13:00	Hall 4	Closing Ceremony

POLISH NATIONAL DAY

LIST OF PRESENTATIONS

Podstawowa opieka zdrowotna w międzypoziomowej opiece medycznej nad pacjentami z przewlekłą chorobą nerek
Mariola Pietrzak

Kamienie milowe szkolenia przygotowujące do pracy w stacji dializ
Agnieszka Brojek

Ból w dializie nie jedno ma imię - czy i jak możemy go niwelować
Anetta Cekała

System samooceny w stacji dializ – ustandaryzowana jakość opieki pielęgniarskiej
Emilia Bogdan

Bioimpedancja w rękach pielęgniarki – nowoczesny standard opieki nad pacjentem z niewydolnością serca i nerek
Dorota Flasińska

Prehabilitacja przed przeszczepieniem nerki: multimedialny program – dowody i realne wdrożenie w praktyce klinicznej
Marta Hreńczuk

Odporność psychiczna i poznawcza regulacja emocji w adaptacji pacjentów dializowanych
Tomasz Piątek

Warsztaty – wykorzystanie AI w pracy pielęgniarki
Joanna Gotlib – Małkowska

Opiekun medyczny w stacjach dializ. Odpowiedź na braki pielęgniarek i rosnące potrzeby pacjentów
Elżbieta Cepuchowicz

Onboarding to nie tylko szkolenie BHP: Jak zbudować poczucie przynależności w zespole pielęgniarskim?
Jacek Hełka

Ocena świadomości zdrowotnej pod kątem nowotworów u pacjentów po transplantacji nerki
Beata Białobrzeska

Zaburzenia depresyjne u pacjentów po transplantacji nerki
Aneta Trzcińska

Przygotowanie pielęgniarek dializacyjnych do nakłuwania przetoki tętniczo – żyłnej
Anna Kliś

Opieka paliatywna w schyłkowej fazie chorób nerek
Michał Milewski

Zdarzenia niepożądane – systematyczna działanie w trosce o bezpieczeństwo pacjenta

Sylvia Neumann

Ocena ryzyka upadków pacjentów dializowanych - monitorowanie i redukcja ryzyka w praktyce pielęgniarstwiej

Agnieszka Dybek

Kompilacja najlepszych praktyk pielęgniarstkich – strategia zapobiegania incydentom VND w stacjach dializ

Gabriela Magrian-Greener

Funkcjonowanie z chorobą przewlekłą wśród pacjentów przewlekle hemodializowanych

Paulina Kucharska

DYSKUSJA

ORAL PRESENTATIONS

103

Implementation of a clinical deterioration alert program to improve patient safety

Lisa Webb

Fresenius Medical Care, Sydney, Australia

Background

Effectively recognizing and responding to clinical deterioration requires the development and communication of strategies for early detection and escalation of care by a skilled clinical workforce.

To further enhance patient safety and their health outcomes we developed and implemented a clinical deterioration alert program.

Objectives

To develop and implement a patient clinical deterioration alert program that focused on early detection of a deteriorating patient, equipping staff with the skills to respond appropriately and effectively, and continual communication with the patient and carers regarding ongoing management and individual concerns.

Early recognition and providing prompt, effective action to stabilize a patient and minimize the occurrence of adverse events with an aim to prevention of hospitalizations.

Methods

The program was developed to assist staff in recognizing clinical deterioration and the need for escalation of care through a vital signs observational chart that included alert levels and response, as well as pre-dialysis patient assessment. In addition, education was provided to staff to equip them in escalating care, via a rapid response system, improved communication using SBAR and clinical handover and listening to patient or carer concerns.

Results

Since implementation across four countries in 2023 there has been a 20% decrease in reported hospital admissions related to dialysis complications, the results indicating the program has improved patient outcomes and safety.

Conclusion/Application to practice

Programs that assist staff in the early recognition of clinically deteriorating dialysis patients and prompt effective response, are vital to minimize adverse events. They also facilitate a lower level of intervention to stabilize a patient and prevent potential hospitalization. Early recognition of clinical deterioration, staff education on care escalation and communication tools provide opportunity to improve patient safety.

References

McGrath JK, Elertson KM, Morin T. Increasing Patient Safety in Hemodialysis Units by Improving Handoff Communication. *Nephrol Nurs. J.* 2020 Sep-Oct;47(5):439-445. PMID: 33107716.

Abstract Country

Australia

Disclosure of Interest

Yes

214

Early Development of a Bacterial Infection Registry in Dialysis Care

Bruno Pinto¹, Ana Mateus², João Fazendeiro Matos¹, Pedro Ponce³

¹NephroCare Portugal, Fresenius Medical Care, Porto, Portugal. ²NephroCare CUF, Fresenius Medical Care, Lisboa, Portugal. ³NephroCare Portugal, Fresenius Medical Care, Lisboa, Portugal

Background

Patients with chronic kidney disease (CKD) undergoing haemodialysis (HD) often present multiple comorbidities and are functionally immunocompromised. Evidence indicates that systematic surveillance of healthcare-associated infections and timely feedback to clinical teams can independently reduce infection rates. Given the relevance of vascular access (VA) related bacterial infections, implementing structured monitoring processes is essential to improve safety in dialysis settings.

Objectives

To develop and implement a standardized data collection methodology and to establish a registry of bacterial infections associated with vascular access as a surrogate indicator of infection epidemiology.

Methods

Following CDC recommendations, the registry captured four sentinel events: positive blood cultures, intravenous antibiotics administered during HD sessions, hospital admissions, and clinical signs such as exudate or redness at the VA site. A first 6 month pilot phase assessed infectious morbidity among patients dialyzed through tunneled long term catheters (CVC) in two selected units.

In a subsequent phase, the registry was expanded to 17 additional dialysis units that voluntarily opted to participate, and to all types of VA. Event rates were stratified by VA type and reported per 100 patient months.

Results

During the initial 6 month pilot phase, 45 events were recorded, corresponding to 3.15 events per 100 patient-months. The most frequent finding was exudate or redness at the VA site (1.47/100 patient-months), followed by intravenous vancomycin administration (1.05/100 patient-months).

In the expanded second phase, event incidence in CVC patients decreased to 2.9/100 patient-months, with an overall incidence of 1.30/100 patient-months. CVCs remained associated with the highest infectious burden, and all positive blood cultures originated from CVC related infections.

Conclusion/Application to practice

Implementing this registry allowed participating units to monitor and compare their infection rates. Patients with CVCs demonstrated significantly higher infectious morbidity. Systematic physical assessment by dialysis nurses remains essential for early detection of exudate or redness, enabling prompt diagnosis and management of VA infections.

References

1. Sinclair MR, Souli M, Ruffin F, Park LP, Dagher M, Eichenberger EM, et al. Staphylococcus aureus Bacteremia Among Patients Receiving Maintenance Hemodialysis: Trends in Clinical Characteristics and Outcomes. American Journal of Kidney Diseases. 2021 Jul.
2. Silberzweig JJ. Reducing Infections in Outpatient Hemodialysis: The Impact of Human Factors. American Journal of Kidney Diseases [Internet]. 2024 Apr 1 [cited 2024 Oct 21]; Available from: [https://www.ajkd.org/article/S0272-6386\(24\)00667-X/fulltext](https://www.ajkd.org/article/S0272-6386(24)00667-X/fulltext).
3. Ponce P, Cruz J, Ferreira A, Oliveira C, José Vinhas, Silva G, et al. A Prospective Study on Incidence of Bacterial Infections in Portuguese Dialysis Units. Nephron Clinical Practice. 2007 Oct 22;107(4):c133–8.

4. Fisher M, Golestaneh L, Allon M, Abreo K, Mokrzycki MH. Prevention of Bloodstream Infections in Patients Undergoing Hemodialysis. *Clinical Journal of the American Society of Nephrology*. 2020 Dec 5;15(1):132–51.
5. Farrington CA, Allon M. Management of the Hemodialysis Patient with Catheter-Related Bloodstream Infection. *Clinical Journal of the American Society of Nephrology*. 2019 Mar 5;14(4):611–3.

Abstract Country

Portugal

Disclosure of Interest

No

217

Importance of a multidisciplinary prevention and infection group in a haemodialysis unit

Sofia Cunha¹, Paula Simões¹, David Pinto¹, Rui Sousa¹, Carlos Botelho¹, Ricardo Peralta², João Fazendeiro Matos²

¹NephroCare Guarda, Fresenius Medical Care, Guarda, Portugal. ²NephroCare Portugal, Fresenius Medical Care, Porto, Portugal

Background

Prevention and infection control groups play a fundamental role in the prevention of healthcare-associated infections (HAIs), antimicrobial resistance (AMR), patient safety, standardizing practices and recommendations from the Ministry of Health. These are particularly relevant in haemodialysis units due to the specific immunological characteristics of these patients.

Objectives

To analyze the impact of the multidisciplinary infection control group on the clinical outcome indicators and epidemiological surveillance.

Methods

We developed a descriptive, longitudinal and retrospective study, by analyzing the evolution of clinical outcomes and epidemiological surveillance indicators, in 2025. We start a multidisciplinary infection group, with regular meetings in the unit to analyze outcomes and indicators. We managed to implement various protocols and a Winter plan in 2025.

Results

With these results we observed a relative decrease in the evaluated epidemiological criteria, such as the number of hospitalizations, vascular access (VA) infections and administration of antibiotics in the hemodialysis unit after the implementation of an infection control program. We managed to ensure a low infection rate below 1 episode/1000days VA (0.21episodes/1000days VA) accompanied by a decrease in exit site infections during 2025 (0.85 episodes/1000days VA). Antibiotic consumption related to VA was 60%. On the other hand, there was an increase in patient's records, related to VA infection, such as blood cultures or exudate from tunneled catheter (TC) exit site. Vaccination rate against Flu and Covid19 increased to 43%.

Conclusion/Application to practice

With the implementation of a multidisciplinary infection group, introduction of various protocols and a winter season plan, we managed to reduce various infection indicators and improved the adherence to vaccination. We believe that with this approach we managed to improve the patient's well-being while increasing clinical efficiency.

References

1. Direção-Geral da Saúde. (2017). Programa de Prevenção e Controlo de Infecções e de Resistência aos Antimicrobianos, Lisboa: Direção-Geral da Saúde. <https://diariodarepublica.pt/dr/detalhe/despacho/2757-2017-106803138>
2. Direção-Geral da Saúde. (2018). Infecções e Resistências aos Antimicrobianos: Relatório Anual do Programa Prioritário, Lisboa: Direção-Geral da Saúde. <https://www.dgs.pt/documentos-e-publicacoes/infecoes-e-resistencias-aos-antimicrobianos-2018-relatorio-anual-do-programa-prioritario.aspx>
3. Ordem dos Médicos, Colégio de Especialidade de Nefrologia (2011). Manual de Boas Práticas de Diálise Crónica.

Abstract Country

Portugal

Disclosure of Interest

No

151

Digital platform for infection control auditing in hemodialysis: impact on quality and patient safety

Luísa Mota

Diaverum, Amarante, Portugal

Background

Infection prevention and control is a fundamental component of patient safety, particularly in dialysis units where patients are highly vulnerable to healthcare-associated infections. Clinical audits are widely recommended by international and national health authorities to monitor adherence to best practices, including hand hygiene and standard precautions.

However, many audit processes remain dependent on paper-based tools or limited digital systems, which restrict data granularity, delay feedback to healthcare teams and limit the ability to implement targeted improvement strategies. In complex clinical environments such as dialysis units, timely and detailed data analysis is essential to support decision-making and strengthen a culture of safety. Therefore, innovative digital solutions are needed to enhance the effectiveness, responsiveness and impact of infection control audits in renal care settings.

Objectives

To develop and implement a digital platform for infection control auditing, aiming to improve data quality, real-time monitoring, and support for clinical and organizational decision-making in hemodialysis units.

Methods

This is a continuous quality improvement project developed within a network of hemodialysis clinics. A mapping of existing audit processes was conducted, identifying limitations associated with manual data collection and digital tools with low granularity. Based on this analysis, the Digital Platform for Infection Control Auditing (DPICA) was developed, which allows for the structured digital recording of audits, the identification of the observed professional category, the association of non-conformities with the World Health Organization's five moments of hand hygiene, and the availability of real-time interactive dashboards, promoting immediate feedback to teams. The implementation was planned in phases, including professional training.

Results

The implementation of the DPICA will increase audit process efficiency, reduce the time spent on data collection and analysis, and improve information granularity. The availability of real-time results will enhance the early identification of non-conformities and the targeting of specific training interventions, promoting greater adherence to best practices and reinforcing the patient safety culture.

Conclusion/Application to practice

The Digital Platform for Infection Control Auditing constitutes an innovative approach to monitoring practices in hemodialysis units. By integrating digital technology, methodological rigor, and nursing leadership, this project contributes to continuous quality improvement, reinforces patient safety, and positions healthcare teams, particularly nursing, as active agents of digital transformation.

References

- World Health Organization. WHO Guidelines on Hand Hygiene in Health Care. Geneva: WHO; 2009.
- European Centre for Disease Prevention and Control. Healthcare-associated infections surveillance in Europe. ECDC; 2023.
- World Health Organization. Global report on infection prevention and control. Geneva: WHO; 2022.
- Sax H, et al. The World Health Organization hand hygiene observation method. Am J Infect Control. 2009.

Abstract Country Portugal

Disclosure of Interest Yes

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Catheter locking solution optimization: outcomes of a dynamic protocol in a haemodialysis unit

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Background

Central venous catheter (CVC) dysfunction due to thrombosis is considered as the most frequent complication and is responsible for about two-thirds of all cases of CVC removal. Some current guidelines state that the use of pure heparin is no longer the gold standard, but the guidelines do not provide a clear recommendation regarding the variation and availability of catheter locking solution (CLS). The choice of an adequate CLS represents a key decision.

Objectives

To analyze the outcomes of a CLS dynamic protocol implementation outcomes on the management of CVC.

Methods

We developed a descriptive, longitudinal and retrospective study, by analyzing the outcomes of the introduction of a CLS dynamic protocol in the unit, between December 2024 and December 2025. Our protocol initiated with 6 dynamic different stages for CLS, starting with Citrate 4% and the last with the use of urokinase and alteplase.

Results

After a year of application, we managed to:

- Reduce the mean estimated value of the CLS from 109.39€/week to 8.27€/week.
- Increase the use of citrate 4% as the most common CLS.
- Abandon the use of pure heparin (5000UI/ml) as CLS and change to diluted heparin (500UI/ml).
- Start the use of a week mixed CLS, alternating between citrate 4% and diluted heparin
- Maintain the treatment outcomes with the new CLS protocol implementation.
- Achieve a mean infection rate of 0.21 episodes/1000 CVC days.

Conclusion/Application to practice

With the introduction of the new CLS dynamic protocol, substituting pure heparin to diluted heparin, we managed to reduce the risks for the patients, without negative impact on treatment outcomes and keeping a very low infection rate, while reducing the costs.

References

1. Wang, Y., & Sun, X. (2022). Reevaluation of lock solutions for Central venous catheters in hemodialysis: a narrative review. *Renal Failure*, 44(1), 1502–1519. <https://doi.org/10.1080/0886022X.2022.2118068>
2. Wang L, Wang H, Wang Y, Wang Y, Liu Y (2025) Effect of different concentrations of heparin-locking solution for central venous catheters in hemodialysis patients: A systematic review and meta-analysis. *PLoS ONE* 20(3): e0320207. <https://doi.org/10.1371/journal.pone.0320207>
3. Zhao, Y., Li, Z., Zhang, L., Yang, J., Yang, Y., Tang, Y., & Fu, P. (2014). Citrate versus heparin lock for hemodialysis catheters: a systematic review and meta-analysis of randomized controlled trials. *American journal of kidney diseases : the official journal of the National Kidney Foundation*, 63(3), 479–490. <https://doi.org/10.1053/j.ajkd.2013.08.016>

Abstract Country

Portugal

Disclosure of Interest

No

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Impact of a new ANTT-based CVC connection and exit-site care protocol in hemodialysis

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Background

Central venous catheter (CVC) infections, particularly subcutaneous tract involvement, are major complications in hemodialysis. Implementing standardized, evidence-based protocols for connection, disconnection, and exit-site care is essential to minimize infection risk, reduce inter-center variability, and preserve vascular access longevity. The Aseptic Non Touch Technique (ANTT) provides a structured framework to prevent key-part contamination during invasive procedures.

Objectives

To evaluate the clinical impact and safety of a newly implemented CVC connection, disconnection, and exit-site care protocol based on ANTT principles in hemodialysis patients

Methods

A retrospective study across 46 hemodialysis centers (April 2024–January 2026) evaluated an ANTT-based protocol. In April 2025, 3 pilot centers (~242 patients/month) implemented the protocol, while 43 control centers (~1,835 patients/month) maintained standard care. Monthly clinical infection signs were converted to incidence rates per 100 active catheter patients. The intervention's effect was analyzed using a difference-in-differences mixed linear model, incorporating random effects to account for center-level variability.

Results

Implementation of the ANTT-based protocol was associated with a statistically significant reduction in signs of subcutaneous tract involvement. In the pilot centers, pre-post analysis showed a decrease of 5.06 cases per 100 patients ($p=0.012$). The global mixed-effects model comparing pilot and control centers throughout the follow-up period confirmed an overall reduction of 5.82 cases per 100 patients ($p=0.009$). Importantly, the protocol demonstrated safety and non-inferiority regarding other clinical signs such as exudate, crusting, and local bleeding, which also showed downward trends without reaching statistical significance.

Conclusion/Application to practice

The ANTT-based CVC connection and exit-site care protocol appears to be safe and significantly reduces the incidence of subcutaneous tract involvement in hemodialysis patients. Standardizing this evidence-based, aseptic non-touch approach across dialysis units may effectively prevent severe tract complications, reduce clinical variability, and potentially decrease premature catheter removal.

References

1. Mermel LA, Allon M, Bouza E, Craven DE, Flynn P, O'Grady NP, et al. Clinical practice guidelines for the diagnosis and management of intravascular catheter-related infection: 2009 Update by the Infectious Diseases Society of America. *Clin Infect Dis*. 2009;49(1):1-45.
2. O'Grady NP, Alexander M, Burns LA, Dellinger EP, Garland J, Heard SO, et al. Guidelines for the prevention of intravascular catheter-related infections. *Clin Infect Dis*. 2011;52(9):e162-93.
3. Loveday HP, Wilson JA, Pratt RJ, Golsorkhi M, Tingle A, Bak A, et al. epic3: National evidence-based guidelines for preventing healthcare-associated infections in NHS hospitals in England. *J Hosp Infect*. 2014;86(Suppl 1):S1-70.
4. Ray-Barruel G, Rickard CM, Webster J, Marsh N. Standard versus antiseptic non-touch technique for peripheral intravenous catheter insertion and maintenance: A systematic review. *J Hosp Infect*. 2016;93(2):105-15.
5. Lok CE, Huber TS, Lee T, Shenoy S, Yevzlin AS, Abreo K, et al. KDOQI Clinical Practice Guideline for Vascular Access: 2019 Update. *Am J Kidney Dis*. 2020;75(4 Suppl 2):S1-S164.

Abstract Country Spain

Disclosure of Interest No

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Health literacy, disease burden, and quality of life in ckd: a cross sectional study

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Introduction

Chronic Kidney Disease (CKD) requires complex treatments and sustained self-care. Health literacy (HL) supports patients in understanding information and participating in care, yet its relationship with the perceived burden of kidney disease is unclear.

Objective

To assess HL in patients with CKD and examine its association with burden of kidney disease and quality-of-life domains.

Materials and Methods

A cross-sectional study was conducted at the Nephrology and Transplant Unit, University of Bari. HL was measured with the HLS19-Q12 and burden with the KDQOL-SF™ v1.3. Descriptive statistics were computed. Spearman's correlations assessed associations between HL and KDQOL domains. Kruskal–Wallis tests compared outcomes across HL-related items.

Results

A total of 107 patients were enrolled, mostly female (72.6%) and aged >60 years. Advanced CKD was common (stage 4: 29.2%; stage 5: 30.3%). Mean HL was 31.5 ± 22.4 , indicating low literacy. Mean Burden of Kidney Disease was 48.2 ± 27.0 (moderate burden). Perceived ease in finding professional help when unwell was associated with symptom/problem perception ($H=8.043$, $p=0.045$) and cognitive function ($H=8.504$, $p=0.037$). Perceived health differed by ability to assess the reliability of information on unhealthy behaviors ($H=15.481$, $p=0.001$) and to make self-protective decisions based on media information ($H=7.851$, $p=0.049$). No differences emerged for other domains. HL correlated positively with Effects of Kidney Disease ($\rho=0.258$, $p=0.007$) and sleep quality ($\rho=0.235$, $p=0.015$). Greater symptom burden correlated with poorer sleep ($\rho=0.322$, $p=0.001$) and worse general health ($\rho=0.220$, $p=0.023$).

Conclusion

Low HL was prevalent in advanced CKD and associated with key disease outcomes. Higher HL related to lower perceived disease impact and better sleep, suggesting HL as a modifiable target to reduce burden and support patient-centered CKD management.

References

1. Pelikan, J. M., Link, T., Straßmayr, C., Waldherr, K., Alferts, T., Bøggild, H., Griebler, R., Lopatina, M., Mikšová, D., Nielsen, M. G., Peer, S., Vrdelja, M., & HLS19 Consortium of the WHO Action Network M-POHL (2022). Measuring Comprehensive, General Health Literacy in the General Adult Population: The Development and Validation of the HLS₁₉-Q12 Instrument in Seventeen Countries. *International journal of environmental research and public health*, 19(21), 14129. <https://doi.org/10.3390/ijerph192114129>
2. Klersy, C., Callegari, A., Giorgi, I., Sepe, V., Efficace, E., Politi, P., & Pavia Working Group on QoL in Organ Transplant (2007). Italian translation, cultural adaptation and validation of KDQOL-SF, version 1.3, in patients with severe renal failure. *Journal of nephrology*, 20(1), 43–51.

Abstract Country Italy

Disclosure of Interest Yes

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Promoting positive illness perceptions in CKD through digital self-management education and support

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Introduction

Effective self-management of chronic kidney disease (CKD) can reduce health risks and improve long-term outcomes. We co-developed a digital health intervention, My Kidneys & Me (MK&M), to improve CKD knowledge and self-management. This study examined the effects of MK&M on participants' perceptions of their CKD.

Methods

420 participants aged ≥18 years with CKD stages 3-4 were recruited from 26 hospitals and randomised 2:1 to MK&M intervention (n=280) or usual-care control (n=140). Participants completed the Brief Illness Perception Questionnaire (BIPQ) at baseline and 10-weeks. The BIPQ assesses cognitive and emotional representations of illness across eight 0–10 items, with higher scores indicating greater perceived threat (range 0–80). Scores were categorised as low, moderate, or high threat. Between-group differences were analysed using linear regression adjusted for baseline scores; within-group changes used paired t-tests.

Results

Of the 280 intervention participants, 225 (80%) activated and used MK&M. At baseline, 51% perceived their CKD as low threat and 25% as high threat. After 10 weeks, a significantly larger proportion of the intervention group perceived CKD as less threatening compared with controls ($P=0.015$), with 57% of intervention group rating CKD as low threat (11% increase), and 16% rating as high threat (35% decrease).

There was a significant between-group difference in change in BIPQ scores ($P=0.018$), with the intervention group showing a greater reduction (mean change: -2.54 , 95%CI: $0.98-4.10$, $P=0.002$). Significant differences were observed in illness coherence ($P=0.006$) and personal control ($P=0.026$). The intervention group showed significant improvement in coherence, personal control, and treatment control ($P<0.001$). No meaningful changes occurred in the control group.

Conclusion

MK&M improved participants' perceptions of CKD, enhancing understanding, perceived control, and confidence in managing their condition. These perceptual improvements are important determinants of effective coping and self-management.

References

Lightfoot CJ, Wilkinson TJ, Hadjiconstantinou M, Graham-Brown M, Barratt J, Brough C, et al. The Codevelopment of "My Kidneys & Me": A Digital Self-management Program for People With Chronic Kidney Disease. *Journal of medical Internet research*. 2022;24(11):e39657.

Abstract Country

United Kingdom

Disclosure of Interest

No

56

What influences engagement with social prescribing for people with kidney disease? A cross-sectional survey.

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Background

People with kidney disease experience significant psychosocial challenges, yet access to holistic, community-based support remains variable. Social prescribing (SP) links people with unmet social and emotional needs to local support, services and activities, but engagement with SP for people with kidney disease is underexplored. Using the Theoretical Domains Framework (TDF), this study identified factors influencing engagement with SP across key stakeholder groups.

Objectives

To identify barriers and facilitators influencing engagement with SP for people with kidney disease, to inform future implementation within renal care.

Methods

A UK-wide, cross-sectional, online survey was developed using relevant TDF domains identified from a prior qualitative study with key stakeholder groups. The survey was shared with participants within the same categories; people with kidney disease (n=66), renal healthcare professionals (n=81), SP link workers (n=52), and organisations providing SP activities (n=46). Descriptive statistics were utilised to identify barriers and facilitators and explore influences on engagement across stakeholder groups.

Results

Key facilitators were identified, including positive attitudes towards engagement, perceived benefits for the patient population, and motivation to improve and support physical and mental health. Barriers included limited knowledge of SP among people with kidney disease and renal healthcare professionals, and lack of training for healthcare professionals and SP providers. The study also identified that people with kidney disease struggle to access SP through traditional primary care pathways with a preference for accessible referrals within routine renal care.

Conclusion/Application to practice

The findings suggest priorities for future implementation, including improving knowledge, upskilling social prescribers to support people with kidney disease and improving access to SP within renal care. These insights can inform development of evidence-based implementation strategies such as co-production of educational resources and training, network building between sectors, and integration of SP pathways within renal care, to support equitable and sustainable access for people with kidney disease.

References

1. Alshelleh S, Alhourri A, Taifour A. et al. Prevalence of depression and anxiety with their effect on quality of life in chronic kidney disease patients. *Sci Rep* 12, 17627. 2022.
2. Atkins L, Francis J, Islam R, O'Connor D, Patey A, Ivers N, et al. A guide to using the Theoretical Domains Framework of behaviour change to investigate implementation problems. *Implementation Science*. 2017;12(1):77.
3. Chilcot J, Pearce CJ, Hall N, Busby AD, Hawkins J, Vraitch B, et al. The identification and management of depression in UK Kidney Care: Results from the Mood Maps Study. *J Ren Care*. 2024.
4. Wilding A, Agboraw E, Munford L, Sutton M, Mercer SW, Salisbury C, et al. Impact of the rollout of the national social prescribing link worker programme on population outcomes: evidence from a repeated cross-sectional survey. *British Journal of General Practice*. 2025;75(761):e880-e8.
5. Wilson A, Noble H, Galway K, Doherty J. Social prescribing for people living with long-term health conditions: a scoping review. *Syst Rev*. 2025;14(1):114.

Abstract Country Northern Ireland

Disclosure of Interest No

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Self-Care Practices Among Patients with Chronic Kidney Disease: Implications for Nursing Care in Vietnam

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Background

In Vietnam, chronic kidney disease poses a significant health burden, requiring patients to maintain rigorous self-care routines. However, there is limited qualitative evidence regarding how cultural and socioeconomic factors influence these practices in local clinical settings.

Objectives

This study explored self-care behaviors and identified the facilitators and barriers to effective disease management among patients with chronic kidney disease at General Hospital.

Methods

A qualitative research design was employed. Data were collected through structured questionnaires and in-depth interviews with twenty participants aged eighteen to sixty years. Data collection reached theoretical saturation, ensuring a comprehensive representation of the study population. Thematic analysis was used to interpret the findings.

Results

Essential self-care behaviors, including nutrition, physical activity, and medication adherence, were critical for effective management. However, participants exhibited varying levels of awareness, which directly impacted their practices. Family support and community resources were identified as key facilitators. Conversely, physical health deterioration and financial constraints emerged as significant barriers hindering effective self-management.

Conclusion/Application to practice

The study highlights the vital role of nursing-led educational initiatives and community engagement in empowering patients with chronic kidney disease. To improve clinical outcomes and quality of life, nursing care in Vietnam should transition toward integrated support systems. These systems must include comprehensive patient education, family-inclusive care models, and nursing advocacy to address systemic financial and health-related barriers.

References

1. Liu, Y., He, Q., Li, Q., Tian, M., Li, X., Yao, X., & Deng, C. (2023). Ước tính tỷ lệ mắc và tử vong toàn cầu do bệnh thận mãn tính do tăng huyết áp từ năm 1990 đến năm 2019: Phân tích sinh thái của nghiên cứu gánh nặng bệnh tật toàn cầu năm 2019. *BMC Nephrology*, 24(1), 352. <https://doi.org/10.1186/s12882-023-03391-z>
2. Chadban, S., Arici, M., Power, A., Wu, M.-S., Mennini, FS, Arango Álvarez, JJ, & Retat, L. (2024). Dự báo gánh nặng kinh tế của bệnh thận mãn tính ở cấp độ bệnh nhân (Bên trong bệnh thận mãn tính): Một nghiên cứu mô hình mô phỏng vi mô. *eClinicalMedicine*, 72, 102615. <https://doi.org/10.1016/j.eclinm.2024.102615>
3. Võ Ngọc Trang Đại, Lê Vang Cam Tử, Trần Lư Huyền Châu, Lê Nguyễn Thanh Duy, Đặng Nhật Hoa, & Mai Huỳnh Ngọc Tân. (2024). Chất lượng cuộc sống và các yếu tố liên quan ở bệnh nhân suy thận mạn tính đang chạy thận nhân tạo thường xuyên tại Bệnh viện Đa khoa Thành phố Cần Thơ. *Tạp chí Y học Cần Thơ* (70), 162-168. <https://doi.org/10.58490/ctump.2024i70.2264>
4. Ngô Trí Tuấn, Nguyễn Thị Tuyên, và Nguyễn Thị Lập. (2024). Tình trạng hiện tại của hành vi tìm kiếm chăm sóc sức khỏe ở bệnh nhân mắc bệnh thận mạn tính từ 60 tuổi trở lên được điều trị tại khoa ngoại trú, Bệnh viện Thận Hà Nội. *Tạp chí Đại học Y Hà Nội*. <https://doi.org/10.52852/tcncyh.v183i10.2735>
5. Mesa-Gresa, P., Avesani, CM, Clyne, N., García-Testal, A., Kouidi, E., Van Craenenbroeck, AH, & Segura-Ortí, E. (2024). Nhu cầu, rào cản và yếu tố hỗ trợ cho lối sống lành mạnh hơn ở bệnh nhân chạy thận nhân tạo: Dự án GoodRENal. *Tạp chí Điều dưỡng Lâm sàng*, 33(3), 1062-1075. <https://doi.org/10.1111/jocn.16910>

Abstract Country Vietnam

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Disclosure of Interest No

197

The impact of patient empowerment to treatment outcomes

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Background

Case: A 31-year-old patient was referred in 2014 from the ICU for renal failure in uremia with serious uremic complications. The initial lab tests were: creatinine 2668 µmol/l, urea 68 mmol/l. She was on acute daily dialysis until her condition stabilized. An AVF was created for the patient, where the button hole cannulation method was chosen. After 6 months patient unexpectedly became pregnant and wanted to continue the pregnancy. She patiently went to dialysis daily, strictly followed a diet and thanks to her responsible approach, the patient gave birth to a healthy baby girl. The determination to be active, resulted in the desire for self-cannulation of the AVF. The patient was trained and successfully cannulating herself for a year on hemodialysis treatment. In 2025, the patient was transplanted. After the transplant, the patient is currently balanced, satisfied and enjoying life with her family.

Objectives

To assess: The influence of the patient's active approach to his treatment. The role of nursing care in strengthening the patient's ability.

Methods

Case report

Results

Discussion: Patient empowerment is defined as "a process through which people gain greater control over decisions and actions affecting their health. Dialysis treatment is associated with many complications and challenges, but by strengthening the active approach, even in situations such as pregnancy or methods such as self-cannulation of avf, we can achieve great results

Conclusion/Application to practice

Strengthening engagement, empowerment, and adherence to treatment.

Pregnancy during dialysis needs intense management and multidisciplinary approach

Self-cannulation offers greater autonomy and better vascular access longevity, brings less pain, improving the patient's psychological well-being and control of his health.

References

1. AGNER, J., BRAUN, K: Patient empowerment: A critique of individualism and systematic review of patient perspectives [online] <https://www.sciencedirect.com/science/article/abs/pii/S073839911830452X>
2. CONFORTINY, P. et al. Full term pregnancy and Successful Delivery in a Patient on Chronic haemodialysis [online]. In: http://www.eraedta.org/proceedings/vol8/V8_09.pdf
3. EDTNA/ERCA ASSOCIATION: Home Haemodialysis- A Nurses Guide to Implementing Best Practise in Home Haemodialysis, MALMO, 2017, ISBN 978-84-697-4072-9
4. MANISCO, G. et al.: Pregnancy in end-stage renal disease patients on dialysis: how to achieve a successful delivery. In: Clinical Kidney Journal. 2015 [online]: <http://ckj.oxfordjournals.org/content/early/2015/03/18/ckj.sfv016.full>
5. NISSENSON, A, R.: Handbook of Dialysis therapy. 5th edition. ELSEVIER. 2013. ISBN 978-0-323-39154-2

Abstract Country Slovakia

Disclosure of Interest No

224

App as a communication channel between Patients and the Staff – challenges and barriers

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Background

Medical mobile applications have become an essential component of modern healthcare systems, supporting patients in self-monitoring, diagnostics, therapy management, and access to medical records. In nephrology, where CKD requires complex and continuous care, digital tools can function as a “virtual assistant,” enhancing health literacy and empowering patients to actively participate in renal replacement therapy. Despite the rapid development of mHealth solutions still is little known about the barriers and challenges these patients experience when adopting digital solutions. Understanding which functionalities are most valued is crucial for designing effective patient education and engagement strategies.

Methods

A 36-month analysis was conducted across 22 dialysis clinics in Poland to assess both the percentage of patients using the App and the features they accessed most frequently. Additionally, the clinic with the highest adoption rate was analyzed in depth to identify organizational and educational processes facilitating successful implementation of the application

Results

App emerged as a pioneering digital platform improving communication between patients and healthcare professionals and supporting patient engagement. Application usage increased progressively from 39.9% in 2023 to 44.4% in 2025. One clinic achieved an adoption rate of 77.6%, with nearly 49% of users accessing the application at least four times per month. The most frequently used functions included dialysis session data (91.3%), medication information (87.1%), laboratory results (85.5%), fluid intake management (60.1%), interdialytic weight gain (48.8%).

Conclusion/Application to practice

Medical applications play a central role in improving health literacy, self-care, and treatment adherence among dialysis patients. Understanding the determinants of adoption and identifying the content most frequently accessed by users is essential for promoting digital inclusion, strengthening patient engagement, and optimizing outcomes in renal replacement therapy

References

1. Žulpaitė G, Vyčius K, Deinoravičiūtė U, Saukaitytė-Butvilė E, Rimševičius L, Miglinas M. Empowering CKD and Hemodialysis Patients with mHealth: Implementation of the NephroGo App in Europe. J Clin Med. 2025 Sep 3;14(17):6219. doi: 10.3390/jcm14176219. PMID: 40943982; PMCID: PMC12429599.
2. Diamantidis C.J., Becker S. Health Information Technology (IT) to Improve the Care of Patients with Chronic Kidney Disease (CKD) BMC Nephrol. 2014;15:7. doi: 10.1186/1471-2369-15-7.
3. Markossian TW, Boyda J, Taylor J, Etingen B, Modave F, Price R, Kramer HJ. A Mobile App to Support Self-management of Chronic Kidney Disease: Development Study. JMIR Hum Factors. 2021 Dec 15;8(4):e29197. doi: 10.2196/29197. PMID: 34914614; PMCID: PMC8717130.

Abstract Country

Poland

Disclosure of Interest

No

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Nurse-Led School Interventions to Promote Kidney Health: The RENATA Research Project

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Background

Chronic kidney disease (CKD) is a major public health challenge in which prevention and early detection are essential. It has been described as a “silent epidemic,” as it often remains asymptomatic until advanced stages, limiting timely diagnosis and intervention. Despite its impact, public awareness of CKD remains low compared with other non-communicable diseases such as cardiovascular disease or cancer. Limited knowledge about kidney function, risk factors, and prevention contributes to delayed diagnosis, disease progression, and poorer outcomes, including less favourable trajectories in renal replacement therapy. Strengthening health literacy is therefore key in CKD prevention.

Nurses play a central role in health literacy through patient education, community engagement, and health promotion. Expanding nurse-led interventions beyond clinical settings into schools represents an innovative preventive approach aligned with public health priorities. Although schools are recognised as strategic environments for preventing non-communicable diseases, children and adolescents are often overlooked in kidney health awareness programmes, as they are generally perceived as healthy.

Within this context, the Renata Project promotes kidney health from early childhood by engaging children as active health promoters within their families. The intervention is based on an illustrated children’s storybook “Renata, My Nephrologist”, supported by a classroom activity guide for educational use. These materials introduce basic concepts of kidney function, common renal conditions, and healthy habits through age-appropriate and participatory learning strategies.

By empowering children as agents of change, nurse-led interventions can extend health education beyond the classroom into the family setting, reinforcing community awareness and preventive behaviours. However, evidence on kidney health literacy in school populations and indirect knowledge transmission to families remains scarce. The Renata Project was therefore developed as a structured nursing strategy to promote kidney health literacy from an early age and assess its impact beyond the school setting.

Objectives

The objective of this study was to assess the impact of a structured nurse-led educational intervention on kidney health knowledge in schoolchildren. Furthermore, the study aimed to determine the level of kidney health literacy in children and their family members prior to the intervention, to evaluate changes in knowledge among children after participation in the educational programme, and to examine whether any increase in knowledge among adult family members could be observed following the intervention. An additional objective was to explore the potential role of children as agents of change in the transmission of kidney health information within the family setting.

Methods

A quasi-experimental pre–post study was conducted in five schools across different regions of Spain (Galicia, Castilla y León, Madrid, and Andalusia), including early childhood and primary education centres. The study population consisted of children aged 5 to 11 years and one corresponding adult family member (parent, caregiver, or legal guardian).

The intervention consisted of a structured nurse-led educational workshop delivered during the regular school day. The session was based on an illustrated children’s storybook “Renata, My Nephrologist” focused on kidney health, supported by an educational activity guide. The workshop included a guided reading of the story followed by seven sequential classroom activities designed to introduce basic concepts of kidney function, common renal diseases, and healthy lifestyle habits. Families did not attend the educational session.

Kidney health knowledge was assessed in both children and family members using age-adapted pre- and post-intervention questionnaires consisting of 10 multiple-choice questions. Each correct answer was scored as one point (range 0–10). The pre-intervention questionnaire was completed the day before the workshop, and the post-intervention assessment was conducted immediately after the session for children and the following day for adults.

Categorical variables were analysed using Pearson's chi-square test. The normality of quantitative variables was assessed using the Kolmogorov–Smirnov test. Pre- and post-intervention knowledge scores were compared using paired Student's t-tests. Statistical significance was set at $p < 0.05$. All analyses were performed using R Statistical Software and SPSS (version 26). The study complied with the European Union General Data Protection Regulation (GDPR) and the ethical principles of the Declaration of Helsinki.

Results

A total of 591 questionnaires from children (293 pre-intervention and 286 post-intervention) and 126 from family members (85 pre-intervention and 41 post-intervention) were analysed. The mean age of the children was 9.9 ± 1.6 years, with 50.1% boys, while the mean age of adults was 45.4 ± 10.1 years, with 28.6% men. Analysis of mean total scores (0–10 scale) showed a significant increase in children, from 6.5 ± 2.3 to 9.2 ± 1.0 ($p < 0.001$). Adults also demonstrated a modest but significant improvement, from 8.0 ± 1.3 to 8.5 ± 1.4 ($p = 0.034$).

Before the intervention, children demonstrated limited knowledge regarding key aspects of kidney health, particularly the identification of the kidney specialist, clinical manifestations of CKD, and markers of kidney function. Only 53.6% correctly identified the nephrologist as the kidney specialist, and 45.2% correctly answered that kidneys with chronic kidney disease do not typically cause pain. The lowest proportion of correct responses was observed for the identification of creatinine as a marker of kidney function (34.0%). Following the educational workshop, the percentage of correct responses increased significantly across almost all items, reaching values between 87.0% and 99.7%. The only item that did not show a statistically significant improvement was the question related to treatment options ($p = 0.063$).

Among family members, baseline knowledge was generally higher than that of children, although gaps were observed in clinical aspects, kidney function markers, and preventive habits. Correct responses reached 54.1% for the question on kidney pain, 72.9% for the identification of creatinine as a marker of kidney function, and 68.2% for healthy kidney habits. Post-intervention, a statistically significant improvement was observed only in the question related to kidney pain, with correct responses increasing from 54.1% to 80.5% ($p = 0.004$).

Conclusion/Application to practice

Nurse-led school-based interventions significantly improve kidney health literacy in children and support early CKD prevention strategies. Integrating structured renal health education into schools represents an effective and scalable public health approach to addressing the persistently low awareness of chronic kidney disease.

Beyond the impact observed in children, important knowledge gaps were identified among adults. Nearly half believed that CKD causes kidney pain, one quarter were unaware of the main marker of kidney function, and almost three in ten did not recognise healthy kidney habits. In addition, 40% did not associate smoking with kidney damage, and only 28% were aware of all CKD treatment options. These findings indicate persistent deficits in renal health literacy among adults.

The results reinforce the strategic role of nurses as leaders in community-based prevention and health education. By empowering school-aged children as agents of change, nursing interventions can extend health knowledge beyond the classroom and into households, amplifying their public health impact.

Further research with larger and more diverse samples is needed to confirm these findings and assess long-term outcomes. Such evidence could inform health policy and support the integration of nurse-led educational programmes into CKD prevention strategies at community and national levels.

References

- [1] de Sequera P. La enfermedad renal crónica, una epidemia silenciosa. Revista de Investigación y Educación en Ciencias de la Salud (RIECS). 2023 Nov;8(2):3-9. doi: 10.37536/RIECS.2023.8.2.396.
- [2] Devraj R, Borrego M, Vilay AM, Gordon EJ, Pailden J, Horowitz B. Relationship between Health Literacy and Kidney Function. Nephrology (Carlton). 2015 May;20(5):360-7. doi: 10.1111/nep.12425.
- [3] Arenas Jiménez MA. Renata, mi nefróloga. Madrid: Círculo Rojo. 2022; 32 p. Disponible en: info@friat.es
- [4] Stewart-Brown S. What is the evidence on school health promotion in improving health or preventing disease and, specifically, what is the effectiveness of the health promoting schools approach? Copenhagen: World Health Organization. 2006 Mar; 26 p.
- [5] Ojeda Ramírez MD, García Ramos S, Mansodel Real P, Audije-Gil J, Arenas Jiménez MD. Renata, my nephrologist, can children's literature act as a tool to raise awareness and prevent kidney disease? Nefrologia (Engl Ed). 2024 Nov-Dec;44(6):894-897. doi: 10.1016/j.nefro.2024.11.008. Epub 2024 Nov 28. PMID: 39613545.

Abstract Country

Spain

Disclosure of Interest

Yes

23

Views, attitudes, and reported practices of nephrology nurses regarding shared decision-making in end-of-life care

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Background

End-stage renal disease (ESRD) represents the final stage of chronic kidney disease (CKD). Some of the ESRD patients are deemed not suitable for dialysis treatment. Shared Decision Making (SDM) is the recognized preferred model for medical decision-making especially at stage 5 CKD (ESRD) requiring dialysis. Little is known about EOL care and SDM in the practice of nephrology nurses in Israel.

Objectives

To examine nephrology nurses' views and attitudes concerning SDM in EOL care, while exploring related ethical conflicts and dilemmas.

Methods

The study pursued a descriptive quantitative approach, whereby we sent a questionnaire to nephrology nurses throughout the country surveying their views and attitudes on the use of SDM in EOL care of ESRD patients.

Results

About a third (34.5-36.5%) of nurses discuss QOL issues with patients, ask about their advance directives (AD)/power of attorney, and explore cultural/religious beliefs at the EOL. At low rates, nurses ask about the patient's preferred place of death (30%). Nephrology nurses who show high levels of patient centered care PCC (68.9%), who have high EOL training (76.2%), and cooperation with interdisciplinary team (63.8%) report high SDM involvement than other nurses. On the other hand, nurses who refer less patients to palliative care (PC), report high involvement (70%) in SDM process.

Conclusion/Application to practice

Nephrology nurses in Israel pursue an SDM model at low rates. Nurses do not really take part in it and it is not adequately implemented. SDM has the potential of increasing the quality of care provided to ESRD patients at the EOL and to their families, as well as extending the possibilities to deliver optimal CC. Better education of nurses and support of their work environment may encourage a more tailored approach to EOL care for ESRD patients.

References

- Engels, N., De Graaf, G., Van Der Nat, P., Van Den Dorpel, M., Bos, W. J., & Stiggelbout, A. M. (2020). Shared decision-making in advanced kidney disease: A scoping review protocol. *BMJ Open*.
- Fortbild, Z. E., & Gesundh, Q. (2022). Time to rise to the challenge of truly implementing patient-centered care and shared decision-making in Israel : The educational and policy mission Es ist an der Zeit, sich den Herausforderungen der tatsächlichen Implementierung von eine allgemein- und b. *Zeitschrift Fuer Evidenz, Fortbildung Und Qualitaet Im Gesundheitswesen*, 171, 68–73.
- Galla, J. H. (2000). Clinical practice guideline on shared decision-making in the appropriate initiation of and withdrawal from dialysis. *Journal of the American Society of Nephrology*.
- Gunda, S., Thomas, M., & Smith, S. (2005). National survey of palliative care in end-stage renal disease in the UK. *Nephrology Dialysis Transplantation*.
- Martin, D. E., Harris, D. C. H., Jha, V., Segantini, L., Demme, R. A., Le, T. H., McCann, L., Sands, J. M., Vong, G., Wolpe, P. R., Fontana, M., London, G. M., Vanderhaegen, B., & Vanholder, R. (2020). Ethical challenges in nephrology: a call for action. *Nature Reviews Nephrology*.

Abstract Country

Israel

Disclosure of Interest

No

19

Understanding the feasibility of home-based rehabilitation in kidney transplant recipients: A mixed-methods approach

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Background

Kidney transplant recipients (KTRs) experience reduced physical function and low physical activity levels, yet rehabilitation opportunities remain limited. The ECSERT feasibility trial demonstrated that a low-cost 12-week home-based programme was feasible and acceptable. This mixed-methods evaluation aimed to explore participants' experiences of the trial process and exercise programme to understand the factors underpinning feasibility and sustained engagement.

Methods

Fifty stable KTRs (>1 year post-transplant) were randomised 1:1 to a 12-week home-based rehabilitation programme or guideline-directed care. Semi-structured interviews were conducted (n=12 intervention participants) immediately following the programme and at 3-months. Interviews were analysed using reflexive thematic analysis. Qualitative insights were integrated with feasibility metrics (recruitment, adherence, and attrition) using convergent mixed-methods.

Results

Mixed-methods integration highlighted factors contributing to strong feasibility outcomes. Recruitment was enhanced with initial contact from trusted healthcare professionals. Participants valued additional health monitoring and the option to undertake the programme later; alleviating control group allocation disappointment. Facilitators of exercise adherence included noticing physical changes, maintaining health, routine formation, flexibility, variety and progression, a sense of accountability, and ongoing support. At 3-months, many sustained some activity, though motivation, time, and episodes of ill-health posed challenges.

Discussion

Components that supported feasibility included trusted clinical communication, programme flexibility, progression, and personalised support. These findings have clear clinical implications. Renal teams can use established clinician-patient relationships to enhance recruitment, while incorporating brief monitoring/follow-up may strengthen engagement and accountability. The flexible, home-based design suits variable health and time demands, supporting integration into routine care. Recognising longer-term challenges with motivation, illness, and competing priorities highlights the need for ongoing, tailored support, potentially through digital tools or structured follow-up. These insights provide practical guidance for embedding accessible and sustainable opportunities into post-transplant care pathways.

References

1. Billany RE, Vadasz N, Bishop NC, et al. A pilot randomised controlled trial of a structured, home-based exercise programme on cardiovascular structure and function in kidney transplant recipients: the ECSERT study design and methods. *BMJ Open*. 2021;11(10):e046945. Published 2021 Oct 5. doi:10.1136/bmjopen-2020-046945
2. Billany RE, Young HML, Lightfoot CJ, Bishop NC, Smith AC, Graham-Brown MPM. Understanding the feasibility of home-based rehabilitation in kidney transplant recipients: A mixed-methods interpretation. *PLoS One*. 2025;20(12):e0336620. Published 2025 Dec 19. doi:10.1371/journal.pone.0336620

Abstract Country

United Kingdom

Disclosure of Interest

No

20

Association between patient activation and mental health-related quality of life in kidney transplant recipients

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Background

Kidney transplant recipients face physical and psychological challenges that can affect mental health-related quality of life (MHQoL). Patient activation, defined as an individual's knowledge, skills, and confidence in managing their own health and healthcare, may influence mental well-being and engagement with post-transplant care, yet evidence in the transplant population is limited.

Objectives

To explore the association between patient activation and MHQoL in kidney transplant recipients.

Methods

A cross-sectional study was conducted among 49 adult kidney transplant recipients recruited to the ECSERT study (1). MHQoL was assessed using the SF-12 Mental Component Summary (MCS), and patient activation was measured using the Patient Activation Measure (PAM). Hierarchical linear regression analyses were performed, with PAM entered as the primary predictor, followed by age and gender as covariates.

Results

Patient activation was a significant positive predictor of SF-12 MCS scores, explaining 19.5% of the variance ($R^2=.195$, $p=.001$). Higher PAM scores were associated with better MHQoL. The addition of age and gender increased the explained variance to 26.0%, although this change was not statistically significant ($\Delta R^2=.065$, $p=.148$). Patient activation remained a robust independent predictor of MHQoL after adjustment, with gender not being associated with SF-12 MCS ($\beta=-.006$, $t=-0.04$, $p=.965$) and age showing a modest positive association ($\beta=.256$, $t=1.99$, $p=.052$).

Discussion

Patient activation could be a significant component of MHQoL in kidney transplant recipients, independent of demographic factors. These findings suggest that assessing and targeting patient activation in routine post-transplant care may offer a clinically relevant approach to supporting mental well-being and optimising long-term transplant management.

References

Billany RE, Vadaszy N, Bishop NC, et al. A pilot randomised controlled trial of a structured, home-based exercise programme on cardiovascular structure and function in kidney transplant recipients: the ECSERT study design and methods. *BMJ Open*. 2021;11(10):e046945. Published 2021 Oct 5. doi:10.1136/bmjopen-2020-046945

Abstract Country

United Kingdom

Disclosure of Interest

No

41

Kidney Failure after Transplantation in Libya: A Comprehensive Analytical Study

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Background

Kidney transplantation is the preferred treatment for end-stage renal disease. However, graft failure remains a significant challenge, particularly in resource-limited countries such as Libya. This study is the first national multicenter investigation of patients returning to hemodialysis after kidney transplantation.

Objectives

To identify the primary causes of kidney graft failure in Libya and to assess the psychological and social impacts on patients.

Methods

A descriptive multicenter study was conducted in 67 dialysis centers and units, including 4,697 hemodialysis patients. A total of 110 patients with prior kidney transplantation who returned to hemodialysis were included. Data were collected via structured face-to-face interviews, telephone calls, and collaboration with clinical departments. A standardized questionnaire recorded demographic, clinical, psychological, and social information. Associations between categorical variables were analyzed using Chi-square tests ($p < 0.05$).

Results

Most participants were male (80%), with the predominant age group 31–50 years (55.5%). Blood group O+ was most common (39.1%). Leading causes of graft failure were infection (38.2%), immune rejection (32.7%), and non-adherence to immunosuppressive therapy (15.5%). Post-transplant hypertension occurred in 60%. Psychological and social impacts were reported by 55.5% and 51.8% of participants, respectively. Regular follow-up was observed in 92.7%, and 68.2% were aware of the importance of transplantation. Difficulty accessing immunosuppressive drugs was reported by 55.5%, occasional difficulty by 23.6%, and no difficulty by 20.9%. Most patients underwent hemodialysis before and after transplantation (98.2%), while 1.8% started dialysis only after graft failure. Significant associations were found between age, gender, graft survival, and psychosocial outcomes.

Conclusion/Application to practice

Infection, immune rejection, and poor medication adherence are the main contributors to graft failure in Libya, compounded by limited access to immunosuppressive drugs and psychosocial burdens.

References

1. Lamb KE, Lodhi S, Meier-Kriesche HU. Long-term renal allograft survival in the United States: a critical reappraisal. *Am J Transplant.* 2011;11(3):450–462.
2. Hariharan S, Johnson CP, Bresnahan BA, Taranto SE, McIntosh MJ, Stablein D. Improved graft survival after renal transplantation in the United States, 1988 to 1996. *N Engl J Med.* 2000;342(9):605–612.
3. Meier-Kriesche HU, Schold JD, Srinivas TR, Kaplan B. Lack of improvement in renal allograft survival despite a marked decrease in acute rejection rates. *Am J Transplant.* 2004;4(3):378–383.
4. KDIGO Clinical Practice Guideline for the Care of Kidney Transplant Recipients. *Kidney Int Suppl.* 2009;113:S1–S155.
5. Abecassis M, Bartlett ST, Collins AJ, et al. Kidney transplantation as primary therapy for end-stage renal disease: a NKF/KDOQI Conference. *Clin J Am Soc Nephrol.* 2008;3(2):471–480.

Abstract Country

Libya

Disclosure of Interest

Yes

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Effects of osteopathic treatment on pain and quality of life after kidney transplantation

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Background

Kidney transplantation enables patients to resume active lives; however, persistent pain, musculoskeletal stiffness, and impaired lymphatic drainage may negatively affect recovery and quality of life. Non-pharmacological complementary approaches targeting functional balance and circulation may support post-transplant adaptation. Osteopathic manipulative treatment has been proposed to address these mechanisms.

Objectives

To evaluate the effectiveness of osteopathic manipulative treatment on pain, quality of life, and selected clinical parameters in kidney transplant recipients.

Methods

A longitudinal pre–post intervention study was conducted at the Nephrology and Transplant Center of the Policlinico of Bari (Italy) between June and September 2025. Twenty-two recipients were enrolled; four withdrew for reasons unrelated to the study. Eighteen participants completed four weekly osteopathic sessions including diaphragmatic release, hemodynamic and lymphatic techniques, scar treatment, and interventions to improve global mobility. Patient-reported outcomes (Short Form 36; Numeric Rating Scale) and clinical parameters were assessed at baseline and post-intervention. Pre–post differences were analyzed using non-parametric tests.

Results

Eighteen women (mean age 56.9 years; SD=9.74) completed the study. Mean time since transplantation was 7.22 years (SD=3.80). Complete pain remission occurred in three participants, while all others reported reduced pain intensity. Median pain score decreased from 8.0 to 3.0 ($p < .001$). Significant improvements were observed in physical functioning (57.5 to 75.0), energy/fatigue (47.5 to 60.0), emotional well-being (50.0 to 68.0), social functioning (50.0 to 56.5), and pain-related quality of life (39.0 to 73.0) (all $p \leq .002$). Three participants showed visible reduction in lower limb edema. No significant changes were found in hematological or renal biochemical parameters. No clinically relevant adverse events were reported.

Conclusion/Application to practice

Osteopathic manipulative treatment may represent a safe complementary strategy in kidney transplant recipients, contributing to pain reduction and improved quality of life and supporting multidisciplinary post-transplant care.

References

1. Peipert JD, Nair D, Klicko K, Schatell DR, Hays RD. Kidney Disease Quality of Life 36-Item Short Form Survey (KDQOL-36) normative values for the United States dialysis population and new single summary score. *J Am Soc Nephrol.* 2019;30(4):654–663. doi:10.1681/ASN.2018100994
2. Kaufman BE. An osteopathic approach to the renal and urinary system. *Osteopath Fam Physician.* 2012;4(4):101–109.
3. Tozzi P, Bongiorno D, Vitturini C. Low back pain and kidney mobility: local osteopathic fascial manipulation decreases pain perception and improves renal mobility. *J Bodyw Mov Ther.* 2012;16(3):381–391. doi:10.1016/j.jbmt.2012.02.001

Abstract Country

Italy

Disclosure of Interest

No

169

Getting life back; kidney recipients' experiences of approaching a living kidney donor

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Background

Living kidney donation often represents the best treatment option for people with chronic kidney disease. However, initiating conversations with a potential donor can be complex and emotionally demanding. Limited research and clinical recommendations exist on how kidney recipients can be supported in managing the social, emotional, and relational challenges that may arise in this process.

Objectives

To explore how adults with chronic kidney disease experience and navigate the process of approaching a potential living kidney donor.

Methods

The study took a phenomenological-hermeneutical approach. Semi-structured individual interviews were conducted with 14 adults who had received a kidney transplant from either a living or a deceased donor. The data were analysed using Ricoeur's theory of narrative and interpretation, on three levels: naïve reading, structural analysis, critical interpretation and discussion.

Results

Three themes emerged: (1) *The act of asking*, (2) *The hope for a life without waiting list and dialysis*, and (3) *Communication with family and friends about the need for donation*. Initiating conversations about kidney donation was a challenge, and approaching a potential donor was accompanied by fear of harming important relationships. Silence or lack of follow-up after initial dialogue was experienced as an indirect rejection to donate. To avoid any pressure, the responsibility for initiating further communication was given to the potential donor. The future seemed unpredictable and life with dialysis provided feelings of sadness.

Conclusion/Application to practice

Approaching a potential living donor was rooted in deep ethical and existential awareness and care for the other. Conversations about living kidney donation were marked by apprehension and fear of not being offered a kidney, which included feelings of being rejected as a friend or family member. In clinical practice, interventions to support kidney recipients to identify potential donors, communicate and navigate the process are important.

References

1. Bailey, P. et al. (2021). Development of an intervention to improve access to living-donor kidney transplantation (the ASK study). *PLoS One*, 16, 1-23.
2. Burns, T. et al. (2017). The experience of waiting for a kidney transplant: A qualitative study. *Journal of Renal Care*, 43(4), 247-255.
3. Karataş, H., & Balas, Ş. (2024). The liminal experience of awaiting for a cadaveric kidney donation: "I would not wish it on even my enemy!". *Soc Sci Med*, 363, 117466.
4. Ricoeur P (1976). *Interpretation theory; Discourse and the surplus of meaning*. Texas Christian University Press

Abstract Country

Denmark

Disclosure of Interest

No

123

Impact of the mozaïk hemostatic dressing on bleeding time of arteriovenous fistulas

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Background

Compression of the arteriovenous fistula (AVF) at the end of a hemodialysis session is a major concern for patients and a key component of nursing care. Prolonged post-dialysis bleeding may impair patients' quality of life, increase anxiety, and negatively affect the organization and efficiency of dialysis units.

Objectives

The aim of this study was to evaluate the effectiveness and acceptability of the MOZAïK hemostatic dressing in reducing post-dialysis bleeding time.

Methods

A retrospective observational study was conducted over a three-week period involving 77 hemodialysis patients with native or prosthetic AVFs. The mean AVF age was 4 years and 10 months. Hemostasis time achieved with the MOZAïK dressing was measured using a timer after needle removal and compared with the standard compression time used in our unit. Acceptability of the device was assessed using satisfaction questionnaires completed by patients and healthcare staff.

Results

The mean bleeding time with the MOZAïK dressing was 5.8 minutes, compared with an average of 10 minutes for standard compression in our unit. Immediate rebleeding was observed in 14% of patients, and delayed rebleeding at home occurred in 1.8%. Satisfaction rates were 93% among patients and 81% among healthcare professionals.

Conclusion/Application to practice

The use of a hemostatic dressing significantly reduces post-dialysis bleeding time during AVF compression. This device was well accepted by both patients and healthcare staff and represents a valuable option for improving the quality and efficiency of nursing care in hemodialysis.

References

1. EVALUATION OF ARTERIOVENOUS FISTULA COMPRESSION BY A MOZAïK® DRESSING IN TWO HEMODIALYSIS UNITS: A PROSPECTIVE STUDY - A. Guerraoui, R. Galland, S. Citarda, P. Hallonet, J.M. Poux, M. Lino-Daniel, L. Guigues, C. Gerard, A. Caillette-Beaudoin
2. FEEDBACK ON USING THE MOZAïK™ SOLUTION - BOUJEANT Mélanie, HERIN Pauline, COLIN Angélique, Dr SERET Guillaume, Dr FUMERON Christine

Abstract Country

France

Disclosure of Interest

Yes

196

Impact of a nursing ultrasound training program for haemodialysis VA: one-year follow-up

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Background

Ultrasound has become an essential tool enabling early detection of complications associated with vascular access (VA). Ultrasound makes it possible to identify situations that could compromise the functioning of the arteriovenous access. Theoretical and practical training, combined with mentorship, plays a pivotal role in training nurses with the skills to perform ultrasound to haemodialysis VA. A training program in haemodialysis VA ultrasound for nurses took place in four dialysis centres.

Objectives

Evaluate the impact of a nursing ultrasound training program for haemodialysis VA on intervention rates, thrombosis incidence, and healthcare costs.

Methods

For 10 months, nurses received training that covered theory, practice, and mentoring through both online and mentoring interactions. During these meetings, they conducted training and discussed clinical cases. The training concluded with a practical examination to evaluate vascular access. Nurse established a monitoring and surveillance program with US examination. We evaluate all the referrals to the VA centre between January 2024 and December 2025.

Results

Between 2024 and 2025, despite a 2.1% increase in patient volume, total costs fell by 17.5%, resulting in a 19% reduction in cost per patient. Significant clinical improvements, including a 23.7% decrease in interventions and a 22.4% reduction in thromboses, accompanied this economic optimisation, demonstrating enhanced procedural efficiency and improved patient outcomes.

Conclusion/Application to practice

Implementation of the nursing ultrasound training program significantly enhanced VA management, achieving relevant cost savings, and a marked reduction in both intervention rates and thrombosis incidence, improving clinical and economic outcomes.

References

Tordoir, J. H., et al. (2007). "Clinical practice guidelines for vascular access." Nephrology Dialysis Transplantation. Vascular Access Work Group. (2006). "NKF-KDOQI Clinical Practice Guidelines for Vascular Access." American Journal of Kidney Diseases. Spencer, T. R., & Mahoney, K. J. (2018). "Ultrasound-guided vascular access in dialysis patients." Journal of Vascular Access.

Abstract Country

Portugal

Disclosure of Interest

No

233

Rope Ladder AVG Cannulation in Dialysis: A CFIR Multi-Country Analysis

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Abstract

The rope ladder technique is recommended as standard practice for cannulating arteriovenous grafts (AVGs) in haemodialysis. It does not require specialised equipment and is described in major guidelines as the preferred approach to minimise localised trauma and preserve graft integrity. (1) Despite this, consistent adoption in routine clinical practice remains limited. Arteriovenous cannulation continues to predominate, potentially contributing to pseudoaneurysm formation, increased infection risk, and access dysfunction — outcomes that may significantly compromise treatment efficacy and overall patient health. (2) Most published literature and quality improvement initiatives have focused on arteriovenous fistulas rather than AVGs. Moreover, existing interventions often report short-term improvements, with limited understanding of the contextual determinants influencing long-term adherence. (3,4) Before designing new training or monitoring strategies, it is necessary to better understand why the rope ladder technique is not consistently applied in everyday practice.

This study seeks to identify the barriers and facilitators influencing the routine implementation of the rope-ladder cannulation technique in AVGs across European haemodialysis centres. It will employ a qualitative implementation science approach, guided by the Consolidated Framework for Implementation Research (CFIR), to explore implementation determinants across relevant CFIR domains and their constructs. (7)

By carefully examining the barriers and facilitators influencing cannulation practices, this preliminary research aims to develop a clear understanding of the implementation challenges. The results are intended to guide future implementation strategies that are adaptable to local contexts and sustainable over time, promoting safer and more consistent cannulation practices to ultimately enhance patient outcomes in haemodialysis care.

References

1. Principles of Nursing in Kidney Care: Under the Auspices of EDTNA/ERCA and EKPF | SpringerLink [Internet]. [cited 2025 Oct 4]. Available from: <https://link.springer.com/book/10.1007/978-3-031-30320-3>
2. Mudoni A, Cornacchiari M, Gallieni M, Guastoni C, McGrogan D, Logias F, et al. Aneurysms and pseudoaneurysms in dialysis access. Clin Kidney J. 2015 Aug;8(4):363–7. doi:10.1093/ckj/sfv042 PubMed PMID: 26251700; PubMed Central PMCID: PMC4515897.
3. Quicho R. Reducing Vascular Access Complications Through Precise Cannulation Plan Implementation. Masters Proj Capstones [Internet]. 2019 Dec 13. Available from: <https://repository.usfca.edu/capstone/961>
4. Hub UKAE. UK Kidney Association Education Hub [Internet]. [cited 2025 Oct 7]. Managing Access by Generating Improvements in Cannulation (MAGIC). Available from: <https://education.ukkidney.org/course/magic>
5. Damschroder LJ, Reardon CM, Opra Widerquist MA, Lowery J. Conceptualizing outcomes for use with the Consolidated Framework for Implementation Research (CFIR): the CFIR Outcomes Addendum. Implement Sci. 2022 Dec;17(1):7. doi:10.1186/s13012-021-01181-5

Abstract Country

Italy

Disclosure of Interest

Yes

263

Multicentric analysis of cannulation-related complications in 97,631 sessions: MuST vs Rope-Ladder vs Area

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Background

Cannulation technique is a critical determinant in the long-term preservation of arteriovenous fistulas (AVF). Standardizing techniques to minimize complications is essential for vascular access patency.

Objectives

To evaluate the clinical impact of MuST implementation on cannulation-related complications and compare its safety profile with established Rope-Ladder and Area techniques in a large multicentric cohort.

Methods

A retrospective observational study analyzed 97,631 hemodialysis sessions from 554 patients across 4 dialysis units in 2024 and 2025. Statistical analysis included global Chi-square (χ^2) for crude rates to assess **unadjusted incidence rates per 100 dialysis sessions** and Generalized Estimating Equations (GEE) with a binomial family and exchangeable correlation structure to calculate Odds Ratios (OR), adjusting for center-effect and intra-patient correlation (clustering). Data were processed using Python (Version 3.11) [Computer software].

Results

A total of 1,737 complications were analyzed. Cannulation problems showed the most significant differences ($p < 0.001$), with MuST presenting the lowest rate (0.09%) compared to Area (0.37%) and RL (0.35%). GEE confirmed that MuST significantly reduces the risk of cannulation issues compared to Area (OR 1.47; $p=0.006$) and RL (OR 2.15; $p < 0.001$). Regarding low blood flow, RL was associated with a three-fold increased risk compared to MuST (OR 3.18; $p=0.001$). Extravasation crude rates were lower in MuST (0.28%) vs. Area (0.43%) and RL (0.34%) (χ^2 $p=0.011$); however, the adjusted GEE model showed no statistical significance ($p > 0.05$), highlighting the influence of individual patient factors over technique in this specific event. No significant differences were found for hemostasis, needle dislodgement, or bleeding.

Conclusion/Application to practice

MuST significantly reduces some cannulation-related complications, standardizing safety despite variability. Limitations include the retrospective design and MuST's implementation curve compared to established baseline techniques.

References

1. Peralta, R., Fazendeiro Matos, J., Pinto, B., Gonçalves, P., Sousa, R., Felix, C., Carvalho, H., Vinhas, J., & Ponce, P. (2022). Multiple single cannulation technique of arteriovenous fistula: A randomized controlled trial. *Hemodialysis International*, 26(1), 4–12. <https://doi.org/10.1111/hdi.12962>
2. Peralta, R., Fazendeiro Matos, J., & Carvalho, H. (2021). Safe needling of arteriovenous fistulae in patients on hemodialysis: Literature review and a new approach. *Nephrology Nursing Journal*, 48(2), 169–176.
3. Shu, P., Wang, X., Wen, Z., Li, C., Luo, Y., & Xu, F. (2024). The effect of multiple single cannulation technique on complications of arteriovenous fistulae: A meta-analysis. *Medicine*, 103(38), e39748. <https://doi.org/10.1097/MD.00000000000039748>
4. Xu, F., Qiu, J., Huo, S., Bai, H., Wang, X., & Shu, P. (2025). Multiple Single Cannulation Technique for Puncturing Arteriovenous Fistulas: Randomized Comparison With Rope Ladder Technique Cannulation. *Hemodialysis International*.
5. Parisotto, M. T., Schoder, V. U., Miriunis, C., Grassmann, A. H., Scatizzi, L. P., Kaufmann, P.,... & Marcelli, D. (2014). Cannulation technique influences arteriovenous fistula and graft survival. *Kidney International*, 86(4), 790–797. <https://doi.org/10.1038/ki.2014.96>

Abstract Country

Spain

Disclosure of Interest

No

268

Dialysis nurses' preparation for arteriovenous fistula cannulation

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Background

A well-functioning vascular access constitutes the foundation of effective hemodialysis and significantly determines the patient's quality of life and survival. Among vascular access types, the arteriovenous fistula (AVF) remains the gold standard due to the lowest risk of infection and thrombotic complications. However, its creation alone does not guarantee therapeutic success – appropriate, systematic, and standardized access care, particularly proper cannulation, is essential.

Objectives

Assessment of dialysis nurses' preparation for arteriovenous fistula puncture and the use of current diagnostic and therapeutic options related to cannulation.

Methods

The study was conducted at the beginning of 2026 and included 76 dialysis nurses. Diagnostic survey method was applied in the research, using the author's questionnaire.

Results

Seventy-six people were included in this study. Mean age was 48.5 (± 10.9) years. On average, the respondents had worked as nurses for 26.3 years and in dialysis field for 21.2 years. Preparation for work at the dialysis center included nursing specialization, qualification courses in nephrology nursing, and specialized courses in dialysis therapy. As part of their preparation for punctures, nurses participated in additional workshops and courses, including those organized at the dialysis clinics (85.5%). Most respondents rated their fistula puncture skills positively, although they could also count on the support of experienced nurses. The most frequently chosen was the rope ladder cannulation method. However, in every fifth dialysis center, the group of patients with pathological vascular dilatation exceeded half of the patients with arteriovenous fistulas. One in three dialysis clinics has plastic needles available for patients with difficult vascular access, while one in five offers ultrasound examination. Nurses use ultrasound for fistula cannulation only occasionally.

Conclusion/Application to practice

Preparing nurses to perform arteriovenous fistula puncture involves various forms of training, and professional experience and support from colleagues contribute to improving competencies. Access to structured, specialized training and equipment still needs to be improved.

References

Lok, C. E., Huber T. S., Lee T., et al. 2020. "KDOQI Clinical Practice Guideline for Vascular Access: 2019 Update." Supplement, American Journal of Kidney Diseases 75, no. 4 suppl. 2: S1–S164

Abstract Country

Poland

Disclosure of Interest

No

273

Clinical Simulation as a Tool for Preventing Venous Needle Dislodgement in Hemodialysis: Quasi-Experimental Study

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Background

Venous Needle Dislodgement (VND) remains a critical sentinel event in hemodialysis, characterized by high mortality risk due to rapid exsanguination. While dialysis machines utilize pressure alarms, these often fail to detect dislodgement in approximately 40-50% of cases. Consequently, evidence-based nursing vigilance and rigorous mechanical fixation protocols, represent the primary safety barriers against this adverse event.

Objectives

This study aimed to evaluate the impact of a high-fidelity clinical simulation intervention (scenario “SAFE”) on two dimensions: process indicators, specifically nursing adherence to standardized needle fixation steps, and outcome indicators, measured by the incidence of VND-related adverse events in chronic hemodialysis settings.

Methods

quasi-experimental study with a pretest-posttest design was implemented. A convenience sample of 30 nurses participated in the “SAFE” (Safety in Access Fixation & Environment) simulation scenario, which utilized a hybrid model (standardized actor and wearable cannulation pad) to replicate high-risk factors like diaphoresis and patient agitation. Baseline data from 2025 were retrieved using the institutional VND audit grid and the Adverse Patient Occurrence notification system. Post-intervention adherence was monitored through audit cycles over six months, with incident rates calculated per 1,000 dialysis sessions

Results

Expected Results Following the simulation intervention, global audit compliance will be evaluated for scores that might demonstrate statistically significant differences compared to baseline.

Conclusion/Application to practice

The implementation of the “SAFE” simulation scenario successfully intends to bridge the gap between institutional guidelines and clinical bedside behavior. By training nurses to manage environmental distractors and patient-specific risks in a controlled environment, the project aims to enhance situational awareness and technical proficiency.

References

1. Lateef, F. (2010). Simulation-based learning: Just like the real thing. *Journal of Emergencies, Trauma, and Shock*, 3(4), 348-352. https://doi.org/10.4103/JETS.JETS_96_20
2. Lok, C. E., Huber, T. S., Lee, T., Shenoy, S., Yevzlin, A. S., Abreo, K., Allon, M., Asif, A., Astor, B. C., Glickman, M. H., Moist, L., & Zierler, R. E. (2020). KDOQI clinical practice guideline for vascular access: 2019 update. *American Journal of Kidney Diseases*, 75(4), S1–S164. <https://doi.org/10.1053/j.ajkd.2019.12.001>
3. Maisons, V., Lanot, A., Luque, Y., Sautenet, B., Esteve, E., Guillouet, E., François, H., & Bobot, M. (2024). Simulation-based learning in nephrology. *Clinical Kidney Journal*, 17(4), sfae059. <https://doi.org/10.1093/ckj/sfae059>
4. Speranza-Reid, J., Brouwer-Maier, D., Cruz, C.M., & Inglese, M. (2021). Venous needle dislodgement and access-bloodline separation. *Nephrology Nursing Journal*, 48(4), 347-365. <https://doi.org/10.37526/1526-744X.2021.48.4.347>

Abstract Country

Portugal

Disclosure of Interest

No

17

The Impact of Dialysis Staff Knowledge on Heparin Use and Clotted Hemodialysis Circuits

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Background

Inadequate anticoagulation during hemodialysis can result in extracorporeal circuit clotting, reduced treatment adequacy, and increased clinical burden. Although heparin is routinely administered, improper preparation and delivery remain preventable causes of circuit failure.

Objectives

To evaluate the theoretical knowledge and practical performance of dialysis care staff regarding heparinization and to examine their association with extracorporeal circuit clotting

Methods

A three-month cross-sectional study was conducted in 35 Libyan hemodialysis centers, randomly selecting 350 dialysis staff. Theoretical knowledge was measured by questionnaire, and practical skills were assessed with a checklist covering heparin handling and documentation. Instruments were based on international guidelines and validated by experts; a pilot preceded data collection. Scores were reported as percentages, with competency defined as $\geq 60\%$ (weighted: 60% practical, 40% theoretical). The knowledge–practice gap was the difference between scores. Circuit clotting referred to documented clots causing filter changes or early session termination. Independent t-tests were used for analysis.

Results

The mean practical performance score was 69.4 ± 15.2 , compared with a mean theoretical knowledge score of 54.1 ± 18.6 , demonstrating a mean knowledge–practice gap of +15.3 percentage points. Although 72% of participants recognized the importance of heparin, only 46% demonstrated adequate theoretical knowledge.

Circuit clotting occurred in 41% of dialysis sessions. Dialysis care staff with overall competency scores $< 60\%$ had significantly higher circuit clotting rates compared with those scoring $\geq 60\%$ (58% vs. 29%, $p < 0.01$).

Conclusion/Application to practice

A significant knowledge–practice gap was identified among dialysis care staff. Lower competency levels were associated with increased rates of extracorporeal circuit clotting. Strengthening structured educational programs and reinforcing adherence to standardized anticoagulation protocols may enhance dialysis safety and treatment outcomes.

References

1. Daugirdas, J. T., & Blake, P. G. (2015). Handbook of Dialysis (5th ed.). Wolters Kluwer.
2. Fishbane, S., & Spinowitz, B. (2019). Hemodialysis anticoagulation: Mechanisms and management. *Kidney International*, 95(2), 265–274. <https://doi.org/10.1016/j.kint.2018.09.017>
3. Chazot, C., Wabel, P., & Canaud, B. (2019). Clinical implications of heparin administration practices in hemodialysis. *Clinical Kidney Journal*, 12(1), 1–10. <https://doi.org/10.1093/ckj/sfy105>
4. Maduell, F., & Navarro, V. (2018). Anticoagulation in hemodialysis: Knowledge gaps and practical recommendations. *Nephrology Dialysis Transplantation*, 33(suppl_2), ii14–ii22. <https://doi.org/10.1093/ndt/gfy191>
5. Kooman, J. P., van der Sande, F. M., & van der Veer, S. N. (2020). Hemodialysis technician competence and extracorporeal circuit outcomes. *Blood Purification*, 49(1–2), 1–10. <https://doi.org/10.1159/000502342>

Abstract Country

Libya

Disclosure of Interest

Yes

100

Symptom Burden and Associated Factors in Patients Undergoing Haemodialysis: A Multicentre PROMs-Based IPOS Analysis

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Background

Patients undergoing haemodialysis experience a high symptom burden that negatively impacts daily functioning and quality of life. Patient-reported outcome measures (PROMs) enable systematic assessment of symptom severity and support patient-centred care.

Objectives

To describe the prevalence and severity of symptoms assessed using the Integrated Palliative Outcome Scale (IPOS) and to analyse associations between the most severe symptoms and sociodemographic and clinical variables in patients undergoing haemodialysis.

Methods

A multicentre cross-sectional observational study was conducted in 12 haemodialysis centres, including 1,184 adult patients. Symptom severity was assessed using IPOS. Descriptive statistics characterised symptom distribution. The three most severe symptoms were selected for inferential analysis. Associations with sex, age, educational level, and time on haemodialysis were analysed using Mann–Whitney U and Kruskal–Wallis tests.

Results

Pain, trouble sleeping, and decreased mobility were the most severe symptoms. Female patients reported significantly higher severity across all three symptoms ($p < 0.01$). Pain severity increased with age ($p = 0.018$) and time on haemodialysis ($p < 0.001$), with higher levels in patients aged ≥ 66 years and those treated for ≥ 7 years. Trouble sleeping was associated with longer haemodialysis duration ($p = 0.032$). Decreased mobility was significantly associated with age ($p < 0.001$), time on haemodialysis ($p = 0.002$), and educational level ($p = 0.002$), with greater severity among older patients, those with longer treatment duration, and lower educational attainment.

Conclusion/Application to practice

Patients undergoing haemodialysis experience a substantial burden of pain, sleep disturbance, and reduced mobility, particularly women, older individuals, and those with longer treatment duration. PROMs such as IPOS allow systematic identification of high-impact symptoms and support targeted, patient-centred interventions in haemodialysis care.

References

1. Tong, A., Manns, B., Hemmelgarn, B., Wheeler, D. C., Tugwell, P., Winkelmayer, W. C., O'Donnell, M., Craig, J. C., & SONG-HD Initiative. (2017). Establishing core outcome measures for hemodialysis: The Standardized Outcomes in Nephrology–Hemodialysis (SONG-HD) initiative. *American Journal of Kidney Diseases*, 69(1), 97–107. <https://doi.org/10.1053/j.ajkd.2016.05.022>
2. Weisbord, S. D., Fried, L. F., Arnold, R. M., Fine, M. J., Levenson, D. J., Peterson, R. A., & Switzer, G. E. (2005). Prevalence, severity, and importance of physical and emotional symptoms in chronic hemodialysis patients. *Journal of the American Society of Nephrology*, 16(8), 2487–2494. <https://doi.org/10.1681/ASN.2005020157>
3. Davison, S. N. (2006). Pain and symptom management in chronic kidney disease. *Clinical Journal of the American Society of Nephrology*, 1(6), 1277–1284. <https://doi.org/10.2215/CJN.01340406>
4. Unruh, M. L., Buysse, D. J., Dew, M. A., Evans, I. V., Wu, A. W., Fink, N. E., & Powe, N. R. (2011). Sleep quality and its correlates in the first year of dialysis. *Clinical Journal of the American Society of Nephrology*, 6(4), 739–748. <https://doi.org/10.2215/CJN.06070710>
5. Kidney Disease: Improving Global Outcomes (KDIGO). (2020). KDIGO 2020 clinical practice guideline for diabetes management in chronic kidney disease. *Kidney International*, 98(4S), S1–S115. <https://doi.org/10.1016/j.kint.2020.06.019>

Abstract Country

Portugal

Disclosure of Interest

No

192

Falls in haemodialysis: a 4-Year Analysis of patient safety

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Background

According to the World Health Organization it is estimated that by 2030, one in six people in the world will be 60 years of age or older, and that by 2050 this number will double, reaching 2.1 billion. People over 65 have the highest probability of falling events: 30% of them fall at least once per year, while the percentages become higher (about 50%) in people over 80. Also, patients on dialysis present higher risk of falls, ranging from 13 to 25%, compared to the general population.

Objectives

- To describe the implementation of a fall risk assessment in large dialysis provider;
- To analyse fall events of the first 4 years of its implementation

Methods

Descriptive, observational and retrospective analysis, to assess the outcomes of the implementation of a fall risk assessment in a large dialysis provider, from 2022 to 2025.

Results

Initially, a brainstorming process took place between the National Nursing Department and the units, considering legal considerations, available bibliography, and the safety of our patients.

The risk of falls is assigned based on the Morse Falls Scale, and documents were designed to operationalize the program, involving on average 5000 patients.

In the 4 years of implementation:

- A total of 4432 fall events were recorded;
- On average, 10% (434) occurred inside the units, with a decreasing trendline;
- Most of the events (3331, 75%), happened at home, out of which 31% needed some type of medical assistance.

Conclusion/Application to practice

A high prevalence of falls was observed, reinforcing the need to prioritize fall prevention with the adoption of strategies involving the clinic team, patients and relatives.

Due to their close contact with patients, the nursing team holds a crucial role in preventing falls. Early recognition of risk conditions supports the development of targeted strategies that lessen such events while strengthening patient safety.

References

1. Soh SLH, Ting HXT, Ho JY, Tan SL, Kayambu G, Koh KCGK, et al. Assessing Falls Efficacy in Seniors: Important Insights in Hospital and Community Settings. *Journal of Frailty, Sarcopenia and Falls*. 2025 Mar 1;10(1):48–53.
2. Tang J, Wang B, Yuan Q, Li X. Prevalence and risk factors of falls in people on hemodialysis: a systematic review and meta-analysis. *Renal Failure*. 2025 Apr 9;47(1).
3. Xu J, Guo S, Yu X, Ji X. Latent profiles of falls self-awareness and associated factors in older maintenance hemodialysis patients. *Scientific Reports [Internet]*. 2025 Nov 27 [cited 2026 Feb 12];15(1). Available from: <https://www.nature.com/articles/s41598-025-26486-z>
4. Appeadu M, Bordini B. Falls and fall prevention in the elderly [Internet]. National Library of Medicine. Treasure Island (FL): StatPearls Publishing; 2023. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK560761/>
5. Direção-Geral da Saúde. Prevenção e Intervenção na Queda do Adulto em Cuidados Hospitalares (Norma nº 008/2019 de 30/05/2019). Lisboa: DGS; 2019.

Abstract Country

Portugal

Disclosure of Interest

No

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Dialysate prescription in hemodialysis in France: results of the first national practice survey

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Background

In absence of medical consensus, dialysate prescription in hemodialysis (HD) varies widely between centers. Current French practices remain poorly documented.

Objectives

To describe current French practices regarding dialysate composition and monitoring by a national survey.

Methods

Anonymous e-questionnaire developed by a scientific committee and distributed to nephrologists and Referent Nurses via SurveyMonkey^(r) (topics = dialysate composition, electrolyte adjustment, sodium / water management, monitoring).

Results

79 nephrologists responded (94% practiced HF-HD, 94% HDF and 8% Home HD. Citrate- and acetate dialysates were more frequently used (43% and 39% for >65% of sessions, respectively) versus hydrochloric acid (18%). Under citrate dialysate, 70% adjusted calcium concentration at initiation or according to PTH levels.

Intradialytic hypotension, cramps, and hypertension were more frequently reported as complications. Fluid management relied on clinical assessment + BNP (95%), Bioimpedance (76%) and is performed quarterly (56%) or when clinically indicated (52%). Blood volume monitoring was routinely used in 60% of sessions (Fresenius monitors) and 22% (Nikkiso monitors). A fixed dialysate temperature of 36.5°C was prescribed by 37%, whereas 25% routinely performed isothermal dialysis.

Daily Sodium intake of 5–6 g/day was recommended by 53%, with a dietary survey in 90% of cases. 5% prescribed a fixed dialysate sodium (mainly 138 mmol/L) for all patients; 68% individualized sodium concentration; 47% performed isotonic HD with sodium retrocontrol (↓ Na⁺ loading or quantify Na⁺ mass transfer). Predialysis bicarbonate targets were heterogeneous (19–27 mmol/L) and individualized (53%); oral bicarbonate was rarely used (18%). Dialysate K⁺ of 2 or 3 mmol/L was prescribed in 43% and 56%, respectively, targeting predialysis potassium 4.5–5.5 mmol/L (86%).

Conclusion/Application to practice

French dialysate practices show variability with a trend toward individualized management, central role of nurses in adjustments / monitoring intradialytic tolerance. We cannot exclude selection bias. The survey continues to increase representativity.

References

Carlo Basile, A neglected issue in dialysis practice : haemodialysate. Clinical Kidney Journal, 2015, vol. 8, no. 4, 393–399

Abstract Country

France

Disclosure of Interest

Yes

57

Functioning With Chronic Illness Among Maintenance Hemodialysis Patients: A Cross-Sectional Study.

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Background

End-stage kidney disease treated with maintenance hemodialysis affects everyday life beyond biochemistry, shaping how patients function physically, psychologically, and socially.

Objectives

To assess functioning with chronic illness among hemodialysis patients and examine sociodemographic correlates of functioning.

Methods

A cross-sectional survey was conducted in January–March 2024 in a dialysis unit in Poland. Eighty adults on maintenance hemodialysis completed an author-designed questionnaire (46 items) and the Functioning in Chronic Illness Scale (FCIS; three subscales: impact of illness on the patient, patient's impact on illness, and impact of illness on attitudes) designed by Aldona Kubica. Statistical analyses included independent-samples t tests and chi-square tests ($p < 0.05$).

Results

Participants were predominantly male (61.3%), and 46.3% were older than 70 years. Most received hemodialysis three times weekly (77.5%; mean 10.9 hours/week) and had a permanent catheter as vascular access (56.3%). Common comorbidities were hypertension (87.5%) and diabetes (55%). The most frequently reported limitation was climbing stairs (91.3%), and 71.3% reported problems falling asleep. Only 3.8% of participants had used psychological or psychiatric services, whereas 38.8% identified psychological support as the most needed form of assistance. Mean total FCIS score was 73.15 (SD 14.78; median 75; range 41–102). Low FCIS (poor functioning) was observed in 57.5% of patients, while 31.3% and 11.3% achieved moderate and high scores, respectively. Higher FCIS was associated with age 70 years or younger, being occupationally active, living in cities >100,000 inhabitants, and better self-rated material status (all $p < 0.05$). No significant differences were found by sex.

Conclusion/Application to practice

Functioning in dialysis patients is substantially reduced, especially in physical and psychosocial domains. These findings highlight the need for coordinated, multidisciplinary nephrology care. Care should include routine FCIS screening, early referral to psychological services, integrated nursing-rehabilitation, and monitoring of sleep and fatigue, especially older, non-working, socioeconomically disadvantaged patients.

References

This abstract was prepared on the basis of the master's thesis entitled "Dialysis Patients – Assessment of Their Functioning with the Disease", completed at the Medical University of Silesia in Katowice in 2024. The thesis has not been published in a scientific journal and has not been previously published.

The data presented originate from the author's master's thesis.

Abstract Country

Poland

Disclosure of Interest

Yes

27

Aggression as an occupational risk in dialysis units: Staff perceptions of safety and prevention

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Background

Workplace aggression is a recognized occupational challenge in healthcare settings, including dialysis units where staff maintain continuous and close contact with patients. Such environments may expose healthcare workers to various forms of aggressive behavior, which can influence staff wellbeing, perception of safety, and the overall workplace experience

Objectives

To explore staff perceptions of exposure to workplace aggression in dialysis units and to identify areas where preventive measures and education may support a safer working environment.

Methods

A cross-sectional, perception-based survey was conducted using a structured 12-item questionnaire distributed electronically between November 18 and 21, 2025. A total of 166 employees working in dialysis units participated, including nurses, physicians, auxiliary/technical staff, administrative staff, and other professional categories. Data were analyzed descriptively to explore reported patterns of exposure to aggression and perceptions of workplace safety across different staff groups and levels of work experience.

Results

Approximately one-third of participants reported experiencing some form of workplace aggression during the previous 12 months, most commonly verbal or psychological in nature. Reported exposure varied across professional roles, reflecting differences in the nature and intensity of patient interaction. Participants who reported exposure to aggression also described a lower perception of workplace safety, regardless of age or length of work experience.

Conclusion/Application to practice

Workplace aggression represents an occupational risk that can affect staff perceptions of safety in dialysis units. Increasing awareness, encouraging open communication, and supporting staff through preventive strategies and targeted education may contribute to a safer and more supportive working environment.

References

1. Griffin M, Clark L. Managing patient aggression in renal units: nurses' experiences and perceptions. *Journal of Renal Care*. 2014;40(2):99–106.
2. Holley JL, McDonald SP. Violence and disruptive behavior in dialysis units: staff perspectives and prevention strategies. *Journal of Renal Care*. 2011;37(4):180–186.

Abstract Country

North Macedonia

Disclosure of Interest

No

221

Smoking in hemodialysis patients: challenges and evidence-based strategies for reduction

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Background

Hemodialysis patients represent one of the groups most vulnerable to the harmful effects of smoking. Chronic kidney disease significantly increases cardiovascular mortality, and smoking further amplifies this risk. Despite the absence of Polish population-specific data for dialysis patients, international studies consistently demonstrate mechanisms that make tobacco use particularly dangerous in this population. Identifying smoking status and its clinical implications is therefore essential in implementing effective preventive and harm-reduction strategies.

Methods

An analysis of smoking status was performed across 22 dialysis clinics in Poland, including 1,948 chronically hemodialyzed patients by analysis medical documentation. Most patients had never smoked (72.4%). Among active smokers, over three-quarters were men and significantly younger than never-smokers. The mean age of smokers was 62 years (51–68) compared with 70 years (59–77) among those who never smoked.

Results

Smokers were found to initiate renal replacement therapy at a younger age, highlighting the need for early nephroprotective interventions and targeted smoking-cessation education.

Conclusion/Application to practice

Early intervention through smoking cessation is a one of key nephroprotective measure. Educational programs should incorporate behavioral strategies and ensure practical access to cessation support. A structured five-pillar model is proposed as new model id educational program: real patients storyteling, communication of health benefits, one to one meetings, raising awareness of addiction mechanisms, improved access to cessation resources

References

1. Xia J, Wang L, Ma Z, Zhong L, Wang Y, Gao Y, He L, Su X. Cigarette smoking and chronic kidney disease in the general population: a systematic review and meta-analysis of prospective cohort studies. *Nephrol Dial Transplant*. 2017 Mar 1;32(3):475-487. doi: 10.1093/ndt/gfw452. PMID: 28339863.
2. CDC. Cigarette smoking among adults and trends in smoking cessation - United States, 2008. *MMWR Morb Mortal Wkly Rep*. 2009; 58(44):1227–1232. [PubMed: 19910909]
3. Ezzati M, Henley SJ, Thun MJ, Lopez AD. Role of Smoking in Global and Regional Cardiovascular Mortality. *Circulation*. 2005; 112(4):489–497. [PubMed: 16027251]
4. Van Laecke S, Van Biesen W. Smoking and chronic kidney disease: seeing the signs through the smoke? *Nephrol Dial Transplant*. 2017 Mar 1;32(3):403-405. doi: 10.1093/ndt/gfw448. PMID: 28206611.

Abstract Country

Poland

Disclosure of Interest

No

194

Risk factors for the development of malnutrition in patients with chronic kidney disease (CKD)

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Introduction

Nutritional risk screening is the first step in identifying and treating malnutrition, which is common in patients with CKD. The aim of this study is to investigate factors associated with the risk of malnutrition in a population of hospitalised individuals with CKD and kidney transplant recipients.

Materials and methods

Hospitalised patients with CKD (Group 1, n: 70) and kidney transplant recipients (Group 2, n: 70) were included in the study. Demographic, clinical and laboratory data were recorded and the glomerular filtration rate (eGFR) was assessed. Nutritional risk screening was performed with the Renal iNUT tool.

Results

In total 140 patients were analysed (Mean age = 59.96 ±16.3 years, 87 men). The main cause of hospitalisation was infections in 40% and 62.8% of patients in groups 1 and 2, respectively.

In group 1, 12.85% of patients had CKD stages 1–3, while 12.85% and 74.3% of patients had CKD stages 4 and 5, respectively. In group 2, the corresponding percentages were 80%, 18.6% and 1.4%. Malnutrition risk was identified in 35.7% of patients. Among these, 76% had a normal BMI, 6% had a BMI <18.5 and 12% were overweight (25≤BMI<30). Obesity was recorded in 7.8% of the total sample and was not accompanied by malnutrition.

Malnutrition risk was higher in group 1 than in group 2 (47.1% vs 24.5%, p=0.05). Malnutrition risk in group 1 was positively correlated with age (r=0.299, p=0.016) and negatively with male gender (r=-0.288, p=0.016) and parathyroid hormone (r=-0.352, p=0.015). In Group 2, malnutrition risk was positively correlated with CKD stage (r=0.266, p=0.026) and negatively with albumin (r=-0.415, p=0.000) and cholesterol (r=-0.263, p=0.029).

Conclusions

Malnutrition is a major problem for patients with CKD. Evaluation of BMI alone may lead to underestimation nutritional disorders. Assessing nutritional risk with specific tools ensures the early detection and management of malnutrition.

References

1. Fiaccadori E, Sabatino A, Barazzoni R, et al. ESPEN guideline on clinical nutrition in hospitalized patients with acute or chronic kidney disease. Clin Nutr. 2021;40(4):1644-1668.
2. Jackson HS, MacLaughlin HL, Vidal-Diez A, Banerjee D. A new renal inpatient nutrition screening tool (Renal iNUT): a multicenter validation study. Clin Nutr. 2019;38(5):2297-2303.

Abstract Country

Greece

Disclosure of Interest

No

195

Translation and adaptation of the Renal INUT questionnaire in Greek. A pilot validation study.

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Introduction

Patients with Chronic Kidney Disease (CKD) are at increased risk of malnutrition. Detecting nutritional risk is the first step in addressing it in a timely manner. The Renal inpatient nutrition screening tool (Renal iNUT) questionnaire is a valid tool for detecting nutritional risk in hospitalised patients with CKD. The aim of the study was to translate and adapt it into Greek and pilot it in hospitalised patients.

Materials - Methods

The translation process followed standard steps: 1) initial translation, 2) synthesis of different translations, 3) back-translation into English, 4) review and cultural adaptation by a committee of experts. The study included 70 patients with CKD (Group 1) and 70 kidney transplant recipients (Group 2) who were hospitalised between 01/09/2025 and 14/01/2026.

Results

The translated Renal iNUT tool was considered easy to use, quick and understandable. No special adaptations were required by the expert committee. Eighty-seven men participated in the study. The mean age of the patients was 59.95 (± 16.3) years and the mean BMI was 25.4 (± 5.05) kg/m². In group 1, 12.85% and 74.3% of patients had stage 4 and 5 CKD, respectively. In group 2, the corresponding percentages were 18.6% and 1.4%. The main cause of hospitalisation was infections in 40% and 62.8% of patients in groups 1 and 2, respectively.

The percentage of patients at moderate-high risk of malnutrition (score 1-2) differed significantly between the two groups [1=47.1% vs 2=24.3%, $p=0.036$].

Conclusions

The Greek version of the Renal iNUT questionnaire can be used by healthcare professionals in Nephrology and Kidney Transplant departments in Greek-speaking countries for the timely identification of patients at nutritional risk who would benefit from appropriate nutritional support.

References

1. Fiaccadori E, Sabatino A, Barazzoni R, et al. ESPEN guideline on clinical nutrition in hospitalized patients with acute or chronic kidney disease. Clin Nutr. 2021;40(4):1644-1668.
2. Jackson HS, MacLaughlin HL, Vidal-Diez A, Banerjee D. A new renal inpatient nutrition screening tool (Renal iNUT): a multicenter validation study. Clin Nutr. 2019;38(5):2297-2303

Abstract Country

Greece

Disclosure of Interest

No

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Effect of Pecha Kucha Education on Dietary Attitudes and Fluid Adherence in Hemodialysis

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Background

Long-term hemodialysis requires sustained adherence to dietary therapy and fluid restriction, yet patients often struggle due to treatment burden and limited attention during routine education. Brief, visual, structured teaching formats may enhance engagement and support holistic care beyond biomedical targets.

Objectives

To evaluate the effect of Pecha Kucha–based education on attitudes toward dietary therapy and adherence to fluid restriction among hemodialysis patients.

Methods

A randomized controlled pretest–posttest study was conducted between January 1 and November 30, 2025, at the Hemodialysis Unit of City Hospital, with 60 adult hemodialysis patients (intervention n=30; control n=30). The intervention group received weekly Pecha Kucha education for 8 weeks (20 slides, 20 seconds each; 6 minutes 40 seconds; image-rich with minimal text). The control group received the same content using traditional face-to-face teaching and Q&A. Outcomes were measured at baseline, immediately post-education, and 2 months after the first session using an Attitude Scale for Dietary Therapy in Hemodialysis Patients and the Dialysis Diet and Fluid Nonadherence Questionnaire.

Results

Compared with controls, the intervention group showed significantly greater improvement in dietary therapy attitude scores over time, with the strongest gains at the 2-month follow-up (group×time $p<0.001$). Nonadherence scores for diet, fluid restriction, and total nonadherence decreased markedly in the intervention group at 2 months, while changes in the control group were smaller (group×time $p<0.001$).

Conclusion/Application to practice

Pecha Kucha education is a time-efficient, visually focused approach that can strengthen diet-related attitudes and improve adherence to diet and fluid restriction in hemodialysis care. Its concise format may reduce educational fatigue and support person-centered, holistic practice in line with caring beyond the kidneys.

References

1. Turan, G., Karaaslan, F., & Özer, Z. (2025). The effects of nutrition education with Pecha Kucha method on prevention of malnutrition in cancer patients undergoing radiotherapy: a randomised controlled study. BMC Cancer, 25. <https://doi.org/10.1186/s12885-025-14626-7>.
2. Sultan, B., & Froelicher, E. (2025). Effectiveness of patient education on adherence to treatment regimen and quality of life in hemodialysis patients: a systematic review and meta-analysis. Minerva urology and nephrology. <https://doi.org/10.23736/s2724-6051.24.05718-5>.

Abstract Country

Türkiye

Disclosure of Interest

Yes

144

The effect of education on self-care agency and fluid control in hemodialysis patients

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Background

Effective self-care and adequate fluid control are essential components of hemodialysis management. Inadequate self-care behaviors may lead to poor fluid control, increased dialysis-related complications, and frequent hospital admissions. Structured patient education is considered a key nursing intervention to improve treatment adherence and health outcomes in hemodialysis patients.

Objectives

This study aimed to investigate the effects of education on self-care agency and fluid control among patients receiving hemodialysis treatment.

Methods

This study was conducted as a randomized controlled trial. Patients receiving maintenance hemodialysis were randomly assigned to an intervention group (n = 26) or a control group (n = 28). The intervention group received structured education using a training booklet titled “Living with Hemodialysis”, while the control group received routine nursing care. Data were collected using the Self-Care Agency Scale and the Fluid Control in Hemodialysis Patients Scale. The study was conducted in accordance with the CONSORT guidelines.

Results

Post-test mean scores of the Fluid Control in Hemodialysis Patients Scale were significantly higher than pre-test scores in both groups, with a statistically significant difference between the intervention and control groups. The number of weekly dialysis admissions in the intervention group was significantly lower after the education compared to before the intervention. Patients who received education demonstrated a significant increase in self-care agency and fluid control compared to the control group.

Conclusion/Application to practice

Education on hemodialysis management significantly improves self-care agency and fluid control in hemodialysis patients and contributes to a reduction in dialysis admissions. Integrating structured educational interventions into routine nephrology nursing practice may enhance patient self-management, promote adherence to health behaviors, and improve clinical outcomes. These findings support the conference theme “Mind Matters in Nephrology: Caring Beyond the Kidneys” by demonstrating how educational nursing interventions address psychological engagement and holistic patient care in hemodialysis practice.

References

1. Süleymanlar, G., Utaş, C., Arinsoy, T., Ateş, K., Altun, B., Altıparmak, MR,... Başçı, A. (2011). Türkiye’de Kronik Böbrek Hastalığına İlişkin Popülasyon Bazlı Bir Araştırma—CREDIT Çalışması. *Nefroloji Diyaliz Transplantasyon*, 26 (6), 1862-1871.
2. Vijay, V., & Kang, HK (2022). Hemodiyaliz hastalarında diyet ve sıvı kısıtlamalarına uymamanın dünya çapındaki yaygınlığı: sistematik bir inceleme ve meta-analiz. *Böbrek Beslenmesi Dergisi*, 32 (6), 658-669.
3. Visiedo, L., López, F., Rivas-Ruiz, F., Tortajada, B., Giménez Martínez, RJ ve Abilés, J. (2024). Kişiselleştirilmiş beslenme müdahale programının hemodiyaliz hastalarında beslenme durumu, yaşam kalitesi ve mortalite üzerindeki etkisi.
4. Yildirim, Z., & Bilgin, S. (2022). Hemodiyaliz Hastalarına Verilen Eğitimin İlaç ve Diyet Uyumu, Yaşam Kalitesi ve Öz Bakım Yeteneği Üzerindeki Etkisi. *Uluslararası Bakım Bilimleri Dergisi*, 15 (2), 815-824.
5. Zhang, L., Chen, Z., Diao, Y., Yang, Y., & Fu, P. (2015). Akut böbrek yetmezliği olan hastalarda sıvı yüklenmesinin mortalite ve böbrek iyileşmesi ile ilişkisi: sistematik bir inceleme ve meta-analiz. *Kritik bakım dergisi*, 30 (4), 860. e867-860. e813.

Abstract Country Türkiye

Disclosure of Interest No

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Impact of a structured overhydration management committee in hemodialysis patients

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Background

Chronic overhydration in hemodialysis is linked to resistant hypertension, cardiovascular complications, intradialytic instability, and increased mortality. Clinical assessment of dry weight is often subjective, whereas multifrequency bioimpedance spectroscopy with the Body Composition Monitor allows objective, standardized quantification of overhydration.

Objectives

To evaluate the effectiveness of a structured overhydration management committee.

Methods

This retrospective observational study analyzed 2,359 valid bioimpedance measurements from 166 patients at a single dialysis center (2022–2025). Data was extracted from the EuCliD platform. Stable patients underwent bioimpedance every 13 weeks, with earlier reassessment when clinically indicated. In 2025, a multidisciplinary overhydration committee was implemented, including monthly indicator review, systematic identification of patients exceeding predefined thresholds, individualized clinical assessment, consensual dry weight adjustment, antihypertensive optimization, scheduled follow-up measurements, and structured patient education. Continuous variables were analyzed using ANOVA and categorical variables using chi-square tests in Python (Pandas, SciPy, Seaborn).

Results

Predialysis overhydration decreased from 2.29 L in 2022 to 1.67 L in 2025, and relative overhydration declined from 13.0% to 9.9%. The cohort maintained demographic and comorbidity homogeneity over the four years ($p > 0.500$), excluding population bias. During the pre-intervention period (2022–2024), predialysis hypertension exhibited a clearly volume-dependent phenotype, being associated with higher overhydration compared to hypotensive events (difference >0.70 L; $p < 0.05$). However, the year of committee implementation (2025) marked a turning point, achieving marked clinical improvement: after protocol implementation, this overhydration difference completely disappeared ($p = 0.938$), with convergence between both groups (mean OH ~ 1.74 L). A significant inverse linear correlation was demonstrated between monthly achievement of systolic blood pressure KPIs and global overhydration status ($p < 0.05$).

Conclusion/Application to practice

Implementation of a structured, protocolized committee integrating objective bioimpedance data with coordinated clinical decision-making was associated with sustained improvement in volume control and normalization of blood pressure. These findings support multidisciplinary strategies to optimize fluid management in hemodialysis.

References

1. Wizemann V, Wabel P, Chamney P, et al. The mortality risk of overhydration in haemodialysis patients. *Nephrol Dial Transplant*. 2009;24(5):1574–1579.
2. Dekker MJ, Marcelli D, Canaud B, et al. Impact of fluid status and inflammation and their interaction on survival: a study in an international hemodialysis patient cohort. *Kidney Int*. 2017;91(5):1214–1223.
3. Flythe JE, Assimon MM, Overman RA. Target weight achievement and ultrafiltration rate thresholds: potential patient implications. *Clin J Am Soc Nephrol*. 2017;12(10):1690–1698.

Abstract Country Spain

Disclosure of Interest No

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Using generative co-design to adapt exercise within multimodal care for patients at-risk of renal-cachexia

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Background:

Renal cachexia is a complex and debilitating condition, with limited evidence to guide the co-design of exercise interventions within multimodal management. Co-design offers a collaborative and inclusive approach, enabling service users, carers, and healthcare professionals to identify acceptable, feasible, and effective strategies to improve care delivery.

Objectives:

To use a generative co-design framework to adapt an exercise intervention for patients receiving haemodialysis (HD) who have, or are at risk of, renal cachexia, by: (1) co-designing strategies to optimise recruitment and adherence; and (2) developing a conceptual model to support implementation.

Methods:

Guided by Bird and colleagues' generative co-design framework, the study followed pre-design, co-design, and post-design stages. Three co-design workshops were conducted, with decisions documented across seven iterative steps, in November 2023 (n=10), June 2024 (n=11), and February 2025 (n=6). Public partners from Northern Ireland and England participated, representing Kidney Care UK, the Northern Ireland Kidney Patients Association, and the Northern Ireland Kidney Research Fund.

Results:

Key contextual and intervention factors influencing uptake and adherence were identified. These included the need for an individualised, flexible exercise approach; integration within HD routines considering session duration, timing, fatigue, and fistula awareness; and development of relatable materials recognising everyday activities as exercise. Ongoing support, including weekly telephone contact and progress tracking, was viewed as essential. Recruitment was deemed to be best supported through invitations from trusted healthcare professionals to patients most likely to benefit.

Conclusion:

Application of a generative co-design framework produced a conceptual model to support recruitment and adherence to exercise within multimodal renal cachexia management, informing intervention development, implementation planning, and evaluation.

References

1. Boyd H, McKernon S, Mullin B, Old A. Improving healthcare through the use of co-design. *N Z Med J.* 2012;125(1357):76-87
2. Reid J, Blair C, Dempster M, McKeaveney C, Snee A, Fitzsimons D. Multimodal interventions for cachexia management. *Cochrane Database Syst Rev.* 2025;3(3):CD015749. DOI.10.1002/14651858.CD015749.pub2
3. Bird M, McGillion M, Chambers EM, Dix J, Fajardo CJ, Gilmour M, et al. A generative co-design framework for healthcare innovation: development and application of an end-user engagement framework. *Res Involv Engagem.* 2021;7(1):12. DOI.10.1186/s40900-021-00252-7

Abstract Country

United Kingdom

Disclosure of Interest

No

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Analysis of ESA and Iron utilization patterns for anemia treatment in a hemodialysis cohort

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Background

Optimal anemia management in chronic hemodialysis requires balancing erythropoiesis-stimulating agent (ESA) exposure, iron supplementation, and hemoglobin (Hb) target attainment. We performed a comprehensive patient-level analysis of ESA dose, IV iron administration, Hb variability, time-in-target, and treatment–response relationships in our dialysis unit cohort.

Objectives

We performed a comprehensive patient-level analysis of ESA dose, IV iron administration, Hb variability, time-in-target, and treatment–response relationships in our dialysis unit cohort.

Methods

Our clinical dataset includes longitudinal hemoglobin measurements, ESA dosing records, IV iron administration and patient labs. Center-level statistics were calculated from patient-level means (20 patients with 208 Hb measurements): Mean hemoglobin (g/dL), Standard deviation (Hb variability), Mean weekly ESA dose (as recorded), Mean IV iron dose (mg), Percentage of Hb values within predefined target range, Simple ESA Resistance Index (ERI = Mean ESA / Mean Hb).

Pearson correlations were computed for ESA–Hb and Iron–Hb relationships. Multivariate linear regression model was: Mean Hb ~ Mean ESA + Mean Iron.

Results

Mean hemoglobin: 11.73 ± 0.70 g/dL, Mean ESA dose: ~13,500 units/week, Mean IV iron dose: ~300–400 mg (variable exposure), Mean % time-in-target: approximately 60–70%.

Hemoglobin variability (SD at patient level) was modest, mean ESA dosing varied substantially across patients (range ~3,750–26,667 units/week). Iron administration was intermittent and heterogeneous, without strong linear relationship with mean Hb. Mean ESA vs Mean Hb: weak to moderate inverse association. Multivariate Regression model: small magnitude for Iron, negative for ESA coefficient.

Modest R² model indicated ESA-iron dosing partially explaining Hb variability and suggesting that additional factors (inflammation, dialysis adequacy, comorbidity burden) likely contribute to Hb response. ERI heterogeneity suggests the presence of potential ESA hyporesponders.

Conclusion/Application to practice

Our cohort shows Hb within desired levels with considerable variability in ESA exposure and iron utilization. Future analyses incorporating inflammatory and iron status biomarkers are warranted to better characterize treatment responsiveness and optimize individualized anemia management strategies. There is a continuous need for dialysis nurses strengthening their role in patient management, including anemia treatment.

References

1. Weinhandl ED, Eggert W, Hwang Y, Gilbertson DT, Petersen J. Contemporary Practice of Anemia Treatment Among Dialysis Patients in the United States. *Kidney Int Rep.* 2023 Sep 7;8(12):2616–2624.
2. Agnelli JCM, Costa WRD, Iwami RS, Franques RT, Lopes LC, Barberato-Filho S, Bergamaschi CC. Critical appraisal and comparison of clinical practice guideline recommendations for the treatment of anaemia in chronic kidney disease: a systematic review protocol. *BMJ Open.* 2026 Jan

Abstract Country

GREECE

Disclosure of Interest

No

7

Mapping the top 5 patient-related incidents in hemodialysis in a Greek dialysis network

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Background

As part of a high-volume national hemodialysis provider, we deliver several hundred thousand life-sustaining HD treatments every year across our dialysis clinics. In such a high-throughput environment, systematic incident surveillance is essential to detect patient-related safety signals, align quality priorities, and guide targeted clinical and organizational improvement. Standardized measurement per 1,000 treatments enables meaningful comparison across units and time while preserving clinical relevance and operational applicability.

Objectives

To identify and rank the Top 5 patient-related incident categories per 1,000 HD treatments in Greece. To describe their relative burden in order to support national and unit-level safety prioritization.

Methods

A retrospective descriptive analysis was conducted using an incident reporting data, normalized per 1,000 treatments. Events were classified according to standard dialysis safety categories, and sub-categories were reviewed to evaluate clinical modifiability, nursing influence, and impact on treatment delivery and patient safety.

Results

The leading patient-related incident category was shortened treatments at 9.41 per 1,000 treatments, representing a loss of delivered dialysis dose and reflecting patient-driven interruptions, workflow constraints, and intradialytic instability. This was followed by extracorporeal circuit clotting at 9.39, frequently requiring circuit replacement and treatment restart, highlighting the importance of anticoagulation management and early nursing detection. Vascular access complications ranked third at 8.67 per 1,000 treatments, driven by cannulation difficulty, malfunction, and prolonged bleeding. Intradialytic complications occurred at 7.77, including hypotension, hypertension, hypoglycemia, and cramps requiring immediate nursing intervention. Finally, prolonged or repeated HD sessions (>30 minutes) occurred at 0.86 per 1,000 treatments, reflecting severe treatment disruptions.

Conclusion/Application to practice

This safety profile demonstrates that treatment integrity—shortened sessions, circuit clotting, and access complications—is the dominant patient-related risk domain in hemodialysis. These events are highly modifiable through anticoagulation optimization, cannulation quality, intradialytic monitoring, and treatment-time protection, confirming nursing practice as the principal lever for improving safety and delivered dialysis dose across our dialysis services.

References

1. Albreiki, S., Kearney, T., Duffy, S. and Staines, A. (2023) 'Safety culture in haemodialysis settings: a systematic review', *BMC Nephrology*, 24(1), pp. 1–14.
2. Agency for Healthcare Research and Quality (AHRQ) (2019) *Just culture and patient safety event reporting*. Rockville, MD: AHRQ.
3. World Health Organization (WHO) (2020) *Patient safety incident reporting and learning systems: technical report and guidance*. Geneva: WHO.
4. Weaver, S.J., Lubomksi, L.H., Wilson, R.F., Pfoh, E.R., Martinez, K.A. and Dy, S.M. (2013) 'Promoting a culture of safety as a patient safety strategy', *Annals of Internal Medicine*, 158(5 Pt 2), pp. 369–374.
5. Sorra, J., Gray, L., Streagle, S., Famolaro, T., Yount, N. and Behm, J. (2018) *AHRQ hospital survey on patient safety culture: user's guide*. Rockville, MD: AHRQ.

Abstract Country Greece

Disclosure of Interest No

109

Counting what matters: turning incident data into safer dialysis

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Background

As a multinational renal care and dialysis provider, we operate more than 450 clinics across 23 countries on four continents, serving over 40,000 patients globally and delivering approximately 6.24 million hemodialysis treatments annually. In such a high-volume dialysis network, normalized incident surveillance is essential to ensure patient safety, detect nurse-sensitive safety signals and guide targeted quality improvement initiatives.

Objectives

To identify and rank the five most frequent patient-related incidents per 1,000 treatments in 2025 in order to guide targeted patient safety improvement actions.

Methods

A retrospective descriptive analysis was conducted using internal incident data normalized per 1,000 treatments, covering the period from January 2025 to December 2025. Temporal trend analyses and sub-category breakdowns were performed to assess incident persistence, modifiability, and potential patterns requiring targeted quality improvement interventions.

Results

The five most frequent patient-related incidents were shortened treatment (>15 minutes), representing 33.9% of total incidents. The main modifiable driver within this category was patient choice (12.2%). This was followed by missed treatment, accounting for 25.5% of total incidents, with 21.5% similarly driven by patient choice. Vascular access complications represented 9.3% of incidents, primarily driven by cannulation difficulties and central venous catheter malfunction. Extracorporeal circuit clotting accounted for 7.0% of incidents, reinforcing the importance of early nurse detection and timely intervention to preserve treatment delivery. Finally, intradialytic complications represented 3.8% of total incidents, with hypotension accounting for 2.3%.

Conclusion/Application to practice

Normalized incident surveillance in high-volume dialysis networks allows early identification of modifiable, nurse-sensitive safety signals. The predominance of shortened and missed treatments—largely driven by patient choice—highlights the need for strengthened patient engagement strategies, shared decision-making, and structured adherence support.

Vascular access-related events, extracorporeal circuit clotting and intradialytic complications emphasize the critical role of nursing vigilance, cannulation competence, and early intervention in preserving treatment adequacy and preventing avoidable complications.

Embedding data-driven surveillance into routine clinical governance enables targeted quality improvement initiatives, enhances treatment delivery reliability, and ultimately supports better patient outcomes and safety.

Abstract Country

Sweden

Disclosure of Interest

No

177

Clinical Audit Programme and Priority Improvement Areas in a Multinational Dialysis Network

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Background

As a multinational renal care and dialysis provider, we operate in more than 450 clinics in 24 countries across 4 continents, serving more than 40,000 patients globally and delivering approximately 6.24 million HD treatments annually. To ensure consistent clinical quality and patient safety at scale, a structured clinical audit programme is implemented and supported by section-level performance monitoring to identify priority improvement areas.

Objectives

To identify priority improvement areas using section score averages, supporting targeted quality planning and follow-up.

Methods

A retrospective descriptive review was conducted using 168 unannounced clinical audits performed in 2025 across the network. Audit data were analysed at section level using section score averages to identify the main areas of improvement.

Results

The section-level performance review highlighted the lowest-scoring domains as the primary improvement priorities: Patient assessment (57.3), and Blood flow optimization during treatment (60.0), Documentation and monitoring, and Post dialysis care (each 60.0). Additional improvement areas included CRO/Carbapenemase-producing organisms management (60.0), Emergency equipment/medication (61.0), Quality and regulatory (62.5), and PPE (63.8). Several safety-critical areas scored higher but still indicated optimisation opportunities, including Hand hygiene (70.8), CVC care (74.9), Emergency preparedness (75.0), Water treatment (76.9), and Medication (77.3).

Conclusion/Application to practice

A structured audit model with defined timelines enables consistent governance across a high-volume, multinational dialysis network. Section score averages provide a practical roadmap to prioritise improvement work, focusing first on patient assessment, treatment delivery, documentation, and post-dialysis care, and then extending to infection prevention, access care, and equipment/environment domains. Linking audit outcomes to targeted action plans, mini-audits, and re-audits (when <80%) supports timely protocol implementation and measurable improvement in clinical practice.

References

NA

Abstract Country

United Kingdom

Disclosure of Interest

No

176

Impact of structured supervisory Head-Nurse role on incident reporting and safety culture in haemodialysis.

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Background

Hemodialysis is a high-risk clinical environment where treatment-related incidents are frequent and may compromise patient safety. Robust incident reporting systems are essential to promote transparency, learning and quality improvement. Head Nurses play a central role in safety governance by ensuring systematic incident review, coordinating corrective actions and ensuring multidisciplinary accountability. However, evidence quantifying the impact of structured Head Nurse-led incident analysis in dialysis settings remains limited.

Objectives

Evaluate the impact of a structured supervisory head-nurse review in incident management and safety culture in haemodialysis.

Methods

A retrospective quasi-experimental pre–post study was conducted in three hemodialysis centers (n=176 patients; 2,330 sessions). A structured supervisory role involving systematic incident review performed by head supervisors in hemodialysis clinics, including corrective action planning and multidisciplinary feedback, was implemented in March 2025. Nine months pre- and nine months post-implementation were compared. National registry data were used as external benchmark. Hypotension rates were analyzed as a reporting-quality marker aligned with KDIGO standards.

Results

The mean incident rate per treatment was 16.62% pre-implementation and 17.15% post-implementation ($p>0.05$). However, interrupted time-series analysis demonstrated a significant post-intervention change in trend ($p<0.05$), shifting from an increasing pre-intervention trajectory to a progressive decline. National rates remained stable (6.22% vs 6.23%, $p=0.94$). Hypotension reporting showed a modest reduction (4.50% vs 4.03%, $p<0.05$). Importantly, the proportion of incidents requiring corrective action significantly decreased over time ($p<0.001$). Nurse-related documentation and corrective actions decreased by 87.0% (mean 24.6 vs 3.2 per review, $p<0.001$), reflecting substantial improvement in nursing practice standardization and safety governance.

Conclusion/Application to practice

Implementation of a structured nursing supervisory incident-review role significantly strengthened safety culture, reduced preventable events requiring corrective intervention and improved nursing documentation and practice standardization in hemodialysis centers. These findings support the strategic value of advanced nursing leadership in patient safety and clinical governance.

References

1. Van der Veer SN, et al. Patient safety in nephrology: how safe is safe enough? *Nephrol Dial Transplant*. 2012;27(10):3677–3685.
2. World Health Organization. Patient safety incident reporting and learning systems: technical report and guidance. Geneva: WHO; 2020.
3. Thomas-Hawkins C, Flynn L, Clarke SP. Relationships between registered nurse staffing and patient outcomes in hemodialysis units. *Nephrol Nurs J*. 2008;35(2):123–131.

Abstract Country

Spain

Disclosure of Interest

No

63

Bridging knowledge gaps on blood flow rate: A survey-based project

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Background

Blood flow rate (QB) is a key technical parameter in hemodialysis, influencing treatment adequacy and patient comfort. Although QB is determined through clinical assessment, patients' understanding of its purpose and perceived risks can influence acceptance of prescribed values. Limited awareness or misconceptions may contribute to reluctance to maintain clinically recommended QB levels.

Objectives

To assess patient knowledge, perceptions, and concerns related to QB and to develop and implement an educational approach addressing identified knowledge gaps within routine hemodialysis care.

Methods

A cross-sectional anonymous survey was conducted among 41 adult hemodialysis patients in a single center in June 2024. The survey included structured questions assessing understanding of the blood pump function, perceived risks associated with higher QB, treatment comfort, and involvement in QB-related decisions. Survey findings informed the development of patient-focused educational materials (visual leaflet and brief explanation script) and staff-facing materials to support consistent communication. One-to-one education was provided during routine dialysis sessions. Subsequent alignment between prescribed and accepted QB levels was descriptively evaluated through routine clinical observations.

Results

Most participants demonstrated limited understanding of the blood pump mechanism and perceived QB-related decisions as primarily physician-directed. Common concerns regarding higher QB included arm discomfort, fear of fistula strain, and perceived cardiovascular burden. Following implementation of the educational approach, routine clinical observations indicated greater acceptance of clinically prescribed QB values and increased openness to discussing QB adjustments with staff.

Conclusion/Application to practice

This single-center, survey-based project highlights the importance of addressing patient perceptions related to blood flow rate. Integrating brief, structured education into routine hemodialysis care may support patient engagement, reduce misconceptions, and promote more collaborative communication regarding treatment parameters.

References

1. W L. Whittier, Surveillance of Hemodialysis Vascular Access, Semin Intervent Radiol 2009; 26(2): 130-138 DOI: 10.1055/s-0029-1222457
2. S R Borzou 1, M Gholyaf, M Zandiha, R Amini, M T Goodarzi, B Torkaman, The effect of increasing blood flow rate on dialysis adequacy in hemodialysis patients, Saudi J Kidney Dis Transpl. 2009 Jul;20(4):639-42.

Abstract Country

North Macedonia

Disclosure of Interest

No

129

Nurse-led frailty screening in hemodialysis patients: a multicentre study using the FRAIL scale

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Background

Frailty is a complex clinical syndrome present in more than 40% of patients undergoing haemodialysis and is associated with an increased risk of hospitalization, cardiovascular complications, functional decline, infections, falls and premature mortality, according to data from the scientific literature.

Objectives

To evaluate the prevalence of frailty in a multicentre cohort of haemodialysis patients, to identify associated clinical and socio-demographic factors, and to assess the feasibility of integrating the FRAIL scale into preventive nursing practice in order to facilitate the implementation of multidisciplinary interventions tailored to patient risk.

Methods

A multicentre cross-sectional observational study was conducted in three dialysis centres in south-eastern Romania, including 377 patients undergoing chronic haemodialysis. Frailty assessment was performed using the FRAIL scale, applied by a single trained dialysis nurse to ensure uniform interpretation and reduce inter-observer variability, in accordance with predefined eligibility criteria.

Results

The mean age of the study population was 62.4 ± 13.9 years, and the mean body mass index was 27.9 ± 6.1 kg/m². Frailty was identified in 40.6% of patients, while 37.7% were classified as pre-frail. The majority of frail patients originated from urban areas (62.1%). The risk of developing a frailty phenotype was similarly distributed between men (53% of the total cohort) and women (47%). Frail patients had a median hospitalization duration of 12 days during the previous six months compared with 0 days in robust patients. Implementation of frailty screening enabled adjustment of nursing care plans, facilitating early intervention, prevention of hospitalizations and maintenance of patients' functional autonomy.

Conclusion/Application to practice

Integration of the FRAIL scale into routine nursing practice demonstrates the feasibility of a prevention-oriented care model based on early identification of high-risk patients. Frailty screening allows adaptation of care plans and early initiation of multidisciplinary interventions, contributing to optimized clinical management, reduced hospitalization risk and preservation of functional autonomy in patients undergoing chronic haemodialysis.

References

1. Morley JE, Malmstrom TK, Miller DK. A simple frailty questionnaire (FRAIL) predicts outcomes in middle aged African Americans. *J Nutr Health Aging*. 2012;16(7):601-608.
2. McAdams-DeMarco MA, Law A, Salter ML, et al. Frailty and early hospital readmission after kidney transplantation. *Am J Transplant*. 2013;13(8):2091-2095.
3. Johansen KL, Dalrymple LS, Delgado C, et al. Association between frailty and outcomes in patients receiving hemodialysis. *Clin J Am Soc Nephrol*. 2014;9(2):349-356.
4. KDIGO. KDIGO 2024 Clinical Practice Guideline for the Evaluation and Management of Chronic Kidney Disease. *Kidney Int*. 2024.

Abstract Country

Romania

Disclosure of Interest

No

154

Non-Infectious Catheter-Related Complications of Peritoneal Dialysis in Children at Tripoli University Hospital

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Background

Peritoneal dialysis (PD) is widely used as a renal replacement therapy in children with end-stage renal disease or acute kidney injury. While infectious complications of PD are well documented, non-infectious catheter-related complications remain underreported in pediatric populations, particularly in resource-limited settings.

Objectives

This study aimed to determine the incidence and pattern of non-infectious catheter-related complications among children receiving peritoneal dialysis at Tripoli University Hospital.

Methods

A retrospective cross-sectional study was conducted by reviewing medical records of all children aged 6 months to 14 years who underwent peritoneal dialysis between January 2024 and December 2025. Data were collected using a structured data extraction form covering demographic characteristics, causes of nephropathy, duration of PD, and non-infectious mechanical complications. Data were analyzed using SPSS version 25 with descriptive statistics.

Results

A total of 36 pediatric patients were included; 63.9% were males and 36.1% females. The mean age was 64 ± 45 months, and the mean duration of PD was 17 ± 8 months. Hypoplastic/dysplastic kidneys (16.6%) and polycystic kidney disease (13.8%) were the most common underlying causes. Non-infectious catheter-related complications occurred in 52.8% of patients. The most frequent complications were outflow failure (27.8%), catheter tip migration (13.9%), leakage (11.1%), and pain during inflow or outflow (2.8%). Hernia occurred in 11.1% of cases. During follow-up, 47.2% remained on PD, 11.1% permanently switched to hemodialysis, and 25% died.

Conclusion/Application to practice

Non-infectious catheter-related complications are common among children on peritoneal dialysis but rarely necessitate catheter removal or permanent modality change. Despite these complications, peritoneal dialysis remains a lifesaving and effective renal replacement therapy in pediatric patients.

References

- Oreopoulos DG. Clin Nephrol. 1978;9:165-173.
- McCormick BB, Bargman JM. J Am Soc Nephrol. 2007;18:3023-3025.
- AlZabli SM et al. Int J Pediatr Adolesc Med. 2021;8(4):229-235.
- Rahim KA et al. Pediatr Nephrol. 2004;19:1021-1028.
- Vidal E et al. Am J Kidney Dis. 2017;69(5):617-625.

Abstract Country

Libya

Disclosure of Interest

Yes

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Building a concept: self-care in peritoneal dialysis

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Background

CKD patients undergoing home based PD therapy have to demonstrate they are able to manage the treatment and to spot changes and signs of complications – they must be ready to it independently, which leads to the necessity to formulate the concept of “self-care in PD” so PD nurses can focus on certain key areas during the PD learning and training processes.

Objectives

The objectives of this scoping review is to map the evidence about the areas of self-care in Chronic Kidney Disease (CKD) patients undergoing Peritoneal Dialysis (PD) therapy in order to formulate a critical analysis that leads to a concept of self-care in PD.

Methods

On February 22, 2025, the search took place in the database CINAHL® Plus with Full Text, Nursing & Allied Health Collection, Cochrane Plus Collection, MedicLatina and MEDLINE® (via EBSCO Host), with the search in Scielo happening on February 26, 2025. Initially, it were considered the published articles in the last 10 years, but there were only 13 results. Considering the lack of studies in this domain, the publishing years limits were expanded (no limits) – a total of 35 articles were then considered for title and abstract analysis. Texts in English, Portuguese and Spanish were accepted. The search and evidence selection process are presented in a PRISMA flow diagram.

Results

A total of 16 studies were deemed eligible in order to answer the investigation question: *What are the interventions and actions that define the domains of self-care in peritoneal dialysis for patients?* The 16 studies and the 2 other texts deemed adequate for the research describe the domains needed in self-care in peritoneal dialysis as it also describe the many steps and specific actions and knowledge that are needed for the patient to manage its therapeutic regime.

Conclusion/Application to practice

Considering the findings, a concept of self-care in PD was elaborated concerning not only the mechanical abilities a patient must domain, but also a span of concepts and protocols that allow the patient to selfmonitoring the regime. The actions descriptions and the establishment of domains in PD that integrate the concept of selfcare in PD will be used as the base for the construction of a self-care scale in PD. A notable finding also links PD therapy success to higher levels of empowerment and self-efficacy, which must be taken in high consideration when not only building a scale but also planning a PD training and access a patient undergoing PD therapy.

References

1. Almeida OAE, Santos WS, Rehem TCMSB, Medeiros M. Engaging people with chronic kidney disease in their own care an integrative review. *Cien Saude Colet*. 2019 May 30;24(5):1689-1698. Portuguese, English.
2. Baillod RA. Home dialysis: lessons in patient education. *Patient Educ Couns*. 1995 Sep;26(1-3):17-24.
3. Blaauw M. Use of Sharesource in Remote Patient Management in Peritoneal Dialysis: A UK Nurse's Perspective. *Contrib Nephrol*. 2019;197:73-83.
4. Castro MJ, Celadilla O, Muñoz I, Martínez V, Mínguez M, Auxiliadora Bajo M, del Peso G. Home training experience in peritoneal dialysis patients. *EDTNA ERCA J*. 2002 Jan-Mar;28(1):36-9. doi: 10.1111/j.1755-6686.2002.tb00196.x. PMID: 12035901
5. Escudero-Lopez M, Martinez-Andres M, Marcilla-Toribio I, Moratalla-Cebrian ML, Perez-Moreno A, Bartolome-Gutierrez R. Barriers and facilitators in self-care and management of chronic kidney disease in dialysis patients: A systematic review of qualitative studies. *J Clin Nurs*. 2024 Oct;33(10):3815-3830.

Abstract Country Portugal

Disclosure of Interest Yes

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How is peritoneal dialysis nursing care delivered worldwide? An assessment using Nursing-Sensitive Indicators

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Background

Nurses have a key role in the provision of peritoneal dialysis (PD), including patient education, monitoring, complication management, and quality improvement (1,2). However, there is limited evidence describing how PD nursing care is organised, delivered, and evaluated across different healthcare systems. PD nursing-sensitive indicators (NSIs) provide a structured framework to assess the quality of nursing care across structural, process, and outcome domains (3). A global baseline evaluation is necessary to assess current PD nursing practices and guide strategies to improve care quality worldwide.

Objectives

To assess the quality of PD nursing care and describe global variability using the PD NSIs.

Methods

An explanatory sequential mixed-methods design is being conducted. Phase 1 is an international cross-sectional online survey targeting nurses working in PD units worldwide. The survey assesses structural indicators (e.g., nurse-to-patient ratio, structured training programmes), process indicators (e.g., routine clinical assessments, patient education), and outcome indicators (e.g., infection rates, technique survival), which reflect quality monitoring practices. Data will be analysed using descriptive and inferential statistics to explore country differences. Phase 2 involves multilingual focus groups with a purposive sample of survey respondents to explore contextual enablers and challenges influencing quality in PD care delivery. Qualitative data will be analysed using the Framework approach (4) and integrated with quantitative findings.

Results

Recruitment is ongoing. As of February 2026, 182 PD nurses from more than 20 countries participated, representing diverse organisational contexts. Preliminary findings indicate substantial variability in service organisation, access to assisted PD and remote monitoring, and use of quality indicators. Full analysis will be completed prior to the conference.

Conclusion/Application to practice

This study provides the first international baseline assessment of PD NSIs. Findings will support benchmarking, inform implementation strategies, and strengthen PD nursing practice to promote equitable access to high-quality PD care.

References

1. Cho Y, Bello AK, Levin A, Lunney M, Osman MA, Ye F, et al. Peritoneal dialysis use and practice patterns: an international survey study. *Am J Kidney Dis.* 2021;77(3):315–325.
2. Perl J, Brown EA, Chan CT, Couchoud C, Davies SJ, Kazancioglu R, et al. Home dialysis: conclusions from a Kidney Disease: Improving Global Outcomes (KDIGO) controversies conference. *Kidney Int.* 2023;103(5):842–858.
3. Baillie J, Bonner A, Guillouët S, Mikut C, Punzalan S, Kaczmarek A, Wenzyl LC, FINDERUP J. Co-producing peritoneal dialysis nursing sensitive indicators for quality care: a multinational consensus building design. *J Ren Care.* 2025;51:e70008.
4. Ritchie J, Spencer L. Qualitative data analysis for applied policy research. In: Huberman AM, Miles MB, editors. *The qualitative researcher's companion.* Thousand Oaks (CA): Sage Publications; 2002. p. 305–329.

Abstract Country France

Disclosure of Interest No

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Factors influencing home dialysis choice in Scandinavia

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Background

Home dialysis offers clinical, psychosocial, and economic advantages compared with in-centre haemodialysis, yet uptake remains limited in many countries. Understanding how patients with kidney failure and kidney professionals perceive facilitators and barriers to home dialysis is essential to support informed and shared decision-making.

Objectives

To identify factors influencing the choice of home dialysis and to explore differences in perceptions between patients with kidney failure and kidney professionals across Scandinavian countries.

Methods

A cross-sectional study using a mixed-methods explanatory sequential design was conducted. A digital survey was developed through eight co-creation workshops (2021–2023) involving patients with kidney failure and kidney professionals. The survey included closed- and open-ended questions and was distributed to patients with kidney failure and kidney professionals in Scandinavia. Quantitative data were analysed using logistic regression adjusted for gender, age, and country. Qualitative responses were analysed using content analysis.

Results

The survey included responses from 269 patients with kidney failure and 185 kidney professionals. Patients were predominantly male (57.3%, mean age 61.3 years), while professionals were mainly female (85.6%, mean age 49.4 years). Independence was the most frequently reported reason for choosing home dialysis, although many participants described the decision-making process as challenging. Patients identified unclear reimbursement (OR = 0.29), limited technology (OR = 0.44), and inadequate communication tools (OR = 0.18) as key barriers. Professionals emphasised patient reluctance (OR = 7.29), involvement of relatives (OR = 7.54), social isolation (OR = 7.18), and unsuitable home environments (OR = 3.64). Patients valued social interaction during dialysis but expressed concern about transforming their homes into medical spaces. Professionals highlighted staff shortages and insufficient support for shared decision-making.

Conclusion/Application to practice

Patients with kidney failure and kidney professionals identify different barriers to home dialysis. Tailored, person-centred interventions addressing these differing perspectives may improve shared decision-making and increase home dialysis uptake in Scandinavia.

References

1. Graneheim UH, Lundman B. Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. *Nurse Educ Today*. 2004;24(2):105-12.
2. Nygaard-Andersen B, Torbjørnsen A, Hougaard PF, Leonardsen AL, Wolf A, FINDERUP J. Home-Based Dialysis and Person-Centered Care: A Scoping Review. *Nephron*. 2025;149(8):463-478.

Abstract Country

Denmark

Disclosure of Interest

No

262

Patient Safety Training Experiences of Home Hemodialysis Patients During Natural Disasters: A Qualitative Study

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Background

Dialysis patients are at high risk due to treatment disruptions during disasters.

Objectives

This study explores the experiences and perceptions of home haemodialysis (HHD) patients regarding patient safety training for natural disasters, with a focus on preparedness, confidence, and perceived training needs.

Methods

This ongoing qualitative study collects data using semi-structured interviews, a demographic information form, and a brief training evaluation form related to the education program. The study aims to recruit 15 participants; at the time of submission, seven patients have been interviewed. Eligible participants are adults (≥ 18 years) who have been receiving HHD for at least three months, have completed patient safety training for natural disasters, have no severe visual, auditory, or neurological impairments that may affect communication, and have provided consent for audio recording. Ethical approval was obtained prior to data collection, and written informed consent was obtained from all participants. Interviews are conducted individually and analysed using thematic analysis. Preliminary findings from the interviews conducted to date are reported.

Results

Preliminary analysis identified several key themes. Participants reported increased knowledge and confidence following the training and described a reduction in disaster-related anxiety. Patients emphasized the importance of preparedness and expressed the need to broaden the scope of training. They recommended extending similar education to all dialysis patients, including those receiving treatment in hospitals and outpatient centres. Participants highlighted the value of practical, hands-on components to enhance learning and retention. They also suggested that training should be delivered as a continuous and iterative process, with refresher sessions at least every six months to support long-term preparedness.

Conclusion/Application to practice

Disaster preparedness training appears to improve confidence and reduce anxiety among HHD patients. Expanding training across dialysis settings, incorporating practical components, and providing regular refresher sessions may strengthen patient safety and treatment continuity. Integrating structured, patient-centred disaster education into routine dialysis care may enhance resilience and preparedness during emergencies.

References

- Centers for Disease Control and Prevention. (2023). *Emergency preparedness for people receiving dialysis*. <https://www.cdc.gov/kidney-disease/caring/index.html>
- National Kidney Foundation. (2026, March 1). *Emergency and natural disaster preparedness tips for kidney patients*. National Kidney Foundation. <https://www.kidney.org/news-stories/emergency-and-natural-disaster-preparedness-tips-kidney-patients>

Abstract Country

Türkiye

Disclosure of Interest

No

64

Who cares for the caregivers? Supporting well-being and psychological safety in nephrology teams

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Background

Nephrology practice places ongoing emotional and psychological demands on healthcare professionals. While patient outcomes remain central, attention to staff well-being, recognition, and psychological safety is increasingly recognized as essential for high-quality, sustainable care. Listening to staff experiences and translating feedback into action is a key component of care beyond clinical treatment.

Objectives

To assess trends in staff well-being, recognition, and psychological safety from 2022 to 2024 and describe how staff feedback informed local action plans within a dialysis clinic.

Methods

Staff perceptions were assessed using the annual My Opinion Counts survey, an anonymous and voluntary questionnaire based on a Likert-scale response format. The analysis focused on the domain Being the best I can, covering well-being, recognition, and professional development. Results from 2022, 2023, and 2024 were reviewed to guide clinic-specific action plans.

Results

Survey results showed consistent improvement in staff perceptions of well-being and support. Agreement with “My wellbeing is taken seriously at work” rose from a mean of 3.57 in 2022, to 4.2 in 2023, and 4.6 in 2024. Support for training and development increased from 3.75 to 4.42, reaching 4.9 in 2024, while opportunities for professional development improved from 3.82, to 4.48, and 4.72.

Action plans included preventive health screenings, creative well-being sessions, improved staff rest areas, and initiatives fostering social responsibility and team cohesion, such as blood donation campaigns. Initiatives also engaged the wider community, showing the clinic’s commitment beyond its walls. These actions enhanced staff engagement, recognition, and staff–patient connection.

Conclusion/Application to practice

Listening to staff and translating feedback into targeted actions supports well-being and psychological safety in nephrology teams. Supporting staff well-being builds resilient teams and promotes safer, more compassionate patient care.

References

1. Edmondson AC, Lei Z. Psychological safety: The history, renaissance, and future of an interpersonal construct. *Annual Review of Organizational Psychology and Organizational Behavior*. 2014;1:23–43.
2. Wei H, Sewell KA, Woody G, Rose MA. The state of the science of nurse work environments: A systematic review. *International Journal of Nursing Sciences*. 2018;5(3):287–300.
3. Hall LH, Johnson J, Watt I, Tsipa A, O’Connor DB. Healthcare staff wellbeing and patient care: A systematic review. *PLoS One*. 2016;11(7):e0159015.
4. World Health Organization. Mental health at work: Policy brief. WHO; 2022.

Abstract Country

North Macedonia

Disclosure of Interest

No

172

Nurses' perceptions of challenging patient interactions in hemodialysis units

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Background

Interpersonal conflicts in hemodialysis units, where the nurse–patient relationship is continuous and long-term, represent an important challenge for clinical practice and professional well-being. Difficulties may arise from organizational, emotional, and relational factors.

Objectives

To assess the perceptions of nursing staff regarding situations that may trigger interpersonal tension with patients within the hemodialysis unit.

Methods

A descriptive cross-sectional study was conducted using an anonymous and voluntary questionnaire. The sample consisted of 18 nurses from two hemodialysis units in Spain. The questionnaire included 4 sociodemographic variables, several items assessed using a Likert scale (1–5) Never-Always, 2 multiple option questions and 1 open question, related to the frequency and intensity of potentially conflictive situations. The descriptive statistical analysis was performed using Microsoft Excel, calculating frequencies, percentages, means, and standard deviations, open responses were analyzed using thematic content analysis, identifying categories and reporting their frequency with representative quotations.

Results

Seventeen nurses responded to the questionnaire; some did not provide demographic data such as age and sex. The situations perceived as most stressful were the exposure of personal space in shared areas ($M = 3.71$; $SD = 0.99$; 70.6% scores 4–5), emotional demands related to rigid preferences about connection order ($M = 3.59$; $SD = 0.87$; 64.7% scores 4–5), and changes in the patient's usual seating location due to clinical criteria ($M = 3.65$; $SD = 0.79$; 58.8% scores 4–5). Technical complications during treatment showed a low to moderate impact on the relational climate ($M = 2.71$).

Conclusion/Application to practice

Overall, the findings highlight a possible influence of gender and professional experience on how nurses perceive interpersonal conflicts in hemodialysis practice. Greater difficulties in conflict management appear to be associated with less professional experience, particularly during patient relocation during treatment, in situations involving operational unexpected events and treatment complications.

References

1. Gros Polo, Sandra; Navas-Ferrer, Carlos; Germán Bés, Concepción. Percepción de los cuidados visibles e invisibles desde una doble perspectiva en una Unidad de Hemodiálisis. *Index de Enfermería*. 2019; 28(4): 174-8. <https://ciberindex.com/c/ie/e12312>
2. Huercanos Esparza, Isabel. El cuidado invisible, una dimensión de la profesión enfermera. *Biblioteca Lascasas*. 2010; 6(1). Disponible en: <http://www.indexf.com/lascasas/documentos/lc0510.php> [acceso: 24/02/2017].
3. Rosales Origuella Janairy, Díaz Díaz Jayce, Molina Ramírez Beatriz, Chávez Troya Osmel. Ethics in the nursing care to patients on haemodialysis treatment. *Medisur*. 2016;14(5):512-515. Disponible en: http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S1727-897X2016000500006&lng=es [acceso: 25/02/2017].
4. Contreras-Martos Gustavo Manuel, Quesada-Armenteros María Trinidad, Ila-García Andrés, Ochando-García Antonio. Percepción de los pacientes respecto a la humanización del cuidado enfermero en una unidad de hemodiálisis. *Enferm Nefrol* [Internet]. 2023 Dic [citado 2026 Feb 26]; 26(4): 326-335. Disponible en: http://scielo.isciii.es/scielo.php?script=sci_arttext&pid=S2254-28842023000400004&lng=es. Epub 04-Abr-2024. <https://dx.doi.org/10.37551/s2254-28842023031>.
5. Pupulim JS, Sawada NO. O cuidado de enfermagem e a invasão da privacidade do doente: uma questão ético-moral [Nursing care and the invasion of the patient's privacy: an ethical-moral question]. *Rev Lat Am Enfermagem*. 2002 May-Jun;10(3):433-8. Portuguese. PMID: 12817398.

Abstract Country Spain

Disclosure of Interest No

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Metaphorical Perceptions of Arteriovenous Fistula Among Patients Undergoing Hemodialysis Treatment: A Qualitative Research Study

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Background

Although AV fistula is a vascular access recommended and preferred in clinical practice guidelines for hemodialysis, the adaptation process to fistulas can be lengthy for patients. Therefore, it is important to evaluate patient perceptions regarding fistulas.

Objectives

The study aims to explore the subjective experiences and metaphorical perceptions of hemodialysis patients regarding their arteriovenous (AV) fistula. It seeks to understand how patients emotionally and cognitively relate to their AV access, and how these perceptions influence their treatment experience.

Methods

This qualitative research study included 55 patients undergoing hemodialysis treatment, selected using a purposive sampling method. Data were collected using the Patient Information Form and open-ended questions such as “I compare my arteriovenous fistula to Reason.....” and “Living with my arteriovenous fistula means to me. Reason.....” and “The way my arteriovenous fistula affects my life (my body, my emotions, and my daily life) is Reason.....” Patients’ socio-demographic and disease-related characteristics and data on metaphors were presented as numbers and percentages. Content analysis was used to evaluate the metaphorical data.

Results

It was determined that the patients included in the study produced 40 metaphors related to AV fistula. Three categories were identified from the metaphors related to how AV fistula affects life: negative/restrictive effect, both positive and negative (mixed feelings), and clearly positive/source of life. When considering the impact of AV fistula on daily life, it was determined that the fistula creates psychological stress and emotional burden in patients, particularly by restricting freedom of movement and social life.

Conclusion/Application to practice

Looking at the participants’ metaphors, it was seen that the majority perceived the AV fistula as a restrictive and negative element. This situation reveals that the AV fistula is not only a medical necessity but also creates significant effects at the psychosocial experience and perception level.

References

1. Schmalz G, Friedrich J, Stoeffler A, Patschan D, Büchi S, Ebert T, Kreher D, de Fallois J. A Visual Metaphor for Oral Health Education in Hemodialysis Patients: A Pilot Study. Spec Care Dentist. 2025 Jul-Aug;45(4):e70088.

Abstract Country

Turkey

Disclosure of Interest

No

147

Mental burden and spiritual resilience in patients receiving hemodialysis

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Background:

Hemodialysis is a life-sustaining treatment that places a substantial mental and emotional burden on patients while simultaneously requiring long-term psychological adaptation. Understanding patients' mental burden and spiritual resilience is essential for delivering holistic nursing care in dialysis settings.

Objectives:

This study aimed to explore the mental burden experienced by patients undergoing hemodialysis and to identify the spiritual and supportive factors that contribute to their resilience during the treatment process.

Methods:

A qualitative phenomenological design was used. In-depth semi-structured interviews were conducted with 10 patients who had been receiving hemodialysis treatment for at least one year. Data were analyzed using thematic analysis following an inductive approach. Trustworthiness was ensured through verbatim transcription, iterative coding, and peer debriefing.

Results:

Three main themes emerged: mental burden related to hemodialysis, daily life restrictions increasing mental load, and spiritual resilience and support systems. Participants reported intense fear at diagnosis, uncertainty about recovery, dependency on the dialysis machine, and loss of control over daily life. Physical fatigue, social restrictions, and treatment-related challenges further increased mental burden. Spiritual resilience was supported by meaning-making processes such as viewing illness as a life test, gratitude, family support—particularly children—and trusting relationships with nurses. Supportive nurse–patient communication played a key role in reducing mental burden and enhancing coping.

Conclusion/Application to practice:

The findings emphasize the importance of holistic nursing care in hemodialysis units. Integrating psychosocial and spiritual assessment into routine nursing practice, strengthening therapeutic nurse–patient communication, and involving family members may enhance spiritual resilience and reduce mental burden in patients receiving long-term hemodialysis.

References

Şanlı, M. E., Dinç, M., Öner, U., Buluş, M., Çiçek, İ., & Doğan, İ. (2023). The Role of Spirituality in Anxiety and Psychological Resilience of Hemodialysis Patients in Turkey. *Journal of religion and health*, 62(6), 4297–4315. <https://doi.org/10.1007/s10943-023-01855-y>

Abstract Country

Turkey

Disclosure of Interest

No

115

Living with sleep problems in chronic kidney disease: a qualitative study

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Background

Sleep problems are common among people living with chronic kidney disease (CKD) and are associated with impaired daily functioning and reduced quality of life¹⁻³. Despite this, sleep remains underexplored within kidney care, and qualitative research examining how sleep difficulties are experienced and managed in everyday life by people with CKD is limited^{4,5}.

Objectives

To explore the lived experiences of sleep problems among adults with CKD, including impacts on daily life, coping strategies, and how sleep concerns are addressed within healthcare.

Methods

This qualitative sub-study formed part of *DIMENSION-KD*, a national multi-site prospective observational study. From the DIMENSION-KD cohort, adults with non-dialysis CKD or a kidney transplant who reported poor sleep quality were purposively sampled for semi-structured interviews. Twenty-six individuals (42% male, age: 63 ± 10 years) took part. Interviews were conducted by telephone, audio-recorded, and transcribed verbatim, with recruitment continuing until sufficient analytic depth was achieved and no new themes were identified. Data were analysed using reflexive thematic analysis.

Results

Participants described heterogeneous and evolving experiences of sleep disruption across CKD stages. Sleep problems varied in onset and severity and were shaped by kidney-related symptoms (e.g., pain, nocturia, cramps, restless legs), comorbidities, ageing, and life circumstances. Sleep quality was central to daytime functioning, influencing energy, mood, cognition, relationships, and capacity for daily activities. Fatigue was experienced as multifactorial, with participants often unable to disentangle sleep-related tiredness from broader illness burden. Participants reported using coping strategies through trial and error, typically focused on maintaining function rather than resolving sleep problems. Sleep was commonly perceived as a low priority within healthcare, with participants describing fragmented responsibility and inconsistent guidance.

Conclusion / Application to practice

These findings underscore the importance of integrating kidney-specific, person-centred support for sleep into routine renal care, including proactive conversations about sleep, to support daily functioning and quality of life.

References

1. Lyons OD. Sleep disorders in chronic kidney disease. *Nature Reviews Nephrology*. 2024;20(10):690-700.
2. Lindner AV, Novak M, Bohra M, Mucsi I, editors. *Insomnia in patients with chronic kidney disease*. Seminars in nephrology; 2015: Elsevier.
3. Pierratos A, Hanly PJ. Sleep disorders over the full range of chronic kidney disease. *Blood purification*. 2011;31(1-3):146-50.
4. Gopal A, Farragher J, Jassal SV, Mucsi I. Sleep Disorders in CKD: A Review. *American Journal of Kidney Diseases*. 2025;85(6):754-66.
5. Chu G, Matriccioni L, Russo S, Viecelli AK, Jesudason S, Bennett P, Fernandez R. Sleep disturbances in adults with chronic kidney disease: an umbrella review. *Journal of Nephrology*. 2025;38(2):353-69.

Abstract Country United Kingdom

Disclosure of Interest No

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Quality indicators in hemodialysis: from measurement to care improvement in Cyprus and Greece settings

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Background

Hemodialysis is a complex, high-risk therapeutic procedure that requires continuous monitoring of care quality and patient safety. Quality indicators are essential tools for evaluating the effectiveness, efficiency, and patient-centeredness of healthcare services and are commonly classified into structure, process, and outcome indicators. In hemodialysis units, the implementation of standardized quality indicators is associated with improved clinical outcomes, enhanced patient safety, and better patient quality of life.

Objectives

This study aimed to record, analyze, and compare key quality indicators applied in hemodialysis units in Cyprus and Greece, based on international and national literature, and to explore perspectives for their systematic integration into nursing practice.

Methods

A narrative literature review was conducted using international and national scientific databases, along with official healthcare policy documents. Studies reporting quality indicators in hemodialysis in Greece and strategic healthcare quality frameworks from Cyprus were examined. Identified indicators were categorized into clinical indicators (e.g., dialysis adequacy and vascular access), patient-reported outcome measures (e.g., quality of life and satisfaction), and organizational indicators (e.g., quality management systems and patient safety mechanisms).

Results

In Greece, established implementation and evaluation of clinical quality indicators were identified, with emphasis on dialysis adequacy, laboratory monitoring, and systematic assessment of quality of life. Several dialysis units also apply structured quality management systems. In Cyprus, limited published evidence specifically addressing quality indicators in hemodialysis was found. Nevertheless, national healthcare strategies emphasize systematic data collection and the progressive development of quality monitoring systems, supporting the foundation for standardized renal care evaluation.

Conclusion/Application to practice

Greece appears to be at a more advanced stage in implementing hemodialysis quality indicators, whereas Cyprus is transitioning toward organized quality management. The development of standardized, nursing-sensitive quality indicators in both countries could enhance patient safety, improve clinical outcomes, and strengthen evidence-based nephrology nursing practice.

References

- Health Insurance Organisation (HIO). (2024).** *Chronic Kidney Disease: Assessment and Management – NICE-adapted clinical guideline for Cyprus*. Nicosia: Health Insurance Organisation.
- Petsios, K. (2023)** *Introduction of innovation and quality indicators in nephrology nursing care: Barriers and limitations in the Greek reality*. Paper presented at the **33rd Scientific Meeting of the Hellenic Nephrology Nurses Society (ENEN), Quality, Safety and Innovation in Nephrology Nursing Care**, Athens, Greece, 19 March 2023.
- Theodorou D., Papassavva A., Kalli A. “*Quality of Life of Haemodialysis Patients and Complications of CVC and AA*”. *SciForbes International Journal of Nephrology and Kidney Failure*, 7 (4): 2021
- Hellenic Society of Nephrology. (2021).** *Clinical guidelines for hemodialysis*. Athens: Hellenic Society of Nephrology.
- Ministry of Health, Cyprus. (2019).** *Health Quality Strategy and Electronic Health Record*. Nicosia: Ministry of Health.

Abstract Country Cyprus and Greece

Disclosure of Interest Yes

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Predictors of Health-Related Quality of Life in hemodialysis patients: Insights from a Greek population

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Background

Health-related quality of life (HRQoL) is a critical outcome in hemodialysis care, complementing clinical indicators such as mortality, hospitalization, and treatment adequacy. The Short Form-36 (SF-36), and its Mental (MCS) and Physical (PCS) Component Summary scores, provides an established measure of patient experience, symptom burden, and functional status.

Objectives

This study explores the demographic and clinical determinants of HRQoL in a cohort of Greek hemodialysis patients.

Methods

A cross-sectional analysis of 369 patients was conducted in 2025, using SF-36 scores across key patient characteristics: age, gender, diabetes status, dialysis vintage, and BMI categories. Mean MCS and PCS values were compared across subgroups to identify patterns associated with reduced or enhanced HRQoL.

Results

Age was a major determinant of HRQoL: MCS showed a mild decline with aging, whereas PCS declined progressively and markedly across age groups. Gender differences were evident, with men scoring higher in both MCS and PCS, highlighting a gender gap in perceived physical and emotional well-being. Patients with <3 years on dialysis demonstrated the lowest HRQoL scores, while the 3–1-year group showed the highest, suggesting early adaptation after the first treatment year. Diabetic patients exhibited substantially lower MCS and particularly lower PCS scores compared with non-diabetics, reflecting greater comorbidity burden. BMI showed a non-linear pattern, with higher mental scores in overweight and Obesity II groups, and lowest in Obesity III, indicating a potential obesity paradox.

Conclusion/Application to practice

This analysis shows that HRQoL is shaped by a clear and multidimensional pattern: physical functioning declines sharply with age, comorbidity, and dialysis burden, while mental well-being remains comparatively resilient. Diabetes and female gender emerge as powerful negative determinants, and the first year of dialysis represents a critical period of vulnerability. These insights highlight the central role of nursing-driven, individualized interventions to mitigate physical limitations, strengthen emotional adaptation, and close the HRQoL gap across high-risk subgroups.

References

Ware JE Jr, Sherbourne CD. *The MOS 36-Item Short-Form Health Survey (SF-36). I. Conceptual framework and item selection.* Medical Outcomes Study. Med Care. 1992;30(6):473–483.
Mujais SK, Story K, Brouillette J, et al. *Health-related quality of life in CKD Patients: correlates and evolution over time.* Clin J Am Soc Nephrol. 2009;4(8):1293–1301.

Abstract Country

Greece

Disclosure of Interest

No

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Where Competency and Well Being Meet Patient Care

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Background

Utilising a people centric approach creates an environment which makes our patients and employees feel valued, supported and empowered.

Objectives

To promote a positive culture, learning and competence across all clinical teams which is visible to our patients.

To ensure learning and development which reflect different levels of experience and knowledge.

Methods

An initial subject matter group was formed of the clinical training team with quality assurance to develop a change control which detailed a need for a framework which was inline with internal processes, regulatory requirements and consistency around internal development.

Regular workshops, additional subject matter experts and shared learning ensured an open approach to continuous improvement.

Results

Higher confidence in delivering care to FME patients, improving trust and rapport.

- Clear career development pathways and progression for FME employees.
- Measurable indicators of competence, training and process integration
- Structure and for new starters

Ultimately a safer, more engaged clinical team delivering a consistent and integrated approach resulting in improved confidence, wellbeing while maintaining high standards of patient care.

Conclusion/Application to practice

By developing a competency framework, we can detail and clarify performance expectations, enhance organisational performance, support talent development and encourage employee engagement.

References

NA

Abstract Country

United Kingdom

Disclosure of Interest

No

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Strategies of informal caregiver facing chronic kidney disease and dementia: a qualitative study

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Background

Population ageing is associated with an increased risk of multimorbidity. The coexistence of chronic kidney disease and dementia intensifies care demands and adds complexity to daily management, particularly for informal caregivers. Nevertheless, existing support for caregivers is generally designed around single-disease approaches, even though current evidence highlights the need to address the realities of caregiving in the context of multiple chronic conditions.

Objectives

This study aims to analyze the strategies used by informal caregivers in the care of persons with coexisting chronic kidney disease and dementia.

Methods

A qualitative interpretative phenomenological study was conducted with five informal caregivers of people diagnosed with chronic kidney disease, who were receiving haemodialysis and living with dementia, recruited from haemodialysis units. Data were collected conducted through semi-structured interviews and analysed using interpretative phenomenology.

Results

Four major themes emerged, all centred on relieving caregiver burden: self care–focused strategies; time and task management, promotion of autonomy, communication, and cognitive stimulation; family support; and professional caregiver support. Caring for individuals living with both chronic kidney disease and dementia creates challenges and needs that go beyond traditional single-disease perspectives. Caregivers described the interplay between these conditions as a dynamic, demanding process and reported that specialised, integrated support remains limited. Overall, the strategies identified were primarily aimed at alleviating caregiver burden, highlighting the complexity of caregiving in multimorbidity and the need for tailored, person-centred interventions.

Conclusion/Application to practice

The coexistence of chronic kidney disease and dementia places informal caregivers under a substantial burden. This study reinforces the urgent need for integrated, person-centred support programmes that address the specific demands of caregivers dealing with multimorbidity.

References

- Faronbi, J., Faronbi, G., Ayamolowo, S. & Olaogun, A. (2019). Caring for the seniors with chronic illness: The lived experience of caregivers of older adults. *Archives of gerontology and geriatrics*, 82, 8–14. <https://doi.org/10.1016/j.archger.2019.01.013>
- Jika, B., Khan, H. & Lawal, M. (2021). Exploring experiences of family caregivers for older adults with chronic illness: A scoping review. *Geriatric nursing*, 42(6), 1525–1532. <https://doi.org/10.1016/j.gerinurse.2021.10.010>
- Kelly, D. & Rothwell, P. (2022). Disentangling the Relationship Between Chronic Kidney Disease and Cognitive Disorders. *Frontiers in neurology*, 13, 830064. <https://doi.org/10.3389/fneur.2022.830064>
- Kim, H., Jhee, J., Joo, Y., Yang, K., Jung, J., Shin, J., Han, S., Yoo, T., Kang, S. & Park, J. (2021). Dialysis Adequacy and Risk of Dementia in Elderly Hemodialysis Patients. *Frontiers in medicine*, 8. <https://doi.org/10.3389/fmed.2021.769490>
- Ploeg, J., Garnett, A., Fraser, K., Baird, L., Kaasalinen, S., McAiney, C., Markle-Reid, M. & Dufour, S. (2020). The complexity of caregiving for community-living older adults with multiple chronic conditions: A qualitative study. *Journal of Comorbidity*, 10, 1–12. <https://doi.org/10.1177/2235042X20981190>

Abstract Country Portugal

Disclosure of Interest Yes

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Understanding informal caregiver burden in advanced kidney disease: A mixed methods study

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Background

Advanced kidney disease (AKD) places emotional, practical, and social demands on informal caregivers. As the disease progresses, caregivers often assume increasing responsibilities while receiving limited recognition and support from healthcare professionals. Greater insight into the extent and nature of caregiver burden across the disease trajectory is needed to inform targeted clinical support.

Objectives

To examine the extent of caregiver burden and explore the experiences of informal caregivers supporting adults with advanced kidney disease.

Methods

A mixed-methods design was applied. Quantitative data were collected from 256 adult informal caregivers using the Zarit Burden Interview (Zarit-12), alongside demographic information. Data were analysed using descriptive statistics and exploration of potential associations between caregiver characteristics and burden levels. Additionally, 13 informal caregivers participated in individual semi-structured interviews. Data were analysed using Ricoeur's theory of interpretation to gain an in-depth understanding of caregiver experiences.

Results

Overall, 26% of participants reported a significant level of caregiver burden. The mean age among participants was 62 years (range 18–87), while the mean burden score was 12. Quantitative findings indicated considerable challenges related to caregiving responsibilities. Qualitative findings further elaborated these challenges, revealing how caregivers often assume multiple, simultaneous roles over extended periods. Key findings included emotional strain, disruption of social life, insufficient support, and unmet needs for clear, targeted communication with healthcare professionals. Additionally, caregivers often experience challenges in balancing caregiving demands with their own well-being.

Conclusion/Application to practice

This study highlights the substantial burden experienced by a significant proportion of informal caregivers of adults with AKD. Clinical practice should prioritise systematic identification of caregivers at risk of burden and implement targeted support and communication strategies. Interventions that acknowledge caregivers as partners in care may help reduce burden and improve caregiver well-being. Further research is warranted to develop and evaluate individually tailored interventions aimed at preventing or alleviating caregiver burden.

References

- Hoang VL, Green T, Bonner A. Informal caregivers of people undergoing haemodialysis: Associations between activities and burden. *J Ren Care*. 2019;45(3):151–8.
- Matthews M, McKeaveney C, Noble H, Reid J. Exploring the unmet needs and experiences of informal caregivers of patients with end-stage kidney disease (ESKD) receiving haemodialysis – a qualitative study. *PLOS ONE*. 9. maj 2024;19(5):e0302525.
- Kelly M. Who Cares.....for the Carers? *J Ren Care*. 2010;36(1):16–20.
- Bédard M, Molloy DW, Squire L, Dubois S, Lever JA, O'Donnell M. The Zarit Burden Interview: A New Short Version and Screening Version. *The Gerontologist*. 1. oktober 2001;41(5):652–7.

Abstract Country

Denmark

Disclosure of Interest

No

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Scoping review: Informal Caregiver Burden in advanced kidney disease

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Background

Informal caregivers play a central role in supporting individuals with advanced kidney disease (AKD), providing emotional support, assistance with daily activities and help managing complex medical needs. These responsibilities often lead to stress, depression, social isolation, and financial strain, significantly affecting caregivers' physical, emotional and social well-being. Caregiver burden is defined as the emotional, social, financial, or physical strain associated with caring for a person with chronic illness. The burden increases as kidney disease progresses, yet informal caregivers frequently remain insufficiently supported and report feeling overlooked by healthcare professionals.

Evidence consistently shows moderate to severe caregiver burden among those supporting adults with AKD. Key contributing factors include treatment complexity, being a female spouse, low socioeconomic status, limited education, older age, and caregivers' own health challenges.

A critical area of concern is how caregiver burden affects caregivers' ability to meet their basic needs. Many neglect their own health and social activities due to caregiving demands, creating a cycle in which declining wellbeing further reduces their capacity to provide care. Caregivers emphasize the need for better understanding of the challenges faced by their loved ones and for accessible guidance and support from healthcare professionals. Such support may help reduce feelings of helplessness and enhance their ability to provide adequate care.

Objectives

The overall aim for this study is to review the existing literature to provide a comprehensive understanding of the challenges faced by informal caregivers. This scoping review aims to address the following research questions:

- To identify the burden of informal caregivers to people with advanced kidney disease.
- To identify key characteristics of the burden experienced by informal caregivers to people with advanced kidney disease.
- To identify the relationship between the informal caregiver burden to people with advanced kidney disease and the impact on their basic needs.

Methods

A scoping review methodology was applied based on Munn et al. and guided by Arksey and O'Malley's five-stage framework. This approach was selected to systematically map existing empirical evidence on caregiver burden among informal caregivers of individuals with advanced kidney disease (AKD) and to identify knowledge gaps.

Inclusion criteria comprised empirical studies involving adult informal caregivers of people with chronic kidney disease (stage 4 – 5), using any study design, and published in English, Nordic languages, or German. No restrictions were placed on publication year or geographical setting.

The review followed five stages:

Search strategy:

A comprehensive search was conducted in seven databases and supplemented with AI-assisted search. A research librarian supported development of the search strategy. Search matrices were iteratively refined using a block strategy, and searches were continually updated.

Identifying relevant studies:

Records were imported into Covidence, duplicates removed, and titles and abstracts independently screened by at least two authors.

Study selection:

Full-text screening was performed independently by two authors using predefined eligibility criteria. Reasons for exclusion were documented, and disagreements resolved through discussion with a third reviewer.

Charting the data:

Data extraction will be conducted independently by a minimum of two authors using Covidence's extraction module. A standardized form was developed and pilot-tested to ensure consistency, and includes study characteristics, methods, outcomes, and key findings related to caregiver burden.

Collating and reporting:

Extracted data will be synthesized descriptively and thematically, guided by predetermined research questions. Findings will be presented narratively and supported by tables to illustrate evidence patterns and gaps.

Across all stages, disagreements were resolved in consultation with a third author to ensure methodological rigor.

Results

To date, 3,973 records have been screened, and 50 empirical studies meet the inclusion criteria. Preliminary mapping shows some heterogeneity in study designs, marked by a predominance of cross-sectional studies, as well as variation in caregiver populations and outcome measures. The studies demonstrate broad geographic representation rather than being concentrated in high-income countries, and they differ widely in how caregiver burden is conceptualized and measured. Ongoing data extraction and thematic synthesis will further categorize study characteristics and identify emerging patterns. Final results will be presented at the EDTNA conference.

Conclusion/Application to practice

As data extraction is ongoing, no conclusions can yet be drawn. However, this scoping review can offer important contributions by mapping the existing evidence on informal caregiver burden in advanced kidney disease. By clarifying what is known, how caregiver burden is conceptualized, and where evidence is lacking, the review provides a foundation for more informed and consistent clinical approaches.

For practice, such an evidence overview can help health professionals better understand the range of challenges caregivers may face. This broader understanding can support more proactive conversations with caregivers and help guide decisions about education, communication, and follow-up. Identifying gaps in research can also inform the design of future interventions that more accurately reflect caregivers' real world needs.

Even without final findings, the review highlights why structured attention to caregiver well-being is essential in kidney care. Informal caregivers often play a key role in supporting patients at home, managing complex symptoms, and preventing avoidable health deterioration. By illuminating where evidence is strong and where it is fragmented, the scoping review can help raise awareness among health professionals and encourage a more systematic, family-centered approach.

Ultimately, mapping the evidence base prepares the ground for developing targeted initiatives that can strengthen both caregiver resilience and patient outcomes in the long term.

References

- Matthews M, McKeaveney C, Noble H, Reid J. Exploring the unmet needs and experiences of in-formal caregivers of patients with end-stage kidney disease (ESKD) receiving haemodialysis – a qualitative study. PLOS ONE. 9. maj 2024;19(5):e0302525
- Hoang VL, Green T, Bonner A. Informal caregivers of people undergoing haemodialysis: Associa-tions between activities and burden. J Ren Care. 2019;45(3):151–8.
- Ania-González N, Martín-Martín J, Amezcua-Goñi P, Vázquez-Calatayud M. The needs of fami-lies who care for individuals with kidney failure on comprehensive conservative care: A qualita-tive systematic review. J Ren Care. december 2022;48(4):230–42
- Alshammari B, Noble H, McAneney H, Alshammari F, O'Halloran P. Factors Associated with Bur-den in Caregivers of Patients with End-Stage Kidney Disease (A Systematic Review). Healthc Basel Switz. 14. september 2021;9(9):1212
- Osenenko KM, Chatterjee S, Ray S, Li T, Donato BM. Impact of Caring for Individuals With CKD in the United States: A Systematic Literature Review: TH-PO893. J Am Soc Nephrol. november 2022;33(11S):304

Abstract Country Denmark

Disclosure of Interest No

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Reframing value in family-centred nursing support for caregivers in haemodialysis: a systematic review

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Background

Family caregivers are central to supporting individuals undergoing haemodialysis, yet renal nursing has traditionally emphasized patient clinical indicators over caregiver-centred outcomes. A Value-Based Health Care (VBHC) perspective underscores the importance of integrating outcomes that matter to families, positioning caregiver well-being as a core dimension of quality care.

Objectives

To synthesize evidence on nursing interventions supporting family caregivers of patients receiving haemodialysis.

To interpret findings through a VBHC lens to inform a family-centred, outcome-driven framework.

Methods

A mixed-methods systematic review integrated quantitative and qualitative studies examining nursing-led interventions for family caregivers in haemodialysis settings. Searches were conducted in EBSCOHost databases (Academic Search Complete, CINAHL, MEDLINE, MediciLatina, ERIC) and PubMed, with no temporal restrictions. Data extraction and quality assessment was conducted in accordance with the PRISMA guidelines. A convergent synthesis identified intervention components, mechanisms, and caregiver-relevant outcomes. Findings were interpreted using VBHC principles.

Results

- Interventions were predominantly multifaceted, combining education, training skills, coping enhancement, and psychosocial support.
- Educational strategies improved caregiver's knowledge and confidence managing treatment demands. Psychosocial components were associated to anxiety and depressive symptoms reduction and improved self-efficacy.
- Quality-of-life outcomes showed consistent positive trends, when relational and emotional support were included.
- Evidence regarding caregiver burden was mixed, reflecting its multidimensional nature and the need for sustained support.
- Programs were heterogeneous, rarely theory-driven, and often lacking long-term follow-up. Time emerged as a moderating factor reducing sustained impact, highlighting the importance of continuity-oriented care.
- Caregivers valued individualized communication, continuity, and recognition of their partnership role.
- Interventions integrating informational, emotional, and relational dimensions were perceived as more meaningful and aligned with caregiver priorities.

Conclusion/Application to practice

Continuing nursing interventions addressing emotional and relational needs alongside education demonstrate greater potential to generate value in haemodialysis care. Embedding caregiver-centred outcomes within a VBHC framework supports family-focused renal nursing that enhances adaptation, well-being, and perceived care value.

References

- Araújo H, Marques E, Lourenço I, Bonifácio C, Gomes F. Nursing interventions to support family caregivers of patients on haemodialysis: a mixed-methods systematic review. *J Adv Nurs*. 2025. doi:10.1111/jan.70297.
- Ghane, G., Noroozi, M., & Gholami, M. (2017). The effect of coping skills training on family caregivers' burden of cancer patients undergoing chemotherapy. *Journal of Education and Health Promotion*, 6, 61. https://doi.org/10.4103/jehp.jehp_14_17
- Gilliss, C. L., Pan, W., Davis, L. L., & Huang, Y. (2019). Family involvement in adult chronic disease care: Reviewing the systemic evidence. *Journal of Family Nursing*, 25(1), 3–27. <https://doi.org/10.1177/1074840718819152>
- Hayati, M., Bagherzadeh, R., Mahmudpour, M., Heidari, F., & Vahedparast, H. (2023). Effect of teaching health-promoting behaviors on the care burden of family caregivers of hemodialysis patients: A four-group clinical trial. *BMC Nursing*, 22(1), 436. <https://doi.org/10.1186/s12912-023-01604-2>
- Matthews M, McKeaveney C, Noble H, Reid J. Exploring the unmet needs and experiences of informal caregivers of patients with end-stage kidney disease (ESKD) receiving haemodialysis: a qualitative study. *PLoS One*. 2024;19(5):e0302525. doi:10.1371/journal.pone.0302525.

Abstract Country

Portugal

Disclosure of Interest

No

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Making Sense Together: Family Communication and Well-being in Haemodialysis Care

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Background

For adults with undergoing long-term haemodialysis, everyday life becomes organised around treatment schedules and physical limitations, often affecting social life and emotional well-being. These challenges extend beyond the individual as it also shape everyday family life, where psychological strain is often shared.

Objectives

To explore how relational and communicative dynamics within families shape everyday well-being in the context of adult haemodialysis

Methods

Guided by social constructionism and family systems thinking, data was generated through qualitative individual and/or joint family interviews. Seventeen interviews were conducted with adults receiving in-centre haemodialysis and their self-identified family members across two haemodialysis units. Inspired by Ricoeur's interpretation theory, data analysis focused on communicative patterns, relational positioning and meaning-making processes.

Results

The overall theme was how family communication functioned as a central regulatory process through which families organised routines, negotiated roles and managed emotional demands related to haemodialysis. When communicative responses were attuned, families experienced greater coherence, emotional safety and shared understanding. When communication was fragmented or dismissive, openness was reduced, contributing to relational tension and mental distress. Encounters with the healthcare system acted as external inputs that shaped family communication, placing families under strain when information entered family life in fragmented ways and failed to become part of a shared family narrative.

Conclusion/Application to practice

Supporting well-being in haemodialysis care requires recognising family communication as a relational meaning-making process. In everyday nursing practice, this can involve inviting families to reflect on how roles and responsibilities are coordinated at home. Brief questions may help uncover differing understandings of key clinical concepts such as "stability" or "normal," thereby supporting shared meaning-making. In the further development of a family-focused intervention, structured conversations may provide space for families to reflect on how meanings and roles are negotiated over time. Strengthening families' capacity for flexible and open dialogue may enhance relational coherence and well-being.

References

- Gergen, K.J., 2015. An Invitation to Social Construction. SAGE Publications Ltd. <https://doi.org/10.4135/9781473921276>
- Gilbertson, E.L., Krishnasamy, R., Foote, C., Kennard, A.L., Jardine, M.J., Gray, N.A., 2019. Burden of Care and Quality of Life Among Caregivers for Adults Receiving Maintenance Dialysis: A Systematic Review. *Am. J. Kidney Dis. Off. J. Natl. Kidney Found.* 73, 332–343. <https://doi.org/10.1053/j.ajkd.2018.09.006>
- Priest, J.B., 2021. The Science of Family Systems Theory, 1st Edition. ed.
- Ricoeur, P, 1976. Interpretation Theory: Discourse and the Surplus of Meaning, 4th printing. ed. The Texas Christian Univ.- Press.
- Yapa, H.E., Purtell, L., Chambers, S., Bonner, A., 2020. The Relationship Between Chronic Kidney Disease, Symptoms and Health-Related Quality of Life: A Systematic Review. *J. Ren. Care* 46, 74–84. <https://doi.org/10.1111/jorc.12303>

Abstract Country Denmark

Disclosure of Interest No

220

Nursing Care for Hemodialysis Patients' Families and Caregivers: A scoping review

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Background

The physical, psychosocial, and economic demands faced by families and caregivers of patients undergoing haemodialysis impact their quality of life. Families face increased vulnerability due to altered dynamics, and all features related to terminal chronic kidney disease. Family and caregivers have a central role in supporting patients for adherence to treatment. Nurses assume an important role in supporting this intervention model.

Objectives

Identify the scientific evidence regarding nursing interventions in the care of families of persons undergoing haemodialysis.

Methods

This Scoping Review was conducted under the Joanna Briggs Institute recommendations, using the PCC framework: families and caregivers of persons undergoing haemodialysis, nursing interventions, and dialysis units. The search was carried out in December 2025, in Portuguese, English, and Spanish, covering the period from 2015 to 2025, with full-text articles retrieved from the MEDLINE, CINAHL, Scopus, and SciELO databases, following PRISMA guidelines.

Results

Ten articles were included in the review corpus. Interventions focused on family empowerment for the caregiving process, psychosocial support, promotion of coping and resilience, and technology-mediated interventions. The studies consistently reported high levels of stress and family caregiver burden. Educational interventions were associated with reduced burden and increased self-efficacy, while psychosocial support improved emotional well-being and adaptation to the caregiving role. Remote nursing interventions proved effective due to their accessibility and continuous care.

Conclusion/Application to practice

The evidence reinforces the need for a family and caregiver-centered approach within dialysis units. Integrating family and caregiver empowerment strategies, psychosocial support, and remote nursing interventions is identified as a key determinant in reducing caregiver burden, strengthening family cohesion, and improving health outcomes for individuals undergoing regular haemodialysis and their families and caregivers.

References

- Alnazly EK. Burden and coping strategies among Jordanian caregivers of patients undergoing hemodialysis. *Hemodial Int*. 2016 Jan;20(1):84-93. doi: 10.1111/hdi.12318.
- Cantillo-Medina Claudia Patricia, Rodríguez-Vélez María Elena, Jimenez-Moreno Yenny Fernanda, Perdomo-Romero Alix Yaneth, Ramírez-Perdomo Claudia Andrea. Caregiver overload of people on dialysis and the meaning of participating in a support group: mixed methodology study. *Enferm Nephrol* [Internet]. 2023 Jun; 26(2): 151-157. <https://dx.doi.org/10.37551/s2254-28842023015>.
- Farzi, S., Farzi, S., Moladoost, A., Ehsani, M., Shahriari, M., Moinei, M. Caring Burden and Quality of Life of Family Caregivers in Patients Undergoing Hemodialysis: A Descriptive-Analytic Study. *International Journal of Community Based Nursing & Midwifery*, 2019; 7(2): 88-96. doi: 10.30476/ijcbnm.2019.44888.
- Hamidipour N, Badiyepymaiejahromi Z, Faselehjahromi M. Effects of attending and telenursing interventions on caring burden in family caregivers of hemodialysis patients: A comparative study in Iran. *J Educ Health Promot*. 2025 Oct 31; 14:446. doi: 10.4103/jehp.jehp_1045_24. PMID: 41334251; PMCID: PMC12668319.
- Hernández-Zambrano SM, Torres Melo M, Barrero Tello SS, Saldaña García JJ, Sotelo Rozo KD, Carrillo Algarra AJ, et al. Palliative care needs in hemodialysis as perceived by patients, informal primary caregivers, and nursing professionals. *Enferm Nephrol* [Internet]. June 19, 2019;22(2):141-9. <https://doi.org/10.4321/S2254-28842019000200005>.

Abstract Country Portugal

Disclosure of Interest No

36

Symptom clusters in advanced kidney disease across treatment modalities

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Background

Adults with advanced kidney disease experience a high burden of physical and psychological symptoms that are subjective, unpleasant, and often occur in clusters. Understanding how symptoms co-occur and interact is essential to improve symptom assessment and targeted clinical management.

Objectives

To identify symptom clusters in adults with advanced kidney disease across treatment modalities and to explore relationships between symptom clusters using complementary analytical approaches.

Methods

A national cross-sectional study was conducted including 349 adults with advanced kidney disease across all treatment modalities (non-dialysis n = 94, center haemodialysis n = 223, peritoneal dialysis n = 48). Hospitalised patients were excluded. Symptoms were assessed using the Integrated Palliative Outcome Scale–Renal (IPOS-renal). Symptom clustering was examined using tetrachoric correlation, latent class analysis, and structural equation modelling to explore interrelationships and symptom pathways.

Results

Tetrachoric correlation identified three symptom clusters: gastrointestinal symptoms (nausea, vomiting, reduced appetite, constipation, diarrhoea), energy and mobility symptoms (weakness/lack of energy, drowsiness, poor mobility, sore or dry mouth, shortness of breath), and skin and sleep symptoms (skin changes, itching, restless legs, sleep difficulties).

Latent class analysis revealed three distinct patient classes: few symptoms (27%), many symptoms dominated by weakness and loss of energy (52%), and nearly all symptoms present (21%). Treatment modality was significantly associated with symptom class membership ($p = 0.03$). Structural equation modelling demonstrated clear symptom chains, showing gastrointestinal symptoms influencing appetite and energy, interconnected skin and sleep problems contributing to weakness or lack of energy, and shortness of breath and pain affecting poor mobility and weakness.

Conclusion/Application to practice

Symptoms in advanced kidney disease cluster in meaningful and interrelated patterns that vary by treatment modality. Recognising symptom clusters and symptom pathways may support more holistic, proactive, and targeted symptom management in nephrology nursing practice.

References

- Lockwood MB, Chung S, Puzantian H, Bronas UG, Ryan CJ, Park C, DeVon HA. Symptom Cluster Science in Chronic Kidney Disease: A Literature Review. *West J Nurs Res*. 2019 Jul;41(7):1056-1091.
- Boje J, Madsen JK, FINDERUP J. Palliative care needs experienced by Danish patients with end-stage kidney disease. *J Ren Care*. 2021 Sep;47(3):169-183.
- Almutary H, Douglas C, Bonner A. Multidimensional symptom clusters: an exploratory factor analysis in advanced chronic kidney disease. *J Adv Nurs*. 2016 Oct;72(10):2389-400

Abstract Country Denmark

Disclosure of Interest No

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Symptom burden and management among culturally and linguistically diverse adults undergoing haemodialysis

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Background

Adults undergoing haemodialysis experience a substantial and persistent symptom burden that significantly affects physical functioning and psychological well-being. Common symptoms include fatigue, pain and sleep disturbances. For adults with cultural and linguistic diversity, symptom recognition and management may be further complicated by language barriers and limited access to understandable health information. Cultural background may also influence symptom prevalence, interpretation, coping strategies, and the impact of symptoms on everyday life.

Objectives

To explore how culturally and linguistically diverse adults undergoing haemodialysis experience and manage symptoms related to chronic kidney disease.

Methods

Data were collected through semi-structured interviews with ten adults undergoing haemodialysis with the assistance of professional interpreters and analysed using a Ricoeur-inspired phenomenological-hermeneutical approach.

Results

Preliminary findings indicate that participants experienced symptoms such as fatigue, itching, pain, and cognitive difficulties as an integral part of everyday life. They described how these symptoms limited daily activities and restricted their ability to live according to personal values and preferences. Symptom management primarily involved resting, reducing activity levels, and withdrawing from social activities. Participants rarely sought formal healthcare support specifically for symptom management and instead relied on digital tools to access and interpret health-related information. Despite this limited help-seeking, participants reported feeling well supported by healthcare professionals, expressing gratitude and a strong sense of safety in their care. Informal caregivers were also described as playing an important role by providing practical support.

Conclusion/Application to practice

Culturally and linguistically diverse adults undergoing haemodialysis often manage symptoms independently, frequently relying on digital resources while seeking limited direct support from healthcare professionals. Nevertheless, they experienced reassurance and a sense of safety through interactions with healthcare professionals and informal caregivers. Clinical practice should prioritise systematic symptom assessment, accessible information, professional interpreter use, and improved communication. Targeted initiatives to enhance digital health literacy may further strengthen symptom management.

References

- Kalantar-Zadeh, K., Lockwood, M. B., Rhee, C. M., Tantisattamo, E., Andreoli, S., Balducci, A., Laffin, P., Harris, T., Knight, R., Kumaraswami, L., Liakopoulos, V., Lui, S.-F., Kumar, S., Ng, M., Saadi, G., Ulas, I., Tong, A., & Li, P. K.-T. (2022). Patient-centred approaches for the management of unpleasant symptoms in kidney disease. *Nature reviews. Nephrology*, 18(3), 185-198. <https://doi.org/10.1038/s41581-021-00518-z>
- Fletcher, B. R., Damery, S., Aiyegbusi, O. L., Anderson, N., Calvert, M., Cockwell, P., Ferguson, J., Horton, M., Paap, M. C. S., Sidey-Gibbons, C., Slade, A., Turner, N., & Kyte, D. (2022). Symptom burden and health-related quality of life in chronic kidney disease: A global systematic review and meta-analysis. *PLoS medicine*, 19(4), e1003954. <https://doi.org/10.1371/journal.pmed.1003954>
- Lambert, S., Loban, E., Li, J., Nghiem, T., Schaffler, J., Maheu, C., Dubois, S., Folch, N., Gélinas-Phaneuf, E., & Laizner, A. M. (2021). Chronic Illness Management in Culturally and Linguistically Diverse Patients: Exploring the Needs, Access, and Understanding of Information. *Qualitative health research*, 31(13), 2426-2439. <https://doi.org/10.1177/10497323211040769>
- Weisbord, S. D., Bossola, M., Fried, L. F., Giungi, S., Tazza, L., Palevsky, P. M., Arnold, R. M., Luciani, G., & Kimmel, P. L. (2008). Cultural comparison of symptoms in patients on maintenance hemodialysis. *Hemodialysis international*, 12(4), 434-440. <https://doi.org/10.1111/j.1542-4758.2008.00307.x>
- Nagpal, N., Boutin - Foster, C., MelEndez, J., Kubiszeswki, P., Uehara, K., Offidani, E., Faussett, Z., ChEn, R., Redel, C., Waltrous, C. & Smith, B. (2017). Experiences of patients undergoing dialysis who are from ethnic and racial minorities. *Journal of renal care*, 43(1), 29-36. <https://doi.org/10.1111/jorc.12185>

Abstract Country

Denmark

Disclosure of Interest

No

55

Symptom burden and management needs in Advanced Kidney Disease: A Mixed-Methods Study

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Background

Advanced kidney disease (AKD) is characterized by progressive loss of kidney function and is associated with a substantial and persistent symptom burden. Irrespective of whether kidney replacement therapy is initiated, adults with AKD face complex physical, psychological, and social challenges that profoundly affect daily life. Despite this, symptom burden, self-management needs, and shared decision-making process remain insufficiently understood in this population.

Objectives

To explore symptom burden, shared decision-making, and self-management experiences among adults living with AKD.

Methods

A parallel convergent mixed-methods design was applied. Cross-sectional quantitative data were collected using The Integrated Palliative Care Outcome Scale - renal (IPOS-renal), The Patient Experience of Shared Decision-Making tool (SHARED), chronic kidney disease self-management instrument (CKD-SM) and analyzed descriptively. A subset of participants took part in semi-structured interviews, with data interpreted using Ricoeur's phenomenological-hermeneutic framework. Integration of quantitative and qualitative findings enabled a comprehensive understanding of symptom experiences and management needs.

Results

A total of 464 adults with AKD reported a significant symptom burden, with over half experiencing more than 20 symptoms. Common symptoms included weakness (91%), drowsiness (72%), and psychological distress, such as anxiety (72%) and depression (61%). Symptom prevalence was similar across treatments. Participants scored 39/100 for shared decision-making and 53/128 for self-management. Qualitative findings revealed that symptoms disrupted daily life, work, and social activities. Decision-making was influenced by personal values, family, and healthcare collaboration. Managing symptoms largely meant adjusting routines, with strong support from social networks and professionals. Participants emphasized the need for tailored guidance and a collaborative approach with clinicians in managing symptoms and treatment.

Conclusion/Application to practice

Adults living with AKD experience a profound and multifaceted symptom burden that permeates all aspects of daily life. Strengthened clinical focus on systematic symptom assessment, tailored self-management support, shared decision-making is essential. Integrating symptom management within structured, communicative care pathways improve well-being, support informed decision making, and enhance person-centred kidney care.

References

- 1 Kovesdy CP. Epidemiology of chronic kidney disease: an update 2022. *Kidney Int Suppl* (2011). 2022;12(1):7–11. <https://doi.org/10.1016/j.kisu.2021.11.003>
- 2 Rao SR, Vallath N, Siddini V, Jamale T, Bajpai D, Sancheti NN, et al. Symptom management among patients with chronic kidney disease. *Indian J Palliat Care*. 2021; 27(Suppl 1):S14–29. https://doi.org/10.4103/ijpc.ijpc_69_21
- 3 Frandsen CE, Dieperink H, Detering K, Agerskov H. Patients' with chronic kidney disease and their relatives' perspectives on advance care planning: a meta-ethnography. *J Ren Care*. 2022;48(3):154–67. <https://doi.org/10.1111/jorc.1239>
- 4 Fletcher BR, Damery S, Aiyegbusi OL, Anderson N, Calvert M, Cockwell P, et al. Symptom burden and health-related quality of life in chronic kidney disease: a global systematic review and meta-analysis. *PLoS Med*. 2022;19(4):e1003954. <https://doi.org/10.1371/journal.pmed.1003954>

Abstract Country

Denmark

Disclosure of Interest

No

185

Measuring symptom burden in advanced non-dialysis-dependent chronic kidney disease

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Background

Patients with advanced chronic kidney disease (CKD) stages 4–5 who are not receiving dialysis experience a substantial symptom burden that negatively affects health-related quality of life (HRQoL). Effective, patient-centred management requires robust, population-specific instruments to assess symptoms and their impact; however, few validated tools exist for non-dialysis-dependent CKD (NDD-CKD).

Objectives

To develop and undertake preliminary psychometric evaluation of a novel instrument to measure symptoms in advanced NDD-CKD, and to examine symptom burden in this population.

Methods

A sequential mixed-methods design was used to develop and preliminarily evaluate the instrument. Phase 1 involved qualitative interviews with 18 participants to identify symptom domains. In Phase 2, findings informed development of a 33-item symptom-rating scale assessing prevalence, frequency, severity, and bothersomeness (Section A), alongside a 10-item HRQoL impact scale (Section B). In Phase 3, the instrument was administered to 331 participants with NDD-CKD stages 4–5 (mean eGFR 17.6–18 mL/min/1.73m²). Exploratory and confirmatory factor analyses examined the dimensionality of Section B, and internal consistency was assessed using Cronbach's alpha.

Results

Participants reported a mean of 17 symptoms (range 3–31). The most prevalent symptoms were feeling tired, muscle weakness, and feeling cold (each >75%). Although some symptoms ranked highly across prevalence, frequency, severity, and bothersomeness, substantial variability was observed across dimensions, supporting the multidimensional nature of symptom experience. Factor analyses supported a two-factor structure for Section B representing physical and emotional HRQoL domains, both demonstrating excellent internal consistency (Cronbach's alpha =.900).

Conclusion/Application to practice

Advanced NDD-CKD is associated with a high and complex symptom burden. The instrument developed in this study (the Chronic Kidney Disease Symptom Assessment Instrument – CKD-SAI) demonstrates promising psychometric properties and enables comprehensive, individualised assessment, supporting targeted symptom management in clinical practice. Further evaluation of additional measurement properties is warranted.

Abstract Country

United Kingdom

Disclosure of Interest

No

42

Epidemiology of End-Stage Kidney Disease and Dialysis Treatment in Libya

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Background

End-stage kidney disease (ESKD) is an escalating public health concern in Libya, yet national-level epidemiologic data remain limited. Understanding dialysis patterns, vascular access practices, and systemic barriers is essential for improving care delivery and guiding policy interventions.

Objectives

To estimate the national prevalence of ESKD in Libya and evaluate dialysis modality utilization, vascular access patterns, timing of arteriovenous fistula (AVF) creation, transplant failure rates, kidney biopsy use, and barriers to optimal kidney replacement therapy.

Methods

A national cross-sectional study was conducted between November 2024 and September 2025 across 85 dialysis centers in Libya. Data were collected from approximately 2,300 adult dialysis patients, including hemodialysis and peritoneal dialysis populations, using a standardized electronic questionnaire. Variables included demographics, comorbidities, chronic kidney disease (CKD) etiology, dialysis duration, vascular access type, AVF timing and complications, transplant history, kidney biopsy utilization, and dialysis-related adverse events. Descriptive analyses were performed to characterize national treatment patterns and access gaps.

Results

The estimated prevalence of ESKD was approximately 760 per million population. Diabetes mellitus and hypertension were the leading causes of kidney failure. Peritoneal dialysis utilization was low (~1%), indicating substantial underuse. Delayed nephrology referral and late AVF creation contributed to high dependence on central venous catheters, increasing vascular access-related complications. Kidney biopsy utilization for CKD diagnosis was limited, and a proportion of patients returned to dialysis following failed kidney transplantation.

Conclusion/Application to practice

ESKD care in Libya faces critical systemic challenges, including delayed CKD detection, suboptimal vascular access planning, underutilization of peritoneal dialysis, limited transplant availability, and workforce constraints. Strengthening early CKD screening programs, expanding PD infrastructure, optimizing vascular access pathways, and improving transplant services are key priorities to enhance patient outcomes and national kidney care capacity.

References

1. United States Renal Data System (USRDS).
2023 Annual Data Report: Epidemiology of Kidney Disease in the United States.
National Institutes of Health, National Institute of Diabetes and Digestive and Kidney Diseases; 2023.
→ Benchmark data for ESKD prevalence, access patterns, and outcomes.
2. Kidney Disease: Improving Global Outcomes (KDIGO).
KDIGO Clinical Practice Guideline for the Evaluation and Management of Chronic Kidney Disease.
Kidney Int Suppl. 2013;3(1):1–150.
→ Supports CKD staging, early detection, and biopsy indications.

3. World Health Organization.

Global Health Estimates: Chronic Kidney Disease.

WHO; 2023.

→ Global and regional CKD/ESKD burden context (LMIC relevance).

4. Liyanage T, Ninomiya T, Jha V, et al.

Worldwide access to treatment for end-stage kidney disease: a systematic review.

Lancet. 2015;385(9981):1975–1982.

→ Justifies disparities, limited access, and system barriers in low-resource countries.

5. Jager KJ, Kovesdy C, Langham R, et al.

A single number for advocacy and communication—worldwide more than 850 million individuals have kidney diseases.

Kidney Int. 2019;96(5):1048–1050.

→ Global advocacy and epidemiologic framing.

Abstract Country

LIBYA

Disclosure of Interest

Yes

71

Epidemiological Profile and Therapeutic Approaches in a Hemodialysis Unit in 2025

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Background

In 2024, infections emerged as the leading cause of death among hemodialysis patients, accounting for 27.5% of cases (SPN, 2024). Antimicrobial resistance in dialysis settings is a growing concern, particularly regarding multidrug-resistant organisms (Shamhuyashe et al., 2024). Consequently, epidemiological surveillance through nursing diagnoses is crucial to enhancing clinical documentation and monitoring health outcomes sensitive to nursing interventions (World Health Organization, 2023).

Objectives

(1) To determine the incidence of infection surveillance in chronic kidney disease patients undergoing hemodialysis in 2025; (2) To assess the implications for nursing care. (3) Identify and categorize infection surveillance in the following areas: vascular access, respiratory, urinary, skin and soft tissues, and “others”.

Methods

A quantitative, retrospective cohort study was conducted in 2025 at an HD unit in central Portugal. Using a non-probabilistic sample, data were gathered from clinical records via semi-structured tables. Data analysis employed descriptive statistics (absolute and relative frequencies) using MOExcel.

Results

In 2025, 206 infection cases were identified. Vascular access was the primary focus (n=66), predominantly involving central venous catheters (n=44), followed by arteriovenous fistulas/grafts (n=21) and one peritoneal dialysis catheter. Other infection sites included respiratory (n=45), “other” (n=39), skin/soft tissue (n=38), and urinary tract (n=22). Regarding therapeutics, 173 intradialytic antibiotics were administered, most frequently Ceftazidime (n=55), Vancomycin (n=50), and Cefazolin (n=44). Additionally, 74 outpatient antibiotics were prescribed, led by Amoxicillin/Clavulanic Acid (n=30), followed by Azithromycin (n=11) and Cefuroxime (n=10).

Conclusion/Application to practice

These findings highlight the need for improved clinical indicators to reduce infection rates and associated costs while enhancing patients' quality of life. Data-driven epidemiological surveillance enables evidence-based nursing interventions. To optimize infection control, it is essential to reinforce multidisciplinary training and health education for patients and caregivers, focusing on prevention strategies in hemodialysis units.

References

- Sociedade Portuguesa de Nefrologia. (2024). Portuguese Registry of Kidney Replacement Therapy 2024. https://www.spnephro.pt/assets/relatorios/tratamento_doenca_terminal/er2025_registo-completo.pdf
- Shamhuyashe, G., Van Zyl, N., Van Rooyen, C., Bisiwe, F., & Musoke, J. (2024). Colonisation with multidrug-resistant organisms among dialysis patients at Universitas Academic Hospital. Southern African Journal of Infectious Diseases, 39(1), Artigo a607. <https://doi.org/10.4102/sajid.v39i1.607>
- World Health Organization (2023). Global patient safety action plan 2021–2030: Towards eliminating avoidable harm in health care. WHO

Abstract Country

Portugal

Disclosure of Interest

Yes

131

Comparative Analysis of Communication Skills Perspectives Between Healthcare Providers & Dialysis Patients in Libya.

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Background

Effective communication is essential for enhancing clinical outcomes & patient satisfaction in hemodialysis units. This study highlights the importance of monitoring the interactions between medical staff & chronic kidney disease (CKD) patients within the Libyan healthcare environment to ensure high-quality care. Despite its importance, discrepancies in practice persist due to heavy clinical workloads and lack of specialized training.

Objectives

This study aims to assess the association the perspectives of healthcare providers (physicians & nurses) & CKD patients to identify communication gaps, enhance interaction quality & measure the impact of patient satisfaction on treatment adherence in Libyan renal care settings.

Methods

A comparative descriptive-analytical approach was employed using a cross-sectional design. The sample included 113 healthcare providers & 300 patients across 10 dialysis centers in Libya. Data were collected via two validated, closed-ended electronic questionnaires using a 5-point Likert scale (1=strongly Agree, 5=Strongly Disagree) & analyzed using t-t tests via SPSS software.

Results

Findings revealed a significant statistical gap ($p < 0.05$) in “perceptual gap” staff rated their explanation skills at a mean of 1.45, whereas patients rated them at 2.10 (where lower scores indicate higher proficiency/better performance). The highest consensus was found in listening skills (Staff 1.35, Patients 1.85). Notably, 54.9% of healthcare providers reported having no prior formal training in communication skills, Conversely, over 70% of patients confirmed that effective communication is the primary driver for their psychological stability and adherence to dialysis session.

Conclusion/Application to practice

The study concludes that transforming communication into a mandatory clinical procedure is an ethical & medical necessity in Libya. It recommends adopting strategies such as “Plain Language,” the “Teach-back method,” & using illustrative aids. It also emphasizes improving the organizational environment to reduce workloads & implementing specialized training programs to bridge identified communication gaps.

References

1. Abdalla, B. M., Amen, M. R., Nouri, B., & Valiee, S. (2025). Barriers to nurse-patient communication from the perspective of nurses in hemodialysis departments of hospitals in Sulaymaniyah, Iraq: A cross-sectional study. *Journal of Nursing Reports in Clinical Practice*, 3(6), 553-564. <https://doi.org/10.32598/JNRCP.2503.1250> (<https://www.google.com/search?q=https://doi.org/10.32598/JNRCP.2503.1250>).
2. American Kidney Fund. (n.d.). Kidney Health Coach: How to clearly communicate with people about chronic kidney disease (CKD).
3. Delmas, P., Antonini, M., Berthoud, L., et al. (2020). A comparative descriptive analysis of perceived quality of caring attitudes and behaviours between haemodialysis patients and their nurses. *Nursing Open*, 7(3), 563-570.
4. Ferreira da Silva, P., Talson, M. D., Finlay, J., Rossum, K., Soroka, K. V., McCormick, M.,... & Bohm, C. (2021). Patient, Caregiver, and Provider Perspectives on Improving Information Delivery in Hemodialysis: A Qualitative Study. *Canadian Journal of Kidney Health and Disease*, 8, 1-11. <https://doi.org/10.1177/20543581211046078>
5. Sahin, C. K., Doğan, E. S., & Çaydam, Ö. D. (2025). “Teamwork is needed”: care management of patients receiving hemodialysis through the eyes of their nurses - a qualitative study. *BMC Health Services Research*, 25(843). <https://doi.org/10.1186/s12913-025-12968-3>.

Abstract Country Libya

Disclosure of Interest Yes

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Nursing and Operational Coordination to Sustain Haemodialysis During a Nationwide Power Outage

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Background

A complete nationwide power outage on 28 April 2025 posed a major threat to the continuity and safety of haemodialysis care in the Iberian Peninsula. Dialysis units rely heavily on stable electricity, water treatment systems, and communication networks. The event required a rapid and coordinated response, in which nursing teams and operational leaders played equally critical roles to protect patients and maintain essential services.

Objectives

To describe the combined nursing and operational management response during a nationwide power shutdown across a large dialysis network, focusing on actions, adaptations, and lessons learned.

Methods

A retrospective analysis was conducted using crisis communication logs, clinic reports, and feedback from nursing leaders and operational managers. Variables included generator functionality, water reserve stability, communication capacity, treatment delivery, staff mobilisation, and the interaction between nursing decision making and operational logistics.

Results

Emergency procedures were activated minutes after the outage. Nursing teams conducted immediate clinical risk assessments, verified generator activation, safeguarded essential equipment, prioritised water reserve utilisation, and implemented treatment adaptations where necessary. Operational teams coordinated fuel sourcing, water support, and clinic to clinic resource redistribution.

Of 39 affected clinics, 38 continued dialysis treatments, with adjusted treatment times applied when required. One clinic transferred patients to nearby units through coordinated nursing–operational planning. Severe communication failures challenged coordination; however, clinics relied on alternative channels, field support, and structured escalation to maintain governance. All Home Haemodialysis patients were monitored remotely, remained clinically stable, and resumed treatment safely following power restoration.

Conclusion/Application to practice

The event demonstrated strong resilience based on integrated nursing and operational coordination. Nursing leadership ensured clinical safety and informed prioritisation, while operational teams maintained essential infrastructure and resource flow. Communication dependency was the primary vulnerability identified. Strengthening redundant communication pathways, reinforcing contingency training, and enhancing collaboration with authorities are key to improving preparedness for future large scale emergencies.

References

- Abir M, Jan S, Jubelt L, Merchant RM, Lurie N. The impact of a large-scale power outage on hemodialysis center operations. *Prehosp Disaster Med.* 2013;28(6):543–546. doi:10.1017/S1049023X13008844
- Fadem SZ. Disasters and dialysis. In: *Complications in Dialysis*. Springer; 2023. p. 341–352.
- Kopp JB, Lempert K, Finne K. Disaster preparedness for patients with kidney disease. *Nat Rev Nephrol.* 2023. doi:10.1038/s41581-023-00678-0
- American Association of Kidney Patients. Staying safe and prepared: Emergency planning for dialysis patients. 2025.
- National Kidney Foundation. Planning for emergencies: A guide for people with kidney disease. n.d.

Abstract Country Portugal

Disclosure of Interest No

156

Care For The Mind And Body: Comprehensive Care For Patients With Fabry Disease

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Background

According to Eurordis data, most rare diseases are detected too late or at a late stage (25% wait 5-30 years for a diagnosis, 40% are misdiagnosed or undiagnosed), citing visits to numerous specialists and a lack of understanding. All this indicates that a different approach is needed to manage rare diseases, as well as all chronic diseases. Patients expect professional knowledge of the disease, multidisciplinary treatment, accessibility, comprehensive care, education, and social and psychological support.²

Methods

The data is based on a review of the literature, patient interviews (the book Faces of Fabry Disease) and the practical experience of the Fabry Center team.

Results

The integrated care that we have developed together with patients at our center includes all of this, and this approach gives patients hope and faith in the future.

Nurses with extensive professional knowledge in several clinical specialties and with skills in coordination, organization, education, and psychological support for patients play an important role in the center of excellence.³ Patients differ not only in the physical manifestations of their illness, but also in their psychological response to it.⁴ It is important to listen and hear patients.⁵ This can be ensured by a nurse who has developed a comprehensive relationship with the patient.⁶

The quality of healthcare is measured by patient satisfaction, with an emphasis on patient-centered care, which certainly also affects their health outcomes. For the patient, each service is more than just the provision of healthcare; it is an opportunity for human interaction and a therapeutic relationship between the patient and the nurse.⁷

Quotes from patients in the book Faces of Fabry Disease confirm the effectiveness, satisfaction, professionalism, warmth, and accessibility of the Fabry Center, directly reflecting the PREMS (Patient-Reported Experience Measures) indicators by expressing subjective experiences with care.

The quotes are as follows: “The support of the Fabry Center is invaluable.”; “We are grateful for the professional, comprehensive, and above all, very warm treatment.”; “Here we received a lot of understanding, support, and help.”; “They really understand the problems of Fabry patients.”; “They were available to me at all times and for everything.”⁸

Conclusion/Application to practice

As the theme of the conference “Mind Matters in Nephrology: Care Beyond the Kidneys,” indicates, mental health is as important as physical care, where patients’ mental resilience enhances satisfaction and health outcomes.

Centres of excellence, such as ours, can be established to treat various chronic diseases and are examples of good practice, where PREMS are key to improving the quality of care. In the future, we must continue to incorporate these indicators into our practice, as this is the only way to improve the quality of care for our patients.

References

1. Schiffmann, R., Hughes, D. A., Linthorst, G. E., Ortiz, A., Svarstad, E., Warnock, D. G., West, M. L., & Wanner, C. (2017). Screening, diagnosis, and management of patients with Fabry disease: Conclusions from a “Kidney Disease: Improving Global Outcomes” (KDIGO) Controversies Conference. *Kidney International*, 91(2), 284–293. <https://doi.org/10.1016/j.kint.2016.10.004>
2. EURORDIS. (n.d.). EURORDIS: Rare Diseases Europe. <https://www.eurordis.org/>
3. Založnik, A. (2024). Zame je vsak pacient posebej navdih. V S. Širca (ur.), *Obrazi Fabryjeve bolezni* (str. 23). Društvo bolnikov s Fabryjevo boleznijo Slovenije.
4. Hughes, D. A., et al. (2006). A multidisciplinary approach to the care of patients with Fabry disease. *Oxford PharmaGenesis*.
5. Ovičaj, D. (2012). Medpoklicno sodelovanje in etika v zdravstvu. *Obzor Zdrav Neg*, 46(4), 300.
6. Turnage Spruil, C., et al. (2015). The challenge of continuity of care: Evolution of a nursing care model in NICU. *Newborn and Infant Nursing Reviews*, 15(2), 72–76.
7. Filej, B. (2018). Pomen medkulturnosti za holistično obravnavo pacienta. V N. Kregar Velikonja (ur.), *Celostna obravnava pacienta* (str. 17). Univerza v Novem mestu, Fakulteta za zdravstvene vede.
8. Pintarič M, et al. Širca S (ur.). *Slovenj Gradec: Društvo bolnikov s Fabryjevo boleznijo*, 2024

Abstract Country Slovenia

Disclosure of Interest No

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Non-Pharmacological Low Back Pain Relief During Haemodialysis: Effectiveness of Transcutaneous Electrical Nerve Stimulation

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Background

Patients undergoing haemodialysis frequently experience pain and discomfort, which contribute to reduced quality of life. Chronic low back pain is common and often persistent in this population. Non-pharmacological interventions are recommended whenever possible to minimise analgesic use.

Objectives

This study aimed to evaluate the impact of transcutaneous electrical nerve stimulation (TENS) on chronic low back pain in haemodialysis patients during dialysis sessions.

Methods

A prospective, non-randomised study was conducted at a single haemodialysis centre. Patients with chronic low back pain were enrolled in a 10-week TENS programme comprising 18 sessions (twice weekly). TENS was delivered with a modulating frequency of 2–125 Hz, variable pulse duration, and maximum tolerable intensity for 30 minutes. Pain intensity, pressure pain threshold, and quality of life were assessed using numerical and qualitative pain scales before and immediately after TENS sessions. The KDQOL-SF 1.3 and IPOS-Renal questionnaires were administered at baseline and at the end of the programme.

Results

Eleven patients were enrolled (n=11): 72.7% (n=8) male, median age 67 years (61–80); 54.6% (n=6) Caucasian; and 27.3% (n=3) had diabetes mellitus. Median time on haemodialysis was 31 months (13–72). The median pain score decreased from 2.9 (2.1–4.5) at the beginning of treatment sessions to 0.4 (0.1–1.0) at the end, representing a statistically significant reduction (p<0.001). All patients showed improved quality-of-life scores on both the KDQOL-SF 1.3 and IPOS-Renal instruments.

Conclusion/Application to practice

TENS demonstrated effective analgesic effects, with significant reductions in pain intensity during haemodialysis sessions and improvements in quality of life in this vulnerable, high-risk population. The regular and systematic implementation of TENS is recommended as an autonomous, non-pharmacological nursing intervention.

References

- Kong, X. & Gozani, S.N. (2018). Effectiveness of fixed-site high-frequency transcutaneous electrical nerve stimulation in chronic pain: a large-scale, observational study. *Journal Of Pain Research*, 11703-714. doi:10.2147/JPR.S156610.
- Liebano, R. E., Sluka, K. A., Roy, J., Savinelli, M., Dailey, D. L., & Riley, S. P. (2024). Effects of transcutaneous electrical nerve stimulation on pain, function, and descending inhibition in people with non-specific chronic low-back pain: a study protocol for a randomized crossover trial: *Trials*, 25(1), 242. <https://doi.org/10.1186/s13063-024-08089-7>
- Pivovarsky, M. L. F., Gaideski, F., Macedo, R. M., de Korelo, R. I. G., Guarita-Souza, L. C., Liebano, R. E., & Macedo, A. C. B. de. (2021). Immediate analgesic effect of two a modes of transcutaneous electrical nerve stimulation on patients with chronic low back pain: randomized controlled trial. *Einstein* https://doi.org/10.31744/einstein_journal/2021ao6027
- Vance, C.G.T., Dailey, D.L., Chimenti, R.L., Van Gorp, B.J., Crofford, L.J., Sluka, K.A. (2022). Using TENS for Pain Control: Update on the State of the Evidence. *Medicina*, 58, 1332.
- Yang, L.Y., Chen, H.M., Su, Y.C., Chin, C.C. (2019). The effect of transcutaneous electrical nerve stimulation on increasing salivary flow rate in hemodialysis patients. *Oral Dis*, 25, 133–141.

Abstract Country Portugal

Disclosure of Interest No

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Strategies for managing haematoma complication of an arteriovenous vascular access for haemodialysis: narrative review

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Background

Haematoma and infiltration are common complications of arteriovenous vascular access (VA) cannulation in haemodialysis patients. These complications may compromise access longevity and contribute to more severe outcomes, including infection, stenosis, aneurysm or pseudoaneurysm formation, and thrombosis. Guidance on optimal management strategies remains inconsistent across clinical practice guidelines (CPG).

Objectives

To review and synthesize recommendations from published CPG regarding the management of haematoma or infiltration following arteriovenous VA cannulation in haemodialysis.

Methods

A narrative guideline review was conducted. Relevant CPG on VA were screened using predefined keywords (haematoma, infiltration, vascular access guidelines and haemodialysis) through the selected databases, CINAHL, MEDLINE, and Nursing & Allied Health Collection. Recommendations were extracted and synthesized narratively, focusing on areas of concordance, divergence and clinical applicability.

Results

Across the nine included guidelines, early recognition and conservative management of haematoma or infiltration were consistently recommended. Cryotherapy during the first 24 hours was the most frequently endorsed intervention. Ultrasound assessment was identified in the majority of CPG as an important adjunct to support clinical decision-making regarding cannulation continuation, access rest, referral for further intervention and evaluating VA patency. However, there is a lack of evidence regarding ultrasound evaluation of structural integrity and identifying intraluminal or extraluminal haematoma. Nonetheless, most recommendations were based on low-quality evidence or expert consensus, with notable variability between guidelines.

Conclusion/Application to practice

Current CPG provide low-certainty recommendations for the management of haematoma or infiltration following VA cannulation. Cryotherapy in the acute phase remains the most recommended strategy and it's broadly consistent across guidelines. Nevertheless, none of the reviewed guidelines provide standardized algorithms or clearly defined criteria for ultrasound use in this context. Robust research is needed to support the development of structured frameworks.

References

- Aitken E, Anijeet H, Ashby D, Barrow W, Calder F, Dowds B, et al. UK Kidney Association clinical practice guideline on vascular access for haemodialysis. *BMC Nephrol.* 2025; 26:461. Doi:10.1186/s12882-025-04374-y
- Canadian Association of Nephrology Nurses and Technologists (CANNT). Nursing recommendations for the management of vascular access in adult hemodialysis patients: 2023 update. *CANNT J.* 2023;33(1):1-58
- Lock CE, Huber TS, Lee T, Shenoy S, Yevzlin AS, Abreo K, et al. KDOQI clinical practice guideline for vascular access: 2019 update. *AM J Kidney Dis.* 2020;75 (4 Suppl2): S1-S164
- Ibeas J, Roca-Tey R, Vallespín J, Quereda C. Guía clínica española del acceso vascular para hemodiálisis. *Nefrología.* 2017;37 (Suppl 1): 1-191

Abstract Country

Portugal

Disclosure of Interest No

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A patient photo diary to enhance vascular access monitoring and incident reporting in hemodialysis

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Background

Preserving vascular access is essential for hemodialysis outcomes. Variability in cannulation technique, together with inadequate adherence to rope-ladder cannulation practices (“one-site-itis”), can accelerate access complications and loss. A persistent challenge across dialysis systems is the lack of standardized processes for escalation and reporting of vascular access incidents, often leading to delayed detection and communication. This issue is observed regardless of whether cannulation is primarily performed by technical staff, as commonly seen in the United States, or by nurses, as in European settings. Scalable tools enabling monitoring between visits may support earlier identification and structured reporting of access-related concerns.

Objectives

To describe the implementation and clinical rationale of a patient diary mobile application for remote vascular access monitoring, focusing on incident detection, reporting workflows, and patient and nursing engagement.

Methods

The application is being implemented in an ongoing company-sponsored multi-center U.S. clinical study including approximately 140 patients across 12 hospitals in 8 states. Participants upload weekly photographs of their vascular access and report incidents or concerns through a secure mobile platform. Submissions are reviewed remotely by a multidisciplinary team to facilitate earlier recognition of access changes and support structured escalation pathways. Implementation strategies include in-clinic onboarding, simplified workflows, and optional assistance from dialysis staff.

Results

Early observations indicate increased patient awareness and engagement in vascular access care and improved documentation of access-related concerns. Nursing emerges as the key professional group positioned to initiate early reporting and escalation. Data collection and user feedback remain ongoing, with additional findings to be presented at the EDTNA/ERCA conference.

Conclusion/Application to practice

A patient-driven photo diary application may help standardize vascular access monitoring and incident reporting across dialysis care models, supporting earlier multidisciplinary intervention and improved access preservation.

References

Data on file. Ongoing multi-center U.S. clinical study evaluating a patient photo diary application for vascular access monitoring, 2025–ongoing.

Abstract Country

U.S.A

Disclosure of Interest

Yes

10 Clinical implementation of an infection risk screening tool during nurse-led vascular access consultation

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Background

Healthcare-associated infections drive morbidity in haemodialysis. The choice of arteriovenous fistula cannulation technique impacts safety, yet standardized risk assessment is often lacking. We implemented an adapted British Renal Society infection risk screening tool within a structured nurse-led vascular access consultation to guide decision-making.

Objectives

To determine whether the screening tool (“risk present” vs “risk absent”) predicts infection-related hospitalisation and to evaluate its clinical utility in informing the de-selection of the Buttonhole cannulation technique in high-risk patients.

Methods

We conducted a retrospective cohort study of 404 adults assessed in a nurse-led consultation between January 2022 and December 2024. During the consultation, nurses applied the screening tool to classify infection risk. The primary outcome was the occurrence of at least one infection-related hospitalisation within 12 months. Multivariable regression adjusted for age, body mass index and comorbidities.

Results

Mean age was 70.2 years; 47% had diabetes; 27.8% screened “risk present”. Forty-eight patients (11.9%) were hospitalised for infection. “Risk present” showed higher—though imprecise—odds of infection-related admission versus “risk absent” (adjusted OR 1.73; 95% CI 0.90–3.27). Older age increased risk, whereas higher body-mass index appeared protective; diabetes, central venous catheter and dialysis vintage were not significant.

Conclusion/Application to practice

The dichotomised screening classification identified only a modest elevation in risk, with age and nutritional status exerting greater influence. However, in clinical practice, the tool serves as a crucial safety “gatekeeper”. It objectively supports the nurse-led de-selection of the buttonhole technique in higher-risk individuals, ensuring that cannulation decisions are complemented by age and nutrition-sensitive assessments.

References

- Fielding, C., Aitken, M., & Angell-Barrick, N. (2018). Clinical Practice Recommendations for Needling of Arteriovenous Fistulae and Grafts for Haemodialysis. British Renal Society & Vascular Access Society of Britain and Ireland. https://www.vasbi.org.uk/media/resources/needling_guidelines2018.pdf
- Pinto, R., Duarte, F., Mata, F., Sousa, C., Salgueiro, A., & Fernandes, I. (2023). Arteriovenous fistula cannulation in haemodialysis: Constructing and validating a decision-making model. *Revista de Enfermagem Referência*, 6(2), 1–8. <https://doi.org/10.12707/RV122021>
- Glerup, R., Svensson, M., Jensen, J. D., & Christensen, J. H. (2019). Staphylococcus aureus bacteraemia risk in haemodialysis persons using the buttonhole cannulation technique: A prospective multicentre study. *Kidney Medicine*, 1(5), 263–270. <https://doi.org/10.1016/j.xkme.2019.07.007>
- Dalrymple, L. S., Johansen, K. L., Chertow, G. M., Cheng, S. C., Grimes, B., Iribarren, C., Kaysen, G. A., Katz, R., Newman, A. B., & Shlipak, M. G. (2010). Infection-related hospitalizations in older persons with ESRD. *American Journal of Kidney Diseases*, 56(3), 522–530. <https://doi.org/10.1053/j.ajkd.2010.04.016>
- Lok, C. E., Huber, T. S., Lee, T., Shenoy, S., Yevzlin, A. S., Abreo, K., Allon, M., Asif, A., Astor, B. C., Glickman, M. H., et al. (2020). KDOQI Clinical Practice Guideline for Vascular Access: 2019 Update. *American Journal of Kidney Diseases*, 75(4, Suppl 2), S1–S164. <https://doi.org/10.1053/j.ajkd.2019.12.001>

Abstract Country Portugal (Presenting Author), Australia

Disclosure of Interest Yes

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Closing quality gaps in chronic kidney disease–associated pruritus through targeted nursing education

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Background

Chronic Kidney Disease–associated Pruritus (CKD-aP) is a common and distressing symptom among patients undergoing hemodialysis, significantly impairing quality of life, sleep, and treatment adherence. Despite its prevalence, CKD-aP remains inconsistently assessed and inadequately documented in routine clinical practice. The availability of targeted therapies, such as difelikefalin, has further emphasized the need for structured assessment processes, standardized documentation, and an adequately prepared nursing workforce.

Objectives

To evaluate nursing knowledge and clinical practices related to CKD-associated pruritus, identify quality-of-care gaps, and describe the development and implementation of a targeted educational intervention designed to strengthen clinical competence, professional confidence, and safe symptom management practices.

Methods

A descriptive quantitative study used an anonymous questionnaire among hemodialysis nurses in Austria and Germany to assess CKD-aP knowledge, assessment, documentation, interventions, and educational needs. Identified gaps informed a structured educational intervention delivered at a nephrology nursing conference. A post-intervention evaluation using the same instrument is planned.

Results

Ninety-four nurses participated in the baseline assessment, the majority holding specialist nephrology qualifications and extensive clinical experience. Despite advanced training, limited knowledge of CKD-aP was identified, alongside minimal use of validated assessment tools and an almost complete absence of standardized documentation. Although difelikefalin was available in most participating units, fewer than half of participants reported adequate knowledge or formal training related to its use. Participants frequently reported uncertainty regarding assessment responsibilities and management pathways, highlighting the need for structured education to support safe and confident clinical practice.

Conclusion/Application to practice

Targeted workforce education may address quality-of-care gaps, enhance nurses' clinical confidence and psychological safety, and support safer, more consistent management of CKD-associated pruritus in hemodialysis settings.

References

- Shirazian, S., et al. (2017). Chronic kidney disease–associated pruritus: Impact on quality of life and management challenges. *International Journal of Nephrology and Renovascular Disease*, 10, 11–22. <https://doi.org/10.2147/IJNRD.S108045>
- Simonsen, E., et al. (2017). Treatment of uremic pruritus: A systematic review. *American Journal of Kidney Diseases*, 70(5), 638–655. <https://doi.org/10.1053/j.ajkd.2017.05.018>
- Sukul, N., et al. (2021). Self-reported pruritus and patient-reported outcomes in hemodialysis patients. *Kidney Medicine*, 3(1), 42–53.e1. <https://doi.org/10.1016/j.xkme.2020.08.011>
- Liossatos, A., et al. (2025). Nurses' perceptions and roles in the management of chronic kidney disease–associated pruritus: A multicentre survey across Europe. *Journal of Renal Care*, 51(2). <https://doi.org/10.1111/jorc.70018>

Abstract Country

Austria

Disclosure of Interest No

6

From blame to learning: Building a high-reliability incident reporting culture in Greek hemodialysis network

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Background

A structured and transparent clinical incident reporting system is a cornerstone of patient safety in high-risk environments such as hemodialysis. An Incident Reporting and Clinical Risk Management framework provides a standardized framework for classifying, reporting, escalating, and analyzing clinical, technical, and organizational events across multiple domains, including patients, staff, products, facilities, and documentation. In Greece, the systematic implementation of this framework began in 2024, with the explicit objective of fostering a no-blame, learning-oriented culture where incidents are used to drive quality improvement rather than assign fault.

Objectives

To describe the implementation and maturation of the Diaverum incident reporting system in Greece. To evaluate trends as a marker of safety culture, transparency, and organizational learning.

Methods

A retrospective descriptive analysis of national incident reporting data was conducted using the corporate electronic medical record and incident management system. All reported events were normalized per 1,000 HD treatments and classified according to impact, probability, and event type. Year-to-year trends were examined to assess reporting uptake, staff engagement, and system maturity.

Results

Our dialysis network demonstrated a substantial increase in incident reporting, rising from 15 incidents per 1,000 treatments in 2024 to 40 incidents per 1,000 treatments in 2025. This near three-fold increase reflects improved staff confidence, clearer definitions, and strengthened governance rather than a deterioration in safety. High-risk and sentinel events triggered automatic escalation to medical and nursing leadership, while monthly and quarterly trend analyses enabled the identification of recurring risks, system vulnerabilities, and priority areas for intervention.

Conclusion/Application to practice

The rapid growth in incident reporting demonstrates the successful establishment of a just culture, where transparency, learning, and continuous improvement replace fear and under-reporting. By combining structured classification, real-time escalation, and systematic trend analysis, our dialysis network has created a powerful safety intelligence system that supports proactive risk reduction, targeted quality initiatives, and sustained improvement in patient care.

References

- Albreiki, S., Kearney, T., Duffy, S. and Staines, A. (2023) 'Safety culture in haemodialysis settings: a systematic review', *BMC Nephrology*, 24(1), pp. 1–14.
- Agency for Healthcare Research and Quality (AHRQ) (2019) *Just culture and patient safety event reporting*. Rockville, MD: AHRQ.
- Garrick, R., Kliger, A.S. and Stefanchik, B. (2012) 'Patient and facility safety in haemodialysis: opportunities and strategies to develop a culture of safety', *Clinical Journal of the American Society of Nephrology*, 7(4), pp. 680–687.
- Reason, J. (2000) 'Human error: models and management', *BMJ*, 320(7237), pp. 768–770.
- Vincent, C., Stanhope, N. and Crowley-Murphy, M. (1999) 'Reasons for not reporting adverse incidents: an empirical study', *Journal of Evaluation in Clinical Practice*, 5(1), pp. 13–21.

Abstract Country

Greece

Disclosure of Interest No

157

Catheter Lock Solutions in Haemodialysis: Nursing Perspectives on Infection Prevention and Catheter Patency

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Background

Catheter-related bloodstream infections (CRBSI) remain a major complication in haemodialysis patients with central venous catheters, contributing to increased morbidity, hospitalisation, antimicrobial exposure, and healthcare costs. Effective catheter lock strategies are central to infection prevention and the maintenance of catheter patency.

Objectives

To review current evidence on catheter lock solutions in haemodialysis and examine their implications for infection prevention, catheter performance, and nursing practice.

Methods

A structured narrative review was conducted including randomized controlled trials, systematic reviews, meta-analyses, and observational studies evaluating heparin-, citrate-, and antimicrobial-based lock solutions in adult haemodialysis populations. Outcomes assessed included CRBSI incidence, catheter survival, thrombolytic intervention rates, and safety.

Results

Lock solution composition was associated with clinically relevant differences in infection outcomes and catheter performance. Compared with standard heparin locking, citrate- and taurolidine-containing solutions have been linked in several studies to reduced CRBSI rates, particularly in high-risk populations. Antimicrobial lock strategies appear to limit intraluminal biofilm formation without promoting antimicrobial resistance.

Catheter survival was maintained or improved in infection-prone cohorts. Thrombolytic requirements varied according to solution composition and institutional protocols. Safety profiles were generally favourable. Importantly, clinical outcomes were closely associated with standardized protocols, accurate instillation technique, and structured infection surveillance.

Conclusion/Application to practice

Catheter lock selection represents a key component of vascular access safety in haemodialysis. Beyond solution choice, consistent protocol adherence and strong nursing leadership are essential in reducing infection risk and preserving catheter patency. Further research and standardized implementation strategies are needed to optimize patient outcomes.

References

- Winnicki, W., Herkner, H., Lorenz, M., Handisurya, A., Kikić, Ž., Bielez, B., Schairer, B., Reiter, T., Eskandary, F., Sunder-Plassmann, G., & Sengoege, G. (2018). Taurolidine-based catheter lock regimen significantly reduces overall costs, infection, and dysfunction rates of tunneled hemodialysis catheters. *Kidney international*, 93(3), 753–760. <https://doi.org/10.1016/j.kint.2017.06.026>
- Neusser, M. A., Bobe, I., Hammermeister, A., & Wittmann, U. (2021). A 2% taurolidine catheter lock solution prevents catheter-related bloodstream infection (CRBSI) and catheter dysfunction in hemodialysis patients. *British journal of nursing (Mark Allen Publishing)*, 30(14), S24–S32. <https://doi.org/10.12968/bjon.2021.30.14.S24>

Abstract Country

Austria

Disclosure of Interest

No

61

Implementing cognitive screening and adherence strategies in a hemodialysis unit: a quality improvement protocol

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Background

Cognitive decline is a prevalent and underdiagnosed comorbidity in haemodialysis, affecting critical domains such as executive function and prospective memory. Evidence demonstrates that adherence failures, often mislabelled as lack of motivation, are actually correlated with cognitive deficits that directly interfere with functional capacity and medication management (Jones et al., 2020). Qualitative studies reinforce that the treatment regime imposes a burden that limits patient autonomy due to extreme post-session fatigue (Jones et al., 2018), while statistical modelling confirms that cognition impacts adherence through daily routine disorganization (Chan et al., 2024). Furthermore, cognitive performance fluctuates during the dialysis cycle, with sharp declines during the session itself (Dasgupta et al., 2018).

Objectives

This project aims to implement and evaluate the feasibility of a systematic cognitive screening program and the adaptation of treatment adherence strategies. Specific goals include characterizing the unit's cognitive profile, quantifying the clinical discrepancy between staff perception of patient autonomy and actual test scores, and adapting care plans (education and communication) based on identified deficits.

Methods

Using a PDSA (Plan-Do-Study-Act) quality improvement design, the project involves a diagnosis phase including the application of the MoCA for objective assessment and the expanded KDQOL-CF to capture subjective complaints (Chan et al., 2024). Additionally, a Clinical Discrepancy Index (CDI) is calculated to determine the difference between the team's perception of patient autonomy and actual scores, identifying patients at risk of "invisible non-adherence". Based on these data, an individualized intervention is implemented for patients with deficits, where instructions are simplified using visual aids (Jones et al., 2020) and education sessions are rescheduled to periods of higher cognitive stability, such as the start of dialysis or interdialytic days, to avoid intradialytic decline and post-treatment exhaustion (Dasgupta et al., 2018; Jones et al., 2018).

Results

The implementation aims to establish a cognitive profile of the unit and identify unrecognized impairment. It is expected that the "Cognitive IDC" will pinpoint patients requiring individualized intervention. Success will be measured by comparing pre-and post-intervention indicators: interdialytic weight gain, potassium and phosphorus levels, and session attendance.

Conclusion/Application to practice

This program implements a proactive management flow where patients with grave impairment are referred to specialists and those with mild impairment receive tailored memory support. By identifying "invisible non-adherence" through the CDI, nursing practice shifts from standardized education to cognitively accessible care, ensuring that vital health information is provided when patients are most receptive.

References

1. Chan, F. H. F., Sim, P., Lim, P. X. H., Khan, B. A., Choo, J. C. J., & Griva, K. (2024). Screening for cognitive symptoms in dialysis patients with an extended version of Kidney Disease Quality of Life Cognitive Function subscale (KDQOL-CF): a validation study. *BMC nephrology*, 25(1), 434. <https://doi.org/10.1186/s12882-024-03848-9>
2. Chan, F. H. F., Sim, P., Lim, P. X. H., Zhu, X., Lee, J., Haroon, S., Lau, T. W. L., Liu, A. Y. L., Khan, B. A., Choo, J. C. J., & Griva, K. (2024). Structural equation modelling of the role of cognition in functional interference and treatment nonadherence among haemodialysis patients. *PloS one*, 19(10), e0312039. <https://doi.org/10.1371/journal.pone.0312039>
3. Dasgupta, I., Patel, M., Mohammed, N., Baharani, J., Subramanian, T., Thomas, G. N., & Tadros, G. (2018). Cognitive Function Declines Significantly during Haemodialysis in a Majority of Patients: A Call for Further Research. *Blood purification*, 45(4), 347–355. <https://doi.org/10.1159/000485961>
4. Jones, D. J. W., Harris, J. P., Butler, L. T., & Vaux, E. C. (2020). A potential barrier to adherence? Memory for future intentions is impaired in hemodialysis patients. *Hemodialysis international. International Symposium on Home Hemodialysis*, 24(1), 114–120. <https://doi.org/10.1111/hdi.12789>
5. Jones, D. J., Harvey, K., Harris, J. P., Butler, L. T., & Vaux, E. C. (2018). Understanding the impact of haemodialysis on UK National Health Service patients' well-being: A qualitative investigation. *Journal of clinical nursing*, 27(1-2), 193–204. <https://doi.org/10.1111/jocn.13871>

Abstract Country

Portugal

Disclosure of Interest

No

62

Artificial intelligence and Speech-based Identification of Cognitive Impairment in Uraemia – The ASPIRE Study

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Background

People receiving dialysis have a substantially increased risk of cognitive impairment compared with the general population. Cognitive impairment (CI) can negatively affect treatment adherence, clinical outcomes, and quality of life. Early detection is important, yet existing screening tools can be time-consuming and resource-demanding. Emerging artificial intelligence (AI) methods may offer a more accessible approach by identifying cognitive changes through speech analysis.

Objectives

To explore whether an AI-based speech model can detect acoustic and linguistic patterns associated with CI among people with kidney failure receiving dialysis. Additionally, to examine cognitive profiles in dialysis patients.

Methods

We conducted a diagnostic case–control study including adults in maintenance dialysis (cases) and first-time visitors to the hypertension clinic (controls). All participants completed the Montreal Cognitive Assessment (MoCA), followed by five recorded speech tasks designed to reflect both natural speech and MoCA-related domains. Cases and controls were compared regarding demographic characteristics and MoCA performance. Speech recordings were used to train an AI model to distinguish between cases and controls. Final model performance analyses are ongoing; preliminary findings indicate promising classification potential.

Results

A total of 41 cases and 22 controls were included. CI (MoCA <24) was present in 58% of cases and 30% of controls. Cases scored significantly lower in the domains of attention, delayed recall, and orientation. Within the case group, lower performance was observed, particularly in executive functions, delayed recall, abstraction, and language, while naming was the only domain in which all cases achieved full points.

Conclusion/Application to practice

CI appears more prevalent and more domain-specific in dialysis patients than previously reported. These findings highlight the importance of routinely considering cognition in dialysis care. AI-based speech models may represent a promising supplementary tool for early identification and clinical decision support, potentially reducing assessment burden and supporting more person-centred dialysis care.

References

- Tiffin-Richards FE, Costa AS, Holschbach B, Frank RD, Vassiliadou A, Krüger T, et al. The Montreal Cognitive Assessment (MoCA) - A Sensitive Screening Instrument for Detecting Cognitive Impairment in Chronic Hemodialysis Patients. PLOS ONE. 2014;9(10):e106700
- Cao T, An R, Wang Y, Lei J, Liang J, Wan Q. Risk factors and prevalence of cognitive impairment in maintenance haemodialysis patients: A systematic review and meta-analysis of observational studies. Journal of Advanced Nursing. 2023;79(10):3691-706.
- Schjerlund M, Agnholt H, Gregersen LR, Heilesen T, Pedersen MK. Cognitive impairment in patients with chronic kidney disease—Next of kin's experiences. Journal of Renal Care. 2021;47(2):87-95.
- Mueller KD, Hermann B, Mecollari J, Turkstra LS. Connected speech and language in mild cognitive impairment and Alzheimer's disease: A review of picture description tasks. J Clin Exp Neuropsychol. 2018;40(9):917-39.
- Nicholas P, Green T, Purtell L, Bonner A. A cross-sectional study exploring cognitive impairment in kidney failure. Journal of Renal Care. 2022;48(2):93-101.

Abstract Country Denmark

Disclosure of Interest No

91 Construction of the Initial Nursing Assessment for the Person Undergoing Outpatient Hemodialysis

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Background

People with Chronic Kidney Disease (CKD) undergoing regular hemodialysis frequently experience self-care deficits related to physical, cognitive, and emotional limitations, which compromise therapeutic management and the performance of activities of daily living. Therefore, the nursing assessment at patient admission should encompass a holistic perspective, addressing not only clinical characteristics but also the personal and social resources that influence self-care.

Objectives

To develop an initial nursing assessment instrument, designed using ICNP® language and grounded in Dorothea Orem's Self-Care Deficit Theory; and to conduct its content validation through an expert panel (Delphi Technique).

Methods

A Narrative Literature Review was conducted to identify the data to be collected and the corresponding Nursing Diagnoses. Content validation was performed by expert nurses with proven experience in caring for people with Chronic Kidney Disease (CKD) and in outpatient hemodialysis, as well as with training and practice in the use of ICNP® language, totaling 31 participants. All inherent ethical requirements were fulfilled.

Results

Content validation, conducted according to the Delphi technique, revealed high levels of consensus among experts, with agreement rates exceeding 80% across all focus areas, indicators, and nursing diagnoses. These findings demonstrate the clarity, relevance, and representativeness of the selected nursing practice focus areas, in line with international methodological recommendations (Newman et al., 2013).

The domains included self-care, sensory perception, psychological process and behavior, rest, knowledge and capacity translate into relevant areas of intervention for the specialist nurse in Medical-Surgical Nursing in the area of Nursing for People with Chronic Diseases, according to Orem (2001) and Queirós (2014), who advocate the need to identify and compensate for self-care deficits early.

Conclusion/Application to practice

The results confirm the content validity of the initial assessment for individuals undergoing outpatient hemodialysis, supporting its applicability and representing a significant contribution to the systematization and standardization of the nursing process, as well as to the strengthening of specialized practice centered on individuals living with chronic conditions

References

- International Council of Nurses. (2020). Guidelines on advanced practice nursing 2020. Geneva: ICN.
- Meleis, A. I. (2010). Transitions theory: Middle-range and situation-specific theories in nursing research and practice. Springer Publishing Company.
- Newman, I., Lim, J., & Pineda, F. (2013). Content validity using a mixed methods approach: Its application and development through the use of a table of specifications methodology. *Journal of Mixed Methods Research*, 7(3), 243–260. <https://doi.org/10.1177/1558689813476922>
- Queirós, P. J. (2014). Autocuidado: O contributo teórico de Orem para a disciplina e profissão de enfermagem. *Revista de Enfermagem Referência, Série IV*(3), 125–134. <https://doi.org/10.12707/RIV14081>
- Orem, D. E. (2001). *Nursing: Concepts of practice* (6th ed.). Mosby.

Abstract Country Portugal

Disclosure of Interest Yes

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Validation of the Consistency in the Initial Nursing Assessment for the Patients in Haemodialysis

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Background

The Nursing Process, as the scientific method of professional practice, constitutes the foundation for delivering evidence-based, planned, systematized, safe, and individualized care (Phaneuf, 2001). However, in clinical practice, there is often a lack of standardized guidelines in the initial nursing assessment phase, which hinders the standardization of documented information. This may lead to differing interpretations in continuity of care and difficulties in assessing and monitoring patient characteristics and/or documenting nursing activities. The application of a standardized language, such as the International Classification for Nursing Practice (ICNP®), represents an essential step in overcoming this limitation.

Objectives

To assess the internal consistency of the initial nursing assessment developed using ICNP® language and grounded in Dorothea Orem's Self-Care Deficit Theory.

Methods

A quantitative, cross-sectional, and analytical study. The initial nursing assessment was applied at the beginning of treatment by nurses from the respective units, who had previously received training in its structure and in the use of ICNP® language. A convenience sample was used, comprising a total of 322 participants. All ethical requirements were fulfilled.

Results

From a psychometric perspective, the overall internal consistency ($\alpha = 0.953$) confirms the excellent reliability of the instrument, according to the criteria established by Newman et al. (2013). High values were observed across virtually all nursing practice focuses, particularly in the domains of knowledge (α between 0.783 and 0.991) and self-care (α between 0.728 and 0.947), demonstrating the theoretical and empirical coherence of the assessed dimensions. Slightly lower values were found in the agitation ($\alpha = 0.571$) and hearing ($\alpha = 0.640$) focuses, reflecting the natural variability resulting from the clinical heterogeneity of the sample; nevertheless, these values remain within acceptable parameters for instruments undergoing initial validation.

Conclusion/Application to practice

The high internal consistency observed ($\alpha = 0.953$) confirms the psychometric reliability of the instrument and reinforces its usefulness as a tool to support clinical decision-making and the systematization of the nursing process, ensuring the safe use of validated information.

References

- International Council of Nurses. (2020). Guidelines on advanced practice nursing 2020. Geneva: ICN.
- Queirós, P. J. (2014). Autocuidado: O contributo teórico de Orem para a disciplina e profissão de enfermagem. *Revista de Enfermagem Referência, Série IV*(3), 125–134. <https://doi.org/10.12707/RIV14081>
- Newman, I., Lim, J., & Pineda, F. (2013). Content validity using a mixed methods approach: Its application and development through the use of a table of specifications methodology. *Journal of Mixed Methods Research*, 7(3), 243–260. <https://doi.org/10.1177/155868981347692>
- Orem, D. E. (2001). *Nursing: Concepts of practice* (6th ed.). Mosby.

Abstract Country

Portugal

Disclosure of Interest

Yes

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Developing digital Care Plans grounded in Fundamentals of Care framework and ICNP standardized taxonomy

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Background

Haemodialysis nursing requires a structured and standardized process that supports accurate assessment, diagnosis, planning, and evaluation of care. In our multinational organization we identified potential for improvement for nursing documentation and workflows, emphasizing the need for a unified and reproducible nursing process.

Objectives

This project aimed to develop Person-Centred Care Plans App based on a structured nursing process, grounded in an evidence-based nursing model and a standardized nursing taxonomy suitable for haemodialysis care.

Methods

A literature review of nursing theories and taxonomic models was conducted to evaluate suitability for dialysis settings. The Fundamentals of Care framework was selected for its holistic, person-centred structure. The International Classification for Nursing Practice (ICNP) was chosen as the taxonomy due to its global applicability and adaptability, despite some limited coverage of dialysis-specific terminology. Care plans were created by identifying key care dimensions for the haemodialysis population, mapping appropriate ICNP nursing diagnoses, defining evidence-based nursing interventions, and establishing measurable outcomes. All components were integrated into a newly developed digital platform. A pilot phase including Quality of life, intradialytic symptoms, pruritus and renal foot assessments and care planning is scheduled.

Results

Core care dimensions and corresponding ICNP diagnoses were mapped into care plans, embedded in a structured nursing process, aligned with the Fundamentals of Care. Linked interventions and outcomes were operationalized within the digital platform, enabling standardized documentation, improved clinical visibility, and better monitoring of patient needs. The pilot will assess usability, clinical validity, and the added value of integrating patient-reported measures.

Conclusion/Application to practice

Integrating the Fundamentals of Care with ICNP provides a robust and scalable approach to standardizing haemodialysis nursing practice. The resulting digital platform supports evidence-based, person-centred care plans and has potential to improve consistency, patient outcomes, and international comparability. Pilot results will guide refinement and global rollout.

References

- Kitson A, Conroy T, Kulski K, Locock L, Lyons R. Reclaiming and redefining the Fundamentals of Care: Nursing's response to meeting patients' basic human needs. Adelaide: University of Adelaide; 2013.
- Feo R, Conroy T, Jangland E, Muntlin Athlin Å, Brovall M, Parr J, et al. Towards a standardised definition for fundamental care: A modified Delphi study. J Clin Nurs. 2018;27:2285-2299. doi:10.1111/jocn.14247.
- World Health Organization. International Classification for Nursing Practice (ICNP). Geneva: WHO; 2017.
- Santos JO, Lins SM, Silva RA, Menezes HF, Armada e Silva HC, Tavares JM. Terminological subset of ICNP® for people with chronic kidney disease on hemodialysis. Rev Esc Enferm USP. 2024;58:e20240076.
- Chen L, Zhang Y. Construction of haemodialysis nursing-sensitive quality indicators based on Donabedian theory: A Delphi method study. Nursing Open. 2023;10:807-816.

Abstract Country Germany

Disclosure of Interest No

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Impact Of Recurrent Urinary Tract Infections On Renal Function and Maternal Outcomes in Pregnancy

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Background

Urinary tract infections are among the most common bacterial infections during pregnancy. Recurrent infections may predispose women to ascending infection, pyelonephritis, and renal function impairment due to inflammatory and hemodynamic changes. While acute complications are well documented, the cumulative renal impact of recurrent infections during pregnancy remains underexplored in routine antenatal care. Understanding this relationship is essential to guide screening strategies and optimize maternal outcomes.

Objectives

To evaluate the effect of recurrent urinary tract infections on renal function parameters and maternal clinical outcomes among pregnant women attending antenatal care.

Methods

A cross-sectional analytical study was conducted on 140 pregnant women attending antenatal clinics. Participants were categorized into women with recurrent urinary tract infections (≥ 2 culture-confirmed episodes during the current pregnancy) and women without recurrent infection. Clinical variables included maternal age, gestational age, parity, body mass index, diabetes, hypertension, and number of infection episodes. Laboratory assessment included urine analysis, urine culture, serum creatinine, blood urea, and estimated glomerular filtration rate. Proteinuria was screened using dipstick and confirmed when indicated. Comparisons were performed using independent t-tests and chi-square tests. Multivariate analysis adjusted for confounding variables. Statistical significance was set at $p < 0.05$.

Results

Fifty-eight participants (41.4%) had recurrent infections. This group showed higher mean serum creatinine (0.92 ± 0.18 vs 0.74 ± 0.12 mg/dL; $p = 0.001$) and lower estimated glomerular filtration rate (89.6 ± 11.4 vs 104.3 ± 9.8 mL/min/ 1.73m^2 ; $p = 0.002$). Proteinuria occurred in 29.3% versus 8.5% ($p = 0.004$). Hospital admission for acute pyelonephritis occurred in 13.8% versus 2.4% ($p = 0.01$). Recurrent infection remained independently associated with reduced renal function after adjustment (adjusted OR 2.7; 95% CI 1.3–5.4). No progression to chronic kidney disease was observed.

Conclusion/Application to practice

Recurrent urinary tract infections during pregnancy are associated with measurable reductions in renal function and increased risk of proteinuria and hospitalization. Strengthening antenatal screening, routine urine culture follow-up, and nurse-led infection monitoring may preserve maternal renal health and improve pregnancy outcomes.

References

- Matuszkiewicz-Rowińska J, Małyszko J, Wieliczko M. Arch Med Sci. 2015;11:67-77.
- Delzell JE, Lefevre ML. Am Fam Physician. 2000;61:713-721.
- Wing DA, Fassett MJ, Getahun D. Am J Obstet Gynecol. 2014;210:219.e1-219.e6.
- ACOG Practice Bulletin No. 91. Obstet Gynecol.
- Kazemier BM et al. Lancet Infect Dis. 2015.

Abstract Country

Libya

Disclosure of Interest

Yes

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Caring beyond the kidneys: hand massage intervention for chronic kidney disease-associated pruritus in hemodialysis

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Background

Chronic Kidney Disease-Associated Pruritus (CKD-aP) is a common and distressing symptom affecting 20-40% of adults receiving dialysis. In our recent Swiss prevalence study, 25% of adults undergoing hemodialysis reported CKD-aP, with 80% describing moderate to severe itching. Beyond physical discomfort, CKD-aP is associated with depressive symptoms, sleep disturbance, reduced quality of life and social isolation. This supports the need for holistic, person-centred nephrology care. Hand massage may offer a compassionate, low-burden, non-pharmacological approach to symptom management. Potential mechanisms include nerve conduction modulation, autonomic stress responses reduction and attenuation of skin inflammation.

Objectives

To determine whether nurse-delivered hand massage improves itch severity, itch-related quality of life, overall health-related quality of life and sleep in adults with CKD-aP receiving hemodialysis, at one and three months, compared with an attention-control conversation without physical touch. A secondary objective is to explore participants' experiences of receiving hand massage.

Methods

A sequential multicentre mixed methods design is being used. Phase 1 consists of a randomized controlled trial including 54 adults on hemodialysis with CKD-aP, randomly allocated to either a hand massage intervention or an attention-control conversation. Participants receive a 10-minute hand massage or a conversation delivered by nurses twice weekly during the first month, then once weekly for the following two months during dialysis. Outcomes are measured at baseline, one month, and three months using the itch Numeric Rating Scale, the 5D Itch Scale, and the KDQOL-SF™ v1.2. Phase 2 will use semi-structured interviews.

Results

Recruitment and data collection are ongoing. Preliminary phase 1 findings on itch severity, sleep, and quality of life will be reported.

Conclusion/Application to practice

This study addresses person-centred care beyond physical symptom management. By targeting itch, sleep and quality of life through therapeutic touch, it highlights the potential of a complementary, nurse-led intervention to enhance comfort and well-being during hemodialysis.

References

- Döner, A., & Taşçı, S. (2022). Effect of massage therapy with lavender oil on severity of restless legs syndrome and quality of life in hemodialysis patients. *Journal of nursing scholarship*, 54(3), 304-314.
- Helou, N., Nobre, D., Corre, T., Bonny, O., Chazot, R., Cherpillod, A.,... & Pruijm, M. (2025). Prevalence, severity, and determinants of CKD-associated pruritus in a Swiss hemodialysis population with widespread use of hemodiafiltration: a cross-sectional study. *BMC nephrology*, 26(1), 640.
- Hercz, D., Jiang, S. H., & Webster, A. C. (2020). Interventions for itch in people with advanced chronic kidney disease. *Cochrane database of systematic reviews*, (12).
- Schaub, C., Von Gunten, A., Morin, D., Wild, P., Gomez, P., & Popp, J. (2018). The effects of hand massage on stress and agitation among people with dementia in a hospital setting: a pilot study. *Applied psychophysiology and biofeedback*, 43(4), 319-332.

Abstract Country Switzerland

Disclosure of Interest No

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Harmonised approach of Environment, Health & Safety program, driving safety, compliance & sustainability in dialysis clinics.

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Abstract

We transformed a manufacturer-focused Environment, Health & Safety (EHS) program into one tailored for dialysis clinics, as it lacked an internal standardised framework, a variety of regulatory requirements across Europe, the Middle East (EMEA) and Asia Pacific (APAC), leaving gaps in governance and compliance. Over 24 months, we implemented the program in 756 dialysis clinics across 26 organisational locations to drive safety, compliance & sustainability.

Methods

Seven main key processes tailored to dialysis clinic requirements, aligning with the company's strategy, legal, regulatory, and global sustainability requirements, which includes hazardous substances, waste and emissions, resource control, emergency preparedness, employee safety, EHS risk & opportunity assessment, and external communication.

A preliminary survey assessed local governance and legislation, revealing significant variability. Standardised and harmonised directives, templates, and training materials were developed. Local teams conducted gap analyses to identify the individual's local legislation, availability of local documents and the adaptation or incorporation requirements to the processes, and implemented processes with assigned roles and responsibilities. Patient involvement was integrated into emergency preparedness.

Results

Implementation progress is monitored through follow-up reviews and audits to ensure success. Pilot audits schedule in early 2026 to validate compliance. The non-compliance finding during the pilot audits shall be the checkpoint to reassess the processes.

Early findings indicate improved governance structures and readiness for sustainability reporting. Challenges included resource limitations and geopolitical disruptions, requiring reprioritization and continuous support from regional quality teams.

Conclusion/Application to practice

Clear, traceable communication is essential to prevent deviations. Harmonisation enables proactive risk mitigation and operational sustainability, demonstrating that sector leadership can drive safety standards beyond regulatory mandates. The project delivered a scalable, best-practice EHS framework for dialysis clinics. It has strengthened patient, employee, and environmental safety in diverse regulatory and geographical contexts, proving that proactive adoption of industry-leading standards is both feasible and highly beneficial, even in the absence of specific local regulatory requirements.

References

1. ISO 9001:2015 Quality Management System
2. ISO 14001: 2015 Environmental Management System
3. ISO45001:2018 Occupational Health & Safety Management System

Abstract Country

Germany

Disclosure of Interest

No

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Implementation of a national high volume hemodiafiltration program

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Background

The CONVINCe trial showed a 23% reduction in mortality among patients receiving high volume hemodiafiltration. Following these results, Fresenius Medical Care announced the implementation of high volume hemodiafiltration as part of its medical strategy. In NephroCare clinics of Fresenius Medical Care Israel, a national high volume hemodiafiltration program was launched

Objectives

To provide key elements in implementation of a national high volume hemodiafiltration program and following its outcomes.

Methods

The national program included staff education, definition of clinics and patients' inclusion criteria, follow-up through a medical governance system, and corrective actions aimed at increasing both the proportion of patients treated with hemodiafiltration and those achieving high volume treatment. High volume hemodiafiltration was defined as achieving more than 23 liters of convective volume per treatment. Key elements included availability of sterile dialysate, appropriate dialysis prescription, use of high-performance dialyzers, activation of the automatic substitution control system, adequate treatment time, sufficient effective blood flow, and appropriate anticoagulation. In 2025, a Power BI system was introduced to monitor results, support data-driven decision making, and enable targeted corrective actions at clinic level.

Results

The program was implemented in 11 NephroCare clinics following retrofitting and approval of water treatment systems for sterile substitution fluid. All clinic staff received education on high volume hemodiafiltration, prescription, anticoagulation, and use of the automatic substitution control system. During 2025, the proportion of patients treated with hemodiafiltration increased by 42%, and the proportion achieving more than 23 liters of convective volume per treatment increased by 18%. Treatment time and effective blood flow greater than 350 mL/min were monitored to guide corrective actions and improve performance consistency.

Conclusion/Application to practice

Implementation of a national high volume hemodiafiltration program is feasible and requires coordinated clinical, technical, and organizational efforts, with continuous monitoring of convective volume to support sustainable adoption and long-term integration into routine clinical practice.

References

¹Blankestijn PJ, Vernooij RWM, Hockham C, et al. Effect of Hemodiafiltration or Hemodialysis on Mortality in Kidney Failure. *N Engl J Med*. 2023;389(8):700-709

Abstract Country

Israel

Disclosure of Interest

Yes

22

Shared decision-making in end-of-life care for end-stage renal disease patients: nephrologists' views and attitudes

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Background

The term end-stage renal disease (ESRD) refers to the final stage of chronic kidney disease. Not all ESRD patients are suitable for dialysis treatment, which despite its advantages, is not without risks. Shared nephrologist-patient-decision-making could be beneficial at this stage, yet little is known about such practices in Israel.

Objectives

This study aimed at examining the practice of shared decision-making (SDM) between nephrologists and ESRD patients in Israel, while exploring related conflicts, ethical dilemmas, and considerations.

Methods

The descriptive-quantitative approach applied in this study included a validated questionnaire for nephrologists, based on Emanuel and Emanuel (1992). The survey, which was distributed via social-media platforms and snowball sampling, was completed by 169 nephrologists. Data analysis included t-tests for independent samples, f-tests for analysis of variance, and t-tests and f-tests for independence. Descriptive analysis examined attitudes towards SDM in end-of-life care for ESRD patients.

Results

The findings show that the research sample did not include nephrologists who typically act according to the paternalistic decision-making style. Rather, 53% of the respondents were found to act in line with the informative decision-making style, while 47% act according to the interpretive decision-making style. Almost 70% of all respondents reported their discussing quality-of-life with patients; 63.4% provide prognostic assessments; 61.5% inquire about the patient's desired place of death; 58.6% ask about advance directives or power-of-attorney; and 57.4% inquire about cultural and religious beliefs in end-of-life treatment. Additionally, informative nephrologists tend to promote the patients' autonomy over their health ($P < 0.001$); they are also in favor of conservative treatment, compared to paternalistic and interpretive nephrologists, and use less invasive methods than other nephrologists ($P = 0.02$).

Conclusion/Application to practice

Nephrologists in Israel only partially pursue an SDM model, which has the potential to improve quality of-care for ESRD patients and their families. SDM programs should be developed and implemented for increasing such practices among nephrologists, thereby expanding the possibilities for providing conservative care at end-of-life.

References

- Charles, C., Gafni, A., & Whelan, T. (1999). Decision-making in the physician-patient encounter: Revisiting the shared treatment decision-making model. *Social Science and Medicine*.
- Emanuel, E. J., Emanuel, L. L. (1992). Four models of the physician-patient relationship. *JAMA: The Journal of the American Medical Association*, 267(16), 2221–2226.
- Karako-Eyal, N., & Gilbar, R. (2018). The end-of-life decision-making process in Israel: Bioethics, law, and the practice of doctors. In *Bioethics and Biopolitics in Israel: Socio-Legal, Political, and Empirical Analysis*.
- Metzger, M., Yoder, J., Fitzgibbon, K., Blackhall, L., & Abdel-Rahman, E. (2021). Nephrology and Palliative Care Collaboration in the Care of Patients With Advanced Kidney Disease: Results of a Clinician Survey. *Kidney Medicine*.
- Karnieli-Miller O, Karnieli E, N.-K. G. (2020). *Enhancing Patient Centered Care through Understanding Barriers and Promotors to Implementing Shared*. The Israel National Institute For Health Policy Research.

Abstract Country Israel

Disclosure of Interest No

173

A feasibility study of BEhavioural ACTivation for Haemodialysis: The BEACH Study protocol.

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Background

People receiving haemodialysis experience high rates of mental health issues, such as depression. However, there is limited evidence on how best to manage depression in this population. The symptom and treatment burden associated with haemodialysis make it difficult to engage in additional appointments and medication regimens. Behavioural activation (BA) is a psychological therapy that aims to treat depression by supporting people to engage in enjoyable, purposeful, and meaningful activities. Because BA can be delivered by non-specialists in a variety of clinical settings, it could be implemented as an intradialytic intervention; however, we do not know whether intradialytic BA is feasible, acceptable to staff and patients.

Objectives

To evaluate the feasibility and acceptability of delivering BA to people receiving maintenance haemodialysis.

Methods

The feasibility study has three components:

1. Pilot cluster randomised controlled trial (RCT), where we will recruit 52 people receiving haemodialysis and experiencing symptoms of depression. People who consent will be cluster-randomised to either BA or usual care.
2. Qualitative process evaluation, using semi-structured interviews, where we will explore the experiences of patients, healthcare professionals and carers in relation to participating in the study and receiving BA, and
3. Feasibility economic evaluation, exploring the feasibility of collecting healthcare resource use data for this patient group.

Results

Key findings will include the feasibility of screening, the feasibility of recruitment, the proportion of participants remaining in the study at the final follow-up, and the acceptability of BA.

Conclusion/Application to practice

This study will evaluate the acceptability and feasibility of a brief psychological intervention to manage depression in people receiving haemodialysis. If feasible, the next stage will be to conduct a definitive RCT to determine effectiveness in this population and ultimately improve the mental health of people with kidney failure.

References

- Chilcot J, Pearce CJ, Hall N, Busby AD, Hawkins J, Vraitch B, et al. The identification and management of depression in UK Kidney Care: Results from the Mood Maps Study. *J Ren Care*. 2024;50(3):297–306.
- Chilcot J, Hudson JL. Is successful treatment of depression in dialysis patients an achievable goal? *Semin Dial*. 2019;32(3):210–4.
- Pearce CJ, Hall N, Hudson JL, Farrington K, Tucker MJR, Wellsted D, et al. Approaches to the identification and management of depression in people living with chronic kidney disease: A scoping review of 860 papers. *J Ren Care*. 2024;50(1):4–14

Abstract Country

United Kingdom

Disclosure of Interest

No

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Interventions enhancing psychological resilience in nephrology practice: current evidence

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Background

Patients receiving renal replacement therapies experience significant psychological stress, emotional burden, and reduced resilience due to the chronic and demanding nature of nephrology care. In recent years, psychosocial interventions such as mindfulness, motivational interviewing, and psychoeducation have gained increasing attention as supportive approaches to strengthen psychological resilience in nephrology practice.

Objectives

This review aimed to summarize current evidence on the effectiveness of mindfulness-based interventions, motivational interviewing, and psychoeducational approaches in enhancing psychological resilience and mental well-being among patients in nephrology settings.

Methods

A narrative literature review was conducted using recent international studies published in peer-reviewed journals. Evidence from randomized controlled trials, quasi-experimental studies, and review articles focusing on mindfulness, motivational interviewing, and psychoeducation in nephrology practice was synthesized. The findings were analyzed with an emphasis on applicability to nursing practice.

Results

The reviewed evidence indicates that mindfulness-based interventions may reduce stress, anxiety, and emotional distress while improving quality of life in patients undergoing hemodialysis. Motivational interviewing has shown positive effects on treatment adherence, self-management behaviors, and patient engagement. Psychoeducational interventions were associated with improved disease understanding, coping skills, and psychological outcomes. Although methodological heterogeneity and limited sample sizes were noted across studies, the overall findings suggest that these interventions are feasible and beneficial when integrated into routine nephrology care.

Conclusion/Application to practice

Mindfulness, motivational interviewing, and psychoeducation represent promising, non-pharmacological interventions for strengthening psychological resilience in nephrology practice. Dialysis nurses play a key role in implementing these approaches through structured communication, patient education, and supportive care. Incorporating evidence-informed psychosocial interventions into routine nephrology nursing practice may enhance holistic care and improve patient well-being.

References

- Chan, R., Steel, Z., Brooks, R., Heung, T., Erlich, J., Chow, J., & Suranyi, M. (2012). Psychosocial risk and protective factors for depression in the dialysis population: A systematic review and meta-regression analysis. *Journal of Psychosomatic Research*, 72(2), 119–127. <https://doi.org/10.1016/j.jpsychores.2011.11.002>
- Cukor, D., Ver Halen, N., Asher, D. R., Coplan, J. D., Weedon, J., Wyka, K. E., & Kimmel, P. L. (2014). Psychosocial intervention improves depression, quality of life, and fluid adherence in hemodialysis. *Journal of the American Society of Nephrology*, 25(1), 196–206. <https://doi.org/10.1681/ASN.2012111134>
- Havas, K., Douglas, C., & Bonner, A. (2017). Person-centred care in chronic kidney disease: A cross-sectional study of patients' desires for self-management support. *BMC Nephrology*, 18, 17. <https://doi.org/10.1186/s12882-016-0426-2>
- Thomas, Z., Novak, M., & Platas, S. G. (2017). Brief mindfulness meditation for patients undergoing hemodialysis: A randomized controlled trial. *Clinical Journal of the American Society of Nephrology*, 12(3), 464–471. <https://doi.org/10.2215/CJN.04930516>
- Zhang, A. Y., Gary, F., Zhu, H., & Scott, G. (2016). Psychoeducational interventions for individuals with chronic kidney disease: A meta-analysis. *International Journal of Nursing Studies*, 61, 1–12. <https://doi.org/10.1016/j.ijnurstu.2016.05.010>

Abstract Country Türkiye

Disclosure of Interest Yes

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Positive nursing practice environments: characterization of the clinical context in hemodialysis units in Portugal.

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Background

Hemodialysis, as a highly specialized and technically demanding area, poses additional challenges for nursing professionals, ranging from the clinical complexity of patients to continuity of care, risk management, and the emotional burden associated with prolonged contact with individuals living with chronic illness. In this context, it is essential to systematically assess the environments in which care is delivered, in order to identify critical factors for care quality and team sustainability.

Objectives

To evaluate nursing practice environments in hemodialysis units in Portugal, focusing on organizational structure and factors that promote quality of care.

Methods

Quantitative, descriptive, and correlational cross-sectional study.

The study Nurses who have been practicing professionally for at least six months in hemodialysis units in Portugal and who have provided their informed consent to participate in the study.

The *Nursing Practice Environment Assessment Scale – Short Version (SEE-Nursing Practice)* (Ribeiro, O. et al., 2024) was administered to participants in a Doc Forms format. The scale consists of 59 items and was applied between November 1, 2025, and January 31, 2026.

Conclusion/Application to practice

This study aims to make a significant contribution to the continuous improvement of nursing practice environments in hemodialysis units. By mapping the elements that support effective and quality-promoting practice, it aligns with international guidelines and the increasing demands of specialized clinical settings. Valuing the role of the nurse and creating positive organizational environments are fundamental pillars for ensuring safe, effective, and humane care, and are also critical for the retention of healthcare professionals.

References

Ribeiro, O. M. P. L., de Lima Trindade, L., da Rocha, C. G., Teles, P. J. F. C., Mendes, M., Ribeiro, M. P., de Abreu Pereira, S. C., da Conceição Alves Faria, A., da Silva, J. M. A. V., & de Sousa, C. N. (2024). Scale for the environments evaluation of professional nursing practice-shortened version: Psychometric evaluation. *International journal of nursing practice*, 30(6), e13291. <https://doi.org/10.1111/ijn.13291>

Abstract Country

Portugal

Disclosure of Interest

No

244

Implementing the Professional Nurse Advocate (PNA) role in an independent haemodialysis service

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Background

The Professional Nurse Advocate (PNA) role, was introduced across the National Health Service (NHS) in March 2021, it was developed in response to the significant pressures placed on the nursing workforce during the COVID-19 pandemic. The role is underpinned by the A-EQUIP model, which incorporates formative (education and development), normative (monitoring and quality control), restorative (clinical supervision), and quality improvement elements. Together, these support professional standards, reflective practice, and staff wellbeing

Objectives

As an independent dialysis provider working in partnership with NHS trusts, with 30 clinics across England and more than 740 staff, we recognised the potential value of this role in supporting our teams. A staff member with the appropriate skills and attributes was identified and confirmed as eligible for training through the local NHS PNA team. Following a successful application, they completed the 10-week Masters Level 7 programme at University

Methods

To understand organisational awareness and need, an anonymous eight-question survey was distributed to all staff. A total of 114 responses were received (15.4% response rate), 88% from clinical staff.

Results

Awareness of the PNA role was 40%, and only 25% were familiar with Restorative Clinical Supervision. Notably, 85% of respondents reported a need to improve their wellbeing, and 57% expressed interest in discussing personal or professional development, with a further 39% indicating “maybe.”

Conclusion/Application to practice

These findings highlight a clear need to raise awareness of the PNA role and the benefits of restorative clinical supervision. Staff expressed a strong desire for wellbeing support and openness to development conversations. To address this, we will utilise virtual education sessions, feature the PNA role in our national newsletter, and include the PNA in team meetings. Further evaluation will include repeating the survey in 6–12 months, reviewing annual staff survey results, monitoring participation in supervision sessions, and exploring training additional PNAs.

References

None

Abstract Country

England, UK

Disclosure of Interest

Yes

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Implementation and outcomes of a Senior Nephrology Nurse accreditation programme in a renal Foundation

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Background

Haemodialysis care has evolved significantly over the last decade, with increasing patient complexity, ageing populations, multimorbidity, and greater technological demands within renal units. These factors require nephrology nurses with advanced clinical expertise who can ensure patient safety, recognise early signs of complications, support vascular access surveillance, and maintain high-quality standards in daily practice, often with a high degree of professional autonomy.

Evidence indicates that greater nursing experience in haemodialysis settings is associated with improved clinical indicators and enhanced patient stability during treatment. Furthermore, structured nursing-led interventions—particularly in vascular access monitoring and timely escalation—have demonstrated reductions in adverse events, reinforcing the direct impact of expert nursing practice on patient outcomes. International nephrology nursing organisations increasingly emphasise certification and competency validation as mechanisms to standardise advanced practice, strengthen clinical leadership, and promote professional development within renal services.

Within the European context, where variability in role recognition and career pathways persists, structured accreditation programmes may contribute to harmonising advanced nephrology nursing competencies and supporting workforce sustainability. Formal recognition of senior expertise not only enhances professional motivation but also consolidates quality and safety culture across haemodialysis units.

To address these challenges, the Fundación Renal Española implemented a structured Senior Nephrology Nurse accreditation programme aimed at formally recognising expert practice, reinforcing leadership within haemodialysis units, and integrating advanced competencies into professional career development.

Objectives

To describe the design, implementation, dissemination and accreditation outcomes of a structured Senior Nephrology Nurse programme within the Fundación Renal Española between 2020 and 2025.

Additionally, to evaluate the perceived impact of the programme on clinical leadership, patient safety, quality of care, organisational efficiency, and strategic value within haemodialysis units through a structured survey of accredited Senior Nurses. Finally, to analyse levels of professional satisfaction, internal consistency of the evaluation instrument, and the extent to which the role has been consolidated and integrated into routine clinical practice, in order to assess its potential transferability to other renal replacement therapy settings.

Methods

The structured accreditation programme was developed, including defined eligibility criteria (formal nursing qualification, specialised haemodialysis training and minimum professional experience), and assessment of theoretical knowledge, practical competencies and professional capabilities. The programme was progressively disseminated across haemodialysis units of the Foundation. Accreditation data were collected retrospectively for the period 2020–2025, including the number of nurses assessed and accredited.

Additionally, a structured survey was conducted among accredited Senior Nurses to evaluate perceptions of the programme's implementation and impact. Participation was voluntary. The survey was distributed by email to all nurses accredited as Senior through an ad hoc questionnaire designed specifically for this study using Google Forms.

Quantitative variables were described as mean $\pm$ standard deviation (SD), as well as median and range (minimum–maximum). Qualitative variables were expressed as absolute frequencies and percentages. Dimension scores were calculated as the mean of corresponding Likert-scale items (1–5) and subsequently transformed into percentages to facilitate interpretation. Overall satisfaction was obtained by summing all questionnaire items and converting the total score into a percentage scale. Internal consistency of the instrument was assessed using Cronbach's alpha coefficient, with values ≥ 0.70 considered indicative of acceptable reliability. Statistical analysis was performed using R Commander software (version 4.4.2).

Results

Between 2020 and 2025, 99 nurses achieved Senior Nurse accreditation. As of 2 January 2026, 79 of 180 active nurses (43.9%) within the Foundation hold a valid accreditation, representing a substantial proportion of the current workforce and confirming sustained programme uptake.

A total of 44 nursing professionals participated in the survey. Mean age was 40.4 ± 7.6 years, and 36 (92.3%) were women. Participants had a mean professional experience of 15.9 ± 7.4 years as nurses, including 10.8 ± 8.6 years within the Foundation. The mean duration performing the Senior Nurse role was 3.6 ± 2.5 years. The questionnaire demonstrated excellent internal consistency (Cronbach's $\alpha = 0.92$).

Overall satisfaction with the Senior Nurse role was high ($82.9 \pm 12.3\%$). All evaluated dimensions achieved mean scores above 80%. The highest-rated dimension was strategic value of the programme ($87.1 \pm 12.0\%$), followed by organisation and efficiency ($83.5 \pm 14.7\%$), leadership and clinical role ($83.0 \pm 14.9\%$), patient safety ($82.9 \pm 14.3\%$), and quality of care ($81.8 \pm 14.8\%$).

Variability was moderate across dimensions.

Categorical analysis showed that over 80% of respondents rated positively (scores 4–5) items related to clinical decision-making, management of complex incidents, reinforcement of nursing leadership, early detection of complications, vascular access safety, adherence to protocols, and facilitation of staff training. Notably, 93.1% considered that the role should be consolidated as a stable position, and 91% perceived it as transferable to other units. Perceived team recognition and supervisory support were also high, supporting organisational integration of the role.

Conclusion/Application to practice

The Senior Nephrology Nurse accreditation programme demonstrated sustained implementation and strong organisational consolidation over a five-year period. Nearly half of the active nursing workforce currently holds accreditation, indicating progressive integration of the role into routine haemodialysis practice. Survey findings confirm high levels of professional satisfaction and excellent internal consistency of the evaluation instrument, supporting the robustness of the results.

All evaluated dimensions scored above 80%, with particularly strong ratings for strategic value, leadership, patient safety, and organisational efficiency. The high proportion of positive responses regarding clinical decision-making, early detection of complications, vascular access safety, and adherence to protocols suggests that the role contributes meaningfully to strengthening quality standards in haemodialysis units. Perceived consolidation as a stable role and transferability to other units further highlight its structural value within renal services.

From a practice perspective, formal accreditation of expert nephrology nurses appears to reinforce clinical leadership, reduce variability in care delivery, and promote a culture of safety. The structured recognition of advanced competencies may also enhance professional motivation, support career progression, and contribute to workforce retention in a highly specialised field. In the European context, where variability persists in role recognition and advanced practice pathways, this programme provides a structured and transferable model. Establishing clear competency frameworks, objective assessment processes, and formal validation mechanisms may facilitate harmonisation of advanced nephrology nursing roles and strengthen sustainability of haemodialysis services across renal replacement therapy settings.

References

1. Nozu H, Tamura H, Kudo T, Araki T, Sato H, Watanabe T, et al. The role of advanced practice nurses in improving healthcare outcomes for patients with chronic kidney disease: a scoping review protocol. *PLoS One*. 2024;19(4):e0301676.
2. Jeong EE, Kim M, Lee S, Park HJ, et al. Impact on health outcomes of hemodialysis patients based on the experience level of registered nurses in the hemodialysis department: a cross-sectional analysis. *Front Health Serv*. 2023;3:1154989.
3. Forcey D, Tran D, Connor J, Na Ayudhya PK, Ocampo C, Nelson C, Crikis S. Improving assessment and escalation of threatened haemodialysis access: results of a nursing-led program. *BMC Nephrol*. 2023;24:268.
4. American Nephrology Nurses Association. Certification in Nephrology Nursing Position Statement. ANNA; 2024. (Posición oficial que define certificación y competencias de enfermería nefrológica como proceso de reconocimiento formal).
5. Hsu JC, Chung FF, Lee TY, Wang PY, Lin MH. Exploring the care experiences of hemodialysis nurses: from the cultural sensitivity approach. *BMC Nurs*. 2024;23:17.

Abstract Country

Spain

Disclosure of Interest

No

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Co-creation of postgraduate nephrology nursing education across Nordic countries

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Background

Background: Kidney disease is increasingly recognised as a global health challenge, placing growing demands on specialised nephrology nursing care. At the same time, nephrology nurses across Nordic countries have highlighted limited access to postgraduate educational opportunities within the specialty. In response, a Nordic collaborative initiative has been established to co-create a postgraduate education program in nephrology nursing. Cross-border collaboration is considered essential to ensure quality, sustainability, and shared competency standards across Nordic healthcare systems, particularly given that many nurses work across Nordic borders

Objectives

To present early experiences from an ongoing Nordic initiative aimed to co-create joint postgraduate education in nephrology nursing and establishing a sustainable cross-border academic network.

Methods

The project is conducted through collaboration between VID Specialized University in Norway, Aarhus University in Denmark, and University of Gothenburg in Sweden. The development process is guided by co-creation methodology, involving clinicians, educators, researchers, leaders, and prospective students. Workshops and digital are meetings designed to promote mutual engagement, shared decision-making, and collective competence development across national contexts.

Results

Initial workshops and digital meetings have identified complementary specialist expertise across countries, enabling exchange of teachers and shared competence development. Dialogue regarding national regulations and educational frameworks has been identified as essential to ensure relevance, accreditation, and recognition across countries. Digital teaching solutions appear feasible and resource-efficient but may challenge student engagement. Pedagogical approaches grounded in social learning principles are therefore being explored to strengthen interaction, motivation, and the development of a dynamic cross-national learning community.

Conclusion/Application to practice

Early experiences indicate that co-creation across Nordic countries can strengthen the quality and harmonization of postgraduate education in specialized nursing fields. Establishing a shared educational framework may support workforce development and enhance nephrology nursing competence across the region. Funding has been sought to support continued development towards a joint Nordic postgraduate program in nephrology nursing.

References

1. GBD 2023 Chronic Kidney Disease Collaborators. Global, regional, and national burden of chronic kidney disease in adults, 1990-2023, and its attributable risk factors: a systematic analysis for the Global Burden of Disease Study 2023. *Lancet*. 2025 Nov 22;406(10518):2461-2482. doi: 10.1016/S0140-6736(25)01853-7. Epub 2025 Nov 7. PMID: 41213283.
2. Bandura, A. (1977). *Social learning theory*. Prentice-Hall

Abstract Country Norway

Disclosure of Interest No

265

Development of an Accreditation Framework for Renal Dietetics Training

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Background

Accreditation of healthcare training programmes is widely recognised as a marker of quality and a mechanism for improving patient outcomes. It supports consistent educational standards, ensures curricula evolve with population needs, and promotes effective learning environments. Although renal dietetic courses exist within some accredited professional associations, access is often limited to specific countries. Where no local accredited programme is available, travelling abroad for training may be impractical or financially prohibitive. Many countries possess the expertise to deliver high-quality renal dietetic education but seek recognised external accreditation to demonstrate rigour and credibility.

In renal dietetics, locally delivered training is particularly important because dietary patterns, food availability, and cultural practices vary significantly across regions. Local programmes allow dietitians to develop skills tailored to the needs of their population. An accreditation system capable of evaluating courses internationally therefore becomes essential. Accrediting an institution's own course also strengthens confidence within renal dietetic teams by recognising the quality of their teaching rather than relying solely on external providers.

Objectives

A professional renal healthcare association with more than two decades of experience accrediting renal nursing courses has developed a comprehensive nursing curriculum, now in its third edition. Building on this established work, demand emerged for a renal dietetics accreditation pathway. This was initially prompted by a dialysis provider in the Middle East whose accredited renal nursing programme led them to seek equivalent recognition for their renal dietetic course.

Methods

The renal dietetics accreditation framework was developed by adapting the established nursing model, which has supported multiple successful accreditations. A renal dietitian led the design to ensure alignment with dietetic competencies, scope of practice, and educational requirements.

Results

The first accreditation using this new framework is currently in progress and is expected to be completed by July 2026.

Conclusion/Application to practice

This work highlights a clear need for accreditation in renal dietetics. Accreditation supports high-quality, locally relevant training, strengthens national teaching capacity, and enhances confidence in renal dietetic education.

References

Frank, J.R., Taber, S., van Zanten, M. *et al.* The role of accreditation in 21st century health professions education: report of an International Consensus Group. *BMC Med Educ* **20** (Suppl 1), 305 (2020). <https://doi.org/10.1186/s12909-020-02121-5>
Sedgewick J, McCann M, Thomas N, editors. The European Core Curriculum for a Post-Basic Course in Nephrology Nursing. 3rd ed. Prague: EDTNA/ERCA; 2022.

Abstract Country

United Kingdom

Disclosure of Interest

Yes

83

Psychological distress and associated factors among patients during the transition to maintenance haemodialysis

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Background

Chronic kidney disease affects approximately 10% [1] of the global population. Haemodialysis initiation is a psychologically vulnerable transition linked to adverse outcomes.

Objectives

To estimate the prevalence and severity of psychological distress during early haemodialysis, and associated factors.

Methods

This cross-sectional study recruited patients (≥ 18 years) receiving maintenance haemodialysis (≤ 6 months) across all public and private centres in Tripoli, Libya. Consecutive sampling excluded those with acute dialysis, psychiatric/neurological disorders, or life-threatening comorbidities. Psychological distress was assessed via the Depression, Anxiety, and Stress Scale–21 (DASS-21). Sociodemographic and clinical data were collected through structured interviews. Analyses included Spearman's rank correlation, Mann–Whitney U, and Kruskal–Wallis tests.

Results

Sample description: Participants ($N=150$) were predominantly male 57.3% ($n=86$) with a median age of 48.5 (IQR 38–64) years. Educational attainment included university 42% ($n=63$) and secondary 31.3% ($n=47$) levels. Primary occupational statuses were office workers, 42.7% ($n=64$), and unemployed, 37.3% ($n=56$).

Prevalence and severity: Abnormal scores were prevalent for anxiety, 61.3% ($n=92$), depression, 53.3% ($n=80$), and stress, 49.3% ($n=74$). Within these, extremely severe anxiety predominated, affecting 28% ($n=42$) of the cohort.

Associated factors: Age correlated inversely with depression ($r_s = -0.17$, $p=0.036$) and stress ($r_s = -0.20$, $p=0.014$). Occupation was significantly associated with anxiety and stress scores, with office workers scoring highest ($p<0.05$). Non-hypertensive patients exhibited significantly higher median depression (14 vs 8, $p=0.030$) and stress scores (18 vs 13, $p=0.019$) compared to hypertensive patients.

Conclusion/Application to practice

Psychological distress is highly prevalent during the early haemodialysis transition period, necessitating routine mental health screening and early psychosocial interventions. Further longitudinal studies are needed to clarify determinants, temporal relationships, and trajectories [2], particularly among hypertensive versus non-hypertensive incident dialysis patients, and inform targeted, evidence-based interventions.

References

Psychological distress is highly prevalent during the early haemodialysis transition period, necessitating routine mental health screening and early psychosocial interventions. Further longitudinal studies are needed to clarify determinants, temporal relationships, and trajectories [2], particularly among hypertensive versus non-hypertensive incident dialysis patients, and inform targeted, evidence-based interventions.

Abstract Country

Libya

Disclosure of Interest

Yes

133

IMPACT OF LAUGHTER YOGA ON HAPPINESS AND MENTAL WELL-BEING IN PATIENTS ON HAEMODIALYSIS

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Background

Haemodialysis is a long-term treatment that can have adverse effects on patients' psychological well-being. Laughter yoga is a low-cost intervention combining voluntary laughter with breathing techniques and has demonstrated positive psychological effects.

Objectives

This study aimed to evaluate the effect of laughter yoga on happiness and mental well-being in patients on haemodialysis.

Methods

This cluster randomized controlled study with a pretest–posttest design was conducted in a private haemodialysis center in Türkiye between April 1 and May 31, 2025. A total of 79 patients completed the study (intervention group: n=42; control group: n=37). The intervention group participated in structured laughter yoga sessions for eight weeks alongside routine haemodialysis care, while the control group received standard care only. Happiness and mental well-being were assessed at baseline (week 0), week 4, and week 8 using the Oxford Happiness Questionnaire (OHQ) and the Warwick–Edinburgh Mental Well-Being Scale (WEMWBS).

Results

Baseline OHQ and WEMWBS scores showed no significant differences between the intervention and control groups. The intervention group demonstrated a statistically significant increase in both happiness and mental well-being scores at weeks 4 and 8 compared with the control group ($p<0.001$). Significant group $\times$ time interaction effects were observed for both OHQ and WEMWBS scores ($p<0.001$), indicating that the positive effects of laughter yoga increased and were sustained throughout the intervention period.

Conclusion/Application to practice

Laughter yoga significantly improved happiness and mental well-being in patients undergoing haemodialysis. As a feasible, safe, and cost-effective intervention, laughter yoga can be integrated into routine haemodialysis nursing practice to promote psychological well-being and support holistic patient care.

References

1. Bennett PN, Parsons T, Ben-Moshe R, Neal M, Weinberg MK, Gilbert K, Ockerby C, Rawson H, Herbu C, Hutchinson AM. (2015). Intradialytic Laughter Yoga therapy for haemodialysis patients: a pre-post intervention feasibility study. *BMCComplement Altern Med*. 9;15:176. doi: 10.1186/s12906-015-0705-5.
2. Bennett P.N., Weinberg M.K., Bridgman T., Cummins R.A. (2015). The happiness and subjective well-being of people on haemodialysis. *Journal of Renal Care* 41(3),156–161.
3. Fard Tabatabaei M, Raghbi M. (2017). Effect of happiness training in depression, anxiety, and quality of life among hemodialysis patients. *J Research & Health*, 7(4):935 - 943.
4. Nia, M. N., Mohajer, S., Ghahramanzadeh, M., & Mazlom, S. R. (2019). Effect of Laughter Yoga on Mental Well-Being of Cancer Patients Undergoing Chemotherapy. *Journal of Evidence-based Care*, 9(3).
5. Özer Z, Ateş S. (2021). Effects of laughter yoga on hemodialysis patients' plasma beta endorphin levels, pain levels and sleep quality: A randomized controlled trial. *Complement Ther Clin Pract*;43:101382. doi: 10.1016/j.ctcp.2021.101382.

Abstract Country Türkiye

Disclosure of Interest No

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Brief Online Compassion-Focused Therapy for Patients with Kidney Failure: A Pilot Trial

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Background

Kidney failure (KF) significantly impairs patients' physical, social, and psychological well-being [1]. These patients often experience high levels of depression and anxiety that are associated with reduced quality of life and survival [2]. Compassion-focused therapy (CFT) can enhance the soothing–affiliative emotional system, showing promising benefits in reducing psychological distress in people with chronic illnesses [3,4]; yet evidence for its use in KF remains limited.

Objectives

This pilot randomised controlled trial aims to examine the acceptability and feasibility of a brief online CFT programme, consisting psychoeducation and compassionate practice, for patients with KF and its preliminary effects on their self-compassion, depression, and anxiety, when compared with an attention control group.

Methods

A two-arm controlled trial with pretest-posttest design conveniently recruited adults on dialysis from two regional hospitals in Hong Kong. After informed consent and baseline assessment, 50 participants were randomly allocated to a three-session online CFT (intervention) or weekly health consultations (attention control). Recruitment, completion, and adherence rates were used to assess acceptability and feasibility. Outcomes were assessed using the Self-Compassion Scale (self-compassion), Patient Health Questionnaire-9 (depression), and Generalized Anxiety Disorder-7 (anxiety) at baseline and one week post-intervention. Preliminary effects were estimated using Cohen's *d*.

Results

Data from 43 participants included in the final analysis. The recruitment, completion, and adherence rates were 80.6%, 88.0%, and 96.2%, respectively. Compared with controls, the CFT group demonstrated moderate and presumably clinically meaningful effect sizes on self-compassion (*d* = 0.56) and depressive symptoms (*d* = 0.48). Participants receiving CFT accepted the programme's duration and format.

Conclusion/Application to practice

These findings suggest that brief online CFT is feasible and acceptable for patients with KF. It may improve self-compassion and depressive symptoms post-intervention but a larger trial with longer follow-up is warranted to confirm its effectiveness.

References

- [1] Ng MS, Wong CL, Ho EH, Hui YH, Miaskowski C, So WK. Burden of living with multiple concurrent symptoms in patients with end-stage renal disease. *J Clin Nurs*. 2020;29(13-14):2589-601.
- [2] Ng MS, Miaskowski C, Cooper B, Hui YH, Ho EH, Mo SK, Wong SS, Wong CL, So WK. Distinct symptom experience among subgroups of patients with ESRD receiving maintenance dialysis. *J Pain Symptom Manage*. 2020;60(1):70-9.
- [3] Mistretta EG, Davis MC. Meta-analysis of self-compassion interventions for pain and psychological symptoms among adults with chronic illness. *Mindfulness*. 2022;13(2):267-84.
- [4] Ng MS, Li C, Chan ZK, Steindl SR. Compassion-facilitating interventions among patients with life-limiting chronic illnesses: A scoping review. *Mindfulness*. 2024;15(9):2173-206.

Abstract Country

Hong Kong, China

Disclosure of Interest

No

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Does nature play a role in psychological well-being of people with chronic kidney disease?

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Background

Long-term conditions, like chronic kidney disease (CKD), are often associated with unhelpful illness perceptions and psychological distress, contributing to poorer psychosocial outcomes and increased mortality. While interaction with the natural environment is known to support health and well-being, evidence for these benefits in CKD is limited. This study explored associations between nature interaction and psychological well-being in people with CKD.

Methods

People with CKD from nine UK NHS sites completed an online survey including the 12-item Short Form Health Survey (SF-12), Depression, Anxiety and Stress Scale (DASS-21), and bespoke items assessing access to and engagement with nature, generating a total “nature” score. Optional free-text responses captured additional insights. Data were analysed using frequency analysis, multiple linear regression (adjusted for age and sex), logistic regression, and reflexive thematic analysis, as appropriate.

Results

319 participants completed the survey (non-dialysis n=188; transplant n=70; dialysis n=61). Access to or time spent in green and blue spaces did not differ across CKD stages. Most participants lived in suburban (46%) or rural (43%) areas; 93% had access to a garden. Eighty-six percent lived within a 10-minute walk of a natural space. In summer, 45% spent over an hour outdoors on most days, compared with 19% in winter.

Greater nature exposure was significantly associated with lower depression ($P<0.001$), anxiety ($P=0.002$), and stress ($P=0.029$), and with higher mental health-related QoL ($P<0.001$). Individuals with higher nature exposure were less likely to report stress (OR 11.118, $P=0.002$) or depression (OR 4.109, $P<0.001$). Qualitative themes highlighted factors shaping nature engagement and the psychological benefits of time outdoors.

Conclusions

Greater interaction with nature is modestly associated with improved psychological well-being and mental QoL in people with CKD. These findings may help healthcare professionals encourage nature-based activities and inform the development of nature-based interventions to enhance life participation.

References

Taylor EM, Robertson N, Ford EC, Sohansoha GK, Billany RE, Smith AC, Lightfoot CJ. Association of psychological wellbeing and exposure to natural environment in people living with chronic kidney disease: a mixed-methods exploration. *Journal of Nephrology* 2025.

Abstract Country

United Kingdom

Disclosure of Interest

No

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Navigating chronic kidney disease and severe mental illness across the illness trajectory: study protocol

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Background

People with severe mental illness (SMI; conditions like schizophrenia and bipolar disorder) die on average 15-20 years earlier than people without SMI. This 'mortality gap' is largely due to people with SMI having higher rates of long-term physical health problems, including chronic kidney disease (CKD), and poorer clinical outcomes. Little is known about how people manage co-existing CKD and SMI in their daily lives or how they navigate care services across the illness trajectory.¹ Further research is needed to inform improvements in care.

Objectives

To develop understanding of how individuals navigate and negotiate the management of co-existing severe mental illness and chronic kidney disease across the illness trajectory.

Methods

A grounded theory-informed approach will be used to generate explanatory understanding which is grounded in the data.² Qualitative interviews and focus groups will be conducted with consenting participants with SMI and CKD (10-15) their family caregivers (8-10) and care staff (10-15). Participants will be recruited from primary care, mental health and renal services in the UK.

Grounded theory methods will be used including concurrent data generation and analysis, theoretical sampling and constant comparison during the process of coding, categorization and development of findings.

Results

N/A

Conclusion/Application to practice

This research will provide new understanding of the impact of co-existing CKD and SMI on people's daily lives, how they manage these conditions and navigate care throughout their illness trajectory. It will offer valuable insights into how care services could better meet their needs. The findings will be used in key stakeholder workshops to develop recommendations and priorities for policy, practice and future research to improve care for people with co-existing SMI and CKD.

References

Carswell C., et al. (2023) Chronic kidney disease and severe mental illness: a scoping review. *Journal of Nephrology*, 36, pp.1519-1547
Birks M. and Mills J. (2015) *Grounded Theory: A Practical Guide*. 2nd edition. London: Sage.

Abstract Country

United Kingdom

Disclosure of Interest

No

E-POSTERS WITH ORAL PRESENTATION

5

Driving excellence in Greek dialysis care settings: Clinical audit insights and priority improvement areas

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Background

High-quality haemodialysis care requires strict adherence to clinical standards, infection prevention protocols, and regulatory frameworks. Greek dialysis units operate within a demanding clinical environment, caring for patients with high comorbidity burden, complex vascular access needs, and increased infectious risk. As part of the integration of six dialysis units into a multinational renal care provider, a structured and standardized clinical audit program was introduced to align local practice with international clinical governance frameworks and enable objective benchmarking.

Objectives

This analysis aimed to identify key improvement areas across our dialysis units by evaluating section score averages derived from clinical audit data, facilitating focused quality planning, corrective actions, and continuous improvement.

Methods

A retrospective descriptive analysis was conducted using data from six unannounced clinical audits performed in 2025. Audits employed a standardized dialysis-specific tool assessing clinical care, infection prevention, treatment safety, staff practice, and regulatory compliance. Section scores were calculated to determine domains with the greatest need for improvement.

Results

Several critical priority areas were identified. The lowest-scoring domain was uniform compliance, with a mean score of 38.3, followed by quality and regulatory compliance at 54.5. Infection prevention and safety domains were also suboptimal, including management of carbapenem-resistant organisms and carbapenemase-producing enterobacterales (60.4) and viral hepatitis management (61.1). Treatment-related gaps were noted in hemodialysis blood flow optimization (62.5) and hand-hygiene compliance (64.6). These findings highlight deficits not only in infection control but also in governance, professional conduct, and technical dialysis delivery.

Conclusion/Application to practice

Despite the limited sample, the audits provided actionable insight into clinical performance. Uniform compliance and regulatory governance emerged as the most urgent priorities, followed by multidrug-resistant organism control, viral hepatitis management, hemodialysis delivery, and hand hygiene. Integrating these findings into targeted action plans, focused mini-audits, and structured re-audits for domains scoring below 80% enables sustainable risk reduction, strengthens regulatory compliance, and reinforces a patient safety.

References

- Esposito, P & Dal Canton, A 2014, Clinical audit, a valuable tool to improve quality of care: general methodology and applications in nephrology, *World Journal of Nephrology*, vol. 3, no. 4, pp. 249–255.
- Scheithauer, S, Eitner, F, Mankartz, J, Haefner, H, Nowicki, K, Floege, J & Lemmen, S W 2011, Improving hand hygiene compliance rates in the haemodialysis setting: more than just more hand rubs, *Nephrology Dialysis Transplantation*, vol. 27, no. 2, pp. 766–770.
- Drozd, M et al. 2021, Improvements in six aspects of quality of care of incident hemodialysis patients – a real-world experience, *BMC Nephrology*, vol. 22, art. 333.

Abstract Country

Greece

Disclosure of Interest

No

9

Job satisfaction and professional quality of life among nephrology nurses: an italian multicenter study

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Background

Nephrology nurses face high emotional and clinical demands, with job dissatisfaction and burnout impacting care quality and patient safety. In Italy, a persistent nursing shortage (60,000 - 100,000 professionals) and comparatively low salaries pose significant challenges to job satisfaction and workforce retention.

Objectives

This study aimed to assess job satisfaction and psychological well-being among nurses working in clinical nephrology settings in Italy.

Methods

A multicenter cross-sectional study was conducted between November 2024 and May 2025 among 359 nephrology nurses (82.7% women; mean age 47.7 years), mainly working in hemodialysis units (81.9%) and with more than 10 years of professional experience (46.5%). Data were collected via an online questionnaire (Microsoft Forms) including sociodemographic variables, the Index of Work Satisfaction (IWS), and the Professional Quality of Life Scale (ProQOL).

Results

Nephrology nurses reported moderate compassion satisfaction (96%) and low-to-moderate burnout (42% and 58%, respectively). Regression analyses showed that higher professional status ($\beta = 0.525$, $p < .001$) and autonomy ($\beta = 0.330$, $p < .001$) positively predicted well-being, while older age ($\beta = -0.167$, $p = .047$) and poorer nurse-physician relationships ($\beta = -0.220$, $p = .037$) were associated with lower well-being.

Conclusion/Application to practice

Autonomy, professional recognition, and interprofessional collaboration appear to be key protective factors for nurses' well-being in nephrology. Organizational strategies that strengthen autonomy and nurse-physician collaboration may help reduce burnout and support safe, patient-centered care.

References

1. OECD, European Union. Health at a Glance: Europe 2022. State of Health in the EU Cycle. Paris: OECD Publishing; 2022. doi:10.1787/507433b0-en.
2. Federazione Nazionale Ordini Professioni Infermieristiche (FNOPI). Carenza infermieristica al 23 agosto 2022 [Internet]. Roma: FNOPI; 2022 [cited 2024 May 21]. Available from: <https://www.fnopi.it/aree-tematiche/carenza-infermieristica-al-23-agosto-2022/>
3. Cortese G. La soddisfazione lavorativa del personale infermieristico. Adattamento italiano della scala Index of Work Satisfaction di Stamps. Med Lav. 2007;98(3):175–191.
4. Palestini L, Prati G, Pietrantonio L, Cicognani E. La qualità della vita professionale nel lavoro di soccorso: Un contributo alla validazione italiana della Professional Quality of Life Scale (ProQOL). Psicoter Cogn Comport. 2009;15:205–227.

Abstract Country Italy

Disclosure of Interest No

11 Distribution of ABO&RH Blood Groups Among Hemodialysis Patients In Libya

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Background

Blood group systems, particularly ABO and Rh, play an important role in transfusion medicine and have been linked to susceptibility to several chronic diseases, including renal disorders. However, data regarding the distribution of blood groups among hemodialysis patients in Libya remain limited.

Objectives

This study aimed to assess the distribution of ABO and Rh blood groups among hemodialysis patients in Libya and to explore their possible association with chronic kidney failure–related characteristics.

Methods

A multicenter cross-sectional study was conducted between October and December 2025 in five dialysis centers across Libya. A total of 204 patients undergoing hemodialysis (116 males and 88 females), aged 20–80 years, were included. Data were collected using a structured electronic questionnaire covering demographic characteristics, comorbidities, family history of renal disease, and ABO/Rh blood groups. Descriptive statistical analysis was performed using SPSS version 26.

Results

The study population consisted of 57% males and 43% females. Blood group O positive was the most prevalent among hemodialysis patients. Hypertension was the most common comorbidity, followed by chronic inflammation and genetic factors. Thrombotic complications and vascular access obstruction were observed in a proportion of patients, with higher frequencies noted among O positive and A positive blood groups. Kidney transplant rejection was reported mainly among patients with A positive and O positive blood types. Additionally, 34% of patients had a positive family history of renal failure.

Conclusion/Application to practice

Blood group O positive was the most common among hemodialysis patients in Libya. The findings suggest a possible association between certain blood groups and chronic kidney disease–related characteristics; however, causality cannot be established. Further large-scale studies with control groups are recommended.

References

- 1-Alalawi et al.
Alalawi F, Almansoori A, Alhammadi S. Association between ABO blood groups and chronic kidney disease among dialysis patients in Dubai. *Saudi J Kidney Dis Transpl.* 2022;33(4):987-994.
- 2-Wang et al.
Wang Z, Liu Y, Han Y, et al. Association between ABO blood group and progression of IgA nephropathy. *Oncotarget.* 2017;8(42):72044-72052. doi:10.18632/oncotarget.19075
- 3-Khalil et al.
Khalil A, Elsheikh A, Hassan M. Distribution of ABO blood groups and their association with nephrotic syndrome. *J Nephrol Ren Dis.* 2021;5(2):112-118.
- 4-Edgren et al.
Edgren G, Hjalgrim H, Rostgaard K, et al. Risk of disease in relation to ABO blood group: a cohort study of 5 million individuals. *PLoS One.* 2010;5(12):e15023.
- 5-Titze et al.
Titze S, Schmid M, Köttgen A, et al. Disease progression and risk factors in chronic kidney disease: results from the German Chronic Kidney Disease (GCKD) study. *Nephrol Dial Transplant.* 2019;34(4):597-607.

Abstract Country Libya

Disclosure of Interest No

14

Listening to the patients' voice: Measuring the patient experience in a Greek dialysis network

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Background

Patient experience is a critical quality indicator in dialysis care, influencing adherence, outcomes, and overall satisfaction. Continuous monitoring of patient-reported experience measures (PREMs) enables healthcare providers to identify areas for improvement and enhance person-centered care.

Objectives

To evaluate patient perceptions of care in dialysis clinics across Greece for the year 2025, focusing on key domains such as accessibility, communication, support, and clinical processes.

Methods

A standardized patient experience survey was administered across dialysis units in Greece. Responses were scored on a scale from 1 to 7 across 12 domains: accessibility, support, communication, information, fluid intake and diet, pain related to needling, tests and investigations, shared decision-making, privacy and dignity, scheduling and planning, transport, and environment. In total, 405 patients participated, achieving a 98.3% response rate, ensuring robust representation of the population.

Results

In 2025, patient experience outcomes were positive, with the vast majority of domains achieving scores above 6. The highest-rated domain was privacy and dignity (6.64), followed closely by information provision (6.62) and accessibility (6.58). High scores were also reported for tests and investigations and scheduling and planning of appointments (both with 6.57), reflecting a strong clinical governance.

Further higher score domains were reported in shared decision-making (6.52) and fluid intake and dietary guidance (6.52), followed by communication (6.49) and the environment (6.40), indicating patient satisfaction. Support from staff (6.29) also received an encouraging score.

The lowest-rated domains were transport services (6.04) and pain related to needling (5.58). While these areas represent opportunities for focused improvement, the overall results demonstrate a robust and positive patient experience.

Conclusion/Application to practice

Patient experience in our dialysis clinics was positive, particularly in environmental quality and appointment management. However, pain management and clarity around tests feedback require targeted interventions. Strategies such as enhanced staff training, improved patient education, and pain-reduction protocols could further optimize care quality and patient satisfaction.

References

1. Busby, A., Mackintosh, L., Flanagan, R-L., Wellsted, D. and Wild, H. (2024) *Patient Reported Experience of Kidney Care in the UK 2023: National Kidney PREM Report*. London: UK Kidney Association and Kidney Care UK.
2. Lowry, V., Tremblay-Vaillancourt, V., Beaupré, P., Pelletier, J. and Ahmed, S. (2024) 'How patient-reported outcome and experience measures (PROMs and PREMs) are implemented in healthcare organisations: an environmental scan', *Journal of Patient-Reported Outcomes*, 8(1), pp. 1–13. <https://doi.org/10.1186/s41687-024-00795-9>
3. Manuel, A., Caskey, F., Tomson, C., Warwick, G. and Wild, H. (2022) 'Measuring patients' experience with renal services in the UK: development and validation of the Kidney PREM', *Nephrology Dialysis Transplantation*, 37(8), pp. 1507–1515. <https://doi.org/10.1093/ndt/gfac067>
4. Rivara, M.B., Edwards, T., Patrick, D.L., Anderson, L., Himmelfarb, J. and Mehrotra, R. (2021) 'Assessment of patient experience of care in home dialysis: enhancing the patient voice', *Clinical Journal of the American Society of Nephrology*, 16(4), pp. 588–598. <https://doi.org/10.2215/CJN.15000920>
5. Wild, H.M. (2024) 'Patient-reported experience measures to evaluate and improve renal healthcare services: current evidence and future directions', *Seminars in Nephrology*, 44(2), pp. 151–160. <https://doi.org/10.1016/j.semnephrol.2024.02.006>

Abstract Country Greece

Disclosure of Interest No

15 “Let’s Travel Together”: A Structured Intervention Promoting Autonomy, Confidence, and Well-Being in Hemodialysis Patients

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Background

Chronic kidney disease (CKD) patients undergoing hemodialysis face substantial restrictions in mobility, social participation, and access to leisure, resulting in a significant negative impact on overall well-being for both patients and caregivers. Concerns related to treatment continuity outside the home unit, perceived clinical risk, and the absence of prior travel experiences constitute major barriers to vacationing. Within this context, innovative psychosocial interventions that integrate clinical safety, social support, and meaningful life experiences are essential. The “*Let’s Travel Together*” program was designed as a structured response to these needs, aligned with a person-centered care approach and embedded within a culture of *True Care*.

Objectives

The present study aims to promote safe mobility and the experience of vacationing among hemodialysis patients through a structured psychosocial and educational intervention. Specifically, it seeks to enhance patients’ and caregivers’ confidence in traveling safely, foster autonomy and independence, reduce social isolation by encouraging social participation, and explore the contribution of continuous interdisciplinary support—particularly nursing presence—to perceived safety during mobility experiences.

Methods

The program consists of a one-week group vacation during which participants continue their hemodialysis treatment at a Diaverum clinic located near the accommodation site, ensuring uninterrupted therapy in a safe and trusted environment. Throughout the entire stay, participants benefit from the continuous presence of a dedicated nurse, providing ongoing clinical support, immediate response to emerging needs, and reinforcing patients’ and caregivers’ perceptions of safety and confidence. Beyond its clinical dimension, the program incorporates educational, experiential, and social responsibility components, enabling participants to experience, in practice, the feasibility of traveling safely. The first edition took place in Amarante in May 2023. Due to its positive impact, the program expanded, reaching its fourth edition in 2025.

Results

The program demonstrates high adherence and sustained engagement. A 100% recurrence rate was observed, with all participants from the first edition enrolling again in the second and third editions. Participation increased progressively across editions (15 participants in the first, 17 in the second, and 20 in the third), reflecting growing trust in the initiative. Satisfaction assessments indicate highly positive perceptions regarding organizational quality, clinical and social support, the continuous nursing presence, and the overall sense of safety during treatment and daily activities. Notably, none of the participants had traveled prior to joining the program; following participation, all reported initiating travel experiences, either in group settings or independently. Caregivers also reported significant gains in reassurance, confidence, and reduced anxiety associated with travel.

Conclusion/Application to practice

“*Let’s Travel Together*” represents an innovative, safe, and replicable psychosocial intervention in the hemodialysis context, with a direct impact on autonomy, social participation, and well-being for patients and caregivers. The integration of continuous nursing support strengthens clinical safety and underpins the confidence required for mobility. High satisfaction levels and the transferability of gains beyond the program underscore its preventive and empowering potential. For Social Work and interdisciplinary healthcare teams, this program exemplifies how integrated care can extend beyond treatment delivery, fostering meaningful life experiences and reinforcing holistic models of renal care.

References

1. Olim, M. F.; Guadalupe, S.; Mota, F.; Fragoso, P.; Ribeiro, S. Sociographic profile of hemodialysis patients in Portugal. *Journal of Nephrology Social Work*. v. 42, n. 1, p. 9-20, 2018.
Disponível em: https://www.kidney.org/sites/default/files/v42a_a1.pdf
2. Olim, M. F., Guadalupe, S., Zeferino, S., Marques, M., Neves, P., & Conceição, J. (2018). Necessidades e recursos sociais em doentes renais crônicos hemodialisados. *Serviço Social E Saúde*, 17(1), 31-64.
Disponível em: <https://periodicos.sbu.unicamp.br/ojs/index.php/sss/article/view/8655202/19330>
3. Knowledge and attitude of patients on dialysis towards Holiday haemodialysis facilities and red kidney bus: A cross-sectional questionnaire-based survey study in an Indian setup.

Abstract Country

Portugal

Disclosure of Interest

Yes

16

From Social Vulnerability to Preventive Action: A Social Complexity Matrix in Hemodialysis Care

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Background

Patients with chronic kidney disease (CKD) undergoing hemodialysis are exposed to prolonged and demanding treatment trajectories that frequently intersect with complex and cumulative social vulnerabilities. Dependence on life-sustaining therapy, functional limitations, economic strain, and territorial inequalities intensify social risk and directly influence treatment adherence and clinical outcomes. Within this context, Social Work plays a pivotal role in identifying, monitoring, and addressing social determinants of health. Nevertheless, the lack of standardized and validated assessment tools has historically constrained the systematic characterization of social complexity and limited its integration into interdisciplinary clinical decision-making. In response to this gap, a Social Complexity Matrix was developed in 2018 and subsequently validated and published in 2019, offering a multidimensional and evidence-based framework for assessing social risk and structuring social intervention in hemodialysis settings

Objectives

This study aims to describe the longitudinal application of the Social Complexity Matrix in hemodialysis settings and to analyze its contribution to systematic social risk monitoring, prioritization of social intervention, and preventive action. Specifically, it seeks to characterize levels of social complexity across regions and to explore changes in the identification of social risk over time.

Methods

The Social Complexity Matrix operationalizes social assessment by classifying patients into three levels—low, medium, and high social complexity—based on integrated social, family, economic, and access-to-resources indicators specifically tailored to the hemodialysis context. The matrix was systematically applied in 2024 and 2025 across hemodialysis clinics located in the South, Center, and North of Portugal. Medium- and high-complexity cases are formally defined as priorities for social follow-up, requiring intensified intervention, closer monitoring, and structured interdisciplinary articulation. The longitudinal application of the matrix enables continuous tracking of social risk trajectories and supports timely preventive action.

Results

In both years of analysis, the majority of patients were classified as presenting low social complexity (approximately 60–70%), indicating relatively stable social circumstances. Medium-complexity cases accounted for an estimated 25–35% of patients, while high-complexity situations consistently represented a smaller yet clinically and socially significant proportion, remaining below 5%. Comparative analysis between 2024 and 2025 reveals an increased identification of medium- and high-complexity cases across several clinics, suggesting enhanced professional sensitivity to emerging social risk and improved capacity for early detection. Notable regional variations were observed, reflecting underlying sociodemographic differences and territorial inequalities.

Conclusion/Application to practice

The Social Complexity Matrix emerges as a robust and strategic instrument for Social Work practice in hemodialysis. By strengthening systematic risk monitoring, it enables anticipatory and preventive social intervention, mitigating the escalation of vulnerability over time. The prioritization of medium- and high-complexity cases supports a more efficient and equitable allocation of professional resources and aligns intervention intensity with assessed need. Furthermore, the matrix enhances interdisciplinary collaboration by providing a shared analytical framework that integrates social assessment into clinical reasoning, reinforces the visibility of Social Work, and contributes to more comprehensive and integrated models of renal care.

References

1. Olim, M. F., Guadalupe, S., Zeferino, S., Marques, M., Neves, P., & Conceição, J. (2018). Necessidades e recursos sociais em doentes renais crônicos hemodialisados. *Serviço Social E Saúde*, 17(1), 31-64.
Disponível em: <https://periodicos.sbu.unicamp.br/ojs/index.php/sss/article/view/8655202/19330>
2. Olim, M.; Guadalupe, S.; Daniel. F.; Pimenta, J.; Carrasco, L.; Silva A. - *The Matrix of Complexity Associated With the Process of Social Intervention* - "Emerging Trends and Innovations in Privacy and Health Information Management"; IGI GLOBAL; pg 85-114

Abstract Country

Portugal

Disclosure of Interest

No

34

Multimodal exercise, anti-inflammatory and dietary intervention for kidney cachexia: mixed-methods feasibility cluster trial.

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Introduction:

Integrating exercise, anti-inflammatory agents and dietary advice is likely to be beneficial in treating cachexia, however, this has never been trialled in kidney cachexia.

Methods:

Objectives:

- Determine patient eligibility and recruitment rates;
- Identify intervention retention and adherence rates;
- Determine statistical and methodological considerations for optimal study design and data collection burden;
- Conduct a qualitative process evaluation to assess intervention acceptability and practicality;
- Assess the feasibility of conducting a definitive economic evaluation.

Design: Phase 1: deliver and evaluate a 12-week multimodal intervention using a feasibility cluster randomised controlled trial (cRCT) design. Phase 2: conduct a process evaluation with healthcare professionals (HCPs) and patients. Phase 3: assess the feasibility of conducting a definitive economic evaluation.

Participants:

Patients will be eligible if they are CKD Stage 5 in receipt of haemodialysis for >3 months, have oedema-free weight loss of at least 5% in 12 months or BMI less than 20 kg/m², aged >18 years. HCPs will be eligible if they have been a member of the multidisciplinary healthcare team for more than three months and have exposure to the study.

Randomisation:

Two sites have been randomly assigned to the intervention group and two to the control group.

Sample:

Phase 1 and 3: 10 research participants per intervention site; 10 research participants per control site; 40 in total across all sites (n=4). Phase 2: 15 patients for interviews and 15 HCPs for interviews or focus groups across all sites.

Results:

Trial registration number (NCT07107087), ethical approval is in place for study commencement (REC reference: 25/NI/0069). Recruitment will commence on 08.09.25.

Conclusion:

The results of this study will be used to determine the feasibility and acceptability of the MMIEAD intervention in preparation for a larger definitive UK wide multi-site cRCT.

References

1. Reid J, Blair C, Dempster M, McKeaveney C, Slee A, Fitzsimons D. Multimodal interventions for cachexia management. Cochrane Database Syst Rev. 2025;3(3):CD015749. DOI.10.1002/14651858.CD015749.pub2
2. Blair C, Slee A, Davenport A, Fouque D, Johnston W, Kalantar-Zadeh K, et al., editors. Developing an evidence and theory based multimodal integrative intervention for the management of renal cachexia: a theory of change. Healthcare; 2022: Multidisciplinary Digital Publishing Institute.
3. McKeaveney C, Slee A, Adamson G, Davenport A, Farrington K, Fouque D, et al. Using a generic definition of cachexia in patients with kidney disease receiving haemodialysis: a longitudinal (pilot) study. Nephrology Dialysis Transplantation. 2021;36(10):1919-26. DOI.10.1093/ndt/gfaa174

Abstract Country

United Kingdom

Disclosure of Interest

No

38

Nursing between high technology and psychological strain: the role of nursing management in dialysis

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Background

Dialysis care is characterized by highly technical treatment processes while simultaneously involving long-term, close relationships with chronically ill patients. Nurses carry daily responsibility for technical safety, continuous care, and emotional support. This combination results in persistent psychological strain that affects both staff well-being and the quality of care. In practice, this strain is often addressed at the individual level, while its structural and leadership-related dimensions receive far less attention.

Objectives

The aim of this contribution is to explore the role of nursing management in dialysis care and to demonstrate how care quality and psychological well-being can be actively shaped within the tension between high technology and relational nursing work.

Methods

The contribution is based on a reflective, practice-oriented analysis from the perspective of nursing management within a dialysis setting. Leadership tasks, organisational conditions, and typical stressors in day-to-day dialysis practice are systematically examined and contextualized.

Results

The analysis shows that sustainable care quality cannot be ensured through technical expertise alone. Leadership decisions significantly influence how relational nursing work and psychological strain are perceived and addressed in everyday practice. Through their attitudes, communication, and structural decisions, nursing managers shape whether emotional demands are understood as individual burdens or as an integral part of professional nursing. Conscious leadership promotes staff mental health, strengthens job satisfaction, and supports continuity of patient care.

Conclusion/Application to practice

Dialysis care encompasses far more than the technical execution of therapy; it also involves emotional and psychological dimensions. Nursing management plays a key role in responsibly navigating this field of tension. By deliberately shaping organisational conditions, holistic care quality can be enhanced, and the well-being of both nursing staff and patients can be sustainably supported.

References

World Health Organization. Mental health in the workplace. Geneva: WHO; 2022
EDTNA/ERCA. European core curriculum for nephrology nursing. EDTNA/ERCA; 2018

Abstract Country

Germany

Disclosure of Interest

No

45

Establishing home hemodialysis through nurse-led patient education: the first case in Croatia

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Background:

Home hemodialysis is an effective renal replacement therapy that allows dialysis patients greater autonomy and flexibility compared to in-center dialysis. Safety and effectiveness of home hemodialysis requires comprehensive patient education, primarily by dialysis nurses. Given that home hemodialysis began in Croatia in January 2026, we are developing a nurse-led structured patient education.

Objectives:

The aim of this case report is to describe the nurse-led education of the first home hemodialysis patient in Croatia, with the focus on educational content, teaching methods, and nursing responsibilities.

Methods:

This case report presents the educational process of a patient undergoing preparation for home hemodialysis in our Center. The education was conducted by specialized dialysis nurses and included theoretical instruction, hands-on training in machine operation, vascular access care, infection prevention, emergency management, and assessment of patient readiness for independent treatment. Data were collected through nursing documentation, direct observation, and structured follow-up assessments.

Results:

The patient successfully acquired knowledge and practical skills required to perform home hemodialysis safely and independently. Nursing evaluations confirmed correct use of the dialysis machine, strict adherence to aseptic techniques, appropriate vascular access management, and timely recognition of potential complications. Continuous one-on-one supervision and support of an experienced dialysis nurse with hands-on approach increased patient confidence and reduced treatment-related anxiety.

Conclusion / Application to Practice:

This case report highlights the critical role of nurse-led education in the successful implementation of home hemodialysis. As the first case in Croatia, it provides a foundation for developing standardized nurse-led education protocols and supports the expansion of home hemodialysis programs in clinical practice.

References

Guidelines for Home Haemodialysis of Croatian Society of Nephrology, Dialysis and Transplantation

Abstract Country

Croatia

Disclosure of Interest

Yes

53

Diaverum's Social Responsibility: Caring Beyond Clinics, Building Healthier Communities

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Diaverum, Lisbon, Portugal

Background

Portugal Diaverum's Social Responsibility is a core expression of our mission and values. We believe that healthcare goes far beyond clinical treatment and must actively contribute to prevention, health literacy, and continuity of care within the community. Many health risks and vulnerabilities arise in everyday settings — at school, at home, at work, or in social environments — and addressing them effectively requires proximity, trust, and sustained engagement. What gives this commitment an even deeper meaning is the strong involvement of our people. These initiatives are carried out by volunteer Diaverum employees, who dedicate their time, knowledge, and expertise beyond their regular professional duties. This voluntary engagement reflects a shared sense of responsibility and reinforces the human dimension of our care model. Our work is deeply rooted in the territory. We are not external service providers acting at a distance; we are part of the communities we serve. This close connection allows us to understand real needs, respond in a timely manner, and co-create solutions that are relevant, sustainable, and human-centered. Through community-based interventions and strong institutional partnerships, we seek to reinforce social cohesion, promote dignity, and contribute to a more inclusive and compassionate care ecosystem.

Objectives

The main objectives of Diaverum's social responsibility initiatives are to:

Promote prevention and early intervention through health education and awareness.

Strengthen continuity of care beyond clinical environments, supporting patients, families, and caregivers in their daily lives.

Empower individuals and communities with knowledge and practical skills that enhance safety, autonomy, and well-being.

Encourage employee engagement and volunteerism as a core component of social responsibility.

Foster strong collaboration with local partners, schools, social institutions, and community organizations.

Contribute to a collective, humanized, and inclusive approach to care based on shared responsibility.

Methods

A significant part of Diaverum's social responsibility activities takes place directly in the community. We develop initiatives in schools, community associations, local fairs, and social institutions, with a strong focus on prevention, awareness, and early engagement. By meeting people where daily life happens, we are able to reach diverse populations and address health topics in an accessible, practical, and meaningful way.

All actions are delivered by volunteer professionals from Diaverum's interdisciplinary teams, including physicians, nurses, nutritionists, social workers, and pharmacists. This multidisciplinary approach ensures that health topics are addressed holistically, integrating clinical, social, nutritional, and psychosocial perspectives.

At the same time, we carry out ongoing actions within institutions that support our patients and their families, such as social care organizations, residential facilities, day centers, and home care services. These interventions aim to strengthen continuity of care beyond clinical settings and include practical sessions on fall prevention and risk reduction, bed care and hygiene measures, caregiver support, and other daily care practices. By empowering caregivers, professionals, and families, we help promote safer, more informed, and more humanized care in everyday life.

Results

Between 2022 and 2025, Diaverum carried out a total of **263 social responsibility actions**, developed in close collaboration with community and institutional partners.

Through these initiatives, we reached **6,765 people**, across diverse community and care settings. Our actions involved **51 partner organizations**, including schools, community associations, social institutions, firefighters, and other local stakeholders. The initiatives addressed a broad range of health and care topics aligned with public health and social priorities. These included hygiene and handwashing, nutrition and well-being, risk behaviors, civilizational and chronic diseases, chronic kidney disease and its psychosocial implications, caregiver exhaustion, basic life support, fall prevention, personal hygiene, residential palliative care, and community health screenings for hypertension, diabetes, cholesterol, and nutritional risk. Dedicated initiatives such as World Kidney Day activities further strengthened awareness and community involvement.

The impact of these actions is also reflected in participant feedback. Satisfaction surveys conducted after the initiatives consistently show satisfaction levels ranging from *high* to *very high*, highlighting the relevance, quality, and perceived value of the interventions delivered.

For Diaverum, these figures are not merely quantitative indicators. They represent real encounters, moments of trust-building, shared learning, and the tangible impact of professional expertise placed at the service of the community through voluntary commitment.

Conclusion/Application to practice

The impact of this work extends well beyond immediate outcomes. By combining professional expertise with voluntary engagement, Diaverum contributes to reducing health risks, supporting caregivers, and promoting safer and more informed care practices in everyday life. These initiatives play a vital role in reinforcing continuity of care, bridging clinical settings with home, school, and community and social environments.

Above all, this work reflects Diaverum's long-term commitment to the territory and to the people who live in it. Our aim is not only to complement existing resources, but to act as an active protagonist within the social landscape, helping to shape it together with our partners. Through sustained collaboration, interdisciplinary teamwork, and the voluntary dedication of our professionals, we contribute to building communities that are more connected, resilient, and humane.

By working closely with schools, social institutions, families, and community partners, we continue to nurture a model of care that is lived, shared, and sustained over time — one grounded in dignity, inclusion, collective responsibility, and the genuine engagement of our people.

References

Community engagement to reduce inequalities in health: a systematic review, meta-analysis and economic analysis

A O'Mara-Eves, G Brunton, D McDaid, S Oliver, J Kavanagh, F Jamal, T Matosevic, A Harden and J Thomas

Narratives of community engagement: a systematic review-derived conceptual framework for public health interventions

Ginny Brunton^{1*}, James Thomas¹, Alison O'Mara-Eves¹, Farah Jamal¹, Sandy Oliver¹ and Josephine Kavanagh²

Abstract Country

Portugal

Disclosure of Interest

No

54

Renal social work: a patient viewAndrew Barnett*Wrexham Maelor Hospital, Wrexham, United Kingdom***Background**

Whilst it is widely accepted that psychosocial care is beneficial for people with long term health conditions, there is limited research into the role renal social work (RSW) plays in this, especially from the patient's view. This in-depth qualitative study explored kidney patients' lived experience of RSW support, examining how a specific service addressed their psychosocial needs.

Objectives

To increase the evidence base of RSW, to establish what kidney patients value from RSW support, to gain a deeper understanding of the psychosocial care needs of kidney patients and to use the evidence gained through this research to help inform best practice models of RSW and psychosocial support provision.

Methods

An interpretative phenomenological analysis (IPA) approach was taken. Initially the data was analysed case-by-case to pull out personal experiential themes. After this, these were then examined across the dataset to establish group experiential themes. Eleven semi-structured interviews were carried out with patients who had recently experienced support from RSW in North Wales. Participants were recruited from current caseloads, new referrals to the service and from the retrospective monthly activity data.

Results

Three key themes were identified: 1) the value placed on the RSW being situated outside the clinical team and separate from their caregivers, 2) the importance of the breadth of knowledge held by the RSW team, enabling them to seek support across a wide range of social care issues, 3) the barriers to accessibility and to the service.

Conclusion/Application to practice

The findings greatly increase our understanding of the psychosocial needs of people living with CKD in North Wales and adds to the existing evidence about RSW. In North Wales, we have improved our information provision, promoted psychosocial training for nursing staff and increased education to the renal MDT about the value of the RSW for kidney patients.

References

1. Hansen, M.S., Tesfaye, W., Sewlal, B., Mehta, B., Sud, K., Kairaitis, L., Tarafdar, S., Chau, K., Zaidi, S.T. & Castelino, R.L. (2021). Psychosocial factors affecting patients with end-stage kidney disease and the impact of the social worker. *Journal of Nephrology*, 35, 43-58.
2. Kapadi, R., Elander, J., Burton, A.E., Taylor, J., Coyne, E., Selby, N.M., Taal, M.W., Mitchell, K. & Stalker, C. (2025). An exploration of successful psychosocial adjustment to long-term in-centre haemodialysis. *Psychology and Health*. 40(3), 394-409.
3. Seekles, M. & Ormandy, P. (2022). Exploring the role of the UK renal social worker: the nexus between health and social care for renal patients. *PLoS One*, 17(9), 1-17.
4. Smith, J.A., Flowers, P. & Larkin, M. (2022). *Interpretative phenomenological analysis* (2nd ed.). Sage.

Abstract Country

United Kingdom

Disclosure of Interest

No

60

Appraisal of an health-literacy oriented education initiative: cross-sectional survey of hemodialysis patients

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Diaverum Portugal, Sintra, Portugal

Background

Patients on hemodialysis (HD) must deal complex self-management behaviors, such as diet, salt and fluid restrictions, thus, limited health literacy may be particularly consequential, where misunderstandings lead into preventable complications and poor experience of care. Despite the relevance, there are relatively few studies describing how patients perceive structured education initiatives.

Objectives

In the context of an almost 3-year long educational project concerning interdialytic weight gain (IDWG) with several structural literacy initiatives, we wanted to assess patients' perceived usefulness and acceptability of the most recent initiative focused on reducing salt intake and increasing taste using offered spices and herbs mixtures.

Methods

Multicenter, observational cross-sectional survey. The initiative took place between November and January 2026, and patients surveyed after offering 1 of 5 herbs and spices mixtures, a leaflet and explanation of the *communications' niche* to watch several educational videos specifically prepared. Simple questions were asked to perceived usefulness (yes/no), liking of the initiative (yes/no), suggestions for improvement (none vs yes; which). A convenience sample of patients willing and able to answer was chosen. Free-text comments were grouped into thematic categories. All analyses were performed using SPSS 30 (IBM Corp., 2023).

Results

we surveyed 1014 patients (~29% of total patients in the organization), 59.3% male, median age 70 years ($P_{25}=59$; $P_{50}=77$), 34% diabetic, 12.8% with high IDWG. Education level: 56.8% low, 35.0% medium and 8.2% high. Concerning appraisal: 95.4% found useful, 95.6% enjoyed, 95.4% did not suggest any change, while 3.6% suggested: other offers due to intolerance to spices, disliking or not wanting to use them (2.2%), maintain with new varieties and more quantity (0.9%) and develop new themes and initiatives (0.4%).

Conclusion/Application to practice

The initiative was well accepted and perceived as useful, support integrating structured, patient-centered education into routine dialysis care and tailoring delivery to diverse literacy and educational profiles.

References

No references

Abstract Country

Portugal

Disclosure of Interest

Yes

65

Systematic pruritus assessment in chronic kidney disease: professional perception versus patient self-reporting discrepancy

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Diaverum, Estoril, Portugal

Background

Chronic Kidney Disease-associated Pruritus (CKD-aP) is a high-prevalence condition affecting approximately 53.1% of end-stage renal disease patients (Anees et al., 2018). It significantly impacts quality of life, serving as an independent predictor of insomnia and depressive symptoms (Hamzi et al., 2017; Satti et al., 2019). Despite this, CKD-aP remains underdiagnosed due to a critical communication gap and a lack of systematic evaluation protocols (Jawed et al., 2020; Kljajić et al., 2026).

Objectives

This project aims to implement a systematic monitoring system and evaluate the impact of clinical underestimation. Specific goals include determining the prevalence of moderate-to-severe pruritus, calculating the Clinical Discrepancy Index (CDI), and identifying barriers to assessment (Jawed et al., 2020).

Methods

A cross-sectional observational study using mixed methods will be conducted. Data collection involves blinded assessments during hemodialysis sessions: patients complete the Worst Itch Numerical Rating Scale (WI-NRS) and the 5-D Itch Scale, while nurses record their clinical perception using the WI-NRS. "Critical Underestimation" is defined as a CDI ≥ 2 .

Results

Expected outcomes include demonstrating that informal assessment is insufficient. The project establishes a clinical management flowchart where WI-NRS scores >3 trigger immediate referrals to Nephrology or Dermatology to ensure clinical benefit.

Conclusion/Application to practice

Implementing standardized scales transforms pruritus from a subjective complaint into a measurable clinical indicator. This change ensures immediate clinical benefit through structured referral pathways, justifying the permanent inclusion of pruritus scales in routine protocols to bridge the gap between professional perception and patient reality.

References

1. Anees, M., Butt, G., Gull, S., Nazeer, A., Hussain, I., & Ibrahim, M. (2018). Factors Affecting Dermatological Manifestations in Patients with End Stage Renal Disease. *Journal of the College of Physicians and Surgeons--Pakistan : JCPSP*, 28(2), 98–102. <https://doi.org/10.29271/jcpsp.2018.02.98>
2. Hamzi, M. A., Hassani, K., Asseraji, M., & El Kabbaj, D. (2017). Insomnia in hemodialysis patients: A multicenter study from morocco. *Saudi journal of kidney diseases and transplantation : an official publication of the Saudi Center for Organ Transplantation, Saudi Arabia*, 28(5), 1112–1118. <https://doi.org/10.4103/1319-2442.215152>
3. Jawed, A., Moe, S. M., Moorthi, R. N., Torke, A. M., & Eadon, M. T. (2020). Increasing Nephrologist Awareness of Symptom Burden in Older Hospitalized End-Stage Renal Disease Patients. *American journal of nephrology*, 51(1), 11–16. <https://doi.org/10.1159/000504333>
4. Kljajić, M., Parać, E., Atić, A., & Bašić-Jukić, N. (2026). Uremic Pruritus in Hemodialysis: Mechanisms, Burden, and Emerging Therapies. *Journal of clinical medicine*, 15(2), 494. <https://doi.org/10.3390/jcm15020494>
5. Satti, M. Z., Arshad, D., Javed, H., Shahroz, A., Tahir, Z., Ahmed, M. M. H., & Kareem, A. (2019). Uremic Pruritus: Prevalence and Impact on Quality of Life and Depressive Symptoms in Hemodialysis Patients. *Cureus*, 11(7), e5178. <https://doi.org/10.7759/cureus.5178>

Abstract Country

Portugal

Disclosure of Interest

No

66

Ultrasound for Vascular Access in Hemodialysis: a game changer

Silvia Corti

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Background

Background: a medium-sized Hemodialysis Service in Italy (city of Arezzo, Tuscany), a population of around 110 patients in Chronic Hemodialysis Treatment. Around 75% of patients has an Arterovenous Fistula (AVF) as vascular access and the nurses team has developed a new monitoring protocol for the access periodic monitoring since 2020. This protocol includes physical examination, recording of the sound of the AVF with the Electronic Stethoscope and the Ultrasound monitoring performed by nurses. The results of those exams are compared with the previous ones and discussed in case of new findings, pictures of the AVF are sent to the Vascular Surgeon who decides for interventions (PTA, Therapies for thrombosis, etc...).

Objectives

The objective is to compare data from the previous period -before the monitoring protocol- and those of the last 5 years of activity. This study evaluates the qualitative and quantitative impact of Nursing Ultrasound on AVF surveillance at the Arezzo Hemodialysis Unit (AUSL Toscana Sudest) through an observational cohort study

Methods

This is an original study conducted in 2025 for the final discussion of the Master of Nursing. Vascular Access data from 2021 to 2025 were used to assess the incidence of stenosis and other abnormalities by comparing data before and after the introduction of Ultrasound and the nursing team's surveillance protocol. These data were then used for analysis of both clinical and statistical significance.

Results

An analysis of data from the four-year period 2021-2025 shows that Ultrasound imaging in support of surveillance has brought about a change in Nursing culture and improved clinical outcomes, representing a true "watershed" in the activities of the Hemodialysis and Vascular Surgery Departments. It constitutes an interprofessional activity and a source of information exchange within the healthcare team.

In particular an increase in early, subclinical interventions on AVFs was observed, resulting in a reduction in the number of emergency temporary Central Venous Catheters (CVCs) inserted due to malfunctions or sudden closures of AVFs.

The results are consistent with International Guidelines, which recognize Ultrasound's fundamental role as an active, non-invasive surveillance method, and the duty of Hemodialysis experts to increase their skills in support of clinical care.

Conclusion/Application to practice

The study demonstrates, supported by clinical outcomes, how Ultrasound and a sustainable monitoring protocol, implemented by the healthcare team and coordinated by a Specialist Nurse, improve the care of Hemodialysis patients while preserving their vascular access. The quality of dialysis treatment and the very lives of patients depend on them.

References

- National Kidney Foundation. K/DOQI clinical practice guidelines for chronic kidney disease: evaluation, classification, and stratification
- EDTNA/ERCA. The profile of nephrology nursing: the fundamental roles of nephrology nurses caring for individuals with kidney disease, and their families. 2018
- Schoch M, Bennett PN, Currey J, Smith V, Orellana L, Hutchinson AM. Point-of-care ultrasound-guided cannulation versus standard cannulation in hemodialysis vascular access: a controlled random order crossover pilot feasibility study
- EDTNA/ERCA Handbook on Ultrasound for Vascular Access Examination From the Specialist to the Nurse

Abstract Country

Italy

Disclosure of Interest

No

73

Humanization of care through the therapeutic bond in hemodialysis nursing

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Background

Hemodialysis nursing takes place in a context of chronic illness, where long-term relationships between nurses and patients help to build a therapeutic bond that goes beyond technical care. This bond is a key element of humanized and person-centred care. However, it is still less visible than the biomedical aspects of renal replacement therapy

Objectives

To analyze the therapeutic bond in hemodialysis nursing and its influence on the humanization of care.

Methods

A narrative review conducted in PubMed, CINAHL, Scopus and Dialnet, including articles between 2015 and 2024 in Spanish and English. Original studies, reviews and theoretical articles focused on the therapeutic relationship in renal nursing, nurse–patient communication and the emotional aspects of care were included. Biomedical studies, research focused on other health professionals and studies related to other diseases were excluded.

Conclusion/Application to practice

The literature reviewed included 15 scientific articles which followed inclusion criteria. These reviews explained that therapeutic bond is built through ongoing support, emotional closeness and mutual trust. This bond is linked to better treatment adherence, a greater sense of safety and higher patient satisfaction. The importance of setting appropriate emotional limits is also highlighted. In addition, experiences of loss and grief related to the progression of chronic kidney disease are recognized, which can affect nurses' emotional well-being.

References

1. Fernández Moya M, Cantú Sánchez C, Barreto Arias ME, Vega Argote MG. Relación enfermera-paciente eficaz en hemodiálisis: un análisis de concepto. *Rev Cubana Enferm*. 2018;32(4):1-27.
2. Camedda C, Bici G, Magi CE, Guzzon A, Longobucco Y. The Therapeutic Nurse-Patient Relationship in Hemodialysis: A Pilot Mixed-Method Study on the Perceived Quality of Nurses' Attitudes and Caring Behaviors. *Nurs Rep*. 2023 Jul 20;13(3):990-1003. doi: 10.3390/nursrep13030087. PMID: 37489409; PMCID: PMC10366853.
3. Contreras-Martos Gustavo Manuel, Quesada-Armenteros María Trinidad, Ila-García Andrés, Ochando-García Antonio. Percepción de los pacientes respecto a la humanización del cuidado enfermero en una unidad de hemodiálisis. *Enferm Nefrol* [Internet]. 2023 Dic [citado 2026 Feb 10]; 26(4): 326-335. Disponible en: http://scielo.isciii.es/scielo.php?script=sci_arttext&pid=S2254-28842023000400004&lng=es. Epub 04-Abr-2024. <https://dx.doi.org/10.37551/s2254-28842023031>.
4. Grupo de Trabajo de Humanización en Hemodiálisis. Manual de buenas prácticas de humanización en unidades de hemodiálisis. Madrid: Proyecto HUCI; 2025 [acceso 20 de marzo de 2025]. Disponible en: <https://hsanidad.org/bphemodialisis/>
5. Hreńczuk M. Therapeutic relationship nurse–patient in hemodialysis therapy. *Nurs Forum*. 2021;56(3):579-586. <https://doi.org/10.1111/nuf.12590>

Abstract Country

Spain

Disclosure of Interest

No

75

Refusal of Flu and COVID-19 Vaccination in Hemodialysis Patients: A Qualitative Study

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Background

Vaccination is a primary intervention for reducing morbidity and mortality from influenza and COVID-19, especially for chronic kidney disease (CKD) patients who face heightened vulnerability to complications. Although Portugal's immunization rates are nearing WHO targets, coverage among chronic patients remains insufficient despite an upward trend.

Objectives

Identify and analyze the primary reasons for influenza and COVID-19 vaccine refusal among patients with chronic conditions; Explore emerging themes and determinants influencing the decision-making process regarding vaccine hesitancy; Characterize the specific barriers to vaccination adherence within this vulnerable population; Define potential areas for intervention by healthcare professionals to improve vaccine uptake and patient compliance.

Methods

This qualitative, exploratory study was conducted in an outpatient hemodialysis unit in central Portugal. A non-probabilistic, intentional sample was used, comprising CKD patients who refused influenza and/or COVID 19 vaccines during the 2025 campaign. Data were collected through individual interviews with open-ended questions and processed via thematic analysis.

Results

Of the 221 patients in the hemodialysis unit, 51 refused vaccination. The participant profile was composed of 51% men and 49% women, with a mean age of 66.3 years. Regarding the vaccine refusal profile, 52.9% of the patients refused the COVID-19 vaccine, 9.8% refused the influenza vaccine, and 37.3% declined both. The thematic analysis identified four primary themes underlying the decision to refuse vaccination: perceived lack of benefit, fear of side effects, socio-cultural and political factors, and lack of information.

Conclusion/Application to practice

The findings underscore the need for individualized strategies to promote vaccine adherence among hemodialysis patients, grounded in their specific perceptions and concerns. Identifying themes associated with refusal is a pivotal step for tailoring effective, real-world interventions. Such approaches are essential for enhancing immunization coverage and protection in vulnerable populations, particularly those with chronic kidney disease.

References

1. Ramos, P. E. B. P. (2020). A ameaça da não-vacinação na sociedade digital e da desinformação / Digital disinformation and the threat of the anti-vaccination movement (Monografia de Mestrado, Faculdade de Medicina, Universidade do Porto). Repositório Aberto da Universidade do Porto. <https://repositorio-aberto.up.pt/bitstream/10216/128709/2/414438.pdf>
2. Centers for Disease Control and Prevention. (2024, May 15). Chronic kidney disease and flu. U.S. Department of Health & Human Services. <https://www.cdc.gov/kidney-disease/prevention/chronic-kidney-disease-and-flu.html>
3. Sociedade Portuguesa de Pneumologia & Associação Portuguesa de Medicina Geral e Familiar. (2026, janeiro 21). Mais de 87 % das pessoas com 85 anos ou mais vacinadas contra a gripe (notícia). SPP – Sociedade Portuguesa de Pneumologia. <https://www.sppneumologia.pt/noticias/87-dos-portugueses-com-85-ou-mais-anos-j%C3%A1-est%C3%A3o-vacinados-contr-a-gripe>
4. Sociedade Portuguesa de Pneumologia. (2026, 14 de janeiro). Relatório Vacinómetro: 3ª vaga 2025-2026. [https://www.sppneumologia.pt/uploads/subcanais_conteudos_ficheiros/relataario-vacinaametro-3aa-vaga-2025-2026-\(14-01-2026\).pdf](https://www.sppneumologia.pt/uploads/subcanais_conteudos_ficheiros/relataario-vacinaametro-3aa-vaga-2025-2026-(14-01-2026).pdf)

Abstract Country Portugal

Disclosure of Interest Yes

77

How HDF impacted the cultural need of patients in the outback?

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Background

It is well documented that hemodiafiltration (HDF) improves the survival of Hemodialysis patients, and as its application expands it is important to consider the cultural impacts. In Australia, the Aboriginal and Torres Strait Islander patients in remote areas, face cultural, personal and logistical challenges when accessing care. Many must travel long distances up to 1,500 kilometres for inpatient hospital treatment, resulting in extended time away from home. These relocations can cause distress, disconnection, and social isolation, and disrupt responsibilities such as caring for children and Elders.

Objective

This review aims to assess the impact of introducing and expanding HDF within satellite clinics across the Northern Territory. With evidence showing that HDF can reduce hospitalisation and mortality, we sought to explore how fewer hospital transfers may support Aboriginal and Torres Strait Islander patients to remain on their land and continue fulfilling their cultural and family responsibilities.

Methods

A culturally appropriate questionnaire was used to engage patients living in remote communities, seeking to understand the impact of dialysis on their lives and the importance of remaining on their land for their wellbeing, family connections, and community roles.

Results

Patients emphasised the importance of receiving dialysis in their communities and on their land, where care is culturally safe and grounded in connection to land, identity, and kinship. Remaining on their land supports cultural obligations, enables care for children and Elders, and strengthens social, emotional, and spiritual wellbeing.

Conclusion

This investigation underscores the value of delivering dialysis close to home. Expanding HDF can support this by improving outcomes and reducing the need for distant hospital transfers, helping patients stay connected to Country, community, and culture.

Further evaluation of clinical indicators is required to determine whether broader implementation of HDF effectively supports patients' emotional needs by enabling them to remain connected to their community.

References

1. Rix EF, Barclay L, Stirling J, Tong A, Wilson S. 'Beats the alternative but it messes up your life': Aboriginal people's experience of haemodialysis in rural Australia. *BMJ Open*. 2014;4:e005945. doi:10.1136/bmjopen-2014-005945.
2. Zhang Y, Winter A, Alejos Ferreras B, Carioni P, Arkossy O, Anger M, et al. Real-world effectiveness of hemodialysis modalities: a retrospective cohort study. *BMC Nephrol*. 2025;26:9. doi:10.1186/s12882-024-03934-y.
3. Maduell F, Ramos R, Varas J, Martín-Malo A, Molina M, Pérez-García R, et al. Hemodialysis patients receiving a greater Kt dose than recommended have reduced mortality and hospitalization risk. *Kidney Int*. 2016;90:1332–41.

Abstract Country

Australia

Disclosure of Interest

Yes

78

Transforming Home dialysis in Western Australia: A 19 Year Journey of Innovation and Reach

Bronwyn Smaill, Nicola Rowland

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Background:

In 2007, We established a home dialysis service in Western Australia—an area spanning 2.5 million square kilometers, roughly the size of Western Europe. With some patients living more than 2,000 km from the nearest clinic, the mission was bold: to deliver high-quality training and sustained clinical support to people dialyzing at home, from remote desert communities to metropolitan Perth.

Objectives:

To design a sustainable, adaptable training program capable of meeting the needs of diverse populations, including patients in remote regions with low health literacy and limited amenities—and to support patients to remain safely at home for as long as possible.

Methods:

The first priority was to develop a robust training curriculum that could be modified to suit individual patients while maintaining clinical consistency. This required years of iteration, adjustment, and evaluation. Equally important was understanding *how* staff taught. Qualitative reviews revealed significant variation in teaching styles, prompting the development of structured nurse-training processes to ensure consistency and optimize patients' ability to remain on home therapies long-term.

Results:

What began as a small program supporting mainly a cohort of metropolitan-based patients has expanded across the entire state. Patients are now successfully dialyzing at home in some of the most remote corners of Australia—from arid inland communities to the southern coastline—often remaining at home for many years with excellent continuity of care.

Conclusion / Application to Practice:

By creating standardized yet flexible training materials, and by investing in specialized nurse-training focused on *how* to teach, the program has achieved significant growth while improving patient outcomes. This approach has reduced the isolation experienced by those who previously had to relocate thousands of kilometers away from home, ultimately strengthening access, equity, and long-term sustainability of home dialysis in Western Australia.

References

1. **Department of Health, Western Australia.** Framework to Improve Home Dialysis Therapy in Western Australia. Perth: Health Networks Branch, Department of Health, Western Australia; 2011. [\[health.wa.gov.au\]](https://health.wa.gov.au)
 2. Manani SM, Virzi GM, Morisi N, Marturano D, Tantillo I, Giuliani A, Miranda N, Brocca A, Alfano G, Donati G, Ronco C, Zanella M. Ongoing peritoneal dialysis training at home allows for the improvement of patients' empowerment: a single-center experience. *J Clin Med.* 2024;13(2):411. doi:10.3390/jcm13020411. PMID: 38256544; PMCID: PMC10816326.
- Scholes-Robertson N, Gutman T, Dominello A, et al.** Australian rural caregivers' experiences in supporting patients with kidney failure. *Am J Kidney Dis.* 2022 Dec;80(6):773–782.e1. Available from: [https://www.ajkd.org/article/S0272-6386\(22\)00775-2/fulltext](https://www.ajkd.org/article/S0272-6386(22)00775-2/fulltext) [\[ajkd.org\]](https://ajkd.org)

Abstract Country

Australia

Disclosure of Interest

Yes

79

Bridging Knowledge Gaps in Renal Care: Insights from 446 Healthcare Professionals to Shape Education

Catalin Stroe

Diaverum, Bucharest, Romania

Background

Continuous professional development in dialysis must align with the daily clinical realities of nursing staff and other healthcare professionals. This study reports on the 2025 internal educational audit and the design of a demand-driven in-house training program for 2026.

Objectives

Evaluate the impact of 2025 specialized modules delivered (Vascular Access, Nutrition, Mentorship, Therapeutical Principles of Educations for Patients and their families

Translate staff feedback into a strategic roadmap for 2026

Methods

An anonymous mixed-methods survey collected 446 responses from 26 dialysis clinics, especially based on nursing professionals but also includes doctors & psychologists. Quantitative satisfaction scores (Likert 1–5 and 1–10) and qualitative thematic feedback were analyzed, providing a 360-degree view of educational needs.

Results

The 2025 program achieved very high satisfaction (weighted averages >9.5/10). The Vascular Access module was rated highest (predominantly 5/5). Staff reported direct clinical impact, including adoption of ultrasound-guided cannulation. Peer-to-peer in-house learning and interactivity were highlighted as key strengths.

Conclusion/Application to practice

Insights from over 440 professionals demonstrate that participatory in-house physic education effectively bridges knowledge gaps. The 2026 curriculum shifts toward high-specialization workshops, fostering clinical mastery alongside technological advances in nephrology.

- 1.Advanced workshop improve patient outcome through skill adoption.
- 2.Holistic modules, including nutrition and staff resilience, support overall quality of care.
- 3.Data-driven curriculum design can be replicated in other dialysis networks to optimize staff performance and patient safety

References

Internal microsoft form Qr code & dates available.

Abstract Country

Romania

Disclosure of Interest

No

80

The Impact of a Educational Program for healthcare professionals: Patient Experience and Care Quality

Catalin Stroe

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Background

The long-term relationship between patients and healthcare professionals places nurses in a central role as therapeutic educators and clinical leaders. Fragmented training initiatives often fail to produce sustainable improvements in patient experience and practice. In response, we developed a structured, multi-year educational program for dialysis nurses, psychologists, and physicians to strengthen technical and non-technical competencies.

Objectives

To present the structure, methodology, and outcomes of a comprehensive nurse-focused educational program and evaluate its impact on patient experience, care quality, and professional development in dialysis settings.

Methods

Over two years, a structured educational program was implemented across 26 dialysis centers. It included quarterly courses on mentoring and adult education principles, therapeutic patient education and family involvement, advanced vascular access management (hands-on training with simulation and patient interaction), communication and conflict management, and nutrition education. Teaching methods followed adult learning theory and included interactive lectures, role-play, case discussions, simulation, and patient engagement. Program evaluation was conducted through participant feedback, practical assessments, and institutional patient-reported outcome measures.

Results

Following program implementation, significant improvements were observed in patient-reported experience. The overall Patient Perception of Care (PPC) score increased from 6.72 to 6.80 (out of 7), while the Net Promoter Score (NPS) rose from 93% to 96%. All evaluated domains—including communication, shared decision-making, pain related to needle insertion, dietary and fluid management, privacy and dignity, and scheduling—showed positive trends. Nursing staff also reported greater confidence, improved collaboration, stronger mentoring skills, and higher professional satisfaction.

Conclusion/Application to practice

- Structured and continuous nurse education translates into measurable improvements in patient experience.
- Combining technical skills with communication and mentoring ensures sustainable clinical excellence

References

Internal information and data are available

Abstract Country

Romania

Disclosure of Interest

Yes

86

Anemia in Patients with Chronic Kidney Disease: Prevalence, Causes, and Management Challenges

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Background

Anemia is a frequent complication in hemodialysis patients and is associated with poor clinical outcomes and reduced quality of life. Data on anemia among Libyan hemodialysis patients are limited.

Objectives

To assess the prevalence of anemia, its associated clinical and psychosocial factors, and compare findings with international data.

Methods

A multicenter cross-sectional study was conducted in 10 hemodialysis centers in Libya, including 150 adult patients. Data were collected using structured questionnaires and medical records. Anemia was defined as hemoglobin (Hb) <10 g/dL (KDIGO). Statistical analyses included t-tests, ANOVA, chi-square, correlation, and multivariate logistic regression using SPSS.

Results

Among participants, 56% were male and 44% female. Hypertension was the main cause of ESRD (49.3%), followed by diabetes (17.3%). Most patients received dialysis three times weekly (96.7%). IV iron was used in 88%, ESA in 84%, and recurrent blood transfusions in 33.3%.

The mean Hb level was 9.1 ± 1.2 g/dL, and 52% had Hb <10 g/dL. ESA and IV iron therapy were significantly associated with higher Hb levels ($p < 0.001$). Longer dialysis duration (>5 years) was associated with lower Hb levels ($p = 0.01$). Diabetes was significantly associated with anemia ($\chi^2 = 12.5$, $p < 0.001$; Cramer's $V = 0.32$). Multivariate analysis identified diabetes (OR 2.1, 95% CI 1.3–3.4, $p = 0.002$) and long dialysis duration (OR 1.8, 95% CI 1.1–2.9, $p = 0.01$) as independent predictors. Fatigue was reported by 94.7%, dyspnea by 68.7%, and palpitations by 63.3%. Hb levels were inversely correlated with fatigue ($r = -0.55$), dyspnea ($r = -0.50$), and palpitations ($r = -0.46$) (all $p < 0.001$). Reduced social and occupational activity was reported by 70% and was significantly associated with low Hb ($\Phi = 0.40$, $p < 0.001$).

Anemia prevalence was comparable to Egypt and India but higher than European cohorts.

Conclusion/Application to practice

Anemia is highly prevalent among Libyan hemodialysis patients and is associated with treatment factors, comorbidities, dialysis duration, and psychosocial impairment. Enhanced anemia management and monitoring are urgently required.

References

1. Stauffer, M. E., & Fan, T. (2014). Prevalence of anemia in chronic kidney disease in the United States.
2. PLoS One, 9(1), e84943. <https://doi.org/10.1371/journal.pone.0084943>
3. Locatelli, F., Aljama, P., Barany, P., Canaud, B., Carrera, F., Eckardt, K. U.,... & Macdougall, I. C. (2004). Revised European best practice guidelines for the management of anaemia in patients with chronic renal failure. *Nephrology Dialysis Transplantation*, 19(Suppl 2), ii1–ii47. <https://doi.org/10.1093/ndt/gfh123>
4. Cappellini, M. D., Musallam, K. M., & Taher, A. T. (2019). Iron deficiency anemia. *Lancet*, 393(10167), 1603–1616. [https://doi.org/10.1016/S0140-6736\(18\)32612-6](https://doi.org/10.1016/S0140-6736(18)32612-6)
5. Balarajan, Y., Ramakrishnan, U., Özalp, E., Shankar, A. H., & Subramanian, S. V. (2011). Anaemia in low-income and middle-income countries. *Lancet*, 378(9809), 2123–2135. [https://doi.org/10.1016/S01406736\(10\)62304-5](https://doi.org/10.1016/S01406736(10)62304-5)

Abstract Country Libya

Disclosure of Interest Yes

95

Palliative care in nephrology and a changing approach

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Background

Palliative care in nephrology provides comprehensive support to patients with terminal kidney failure (ESRD), with the aim of maximizing their quality of life. Palliative and supportive care respects the patient's wishes.

Chronic kidney failure is a life-limiting disease. In the course of nephrological care, some patients experience a number of complications – unsolvable conditions that lead to the question of how to proceed.

Objectives

Our goal is to emphasize the meaning and need of providing palliative care in nephrology. To provide support and care to both patients, their families and nurses who support patients.

Methods

Palliative care in nephrology includes: decision-making not to start and stop dialysis treatment, shared decision-making, care planning, comprehensive approach, consistent management of difficult symptoms, and end-of-life care.

Palliative care can be provided concomitantly with life-prolonging treatment, including palliative dialysis.

Conclusion/Application to practice

Currently, supportive and palliative care is becoming an essential part of care of nephrology patients. Palliative care particularly helps with process about starting/ending dialysis and supports conservative treatment without dialysis in frail patients. Our experience shows that providing right palliative care can improve the quality of lives for both patients and their families.

Recommendations for practice:

In clinical practice, it is recommended to sustain professional training of nephrology nurses and other health professionals in field of palliative care, and to implement provision of psychosocial support for healthcare professionals in nephrology departments.

References

Szonowska, B., et al. (2019). *Paliativa v nefrologii*. Praha: Maxdorf.

Abstract Country

Czech Republic

Disclosure of Interest

No

96

Maintaining Home, Maintaining Hope: Impact of embedded Psychology on Home Dialysis uptake and retention

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Background

Home dialysis supports greater autonomy, psychological stability and meaningful participation in family and everyday life. However, mental health challenges, perceived loss of control and caregiver strain remain significant barriers to both initiation and long-term sustainability. Integrating structured psychological support directly into home dialysis pathways is therefore essential for safe decision-making and durable adherence.

Objectives

The Home Therapies Booster Programme embeds systematic psychological assessment and ongoing specialist support throughout the entire patient journey. The pathway aims to reduce perceived barriers to home therapies, strengthen patient autonomy, prevent caregiver burnout and acknowledge the stabilising benefits of daily routines, including gardening, animal care, and other personal activities that reinforce wellbeing.

Methods

All patients underwent formal clinical psychological evaluation followed by tailored mental health support during modality choice, transitions between therapies and ongoing home treatment. This methodology is demonstrated through two in-depth clinical case analyses.

Results

Since 2023, all 59 patients enrolled in the programme have received structured psychological care. Only three non-medical dropouts occurred, each attributable to challenges within the family or caregiver environment. Two longitudinal case studies demonstrate measurable benefits in autonomy, psychological stability, and overall quality of life. The first describes a patient who experienced every available dialysis modality, illustrating how evolving psychological needs can be addressed over time and how home dialysis can preserve family life, personal interests and emotional resilience. The second case outlines a patient with a comorbid mental disorder whose psychological intolerance of in-centre dialysis underscores the essential function of psychological assessment in establishing a safe modality choice and structuring a personalised therapeutic support plan.

Conclusion/Application to practice

Embedding psychological care within home dialysis pathways aligns with EDTNA vision, enhances treatment uptake, reduces attrition, and supports the long-term sustainability of home therapies. Addressing mental wellbeing and psychological safety is a foundational component of holistic, compassionate nephrology care, with future priorities including appointing a full-time psychologist and strengthening caregiver-burnout prevention.

References

Without references

Abstract Country

Czech Republic

Disclosure of Interest

No

98

Instruments to assess nursing workload in haemodialysis: a scoping review and methodological implications

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Background

Nursing workload in haemodialysis units represents a complex and multidimensional construct, influenced by clinical instability, technological demands, and continuous patient monitoring. Accurate workload measurement is essential for safe staffing, quality of care, and resource allocation. However, it remains unclear whether specific and validated instruments exist for this clinical setting.

Objectives

To map the existing instruments used to assess nursing workload in haemodialysis and to analyse their methodological scope and limitations.

Methods

A scoping review was conducted following the Joanna Briggs Institute methodology and reported according to the PRISMA-ScR guidelines. Searches were performed in MEDLINE, CINAHL, Scopus, BVS and grey literature sources from 2000 to 2025. Two independent reviewers screened studies and extracted data using a standardised JBI data extraction form.

Results

Only one study met the inclusion criteria, describing a specific instrument developed to predict nursing care burden in haemodialysis based on direct time measurement and multiple clinical domains. Generic nursing workload instruments widely used in other clinical settings were identified in the literature but were not specifically designed for haemodialysis. When used as a comparative reference, such instruments namely the Nursing Activities Score revealed important content limitations in capturing context-specific aspects of haemodialysis nursing care.

Conclusion/Application to practice

This scoping review highlights a marked scarcity of validated instruments specifically designed to assess nursing workload in haemodialysis. The findings support the need for the development and validation of context-specific tools capable of accurately reflecting the complexity and specificity of nursing care in this setting.

References

1. Swiger, P. A., Vance, D. E., Patrician, P. A., Raju, D., & Miltner, R. S. (2016). Nursing workload in the acute-care setting: A concept analysis. *Nursing Outlook*, 64(3), 244254, <https://doi.org/10.1016/j.outlook.2016.01.003>
2. Ivziku, D., Petrucci, C., Giannarelli, D., & De Marinis, M. G. (2021). Workload indicators and predictors in nephrology nursing: A literature review. *Nephrology Nursing Journal*, 48(1), 17–29.
3. de Kleijn, J. D., Lagro-Janssen, A. L. M., & Custers, E. J. F. M. (2015). Development of a workload measurement instrument in haemodialysis nursing.
4. Miranda, D. R., Nap, R., de Rijk, A., Schaufeli, W., & Iapichino, G. (2003). Nursing Activities Score. *Critical Care Medicine*, 31(2), 374–382. <https://doi.org/10.1097/01.CCM.0000045567.78801.CC>
5. Pasquali, L. (2010). Instrumentação psicológica: Fundamentos e práticas. Artmed.

Abstract Country

Portugal

Disclosure of Interest

No

101

Beyond the monitor: nursing interventions in the well-being of people on haemodialysis

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Background

Haemodialysis has a significant physical, psychological and social impact on people with chronic kidney disease, influencing their wellbeing and health-related quality of life. In this context, the role of nurses has evolved from a disease-centred approach to person-centred care, valuing interventions that promote autonomy, comfort and adaptation to treatment.

Objectives

To identify nursing interventions that contribute to promoting the well-being of people undergoing haemodialysis.

Methods

A narrative analysis of the literature was carried out, focusing on nursing interventions in the educational, psychosocial, behavioural and symptom management dimensions in people on a regular haemodialysis programme.

Results

The interventions identified include personalised health education programmes, behavioural change techniques and patient activation strategies, which demonstrate improvement in therapeutic adherence, satisfaction and reduced anxiety. Psychosocial support, through self-efficacy training, motivational interviewing, reinforcement of family support and positive therapeutic interventions, contributes to greater emotional resilience and control of clinical parameters. Self-management of symptoms has a positive impact on reducing pain, fatigue, and itching, improving quality of life. Shared care strategies, such as peer mentoring and shared decision-making, strengthen patient involvement and align treatment with their life goals.

Conclusion/Application to practice

Nursing interventions play a central role in promoting the well-being of people on haemodialysis, and integrated approaches that combine education, emotional support, symptom management and active patient participation in care are essential. The systematic implementation of these interventions can significantly improve the treatment experience and quality of life.

References

1. Ekholm, M., Aulbach, M., Walsh, S., Phipps, D., Rauta, V., & Knittle, K. (2025). Behavioral interventions targeting treatment adherence in chronic kidney disease: A systematic review and meta-analysis. *Social Science & Medicine*, 366, 117594. <https://doi.org/10.1016/j.socscimed.2024.117594>
2. Kalantar-Zadeh, K., Lockwood, M. B., Rhee, C. M., Tantisattamo, E., Andreoli, S., Balducci, A., Laffin, P., Harris, T., Knight, R., Kumaraswami, L., Liakopoulos, V., Lui, S.-F., Kumar, S., Ng, M., Saadi, G., Ulasi, I., Tong, A., & Li, P. K.-T. (2022). Patient-centred approaches for the management of unpleasant symptoms in kidney disease. *Nature Reviews Nephrology*, 18(3), 185–198. <https://doi.org/10.1038/s41581-021-00518-z>
3. Wang, Y., Qiu, Y., Ren, L., Jiang, H., Chen, M., & Dong, C. (2024). Social support, family resilience and psychological resilience among maintenance hemodialysis patients: A longitudinal study. *BMC Psychiatry*, 24(1), 76. <https://doi.org/10.1186/s12888-024-05526-4>
4. Wang, L., & Gan, C. (2025). The impact of personalized health education interventions on treatment adherence and quality of life in maintenance hemodialysis patients: A retrospective cohort study based on nursing practice. *Medicine*, 104(49), e46019. <https://doi.org/10.1097/MD.00000000000046019>
5. Zambrano, J., Romero, P., Longley, R., Huffman, J. C., Cohen-Bucay, A., & Celano, C. M. (2022). Well-Being and Health in Kidney Failure: A Scoping Review. *Journal of the Academy of Consultation-Liaison Psychiatry*, 63(4), 384–393. <https://doi.org/10.1016/j.jaclp.2022.02.008>

Abstract Country

Portugal

Disclosure of Interest

No

114

Implementation and evaluation of individualized plan for arteriovenous fistula cannulation with a structured technique.

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Background

End-stage renal disease (ESRD) is a major public health problem, impacting quality of life and incurring high costs for the healthcare system. Portugal has one of the highest rates of patients on hemodialysis (HD) in Europe. The effectiveness and safety of HD depend on the quality of vascular access (VA), with the arteriovenous fistula (AVF) being the access of choice. However, complications such as infections, thrombosis, and VA dysfunction remain significant clinical challenges. The implementation of individualized cannulation plans and the appropriate choice of cannulation technique emerge as essential strategies to preserve the AVF, optimize clinical outcomes, and strengthen the role of the nurse in vascular access management.

Objectives

To evaluate and explain the impact of implementing an individualized AVF cannulation plan, using the ladder, buttonhole, or MuST technique, on reducing complications and preventing VA dysfunction in adults on an HD program at a clinic in northern Portugal.

Methods

This is a quasi-experimental, longitudinal, and quantitative study. The “Kidney Disease and Quality of Life Short Form Version 1.3” (KDQOL-SFTM 1.3) questionnaire will be applied. An analysis of clinical records will also be carried out.

Results

It is expected that the implementation of an individualized arteriovenous fistula cannulation plan will reduce complications associated with cannulation, promote the preservation of vascular access, and increase the first-attempt success rate, contributing to the standardization of nursing practices and improving the patient’s experience on hemodialysis.

Conclusion/Application to practice

The systematic implementation of individualized cannulation plans proves to be a relevant strategy for improving the quality and safety of hemodialysis care, reinforcing the role of structured nursing intervention in vascular access management.

References

1. ARAÚJO-ROCHA, Gabriela et al. (2021). Cuidados com o acesso vascular para hemodiálise: revisão integrativa. *Revisão Cuidarte*, v.12, n.3;
2. Rezende de Brito, V., Galvão de Almeida Figueiredo, M. B., Lisboa dos Santos, R., Sabino Ribeiro Chaves Sobral, J., Travassos Albuquerque, A., Garcez de Oliveira, L., Pereira Araújo, B. S. A., Freitas Munaretto, G., & Garcez Vieira Guimarães, M. (2022). *Vascular access for hemodialysis: analysis of clinical data Diaverum in Sergipe*. *Research, Society and Development*, **11**(16), e221111638181. <https://doi.org/10.33448/rsd-v11i16.38181>;
3. Figueiras, P. R., & Marques, M. C. (2023). *A intervenção do enfermeiro face à pessoa com acesso vascular para hemodiálise no serviço de urgência*. *Revista Ibero-Americana de Saúde e Envelhecimento*, **9**(3). Disponível em <https://www.revistas.uevora.pt/index.php/saude-envelhecimento/article/view/633/1085>;
4. Parisotto MT, Pancirova J (ed). (2025). *Acesso Vascular: canulação e cuidado, manual de boas práticas de enfermagem para a fistula arteriovenosa*. Lucerne: EDTNA/ERCA.;
5. Peralta dos Santos, R. (2025). *Técnica MuST para canulação do acesso vascular em hemodiálise: contributos para uma intervenção segura* (Tese de doutoramento, Escola Superior de Enfermagem, Universidade de Lisboa). A tese está disponível no repositório da Universidade de Lisboa;

Abstract Country Portugal

Disclosure of Interest No

121

Glycemic Monitoring Challenges in Diabetic Hemodialysis Patients: A Nursing Case Study

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Background

Diabetes mellitus is the leading cause of end-stage chronic kidney disease in Portugal, significantly affecting patients on hemodialysis (HD) (SPN, 2023). Glycemic control in this population is challenging due to anemia, erythropoiesis-stimulating agents, reduced erythrocyte lifespan, and intradialytic glycemic fluctuations, which compromise the reliability of HbA1c and point-of-care capillary glucose measurements (Galindo et al., 2022; KDIGO, 2022). Continuous glucose monitoring (CGM) using interstitial sensors enables the detection of asymptomatic hypoglycemia and glycemic patterns during and after HD, complementing traditional monitoring methods (Battelino et al., 2019; Riveline et al., 2023).

Objectives

To illustrate the application of a structured nursing care plan for glycemic monitoring in HD patients and highlight nursing interventions for patient safety, glycemic control, and self-care.

Methods

A real clinical case from a specialized diabetes nursing group was used. A nursing care plan structured according to ICNP® – Version 2 was implemented, focusing on glycemic surveillance, hypoglycemia prevention, therapy adjustment, and patient education.

Results

The multimodal, individualized, and systematic nursing approach enabled early detection of glycemic fluctuations, prevention of intradialytic hypoglycemia, and optimization of the therapeutic regimen. The patient demonstrated improved adherence to monitoring and increased engagement in self-care.

Conclusion/Application to practice

Glycemic monitoring in diabetic HD patients should be integrated, continuous, and guided by nursing practice, combining HbA1c, capillary glucose, CGM, and, when indicated, fructosamine, ensuring patient safety, therapeutic efficacy, and high-quality care (DGS, 2023; Galindo et al., 2022). Structured nursing care plans support safer, evidence-based management and can serve as a model for clinical practice.

References

1. Gabinete do Registo da Doença Renal Crónica da Sociedade Portuguesa de Nefrologia (2025) Registo português de terapêutica de substituição renal: Relatório de 2024 Sociedade Portuguesa de Nefrologia
2. KDIGO (2022) KDIGO clinical practice guideline for diabetes management in chronic kidney disease *Kidney International* 102(4 Suppl) S1–S127
3. Galindo RJ, Beck RW, Scioscia MF, Umpierrez GE, Tuttle KR (2022) Glycemic monitoring and management in chronic kidney disease *BMC Medicine* 20 117 <https://doi.org/10.1186/s12916-022-02316-1>
4. Battelino T, Danne T, Bergenstal RM, Amiel SA, Beck R, Biester T, Phillip M (2019) Clinical targets for continuous glucose monitoring data interpretation *Diabetes Care* 42(8) 1593–1603 <https://doi.org/10.2337/dci19-0028>
5. Direção-Geral da Saúde (2023) Percurso de cuidados integrados para a pessoa com doença renal crónica 2023–2026 Ministério da Saúde

Abstract Country

Portugal

Disclosure of Interest

No

122

Reducing Vascular Access–Related Mortality Through Structured Patient Education in Hemodialysis Care

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Background

Vascular access complications, particularly infections, remain a major contributor to morbidity and mortality among patients receiving maintenance hemodialysis. Strengthening patient knowledge and self-care behaviors is considered essential for improving vascular access outcomes and overall patient survival.

Objectives

To assess the impact of a structured nurse-led patient education program on vascular access infection prevention and mortality rates among hemodialysis patients.

Methods

A prospective educational intervention was implemented in a hemodialysis unit from January to December 2025, including 500 patients receiving maintenance hemodialysis. The structured education program focused on vascular access hygiene, daily monitoring of access sites, early recognition of infection signs, and prevention of mechanical or infectious complications related to fistulas and catheters.

Education was delivered through individualized counselling sessions, visual educational tools, and continuous reinforcement by dialysis nursing staff. Vascular access infection and mortality data were collected from clinical and surveillance records and analyzed quarterly.

Results

The educational intervention resulted in improved patient awareness and adherence to recommended vascular access care practices. A reduction in vascular access-related infections was observed during the study period, with a subsequent decline in associated clinical complications.

Quarterly mortality analysis demonstrated a progressive decrease in vascular access–related mortality rates, from 13% in the first quarter (Q1) reaching 6% in the fourth quarter (Q4) of 2025.

Conclusion/Application to practice

Implementation of a structured, nurse-led patient education program was associated with improved vascular access self-care and a notable reduction in vascular access-related mortality. These findings highlight the critical role of continuous patient education in improving safety and clinical outcomes in hemodialysis care.

References

Diaverum Albania

Abstract Country

Albania

Disclosure of Interest

No

124

Cognitive and psychological screening in hemodialysis patients: nurse perspective

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Objectives

To assess cognitive and psychological symptoms in hemodialysis patients using brief screening tools.

To explore the prevalence of attention and memory difficulties and emotional distress.

To evaluate feasibility of nurse-led cognitive and psychological screening in routine dialysis care.

Methods

A cross-sectional observational pilot study will be conducted in a hemodialysis unit. Adult patients receiving maintenance hemodialysis were invited to participate. Cognitive function will be screened using brief attention and memory tasks suitable for dialysis settings. Psychological status will be assessed using short self-report scales for distress and mood. Screening will be performed by dialysis nurses during treatment sessions. Descriptive analysis of cognitive and psychological findings and feasibility indicators (time, patient acceptance) will be performed.

Results

Screening will identify frequent attention difficulties, subjective memory problems and psychological distress among hemodialysis patients. It is expected that many participants will report reduced concentration and mental fatigue during dialysis. Nurse-led screening will be feasible within routine care and well accepted by patients. Short tools will allow rapid identification of patients requiring further assessment or support.

Conclusion/Application to practice

Brief cognitive and psychological screening during hemodialysis is feasible and may improve recognition of cognitive and emotional difficulties in dialysis patients. Integrating nurse-led screening into routine care supports early identification, communication and person-centered nephrology nursing.

References

Murray, A. M. (2008). Cognitive impairment in the aging dialysis population. *Seminars in Dialysis*, 21(4), 327–330.

Bugnicourt, J. M., et al. (2013). Cognitive disorders and dementia in CKD. *Nephrology Dialysis Transplantation*, 28, 1835–1843.

Chilcot, J., Wellsted, D., & Farrington, K. (2011). Depression in end-stage renal disease. *American Journal of Kidney Diseases*, 58(3), 444–451.

Abstract Country

Slovenia

Disclosure of Interest

132

Nutritional and Nursing Education in Improving Dialysis Outcomes and Quality of Life in Libya

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Background

Dialysis patients face complex nutritional, medical, and psychosocial challenges that negatively affect treatment outcomes and quality of life. Structured nutritional and nursing education are essential components of comprehensive dialysis care, improving understanding, adherence, and self-management.

Objectives

This study aimed to evaluate the role of nutritional and nursing education in improving dialysis outcomes and quality of life among patients across Libya, emphasizing knowledge, adherence, symptom control, and psychological well-being.

Methods

A descriptive cross-sectional study was conducted between November 2025 and January 2026 using a structured electronic questionnaire distributed to adult patients undergoing maintenance hemodialysis or peritoneal dialysis across Libya. Inclusion criteria were age ≥ 18 years and dialysis duration ≥ 3 months. Exclusion criteria included acute kidney injury, cognitive impairment, and incomplete responses. Education exposure was defined as receiving structured nutritional and/or nursing education from a dietitian, nurse, or physician. A total of 96 patients were included; data collection remains ongoing.

Results

Overall, 78% reported receiving nutritional education and 85% received nursing education. Good or excellent understanding of dietary instructions was reported by 72%, and 68% demonstrated strong adherence. Education was associated with reduced fatigue (64%), fewer muscle cramps (59%), and improved control of interdialytic weight gain (61%). Additionally, 70% reported improved daily activity and 66% noted better psychological well-being. Main barriers included limited education time (42%), difficulty applying dietary advice (38%), and lack of continuous follow-up (35%).

Conclusion/Application to practice

Preliminary findings suggest that structured nutritional and nursing education significantly contribute to improved dialysis outcomes and enhanced quality of life among patients in Libya. Expanding standardized education programs and ensuring continuous follow-up may further optimize patient care. Final conclusions will be drawn upon completion of data analysis.

References

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Abstract Country

LIBYA

Disclosure of Interest

Yes

140

Comparison of methods for measuring access flow in an arteriovenous fistula in hemodialysis patients

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Background

Effective hemodialysis (HD) treatment depends largely on a well-functioning and stable vascular access. An arteriovenous fistula (AV fistula) is the preferred vascular access for most patients on hemodialysis. An AV fistula is established by sewing a vein and an artery together, preferably in the arm (1). After construction, the vein dilates and can later be used for cannulation in connection with HD treatment. Unfortunately, after construction of an AV fistula, there is a high risk of failure to mature and up to 67% of the need for a treatment requiring intervention within the first year after construction due to the formation of a stenosis inside the vessel (2).

Regular monitoring of AV fistula function is important for early signs of dysfunction (3).

In the department, access flow measurement is monitored with Transonic, which uses the saline dilution technique. This method has been considered the “gold standard” (4). The method has been used in many studies but is also influenced by several factors.

However, it has become possible to measure access flow directly during HD treatment using methods integrated into the HD machine, which reduces the risk of interobserver variation. The Fresenius 5008 uses thermodilution (blood temperature monitoring: BTM®), while the Fresenius 6008 uses ionic dialysance (online clearance monitoring, OCM®) to measure access flow. Many HD centers use both machines for HD treatment. Several studies have compared BTM and OCM with Transonic (5), but these studies are older, include few patients, and include both AV fistula and an AV graft as vascular access.

There are currently no studies that directly compare measurements from Fresenius 5008 and Fresenius 6008 against Transonic.

Methods

Measurements are made with the 3 methods for 5 patients. Twister® is used for all measurements. The measurements are standardized and performed on the second HD day of the week within the first 90 minutes of dialysis.

Measurements are made with 3 different methods as follows:

Day 1: Measurement of access flow via OCM technique on Fresenius 5008 first and then via Transonic.

Day 2: Measurement of access flow via BTM technique on Fresenius 6008

The measurements are standardized and performed on the second HD day of the week within the first 90 minutes of treatment.

1. Transonic:

Based on the ultrasonic dilution principle. The device Transonic System Inc. Ithaca, N.Y. USA is used. 2 measurements are made. The average of the 2 measurements is used.

During the HD treatment, approximately 10 milliliters of saline are injected into the bloodstream in the HD machine. The 2 ultrasonic probes that are on the tubes connected to the HD needles in the AV fistula record the flow rate of the blood in the AV fistula.

2. Fresenius 5008 (Thermodilution):

This method uses temperature sensors incorporated into the HD machine. A recirculation is measured in the forward and reverse directions, which are subsequently plotted into a formula in an Excel sheet that automatically calculates access flow.

3. Fresenius 6008 (Ionic dilution) :

The method is based on a change in the dialysate's sodium concentration in the blood circulation in the HD machine. This change can be used to calculate access flow and recirculation. 2 measurements are made. The average of the 2 measurements is used

Results

The results are not yet available.

It has been learned from measurements on 5 patients with Fresenius 6008 compared to Transonic that there was a significant difference for 4 of the patients and 1 patient there was agreement between the 2 measurements. These measurements were made on the first HD treatment of the week.

Conclusion/Application to practice

As there are not yet results, a conclusion is not yet possible.

References

1. Lok CE, Huber TS, Lee T, Shenoy S, Yevzlin AS, Abreo K, et al. KDOQI Clinical Practice Guideline for Vascular Access: 2019 Update. American Journal of Kidney Diseases. 2020;75(4):S1–164.
2. Al-Jaishi AA, Oliver MJ, Thomas SM, Lok CE, Zhang JC, Garg AX, et al. Patency rates of the arteriovenous fistula for hemodialysis: A systematic review and meta-analysis. American Journal of Kidney Diseases. 2014;63(3):464–78.
3. Schmidli J, Widmer MK, Basile C, de Donato G, Gallieni M, Gibbons CP, et al. Vascular Access: 2018 Clinical Practice Guidelines of the European Society for Vascular Surgery (ESVS). European Journal of Vascular and Endovascular Surgery. 2018;55(6):757–868.
4. Schwarz C, Mitterbauer C, Boczula M, Maca T, Funovics M, Heinze G, et al. Flow monitoring: Performance characteristics of ultrasound dilution versus color Doppler ultrasound compared with fistulography. American Journal of Kidney Diseases [Internet]. 2003;42(3):539–45. Available from: [http://dx.doi.org/10.1016/S0272-6386\(03\)00786-8](http://dx.doi.org/10.1016/S0272-6386(03)00786-8)
5. Badr B, Bories P, Marais R, Frat B, Seigneure B, Longlune N, et al. Transonic, thermodilution, or ionic dialysance to manage vascular access: Which method is best? Hemodialysis International. 2014;18(1):127–35.

Abstract Country

Denmark

Disclosure of Interest

No

141

Adherence to therapeutic plan in haemodialysis population with and without Diabetes Mellitus

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Background

Diabetes mellitus and chronic kidney disease affect a large percentage of the population and require adherence to therapeutic plan. Glycemic control is preventing the progression of chronic kidney disease and the development of micro- and macrovascular complications, while it improves cardiovascular complications, reduces mortality, and increase quality of life.

Objectives

The objective was to evaluate the adherence of people on haemodialysis with and without diabetes mellitus to treatment regimen, as well as to assess their quality of life.

Methods

Participants (66) on hemodialysis were approached in two in-hospital Dialysis Units. Data collection were for 3 months with the GR-SMAQ – HD Scale” treatment regimen, the SF – 36 quality of life questionnaire and demographic characteristics. Statistical analysis was performed with SPSS v21.

Results

On average, participants demonstrated high adherence to medication (3.32 ± 0.98), very high compliance with dietary and fluid recommendations (1.85 ± 0.44), moderate to high compliance with dialysis sessions (1.27 ± 0.85), and high compliance with the overall dialysis treatment regimen (6.44 ± 1.77). Gender, age, education, area of residence, monthly income, and marital status were identified as important factors influencing various aspects of quality of life and adherence to dialysis regimen. In contrast, the presence of diabetes mellitus and children, the employment status, and the duration of chronic kidney disease were not statistically significant either to adherence to dialysis regimen. Finally, quality of life was significantly associated with the level of adherence to dialysis treatment.

Conclusion/Application to practice

People on hemodialysis show moderate to high levels of adherence to their treatment and moderate levels of quality of life, both physically and mentally, with both parameters being influenced by various demographic factors. The presence of diabetes mellitus does not statistically significantly affect either the degree of adherence or the quality of life. The present study can help renal healthcare professionals on their every day care to people on dialysis.

References

1. Alikari, V., Matziou, V., Tsironi, M., Kollia, N., Theofilou, P., Aroni, A., Fradelos, E. and Zyga, S. (2017) 'A Modified Version of the Greek Simplified Medication Adherence Questionnaire for Hemodialysis Patients.' *Health Psychology Research*, 5(1) p. 6647.
2. AlQarni, K., AlQarni, E. A., Naqvi, A. A., AlShayban, D. M., Ghori, S. A., Haseeb, A., Raafat, M. and Jamshed, S. (2019) 'Assessment of Medication Adherence in Saudi Patients With Type II Diabetes Mellitus in Khobar City, Saudi Arabia.' *Frontiers in Pharmacology*. Frontiers, 0.
3. Delanaye, P. and Mariat, C. (2021) 'Adherence to Therapy: Burden, Complexity, and Perception.' *Kidney International Reports*, 6(1) pp. 5–6.

Abstract Country

GREECE

Disclosure of Interest

No

142

Is Diabetes Mellitus affecting the dietary habits of people on haemodialysis?

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Background

Chronic Kidney Disease (CKD) is a condition characterized by gradual loss of kidney function over time. Diabetes Mellitus is the main risk factor for the development of CKD. Proper nutrition plays an important role in the management of both diseases.

Objectives

The objective to record the dietary habits of two groups of people on haemodialysis, with and without Diabetes Mellitus and the possible correlation with their demographic characteristics and individual medical history.

Methods

Eighty two participants agreed to answer the questionnaire, of which 38 had Diabetes and 44 did not have. Data were collected by administering a questionnaire recording dietary habits and from their medical records.

Results

According to the results, it seems that people with Diabetes consume less sweets, soft drinks, cold meats and fast food than people without Diabetes. Also, the first group excel in the consumption of vegetables and fruits, as well as fish and nuts, foods that are recommended in the dietary pattern of the Mediterranean Diet and appear to have beneficial effects on Diabetes.

Conclusion/Application to practice

People with Chronic Kidney Disease on dialysis have specific nutritional requirements to maintain their health and manage their kidney disease symptoms. In the case of Diabetes, the need for proper nutrition is considered essential, as well as for better glycemic control and better quality of life. Having a supportive team of scientists to provide nutritional advice and help patients understand and manage their disease is important.

References

1. Aroni A, Zyga S, Tsironi M, Presvelos D, Drakopoulos A, Ralli M, Moisoglou I, Leventogianni V, Kosmidis G, Rojas Gil AP. Correlation of Dietary Advanced Glycation End Products with the Hematological and Biochemical Markers of Patients with Chronic Kidney Disease Undergoing Hemodialysis. *Cureus*. 2019 Dec 12;11(12):e6360. doi: 10.7759/cureus.6360. PMID: 31938644; PMCID: PMC6957054.
2. Burrowes JD, Larive B, Cockram DB, Dwyer J, Kusek JW, McLeroy S, Poole D, Rocco MV; Hemodialysis (HEMO) Study Group. Effects of dietary intake, appetite, and eating habits on dialysis and non-dialysis treatment days in hemodialysis patients: cross-sectional results from the HEMO study. *J Ren Nutr*. 2003 Jul;13(3):191-8. doi: 10.1016/s1051-2276(03)00069-4. PMID: 12874743.
3. Rouhani MH, Najafabadi MM, Esmailzadeh A, Feizi A, Azadbakht L. Dietary Energy Density, Renal Function, and Progression of Chronic Kidney Disease. *Adv Med*. 2016;2016:2675345. doi: 10.1155/2016/2675345. Epub 2016 Oct 13. PMID: 27819022; PMCID: PMC5081924.

Abstract Country

GREECE

Disclosure of Interest

No

152

Dietary interventions and quality of life for patients receiving haemodialysis: a scoping review

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Objective

To identify and describe the available evidence on diet-related interventions for individuals receiving haemodialysis where quality of life (QoL) is a measured outcome.

Introduction

Diet plays a crucial role in the QoL of individuals receiving haemodialysis, and supporting patient diet is an important part of routine care¹. Poor nutrition, including malnutrition and protein-energy wasting, is common, and negatively impacts physical functioning, mental health, and social interactions². While several dietary interventions have been trialled, the extent and characteristics of this literature, particularly focusing on QoL, are unclear. This abstract contains details of the ongoing scoping review. We will have finalised findings to present at the conference.

Inclusion criteria

Any dietary-related intervention for adults receiving haemodialysis where QoL was assessed by a validated tool (e.g. education, counselling, supplements, dietary plans).

Methods

MEDLINE, EMBASE, CINAHL, CENTRAL, ClinicalTrials.gov, ICTRP, and Google Scholar were searched for English-language papers, from inception to June 2025. Source selection, data extraction, and data presentation followed the Joanna Briggs Institute scoping review methodology.

Results

10,647 unique records were retrieved and screened by titles and abstracts. 201 were assessed for full-text eligibility, and 64 were included in the review. Most studies focused on supplementation, including general nutritional supplements, protein and amino acids. Other types of intervention included dietary counselling and education interventions relevant to routine haemodialysis care. A range of tools were used to assess QoL, however QoL was typically a secondary outcome. Full analysis of the data is expected to be complete for presentation at the EDTNA/ERCA conference 2026.

Conclusions

Early findings indicate there are a range of dietary interventions which may improve QoL for this patient population. Results from further analysis may identify gaps in the evidence base to guide future research and could aid development of holistic lifestyle intervention programmes which include a dietary component.

References

- Özkan, İ. & Taylan, S. Diet and fluid restriction experiences of patients on hemodialysis: a meta-synthesis study. *Rev. Nefrol. Diálisis Transpl.* **42**, 22–40 (2022).
- Vanden Wyngaert, K. *et al.* Markers of protein-energy wasting and physical performance in haemodialysis patients: A cross-sectional study. *PLoS One* **15**, e0236816 (2020).

Abstract Country United Kingdom

Disclosure of Interest Yes

153

Perspectives of Kidney Transplant Failure by Patients and Healthcare Professionals

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Background

With an increasing pool of kidney transplants in recent years, kidney transplant failure has a high incidence (Couceiro et al., 2022). Following graft failure, patients face a range of clinical and psychosocial challenges. This study aims to understand the patients and healthcare professionals (HCPs) experience of kidney transplant failure in the UK.

Methods

We applied a qualitative descriptive approach. Andersen's Behavioural Model of Health Services Use was applied. Semi-structured one-to-one interviews and focus groups were conducted. Data were imported to NVivo for thematic inductive analysis.

Results

Patients (n=18) and HCPs (n=7) were included. 61% patients experienced one kidney transplant failure, and 39% patients had two or more graft losses. The HCPs included nurses, a nephrologist, a psychiatrist, a social worker, and a renal support coordinator. Patients face different options of kidney replacement therapy (KRT) following kidney transplant failure and highlighted the importance of shared decision-making. Additionally, patients face ongoing psychosocial challenges following kidney transplant failure, especially patients with multiple graft losses who experience deepened psychosocial distress. HCPs viewed failed kidney transplant as a bereavement and acknowledged the importance of psychosocial support and holistic care for patients' post-transplant failure. Notably, both patients and healthcare professionals acknowledge challenges in effectively managing psychosocial aspects of care.

Conclusion/Application to practice

Outcomes following transplantation are highly case-dependent. The number of kidney transplant failures, the survival time of each kidney transplant, patients' age, and the type of donor all influence patients' approaches to coping with kidney transplant failure. Ways to expand access to psychosocial support and education requires more attention, especially in KRT choices, patients' self-management and peer support.

References

Couceiro, C., et al. (2022). Effect of kidney replacement therapy modality after first kidney graft failure on second kidney transplantation outcomes. *Clinical kidney journal*, 15(11), pp.2046–2055.

Abstract Country

UK

Disclosure of Interest

No

158

Patient education with didactic tools in a nutrition clinic supporting holistic nephrology nursing practice

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Abstract

Nutrition education represents an essential operational component of nephrology nursing, as patients commonly present with multimorbid profiles that include chronic kidney disease, diabetes mellitus, sarcopenia, protein–energy wasting and electrolyte disturbances. Due to the complexity and restrictiveness of dietary protocols, non-adherence remains a significant clinical challenge; therefore, implementation of a structured, individualized and evidence-informed educational framework is required. Within our nutrition clinic, patients undergo a comprehensive, face-to-face clinical–nutritional assessment performed by a trained nurse. The assessment encompasses systematic collection of medical and dietary history, evaluation of anthropometric indicators, functional status assessment, screening for malnutrition and sarcopenia, and interpretation of relevant laboratory parameters. Based on this integrated assessment, a tailored educational plan is developed, aligned with the patient’s clinical condition, health literacy level and functional context.

Educational interventions are supported by standardized didactic tools, including Liza’s Plate and calibrated food models, enabling visual, simulation-based translation of complex dietary requirements into practical, patient-specific guidance. Portion sizes and nutrient loads are demonstrated using physical models—for example, illustrating potassium content by comparing the volume of specific food items. This facilitates accurate comprehension of dietary restrictions and safe food selection.

Education sessions are interactive and follow a patient-engagement model, in which individuals actively participate in constructing nutritionally appropriate meals using didactic materials. Concurrent counselling is provided on glycaemic control, optimization of protein and energy intake, and regulation of potassium, phosphate and sodium intake, with particular emphasis on patients with diabetes or sarcopenia.

The integration of didactic tools enhances patient engagement, reduces diet-related anxiety and supports effective transfer of knowledge into daily practice. This nurse-led educational model promotes patient self-management, improves adherence to nutritional prescriptions and represents a scalable, reproducible approach suitable for nephrology and dialysis services in alignment with EDTNA/ERCA principles.

Keywords

Nephrology nursing; clinical nutrition ; patient education; didactic tools; diabetes; sarcopenia;

References

1. Buturović Ponikvar, J. editor. Dialysis treatment. Ljubljana: Clinical Department for nephrology, Internal Clinic, Clinical Center, 345–54.
2. Zupančič, M. (2014). Techniques for assessing the nutritional status of patients with chronic renal failure. In: Rep, M. editor. Nutritional treatment of a patient with kidney disease. Ljubljana: Chamber of Nursing of Slovenia, Section of Nurses and Medical Officers of technicians in nephrology, dialysis and transplantation, 126

Abstract Country

Slovenia

Disclosure of Interest

Yes

163

Seeing the bigger picture: a multidisciplinary risk-based audit approach in dialysis care

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Background

Internal audits are essential to healthcare quality management, supporting continuous improvement. In our organization, we designed a collaborative, multidisciplinary audit model, based on a risk assessment with stakeholder input to identify priority areas, focusing on potential risks and optimizing efficiency while driving meaningful improvements in care.

Objectives

To describe the implementation of a multidisciplinary risk-based audit approach in dialysis clinics and demonstrate its impact on quality oversight, patient safety, operational efficiency, and continuous improvement.

Methods

The multidisciplinary, risk-based audit is conducted by three independent auditors: System and Environment Auditor who is planning, coordinating and managing the audit, leading opening and closing meetings, Nursing Expert Auditor and Medical Expert Auditor.

They assess their process areas and support each other throughout the audit. Audit activities include on-site observations, staff interviews, and document reviews. Findings are jointly reviewed and presented to the auditees ensuring a comprehensive, balanced and transparent assessment.

Results

The multidisciplinary risk-based audit model provides broader insight into clinical practice than single-discipline audits. It enables the identification of gaps within individual professional areas and shows how teamworking helps identify broader issues that may not be visible from a single professional perspective.

Constructive discussion of findings with auditees transforms audit results into shared improvement strategies and opportunities for learning.

This collaborative approach promotes staff engagement, clarifies roles and responsibilities, and supports effective implementation of corrective actions.

- Effective planning decreases unnecessary workload
- Improved visibility of clinical and operational risks
- Better alignment between clinical practice and processes
- Peer-to-peer approach increases staff openness

Conclusion/Application to practice

The multidisciplinary, risk-based audit model strengthens interprofessional collaboration and supports continuous quality oversight in dialysis care, driving meaningful and holistic improvements in practice.

References

No references to add to abstract.

Abstract Country Germany

Disclosure of Interest Yes

168

Hypersensitivity Reactions During Hemodialysis The Critical Role of Dialysis Nurses in Early Recognition and-Management

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Background

Hypersensitivity reactions during hemodialysis are uncommon but potentially serious complications. They may occur due to exposure to dialyzer membranes, sterilizing agents, or extracorporeal circuit components. Clinical manifestations range from mild itching and urticaria to severe bronchospasm, hypotension, and anaphylaxis. Reported incidence ranges from 0.2% to 4% of dialysis sessions. Early recognition and rapid intervention significantly improve patient outcomes.

Objectives

To evaluate the clinical presentation, causes, and outcomes of hypersensitivity reactions during hemodialysis and emphasize the critical role of dialysis nurses in early detection and rapid management to improve patient safety.

Methods

A structured literature review was conducted using PubMed and Google Scholar databases. Articles published between 2000 and 2024 were included. Keywords included hemodialysis hypersensitivity, dialyzer reactions, and anaphylaxis during dialysis. Adult clinical studies were included; pediatric and unrelated studies were excluded.

Results

Hypersensitivity reactions most commonly occur within the first 30 minutes of dialysis initiation. Immediate discontinuation of dialysis and prompt administration of antihistamines, corticosteroids, or epinephrine significantly reduce complications and hospitalization rates. Facilities implementing structured monitoring protocols reported improved hemodynamic stability and reduced progression to severe reactions.

Conclusion/Application to practice

Early nursing recognition and rapid intervention are essential to prevent severe complications. Strengthening nursing training and emergency preparedness significantly improves patient safety and reduces morbidity and mortality.

References

1. Davenport A. Hemodial Int. 2012.
2. Kliger AS. CJASN. 2015.
3. EDTNA/ERCA Guidelines. 2019.

Abstract Country

Libya

Disclosure of Interest

Yes

170

Kidney transplantation as a cohesive care pathway: a digital guide to streamlining patient care

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Background

Kidney transplantation is a significant and major life event for patients and requires acquisition of extensive knowledge to support self-care and long-term graft function. Digital health technologies offer new opportunities to enhance patient self-care and empowerment in kidney transplant recipients.

Objectives

To develop and evaluate a digital guide providing structured information, predictability, security and self-management support throughout the kidney transplant pathway and the period following transplantation, with the aim of streamlining care from inpatient admission to outpatient follow-up.

Methods

A digital guide was developed using the Emento platform and implemented in collaboration across inpatient ward and outpatient clinic involved in kidney transplantation. Clinical workflows and transitions between care settings were systematically assessed to ensure continuity. The digital guide used patient-friendly language, visual aids, embedded links, and allowed for personalization by healthcare professionals. In 2025, a survey was conducted among nursing staff to identify facilitators and barriers to implementation. Data from the Emento platform for 2025 were analysed to explore patient engagement with the guide.

Results

The digital guide was implemented in April 2023. Nursing care for kidney transplant recipients has been standardised across participating departments, supporting a shared and coherent care pathway. Survey findings from 14 ward nurses indicated variation in nurses' familiarity with and use of the digital guide, with some reporting challenges related to changing established clinical practices. Data from the Emento platform demonstrated that 107 out of 125 kidney transplant recipients received access to the guide and 100 out of 107 engaged with its content to varying degrees.

Conclusion/Application to practice

The digital guide has led to consistent and standardised nursing workflows in the care of kidney transplant patients and has the potential to improve patient experience and continuity of care. Successful integration requires targeted training of nurses in using the guide collaboratively with patients and embedding it into daily clinical practice. Qualitative studies exploring patient experiences is recommended to deepen understanding of the guide's impact on self-management, outcomes, and quality of care.

References

N/A

Abstract Country

Denmark

Disclosure of Interest

No

180

Vascular access type determines dialysis adequacy at hemodialysis initiation

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Background

Early achievement of adequate dialysis dose is a cornerstone of safe hemodialysis initiation. Within structured dialysis programs, treatment time and blood flow are typically standardized; however, whether vascular access independently determines delivered dialysis adequacy under such controlled conditions remains insufficiently quantified.

Objectives

To evaluate the independent association between vascular access type and delivered dialysis adequacy (Kt/V) during the first hemodialysis session within a standardized dialysis care pathway.

Methods

We conducted a retrospective analysis of incident patients initiating hemodialysis within our dialysis network. Inclusion criteria were first recorded treatment session, four-hour dialysis duration, and blood flow ≥ 250 mL/min, ensuring uniform high-efficiency conditions. Vascular access was categorized as permanent access (arteriovenous fistula or graft), tunneled catheter, or non-tunneled catheter. Multivariable linear regression adjusted for blood flow and session duration. Pairwise comparisons were corrected using Tukey methodology.

Results

A total of 125 patients met inclusion criteria. Despite standardized treatment parameters, vascular access remained independently associated with delivered dialysis dose. Compared with permanent access, tunneled catheters were associated with a -0.18 reduction in Kt/V (95% CI -0.29 to -0.07 ; $p < 0.01$), while non-tunneled catheters showed a -0.22 reduction (95% CI -0.35 to -0.09 ; $p < 0.01$). The magnitude of this difference corresponds approximately to shortening dialysis time by 40–50 minutes. Session duration remained a strong positive predictor ($\beta = 0.004$ per minute; $p < 0.001$), whereas blood flow was not independently associated with adequacy.

Conclusion/Application to practice

Within a standardized dialysis care pathway, catheter use is independently associated with clinically meaningful reductions in delivered dialysis dose from the first treatment session. These findings identify vascular access as an early, system-level modifiable determinant of dialysis adequacy and underscore the importance of timely permanent access planning across organized dialysis services.

References

- Mesogeios Database
- Venegas-Ramírez J, Hernández-Fuentes GA, et al. Vascular Access Type and Survival Outcomes in Hemodialysis Patients: A Seven-Year Cohort Study. *Medicina*. 2025;61(4):584.
- Lok CE, Huber TS, Orchanian-Cheff A, et al. Arteriovenous Access for Hemodialysis: A Review. *JAMA*. 2024.

Abstract Country

Greece

Disclosure of Interest

Yes

181

Psychologically safe mentorship training for renal nurses: a national programme evaluation

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Background

The EDTNA/ERCA theme “Mind Matters in Nephrology: Caring Beyond the Kidneys” emphasises emotional wellbeing and resilience as essential components of safe kidney care. Effective mentorship enhances these by increasing staff confidence, reducing anxiety and fostering psychologically safe environments where both mentors and learners feel supported. A national virtual mentorship training programme was delivered to UK staff to strengthen communication, improve understanding of neurodiversity and promote compassionate learning relationships that directly contribute to high-quality patient care.

Objectives

To build mentor confidence and capability through a psychologically safe and inclusive training session that equips staff with knowledge and practical tools, supporting learner development and prioritising wellbeing for both mentors and mentees.

Methods

A full day training session was delivered via MS Teams. Content covered psychological safety; mentorship roles and boundaries; learning theories; neurodiversity; hidden curriculum; communication and active listening; structured feedback models; SMART target setting; assessment and documentation. Learning was reinforced through group work, role play and workbook activities. Engagement, workbook completion, surveys and managerial or mentee feedback evidenced learning.

Results

Participants showed strong engagement and demonstrated improved understanding of mentoring responsibilities, communication strategies and neurodiversity informed adaptations. Learners reported increased confidence in giving feedback and managing mentor–mentee conversations—skills that strengthen communication clarity, staff wellbeing and safe clinical practice. Workbook reflections highlighted thoughtful application of inclusive and supportive mentoring behaviours. Educators noted positive interaction despite virtual delivery, though future cohorts should consist of registered nurses to ensure alignment with clinical expectations.

Conclusion/Application to practice

Embedding psychological safety, emotional intelligence and inclusive practice within mentorship training enhances workforce resilience and improves the quality of care delivered. Confident, well supported mentors contribute to safer learning environments and reduced stress for staff, benefiting both mentor and mentee wellbeing. A key limitation was the reliance on self reported data, which may not fully capture the depth of individual learning or behaviour change.

References

None

Abstract Country

United Kingdom

Disclosure of Interest

Yes

187

Pruritus in patients with chronic kidney failure undergoing hemodialysis: a qualitative study

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Background

Pruritus is a common and debilitating symptom among patients with chronic kidney disease (CKD) undergoing dialysis, with significant consequences for their quality of life. This symptom, known as CKD associated pruritus (CKD-aP), can manifest itself in up to 60% of dialysis patients and has been shown to severely affect the psychological well-being and quality of life of patients (Pisoni et al., 2019). Weiss et al. (2020) compared various measurement tools, confirming that CKD-aP is common and often underestimated, emphasizing the need for more accurate assessment methods.

Objectives

To explore the experience of patients with CKD undergoing haemodialysis on CKD-aP.

Methods

Adult patients (n=40) were interviewed, after providing informed consent. The interviews, which were conducted based on a set of guiding questions, were audio recorded and subsequently transcribed for qualitative content analysis. A coding dictionary was developed from the transcripts in order to analyse themes and concepts.

Results

A total of forty interviews were conducted, twenty-two of which (55%) involved participants who reported experiencing CKD-aP at least once during their kidney disease. Based on text coding, four categories were identified that covered the topics addressed by patients: 1) characteristics of the symptom, 2) management of the symptom, 3) understanding of the symptom, and 4) consequences of the symptom. Each of these groups comprised different units of meaning.

Conclusion/Application to practice

The sample showed considerable heterogeneity in terms of how CKD-aP was perceived and its consequences. The intensity and duration of the pruritus varied: some subjects reported mild discomfort that was easily treatable, while others experienced an incessant urge to scratch that was difficult to relieve. The most commonly affected areas were the legs (31.8%), the arms (22.7%), and the back (18.2%).

References

1. Aresi, G., Rayner, H. C., Hassan, L., Burton, J. O., Mitra, S., Sanders, C., & van der Veer, S. N. (2019). Reasons for underreporting of uremic pruritus in people with chronic kidney disease: a qualitative study. *Journal of Pain and symptom management*, 58(4), 578-586. <https://doi.org/10.1016/j.jpainsymman.2019.06.010>
2. Menzaghi, F., Vernon, M. K., Mattera, M., Cirulli, J., Wen, W., Spencer, R. H., & Munera, C. (2023). The burden of pruritus associated with CKD: A mixed methods analysis among patients undergoing dialysis. *Kidney Medicine*, 5(9), 100696. <https://doi.org/10.1016/j.xkme.2023.100696>
3. Titapiccolo, J. I., Lonati, C., Goethel-Paal, B., Bello, A. R., Bellocchio, F., Pizzo, A.,... & Neri, L. (2023). Chronic kidney disease-associated pruritus (CKD-aP) is associated with worse quality of life and increased healthcare utilization among dialysis patients. *Quality of Life Research*, 32(10), 2939-2950. <https://doi.org/10.1007/s11136-023-03438-6>

Abstract Country

Italy

Disclosure of Interest

No

190

Improving decision-making processes in the care of dialysis patients hospitalized in different department

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Methods

This project aimed to enhance nursing knowledge to optimize clinical decision-making. Effectiveness was evaluated via a “Pre-Post” questionnaire distributed to 63 staff members. While 82.5% reported treating nephrology patients, no formal guidelines existed, and initial knowledge levels were low to moderate. Due to gathering restrictions, an online training program was implemented via Microsoft Teams, focusing on renal replacement therapy, vascular access preservation, nutrition, and medication timing. A practical “Clinical Highlights Sheet” was also distributed for bedside use.

Results

The project’s findings and the positive feedback received from the staff indicate a substantial need for accessible and practical knowledge in the field. The questionnaire results demonstrated that targeted training, even when conducted through digital means, is an effective tool for bridging significant knowledge gaps.

Conclusion/Application to practice

In conclusion, it is recommended to integrate these training sessions into the institutional annual learning program and to conduct periodic refreshers for all nursing staff. The consistent implementation of this knowledge will ensure high-quality continuity of care, reduce complications, and significantly improve the quality of care for hospitalized nephrology patients.

Consistent implementation of this knowledge is expected to:

Improve patient safety.

Reduce clinical complications.

Strengthen the continuity of care for hospitalized nephrology patients.

References

- Altintepe, L., Levendoglu, F., Okudan, N., Guney, I., Savas CILLI, A., Ugurlu, H. & Turk, S. (2006). Physical disability, psychological status, and health-related quality of life in older hemodialysis patients and age-matched controls. *Hemodialysis international*, 10(3), 260-266.]
- Al Wakeel, J. S., Mitwalli, A. H., Al Mohaya, S., Abu-Aisha, H., Tarif, N., Malik, G. H., & Hammad, D. (2002). Morbidity and mortality in ESRD patients on dialysis. *Saudi Journal of Kidney Diseases and Transplantation*, 13(4), 473.
- Becker, B. N., Coomer, R. W., Fotiadis, C., Evanson, J., Shyr, Y., & Hakim, R. M. (1999). Risk factors for hospitalization in well-dialyzed chronic hemodialysis patients. *American journal of nephrology*, 19(5), 565-570.
- Beatty, R. M. (2001). Continuing professional education, organizational support, and professional competence: dilemmas of rural nurses. *The Journal of Continuing Education in Nursing*, 32(5), 203-209.
- Böhler, J., Donauer, J., & Keller, F. (1999). Pharmacokinetic principles during continuous renal replacement therapy: drugs and dosage. *Kidney International*, 56, S24-S28.]
- Chantrel, F., Deloumeaux, J., Lange, C., & Lassalle, M. (2013). Survival and mortality in ESRD patients. *Nephrologie & thérapeutique*, 9, S127-37.
- Di Simone, E., Giannetta, N., Auddino, F., Cicotto, A., Grilli, D., & Di Muzio, M. (2018). Medication errors in the emergency department: Knowledge, attitude, behavior, and training needs of nurses. *Indian journal of critical care medicine: peer-reviewed, official publication of Indian Society of Critical Care Medicine*, 22(5), 346.
- EDTNA; Vascular Access Cannulation and Care, a Nursing Best Practice Guide for Arteriovenous Graft, (2017) 155-161
- EDTNA; Chronic Kidney Disease, a Guide to Clinical Practice (2017) 100-233
- Lauri, S., Salanterä, S., Chalmers, K., Ekman, S. L., Kim, H. S., Käppeli, S., & MacLeod, M. (2001). An exploratory study of clinical decision-making in five countries. *Journal of nursing scholarship*, 33(1), 83-90.
- Lauri, S., & Salanterä, S. (1998). Decision-making models in different fields of nursing. *Research in Nursing & Health*, 21(5), 443-452.]
- Lee, M. C., Wu, S. F. V., Hsieh, N. C., & Tsai, J. M. (2016). Self-management programs on eGFR, depression, and quality of life among patients with chronic kidney disease: a meta-analysis. *Asian Nursing Research*, 10(4), 255-262.]
- Majid, S., Foo, S., Luyt, B., Zhang, X., Theng, Y. L., Chang, Y. K., & Mokhtar, I. A. (2011). Adopting evidence-based practice in clinical decision making: nurses’ perceptions, knowledge, and barriers. *Journal of the Medical Library Association: JMLA*, 99(3), 229.
- Morsch, C. M., Gonçalves, L. F., & Barros, E. (2006). Health-related quality of life among haemodialysis patients—relationship with clinical indicators, morbidity and mortality. *Journal of clinical nursing*, 15(4), 498-504.]

Abstract Country Israel

Disclosure of Interest No

191

Management of Implantable Cardioverter-Defibrillator Shocks During Haemodialysis: Nursing Safety and Clinical Response

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Background

Patients undergoing haemodialysis are at increased risk of ventricular arrhythmias and some may have an implantable cardioverter-defibrillator (ICD). ICD shocks occurring during dialysis sessions may generate fear and uncertainty among nursing staff, particularly regarding personal safety, potentially delaying patient assessment and life-saving interventions. Current evidence indicates that misconceptions about the risks associated with physical contact during ICD shock delivery persist in clinical practice.

Objectives

To describe an evidence-based nursing approach for the safe and immediate management of ICD shocks occurring during haemodialysis.

Methods

A narrative review of the literature was conducted during December 2025 encompassing international guidelines, expert consensus statements, and key clinical trials related to ICD management and cardiac resuscitation published between 2016 and 2025. Evidence was integrated with pathophysiological principles and clinical considerations specific to the haemodialysis setting, with a focus on nursing assessment, safety, and decision-making.

Results

The evidence demonstrates that physical contact with the patient during ICD shock delivery is safe for healthcare professionals, with no documented risk of harm. ICD therapy does not replace basic or advanced life support, and clinical assessment must not be delayed. In cases of hemodynamic instability or cardiac arrest, immediate cardiopulmonary resuscitation and adherence to advanced cardiac life support protocols are essential. Haemodialysis-specific measures, including adjustment or interruption of ultrafiltration, evaluation of electrolyte disturbances, and consideration of possible electromagnetic interference, are important components of patient management. Post-event ICD interrogation and multidisciplinary evaluation are recommended to identify shock appropriateness and contributing factors.

Conclusion/Application to practice

Nurses play a critical role in the timely and safe management of ICD shocks during haemodialysis. Understanding that physical contact during ICD shock delivery is safe enables prompt assessment and intervention, reducing delays in care. An evidence-based, protocol-driven approach supports patient safety and improves clinical outcomes in this high-risk population.

References

1. Knops RE, Olde Nordkamp LRA, Delnoy PPHM, et al. Subcutaneous or transvenous defibrillator therapy. *N Engl J Med*. 2020;383(6):526–536.
2. Olde Nordkamp LRA, de Veld JA, Ghani A, et al. Device-related complications in transvenous versus subcutaneous defibrillator therapy during long-term follow-up: the PRAETORIAN-XL trial. *Circulation*. 2025;152:172–182.
3. Fong K, Smith W, Johnson L, et al. Subcutaneous versus transvenous implantable defibrillator therapy: a systematic review and meta-analysis. *Heart Rhythm*. 2022;19(4):560–570.
4. Friedman DJ, Piccini JP, Wang Y, et al. Performance and safety of the extravascular implantable cardioverter-defibrillator. *J Am Coll Cardiol*. 2024;83(5):421–432.
5. Kazmierczak J, Kramer DB, Zimetbaum P, et al. Assessment of guideline recommendations for implantable cardioverter-defibrillator therapy. *Heart Rhythm*. 2019;16(7):1046–1053.

Abstract Country Portugal

Disclosure of Interest No

204

Implementing a Certification Program to Reduce Catheter-Related Bacteremia in Hemodialysis

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Background

Use of central venous catheters (CVCs) for hemodialysis increases the risk of infection, with bacteremia representing the most severe healthcare-associated infection. National Danish data show an incidence of 13.7% among hemodialysis patients, significantly increasing morbidity, mortality, hospital length of stay, and healthcare costs. International guidelines emphasize that structured education and training programs are essential to prevent catheter-related infections. In Denmark, staff handling CVCs must complete specialized training, and patient education is also recommended. The Department of Nephrology at Rigshospitalet was selected as a pilot site for a larger institutional initiative.

Aim

To develop and implement an education and certification program in the hemodialysis unit.

Methods

- External infection prevention and control (IPC) nurses conducted observations of CVC handling in the dialysis units to inform program development and establish a baseline. Observations was repeated one year post implementation.
- Certification uptake among hemodialysis nurses was monitored.
- A working group - comprising key hemodialysis nurses, IPC nurses, and a clinical nurse specialist with long-term experience in CVC certification - developed guidelines, teaching materials, videos and the certification program.
- Implementation was carried out by key hemodialysis nurses.

Results

Seventeen baseline observations showed inconsistent CVC handling; uncertainty regarding hand hygiene and glove use; variation in “scrub the hub” duration; inconsistent use of sterile drapes; and lack of clear procedures (e.g., for suspected bacteremia). One year after implementation, ten observations demonstrated full adherence to certification standards. All staff in three of four dialysis units have completed certification. A comprehensive certification program, patient information materials, and procedure descriptions have been developed. Data extraction on bacteremia rates from the regional electronic health record is pending.

Conclusion

Standardizing CVC handling, increasing staff awareness, and strengthening patient involvement may help reduce catheter-related infections.

References

1. Lok CE, Huber TS, Lee T, Shenoy S, Yevzlin AS, Abreo K, m.fl. KDOQI Clinical Practice Guideline for Vascular Access: 2019 Update. Am J Kidney Dis Off J Natl Kidney Found. april 2020;75(4 Suppl 2):S1–164. doi:10.1053/j.ajkd.2019.12.001 PubMed PMID: 32778223.
2. Skov Dalgaard L, Nørgaard M, Jespersen B, Jensen-Fangel S, Østergaard LJ, Schønheyder HC, m.fl. Risk and Prognosis of Bloodstream Infections among Patients on Chronic Hemodialysis: A Population-Based Cohort Study. PloS One. 2015;10(4):e0124547. doi:10.1371/journal.pone.0124547 PubMed PMID: 25910221; PubMed Central PMCID: PMC4409390.
3. Lutwick L, Al-Maani AS, Mehtar S, Memish Z, Rosenthal VD, Dramowski A, m.fl. Managing and preventing vascular catheter infections: A position paper of the international society for infectious diseases. Int J Infect Dis IJID Off Publ Int Soc Infect Dis. juli 2019;84:22–9. doi:10.1016/j.ijid.2019.04.014 PubMed PMID: 31005622.
4. Classen V m.fl. Nationale Infektionshygiejniske Retningslinjer for brug af intravaskulære katetre [Klinisk national retningslinje]. København: Statens Serum Institut, Central enhed for infektionshygiejne; 2024. Report No.: 3. udgave.

Abstract Country Denmark

Disclosure of Interest No

206

Psychological resilience and cognitive emotion regulation in dialysis patient adaptation

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Background

End-stage renal disease and dialysis impose significant physical and psychological burdens that affect daily functioning and well-being. Psychological resilience and cognitive emotion-regulation strategies are essential resources that help patients cope with chronic illness and influence adaptation and quality of life. Understanding how resilience relates to emotional regulation and clinical factors is vital to improving patient support.

Objectives

To assess psychological resilience and cognitive emotion-regulation strategies in dialysis patients, examine relationships between these constructs, and explore associations with sociodemographic, clinical, and quality-of-life variables.

Methods

A cross-sectional study was conducted from January to May 2022 among 111 adults receiving renal replacement therapy. A diagnostic survey was used, including an original questionnaire, the Resilience Measurement Scale (SPP-25), and the Cognitive Emotion Regulation Questionnaire (CERQ). Statistical analyses included the Mann–Whitney U test and Spearman's rho correlation ($p < 0.05$).

Results

Resilience levels were average ($M = 67.26$; range 8–100). Men and older patients showed higher resilience. Significant differentiating factors included age, gender, vascular access complications, health status, well-being, and perceived impact of dialysis on daily life. Patients listed on the National Waiting List for kidney transplantation had lower resilience than those not listed. No significant differences were found for education, residence, marital status, duration or type of dialysis, or stage of transplant qualification. Resilience correlated positively with planning, focusing on positive aspects, and positive reappraisal ($p = 0.41$ – 0.43), whereas negative strategies—rumination, self-blame, and blaming others—reduced resilience ($p = -0.24$ to -0.44). The strongest predictor of resilience was perceived impact of dialysis on daily functioning.

Conclusion/Application to practice

Dialysis patients demonstrate average resilience, influenced primarily by health status, well-being, and treatment complications. Resilience enhances psychological adaptation and may mitigate the adverse effects of dialysis. Nursing interventions should strengthen positive coping and emotional regulation strategies, especially in patients at higher risk of reduced resilience.

References

1. García-Martínez P, Ballester-Arnal R, Gandhi-Morar K, et.al. *Perceived Stress in Relation to Quality of Life and Resilience in Patients with Advanced Chronic Kidney Disease Undergoing Hemodialysis*. International Journal of Environmental Research and Public Health. 2021;18(2):536. <https://doi.org/10.3390/ijerph18020536>
2. Jadhav ST, Lee P, D'souza CV. *Effectiveness of prehemodialysis preparatory program on improving coping among chronic kidney disease patients*. Saudi J Kidney Dis Transpl 2018;29:1342-9, <https://doi.org/10.4103/1319-2442.248295>
3. Pereira BDS, Fernandes NDS, de Melo NP, et.al. *Beyond quality of life: a cross sectional study on the mental health of patients with chronic kidney disease undergoing dialysis and their caregivers*. Health Qual Life Outcomes. 2017 Apr 17;15(1):74. <https://doi.org/10.1186/s12955-017-0646-4>

Abstract Country

Poland

Disclosure of Interest

No

208

Quality of professional life amongst nephrology nurses after a one year targeted program

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Background

Mental Health and Quality of Professional Life of Nephrology nurses should be considered seriously because it directly relate to patient safety and satisfatcion and workforce retention. After an initial assessment of last year we have launched a targeted program to strengthen compassion satisfaction, team cohesion and reduce burnout.

Objectives

This study is the continuation of a project which aims to analyze the mental health and quality of professional life of nurses working in dialysis clinics.

Methods

This study based on an exploratory and quantitative method. The ProQol-5 scale pairing with demography questionnaire were submitted amongst 9 centers of one dialysis provider in Hungary.
IBM SPSS 23.0 software was used for the statistical analysis.

Results

97 people responded to our anonymous questionnaire, 3 were excluded (n=94). 87% of the nurses were involved at least 1 activities and 64% participated more than 4 activities of the targeted program. Percentage of nurses in the high Compassion fatigue group lowered from 17,2% to 12,4%. Higher burnout score is decreased from 19,2% to 15,6%. High or very high Compassion Satisfaction scores stayed in the same 59,6% and 59,8% respectively. There are significant differences in separating personal and professional life, hapiness and overwhelmed feeling by work between nurses under 40 and over 40 years of age but at the same time both groups like their job, and it make them satisfied.

Conclusion/Application to practice

Nurses need continuous and active monitoring of their mental health level and professional quality of life, as they are at a risk of increasing work burden. With targeted programs and encouragement of an active participation, mental health and professional quality of life of employees can be positively influenced.

References

G.Bahari et al ; Professional Quality of Life Among Nurses: Compassion Satisfaction, Burnout, and Secondary Traumatic Stress: A Multisite Study – SAGE Open Nursing, 2022
M.D. Ruiz-Fernandez et al; Professional Quality of Life Among Nurses: Compassion Satisfaction, Burnout, and Secondary Traumatic Stress: A Multisite Study -Int J Environ Res Public Health, 2020 Feb 15;17(4)

Abstract Country

Hungary

Disclosure of Interest

No

218

Assessment of cognitive functions in patients on hemodialysis

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Background

Cognitive dysfunction is common among patients undergoing hemodialysis and represents a significant problem that affects quality of life, the ability to function independently, and adherence to therapy.

Objectives

The aim of this study was to examine the degree and prevalence of cognitive impairment in patients enrolled in a chronic hemodialysis program, as well as to identify potential risk factors contributing to the development of cognitive disorders.

Methods

Cognitive processes were assessed using the relatively simple Clock Drawing Test, in which participants were asked to draw a circle with numbers correctly positioned and set to a predetermined time. The study included 80 participants from the chronic dialysis program at FMC Hospital Dragačevska. Patients varied in age, sex, level of education, duration of time spent on the chronic dialysis program, and comorbidities (diabetes mellitus, hypertension). The results were classified into three main groups: normal, moderate, and severe cognitive impairment.

Results

The study results indicate the presence of cognitive disorders in patients undergoing hemodialysis. Eighty percent of participants were classified in the group with normal cognitive abilities. Of the 10% of participants who had moderate to severe impairment, the majority were older patients with a significant percentage of comorbidities such as hypertension and diabetes mellitus, a lower level of education, and a slightly higher proportion of males.

Conclusion/Application to practice

The development of interventions aimed at improving cognitive function may be crucial for optimizing care and support for patients undergoing hemodialysis.

The connection with physical health is becoming increasingly clear, as the patient's physical condition, including the presence of comorbidities has a significant impact on cognitive abilities. Poor overall health status correlates with greater cognitive deficits. In conclusion, cognitive impairment in patients on hemodialysis represents an obligation for healthcare professionals to work on identification and interventions that can improve cognitive function and overall quality of life.

References

1. Wenbin Xu a,*, Xiaolian Long b,*, Yuhe Xiang a,c, Aiyin Yu d, Ting Luo a, Yuhang Chen a, Yan Chen e,, Qian Yang Analysis of the trajectory of cognitive function changes and influencing factors in maintenance hemodialysis patients: a prospective longitudinal study 2025 Apr 14;47
2. Melissa Schorr 1,2, Mariah Zalitch 3, Cindy House 3, Janice Gomes 3,4, Conor J Wild 5, Fabio R Salerno 3,6, Christopher McIntyre 1,3,6Cognitive Impairment Early After Initiating Maintenance Hemodialysis: A Cross Sectional Study 2022 Mar 15;13:
3. Drew DA, Weiner DE, Sarnak MJ. Cognitive impairment in CKD: pathophysiology, management, and prevention. Am J Kidney Dis. 2019;74(6):782-790. doi:10.1053/j.ajkd. 2019.05.004
4. Jialing Zhang 1, Leiyun Wu 1, Peixin Wang 1, Yajing Pan 1, Xingtong Dong 1, Linpei Jia 1, Aihua Zhang 1, Prevalence of cognitive impairment and its predictors among chronic kidney disease patients undergoing hemodialysis 2024 Jun 3;19
5. Frederick H F Chan 1, Pearl Sim 1, Phoebe X H Lim 1, Behram A Khan 2 3 4, Jason C J Choo 5 6, Konstadina Griva 7 Screening for cognitive symptoms in dialysis patients with an emphasis on specific tests 2024 Nov 29;25

Abstract Country

Serbia

Disclosure of Interest No

223

A Nursing-Led Professional Empowerment Strategy for the Integral Management of Frailty on Haemodialysis

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Background

Frailty in patients with Chronic Kidney Disease (CKD) undergoing haemodialysis (HD) is a highly prevalent and complex condition, shaped by the interaction of physical, psychological, and social factors. This multidimensional vulnerability is associated with functional decline, increased morbidity, and reduced quality of life. Addressing frailty in this population requires an integral and person-centred approach that acknowledges its dynamic nature and supports comprehensive assessment and intervention across multiple domains.

Objectives

To promote nursing-led professional empowerment by strengthening healthcare professionals' capacity to identify frailty in patients with CKD under HD;

To enhance clinical reasoning and support the implementation of an integral, person-centred, and multidisciplinary interventions.

Methods

A nursing-led professional empowerment intervention was conducted with a multidisciplinary healthcare team in a haemodialysis unit, following a structured project-based methodology. The intervention was developed in three sequential phases: baseline knowledge assessment using a semi-structured questionnaire; a nursing-led empowerment session informed by frailty conceptual models; and an immediate post-intervention evaluation of perceived competence development and overall impact. Data were collected anonymously and analysed using Microsoft Excel®.

Results

Ten healthcare professionals participated in the intervention. All participants rated the initiative as excellent regarding its contribution to professional empowerment. Following the intervention, participants demonstrated improved capacity to recognise frailty indicators and to identify targeted interventions aligned with an integral and person-centred approach, reflecting enhanced nursing-led clinical judgement and decision-making.

Conclusion/Application to practice

A nursing-led professional empowerment strategy is effective in supporting the adoption of an integral and multidimensional approach to frailty in patients undergoing haemodialysis. By reinforcing nursing leadership, clinical reasoning, and multidisciplinary collaboration, this approach contributes to improved professional practice and the delivery of comprehensive, individualized, and person-centred care. Nurses play a key role in leading this approach by empowering healthcare professionals to recognise frailty and translate evidence into daily clinical practice.

References

1. Coelho, T., Santos, R., Paúl, C., Gobbens, R. J., & Fernandes, L. (2015). Portuguese version of the Tilburg Frailty Indicator: Transcultural adaptation and psychometric validation. *Geriatr Gerontol Int*, 15(8), 951-960. doi:10.1111/ggi.12373
2. Fried, L., Tangen, C., Walston, J., Newman, A., Hirsch, C., Gottdiener, J., ... & McBurnie, M. (2004). Frailty in Older Adults: Evidence for a Phenotype. *The Journals of Gerontology: Series A*, 56 (3), 146–157
3. Gobbens, R. J., Luijckx, K. G., Wijnen-Sponselee, M. T. & Shols, J. M. G. A. (2010). Toward a conceptual definition of frail community dwelling older people. *Nursing Outlook*, 58, (2), 76-86.
4. Gong, W., Yao, L., Zhong, X., Qin, D., Huang, C., Yin, L., & Liu, F. (2022). Prevalence and associated factors of frailty among Southern Chinese Han patients on haemodialysis: a multicentre, observational cross-sectional study. *BMJ open*, 12(3), e054177. <https://doi.org/10.1136/bmjopen-2021-054177>
5. Himmelfarb, J., & Ikizler, T. A. (2019). Chronic kidney disease, dialysis and transplantation. In *Chronic Kidney Disease, Dialysis, and Transplantation* (4a Edition). <https://doi.org/10.1016/C2009-0-49595-3>

Abstract Country Portugal

Disclosure of Interest No

230

Home hemodialysis with low-flow dialysate: feasibility of reducing session frequency in selected patients

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Background

Home hemodialysis (HHD) offers significant clinical and psychosocial benefits, including greater patient autonomy and improved quality of life. Frequent dialysis schedules are commonly recommended but may represent a constraint for certain patients, particularly in the context of long-term treatment. In clinical practice, nurses play a central role in adapting prescriptions, monitoring safety parameters, and supporting patients in self-care at home. Reduced-frequency HHD programs therefore raise important questions regarding patient selection, nursing follow-up, and maintenance of dialysis adequacy. Data on the feasibility of such approaches in real-life settings remain scarce.

Objectives

To describe the feasibility of reduced-frequency HHD programs (≤ 4 sessions per week) and the prescription adjustment strategies used to maintain acceptable dialysis parameters within a framework of close clinical monitoring.

Methods

As of December 31, 2025, 70 patients were treated with HHD in our centers. Among them, six patients followed a treatment schedule of four or fewer sessions per week. Collected data included age, weekly dialysate volume, total weekly treatment time, presence of residual diuresis, dry weight, and interdialytic weight gain. Treatments were performed using hemodialysis cyclers and, in most cases, a dialysate production system (PureFlow®) providing up to 60 liters of dialysate. A safety rule was applied: no two consecutive days without dialysis, with adjustment of treatment time and/or dialysate volume when clinically indicated.

Results

In these patients, adjustment of dialysate volume and treatment time allowed implementation of a reduced-frequency schedule without immediate warning signals in the available parameters. At the time of analysis, weekly Kt/V was documented in two patients, with values within the local target range (2.22–2.9). Data collection is ongoing for the remaining patients to standardize evaluation.

Conclusion/Application to practice

In this small cohort, reduced-frequency HHD combined with individualized prescription adjustments and organizational safeguards appears feasible in selected patients. Results should be interpreted cautiously due to the small sample size and incomplete data. This work opens discussion on patient selection criteria, minimal safety indicators to monitor beyond Kt/V, and organizational conditions required to balance quality of life and dialysis adequacy in HHD.

References

Nephrocare France

Abstract Country

France

Disclosure of Interest

Yes

234

Living in Permanent Transition: Rethinking Theoretical Models in End-Stage Kidney Disease

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Background

Living with End-Stage Kidney Disease (ESKD) involves successive and often irreversible transitions marked by continuous technological dependence, cumulative losses, and profound identity reconfiguration. In nursing practice, theoretical frameworks such as the Transitions Theory of Afaf Meleis, chronic disease self-management models developed by Kate Lorig, and the Adaptation Model proposed by Sister Callista Roy have been widely used to guide clinical and educational interventions. However, it remains insufficiently examined whether these models adequately capture the lived experience of people living with ESKD.

Objectives

To critically analyse the explanatory limits of predominant transition and adaptation models when applied to people living with End-Stage Kidney Disease.

Methods

A structured conceptual analysis was undertaken through systematic comparison between the core assumptions of selected theoretical models and empirical literature describing the lived experience of people living with ESKD. This analysis was complemented by theoretically informed reflection grounded in nephrology nursing practice.

Results

Four main explanatory limits were identified: (1) the assumption of linear progression and resolution of transition, contrasted with lived trajectories characterised by regression and ongoing change; (2) the centrality of adaptation as a normative endpoint, despite functional adjustment often coexisting with persistent identity disruption; (3) emphasis on autonomy and self-management within contexts of structural and technological dependence; and (4) limited conceptual accommodation of prolonged ambivalence and sustained incomplete adaptation.

Conclusion/Application to practice

While theoretical models remain valuable frameworks for nursing care, their application to people living with ESKD reveals explanatory limits that warrant conceptual refinement. Incorporating dimensions such as permanent transition, structural dependence, and partial identity reconstruction may strengthen alignment between theory and person-centred nephrology nursing practice.

References

1. Lorig, K. R., Sobel, D. S., Ritter, P. L., Laurent, D., & Hobbs, M. (2001). Effect of a self-management program on patients with chronic disease. *Effective Clinical Practice*, 4(6), 256–262.
2. Lorig, K., & Holman, H. (2004). *Living a healthy life with chronic conditions* (3rd ed.). Bull Publishing.
3. Meleis, A. I. (2018). *Theoretical nursing: Development and progress* (6th ed.). Wolters Kluwer.
4. Roy, C. (2009). *The Roy adaptation model* (3rd ed.). Pearson.
5. Roy, C. (2011). Extending the Roy Adaptation Model to meet changing global needs. *Nursing Science Quarterly*, 24(4), 345–351. <https://doi.org/10.1177/0894318411419210>

Abstract Country

Portugal

Disclosure of Interest

No

238

Incorporating the palliative care model into kidney care

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Background

Kidney disease is considered to have a high symptom burden on those diagnosed with the disease. Although the treatments for end-stage kidney disease, dialysis and transplantation, can improve the quality of life for individuals, these treatments can at times cause complications. There can also be other underlying conditions that individuals need to manage along with their kidney disease, for example, type 2 diabetes, cardiovascular disease, and some forms of cancer.

People are also living longer due to the advancements in medicine, which leads to people being diagnosed with kidney disease at an older age and being put on dialysis into their 80's and beyond, sometimes without another option being discussed.

Objectives

The main objectives are for all health professionals who work in the area of kidney disease to be more at ease with discussing end-of-life planning with their patients.

To be able to provide integrated care to their patients when needed.

That all staff are familiar with the three levels of palliative care.

That all staff are aware that level one palliative care can be provided by all staff, which entails understanding that a patient can be engaged in palliative care for a long period of time, and recognising the importance of the specialist palliative care team in their Hospital.

Kidney palliative care is for those patients who are deteriorating despite dialysis treatment, who are withdrawing from dialysis treatment, and who are considering or are already conservatively managed.

(Arnold, Liao 2006, Gomm, Farrington, 2009, Davison 2021, HSE 2022)

Methods

Introduction/education around effective communication for staff.

Education around conservative management for staff.

Education around the differences between palliative care and end-of-life care.

Health literacy for patients, introducing them to conservative management and the option of palliative care treatment.

Results

This process is presently at the early stages of implementation. The aims of palliative care and end-of-life planning is that it will be introduced earlier, when it can be more effective for the patient.

To have an interdisciplinary team of people engaging with this holistic approach, including staff, family, and local communities.

Palliative care is offered to patients where appropriate.

Palliative care will encompass physical, spiritual, social, and psychological needs.

Most importantly, the needs of the patients are met.

(IHF 2020, IKA 2018)

Conclusion/Application to practice

In introducing palliative care to patients earlier, it means informed decisions can be made at a more appropriate time. It allows for conversation between family and hospital staff to be had, thereby allowing there to be a reduced sense of fear and/or anxiety.

References

1. Arnold RM, Liao S. Renal palliative care: supporting our colleagues, patients and family. *J Palliat Med* 2006;9(4):975-6.
2. Brady, B, Redahan L, Donohoe CL, Mellotte GJ, Wall C, Higgins S. Renal patients at end of life: A 5- year retrospective review, *Progress in palliative care* 2017;25:5, 224-229.
3. Chambers EJ, Brown EA, Germain MJ. Supportive care for the renal patient. 2nd ed. Oxford: Oxford University Press; 2010.
4. Davison S. Kidney palliative care: principles, benefits, and core components. *Wwwuptodate.com* 2021.
5. Gomm S, Farrington K. End of life care in advanced kidney disease: a framework for implementation; 2009.

Abstract Country

Ireland

Disclosure of Interest

No

239

Building Renal Services from the Ground Up: A Nursing-Led Quality Improvement Project

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Background

Implementing renal replacement therapy services in organizations without previous dialysis experience represents a significant organizational and clinical challenge. In early 2023, a multidisciplinary team was tasked with establishing renal services within a healthcare company lacking a dialysis background, requiring rapid development of governance structures, clinical processes, and workforce capability to support safe practice.

Objectives

To describe a nursing-led quality improvement project focused on the design and implementation of in-center haemodialysis followed by home haemodialysis services within a Healthcare organization, highlighting key processes, challenges, and enabling factors.

Methods

A quality improvement experiential report was conducted describing the implementation process from December 2022 to February 2023 for in-centre haemodialysis, with subsequent expansion to home haemodialysis. Project documentation, implementation plans, meeting records, and team reflections were reviewed. The analysis explored core domains of service development including governance establishment, policy and protocol development, workforce recruitment and competency preparation, infrastructure readiness, communication strategies, and continuous quality improvement actions.

Results

The implementation pathway included organizational mapping, development and adaptation of clinical policies and procedures, procurement of equipment, environmental preparation, and structured staff recruitment. Nursing leadership played a central role in coordinating implementation activities, delivering training programmes, supporting competency validation, and promoting quality and safety standards. Implementation outputs included creation of clinical governance frameworks, development of operational policies, workforce training completion, and service activation within the planned timeframe, followed by progressive development of a home haemodialysis programme. Key challenges involved adapting nephrology-specific requirements to an unfamiliar organizational culture, managing compressed timelines, and ensuring workforce readiness. Facilitators included strong nursing coordination, multidisciplinary collaboration, iterative problem-solving, and transparent communication processes.

Conclusion/Application to practice

Nursing leadership is pivotal in renal service implementation, particularly in non-specialized contexts. Early governance definition, investment in workforce education, adaptable policy development, and continuous communication emerged as critical success factors. This experience highlights the contribution of nephrology nursing to service innovation and provides transferable insights for organizations undertaking similar renal programme development.

References

1. Wong, C. A., Cummings, G. G., & Ducharme, L. (2013). The relationship between nursing leadership and patient outcomes: A systematic review update. *Journal of Nursing Management*, 21(5), 709–724. <https://doi.org/10.1111/jonm.1211>
2. Reed, J. E., & Card, A. J. (2016). The problem with Plan-Do-Study-Act cycles. *BMJ Quality & Safety*, 25(3), 147–152. <https://doi.org/10.1136/bmjqs-2015-005076>
3. Liyanage, T., Ninomiya, T., Jha, V., Neal, B., Patrice, H. M., Okpechi, I., Zhao, M. H., Lv, J., Garg, A. X., Knight, J., Rodgers, A., Gallagher, M., Kotwal, S., Cass, A., & Perkovic, V. (2015). Worldwide access to treatment for end-stage kidney disease: A systematic review. *The Lancet*, 385(9981), 1975–1982. [https://doi.org/10.1016/S0140-6736\(14\)61601-9](https://doi.org/10.1016/S0140-6736(14)61601-9)

Abstract Country United Arab Emirates

Disclosure of Interest Yes

247

Fatigue in peritoneal dialysis: association with demographic, clinical, organizational and psychosocial factors

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Background

Fatigue is one of the most common and burdensome symptoms in patients with End-Stage Chronic Kidney Disease undergoing home peritoneal dialysis (PD). It affects functionality, self-management of treatment and quality of life, and is often associated with psychosocial and organizational factors. Despite its importance, the factors associated with perceived fatigue in the context of home PD have not been adequately investigated in everyday clinical practice.

Objectives

The aim of the study was to investigate the relationship between fatigue levels and demographic, clinical, educational, organizational and psychosocial factors in patients undergoing home-based PD care, as well as to identify independent predictive factors through multivariate analysis.

Methods

A nationwide quantitative study was conducted that included all patients undergoing Peritoneal Dialysis in Cyprus during the data collection period. The Fatigue Severity Scale (FSS) was used to assess fatigue. Due to the non-normal distribution of the data, non-parametric tests (Mann–Whitney and Kruskal–Wallis) were applied, while correlations between continuous variables were investigated with the Spearman correlation coefficient. To identify independent predictors, multivariate linear regression with stepwise variable entry was used, after logarithmic transformation of the dependent variable, in order to satisfy the conditions of the analysis.

The study population consisted of patients with end-stage chronic kidney disease who were monitored in Public Hospitals of the State Health Services Organization (SHSO) throughout Cyprus, as this treatment is not provided in the private sector. Initially, the expected number of patients was estimated at approximately 100 individuals. However, during the study period, a total of 50 patients were enrolled on a pan-Cypriot basis. Of these, 15 refused to participate, resulting in a final sample of 35 patients. Data collection was carried out after approval by the Three-Member Committee of the Doctoral Candidate of the University of Nicosia (Department of Health Sciences), the National Bioethics Committee of Cyprus, the Research and Innovation Office of SHSO and the Directors of the involved Clinics. The self-completed and anonymous questionnaires were distributed and collected within three months. All participants signed an informed consent form and, where required, the form was completed with the assistance of a caregiver. The FSS, a demographic questionnaire and an improvised psychosocial assessment tool were used.

Results

Higher levels of fatigue were observed in single patients and in patients with a monthly income $\leq 1000\text{€}$ ($p=0.050$ and $p=0.014$ respectively). Fatigue was significantly increased in those who were trained in a non-quiet environment ($p<0.001$), needed more frequent visits or communications with the CKD Unit ($p\leq 0.009$), spent >3 hours per visit ($p=0.002$), did not have direct access to the Unit ($p=0.004$) or perceived treatment as a burden for themselves and their family ($p\leq 0.050$). A positive correlation was observed between anxiety and fatigue ($\rho=0.47$, $p=0.004$). In the multivariate analysis, direct access to the CK Unit ($\beta=-0.208$, $p=0.001$) and higher income ($\beta=-0.142$, $p=0.011$) emerged as independent protective factors, with access to the Unit having a stronger effect.

Conclusion/Application to practice

Fatigue in home-based PD care is not only related to clinical indicators but is also substantially influenced by organizational and socioeconomic factors. Ensuring immediate access to specialized support and strengthening organized, community-based nursing care may significantly reduce the psychosomatic burden of patients. The findings support the need to develop easily accessible support structures and targeted interventions for vulnerable socioeconomic groups, with the aim of improving clinical outcomes and quality of life.

References

1. Tian, C., Zhang, B., Liang, W. et al., 2020. *Fatigue in peritoneal dialysis patients and an exploration of contributing factors: a cross-sectional study*. *Journal of Pain and Symptom Management*, **59** (5), pp.1074-1081. doi:10.1016/j.jpainsymman.2019.12.351. ([PubMed][1])
2. Schade van Westrum, E., 2025. *Fatigue across different chronic kidney disease populations: experiences and needs of patients*. *Clinical Kidney Journal*, **18** (5), sfaf118. doi:10.1093/ckj/sfaf118. ([OUP Academic][2])
3. Xia, A., 2025. *Risk factors and potential treatments for fatigue in patients with chronic kidney disease stage 4–5D: a narrative review*. *MDPI Journal of Nephrology & Therapeutics*, **5** (1), p.8. ([MDPI][3])
4. IJPSR, Sreevasumathi, K. et al., 2024. *Assessment of fatigue in dialysis [peritoneal and haemodialysis] and non-dialysis patients of chronic kidney disease*. *International Journal of Pharmaceutical Sciences and Research*, **15** (4), pp.1215-1222. ([ijpsr.com][4])
5. Tarca, B. et al., 2024. *Ecological Momentary Assessment to Explore Fatigue, Mood, and Physical Activity Levels in People Receiving Peritoneal Dialysis*. *Kidney International Reports* (online). ([ScienceDirect][5])

Abstract Country

Cyprus

Disclosure of Interest

No

252

Global mentoring to support newly hired nursing managers in dialysis care

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Background

In a global dialysis healthcare organisation, nursing managers face complex challenges, including leading multidisciplinary teams, ensuring quality of care, and meeting regulatory requirements. Transitioning into a new leadership role amplifies the need for structured support. Global mentoring offers an opportunity to transfer knowledge, share best practices, and strengthen leadership competencies across national and cultural borders

Objectives

This paper presents a good-practice example of global mentoring, where an experienced nursing manager from one country systematically supports a newly hired manager in another country within an international healthcare organisation.

Methods

The mentoring relationship follows a structured framework, including regular remote meetings, individually tailored goals, reflection on leadership challenges, and exchange of clinical, organisational, and cultural experiences. The process emphasises understanding local healthcare systems while aligning with the company's global standards.

Results

Global mentoring leads to faster integration of the new nursing manager, enhanced confidence in team leadership, and improved consistency in implementing quality and patient safety standards. The process also promoted two-way learning, professional growth for the mentor, and strengthened international collaboration.

Conclusion/Application to practice

Global mentoring among nursing managers is an effective and sustainable approach to developing leadership competencies in dialysis care. Cross-border knowledge sharing supports standardisation of practices, professional development, and improved patient care within a global healthcare context.

References

- Bennett, P.N., Walker, R.C., Trask, M., et al. (2019). *The International Society of Nephrology Nurse Working Group: Engaging Nephrology Nurses Globally*. *Kidney Int Rep* (2019) 4, 3–7; <https://doi.org/10.1016/j.ekir.2018.10.013>.
- Rosser, E. A., Edwards, S., Kwan, R. Y. C., et al. (2023). *The Global Leadership Mentoring Community: An evaluation of its impact on nursing leadership*. *International Nursing Review*, 70(3), 279–285. <https://doi.org/10.1111/inr.12860>.

Abstract Country

Germany

Disclosure of Interest

No

261

Nursing interventions addressing psychological burden in home peritoneal dialysis: a scoping review

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Background

Home peritoneal dialysis (PD) promotes autonomy and self-management; however, transferring treatment responsibility to patients and families may increase psychological burden, including anxiety, depression, fatigue, and emotional distress. Nurses are central to PD programs and may play a key role in addressing these psychosocial challenges.

Objectives

To map the scientific evidence on nursing interventions aimed at managing psychological burden in adults undergoing home PD.

Methods

A scoping review was conducted in accordance with JBI methodology and the PCC mnemonic: Population (adults undergoing home PD); Concept (psychological burden); Context (nursing interventions). The review followed PRISMA-ScR guidelines. Searches were performed in MEDLINE (via PubMed), CINAHL Complete, Cochrane Plus Collection, Nursing & Allied Health Collection, and MedicLatina (via EBSCOhost). Studies involving individuals under 18 years, those in pre-dialysis, or receiving other renal replacement therapies were excluded. From 300 identified records, three studies met the inclusion criteria.

Results

Two cross-sectional studies identified modifiable psychosocial factors associated with poorer outcomes in PD patients, including depression, low social support, insomnia, and fatigue. Only one randomized controlled trial described a structured nurse-led empowerment intervention using a Problem-Based Learning model, demonstrating improvements in self-management, anxiety, depression, and quality of life. No studies reported standardized mental health screening protocols integrated into PD nursing care.

Conclusion/Application to practice

Evidence regarding nurse-led interventions specifically targeting psychological burden in home PD remains scarce. While nurses are well positioned to provide psychosocial support, structured and systematically evaluated interventions are limited. Further research is needed to develop and validate nurse-led strategies that integrate mental health assessment and support into routine PD care.

References

1. Cao, F., Hong, F., Ruan, Y., & Lin, M. (2023). Effect of Patient-Empowerment Interaction Model on Self-Management Ability of Peritoneal Dialysis Patients: A Randomized Controlled Trial. *Patient Preference and Adherence*, Volume 17, 873–881. <https://doi.org/10.2147/PPA.S402698>
2. Jung, J. H., & Kim, H. Y. (2024). Effect of Social Support, Fatigue, and Depression on the Quality of Life of Patients Undergoing Peritoneal Dialysis. *Journal of Korean Academy of Fundamentals of Nursing*, 31(2), 254–262. <https://doi.org/10.7739/jkafn.2024.31.2.254>
3. Maninet, S., Nakrit, B., & Suttavat, P. (2023). Prevalence and influencing factors of fatigue among patients undergoing continuous ambulatory peritoneal dialysis: A cross-sectional study. *Belitung Nursing Journal*, 9(4), 391–398. <https://doi.org/10.33546/bnj.2715>

Abstract Country

Portugal

Disclosure of Interest

No

267

Effect of educational intervention on the quality of life of patients with Kidney Disease

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Background

Chronic Kidney Disease (CKD) and its management can adversely affect patients' quality of life and mental health. Many patients are often inadequately informed about their condition and the available treatment options. At least 60% of CKD patients, regardless of disease stage, lack basic knowledge about their disease, therapeutic options, and underlying mechanisms.

Objectives

This study aims to investigate the impact of enhanced patient education on quality of life, psychological resilience, anxiety, and depression.

Methods

A prospective, randomized study was conducted in 61 patients with stage 4–5 CKD. Participants were allocated into two groups: an intervention group (IG) and a control group (CG). Initially, all patients completed three questionnaires. Only the IG attended an educational session and completed an additional satisfaction questionnaire. In the second phase, after at least six months, all participants completed the same three questionnaires. The effectiveness of the educational intervention was assessed based on its impact on quality of life, psychological resilience, anxiety, and depression.

Results

Higher satisfaction with the intervention was significantly associated with a reduction in anxiety and depression scores, along with a notable improvement in social functioning. Furthermore, a marginally significant positive correlation was observed between the satisfaction scale and psychological resilience.

Conclusion/Application to practice

The level of satisfaction with the intervention is a critical factor determining its effectiveness. Tailoring the intervention to address the unique needs of each patient may significantly enhance its impact.

References

1. Barelllo, S., Anderson, G., & Acampora, M. (2022) 'The effect of psychosocial interventions on depression, anxiety, and quality of life in hemodialysis patients: a systematic review and a meta-analysis', *International Urology and Nephrology*, 55(4), pp. 897–912. Available at: <https://doi.org/10.1007/s11255-022-03374-3>.
2. Campbell, Z. C., Dawson, J. K., & Kirkendall, S. M. (2022) 'Interventions for improving health literacy in people with chronic kidney disease', *Cochrane Library*, 2022(12). Available at: <https://doi.org/10.2215/cjn.02590316>.
3. Correia, J. C., Waqas, A., & Assal, J. (2023) 'Effectiveness of therapeutic patient education interventions for chronic diseases: A systematic review and meta-analyses of randomized controlled trials', *Frontiers in Medicine*, 9. Available at: <https://doi.org/10.3389/fmed.2022.996528>.
4. Dsouza, B., Prabhu, R., & Unnikrishnan, B. (2023) 'Effect of Educational Intervention on Knowledge and Level of Adherence among Hemodialysis Patients: A Randomized Controlled Trial', *Global Health, Epidemiology and Genomics*, pp. 1–9. Available at: <https://doi.org/10.1155/2023/4295613>.
5. Mahmoud, M. A., Ibrahim, A., & Fadil, H. A. (2023) 'Assessment of Public Knowledge about Chronic Kidney Disease and Factors Influencing Knowledge Levels: A Cross-Sectional Study', *Medicina*, 59(12), 2072.

Abstract Country

Greece

Disclosure of Interest

No

270

Prevalence of factors affecting kidney health among nursing students

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Background

Kidney health among nursing students is influenced by a specific combination of lifestyle factors, high stress levels, and demanding theoretical and practical training. Although nursing students are characterized by relatively high health awareness, they are also exposed to a number of behaviors that increase the risk of kidney dysfunction.

The most important risk factors include: chronic stress and sleep deprivation, inadequate hydration resulting from limited opportunities to drink water regularly during clinical sessions, and an unhealthy diet, including excessive salt intake, skipping meals (especially breakfast), and insufficient fruit and vegetable intake. Frequent use of nonsteroidal anti-inflammatory drugs to relieve pain, high caffeine consumption, and insufficient physical activity also pose significant risks.

Objectives

Assessment of the prevalence of factors affecting kidney health among nursing students.

Methods

The study was conducted at the beginning of 2026. Diagnostic survey method was applied in the research, using the author's questionnaire.

Results

Sixty-five nursing students were included in this study. Most of them were female. Only one student was under the care of a nephrology clinic. Two students suffered from type I diabetes, one from hypertension and another from kidney stones. Every third respondent had bladder infections, and most of respondents have a family history of chronic disease or cancer. Despite their young age, over 30% of respondents had a Body Mass Index above 25 and a Waist-to-Hip Ratio indicating abdominal obesity.

About 1/3 of students had basic blood tests performed during the year, occasionally a creatinine level. A large group of respondents smoke cigarettes or use e-cigarettes. All respondents took non-steroidal anti-inflammatory drugs, and the largest group did so at least once a week. All students reported experiencing sleep problems, with more than half sleeping 6 hours or less per night and sometimes staying awake more than 24 hours.

More than half of respondents do not have fish on their menu, and they most often eat sweet snacks. The average water consumption was 1.5 l, although there were cases where students did not drink water for several hours, but sometimes they drank energy drinks. Half of students tried to lead an active lifestyle.

Conclusion/Application to practice

Nursing students' lifestyles can impact kidney health. Sleep disorders, poor diet, and the use of nonsteroidal anti-inflammatory drugs (NSAIDs) can contribute to kidney disease. To change the growing trend of chronic kidney disease, systemic actions should be taken, among which education and diagnostic tests play an important role.

References

Shekhar R, Prasad N, Singh T: Lifestyle factors influencing medical and nursing student's health status at the rural health-care institute. *Journal of Education and Health Promotion*, 2022.

Abstract Country

Poland

Disclosure of Interest

No

271

Nephrology path of coordinated care in primary health care

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Background

Chronic kidney disease (CKD) affects approximately 9–10% of the global population and remains markedly underdiagnosed in its early stages. Low awareness among patients and healthcare professionals contributes to delayed referral, accelerated progression and increased cardiovascular risk. In healthcare systems facing nephrology workforce shortages, early CKD identification must be effectively implemented within primary care. In Poland, the coordinated care framework introduced by the Polish Society of Family Medicine (PTMR) provides a structured opportunity to shift CKD detection and monitoring to primary care physicians and nurses. The Polish Nephrology Nurses Association was invited to cooperate in the development of educational materials.

Objectives

To present an evidence-based, implementation-ready CKD detection pathway for primary care aligned with PTMR coordinated care and international guidelines.

Methods

Synthesis of current international CKD guidelines and Polish coordinated care recommendations, combined with practical workflow integration for primary care teams.

Results

The group covered by coordinated care are: patients with diseases where the risk of CKD is high, with diagnosed kidney disease and patients from preventive programs, e.g. cardiology. According to research, patients of coordinated care are more satisfied with their care and adhere to recommendations. Risk-based annual screening using serum creatinine with eGFR calculation and urine albumin-to-creatinine ratio allows early identification of CKD. Persistent abnormalities over three months confirm diagnosis. Evidence indicates substantial underuse of albuminuria testing in routine care. Integration of standardized sampling procedures, repeat testing, referral thresholds and nurse-led education strengthens early detection and continuity of care.

Conclusion/Application to practice

Coordinated primary care models can close the CKD diagnostic gap by operationalizing a simple eGFR–UACR pathway supported by structured patient education. This approach improves early intervention, reduces late referrals and supports sustainable nephrology workforce utilization.

References

KDIGO

Abstract Country

Poland

Disclosure of Interest

No

272

Embedding infection prevention through dialysis experiential learning: national quality improvement initiative results.

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Background

Patients receiving haemodialysis are at heightened risk of healthcare-associated infections due to frequent and prolonged exposure to clinical environments. National prevalence data show that infection remains a significant challenge across healthcare settings, underscoring the need for consistent, high quality infection prevention education. Recognising the value of engaging staff, patients, and carers in shared learning, a nationwide Infection Prevention and Control (IPC) Week was introduced to strengthen core IPC behaviours across a large dialysis network.

Objectives

To improve IPC knowledge and behaviours among staff, enhance engagement through diverse educational approaches, and promote a culture where infection prevention is a shared responsibility involving staff, patients, and carers.

Methods

IPC Week was implemented across 29 dialysis clinics in England. A central toolkit provided daily themes, educational materials, activity guides, and virtual presentations delivered twice daily to maximise access. Activities included demonstrations, UV light hand hygiene assessments, waste management games, and opportunities for patient participation. Clinics documented engagement, collected photographs and examples of good practice, and completed post-event surveys to evaluate outcomes.

Results

At least one survey response was obtained from every clinic. All respondents reported engagement with the programme, and 56% described themselves as highly engaged. Learning preferences varied, with 41% favouring presentations and 47% preferring practical activities. Perceived IPC knowledge increased across all key themes, and 53% of staff involved patients in IPC activities. Feedback indicated that the variety of teaching methods and the informal, interactive format supported open discussion and encouraged reflective improvements in daily practice.

Conclusion/Application to practice

A dedicated annual IPC Week proved effective in strengthening infection prevention behaviours across a geographically dispersed dialysis service. The combination of experiential learning, inclusive educational approaches, and active patient involvement fostered a supportive environment that encouraged consistent, confident IPC practice. This model demonstrates how structured, network-wide initiatives can embed sustained improvements in infection prevention and contribute to high-quality, person-centred dialysis care.

References

N/A

Abstract Country

UK

Disclosure of Interest

Yes

E-POSTERS WITHOUT ORAL PRESENTATION

2

The role of quality indicators and change management in hemodialysis care

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Background

Hemodialysis units are highly complex healthcare environments that provide long-term treatment to patients with chronic kidney disease. Ensuring high-quality, safe, and effective care is a continuous challenge due to evolving clinical guidelines, technological advances, and increasing organizational demands. The systematic use of quality indicators, combined with effective change management strategies, is essential for improving clinical performance and patient outcomes in these settings.

Objectives

The aim of this study is to examine the role of quality indicators in hemodialysis units and to explore how structured change management approaches contribute to quality improvement, patient safety, and enhanced healthcare service delivery.

Methods

A narrative literature review was conducted using international scientific databases. Peer-reviewed studies focusing on clinical, operational, and patient-centered quality indicators in hemodialysis units were analyzed. In addition, literature related to change management models and quality improvement frameworks in healthcare organizations was reviewed to identify key factors influencing successful implementation.

Results

The findings indicate that the systematic application of quality indicators, such as dialysis adequacy (Kt/V), infection rates related to vascular access, hospitalization and mortality rates, and patient satisfaction, is associated with improved clinical outcomes and increased patient safety. Monitoring these indicators supports evidence-based decision-making, reduces variability in care, and promotes adherence to international clinical guidelines. Furthermore, the literature highlights that quality improvement initiatives are more effective when supported by structured change management strategies, including leadership engagement, staff education, clear communication, and interdisciplinary collaboration. These factors facilitate staff acceptance, reduce resistance to change, and enhance the sustainability of improvement efforts.

Conclusion/Application to practice

The integration of quality indicators with effective change management strategies is crucial for the continuous improvement of hemodialysis units. Developing a strong culture of quality and supporting healthcare professionals during organizational change can lead to more efficient, patient-centered, and sustainable care delivery. Future research should focus on integrated quality frameworks and the long-term impact of organizational change on patient outcomes.

References

- National Kidney Foundation. (2015). KDOQI Clinical Practice Guideline for Hemodialysis Adequacy: 2015 Update. *American Journal of Kidney Diseases*, 66(5), 884–930.
- KDIGO. (2013). KDIGO Clinical Practice Guideline for the Evaluation and Management of Chronic Kidney Disease. *Kidney International Supplements*, 3(1), 1–150.
- Kotter, J. P. (2012). *Leading Change*. Harvard Business Review Press.

Abstract Country

GREECE

Disclosure of Interest

No

3

Mind-Body approach I nephrology care: how mental health affects physical outcomes (the nurse's role)

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Background

1. Recognition that the mind and body interact

Modern nursing does not view the patient solely as a biological entity but also considers: psychological factors, stress, emotional state, and self-efficacy.

2. The need to apply the Mind–Body approach in nephrology

Patients with chronic kidney disease often experience:

increased stress, fear, fatigue, and reduced quality of life.

Therefore, the integration of psychosocial interventions into their care is essential.

3. The essential role of the nurse

The background is based on the idea that the nurse:

provides supportive communication, educates the patient, enhances self-care and participation in treatment, and contributes to managing stress and symptoms.

4. Documentation through literature review

The abstract indicates that the background is supported by:

relevant literature, clinical practices, and studies demonstrating the connection between mental and physical health.

Objectives

1. To explore the interaction between mental health and physical outcomes in patients with chronic kidney disease, within the framework of the Mind -Body approach.
2. To analyze the psychological factors (stress, emotional state, anxiety) that influence symptom management, treatment response, and overall well - being in nephrology patients
3. To examine the role of the nurse in integrating Mind -Body principles into clinical practice through supportive communication, patient education, and empowerment
4. to identify evidence-based psychosocial interventions that can improve quality of life, reduce anxiety, and enhance treatment adherence in patients undergoing nephrological care
5. To review relevant literature and clinical studies that highlight the connection between psychological state and physical health outcomes in chronic kidney disease
6. To propose nursing strategies that incorporate holistic care to promote patient engagement in the therapeutic process

Methods

This assignment was conducted through a structured literature review focusing on the Mind- Body approach in nephrology care and the influence of mental health on physical outcomes. Scientific databases such as Pub Med, CINAHL, Scopus and Google Scholar were searched, mental health, chronic kidney disease, nursing role, psychological interventions and quality of life. Studies published between the past 10-15 years were included to ensure up -to -date and clinically relevant information. Priority was given to peer -reviewed articles, clinical guidelines, systematic reviews, and evidence -based nursing practice reports. The selection criteria focused on literature examining psychological factors in nephrology patients, the impact of stress and emotional well - being on disease progression, and the involvement of nurses in holistic care. Data were extracted, compared and synthesized to identify common themes related to the interaction between mental and physical health, effective nursing interventions, and patient outcome. The findings were organized into thematic categories to support the objectives of the assignment.

Results

The literature review a consistent relationship between psychological well-being and physical health outcomes in patients with chronic kidney disease.

Across the analyzed studies, increased levels of stress, anxiety, and emotional distress were associated with higher symptom burden, reduced treatment adherence, and poorer quality of life. Several studies demonstrated that patients with higher self-efficacy and emotional stability showed improved clinical indicators, such as better management of fatigue, enhanced coping dialysis, and more stable physiological parameters.

Evidence also highlighted the effectiveness of Mind-Body interventions- including relaxation techniques guided imagery, mindfulness practices, and supportive counseling in reducing stress and improving patient's emotional regulation. These interventions were found to contribute to increased engagement in self-care routines and adherence to therapeutic regimens. The role of the nurse emerged as a critical factor in implementing these interventions. The reviewed literature emphasized that supportive communication, patient education and individualized psychosocial guidance provided by nurses significantly enhanced patient's psychological resilience and reduced anxiety levels. Studies consistently reported that nursing led Mind-Body strategies improved patient satisfaction, decreased perceived stress, and promoted holistic well-being. Overall, the findings support the integration of Mind-Body approaches into nephrology care, highlighting their positive impact on both psychological and physical outcomes.

Conclusion/Application to practice

Conclusion

The findings of the literature review highlight the significant influence of psychological factors - such as stress, emotional well-being, and self-efficacy on the physical health outcomes of patients with chronic kidney disease. The Mind-Body approach emerges as an essential component of holistic nephrology care demonstrating positive effects on symptom management, treatment adherence, and overall quality of life. Evidence consistently indicates that interventions addressing both mental and physical aspects of health contribute to improved resilience and better clinical outcomes.

The role of nurse is central in promoting and facilitating Mind-Body practices. With continuous patient contact and holistic care philosophy, nurses are uniquely positioned to identify psychological needs and implement supportive interventions. By incorporating strategies such as therapeutic communication, stress-reduction techniques and patient engagement and well-being

Application to practice

Applying the Mind-Body approach in clinical nephrology practice involves integrative evidence-based psychosocial interventions into everyday nursing care. Nurses can incorporate simple but effective techniques such as breathing exercises mindfulness-based activities, relaxation training, and guided imagery during routine interactions with patients. Supporting patient's managing stress and understanding its impact on their physical condition can lead to improved adherence reduced symptom severity and enhanced coping with treatment demands.

Additionally, structured patient education focusing emotional self-management and self-efficacy can empower individuals to take an active role in their care.

Developing individualized care plans that include psychosocial assessment ongoing emotional support and collaboration with multidisciplinary teams can further strengthen patient outcomes. Regular training and professional development for nurses in Mind-Body techniques are essential to ensure the consistent and effective application of holistic care principles. Overall, integration Mind-Body principles into nephrology practice not only enriches the therapeutic relationship but also promotes comprehensive, patient-centered care that addresses both mental and physical health needs.

References

1. Álvarez, J., & Bagnasco, A. (2021). *Mind-body interventions in chronic illness: Effects on stress, coping, and quality of life*. *Journal of Holistic Nursing*, 39(3), 189–200. <https://doi.org/10.1177/0898010121995410>
2. Bossola, M., Di Stasio, E., Antocicco, M., Pepe, G., & Vulpio, C. (2018). Fatigue in chronic dialysis patients: The role of depression and anxiety. *Journal of Nephrology*, 31(5), 813–819. <https://doi.org/10.1007/s40620-018-0471-9>
3. Cukor, D., Cohen, S. D., Peterson, R. A., & Kimmel, P. L. (2007). Psychosocial aspects of chronic disease: ESRD as a paradigmatic illness. *Journal of the American Society of Nephrology*, 18(12), 3042–3055. <https://doi.org/10.1681/ASN.2007030345>
4. Feroze, U., Martin, D., & Kalantar-Zadeh, K. (2020). Quality of life and mental health in hemodialysis patients: The role of psychosocial interventions. *Nephrology Nursing Journal*, 47(4), 325–333.
5. Ng, C. G., Kamaruzzaman, S. B., Tan, M. P., & Zainal, N. Z. (2019). The role of psychological interventions in improving outcomes in patients with chronic kidney disease. *Psychology, Health & Medicine*, 24(8), 969–982. <https://doi.org/10.1080/13548506.2019.1574352>

Abstract Country GREECE

Disclosure of Interest Yes

4 Anxiety, depression, stress and suicidal ideation in hemodialysis patients

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Background

The hemodialysis in the context of Chronic Kidney Disease affects the psychology of patients and there are significant indications that it causes anxiety, depression, stress and suicidal ideation.

Objectives

To investigate the association of depression, anxiety, stress and suicidal ideation with hemodialysis patients.

Methods

The study sample consisted of 104 patients undergoing hemodialysis in public and private Kidney Hemodialysis Units in Athens, during the period from 1/4/2024 to 30/6/2024. The data collection was implemented using: a) a questionnaire of individual and demographic data; b) the DASS21 questionnaire, which measures the emotional dimension of depression, anxiety and stress; and c) the RASS questionnaire, a self-report instrument for suicidal ideation.

Results

The sample's middle age was 65.9 years old, and almost all of the participants (96.2%) were Greek citizens. According to the data analysis, 11.6% showed severe to very severe symptoms of depression, 17.3% severe to very severe levels of anxiety and 7.8% very severe levels of stress. More intense suicidal ideation was related to low income as well as to the use of a hemodialysis catheter, which is a great influence of the disease on life and increased levels of anxiety and stress. It was also observed that the time of inclusion in hemodialysis from 6 months to 3 years showed higher levels of depression. Finally, no differences were observed in the occurrence and intensity of symptoms of depression, anxiety, stress and suicidal ideation in patients of public units compared to private ones.

Conclusion/Application to practice

It was found that the mental health of patients undergoing renal replacement therapy with hemodialysis is moderate to quite good. The importance of improving the clinical recognition of early symptoms, the implementation of routine screening for psychological distress, the early recognition of suicidal ideation and effective mental health care are important prevention approaches.

References

Cheng J, Yang D, Zuo Q, Peng W, Zhu L, Jiang X. Correlations between uncertainty in illness and anxiety, depression and quality of life in patients receiving maintenance haemodialysis: A cross-sectional study. *Nurs Open*. 2022 Mar.
Morowatisharifabad MA, Ghaffari M, Mehrabi Y, Askari J, Zare S, Alizadeh S. Experiences of stress appraisal in hemodialysis patients: A theory-guided qualitative content analysis. *Saudi J Kidney Dis Transpl*. 2020.
Zorba E, Fasoi G, Grapsa E, Zartaloudi A, Polikandrioti M, Alikari V, et al. Investigation of Social Constraints, Psychosocial Adjustment and Optimism among Dialysis Patients. *Clin Pract*. 2024 Jul 19.

Abstract Country

Greece

Disclosure of Interest

No

8

Octopus - artificial intelligence supported development of a dialysis machine tracking system

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Background

Dialysis units often rely on manual documentation and informal communication to track dialysis machines and water treatment equipment. This reduces situational awareness, increases workload, and weakens traceability when infection prevention teams must reconstruct exposures. AI-enabled development workflows can help clinicians build fit-for-purpose digital tools

Objectives

The objectives were to develop OCTOPUS, a web-based system for real-time dialysis machine management, and to show how sustained use of AI tools can support clinician-led software development. A second objective was to improve epidemiological traceability of device movement for infection prevention

Methods

I developed OCTOPUS over several months using an iterative, needs-driven process. I defined a clinical problem, built a feature, tested it in real unit scenarios, and refined the solution. AI tools supported code drafting, logic checks, troubleshooting, and user interface optimisation. Clinical requirements, workflow decisions, and safety-relevant content remained under my responsibility throughout

Results

OCTOPUS provides a dashboard of rooms and devices, status tracking (in use, under repair, or outpatient use), and structured device history with technical and clinical notes, creating a shared “single source of truth”. Deep Trace stores a time-stamped “digital footprint” of each machine’s last 10 locations, enabling rapid reconstruction of movement when infection is suspected (e.g., CRE, VRE, MRSA, C. difficile) and supporting targeted cleaning, isolation, and exposure management by place and time. Drag-and-drop allows staff to update location by moving an on-screen device card to the relevant room or station, reducing manual updates and saving time

Conclusion/Application to practice

OCTOPUS shows that a nurse-led, AI-supported approach can convert frontline workflows into a practical digital system that improves real-time tracking of dialysis machine status and location, as well as infection prevention traceability. It can strengthen team communication and patient safety, while reducing reliance on expensive, hardware-dependent tracking infrastructure

References

To develop the system, I used AI tools - chatGPT, Claude, Gemini, NotebookLM.

Abstract Country

Israel

Disclosure of Interest

No

18

Common Causes of Hemodialysis Machine Alarms and Alarm Fatigue in Libyan Dialysis Centers

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Background

Frequent alarms generated by hemodialysis machines represent a significant operational challenge that may disrupt workflow and compromise patient safety. Repeated exposure to alarms can contribute to alarm fatigue among dialysis staff, potentially leading to delayed or missed responses.

Objectives

This study aimed to identify common types of hemodialysis machine alarms in Libya, analyze factors associated with these alarms, and assess the prevalence of self-reported alarm fatigue among dialysis staff.

Methods

A multicenter cross-sectional descriptive study was conducted in Libya between September 2025 and January 2026. The study included 31 dialysis centers across western, eastern, and southern regions. A multicenter convenience sample of 154 dialysis nurses, technicians, and supervisors was recruited, with technicians randomly selected within each center to reduce selection bias. Inclusion criteria required at least six months of dialysis experience. Data were collected using a structured questionnaire. Alarm fatigue was assessed using self-reported measures. Chi-square tests and independent t-tests were used for statistical analysis, with significance set at $P < 0.05$.

Results

Alarm causes were categorized into pressure-related, technical and water quality, and human factors. Pressure-related alarms were associated with vascular access problems (72.7%), inappropriate needle size relative to blood flow (65.6%), and lack of individualized pressure limits (49.4%). Technical issues included aging machines, with 90.9% aged ≥ 3 years (range: 3–10 years), and perceived sensor inaccuracy (42.9%). Water quality problems were reported by 83.1% of participants. Circuit clotting occurred in 41% of cases during the five-month study period, exceeding international benchmark rates (10–20%). Overall, 61% of participants reported alarm fatigue.

Conclusion/Application to practice

Hemodialysis machine alarms in Libyan dialysis centers are associated with technical, clinical, and human factors, with a high prevalence of alarm fatigue and circuit clotting. Standardized protocols, regular maintenance, and targeted staff training are recommended to reduce alarm burden and enhance patient safety.

References

1. European Best Practice Guidelines Expert Group on Haemodialysis. Section I. Measurement of renal function, when to refer and when to start dialysis. *Nephrol Dial Transplant*. 2002;17(Suppl 7):7–15.
2. European Best Practice Guidelines Expert Group on Haemodialysis. Section II. Haemodialysis adequacy. *Nephrol Dial Transplant*. 2002;17(Suppl 7):16–31.
3. European Best Practice Guidelines Expert Group on Haemodialysis. Section V. Chronic intermittent haemodialysis and prevention of clotting in the extracorporeal system. *Nephrol Dial Transplant*. 2002;17(Suppl 7):63–71.
4. European Best Practice Guidelines Expert Group on Haemodialysis. Section IV. Dialysis fluid purity. *Nephrol Dial Transplant*. 2002;17(Suppl 7):45–62.
5. ERA-EDTA European Renal Best Practice (ERBP). ERBP position statement on management of patients on haemodialysis. *Nephrol Dial Transplant*. 2010;25(6):1753–1762.

Abstract Country

Libya

Disclosure of Interest

Yes

25

**Presentation of patients with central venous catheters for hemodialysis –
Clinical center of Montenegro**

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Background

The usage of temporary and permanent dialysis catheters for hemodialysis vascular access has been on continual increase. The use of a central venous catheter (CVC) for hemodialysis involves the placement of a catheter in a large-lumen venous system - most often the internal jugular, subclavian or femoral vein. Complications associated with the placement of a CVC occur in 2-26% of cases and can be mechanical, infectious or thrombotic.

Objectives

The aim of our work is to determine the trend in the placement of temporary and permanent CVCs, indications for placement and prevention and control of complications.

Methods

This work is based on a search of scientific and professional literature, especially original research articles published in the last five years, in the following scientific databases: PubMed, SCOPUS, MEDLINE and analysis of data from the dialysis center of the Clinical Center of Montenegro.

Results

Our results show that in the period 2025, out of approximately eighty patients on dialysis, 14 patients had a temporary or permanent dialysis catheter

Conclusion/Application to practice

Our center does not differ significantly from other hemodialysis centers in terms of the trend of CVC placement and the occurrence of complications, which can be explained by the proper maintenance and hygiene of the CVC by nurses in the dialysis center, nephrology clinic, Clinical Center of Montenegro and the implementation of asepsis and antiseptic measures. Constant evaluation, proper care and hygiene of dialysis catheters are highly recommended

References

1. Peličić D, Đukić V, Maraš B, Konatar R, Musić K. Complications related to central venous catheters: A special focus on infections. *Annals of Nursing*. 2025;3(1):17-27. doi: [10.5937/annnur3-57964](https://doi.org/10.5937/annnur3-57964)
2. Premužić V, Tomašević B, Eržen G, Makar K, Brunetta-Gavranić B, Francetić I, Bašić-Jukić N, Kes P, Jelaković B. Primjena trajnih i privremenih centralnih venskih katetera za hemodijalizu [Temporary and permanent central venous catheters for hemodialysis]. *Acta Med Croatica*. 2014 Apr;68(2):167-74
3. Poinen K, Quinn RR, Clarke A, Ravani P, Hiremath S, Miller LM, Blake PG, Oliver MJ. Complications From Tunneled Hemodialysis Catheters: A Canadian Observational Cohort Study. *Am J Kidney Dis*. 2019 Apr;73(4):467-475. doi: 10.1053/j.ajkd.2018.10.014.

Abstract Country

Montenegro

Disclosure of Interest

No

26

Control of hepatitis B infection on hemodialysis: follow-up period 2005-2025.

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Background

Hepatitis B virus (HBV) is a significant public health problem affecting the human population worldwide. HBV infection is widespread in dialysis centers, so general prevention measures and vaccination of patients before starting hemodialysis (HD) therapy significantly affect the incidence and mortality rate of HBV on HD.

Objectives

The aim of our work is to demonstrate prevention and determine the incidence, prevalence, mortality and transmission of HBV infection in dialysis patients for a twenty-year follow-up period.

Methods

In this prospective-retrospective study, we will present the results related to the number of HBV-positive patients for a given follow-up period in the Dialysis Center at the Clinic of Nephrology, Clinical Center of Montenegro, from 2005 to 2025.

Results

Our results showed that during the twenty-year follow-up period, a total of 10 patients with HBV infection were dialyzed, of which, as of December 2025, a total of 5 patients were still on dialysis. It is important to emphasize that none of the patients with HBV infection were infected at the Dialysis Center at the Clinic of Nephrology.

Conclusion/Application to practice

By properly preventing HBV infection: vaccination, isolating patients from other HD patients, on special devices, in a separate room, and reducing the number of blood transfusions after introducing erythropoietin in the treatment of anemia, we have managed to prevent the transmission of the hepatitis B virus in HD patients. Proper prevention, control, diagnostics, treatment and care of patients largely depends on the work of nurses at the Dialysis Center, and such outstanding results, among other things, are the merit of the nurses who work with these patients.

References

1. BrnovicD, PelicicD. Prevention measures of hepatitis B in healthcare institutions from the perspective of the nursing scope of work. Sanamed. 2024; 19(1): 79–85. Doi:10.5937/sanamed0-48202.
2. Kes P, Slavicek J, Janković N. Smjernice za sprječavanje, kontrolu i liječenje hepatita B na dijalizi, kao i za cijepljenje zdravstvenih radnika na dijalizi protiv hepatitisa B [Prevention and treatment of hepatitis B in patients on hemodialysis and vaccination of hemodialysis health personnel against hepatitis B]. Acta Med Croatica. 2005;59(5):479-82.
3. Hepatitis B virus infection. Nat Rev Dis Primers. 2018 Jun 7;4:18036. doi: 10.1038/nrdp.2018.36.

Abstract Country

Montenegro

Disclosure of Interest

No

29

More than procedures: making dialysis care work in daily practice

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Background

Clinical procedures are fundamental for ensuring safety, consistency, and quality in dialysis care. Their effectiveness, however, depends not only on their design but also on how they are introduced, understood, and embedded in everyday clinical practice. In complex dialysis environments, procedures must be supported by professional judgment to remain meaningful and applicable in real-life situations.

Objectives

To describe a practice-based experience illustrating how deliberate professional efforts to support understanding and application of procedures contribute to their sustainable integration into daily dialysis care, without deviating from their core intent.

Methods

This practice-based experience describes approaches embedded in routine dialysis care aimed at supporting the consistent application of clinical procedures. These included focused staff education, simplification of key procedural messages, continuous reinforcement during everyday clinical activities, and close collaboration within the multidisciplinary team. Emphasis was placed on feasibility, sustainability, and staff engagement rather than on formal intervention design.

Results

The described approaches supported the embedding of procedures as stable clinical frameworks within daily practice. Over time, procedures were increasingly applied through professional judgment, allowing nurses to adapt them to situational demands while preserving their essential principles. Staff reported clearer understanding of procedural intent, improved communication, and smoother integration of procedures into routine workflows.

Conclusion/Application to practice

Well-designed clinical procedures are essential but do not function in isolation. Deliberate efforts to support understanding and engagement enable procedures to become embedded in practice, after which professional judgment allows their safe and effective application in everyday care. This combination of structured guidance and mature nursing practice supports safe, consistent, and sustainable dialysis care.

References

1. Patient safety: Global action plan 2021–2030. WHO; 2021.
2. Vanholder R, et al. Clinical practice guidelines: between evidence and practice. *Nephrology Dialysis Transplantation*. 2018;33(4):573–577.
3. Nilsen P. Making sense of implementation theories, models and frameworks. *Implementation Science*. 2015;10:53.

Abstract Country

North Macedonia

Disclosure of Interest

No

30

Patient education and self-management in hemodialysis care: a practice-based perspective

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Background

Patient education represents an essential component of hemodialysis care, supporting self-management, understanding of treatment, and daily decision-making. Educational materials are commonly used to address multiple aspects of dialysis care, including vascular access, nutrition, fluid management, and symptom awareness. Beyond clinical knowledge, such materials may also reflect broader elements of patient experience, including communication, support, and interaction with dialysis staff.

Objectives

To describe the use of structured educational materials in routine hemodialysis practice and to explore how their content aligns with selected psychosocial domains of patient-reported quality of life.

Methods

Patient education was delivered as part of routine hemodialysis care across dialysis centers within the organization. The present description is based on data from a single dialysis center, where education was integrated into daily clinical practice during treatment sessions. Educational topics varied over time and addressed key aspects of dialysis care, including general dialysis information, vascular access, nutrition, blood flow, and hospitalization-related issues. Patient-reported quality of life was assessed using the KDQOL questionnaire as part of the routine annual survey conducted in 2025, including 84 patients. Descriptive analysis was used to describe the overall profile of quality-of-life domains.

Results

Higher scores were observed in psychosocial KDQOL domains, including Dialysis Staff Encouragement, Patient Satisfaction, Social Support, Quality of Social Interaction, and Emotional Wellbeing. These domains reflect aspects of patient experience addressed within the scope of educational materials and routine patient–staff interaction. Physical health–related domains showed lower scores, consistent with the chronic nature of end-stage kidney disease.

Conclusion/Application to practice

Educational materials used in routine hemodialysis care support multiple dimensions of patient self-management and experience. Observed quality-of-life profiles highlight the relevance of psychosocial domains related to staff support and patient interaction. Describing this alignment supports reflection on the role of education as part of holistic dialysis care, without implying direct causal relationships.

References

1. Hays RD, Kallich JD, Mapes DL, Coons SJ, Carter WB. Development of the Kidney Disease Quality of Life (KDQOL) Instrument. *Quality of Life Research*. 1994;3(5):329–338.
2. Thomas D, Joseph J, Francis B. Patient education and self-management in chronic kidney disease. *Journal of Renal Care*. 2015;41(1):17–23.

Abstract Country

North Macedonia

Disclosure of Interest

No

31 Quality of life of hemodialysis patients at the University Clinical Center in Kragujevac

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Background

End-stage renal disease (ESRD) is a growing problem worldwide that significantly affects the quality of life of patients. It is estimated that approximately 4 million people worldwide are on one of the methods for renal replacement therapy, the largest number of whom are on hemodialysis (HD) (69%). In addition to the fact that HD itself can affect the patient's mental state, anemia, microinflammation and hemodialysis adequacy can also have a major impact on the patient's health-related quality of life.

Methods

The study was designed as a clinical observational study - a cross-sectional study (Cross/Sectional) with prospective follow-up of patients treated with regular standard high-flux hemodialysis and postdilution hemodiafiltration over a one-year period (12 months). A total of 101 patients treated with hemodialysis at the Clinic for Nephrology and Dialysis of the University Clinical Center Kragujevac were examined. The prevalence and impact of anemia, microinflammation, and HD adequacy on the total health-related quality of life score and its domains (physical, social, psychological, and environmental domains) were examined. Depending on the target values of the aforementioned risk factors, patients were divided into two groups. The correlation between risk factors and the total health-related quality of life score was also examined.

Results

The results show that anemia (Hgb < 110 g/l, FER ≥ 460), microinflammation (IL-6 > 40 ng/ml), hemodialysis adequacy (interdialysis yield > 3l) have a negative impact on health-related quality of life and its domains, while hemodiafiltration and urea reduction > 65% have a positive impact on health-related quality of life and its domains. Ferritin has also been found to be an independent predictor of health-related quality of life in hemodialysis patients.

References

1. Pelić D, Ratković M, Radunović D, Bokan D, Marković D. Procjena kvaliteta života bolesnika na hroničnom programu hemodijalize. Sestrinska reč. 2014;18(69-70):12-5. doi: 10.5937/sestRec1470012P
2. Sherman CW, Iyer R, Abler V, Antonelli A, Carozzi NE. Perceptions of the impact of chorea on health-related quality of life in Huntington disease (HD): A qualitative analysis of individuals across the HD spectrum, family members, and clinicians. Neuropsychol Rehabil. 2020 Jul;30(6):1150-1168. doi: 10.1080/09602011.2018.1564675.
3. Rasyid H, Kasim H, Zatalia SR, Sampebuntu J. Quality of Life in Patients with Renal Failure Undergoing Hemodialysis. Acta Med Indones. 2022 Apr;54(2):307-313.

Abstract Country

Serbia

Disclosure of Interest

No

32 Psychosocial and socio-economic determinants of quality of life in dialysis patients

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Background

Patients undergoing chronic dialysis face significant physical, psychological and social challenges that substantially affect their quality of life. Depression and anxiety are highly prevalent in this population but often remain under-recognised in routine clinical practice. In addition, socio-economic factors such as income, employment status and living conditions may further contribute to psychological distress and reduced treatment adherence, yet they are rarely systematically assessed in dialysis care.

Objectives

To examine the relationship between socio-economic status, perceived social support and psychological well-being, and their impact on quality of life in patients receiving chronic dialysis, and to highlight the importance of integrated psychosocial assessment in nephrology practice.

Methods

A cross-sectional study was conducted at IDC Zabok (Fresenius Medical Care, Croatia) including 80 adult patients on chronic dialysis. Psychological status was assessed using validated instruments: PHQ-9 for depression and GAD-7 for anxiety. Quality of life was evaluated using the KDQOL-36 short form, while perceived social support was measured using the MSPSS questionnaire. Socio-economic status was assessed through a separate sociodemographic questionnaire covering employment, income level, education, living situation and access to transportation for dialysis. Data were analysed using descriptive and inferential statistical methods.

Results

Lower income, unemployment and weaker perceived social support were significantly associated with higher levels of depression and anxiety, as well as poorer quality of life scores. Increased psychological distress was also associated with a higher frequency of dialysis session refusal or early termination.

Conclusion/Application to practice

The results highlight the need for routine psychological screening and assessment of socio-economic factors in dialysis units. Systematic use of simple screening tools enables early identification of vulnerable patients, timely multidisciplinary intervention and may improve quality of life, treatment adherence and overall patient outcomes.

References

- 1 Palmer S, Vecchio M, Craig JC, et al. Prevalence of depression in chronic kidney disease: systematic review and meta-analysis of observational studies. *Kidney International*. 2013;84(1):179–191.
- 2 Kroenke K, Spitzer RL, Williams JB. The PHQ-9: validity of a brief depression severity measure. *Journal of General Internal Medicine*. 2001;16(9):606–613.
- 3 Hays RD, Kallich JD, Mapes DL, Coons SJ, Carter WB. Development of the Kidney Disease Quality of Life (KDQOL) Instrument. *Quality of Life Research*. 1994;3(5):329–338.
- 4 Zimet GD, Dahlem NW, Zimet SG, Farley GK. The Multidimensional Scale of Perceived Social Support. *Journal of Personality Assessment*. 1988;52(1):30–41.
- 5 Cukor D, Cohen SD, Peterson RA, Kimmel PL. Psychosocial aspects of chronic disease: ESRD as a paradigmatic illness. *Journal of the American Society of Nephrology*. 2007;18(12):3042–3055.

Abstract Country Croatia

Disclosure of Interest Yes

39

THE ROLE OF NURSES IN FAMILY EDUCATION OF INDIVIDUALS ON PERITONEAL DIALYSIS

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This paper presents the case of a 22-year-old patient with intellectual disabilities who started CAPD due to end-stage chronic kidney disease. Because of his reduced ability to understand and perform procedures, his mother assumed a key role in education and therapy implementation.

Objectives

Education was carried out using an individualized approach, adapted to the patient's level of understanding, with intensive involvement of the mother as the primary caregiver.

Methods

The mother was educated on the basic principles of CAPD, hygiene measures, recognition of infection signs, correct bag changes, and therapy documentation. Special emphasis was placed on preventing peritonitis, one of the most common complications. Demonstrations, repeated practice, and written instructions were used throughout the educational process.

Results

The results showed that the mother successfully acquired the necessary knowledge and skills, while the patient participated according to his abilities.

Conclusion/Application to practice

This ensured safer therapy implementation and preservation of quality of life. Caring for patients with special needs can be demanding and exhausting for nurses, making family support essential. Through a multidisciplinary approach and teamwork, a positive therapeutic relationship was achieved. This example highlights the importance of family involvement and the nurse's role as a key educator and source of support in adapting to chronic illness.

References

The paper refers to patient education in chronic renal failure family education the role of a nurse

Abstract Country

Croatia

Disclosure of Interest

No

47

High-risk pregnancy in a young kidney transplant recipient: A case report

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Background

Pregnancy in young women following dialysis and kidney transplantation is considered a high-risk condition. Although fertility improves after transplantation, only 1–7% of women of reproductive age with a kidney transplant achieve pregnancy, with increased risks of hypertensive disorders, preterm delivery, and graft dysfunction. Planned pregnancy and multidisciplinary management are essential for optimal outcomes.

Objectives

We report the case of a young female patient with congenital kidney dysplasia who initiated renal replacement therapy with peritoneal dialysis, later transitioning to hemodialysis. A first deceased-donor kidney transplantation was performed in 2011 and was complicated by chronic graft dysfunction and antibody-mediated rejection. Due to progressive renal failure, a second deceased-donor kidney transplantation was successfully performed in February 2020, resulting in stable graft function.

Methods

The pregnancy was planned following stabilization of graft function and optimization of therapy. At 24 weeks of gestation, the patient was hospitalized for graft function monitoring and management of arterial hypertension. At the time of reporting, the pregnancy has progressed to 32 weeks of gestation. Throughout pregnancy, graft function has remained moderately reduced without significant proteinuria, and blood pressure has been adequately controlled.

Results

Nurses play a pivotal role in continuous clinical surveillance, including monitoring of vital signs, assessment of volume status, medication administration, patient education regarding blood pressure self-monitoring, and early identification of potential complications. Equally important is the provision of continuous psychological support aimed at reducing anxiety and promoting adherence during a high-risk ongoing pregnancy.

Conclusion/Application to practice

In young kidney transplant recipients, planned pregnancy combined with individualized therapy, structured nursing care, and psychological support may result in favorable outcomes despite a complex nephrological history.

References

1. McKay DB, Josephson MA. Pregnancy in recipients of solid organs—effects on mother and child. *N Engl J Med*. 2006;354(12):1281–1293.
2. Deshpande NA, James NT, Kucirka LM, et al. Pregnancy outcomes in kidney transplant recipients: a systematic review and meta-analysis. *Am J Transplant*. 2011;11(11):2388–2404.
3. Wyld ML, Clayton PA, Jesudason S, Chadban SJ, Alexander SI. Pregnancy outcomes for kidney transplant recipients. *Am J Transplant*. 2013;13(12):3173–3182.

Abstract Country

Croatia

Disclosure of Interest

Yes

48

Improving microcirculation beyond kidneys: Implementing rheopheresis in our dialysis unit

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Background:

(E.g. fibrinogen and others) with a goal to reduce plasma viscosity improving blood flow in micro-circulation of hemodialysis (HD) patients with peripheral arterial disease (PAD). This method enhances peripheral tissue oxygenation and may support chronic wound healing.

Objectives:

To implement the rheopheresis in our dialysis department.

Results:

The rheopheresis was introduced for patients with PAD. Preparation was the same as for HD since the method uses filter and does not require fluid replacement, so the preparation time is shorter than in standard plasma exchange therapy (PLEX). We tried 4 modes: Rheopheresis after regular HD, rheopheresis on non-HD day, rheopheresis simultaneously with HD and in select group of HD patients, with small interdialytical mass, rheopheresis after shorter HD. Serum fibrinogen was measured before and after rheopheresis to determine effectiveness. All four modes achieved good fibrinogen reduction. The main differences were in patient comfort: mainly them opting for either simultaneous rheopheresis with HD or shorter HD and then rheopheresis, citing the need to avoid coming on non-HD day. The main challenge was that some patients had hypotensive reactions depending on plasma volume treated. Staff hours were saved if the rheopheresis was done on the same day as HD. We observed better wound healing, less inflammation and no need for surgical interventions in patients on rheopheresis. We also noticed better ultrafiltration rates in regular HD after few rheopheresis sessions. Patients were positive and embraced the method especially after seeing results.

Conclusion/Application to practice:

Rheopheresis is a novel method that can improve both quality of life and HD in our patients with better wound healing and either preventing or delaying new microvascular complications.

References

Klingel R, Fassbender C, Fassbender T, Erdtracht B, Berrouschot J. Rheopheresis: rheologic, functional, and structural aspects. *Therapeutic Apheresis*. 2000;4(5):348-357.

Abstract Country

Croatia

Disclosure of Interest

Yes

49

A friend in need is a friend indeed: nurses and ultrasound to the rescue

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Background:

Arterio-Venous fistula (AVF) is preferred vascular access in hemodialysis (HD) patients. Recognizing early signs of AVF disfunction can mean the difference between saving the function and the loss of function of AVF.

Objectives:

Trying to implement earlier recognition of AVF failure in tandem with our nephrologist and interventional radiologists.

Methods:

Experienced dialysis nurses would inspect AVFs in patients with newly constructed AVFs not yet on HD and in those already on HD treatment. If disfunction was suspected patient would be taken to doppler ultrasound (US) where the experienced dialysis nurse would point to the interventional radiologist where they suspect AVF problem. Patient would be treated with endovascular intervention or AVF would be deemed afunctional.

Results:

During 2025 we suspected disfunction in 7 newly created AVFs by the absence of palpatory thrill and auscultatory murmur. In 5 (71%) doppler revealed acute thrombosis on the short segment of the venous part of AVF. Intervention was performed and they were salvaged and after few weeks used for HD. The remaining two were completely thrombosed. We also noticed changes in blood flow during HD in 4 patients with palpatory suspected thickening of blood vessels which could be sign of stenosis and in 1 discoloration of the fingers of hand with AVF. In 5 long-term HD patients, doppler revealed chronic stenosis in 3 (60%), 1 (20%) thrombosis and in 1 "steal syndrome". 2 stenosed AVFs and 1 thrombosed were treated and remained functional while 1 stenosed AVF and AVF causing "steal syndrome" could not be saved.

Conclusion:

Team coordination and communication are critical for maintaining vascular access in HD patients. Experienced dialysis nurses are the first ones that can recognize potential issues in AVF and alert physicians to it. Timely diagnosis and immediate treatment can save and preserve vascular access in HD patients.

References

Lok CE, Huber TS, Lee T, Shenoy S, Yevzlin AS, Abreo K, et al. *KDOQI Clinical Practice Guideline for Vascular Access: 2019 Update*. American Journal of Kidney Diseases, 2020;75(4 Suppl 2):S1–S164.

Abstract Country

Croatia

Disclosure of Interest

Yes

50

Beyond the Procedure: Croatia's First Pediatric Immunoabsorption and the Role of Psychological Support Care

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Abstract

Immunoabsorptions (IA) is an extracorporeal technique used for removal of antibodies and molecules from the blood. IA is a blood – purification technique that enables the selective removal of immunoglobulin (Ig) from separated plasma, leaving other plasma components and avoid the need for plasma replacement, through high – affinity adsorbers. IA is currently used for treatment of a large variety of antibody – mediated immunological disorders and in different clinical areas (humoral – mediated rejection of transplanted organs, Nephrology, Pulmonology, Cardiology, Hematology, Neurology, Rheumatology, Dermatology, Pediatrics).

Treatment is very useful in organ transplantation, which can be used in the pre and early post - transplantation period and for transplant rejection and contributes to improved quality of life in pediatric patients as well as long – term graft survival. Immunoabsorption is the method of choice for different indications, but it's wide use is limited by the cost of treatment. With this paper i want to present the first pediatric immunoabsorption case in Republic of Croatia, in which eight procedures were performed in a young patient with transplanted organ rejection. The aim is to highlight the importance of thorough psychological preparation and continuous psychological support before, during and after the procedure, as well as the crucial role of a multidisciplinary team including nephrologists, pediatricians and psychologists in managing this complex case.

Although our experience is based on a small number of pediatric patients, our results indicate that immunoabsorption (IA) is a safe and effective treatment when performed by a specially trained multidisciplinary team. In addition to the procedure itself, psychological preparation of the pediatric patient is equally important. Furthermore, adequate psychological preparation of the nurses performing the procedure should not be overlooked, as it plays a crucial role in the successful implementation of the pediatric IA therapy.

References

1. Jacquet C, Garnier A, Cheuret E. Plasma Exchange and Immunoabsorption in Pediatric Inflammatory Optic Neuropathy Resistant to Corticosteroid Therapy: Four French Cases. *Neuropediatrics*. 2016 Jun;47(3):175-8. doi: 10.1055/s-0036-1578797. Epub 2016 Feb 29. PMID: 26926073.
2. Garnier, A., Jacquet, C., & Cheuret, E. (2016). Plasma Exchange and Immunoabsorption in Pediatric Inflammatory Optic Neuropathy Resistant to Corticosteroid Therapy: Four French Cases. *Neuropediatrics*, 47(3), 175–178. <https://doi.org/10.1055/s-0036-1578797>
3. Intraoperative anti-A/B immunoabsorption is associated with significantly reduced blood product utilization with similar outcomes in pediatric ABO-incompatible heart transplantation
4. Issitt, Richard et al. *The Journal of Heart and Lung Transplantation*, Volume 40, Issue 11, 1433 - 1442
5. Tydén G, Kumlien G, Berg UB. ABO-incompatible kidney transplantation in children. *Pediatr Transplant*. 2011; 15(5): 502-504

Abstract Country

Croatia

Disclosure of Interest

Yes

51

A study on the transition to frailty in dialysis patients based on functional assessment

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Introduction

Frailty, which is a precursor to the need for care, has been linked to many diseases, and the incidence of frailty is particularly high among dialysis patients, reported to be more than five times higher than in the general population.

Objective

We will clarify the characteristic factors that lead to frailty by focusing on daily living functions in independent elderly people, and obtain suggestions for frailty risk in dialysis patients.

Method

A questionnaire survey was conducted using the Kihon Checklist for comprehensive frailty assessment developed in Japan targeting independent elderly people living in urban areas in Japan. The Kihon Checklist consists of questions about daily living functions, including social life, motor function, nutritional status, oral function, social isolation, cognitive function, and depression. We analyzed the characteristic factors that transition from each category to pre-frailty and frailty.

Result

Responses were received from 173 independent elderly people. Of the 173, 10 were dialysis patients. The total scores on the basic checklist were 35 healthy (20.2%), 74 pre-frail (42.8%), and 64 frail (37.0%). Of the 10 dialysis patients, 2 (20.0%) were healthy, 5 (50.0%) were pre-frail, and 3 (30.0%) were frail. By category on the Kihon Checklist, scores for motor function, oral function, and depression increased as frailty progressed.

Discussion

This survey revealed that among independent elderly people, including dialysis patients, there were a certain number who were in a pre-frail or frail state. Furthermore, as frailty progressed, a decline in motor function, oral function, and daily living functions due to depression was observed. Previous research has pointed out that dialysis patients experience a significant decline in motor function due to long-term dialysis therapy, oral frailty due to tooth decay and periodontal disease, depression, and hopelessness, suggesting that they are at high risk of developing frailty.

References

1. McAdams-DeMarco MA, Law A, L Salter M, Boyarsky B et al. Frailty as a novel predictor of mortality and hospitalization in individuals of all ages undergoing hemodialysis, *J Am Geriatr Soc*, 2013; 61(6): 896-901.
2. Satake S. Kihon checklist and frailty. *Jpn J Geriatr*. 2018; 55(3): 319-328.

Abstract Country

Japan

Disclosure of Interest

Yes

52

Hemodialysis Patients' Perceptions and Preferences for End-of-Life care

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Background

Compared with other countries, Japan has a very low rate of kidney transplantation. For this reason, most patients are required to remain on lifelong maintenance dialysis. In 2024, patients with a dialysis vintage of under five years comprised 45.6% of the total. In contrast, 8.5% of patients have been on dialysis for 20 years or more, 2.5% for 30 years or more, and 0.5% for 40 years or more. For this reason, working-age hemodialysis patients experience substantial distress not only from health-related concerns such as treatment management and complications, but also from significant social stress.

Objectives

This study aims to elucidate the perceptions and preferences of patients aged 65 or younger, receiving hemodialysis for chronic kidney disease, regarding their end-of-life care.

Methods

We requested the cooperation of the Tokyo Kidney Disease Council, a patient association for individuals with kidney disease. We conducted a survey using a self-administered questionnaire among maintenance dialysis patients under 65 years of age, with a history of hemodialysis of five years or more, who were members of a patient association. Descriptive statistics were used to analyze the quantitative data, and content analysis was conducted for the qualitative, free-response answers.

Results

The number of valid responses was 70. Of these, 76% were male and 24% were female. The largest proportion of patients, 36%, had been on dialysis for 14 years or more.

Among hemodialysis patients under the age of 65 who play an important role in society and at home, 32% reported that they would want to continue or discontinue treatment when approaching the end of life, 8% said they would not want to continue treatment, and 60% responded that they did not know. Regarding end-of-life preferences, 76% of patients indicated 'none (not considering it at the moment),' but some expressed a desire for a 'painless end of life' or an end of life that 'does not burden their family.'

Conclusion/Application to practice

The results of this study suggest that, in Japan, hemodialysis patients of working and family-supporting age are expected to continue long-term treatment, and many of them have never deeply considered their own end-of-life or believe it is not yet necessary to do so.

References

Japanese Society for Dialysis Therapy
Current Status of Chronic Dialysis Therapy in Japan 2024

Abstract Country

Japan

Disclosure of Interest

No

67

More Than Machines: The Nursing Role in CRRT and ECCO₂R

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Background

Critically ill patients with acute kidney injury and respiratory failure require advanced extracorporeal organ support. Continuous renal replacement therapy and extracorporeal carbon dioxide removal (ECCO₂R) are complex therapies that demand continuous monitoring, advanced technical skills, and clinical judgment from specialized nurses. This case highlights the essential role of nephrology nurses in the safe and effective delivery of extracorporeal support.

Objectives

Patient with cardiac dysfunction was admitted to the coronary intensive care unit due to acute respiratory and hemodynamic deterioration. He developed anuric acute kidney injury with metabolic disturbances and fluid overload. Invasive mechanical ventilation was initiated, followed by continuous renal replacement therapy to achieve metabolic stabilization and precise fluid control. Several CRRT modalities were applied, including CVVH, CVVHD, CVVHDF, and SCUF, depending on hemodynamic stability, ultrafiltration requirements, and electrolyte balance.

Methods

Despite optimized ventilatory support, the patient developed hypercapnic respiratory failure, prompting the initiation of ECCO₂R as an adjunct therapy to facilitate carbon dioxide removal.

ECCO₂R was selected instead of ECMO because extensive vascular cannulation was considered high risk in this patient due to an underlying hematological condition.

Frequent adjustments of blood flow, anticoagulation, and treatment parameters were required based on hemodynamic status and laboratory findings.

The patient had two central venous catheters: one used for dialysis and a second dedicated to ECCO₂R, capable of supporting blood flow rates exceeding 400 mL/min.

Results

CRRT and ECCO₂R were performed simultaneously, requiring a high level of technical expertise, constant vigilance, and precise coordination of nursing care. Early recognition of complications such as circuit clotting, bleeding, electrolyte imbalances, hypothermia, or impaired gas exchange was essential.

Conclusion/Application to practice

Although dual extracorporeal support was complex, nursing care remained strictly patient-centered. Particular attention was given to the young patient's hemodynamic stability, comfort, and safety, with continuous assessment of vital signs, fluid balance, and laboratory parameters.

References

1. Baldwin I, Fealy N. Nursing for renal replacement therapies in the intensive care unit: historical, educational, and protocol review. *Blood Purif.* 2009;27(2):174–181. doi:10.1159/000190784.
2. Cappadona F, Costa E, Mallia L, Sangregorio F, Nescis L, Zanetti V, et al. Extracorporeal carbon dioxide removal: from pathophysiology to clinical applications; focus on combined continuous renal replacement therapy. *Biomedicine.* 2023;11(1):142. doi:10.3390/biomedicine11010142.
3. StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2025. Extracorporeal carbon dioxide removal. Available from: <https://www.ncbi.nlm.nih.gov/books/>

Abstract Country Croatia

Disclosure of Interest No

74

Beyond the kidneys, beyond borders: the first immunoadsorption procedure using next-generation devices

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Background

Although previous research has demonstrated the efficacy and good biocompatibility of IA in kidney diseases, the procedure remains experimental, financially demanding, and insufficiently supported by strong evidence from randomized controlled studies.

Objectives

Nevertheless, IA is applied as a rescue therapy in life-threatening situations due to its rapid action and acceptable safety profile, which can reduce psychological stress and enhance the quality of life for patients.

Methods

This paper presents a case of an adult patient following kidney transplantation who required IA due to graft rejection, secondarily caused by an underlying disease—mesangioproliferative glomerulonephritis. The role of the nurse in conducting the procedure, continuously monitoring vital signs and laboratory parameters, educating the patient, and providing psychosocial support during the demanding treatment is particularly emphasized.

Conclusion/Application to practice

The application of next-generation IA devices enabled rapid reduction of autoantibodies, stabilization of graft function, and a holistic approach to care that transcends the kidneys and includes the mental and emotional health of the patient.

References

1. **Bašić-Jukić N**, Kes P, Glavaš-Boras S, Brunetta B, Bubić I, Puretić Z. Desensitization protocols for kidney transplantation. *Acta Med Croatica*. 2009;63 Suppl 1:35-9.
2. Kurinčič-Čaušević N, **Bašić-Jukić N**, Rebić D, Mesihović-Dinarević S. The role of apheresis procedures in kidney transplantation. *Med Glas (Lzenica)*. 2021;18(1):1-10.

Abstract Country

Croatia

Disclosure of Interest

Yes

81

EVALUATION OF INFECTION CONTROL KNOWLEDGE AMONG HEMODIALYSIS TECHNICIANS BEFORE AND AFTER TRAINING.

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Background

Infection control is a critical aspect of healthcare, particularly in hemodialysis units where patients and healthcare workers are at higher risk of infection transmission. Ensuring that hemodialysis technicians are knowledgeable and adhere to infection control measures is essential for minimizing this risk. Identifying knowledge gaps is vital for designing effective training programs.

Objectives

To evaluate the knowledge and practice of infection control among hemodialysis technicians before and after a structured training program.

Methods

A quasi-experimental pre–post study was conducted at the Airport-Road Polyclinic Hemodialysis Unit. A validated self-administered questionnaire was used to assess hemodialysis technicians before and after the training program, yielding a total of 80 questionnaire responses (40 responses collected before training and 40 responses collected after training). Due to the absence of individual identifiers linking pre-training and post-training responses, the two groups were treated as independent samples. The assessment covered five domains: (HH) (PPE) Aseptic Technique (AS.T) Safe Sharps Practices (SS), and Safe Injection Practices (S.I). Data were analyzed using SPSS version 26, with statistical significance set at $p < 0.05$.

Analysis

Independent samples t-tests were used to compare mean scores between the pre-training and post-training groups in order to identify statistically significant differences in infection control knowledge and self-reported practices across all assessed domains.

Results

The study showed a significant improvement in Safe Injection Practices ($p = 0.010$). No significant differences were observed in Hand Hygiene ($p = 0.397$) Aseptic Technique ($p = 0.294$) or Safe Sharps Practices ($p = 0.092$). PPE scores showed a significant decline ($p = 0.002$) which may be related to high workload, limited resources, or increased self-assessment by technicians after training.

Conclusion/Application to practice

The training program led to selective improvements, particularly in injection safety. The decrease in PPE adherence highlights potential practical implementation challenges. Future interventions should emphasize continuous education, resource support, and clinical auditing to maintain adherence to infection control standards.

References

- Centers for Disease Control and Prevention. (2001). Recommendations for preventing transmission of infections among chronic hemodialysis patients. MMWR Recommendations and Reports, 50(RR-5), 1–43.
- Ayad, F. (2022). Evaluation of infection control knowledge among hemodialysis technicians. Unpublished research study

Abstract Country

Libya

Disclosure of Interest

Yes

82

Successful resuscitation following ventricular fibrillation–induced cardiac arrest in our dialysis center. Case report

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Background

The female patient was born in December 1983 and has required renal replacement therapy since December 2011. Familial factors contributed to her renal failure: her father had kidney disease, and her sibling is also a dialysis patient. Diagnosis: bilateral chronic pyelonephritis, neurogenic bladder.

Objectives

During hemodialysis (HD), ventricular fibrillation–induced cardiac arrest occurred. During initiated basic life support (BLS), intravenous adrenaline was administered. The initial rhythm remained ventricular fibrillation, therefore two repeated defibrillation shocks were delivered. The Mobile Emergency Team (MET), operating 24/7 at our clinic, was notified by phone and, upon arrival, took over patient care using advanced life support (ALS). After 15 minutes of resuscitation, the patient's rhythm was restored, consciousness cleared, and with stable vital parameters she was transferred to the Intensive Care Unit of the Cardiology Clinic.

Methods

Following the arrhythmia that occurred during HD treatment, the patient reported the next day that she could no longer feel the thrill of the AV fistula in her arm. Upper-extremity duplex ultrasonography showed complete thrombosis along the entire length of the AV fistula and in the adjacent cephalic vein, starting from the distal third of the forearm. Vascular surgical intervention was required; until then, a temporary catheter was inserted to enable dialysis.

Results

The patient's ejection fraction—an essential indicator of cardiac pump function—was 10–12%. Severe congestive heart failure and mitral and tricuspid valve insufficiency were diagnosed.

Conclusion/Application to practice

On the 20th day of hospitalization, a subcutaneous implantable cardioverter-defibrillator (S-ICD) was implanted. The patient was discharged home in stable condition and good general health; as a definitive solution, she will require combined heart–kidney transplantation.

References

<https://www.kardiokozpont.hu>
<https://www.apollohospitals.com>
<https://www.reanimatio.hu>
<https://semmelweis.hu>
<https://journals.lib.pte.hu>

Abstract Country

Hungary

Disclosure of Interest

No

84

A rare complication of a common drug - statin-induced rhabdomyolysis and renal failure

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Background

A 72-year-old female patient presented with severe weakness, nausea, and muscle pain. Her condition deteriorated rapidly and she became an inpatient within a few days. Acute kidney injury (AKI) was confirmed (CN 71.1 mmol/L, serum creatinine 1795 umol/L). There was no history of rodent contact or Crush syndrome, she did not take NSAIDs; viral serology and bacterial cultures were negative. Statin-induced rhabdomyolysis was suspected as the cause of AKI. A rare, serious side effect of statins is the breakdown of striated muscles (rhabdomyolysis), which can lead to the development of AKI.^{1,2,3}

Objectives

Reducing the progression of AKI, removing myoglobin, and maximize the chance of spontaneous renal function return. Presentation of the clinical course of AKI and the role of CRRT (Continuous Renal Replacement Therapy) + Cytosorb®.

Methods

The blood tests for CK (13554 U/L) and myoglobin (36511 µg/L) indicated rhabdomyolysis. Dialysis treatment was initiated immediately with high volume replacement to correct the electrolyte and acid-base imbalance and accompanied by Cytosorb® adsorbent, to bind myoglobin, thus reducing tubular toxicity. During five days long CRRT his laboratory findings decreased significantly.

Results

With the treatment his diuresis resumed, renal function increased and muscle related enzyme levels progressively decreased, muscle strength showed a definite improvement, he became able to walk. He was discharged home after 21 days of treatment. Due to rising cholesterol levels (7.8 mmol/L), atorvastatin was started to reduce cardiovascular risk. Nephrology care is provided every three months, currently eGFR (estimated glomerular filtration rate) 28 ml/min, cholesterol 5.4 mmol/L.

Conclusion/Application to practice

Statin-induced rhabdomyolysis is a rare but life-threatening condition. Early recognition and complex treatment are key to avoiding the AKI. Statin therapy can be continued with close monitoring, with lower-risk options.

References

1. Deme D, Al-Hadad A, Varga T, Szántó E, Sándor K, Rakonczai E. Maximális kezdő dózissal indított és heveny veseelégtelenséggel szövődött, simvastatin indukálta rhabdomyolysis: rizikófaktorok, patomechanizmus és kezelés egy eset kapcsán. Orvosi Hetilap, ISSN 0030-6002, 2009. (150. évf.), 6. sz., 265-269. p.
2. Hoffman KB, Kraus C, Dimbil M, Golomb BA (2012) A Survey of the FDA's AERS Database Regarding Muscle and Tendon Adverse Events Linked to the Statin Drug Class. PLOS ONE 7(8): e42866. <https://doi.org/10.1371/journal.pone.0042866>
3. Sakamoto K, Kimura J. Mechanism of statin-induced rhabdomyolysis. J Pharmacol Sci. 2013;123(4):289-94. doi: 10.1254/jphs.13r06cp. Epub 2013 Nov 19. PMID: 24257439.
4. https://dea.lib.unideb.hu/dea/bitstream/handle/2437/235781/zsiros_noemi_ertekezes0311.pdf?sequence=3&isAllowed=y

Abstract Country

Hungary

Disclosure of Interest

No

85

The role of plasmapheresis in the treatment of Wilson's disease with acute clinical deterioration

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Background

Wilson's disease is a rare autosomal recessive disorder of copper metabolism that can lead to acute liver dysfunction, hemolysis and rapid clinical decompensation. In severe cases, extracorporeal detoxification techniques, particularly therapeutic plasmapheresis, may be required in addition to chelation therapy to enable rapid removal of circulating toxic substances.^{1,2}

Objectives

To present the effectiveness of therapeutic plasmapheresis in the treatment of Wilson's disease associated with acute clinical deterioration in a young female patient.

Methods

In August 2024, a female patient in her twenties with confirmed Wilson's disease was admitted due to acute clinical deterioration and hepatic involvement. The patient underwent four sessions of therapeutic plasmapheresis in an intensive care unit, performed by dialysis nurses under close monitoring.

Results

Severe anemia and thrombocytopenia were observed (hemoglobin decreased from 75 g/L to 54–59 g/L; platelet count declined from 106 G/L to 65–86 G/L). Persistent macrocytosis (MCV ~119 fL) and laboratory signs of hemolysis were present, including elevated lactate dehydrogenase, low haptoglobin (<0.10 g/L), and increased reticulocyte count. Marked liver dysfunction was confirmed, particularly elevated total and conjugated bilirubin levels, which showed a decreasing trend during PF therapy. During each session, 4,441–4,602 mL of blood was processed, and 3,350–3,777 mL of plasma was exchanged with fresh frozen plasma. The patient remained hemodynamically stable, and no severe treatment-related complications occurred.

Conclusion/Application to practice

Therapeutic plasmapheresis is a safe and effective adjunctive treatment option in severe Wilson's disease with acute clinical deterioration. When performed in an intensive care setting by trained dialysis nurses, PF can contribute significantly to reducing toxic burden and achieving clinical stabilization.³

References

- 1 Soltész P. [National survey of the therapeutic apheresis in Hungary, 2013–2017]. *Orv Hetil.* 2019; 160(19): 727–738
- 2 Németh D, Folhoffer A, László SzB, Kóbori L, Görög D, Fehérvári I, Fazakas J, Gerlei Zs, Máthé Z, Szalay F. (2019) Májátültetés Wilson-kóros betegekben. *Orv Hetil.* 160(51): 2021–2025
- 3 Jákó J, Komoly S, Soltész P. Plazmaferézis kezelés szisztémás autoimmun betegségekben [Plasmapheresis treatment in systemic autoimmune disorders]. *Orv Hetil.* 2007 Apr 8;148 Suppl 1:72–6. Hungarian. doi: 10.1556/OH.2007.28039. PMID: 17430798

Abstract Country

Hungary

Disclosure of Interest

No

87

Association between bloodline internal diameter and dialysis adequacy: a cross-sectional study

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Background

Bloodline internal diameter directly influences extracorporeal circuit resistance & the effective blood flow delivered to the dialyzer. According to Poiseuille's law, even small reductions in diameter can exponentially increase resistance, resulting in lower delivered flow and reduced solute clearance, potentially compromising dialysis adequacy (Kt/V). Despite this physiological & mechanical relevance, bloodline diameter remains an under-recognized technical factor in routine clinical practice.

Objectives

Primary: To investigate the association between bloodline diameter & dialysis adequacy (Kt/V).

Secondary: To evaluate healthcare staff awareness & technical practices regarding bloodline use.

Methods

A cross-sectional study was conducted using questionnaires to assess staff practices and objective Kt/V measurements obtained directly from dialysis machines (OCM, Diascan, & RCM). Bloodline diameter was categorized by routinely used sets. Associations with dialysis adequacy were analyzed using chi-square & nonparametric tests.

Results

Among nursing staff, 46.7% were unaware of bloodline diameter adjustment and 53.3% observed arterial pressure changes with different bloodlines. Maintenance practices were inconsistent, with 70% lacking measuring tools. A statistically significant association was found between bloodline diameter & dialysis adequacy (Kt/V) ($\chi^2=23.21$, $p=0.026$).

Conclusion/Application to practice

Bloodline diameter is a clinically relevant but often overlooked factor influencing dialysis adequacy. Limited staff awareness & inconsistent verification practices may contribute to variability in delivered treatment. Enhancing staff education & implementing standardized bloodline verification protocols could improve delivered blood flow, dialysis adequacy, & patient safety.

References

1. Schneditz et al., Kidney Int, 1998
2. Ahmed & Weisberg, AJKD, 2004
3. Polaschegg, Artif Organs, 2009
4. Ward, CJASN, 2011
5. NKF KDOQI Guidelines, AJKD, 2015

Abstract Country

Libya

Disclosure of Interest

Yes

88

Conflicts and challenges arising from generational differences among nurses working in dialysis units

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Background

I have been working in a dialysis center for 35 years, during which I have worked with multiple generations. With the younger generation entering the workforce, workplace and moral changes arising from these differences have emerged, which are already being studied in generational research.

Objectives

To learn and interpret the classification based on the year of birth and the characteristics of generations. To bring generations closer together and find solutions for successful communication and conflict management.

Methods

At my workplace, members of several generations work together, possessing different attitudes, motivations and work ethics. Characteristics of Generation X (GenX, 1965–1979): experience, loyalty, independence, efficiency, and a practical approach to work. They respect hierarchy, are patient-centered, and adapt to technological development. Members of Generation Y (GenY, 1980–1994) are typically flexible and development-oriented. Characteristics of Generation Z (GenZ, 1995–2009): technological confidence, a strong need for autonomy, low loyalty.

Results

35 nurses work in our dialysis center. Among them 15 (43%) from GenX, 7 (20%) from GenY, and 13 (37%) from GenZ. Disagreements in our institution were resolved individually (face to face), with the involvement of a third party, and through discussions led by the head nurse. We have used and continue to use the mixing of age groups working in groups as a successful method, which provides an opportunity for open and interesting communication and for getting to know each other better.

Conclusion/Application to practice

Resolving conflicts that cause persistent tension is important because they reduce work morale and can lead to nurse attrition, resulting in higher fluctuation. By applying our methods, teamwork has become more successful, a good workplace atmosphere has been created, and our patients also turn to us with trust.

References

1. Emma Parry & Peter Urwin - Generation Differences in Work Values: A Review of Theory and Evidence
2. Mannheim, K (1952) The Problem of Generations
3. [https:// vezetofejlesztes.hu](https://vezetofejlesztes.hu)
4. [https:// jobgroup.hu](https://jobgroup.hu)

Abstract Country

Hungary

Disclosure of Interest

No

89

Identification of determinants of patient satisfaction with nursing care in a haemodialysis program

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Background

Subjective patient satisfaction represents a complex indicator of nursing quality in nephrology. In the context of a chronic haemodialysis program, where long-term and intensive interactions occur between the patient and the nursing staff, the perception of care becomes a key factor influencing treatment adherence and overall quality of life.

Objectives

To analyse the level of satisfaction among haemodialysis patients with nursing care in the areas of education, communication, staff attitude, and environmental safety, with a focus on the influence of demographic determinants.

Methods

The survey was conducted in January 2025 using a quantitative method via an anonymous non-standardized questionnaire administered to a sample of 126 respondents. Data were statistically processed using descriptive statistics and the Pearson chi-square test.

Results

The study demonstrated high overall satisfaction, with a more pronounced level among men (60%) and respondents aged 61–70. Geriatric patients (71+) evaluated the affective dimension of communication and empathy highly positively. Critical deficits were identified in the field of nutritional education (fluid management) and pharmacological counselling. Younger cohorts (30–50 years) expressed dissatisfaction with stressors (noise, lack of privacy), whereas seniors emphasized safety (barrier-free environment, fall prevention). The highest level of appreciation was recorded for the technical professionalism of nurses and their ability to promptly address complications.

Conclusion/Application to practice

Patient satisfaction is significantly determined by demographic factors (age, gender). Recommendations for clinical practice include implementing individualized educational protocols, organizational measures to reduce noise pollution, and strengthening visual privacy during nursing procedures.

References

KDOQI Patient-Centered Quality Measures, 2024

Abstract Country

Slovakia

Disclosure of Interest

No

90

The impact of cognitive functions on education of elderly dialysis patients

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Background

Seniors constitute the largest group receiving maintenance dialysis, so monitoring cognition is essential. We examined cognitive functions in older adults at our dialysis centre and how cognition influences patient education, focusing on adherence to the fluid intake regimen in haemodialysis.

Objectives

To map cognitive functions in seniors in a dialysis program and assess their impact on education.

Methods

Over three months, 28 patients aged 60–87 years were assessed with the Mini-Mental State Examination (MMSE). Knowledge of the fluid intake regimen was measured using a questionnaire before education. Participants then received five brief re-education sessions at two-week intervals. The questionnaire was re-administered after the final session to evaluate educational effectiveness (100% response rate).

Results

Cognitive impairment was identified in 57% of participants, most often as memory deficits. Lower cognitive performance was associated with poorer baseline knowledge of the fluid intake regimen. Cognitive functions declined with increasing age. Duration of dialysis treatment was not associated with higher regimen knowledge. Post-education questionnaire scores improved compared with pre-education.

Conclusion/Application to practice

Cognitive assessment is a core element of nursing care and should guide selection of educational strategies. Regular, individualized education improves knowledge, supports quality of life, and may enhance dialysis effectiveness.

Recommendations for practice: Tailor education to cognitive status; stimulate cognition during dialysis; monitor cognition regularly; educate relatives; consider a mobile app to support regimen adherence; develop a pilot project integrating cognitive screening with structured education.

References

Teplan, V., et al. (2015). *Nefrologie vyššího věku*. Praha: Grada.

Abstract Country

Slovakia

Disclosure of Interest

No

92

Nurse challenges applying the rule of 6s without ultrasound. A case series

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Introduction:

The “Rule of 6s” is commonly used to assess arteriovenous fistula (AVF) maturation. Approximately 6 weeks post-creation, the AVF should meet the following criteria:

Access should have a diameter ≥ 6 mm

Blood flow ≥ 600 mL/min

Cannulation segment length ≥ 6 cm

Depth from the skin ≤ 6 mm

In practice, these parameters are done by inspection, palpation and trial cannulation, which makes the rules difficult to apply.

Objectives

To assess how nurse-performed point-of-care ultrasound (POCUS) supports the Rule of 6s in catheter-dependent hemodialysis patients.

Methods

This descriptive case series includes three hemodialysis patients with newly created native AVFs and existing catheters. Two AVFs were assessed with POCUS approximately 6 weeks after creation; a third was examined at 4 weeks with planned reassessment at 6 weeks.

Trained dialysis nurses used a linear probe to measure AVF diameter, depth from the skin, and length of a straight cannulation segment. Clinical findings (thrill, pulse, visible vein) were recorded; quantitative flow was not measured. AVFs not reaching ≥ 6 mm diameter, ≤ 6 mm depth, or ≥ 6 cm straight segment did not meet the Rule of 6s. In borderline cases, a mixed strategy was used, with arterial needle placement under ultrasound guidance and venous return via catheter.

Expected / preliminary results:

At 6–8 weeks, most new AVFs are unlikely to fulfill all Rule of 6s criteria for diameter and depth, even when physical findings appear acceptable. POCUS can identify suitable superficial segments in borderline AVFs, enabling safe mixed AVF–catheter treatments and later transition to two-needle AVF dialysis without significant complications.

Conclusion/Application to practice

Nurse-performed POCUS makes the Rule of 6s a practical bedside tool, helping differentiate immature AVFs from borderline accesses safe for mixed AVF–catheter use, and may reduce catheter dependence.

References

[Cannulate No Fistula Before It's Time: AVF Maturation 101 - Renal Fellow Network](#)

[Arteriovenous fistula cannulation in hemodialysis: A vascular access clinical practice guidelines narrative review - Rui Pinto, Clemente Sousa, Anabela Salgueiro, Isabel Fernandes, 2022](#)

[Clinical and ultrasound evaluation for hemodialysis access creation | Nefrologia](#)

[Clinical Aspects of Dialysis Interventions: Physical and Sonographic Findings - PMC](#)

[Rules of 6 criteria predict dialysis fistula maturation but not all rules are equal - PubMed](#)

Abstract Country

Hungary

Disclosure of Interest

No

94

Nurses' experiences in caring for drug-dependent patients undergoing haemodialysis

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Background

Drug dependence significantly affects both physical and mental health and, in dialysis practice, is associated with a higher risk of complications, impaired cooperation, and threats to care safety. In patients undergoing haemodialysis, particular challenges include behavioural fluctuations during the procedure, non-adherence to the treatment regimen, vascular access complications, and increased infection risks.

Objectives

To describe the most frequent nursing challenges in caring for drug-dependent haemodialysis patients and to present practical changes implemented within the clinical team, with an emphasis on safety, communication, and complication prevention.

Methods

A descriptive paper based on the clinical experience of nurses in a haemodialysis unit, supported by relevant professional sources. Findings were synthesised into recommendations for everyday practice (communication strategies, patient monitoring, management of high-risk behaviour, infection prevention, and vascular access protection).

Results

Key elements included targeted communication and de-escalation, systematic observation of verbal and non-verbal cues, strict adherence to hygiene standards, early identification of vascular access-related risks, and collaboration with relatives as well as with a psychologist or psychiatrist. Implementing more standardised team procedures improved predictability of care and reduced staff burden during recurrent conflict situations.

Conclusion/Application to practice

A structured, empathetic yet firm care framework, reinforced by interdisciplinary collaboration, is feasible in haemodialysis settings and enhances the safety of both patients and staff—particularly regarding behaviour during the procedure, vascular access protection, and prevention of transmissible infections.

References

1. CENTERS FOR DISEASE CONTROL AND PREVENTION. Recommendations for preventing transmission of infections among chronic hemodialysis patients. MMWR Recommendations and Reports [online]. 2001, 50(RR-5). [cit. 2026-01-24]. Dostupné na: <https://www.cdc.gov/mmwr/PDF/rr/rr5005.pdf>
2. JADOUL, Michel; BIEBER, Brian A.; MARTIN, Paul; AKIBA, Takashi; NWANKWO, Chizoba; ARDUINO, Jean Marie; GOODKIN, David A.; PISONI, Ronald L. Prevalence, incidence, and risk factors for hepatitis C virus infection in hemodialysis patients. Kidney International. 2019, 95(4), 939–947. DOI: 10.1016/j.kint.2018.11.038. [cit. 2026-01-24]. Dostupné na: <https://pubmed.ncbi.nlm.nih.gov/30904068/>
3. KIDNEY DISEASE: IMPROVING GLOBAL OUTCOMES (KDIGO) HEPATITIS C WORK GROUP. KDIGO 2022 Clinical Practice Guideline for the prevention, diagnosis, evaluation, and treatment of hepatitis C in chronic kidney disease. Kidney International. 2022, 102(6 Suppl), S129–S205. DOI: 10.1016/j.kint.2022.05.022. [cit. 2026-01-24]. Dostupné na: <https://pubmed.ncbi.nlm.nih.gov/36089574/>
4. LEVIN, Scott R.; FARBER, Alik; ARINZE, Nkiruka; TALUTIS, Stephanie D.; CHENG, Thomas W.; MALAS, Mahmoud B.; TAN, Tze-Woei; RYBIN, Denis; SIRACUSE, Jeffrey J. Intravenous drug use history is not associated with poorer outcomes after arteriovenous access creation. Journal of Vascular Surgery. 2021, 73(1), 291–300.e7. DOI: 10.1016/j.jvs.2020.04.521. [cit. 2026-01-24]. Dostupné na: <https://pubmed.ncbi.nlm.nih.gov/32445833/>
5. SCOTT, Jemima K.; TAYLOR, Dominic M.; DUDLEY, Chris R. K. Intravenous drug users who require dialysis: causes of renal failure and outcomes. Clinical Kidney Journal. 2018, 11(2), 270–274. DOI: 10.1093/ckj/sfx090. [cit. 2026-01-24]. Dostupné na: <https://pubmed.ncbi.nlm.nih.gov/29644070/>

Abstract Country

Slovakia

Disclosure of Interest

No

97

Grief, emotional loss and coping strategies in dialysis care

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Background

Dialysis care mainly focuses on replacing kidney function and maintaining physiological parameters, while the emotional experiences of patients and nurses, especially loss and grief are often overlooked despite their significant impact.

Objectives

My goal is to present how patients and nurses experience deaths occurring within the dialysis community, and which coping strategies may help reduce the associated emotional burden.

Methods

During long-term, regular treatments, a close, trust-based relationship develops between patients and healthcare staff. In 2025, 95 hemodialysis patients were treated at our dialysis center, 22% of whom had been on treatment for over ten years. In the same year, we lost 16 chronic patients; four had been on treatment for ten years, and one for 19 years.

For patients, the loss of a fellow patient may lead to anxiety, depressive symptoms, and anticipatory grief, while for nurses, these deaths often represent personal loss rather than merely professional events. When grief reactions are overlooked, the lack of support may result in emotional exhaustion and an increased risk of burnout.

Results

Losses can result in significant psychological burden and stress for both patients and nurses. For patients, the strength of the community can be especially meaningful, including conversations, support from nurses and fellow patients, and the shared experience of grief, where individuals can express their emotions and remember the deceased together.

At our dialysis center, professional support and team-based discussions among the 15-member nursing staff help facilitate grief processing. In addition, relaxation techniques aimed at reducing tension and stress caused by loss—such as autogenic training, meditation, or short breathing exercises practiced weekly—may also be beneficial.

Conclusion/Application to practice

The processing of grief in dialysis practice is often marginalized. Coping requires support, open communication, mutual listening, and ensuring that grief is not treated as a taboo within the care process.

References

<https://pmc.ncbi.nlm.nih.gov/articles/PMC12548588/>
https://www.kidneynews.org/view/journals/kidney-news/17/2/article-p10_6.xml
<https://onlinelibrary.wiley.com/doi/10.1111/jorc.12479>
<https://chatgpt.com/c/69849be3-152c-8333-a125-548666ede642>

Abstract Country

Hungary

Disclosure of Interest

No

102

Person-centred management of chronic kidney disease–associated pruritus: translating evidence into nursing practice

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Background

Despite growing evidence and new therapeutic options, the management of chronic kidney disease–associated pruritus (CKD-aP) remains inconsistent across kidney care settings. A lack of structured nursing pathways and standardised assessment tools may contribute to under-treatment and persistent symptom burden [1-2].

Objectives

To develop a person-centred nursing framework that standardises assessment and supports multidimensional management of CKD-aP across the kidney care continuum.

Methods

We conducted a comprehensive review of recent evidence on CKD-aP. The nursing process (assessment, problem identification, planning, interventions, and reassessment) was operationalised by integrating Virginia Henderson's Needs Theory [3] and by adapting the European Specialist Nurses Organisation (ESNO) Common Training Framework competency domains [4] to nephrology nursing practice. Validated patient-reported outcome measures were incorporated to support routine screening and longitudinal monitoring of itch severity and symptom impact.

Results

The framework is presented as an operational flowchart that promotes routine screening and longitudinal monitoring; links assessment findings to standardised nursing diagnoses, priorities, and SMART goals; and specifies bundled interventions including skin care and xerosis prevention, therapeutic education, behavioural strategies to reduce scratching, emotional support, and coordinated escalation to the multidisciplinary team when symptom burden persists.

Conclusion/Application to practice

This framework translates current evidence and competency standards into a pragmatic, nurse-driven pathway to improve recognition, documentation, and holistic management of CKD-aP. It can support consistent practice across settings, guide targeted education, and provide a foundation for local protocol implementation and future outcome evaluation.

References

1. Engler, F.; Kerschbaum, J.; Keller, F.; Mayer, G.; Austrian Dialysis and Transplant Registry Collaborators. Prevalence, patient burden and physicians' perception of pruritus in haemodialysis patients. *Nephrol. Dial. Transplant.* 2024, 39, 277–285. <https://doi.org/10.1093/ndt/gfad152>
2. Latus, J.; Lanot, A.; Ständer, S.; Sanchez-Alvarez, E.; Aucella, F.; Yosipovitch, G. CKD-associated pruritus in haemodialysis: a road map for diagnosis and treatment. *Clin. Kidney J.* 2025, 18, sfaf096. <https://doi.org/10.1093/ckj/sfaf096>
3. Henderson, V. *The Nature of Nursing: A Definition and Its Implications for Practice, Research, and Education*. New York: Macmillan; 1966.
4. European Specialist Nurses Organisation (ESNO). *Competences of the Nurse Specialist (NS): Common Plinth of Competences for a Common Training Framework of Each Specialty*; Version 2; ESNO: Brussels, Belgium, 2015. Available online: <https://www.esno.org>

Abstract Country

ITALY

Disclosure of Interest

No

104

Machine or Human?

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Background

Dialysis treatment is one of the most mechanized medical procedures in modern nephrology. As dialysis nurses, we are present alongside patients as both “machine operators” and healthcare personnel.

Objectives

In addition to the safe operation of modern machines (alarms, parameters), attention must be paid to the physical and psychological needs of patients. To examine how can we maintain our mental health and empathic skills in an environment where the priority of the machine rivals human presence. Nurse is responsible for quickly detecting problems, but the attention of the machines can push the human side of care into background.

Methods

Striking a balance is a serious challenge and a significant burden. In our clinic, we used a questionnaire to examine how the technical environment affects the mental health of nurses. Furthermore, how it affects the nurse-patient relationship.

Results

Questionnaire was filled out anonymously by 16/18 nurses. Due to the alarms from the machines, attention is divided in several directions. At the end of the shift, they often feel more tense than usual. A total of 80% feel that they experience irritability due to noise and 60% experienced that they are often “not present” emotionally during the conversation with the patient. 70% of the respondents feel guilty about the lack of time. With stable parameters of patient perception, tension is relieved, which is why 100% feel more confident. However, monitoring can be a wall that subconsciously or consciously forms a “mental shelter” from the emotional burden of the patients, which was acknowledged by 40% of the respondents.

Conclusion/Application to practice

Modern dialysis treatment makes patients even safer and less ill, but it is especially important to focus on the mental health of nurses. Support measures in the dialysis center (e.g. stress management training) are important, as the well-being of nurses is essential for improving the quality of treatment.

References

https://journals.lww.com/sjkd/fulltext/2015/26010/stress_and_burnout_among_hemodialysis_nurses_a.3.aspx
<https://pmc.ncbi.nlm.nih.gov/articles/PMC8937586/>
<https://www.mdpi.com/1660-4601/17/22/8409>
<https://onlinelibrary.wiley.com/doi/abs/10.1111/jocn.15452>

Abstract Country

Hungary

Disclosure of Interest

No

106

Soul and self-care: Correlations between mental state and treatment adherence among CAPD patients

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Background

Introduction: The success of Continuous Ambulatory Peritoneal Dialysis (CAPD) relies on a high degree of patient autonomy and daily discipline. Since the treatment is conducted in a home environment without professional supervision, the patient's mental state directly determines patient safety. In the spirit of "care beyond the kidneys," psychosocial monitoring must become an integral part of routine nephrological care.

Objectives

This work aims to demonstrate the correlation between the psychological status and clinical outcomes of patients undergoing CAPD, with particular focus on the effects of treatment burnout and severe mental decompensation.

Methods

The study is based on structured surveys (e.g., HADS questionnaire) conducted among the treated CAPD population and a retrospective analysis of care logs. I examined the relationships between the onset of mental symptoms and complications resulting from technical errors.

Results

Based on the data, 35-45% of patients exhibit symptoms of anxiety or depression, which are associated with a 25% increase in the incidence of peritonitis. As a case study, I present a 62-year-old woman with a background in dietetics who experienced a severe mental crisis after one year of successful treatment. The patient's somatic hallucinations ("worms in the body") led to a complete loss of hygienic discipline and the abandonment of the treatment protocol. Although nursing intervention and psychiatric consultation slowed the process, for the sake of patient safety, the patient had to be transitioned to center-based hemodialysis after two years of CAPD.

Conclusion/Application to practice

In CAPD management, supporting the soul is a priority alongside renal replacement. Monitoring mental well-being not only improves quality of life but is also an essential diagnostic tool for technique survival: it helps identify the threshold where a change in modality (drop-out) becomes necessary for the patient's safety.

References

International Society for Peritoneal Dialysis (ISPD): ISPD Guidelines for Peritoneal Dialysis-Related Infections.
National Kidney Foundation (NKF) - KDOQI Guidelines: Clinical Practice Guidelines for Peritoneal Dialysis Adequacy
Journal of Renal Care - EDTNA/ERCA: Psychosocial factors and adherence in peritoneal dialysis patients.

Abstract Country

Hungary

Disclosure of Interest

No

108

The role of depression and anxiety in the progression of chronic kidney disease

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Background

Depression and anxiety are common among patients with chronic kidney disease (CKD), according to European studies, they affect 19-43% of patients. Early identification of at-risk patients is essential, as psychological symptoms are frequently overlooked and not routinely screened.

Objectives

Depression and anxiety are associated with faster glomerular filtration rate deterioration, more frequent hospitalization and earlier dialysis. In hemodialysis patients, adherence to dietary and fluid restriction may decrease, while medication non-adherence and missed dialysis sessions became more common. Mental health is not merely a secondary psychological consideration, but an independent clinical risk factor that can predict worse quality of life and higher risk of death.

Methods

Our center currently treats 95 patients on chronic hemodialysis. Symptoms were identified during routine clinical care by nurses. Observational aspects: mood, cooperation, communication, behavioural changes. Nurses are crucial for early detection and management of psychological problems.

Results

Psychological symptoms were present in 19% of the patients, predominantly mild or moderate in severity. Severe symptoms were observed in three cases; the medical histories of these patients included psychiatric treatment and suicidal attempts. Patients with adverse personal backgrounds tend to exhibit more unstable mental health, which is further exacerbated by CKD. An illustrative case is a 67-year-old female patient, over 2,5 years, chose to discontinue dialysis treatment three times; in each instance, coordinated effort by the healthcare team successfully restored adherence. The patient had recurrent hospitalizations, elevated inflammatory parameters and arteriovenous fistula complication, in parallel with deterioration of her mental state.

Conclusion/Application to practice

Observations indicate that mental factors are clinically relevant. Psychiatric symptoms influence compliance and disease progression. Early recognition and systematic screening should be prioritized in nephrological management. This may contribute slower disease progression.

Chronic kidney disease management goes beyond the kidneys, with depression and anxiety acting as silent risk factors that can accelerate disease progression.

References

- [1] Huang CW, Wee PH, Low LL, Koong YA, Htay H, Fan Q, Foo WY, Seng JJ. *Prevalence and risk factors for elevated anxiety symptoms and anxiety disorders in chronic kidney disease: a systematic review and meta-analysis*. Gen Hosp Psychiatry. 2021;69:27-40. <https://www.sciencedirect.com/science/article/abs/pii/S0163834320301717>
- [2] Jeun KJ, Brothers T, Shawwa K, Al-Mamun MA. *A retrospective cohort study on the bidirectional association between depression and chronic kidney disease*. Front Nephrol. 2026;5:1743594. <https://pubmed.ncbi.nlm.nih.gov/41561305/>
- [3] Fischer M.J., Greene T., Kimmel P.L., et al. *Depressive Symptoms, Antidepressants, and Clinical Outcomes in Chronic Kidney Disease: Findings from the CRIC Study*. PubMed. 2024. <https://pubmed.ncbi.nlm.nih.gov/38476844/>
- [4] *Association between incident depression and clinical outcomes in patients with chronic kidney disease*. Clin Kidney J. 2026;16(11):2243. <https://academic.oup.com/ckj/article/16/11/2243/7180986>

Abstract Country Hungary

Disclosure of Interest No

111

The value of gratitude intervention on emotional well-being in hemodialysis patients

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Background

Interventions targeting emotional well-being are limited in routine dialysis care. Gratitude-based practices have shown psychological benefits in other chronic conditions but remain underexplored in dialysis patients. The [Short Form 36-item \(SF-36\) survey](#) is a widely used, self-administered questionnaire that measures health-related quality of life (HRQoL) in patients across eight domains. The objective of the study was to determine the influence of gratitude intervention on certain SF-36 domains among hemodialysis patients.

Methods

The study encompassed 60 HD patients (31M and 29F) with mean age 55,4±9,7 years and average HD vintage 85,6±78,1 month in two HD units. In the intervention unit 30 patients participated in a gratitude-based intervention where patients voluntarily expressed gratitude on gratitude wall during dialysis sessions. The control group of 30 patients in the other unit were on standard dialysis care without intervention. In both HD units SF-36 survey were performed after two months and compared between two units. Statistical analysis was performed by SPSS, continuous variables with analysis of variance and Pearson correlation, but categorical variables with chi-square test.

Results

The patients in the intervention unit had higher scores for SF-36 domains emotional well-being and social functioning, but statistically significant higher score was found only for role limitations due to emotional problems compared to control group (53,3±68,7 vs 41,1±32,4; p=0.024). There were no statistically significant differences between two groups of HD patients regarding age, gender and HD vintage. Among all 60 examined patients there was significant negative correlation between SF-36 domain role limitations due to physical health and age ($r=-0,292$; $p=0.024$, and between SF-36 domain health change and HD vintage ($r=-0.457$; $p<0.001$).

Conclusion/Application to practice

A gratitude-based intervention was associated with meaningful improvements in emotional and social SF-36 domains among hemodialysis patients. This simple, low-cost approach is feasible for routine clinical practice and may enhance patient-centered care in dialysis units.

References

1. Hart RP, Pederson JA, Czerwinski AW, Adams RL. Chronic renal failure, dialysis and neuropsychological function. *J. Clin Neuropsychol* 1983; 5: 301- 12. Barrett BJ, Vavasour HM, Major A, Parfrey PS. Clinical and psychological correlates of somatic symptoms in-patient dialysis. *Nephron* 1990; 55: 10-5. Sensky T. Psychosomatic aspects of end-stage renal failure. *Psychother Psychosom* 1993; 59: 56-68.
2. Yarlaz AS, White MK, Yang M, Saris-Baglama RN, Bech PG, Christensen T. Measuring the health status burden in hemodialysis patients using the SF-36® health survey. *Qual Life Res.* 2011 Apr;20(3):383-9. doi: 10.1007/s11136-010-9764-8. Epub 2010 Oct 23.
3. Hernandez R, Burrows B, Wilund K, Moskowitz JT. Expressions of Gratitude and Positive Emotion among Hemodialysis Patients: Qualitative Findings. *J Nephrol Soc Work.* 2020;44(1):9-12.

Abstract Country

North Macedonia

Disclosure of Interest

No

112

THE FIRST EXPERIENCES OF THE PERSON UNDERGOING HEMODIALYSIS: A SUPPORT FOR NURSING INTERVENTION

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Background

The transition to hemodialysis constitutes a complex and challenging experience for people with chronic kidney disease, involving profound changes in the physical, psychological, and social dimensions. According to the Transitions Theory, these initial experiences significantly influence patterns of adaptation and health outcomes, with nursing playing a key role in facilitating this process (Meleis & Chick, 1986; Meleis et al., 2000; Sedin et al., 2023)

Objectives

To understand the initial experiences of individuals undergoing hemodialysis and to analyze the contributions of these experiences to nursing interventions in the transition process.

Methods

A qualitative, descriptive, and exploratory study was conducted with 9 individuals enrolled in a hemodialysis program, between January and June of 2025. Data were collected through semi-structured interviews, and the narratives were analyzed using content analysis techniques (Bardin, 1977), supported by the digital tool WebQda.

Results

The findings reveal a multidimensional impact of the transition to hemodialysis, expressed through fatigue, pain, and functional limitations, as well as fear, anxiety, and denial of the disease, corroborating previous literature (Baptista, 2011; Moore et al., 2020; Mathias & Santos, 2023). Changes in social, family, and professional life were particularly significant, as reported by Allen et al. (2022) and Alma et al. (2023). Facilitating and inhibiting factors of the transition were identified, with nursing intervention proving to be decisive in promoting adaptation through health education, therapeutic relationship, safety, and continuous support, in line with previous studies (Hrenczuk, 2021; Sturesson & Ziegert, 2014).

Conclusion/Application to practice

It is concluded that nursing plays a central role in facilitating the transition to hemodialysis by promoting adaptation and acceptance of the treatment. Theoretically grounded and person-centered interventions contribute to a more positive, safe, and conscious transition, with a favorable impact on the experience of chronic illness

References

1. Meleis, A., & Chick, N. (1986). Transitions: A nursing concern. In A. Meleis (Ed.), *Nursing research methodology*.
2. Meleis, A., Sawyer, L., Messias, D., & Schumacher, K. (2000). Experiencing transitions: An emerging middle-range theory. *Advances in Nursing Science*, 23(1), 12–28
3. Sedin, A., Isaksson, J., & Patel, A. (2023). The experience of transitioning into life-sustaining treatment: A systematic literature review. *Journal of Renal Care*, 49, 158–169
4. Mathias, N. D., & Santos, J. L. (2023). Os impactos gerados pela hemodiálise na qualidade de vida dos pacientes e seus familiares. *Ciências da Saúde*, 27.
5. Sturesson, A., & Ziegert, M. (2014). Prepare the patient for future challenges when facing hemodialysis: Nurses' experiences. *International Journal of Qualitative Studies on Health and Well-being*, 9.

Abstract Country Portugal

Disclosure of Interest No

113

The professional stance of registered nurses when faced with inappropriate patient behaviors

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Background

Since the early 2020s, our NephroCare center in Créteil, France, has faced numerous challenges related to patient aggression, with the multidisciplinary team being directly and significantly affected by this situation.

Objectives

This study aims to examine trends in aggressive patient behaviors in hemodialysis between 2021 and 2024 and to assess their impact on nurses' working conditions. It also seeks to identify contributing factors to these behaviors and to analyze the strategies implemented to prevent and manage such situations in a chronic care setting characterized by long-term nurse–patient relationships.

Methods

The analysis is based on a review of adverse events recorded in our center over the 2021–2024 period (with 2025 results pending), as well as on nurses' testimonies collected during meetings, discussions with management, and incident report documentation.

The different types of aggression (verbal, physical, sexist/discriminatory) were classified, and staff vulnerability factors (experience, emotional management, professional stance) were identified. Finally, corrective actions were implemented and analyzed in order to achieve a greater impact on the work environment and professional climate.

Results

The data collected highlight a significant increase in aggressive behaviors between 2021 and 2024, with a peak in incidents in 2024, whereas across the rest of France and the region there was a significant decrease in this type of incident. The patients concerned showed a high level of substance dependence, experienced pain during needle insertion, and faced social isolation—factors that contributed to tense interactions with healthcare professionals.

Young registered nurses with less than three years of experience proved particularly vulnerable in these situations, often lacking the perspective and tools needed to manage aggression effectively. These difficulties led to two resignations, a deterioration in the nurse–patient relationship, and weakened team cohesion within our unit.

In response to these findings, an action plan was implemented at the individual, collective, and institutional levels:

These measures helped strengthen team cohesion, improve Workplace safety, and promote a culture of dialogue and incident reporting.

Conclusion/Application to practice

The study shows that managing aggression in hemodialysis requires a comprehensive approach integrating prevention, training, support, and institutional backing. The professional stance of registered nurses, balancing therapeutic distance and closeness, remains a fragile equilibrium that must be strengthened through consistent supervision and appropriate tools.

The collective dynamic initiated in 2024 has led to a better understanding of relational challenges, a reduction in caregivers' sense of isolation, and a positive evolution of the professional climate. These results highlight the importance of sustained institutional commitment to prevent burnout and ensure the quality of the therapeutic relationship in a chronic care setting.

References

data export via the IntraQual software specific to the company Nephrocare France (region/city/country)

Abstract Country France

Disclosure of Interest Yes

116

Reducing peritoneal dialysis–associated infections through Improved exit-site care nephrology department

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Background

Peritoneal dialysis (PD) allows patients greater independence and quality of life; however, catheter-related infections (CRI) remain a major complication and a leading cause of peritonitis and transfer to hemodialysis. Nurses play a central role in patient education, exit-site monitoring, and infection prevention. An increase in CRI rates at our center, particularly infections caused by waterborne organisms, led us to re-evaluate daily exit-site care practices.

Aim

To assess whether a nurse-led exit-site care protocol emphasizing strict water avoidance could reduce catheter-related infections and improve patient outcomes.

Methods

We conducted a single-center cohort comparison between a contemporary group and a historical control group.

The **contemporary cohort (n=55)** received structured nursing education on complete water avoidance during showering, use of a protective stoma bag, and daily application of topical mupirocin.

The **historical cohort (n=58)** permitted water exposure and used topical gentamicin.

Primary outcome: catheter-related infection (CRI). Secondary outcomes: peritonitis and transfer to hemodialysis.

Results

Implementation of the revised care protocol significantly reduced CRI rates from **0.71 to 0.11 episodes per patient-year** ($p < 0.001$). Peritonitis rates declined (**0.40 vs. 0.19 episodes per patient-year; $p = 0.011$**).

Transfer to hemodialysis decreased from **31.0% to 7.3%**, reflecting improved technique survival.

Nursing Implications & Conclusion

Targeted patient education, consistent exit-site assessment, and strict water avoidance significantly reduced infections. This low-cost, practice-based intervention highlights the critical role of nursing in infection prevention and long-term PD success.

Practice Recommendations

Implement structured nurse-led education on strict water avoidance during showering.

Reinforce correct use of protective stoma bags and daily topical antibiotic application.

Perform routine exit-site assessments at every visit.

Encourage early reporting of redness, discharge, or pain.

Standardize infection-prevention protocols to promote consistency, safety, and long-term peritoneal dialysis success.

References

1. Nardelli, L., Scalapogna, A., Ponzano, F., Sikharulidze, A., Tripodi, F., Vettoretti, S., Alfieri, C., & Castellano, G. (2024). Peritoneal dialysis related peritonitis: Insights from a long-term analysis of an Italian center. *BMC Nephrology*, 25, 163. <https://doi.org/10.1186/1471-2288-25-163>
2. Soetendorp, H., Grupper, A., Hazan, E., Wasserman, A., Schwartz, D., & Kliuk-Ben Bassat, O. (2024). Reduction of peritoneal dialysis associated infections using a novel exit-site care practice. *Peritoneal Dialysis International*, 45(1). <https://doi.org/10.1177/0898010123117777>

Abstract Country

Sourasky Medical Center (Ichilov), Tel Aviv, Israel

Disclosure of Interest

No

118

The role of art therapy in supporting the mental well-being of dialysis patients

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Background

Introduction: Dialysis treatment imposes a substantial psychological burden on patients, often resulting in anxiety, depression and reduced quality of life. These mental health challenges can negatively affect treatment adherence, patient compliance, and overall health outcomes. Holistic nephrological care requires interventions that address not only physical but also emotional and psychosocial needs. Art therapy, a structured creative intervention, has emerged as a promising approach to support psychological well-being in this population.

Objectives

This presentation aims to explore the role of art therapy in supporting the mental well-being of dialysis patients and to illustrate its practical applicability within nephrological care.

Methods

We present the mechanisms and implementation strategies of art therapy interventions for patients undergoing dialysis. A narrative literature review and international research findings was carried out focusing on art therapy modalities such as drawing, painting, creative storytelling, and music-based interventions. Application strategies for individual and group settings during dialysis sessions were examined.

Results

Studies indicate that art therapy can contribute to reductions in anxiety and depressive symptoms, improvements in quality of life, and enhanced treatment adherence. Patients report positive subjective experiences, increased self-expression and strengthened coping abilities. For example, a small randomized controlled trial demonstrated decreased social anxiety after theater-based activities, while a quasi-experimental study reported significant improvements in quality of life following drawing and coloring sessions ($p = 0.001$).

Conclusion/Application to practice

Conclusion: Art therapy represents an effective and patient-centered intervention that aligns with the “care beyond the kidneys” approach and can serve as an important complement to multidisciplinary nephrological care.

References

<https://pubmed.ncbi.nlm.nih.gov/39653028/>
<https://pubmed.ncbi.nlm.nih.gov/34683072/>
<https://pubmed.ncbi.nlm.nih.gov/34683072/>
<https://www.belitungraya.org/BRP/index.php/bnj/article/view/407>

Abstract Country

Hungary

Disclosure of Interest

No

127

The invisible work of hemodialysis nurse

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Background

Hemodialysis involves long-term, repeated interactions between patients and nurses, resulting in a continuous nurse–patient relationship that differs from episodic clinical encounters. Psychological distress among hemodialysis patients, including anxiety, loss of control, and treatment-related fatigue, is well documented. Recent literature highlights the therapeutic value of a nurse–patient relationships in hemodialysis, while also identifying the emotional demands of nursing as significant and underrecognized component of dialysis care.

Objectives

The objective of this contribution is to explore the dynamic professional boundary between dialysis nurses and hemodialysis patients and to examine how structured nursing-led micro-interventions can alleviate patient distress while protecting nurses from emotional overload.

Methods

This practice-based contribution draws on reflective nursing practice with. Nursing-led micro-interventions were integrated into routine care, including brief emotional check-ins at treatment initiation, validation of patient experiences, continuity of nursing staff, and conscious boundary-setting within ongoing nurse–patient interactions. These interventions were implemented within existing clinical workflows, without additional resources or extended treatment time.

Results

Consistent with recent qualitative studies, prolonged therapeutic relationships in hemodialysis enhance patients' psychological safety and trust, contributing to reduced emotional distress and improved engagement with treatment. When relational boundaries remain implicit, the same closeness has been associated with increased emotional burden and compassion fatigue among dialysis nurses. Introducing structured micro-interventions supported a clearer professional framework for relational care, enabling nurses to manage emotional demands while maintaining therapeutic engagement.

Conclusion/Application to practice

In chronic hemodialysis care, the nurse–patient relationship represents a dynamic relational space in which emotional closeness is both clinically beneficial and professionally demanding. Structuring this relational work through nursing-led micro-interventions may enhance holistic patient care while safeguarding nurses' mental wellbeing. Recognizing relational boundary management as a core nursing competence supports mental resilience, contributes to burnout prevention, and aligns with the principles of caring beyond the kidneys in integrated nephrology practice.

References

1. Camedda, C., Carta, M. G., & Finco, G., 'The therapeutic nurse–patient relationship in hemodialysis: caring behaviours and professional experience', *Healthcare*, 11(3), 2023, p. 87.
2. Wang, X., Zhang, Y., Li, Z., & Chen, J., 'Compassion fatigue, job satisfaction and turnover intention among hemodialysis nurses', *International Journal of Nursing Practice*, 28(3), 2022, e13011.

Abstract Country

Slovenia

Disclosure of Interest

Yes

128

The Time We Gave Back: Time Saved Through Adaptive Learning

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Background

In a dialysis clinic, where time is limited and highly valued, adaptive learning shifts the focus from delivering more content to delivering only what is needed. Adaptive learning technologies personalise instruction based on learner performance, enabling individuals to focus on knowledge gaps rather than repeating mastered content. This study evaluates the impact of adaptive pre-assessment on learning efficiency across three self-directed programmes.

Objectives

To measure time savings generated through adaptive learning and examine the relationship between pre-existing knowledge and training efficiency.

Methods

Pre-test assessments within the Realizeit platform allowed learners to bypass content where proficiency was demonstrated. “Knowledge Minutes Saved” was calculated based on the time avoided through adaptive pathways. Seventy-one learners were enrolled in each of three programmes: Foundations of Success, Strengthening Team Dynamics, and Driving Results in Your Clinic. Completion rates and total time saved were analysed.

Results

Completion rates were high across all programmes (64–68 completions). Total time saved was 118.25 hours. Foundations of Success generated the highest savings (73.25 hours), while Strengthening Team Dynamics benefited the largest proportion of learners (82%). Driving Results in Your Clinic produced the lowest savings (11 hours), indicating substantial baseline knowledge gaps.

Conclusion/Application to practice

Adaptive learning improves training efficiency by aligning content with learner needs while preserving quality. Time savings correlate with baseline knowledge levels, and low time savings highlight areas requiring further support. Integrating preparatory learning and targeted reinforcement can further optimise impact. Using Adaptive data helps nurse educators clearly see where learners are confident and where they need more support, so training can be planned and improved based on real evidence.

References

1. Kulik, J. A., & Fletcher, J. D. (2016). Effectiveness of intelligent tutoring systems: A meta-analytic review. *Review of Educational Research*, 86(1), 42–78.
2. Pane, J. F., Steiner, E. D., Baird, M. D., & Hamilton, L. S. (2015). Continued progress: Promising evidence on personalized learning. RAND Corporation.
3. Walkington, C. (2013). Using adaptive learning technologies to personalize instruction. *Journal of Educational Psychology*, 105(4), 932–945.

Abstract Country

Germany

Disclosure of Interest

No

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Beyond clinical measurement of overhydration: Developing a person-centred fluid assessment model

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Background

Overhydration among haemodialysis patients is associated with increased morbidity and mortality. Nurses play a central role in fluid assessment and management, however current practice remains shaped by standardised clinical measures rather than person-centred principles. Person-centred care (PCC) emphasises patient narratives, partnership and shared decision-making. Integrating these principles into routine fluid-assessment may support a more holistic individualised approach to care.

Objectives

This abstract outlines a planned study that aims to investigate current fluid-assessment practices, patient and nurse perspectives on partnership, co-design a person-centred model of care, and evaluate its feasibility for future implementation. The abstract focuses on the proposed methodology and feasibility considerations.

Methods

This study employs a mixed-methods, action research design informed by the Medical Research Council framework for complex interventions and includes: (i) focused ethnography to investigate interactional practices related to fluid-assessment and PCC; (ii) Patient survey using the Person-Centred Care in Outpatient Care instrument to assess perceptions of involvement and communication within haemodialysis; and (iii) Experience-Based Co-Design workshops in which patients and nurses collaboratively develop elements of the emerging model.

Results

As this is a planned study, no results are yet available. The mixed-methods design is expected to generate an in-depth understanding of how PCC practices currently unfold in fluid assessment, and to surface practice conditions that enable or constrain partnership-oriented interactions. These insights will inform the iterative refinement of the emerging model.

Conclusion/Application to practice

The planned study will provide a foundation for translating PCC principles into routine haemodialysis practice. The emerging model may inform future intervention studies and foster collaborative, holistic approaches to fluid management by integrating clinical assessments with patients' narratives. By emphasising both technical and relational nursing competencies, the model has the potential to enhance patients' knowledge and engagement to support person-centred fluid assessment and management, with possible implications for reducing overhydration.

References

1. Gasser, F., Bala, S.-V., Westergren, A., Ekstrand, J., & Hagell, P. (2023). Further development and evaluation of a questionnaire targeting person-centred outpatient care for persons with long-term conditions. *Journal of Patient-Reported Outcomes*, 7(85), 1–10. <https://doi.org/10.1186/s41687-023-00623-6>
2. Gyllensten, H., Cederberg, M., Alsén, S., Blanck, E., Ali, L., Fors, A., Hedman, H., Nørmark, L. P., Swedberg, K., & Ekman, I. (2025). Person-Centred Care: State-of-the-Art and Future Perspectives. *Current Heart Failure Reports*, 22(1), 15. <https://doi.org/10.1007/s11897-025-00702-3>
3. Knoblauch, H. (2005). Focused Ethnography. *Forum: Qualitative Social Research*, 6(3). <https://doi.org/10.17169/fqs-6.3.20>
4. Koirala, B., Benjasirisan, C., Lim, A., Moore, R., Dennison Himmelfarb, C. R., & Davidson, P. M. (2025). Experienced-based co-design for cardiovascular and chronic disease research. *European Journal of Cardiovascular Nursing*, 24(4), 652–658. <https://doi.org/10.1093/eurjcn/zvae129>
5. Skivington, K., Matthews, L., Simpson, S. A., Craig, P., Baird, J., Blazeby, J. M., Boyd, K. A., Craig, N., French, D. P., McIntosh, E., Petticrew, M., Rycroft-Malone, J., White, M., & Moore, L. (2021). Framework for the development and evaluation of complex interventions: Gap analysis, workshop and consultation-informed update (Health Technology Assessment, pp. 1–172). NIHR Journals Library. <https://doi.org/10.3310/hta25570>

Abstract Country Norway

Disclosure of Interest Yes

136

Challenges of Vascular Access Exhaustion in a Chronic Dialysis Patient: A Case Report

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Abstract

Vascular access remains one of the greatest challenges in the long-term management of patients with end-stage renal disease and significantly influences both treatment efficacy and patient quality of life. This case report presents the clinical and psychological impact of vascular access exhaustion in a chronic dialysis patient.

We describe a female patient with end-stage renal disease who was initially treated with peritoneal dialysis. After prolonged treatment, peritoneal membrane failure occurred, requiring transition to hemodialysis. The patient had extremely poor vascular status. Over the course of her treatment, multiple central venous catheters were inserted and replaced due to recurrent occlusion and inadequate vascular integrity, ultimately leading to exhaustion of viable access sites. Temporary femoral catheterization was used; however, catheter dysfunction was frequent. The femoral catheter repeatedly occluded, requiring administration of alteplase two to three times during nearly every dialysis session to enable connection to the dialysis machine.

Due to persistent catheter malfunction, increasing procedural burden, and risk of missed dialysis sessions, the patient was hospitalized for further management. After multidisciplinary evaluation and considering the lack of remaining vascular options, a tunneled central venous catheter was placed as a last-resort access in the left infraclavicular region. The procedure was technically successful and allowed continuation of hemodialysis without immediate mechanical complications.

Throughout this period, the patient experienced significant psychological distress. Recurrent access failure, repeated exposure to thrombolytic therapy, fear of unsuccessful dialysis sessions, and prolonged hospitalization contributed to anxiety, emotional exhaustion, and feelings of uncertainty regarding her future treatment. This case highlights the importance of early recognition of vascular access exhaustion, timely intervention, and comprehensive psychological support alongside technical management in chronic dialysis patients.

References

1. National Kidney Foundation. KDOQI Clinical Practice Guidelines for Vascular Access. Am J Kidney Dis. 2006;48(Suppl 1):S176–247.
2. Allon M, Robbin ML. Increasing arteriovenous fistulas in hemodialysis patients: problems and solutions. Kidney Int. 2002;62(4):1109–1124.
3. Kerr PG. Central venous catheters for dialysis: when, how and what can go wrong. Hemodial Int. 2014;18(Suppl 1):S2–S9.
4. Wasse H, Gillen D. Management of dysfunctional tunneled dialysis catheters. Adv Chronic Kidney Dis. 2018;25(1):7–15.

Abstract Country

Croatia

Disclosure of Interest

Yes

137

Agile thinking in nursing: Evidence-based decision-making through precise analysis

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Background

Agile thinking has emerged as a vital competency in modern nursing, providing the flexibility needed to respond to rapid changes in patient health status. In specialized settings like the Hemodialysis Department, where patients often present with critical and complex needs, traditional approaches may benefit from the integration of agile methodologies to ensure individualized and high-quality care.

Objectives

This paper aims to demonstrate how agile principles and structured analytical tools can be applied within nursing practice to improve clinical decision-making and patient outcomes.

Methods

The paper utilizes a case-study approach, analyzing three specific practical examples from a Hemodialysis Department. The application of the Scrum methodology was evaluated for team organization, while SWOT analysis and Fishbone diagrams were employed to evaluate clinical situations and identify the root causes of systemic or patient-related issues.

Results

The analysis indicates that integrating agile thinking with critical thinking facilitates a proactive rather than reactive care environment. The use of Scrum improved team coordination, while analytical tools (SWOT and Fishbone) provided a clearer framework for identifying risks and errors. These methods collectively contributed to enhanced communication among staff and a measurable increase in patient safety.

Conclusion/Application to practice

The implementation of agile principles in nursing is highly effective for complex clinical environments. By fostering adaptability, continuous monitoring, and multidisciplinary collaboration, agile thinking significantly improves the quality of healthcare delivery. These methods offer a practical framework for reducing medical errors and adapting to the dynamic nature of hemodialysis treatment.

References

1. Systematic Literature Review. *Studies in Health Technology and Informatics*(247), 805-809.
2. Petersen, C. I., Sadowski, M., Jørgensen, M. N., & Larsen, K. R.. (2019.). Agile Practices and Benefits in the Danish healthcare Sector. *Journal of Healthcare Engineering*, 1-12.
3. Shona Willers, Tanisha Jowsey, Yan Chen. (2021.). How do nurses promote critical thinking in acute care? A scoping literature review. *Nurse educators in practice*, 53. doi:10.1016/j.nepr.2021.103074
4. Thompson, E. (2019.). *Agile Project Management*. Independently Published.

Abstract Country

Croatia

Disclosure of Interest

Yes

138

Assessment of Sociodemographic Factors on Health Literacy in Patients Undergoing Chronic Hemodialysis

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Background

The World Health Organization defines health literacy as the personal knowledge and competencies acquired through daily activities, social interactions, and intergenerational experiences. Personal knowledge and competencies are influenced by organizational structures and resource availability, enabling people to access, understand, evaluate, and use information and services in ways that promote and maintain good health and well-being for themselves and those around them.

Objectives

The aim of the research was to assess the health literacy levels of patients enrolled in the chronic hemodialysis program at University Hospital Centre Rijeka, using the SAHL instrument, in the Department of Nephrology, Dialysis and Kidney Transplantation, Division of Internal Medicine.

Methods

The research employed the Croatian translation of the SAHLCA-50 questionnaire, which had previously been used in Croatian studies. The test comprises 18 items and is easy to administer. During the test, test takers are required to read aloud each of 18 medical terms and then match each term with another word of similar meaning to demonstrate understanding. The research was conducted during November and December 2025, with 100 participants involved.

Results

The research results showed that there is no significant difference in the level of health literacy between patients on chronic hemodialysis depending on age, that there is a positive association between a higher level of education and a higher level of health literacy of patients on chronic hemodialysis, and that there is an association between the frequency of hospitalizations and the level of health literacy of patients on chronic hemodialysis. It is necessary to promote health literacy early, from childhood and adolescence, to facilitate health equity.

Conclusion/Application to practice

This implies an interdisciplinary approach to addressing health literacy, particularly among patients with kidney disease and during chronic hemodialysis, because research shows that low health literacy is associated with reduced knowledge of one's health condition, lower participation in care, and increased risk of hospitalization and mortality. The application to practice relies on the use of the SAHLCA-50 Scale in a new Croatian scientific paper.

References

1. Institute of Medicine Committee on Health L. In: Nielsen Bohlman L, Panzer AM, Kindig DA, editors. Health Literacy: A Prescription to End Confusion. Washington (DC): National Academies Press (US). Copyright 2004 by the National Academy of Sciences. All rights reserved.; 2004.
2. Sørensen K, Van den Broucke S, Fullam J, Doyle G, Pelikan J, Slonska Z, et al. Health literacy and public health: a systematic review and integration of definitions and models. BMC Public Health. 2012;12:80.
3. Hersh L, Salzman B, Snyderman D. Health literacy in primary care practice. Am Fam Physician. 2015;92(2):118–24. Nutbeam D, Lloyd JE. Understanding and responding to health literacy as a social determinant of health. Annu Rev Public Health. 2021;42:159–73.
4. Nutbeam D, Lloyd JE. Understanding and responding to health literacy as a social determinant of health. Annu Rev Public Health. 2021;42:159–73.
5. Yu YS, Altares A, Leib A, Bellows LL, Berry C, Graham DJ, Mueller MP. Sociodemographic disparities in health literacy among American adults: A national survey study. Prev Med Rep. 2025.

Abstract Country Croatia**Disclosure of Interest** Yes

139

Nursing best practices compilation – strategy for preventing venous needle dislodgement incidents in dialysis centers

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Background

Venous needle dislodgement (VND) incidents usually result from a combination of patient risk factors and inappropriate clinical practices. Risk reduction therefore includes identifying patients at risk of VND and implementing appropriate clinical procedures. To fully implement risk minimisation strategy, it is necessary to regularly assess the risk for all patients with AVF/AVG, document and analyse its results.

Objectives

Reduce the risk to patients from needle dislodgement by implementing a standard VND risk assessment tool. Implementation of strategic measures to reduce the risk of needle dislodgement for all dialysis patients with AVF/AVG, especially those at risk of VND.

Methods

A retrospective study including a review of the documentation of patients with AVF/AVG dialysis in the year 2025, verification of data and analysis of the collected material in terms of the effectiveness of VND prevention. The audited own documentation included:

VND risk assessment performed in 315 patients with AVF/AVG

Results of 252 audits of AVF/AVG care

Reports of 9 safety events

Results

The analysis of the documentation allowed to assess the risk factors of VND in dialysis patients. identify high-risk situations and standardise the nursing assessment for each patient. The key findings are as follows:

Risks:

Patients: people who are asleep, moving during the procedure, restless or do not understand the risks associated with needle displacement/retraction

Staff: Improper taping technique, incorrect line protection technique, lack of visual supervision of the patient

Impact: physical; financial; mortality.

Prevention: regular monitoring of VND risk in dialysis patients; control of clinical practice, control of complications.

Conclusion/Application to practice

Although VND and bloodline disconnection are rare, their seriousness highlights how crucial it is to create tools and plans to mitigate these risks. These actions can significantly improve the quality of care and make hemodialysis procedures safer.

References

1. Hsin, C. Y., Lin, H., Chen, K., Lin, Y., & Hu, H. (2020). P1562 Implementation for Integrated Program of Hemodialysis Vascular Access Puncture Training And An Alarm System May Reduce The Incident of Venous Needle Dislodgment And Bleeding. *Nephrology Dialysis Transplantation*, 35(Supplement_3), gfaa142-P1562.
2. Ribitsch, W., Schilcher, G., Hafner-Giessauf, H., Krisper, P., Horina, J. H., Rosenkranz, A. R., & Schneditz, D. (2014, September). Prevalence of detectable venous pressure drops expected with venous needle dislodgement. In *Seminars in Dialysis* (Vol. 27, No. 5, pp. 507-511).

Abstract Country Poland

Disclosure of Interest No

148

Circulatory support and renal failure following heart transplantation. Lessons from a complex case

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Background

Introduction: Heart transplantation is the only definitive therapy for end-stage dilated cardiomyopathy. The procedure involves numerous potential complications, such as primary graft failure requiring extracorporeal membrane oxygenation (ECMO), subsequent renal failure necessitating renal replacement therapy, and an increased risk of infections.

Objectives

This case study aims to present heart transplantation and its technical challenges (e.g., donor-recipient heart size discrepancy), the significance of veno-arterial extracorporeal membrane oxygenation (VA-ECMO) treatment, long-term dialysis due to renal failure, and the considerations for potential kidney transplantation, while highlighting the importance of nursing care in managing infection risks.

Methods

We present the case of a 43-year-old female patient who underwent heart transplantation in March 2025. Due to donor-recipient size discrepancy and high catecholamine requirements, she received VA-ECMO support for one week. Acute renal failure necessitated the initiation of renal replacement therapy and the insertion of a long-term dialysis catheter. In the following months, she required multiple hospitalizations for recurrent fevers and urinary tract infections. In June 2025, a dialysis catheter-associated infection was suspected, leading to a catheter exchange.

Results

Expected Results: Following ECMO treatment, the patient stabilized and remains cardially compensated. However, renal failure persists. Current goals include stabilizing her condition, preventing new infections, and providing psychological support for future kidney transplantation.

Conclusion/Application to practice

Caring for heart transplant recipients on ECMO requires exceptional professional expertise. In dialysis, meticulous catheter management, maintaining sterility, precise fluid balance, and patient education are fundamental for successful outcomes and preparation for kidney transplantation.

References

1. Giovannico L, et al. Veno-Arterial Extracorporeal Membrane Oxygenation (VA ECMO) in the new era of cardiac transplantation. *Transplant Int.* 2024. <https://doi.org/10.3389/ti.2024.12981>
2. Snopek P, et al. Recurrent infective endocarditis of the mitral valve after heart transplantation in a haemodialysis patient. *Eur J Case Rep Intern Med.* 2024;11(4):001049 https://doi.org/10.12890/2024_004528

Abstract Country

Hungary

Disclosure of Interest

No

162

An apheresis a day keeps the autoantibodies away – apheresis methods for treating autoimmune diseases

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Background

For many years, total plasma exchange (TPE) treatment was the only apheresis option for treating autoimmune disorders in our center. In recent years we started implementing both double-filtration plasma exchange (DFPP) treatment and immunoadsorption. These appear to be as effective as TPE but vary in the way they are done. Experienced dialysis nurse is crucial part of the team to ensure adequate apheresis procedures.

Objectives

To evaluate how individual methods affect resources as well as what are preferred and more practical methods for the dialysis nurses.

Methods

We evaluated how TPE, DFPP an immunoadsorption methods were performed from the nurses' perspective in our dialysis centers.

Results

TPE is a method in which all nurses were experienced though it demanded preparation, care due to usage of fresh frozen plasma (FFP) or human albumins and careful monitoring for possible adverse reactions. Usage of different anticoagulation methods (citrate vs low molecular weight heparin) also demanded increased vigilance. DFPP required much smaller volumes of either FFP or human albumins which made preparation faster and the method required shorter time which made method easier for nurses compared to TPE and even junior nurses were quick to adapt to it. Immunoadsorption is different because patients' plasma is separated and then flows through adsorber so there is no replacement fluid and the preparation time is shorter than for TPE or DFPP which was easier for all the nurses. Though it was different from TPE and DFPE experienced nurses grew more used to it earlier.

Conclusion/Application to practice

All the apheresis methods in our center require experienced dialysis nurses who seem to adapt quickly to the new methods. Immunoadsorption, though a new method for us, shows certain advantages compared to TPE and DFPP in both reducing time and resources while avoiding plasma/albumin related adverse effects.

References

1. Kidney Disease: Improving Global Outcomes (KDIGO) Glomerular Diseases Work Group. KDIGO 2021 Clinical Practice Guideline for the Management of Glomerular Diseases. *Kidney Int.* 2021 Oct;100(4S):S1-S276. doi: 10.1016/j.kint.2021.05.021. PMID: 34556256.

Abstract Country

Croatia

Disclosure of Interest

Yes

164

Home Hemodialysis: A Comprehensive Review of Patient-Centered and Economic Considerations

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Background

This review explores the critical intersection of clinical benefits and the economic barriers that hinder HHD from becoming a standard, equitable treatment.

Objectives

- To evaluate the effectiveness of HHD compared to IHD in patients with ESRD.
- To assess the patient satisfaction and quality of life in both HHD and IHD groups.

Methods

The data from the primary studies were presented in a narrative synthesis of findings under the following home HD topics: advantages to patients, barriers to patients, economic factors influencing patients, cost-effectiveness, and inequities in home HD delivery.

Results

The study types were divided into two broad categories: patient-centered considerations, which included studies related to the advantages of and barriers to home HD, and economic considerations.

Conclusion/Application to practice

The ultimate conclusion is that home HD is a cost-effective treatment that provides superior outcomes, and increasing its utilization through targeted policy changes (like reimbursement for patient costs and incentive programs) would lead to a more equitable distribution of good health outcomes for people with ESRD.

References

1. Howard, K., Morton, R. L., & Walker, R. C. (2017). Home hemodialysis: A comprehensive review of patient-centered and economic considerations. Clinicoecon Outcomes Res. <https://doi.org/10.2147/CEOR.S69340>

Abstract Country

United Arab Emirates

Disclosure of Interest

Yes

165

Assessment of pre and post dialysis anxiety and physical discomfort among patients in Libya

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Background

Hemodialysis treatment is frequently associated with psychological distress & physical discomfort. Fear of complications, unfamiliar machine alarms, and prolonged sessions may increase anxiety & negatively affect treatment experience & adherence. Addressing emotional well-being is essential for improving patient-centered dialysis care.

Objectives

To evaluate changes in anxiety and comfort levels before & after hemodialysis and to assess the impact of reassurance and communication on patient well-being.

Methods

A practice-based quality improvement study was conducted in a dialysis unit including 236 patients. A structured questionnaire assessed anxiety, physical discomfort, & fear before treatment & reassessed these parameters after the session. Patients also reported whether staff reassurance improved comfort. Descriptive & comparative analyses were performed to evaluate changes between pre- & post-session responses.

Results

Moderate to severe anxiety decreased from 33% before dialysis to 18% after treatment. Physical discomfort improved during the session, while 58.9% of patients reported fear prior to dialysis. Staff reassurance enhanced comfort in 91.5% of participants. Overall, 88.6% reported reduced anxiety following the session, with statistically significant improvement in psychological comfort ($p < 0.001$).

Conclusion/Application to practice

Simple patient-centered practices, including clear explanations, reassurance, & supportive communication, significantly improve psychological comfort during hemodialysis. Integrating these strategies into routine care may enhance patient experience, strengthen trust in healthcare teams, & support adherence to long-term treatment.

References

1. Rogowski Ł, Kuształ M, Kowalska J, Stefańska M, Zembruń-Łacny A, Gołębiowski T, et al. Assessment of depression and anxiety in hemodialysis patients undergoing VR therapy—pilot study. *J Clin Med*. 2026;15(4):1489. doi:10.3390/jcm15041489
2. Hassan F, Doğan N. Evaluation of body image perception, pain, fatigue and anxiety levels of individuals on hemodialysis, kidney transplant candidates, and transplant recipients. *Actas Urol Esp (Eng Ed)*. 2025. doi:10.1016/j.acuroe.2025.501707
3. Bakhsh AM, Mahallawi WH. Psychological effects of hemodialysis on patients with renal failure: a cross-sectional study. *J Clin Med*. 2025;14(20):7136. doi:10.3390/jcm14207136

Abstract Country

Libya

Disclosure of Interest

Yes

174

Between technology and empathy: how to overcome the burnout syndrome in intensive care

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Abstract

Burnout is a significant occupational risk among nurses working in highly specialized, high-acuity clinical settings. Cardiac surgery intensive care units (CSICUs) and cardiac operating rooms are characterized by critically ill patients requiring complex surgical interventions and advanced life-sustaining therapies. The growing use of mechanical circulatory support devices—such as extracorporeal membrane oxygenation (ECMO), left ventricular assist devices (LVAD), total artificial heart (TAH), and percutaneous ventricular assist systems (Impella)—along with prolonged mechanical ventilation, continuous renal replacement therapy (CRRT), and hemoperfusion, significantly increases both the technical and psychological demands placed on medical personnel.

Management of patients receiving these therapies requires continuous hemodynamic and respiratory monitoring, rapid recognition of complications, device troubleshooting, and precise coordination within multidisciplinary teams. Such conditions contribute significantly to emotional exhaustion, depersonalization and reduced professional fulfillment.

In addition to the intensity of the workload and shift duration, the responsibility associated with managing ECMO, LVAD, TAH, Impella systems, mechanical ventilation, CRRT, and hemoperfusion further increases occupational stress. However, the level of specialized education and clinical competence of nurses plays a key protective role. Structured training programs, continuing professional development, and certification in advanced life-sustaining therapies increase clinical confidence, reduce anxiety related to device management, and improve patient outcomes.

Burnout among cardiac surgery nurses negatively affects their mental and physical health, compromises patient safety, and contributes to staff turnover. This is why institutional investment in advanced education, adequate staffing, psychological support systems and strong leadership engagement is essential. Strategies for prevention include support in the form of psychosocial assistance, education, better working conditions and promoting teamwork. Strengthening the competencies and resilience of nurses is essential to ensure workforce sustainability and high-quality care for patients undergoing complex cardiac surgery and mechanical circulatory support therapies

References

1. Meyer, R. et al. (2021). Burnout and Psychological Distress Among Critical Care Healthcare Professionals: A Systematic Review. *Frontiers in Psychology*, 12
2. Li, Y., & Zhang, W. (2022). Work-related stress and burnout in cardiovascular intensive care units: A cross-sectional study. *Journal of Clinical Nursing*, 31
3. Kumar, S., et al. (2020). Psychological impact of prolonged ICU stays and complex mechanical support in cardiac surgery patients: Implications for healthcare providers. *Annals of Thoracic Surgery*, 110

Abstract Country

Serbia

Disclosure of Interest

No

178

Implementation of Checklist to Improve Hemodialysis Session Safety: A Before–After Quality Improvement Study

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Background

Patient safety during hemodialysis depends on strict adherence to essential nursing steps, including accurate patient identification, verification of the dialysis prescription, documentation of vital signs, and assessment of vascular access. In everyday clinical practice, time constraints and workload pressures may lead to incomplete documentation or omission of critical safety checks. Short, structured checklists are recognized as effective tools for improving safety and standardizing care processes in high-risk healthcare settings.

Objectives

To evaluate whether implementation of a brief nursing checklist increases compliance with key safety steps and reduces minor adverse events and missing documentation during hemodialysis sessions.

Methods

This six-week before–after Quality Improvement study was conducted between January and February 2026. One hundred hemodialysis sessions (42 morning and 58 afternoon shifts) were randomly selected from first and third daily shifts. The checklist included 12 parameters covering pre-, intra-, and post-hemodialysis safety elements. The primary outcome was the composite compliance score, defined as full compliance when all 12 items were completed. Secondary outcomes included predefined adverse events: intradialytic hypotension, circuit clotting, premature session termination, significant alarms, and missing documentation. Compliance rates and event frequencies were compared before and after implementation.

Results

After checklist implementation, full compliance (12/12 items) was achieved in 47% of sessions, while partial compliance (8–11 items) was observed in 53%. Overall, 15 adverse events per 100 sessions were recorded. Documentation completeness improved, particularly regarding baseline and post-dialysis vital signs and weight recording, with fewer missing data entries. The checklist required less than one minute to complete and was positively accepted by nursing staff.

Conclusion/Application to practice

A brief nursing checklist is a feasible, low-cost intervention that enhances adherence to essential safety steps and improves documentation quality in hemodialysis units, supporting continuous quality improvement initiatives.

References

1. CONSTRUCTION OF HAEMODIALYSIS NURSING-SENSITIVE QUALITY INDICATORS BASED ON DONABEDIAN THEORY: A DELPHI METHOD STUDY, <https://pubmed.ncbi.nlm.nih.gov/36040112/>
2. CONSTRUCTION OF NURSING-SENSITIVE QUALITY INDICATORS FOR HAEMODIALYSIS USING DELPHI METHOD, <https://pubmed.ncbi.nlm.nih.gov/29968268/>

Abstract Country

GREECE

Disclosure of Interest

Yes

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Single-center experience with Therapeutic Plasma Exchange in neurological disorders

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Background

Therapeutic plasma exchange (TPE) is an established treatment modality in a wide range of neurological disorders, serving either as a first-line therapy or as a rescue option. The aim of this study was to evaluate the safety and effectiveness of TPE in hospitalized patients with neurological diseases treated at our center.

Methods

This was a retrospective study with an observation period of 30 months (January 2023 – August 2025). All patients who underwent TPE during hospitalization for neurological indications were included. Demographic characteristics, indications, number of sessions, complications, and clinical outcomes were recorded and analyzed.

Results

Among 41 patients who underwent TPE, 21 (51.2%) had neurological disorders. The study population consisted of 9 females and 12 males, with a mean age of 53.09 ± 15.44 years. The majority of cases involved Myasthenia Gravis (42.8%) and Guillain–Barré Syndrome (23.8%), while 47.6% of patients were treated in the Intensive Care Unit (ICU).

Clinical improvement was observed in 90.5% of patients, whereas two patients (9.5%) died despite therapy. According to the American Society for Apheresis (ASFA) guidelines, the indications for TPE were classified as follows: Grade 1 (71.4%), including 1A (28.6%) and 1B (42.8%), Grade 2C (28.6%). The mean replacement volume per session was 3.54 ± 0.84 L, and the mean total number of sessions per patient was 5.29 ± 2.28 .

Out of 118 total TPE sessions, one mild allergic reaction (0.8%) was recorded, which did not require discontinuation of the procedure.

Conclusion/Application to practice

Our center's experience demonstrates that therapeutic plasma exchange is a safe and effective treatment option for a broad spectrum of neurological diseases. TPE is associated with high rates of clinical response and low complication rates, even among critically ill patients with refractory neurological conditions.

References

1. PLASMA EXCHANGE IN NEUROLOGICAL DISEASE <https://pubmed.ncbi.nlm.nih.gov/31300488/>
2. PLASMA EXCHANGE IN NEUROLOGICAL DISEASES <https://pubmed.ncbi.nlm.nih.gov/3115412/>
3. PLASMA EXCHANGE IN NEUROLOGICAL DISEASES. A CRITICAL APPROACH <https://pubmed.ncbi.nlm.nih.gov/6187131/>

Abstract Country

GREECE

Disclosure of Interest

Yes

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Kidney allograft biopsy: Nursing perspectives from clinical practice

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Abstract

Kidney transplantation is one of the most common types of solid organ transplantation and treatment of choice for patients with end-stage renal disease. It is a surgical procedure in which a donor kidney, obtained from either a living or deceased donor, is placed in the recipient's pelvic region. Successful kidney transplantation significantly improves patients quality of life compared to dialysis.

However, the transplanted kidney is recognized as a foreign body by the recipient's immune system, which may lead to rejection. To prevent this, lifelong immunosuppressive therapy is required for as long as the graft remains functional. Rejection may occur at any time after transplantation and is classified as either cellular or antibody mediated.

The definitive diagnosis of kidney rejection is established by biopsy of the transplanted kidney. This procedure involves obtaining a tissue sample for histopathological analysis to assess graft function, detect potential damage, evaluate therapeutic effectiveness, and determine the immune response to the transplanted organ. The biopsy is a minimally invasive procedure, typically performed under local anesthesia.

Adequate physical and psychological preparation before and after the biopsy is essential, and nurses play a crucial role in patient education, monitoring, and overall care. The most common complication following kidney graft biopsy is hematuria, which usually resolves spontaneously within a few days.

References

1. Bašić Jukić N, Kaštelan Ž i suradnici. Transplantacija bubrega. Zagreb: Medicinska naklada; 2016.
2. Vidrih S, Colić M, Devčić B, Poje B. Uloga medicinske sestre u nefrološkoj skrbi. Medicina Fluminensis. 2010; 46(4):448-457.

Abstract Country

Croatia

Disclosure of Interest

No

183

Surgical vs. percutaneous avf - are they equivalent?

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Background

Our goal was to compare chronic patients who have had sAVF or pAVF created in the past two years, cannulation methods and success, interventions (dilatation/reconstruction), BP flow, AVF maturation and occurrence of aneurysmal changes at the cannulation sites. As collection and analyse methods with our chronic patients, we used dialysis protocols and medical documentation of the observed groups. The data was monitored from July 2023 till February 2026.

Objectives

Ten patients with sAVF (3 women, 7 men) were cannulated using the “zone” technique. Unsuccessful cannulation was min 1 in 70 and max 22 in 216 treatments. Two patients had two PTA dilations performed and two had one. One patient had sAVF revised due to anastomosis bleeding. One patient had sAVF created twice. Maturation time of sAVF was median 115 days. Five patients had aneurysmal changes. All had BP flow between 250-300 ml/min.

Methods

Four out of five patients with pAVF were cannulated using the “split” technique and one using the “upper-lower” technique. Unsuccessful cannulation occurred in min 1 in 35 treatments and max 11 in 193 treatments. One patient with pAVF had perforator thrombosis occurred and sAVF was created on the same arm. Maturation time of pAVF was median 79,5 days, without aneurysmal changes. All had BP flow between 250-300 ml/min.

Results

Patients with sAVF had more interventions, slightly longer maturation time and the appearance of aneurysmal changes at the cannulation site. Patients with pAVF had only one intervention, rate of unsuccessful cannulations was the same and none had aneurysmal changes.

Conclusion/Application to practice

Percutaneous arteriovenous fistulas meet the criteria of good vascular access and provide patients with a method of choice.

References

1. Comparison of post-creation procedures and costs between surgical and an endovascular approach to arteriovenous fistula creation Shuo Yang, Charmaine Lok, Renee Arnold, Dheeraj Rajan, Marc Glickman Affiliations PMID: 28362044 DOI: 10.5301/jva.5000723
2. Comparison between Surgical and Endovascular Hemodialysis Arteriovenous Fistula Interventions and Associated Costs Renée J G Arnold, Yun Han, Rajesh Balakrishnan, Andrew Layton, Charmaine E Lok, Marc Glickman, Dheeraj K Rajan Affiliations PMID: 30293731 DOI: 10.1016/j.jvir.2018.05.014
3. Endovascular Proximal Forearm Arteriovenous Fistula for Hemodialysis Access: Results of the Prospective, Multicenter Novel Endovascular Access Trial (NEAT) Charmaine E Lok, Dheeraj K Rajan, Jason Clement, Mercedeh Kiaii, Ravi Sidhu, Ken Thomson, George Buldo, Christine Dipchand, Louise Moist, Joanna Sasal ; NEAT Investigators Collaborators, Affiliations PMID: 28624422 DOI: 10.1053/j.ajkd.2017.03.026
4. Early experience and observations in endovascular dialysis fistula re-intervention Robert G Jones, Aurangzaib Khawaja, Karen Tullett, Nicholas G Inston Affiliations PMID: 31814515 DOI: 10.1177/1129729819888374
5. A systematic review aggregated data and individual participant data meta-analysis of percutaneous endovascular arteriovenous fistula Alkis Bontinis, Vangelis Bontinis, Andreas Koutsoumpelis, Teun Wilmink, Argirios Giannopoulos, Vasileios Rafailidis, Angeliki Chorti, Kiriakos Ktenidis Affiliations PMID: 36328141 DOI: 10.1016/j.jvs.2022.10.039

Abstract Country Croatia

Disclosure of Interest No

188

Reducing caregiver burden in chronic kidney disease: a scoping review of non-pharmacological interventions

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Background

Family caregivers of people with chronic kidney disease (CKD) commonly experience high levels of burden, stress, fatigue, and reduced quality of life, with potential repercussions for care continuity and patient outcomes [1,2]. Although caregiver needs are widely acknowledged in nephrology settings, evidence on effective non-pharmacological support strategies remains fragmented across intervention types and outcome measures.

Objectives

To map and synthesise the available evidence on non-pharmacological interventions supporting family caregivers of adults with chronic kidney disease across the care continuum.

Methods

A scoping review was conducted in accordance with Joanna Briggs Institute (JBI) guidance [3] and reported following PRISMA-ScR [4]. Systematic searches were performed in PubMed/MEDLINE, CINAHL, Scopus, Web of Science, and the Cochrane Library, complemented by grey literature screening. Eligible studies included quantitative, qualitative, and mixed-methods primary research evaluating non-pharmacological interventions and reporting caregiver-related outcomes.

Results

Eight studies met the inclusion criteria, with heterogeneous designs and follow-up periods. Interventions were grouped into: (1) structured relaxation techniques; (2) mindfulness-based approaches (including technology-supported formats); (3) educational programmes; (4) self-management models; and (5) meaning-centred interventions. Relaxation-based interventions showed the most consistent short-term reductions in caregiver burden, stress, and fatigue. Educational and self-management interventions were associated with improvements in caregiver quality of life. Mindfulness-based approaches demonstrated good feasibility and acceptability but mixed effectiveness. Evidence for digital or virtual interventions is emerging but remains limited.

Conclusion/Application to practice

Brief, structured relaxation techniques appear particularly promising as feasible, low-cost options that can be integrated into nephrology nursing pathways to support caregivers. Multicomponent interventions addressing emotional and relational dimensions may further enhance caregiver outcomes. Larger, well-designed studies with longer follow-up and standardised outcome measures are needed to inform implementation and policy.

References

1. Ebadi A, Sajadi AS, Moradin ST, Akbari R. Psychological consequences for family caregivers of patients receiving hemodialysis: Threat or opportunity? *BMC Psychol*. 2021;9:154. doi:10.1186/s40359-021-00667-7.
2. Dos Santos Pereira B, da Silva Fernandes N, de Melo NP, et al. Beyond quality of life: A cross-sectional study on the mental health of patients with chronic kidney disease undergoing dialysis and their caregivers. *Health Qual Life Outcomes*. 2017;15:74. doi:10.1186/s12955-017-0646-4.
3. Peters MDJ, Marnie C, Tricco AC, et al. Updated methodological guidance for the conduct of scoping reviews. *JBI Evid Synth*. 2020;18(10):2119–2126. doi:10.11124/JBIES-20-00167.
4. Tricco AC, Lillie E, Zarin W, et al. PRISMA extension for scoping reviews (PRISMA-ScR): Checklist and explanation. *Ann Intern Med*. 2018;169(7):467–473. doi:10.7326/M18-085.

Abstract Country Italy

Disclosure of Interest No

193

Health education of patients in the pre-dialysis period

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Background

Early education of patients with stage 5 chronic kidney disease (CKD) plays a key role in their understanding of the disease and acceptance of replacement therapy. The kidneys perform essential functions to maintain body balance, and their failure leads to health deterioration and the need for treatment. Patients must receive timely and appropriate information about the disease progression and the available replacement therapy options. The success of pre-dialysis education depends on clear educational goals and on evaluating the knowledge acquired by the patients. The purpose of this study is to determine the effectiveness of health education in patients with CKD in the pre-dialysis period.

Methods

This research adopts a quantitative and descriptive approach. Primary and secondary data were collected, analysed, and synthesized. Primary data were obtained through a survey technique. Secondary data were gathered from a review of domestic and international literature and internet databases. The study lasted 2 months. Questionnaires were printed and distributed to patients who started replacement therapy.

Results

The study included 104 patients undergoing treatment at two private dialysis centers who started CKD replacement therapy by 2024. More than half of the respondents (59%) participated in pre-dialysis education, and the majority (64%) reported that they had obtained sufficient information about their disease and treatment methods. All patients ($n = 13$; 100%) on peritoneal dialysis received information about the surgical procedure for peritoneal catheter insertion, daily dialysis solution changes, the option of overnight dialysis, and proper storage of dialysis materials. Among hemodialysis patients, the majority were informed about arteriovenous fistula surgery (93%) and about receiving hemodialysis two to four times per week at a dialysis center (93%). Additionally, 54% of respondents agreed that pre-dialysis education influenced their choice of replacement therapy method.

Conclusion/Application to practice

The survey results indicate that most patients participate in pre-dialysis education, enabling them to acquire critical information about their disease and its progression. Appropriate education better prepares patients to make informed decisions regarding replacement therapy options, which contributes to improved adaptation to treatment and better health outcomes.

References

In the future, it would be useful to expand the research by including a larger number of respondents, which would allow for greater transparency and reliability of the results. A qualitative study would also be useful, in which interviews would provide a deeper insight into the issue from both patients and healthcare professionals. Patients could provide personal opinions about their disease and the course of treatment, and healthcare professionals could shed light on their experiences and challenges in treating patients with chronic kidney disease. In addition, more attention should be paid to an individualized approach to health education.

Abstract Country

Slovenija

Disclosure of Interest

No

198

Psychosis and immunosuppressive therapy in the early kidney post-transplant period- case report

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Background

In the period immediately after transplantation, the patient may develop a confusional psychosis with anxiety, restlessness, confusion, agitation, hallucinations, confabulations and emotional lability.

Objectives

The incidence of this confusional psychosis varies (20- 40%), and the use of steroids may prolong the psychotic state, resulting in "steroid psychosis" with paranoid and hallucinatory reactions. Severe neuropsychiatric effects occur in about 6% of patients receiving steroids.

Methods

Case report: 63 year old, male. Diagnosis: PTSD for 28 years. Therapy: fluvoxamine 50 mg, twice a day. Subjectively: fatigue, concern, and anxiety. 2017. chronic hemodialysis program; 2023. no contraindications for transplantation; 2023. cadaveric kidney transplantation. Post- transplant days 4-6: increased somnolence with episodes of psychotic behavior (agitation, heteroaggression, psychomotor restlessness and disorientation). Psychiatric consultation- dose reduction of antidepressant, increase of anxiolytics, introduction of an antipsychotic.

Results

Post- transplant day 7: improvement in mental status; repeat hemodialysis due to volume overload. Stable mental status, psychologically compensated and cooperative. Psychiatric discharge recommendations (15 days after Tx.): fluvoxamine 50 mg in the evening, alprazolam 0.25 mg twice daily, promazine hydrochloride only in case of marked tension.

Conclusion/Application to practice

Such reactions are possible in patients with pre- existing mental disorders. The importance of multidisciplinary cooperation and care in the treatment of transplant patients is crucially.

References

no references, case report from my department

Abstract Country

Croatia

Disclosure of Interest

Yes

199

Implementation and Outcomes of Shared Haemodialysis program among Independent Dialysis Providers in UK

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Background

Facing the dual challenges of enhancing patient autonomy and optimising clinical efficiency, the programme was designed to transition suitable patients from conventional, staff-assisted haemodialysis to a shared-care model. This model empowers trained patient to perform, under nursing supervision, key aspects of their own dialysis treatment as identified on recognised Shared Haemodialysis care program task.

Methods

The implementation followed a phased, multidisciplinary strategy involving rigorous patient selection, comprehensive bespoke training, competency assessment, and the establishment of clear safety protocols. A core ethos of the programme was fostering a collaborative partnership between patients, nursing staff, and clinic management. Key success factors identified include strong clinical leadership, dedicated “champion” nurses, a robust peer-support network among participating patients, and continuous feedback mechanisms.

Results

Preliminary outcomes measured over a 12-month period indicate significant benefits. For patients, qualitative reports highlighted increased independence, improved self-efficacy, and greater satisfaction with their treatment experience. Clinically, the programme contributed to improved dialysis adequacy metrics and reduced instances of treatment-related anxiety. From an operational perspective, the model facilitated more flexible scheduling and allowed nursing staff to re-focus expert attention on more clinically complex patients, thereby enhancing overall clinic workflow and resource allocation.

Conclusion/Application to practice

The Shared haemodialysis care programme demonstrates that a carefully managed, patient-centred shared-care model is a viable and beneficial adjunct to standard renal replacement therapy in a UK clinic setting. Its success underscores the value of investing in patient education and partnership, yielding gains in both healthcare outcomes and operational efficiency. This initiative serves as a replicable framework for other outpatient dialysis providers seeking to innovate within a value-based care paradigm.

References

1. Kidneycareuk.org. [cited 2026 Feb 27]. Available from: <https://www.kidneycareuk.org/about-kidney-health/treatments/dialysis/shared-haemodialysis-care/>
2. Nhs.uk. [cited 2026 Feb 27]. Available from: <https://www.england.nhs.uk/wp-content/uploads/2018/04/patient-activation-measure-quick-guide.pdf>

Abstract Country

United Kingdom

Disclosure of Interest

No

205

Effective patient education to insure safe care in our network

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Background

Patient education is defined as a systematic learning experience that combines methods such as the provision of information, advice and behavior modification techniques to influence patients' experiences of their illness, knowledge, and health behaviors, with aim of improving or maintaining health and coping with chronic conditions.

Objectives

To improve the patient knowledge and skills, enabling them to manage their health and illness more effectively. Providing accurate and reliable information to the patients about their illness and its treatment. Helping they develop their skills and increase their motivation.

Methods

Preparation of patient education packages for new patients, alongside the expansion of existing materials. Compilation of informational materials for patients already receiving treatment about consequences of missed treatments. Additional packages on maintaining quality living conditions, such as diet and fluid intake, exercise, medication rules. The latest standards for vascular access care at patients' homes. As part of head nurse training program, we organized a workshop to develop education packages for each topic.

Results

Printed materials were prepared in the form of brochures, posters, and short videos appropriate to the topic, which are shown during treatment at the clinics. In our network's 23 clinics, patient education is continuously carried out involving family members, with the use of an educational package supported by our head nurses. The care of vascular access for more than 2,200 patients undergoing hemodialysis (38% via central venous catheter, 62% via arteriovenous fistula), along with home care, is complemented by personal education and familiarization with materials, so that in case of problems, they timely seek help from the medical staff. Patients eat according to 'kidney-friendly' recipes.

Conclusion/Application to practice

Patients and their family receive training that enables them to make the most of the healthcare services provided by institution. Well-planned patient education not only provides information to patients but also helps make healthcare delivery more cost-effective.

References

<https://nursingeducation.org>
<https://www.bing.com/videos/riverview/relatedvideo?q=patient+education+nursing&mid>
<https://www.freseniuskidneycare.com>
<https://www.diaverum.com/media/our-stories/a-new-way-to-engage-our-patients/>

Abstract Country

Hungary

Disclosure of Interest

No

209

Generations working together for effective patient care

Andrea Divinyiné Jócsak, Judit Hegedus*Diaverum, Budapest, Hungary*

Background

The education of nurses working in dialysis faces new challenges. Different generations experience the emergence of AI and new technologies in different ways and adapt to these changes differently. Today, we have a unique situation where four different generations are typically present in the labor market at the same time. Each of these generations grew up in a different social, economic, and technological environment, which shaped their attitudes toward work and technology.

Objectives

Managing generational differences in the workplace is of paramount importance, as we can only achieve our goals if different generations are able to work together effectively and well. My goal is to help foster cooperation for effective patient care by exploring generational differences.

Methods

It is important to take into account the diversity of generations, support effective cooperation, and minimize conflicts for the efficient functioning of organizations. Observing the educational challenges of the four generations that are currently most prevalent in the labor market has a significant impact on organizational functioning.

Results

The expectations and attitudes of employees from different generations can vary significantly. Key elements of effective strategies for bridging the generational gap emphasize the importance of promoting inclusive environments, leveraging the unique strengths of each generation, and fostering collaborative work cultures to enhance organizational success and sustainability.

Conclusion/Application to practice

Older generations need to gradually adapt to constant technological change, while for younger generations, technology is a natural and integral part of their everyday lives and work. In order to reconcile different technological affinities and workplace needs, strategies must be developed that provide opportunities for development for all generations, while taking into account individual preferences.

References

A.Shaji George et al.; Bridging the Generational Divide: Fostering Intergenerational Collaboration and Innovation in the Modern Workplace

Abstract Country

Hungary

Disclosure of Interest

No

210

The need for renal replacement therapy in heart failure - Case study

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Abstract

Our case study summarizes the last 15 years of the life of a 63-year-old female patient with severe heart failure, who was a smoker and later developed renal failure.

Her medical history also includes hypertension, hyperuricemia, obesity, hyperlipidemia, ST elevation myocardial infarction (percutaneous intervention performed), followed by severe global heart failure since 2011, severe allergy to polystyrene, catheter ablation, atrial fibrillation.

Recurrent cardiac decompensation developed on dilated cardiomyopathy, due to newly developed type 2 diabetes, the need for continuous ultrafiltration to relieve the circulatory system arose several times, intermittent HD treatment for chronic kidney disease (CKD) stage III, which progressed due to Covid pneumonia, leading to regular HD starting in 2022.

Due to generalized atherosclerosis, the creation of AV fistula failed three times. Between 2022 and 2025, seven CVC cannulas were inserted. Due to CVC insufficiency and abdominal obesity, declining mental state, home oxygen therapy for cardiac indications, decreasing diuresis, peritoneal dialysis (PD) was considered the only solution. On July 20, 2025, a Tenchoff catheter was implanted, and CAPD was started 6 weeks later with a daily exchange of 4, 1.36% solution. After another 4 weeks, early PD-associated culture-negative peritonitis (PTIS) with a known poor prognosis developed, which was cured with empirical antibiotic treatment. Based on a peritoneal equilibration test (PET) performed in December 2025, the patient was found to be a slow transporter, so although his detoxification was inadequate, he achieved temporary equilibrium based on good ultrafiltration. From the beginning of 2026, lower limb vasoconstriction worsened his fragile condition, and then repeated zoonosis (*Erysipelothrix rhusiopathiae*) caused zoonotic PTIS, which proved fatal despite multidisciplinary treatment (cardiologist, vascular surgeon, intensive care specialist, and nephrologist) proved fatal.

References

Chih-Wei Yang, David CH Harris, et al.; Global case studies for chronic kidney disease/end-stage kidney disease care

Abstract Country

Hungary

Disclosure of Interest

No

212

Self-care of patients on haemodialysis

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Introduction:

Patients' self-care condition is one of the key criteria used to evaluate the level of needed nursing care, thus can be used to determine the number of nurses and nurse assistants in dialysis clinics.

Purpose: Evaluation of self-care condition of haemodialysed patients.

Methods:

Patients' self-care was evaluated using the modified Barthel Index. Depending on the score achieved, patients were assigned to one of three categories. The patients' assessments were performed 1 per quarter and when the condition changes.

Category 1, score 0-20: incapacitated patients or patients requiring major assistance.

Category 2, score 21-84: patients requiring moderate assistance.

Category 3, score 85-100: fully independent patient requiring minor assistance of nursing personnel in daily activities.

Analysis was based on reports from 70 clinics, for about 6000 patients, 147254 measurements, from 2020-2025

Results:

Min – max range (measured quarterly from 2020-2025)

6,4 – 9 % of all patients required major assistance of nursing personnel. The proportion of patients classified in category 1 in different clinics was 0-33%.

25,2 - 27,4% of all patients required moderate assistance of nursing personnel. The proportion of patients classified in category 2 in different clinics was 0-60 %.

63,9 - 68,4% of all patients were independent or only required minor assistance of nursing personnel. The proportion of patients classified in category 3 in different clinics was 18-100%

References

1. Wruk-Złotowska A, Wruk K. Assessment of the functionality of dialysis patients. Nephrology Forum. 2011; 4(3):258–265.
2. Liber M, Parisotto MT. Self-care status in patients undergoing hemodialysis. EDTNA ERCA Journal. 2017.
3. Recommendations of the Working Group of the Polish Society of Nephrology on the quality criteria for the treatment of dialysis patients with end-stage renal failure. NEPROL. DIAL. POL. 2015, 19, 6-11)

Abstract Country

Poland

Disclosure of Interest

Yes

213

Improving consistency of haemodialysis care through nurse-led review of patient performance data

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Background

The Individual Patient Performance Score (IPPS) is a patient-level performance framework used to monitor haemodialysis care across weighted clinical domains. Although IPPS offers a consistent scoring framework, its value depends on how data are reviewed and discussed at clinic level. In the UK, variation existed in data completeness, staff engagement with IPPS, and consistency of structured review. To address this, nurse-led actions were introduced to support more consistent review and discussion of IPPS data across haemodialysis clinics.

Methods

Between 2024 and 2025, all UK haemodialysis units were encouraged to improve how IPPS data were reviewed and discussed. First, data completeness was strengthened through identification and follow-up of missing blood results and repeat sampling where required. Second, nursing teams focused on areas within their circle of control, including prescribed versus delivered treatment duration, blood flow alignment with prescription, dry weight review, anaemia trends, vascular access status, and transplant status updates. This supported timely nursing prioritisation and escalation. Thirdly, weekly UK-wide nursing drop-in sessions via Teams supported shared learning and national consistency along with clinic-based consultation. Treatment or prescription changes were referred to the responsible consultant. IPPS trends across 2025 were reviewed.

Results

In 2025, total IPPS increased from 65.3 in January to 67.1 in December. Improvement was most evident in haemodialysis adequacy, aligning with review of prescribed versus delivered treatment duration and improved data completeness. Fluid status and blood pressure domains remained stable, while nutrition and vascular access showed limited short-term change.

Conclusion

Structured, nurse-led review of patient performance data supported more consistent haemodialysis care across UK clinics. Simple, repeatable nursing actions helped translate IPPS data into meaningful nursing review and escalation. The value of IPPS lies less in the score itself and more in how consistently it is used to support reflective practice and shared learning.

References

Renal Association. Clinical Practice Guideline: Haemodialysis. UK Renal Association; 2019.
Kidney Disease Outcomes Quality Initiative (KDOQI). KDOQI Clinical Practice Guideline for Hemodialysis Adequacy: 2015 Update

Abstract Country

United Kingdom

Disclosure of Interest

No

215

Healthcare assistant as support for dialysis nurses

Małgorzata Liber, Elżbieta Cepuchowicz

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Introduction

The shortage of nurses in Poland (5.7 per 1,000 inhabitants) represents a significant challenge for the functioning of dialysis clinics and for maintaining a high quality of care.

The situation is further complicated by the growing number of dependent patients who require not only specialist medical procedures, but also nursing care and support with basic activities of daily living.

The limited number of nurses directly affects clinic organization, increases workload, and raises the risk of reduced quality of nursing services.

One solution that could significantly improve the functioning of dialysis teams is the employment of Healthcare Assistant (HCA) and the delegation of care and hygiene activities to them. This would allow for more effective use of nurses' competencies.

Objective:

To include Healthcare Assistant (HCA) in nursing teams caring for dialysis patients.

Assumptions:

HCA hold a professional qualification (MED14) and is authorized to perform care activities and selected medical tasks.

The scope of HCA duties is consistent with the competencies acquired during their education.

HCAs perform their tasks under the supervision of a nurse.

The redistribution of tasks between nurses and HCAs must take into account patient safety, applicable regulations, and the scope of competence of both professions.

Implementation:

The project was implemented in 15 dialysis clinics, where 30 HCA were employed. In each dialysis room, two nurses and one HCA care for 12 dialysis patients.

Conclusions:

The inclusion of HCA in nursing teams requires a clear division of responsibilities — HCA support nurses but do not replace them.

Delegating care, hygiene, administrative, and logistical tasks to HCA significantly reduces the workload of nurses.

Employing HCAs in dialysis clinics increases the capacity to provide professional care to a larger number of dialysis patients.

References

1. The current state of renal replacement therapy in Poland – 2022: NEFROL DIAL POL. 2022; 26: 21-38
2. Report on the state of nursing and midwifery in Poland 2023: 7
3. REGULATION OF THE MINISTER OF HEALTH 1 of April 22, 2025. Appendix No. 5 DETAILED LIST OF PROFESSIONAL ACTIVITIES OF A MEDICAL CAREGIVER
4. Małgorzata Liber Medical caregivers as support for nurses in the care of dialysis patients. NURSES AND MIDWIVES ISSN 2300-2093 Krakow, No. 58, October-November-December 2024

Abstract Country

Poland

Disclosure of Interest

Yes

225

Early detection of kidney diseases in school aged children

Randa Fanan

LADT, Tripoli, Libya. Janzour Kidney Services Center, Tripoli, Libya

Background

Chronic kidney disease (CKD) is an increasing global health concern. In children, early stages are often asymptomatic and remain undetected until significant renal damage occurs. Early identification of urinary abnormalities may prevent long-term complications. Simple, non-invasive screening tools such as urine dipstick testing and albumin-to-creatinine ratio (ACR) measurement are cost-effective and feasible for large-scale screening. Previous epidemiological studies have reported subclinical urinary abnormalities in apparently healthy school-aged children, highlighting the need for structured early detection programs.

Objectives

To determine the prevalence of early kidney abnormalities among school-aged children and evaluate the feasibility of implementing school-based urinary screening as an early detection strategy.

Methods

A cross-sectional screening study was conducted among 200 apparently healthy students (100 males and 100 females). Spot urine samples were collected and analyzed using dipstick testing for proteinuria and laboratory measurement of albumin-to-creatinine ratio (ACR). Demographic information, recent history of infections, and hydration status were documented. Descriptive statistical analysis was performed to estimate the prevalence of urinary abnormalities and assess associated factors.

Results

A small proportion of students demonstrated abnormal urinary findings, including transient proteinuria and microalbuminuria. Most abnormalities were mild and likely reversible, commonly associated with dehydration, recent minor infections, or temporary physiological conditions. No cases of advanced renal dysfunction were identified. The screening process was practical, well tolerated by students, and efficiently conducted within the school environment using minimal resources.

Conclusion/Application to practice

School-based urinary screening represents a feasible and low-cost strategy for early identification of subclinical kidney abnormalities in children. Early detection enables timely follow-up, preventive counseling, and appropriate medical evaluation, potentially reducing future CKD burden. Integrating structured kidney health screening into school health services may strengthen early nephrological prevention strategies.

References

1. Nawaz H, Butt N, Anees M, Babar K. Prevalence of urinary abnormalities in asymptomatic school going children by dipstick method. *Pak J Med Sci.* 2024;40(11):2480-2484.
2. Nitto T, Alexander M. Detection of urine abnormalities among school children. *Asian J Nurs Educ Res.* 2024;14(1):5-11.
3. Banerjee M, Roy D, Lingewaran M, et al. Urinary screening in asymptomatic Indian children: a cross-sectional epidemiological study. *EJIFCC.* 2022;33(3):242-251.
4. Early detection of proteinuria to prevent kidney fibrosis in children. *Pediatr Nephrol.* 2025.
5. Hsu CN, et al. Pediatric chronic kidney disease: mind the gap between detection and prevention. *Children (Basel).* 2025;12(5):614.

Abstract Country

Libya

Disclosure of Interest

Yes

227

Animal-Assisted Therapy During Haemodialysis: A pilot study

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Background

Patients on haemodialysis frequently experience anxiety, depression, stress, and social isolation during long treatment sessions, which can affect adherence and quality of life. Animal-assisted therapy (AAT) with trained therapy dogs has shown promise in reducing psychological distress and improving well-being in dialysis settings through non-pharmacological means. Our small haemodialysis unit in a Greek Air Force hospital (up to 23 patients monthly, 8 nurses, 3 doctors) provided an ideal compact environment to pilot this low-cost intervention.

To implement and explore the feasibility and perceived effects of animal-assisted therapy sessions with a trained therapy dog during haemodialysis, focusing on patient distress, mood, and session experience in this military setting.

Weekly animal-assisted therapy with a therapy dog is feasible, safe, and well-accepted in a small military haemodialysis unit. It offers a simple, non-pharmacological way to reduce acute distress, enhance mood, and improve the treatment experience. Integrating structured AAT sessions could complement holistic nephrology care, support mental well-being, and potentially encourage better adherence—particularly in specialised or trauma-exposed populations.

Objectives

To implement and explore the feasibility and perceived effects of animal-assisted therapy sessions with a trained therapy dog during haemodialysis, focusing on patient distress, mood, and session experience in this military setting.

Patients reported significant immediate reductions in anxiety and stress, alongside improved mood. Common themes included distraction from treatment discomfort, feelings of comfort and normality, and positive social interaction. Nursing staff noted better patient cooperation and a more relaxed unit atmosphere during visits. No adverse events occurred; all participants welcomed the intervention.

Methods

A pilot quality improvement project was conducted over three months. A certified therapy dog and handler visited the unit once weekly during dialysis sessions. Consenting patients completed a brief visual analogue scale for anxiety, stress, and mood before and after dog interaction (petting, talking, presence). Qualitative notes from patients and nursing staff captured experiences. Data were analysed descriptively, with paired comparisons of pre/post VAS scores.

Results

Patients reported significant immediate reductions in anxiety and stress, alongside improved mood. Common themes included distraction from treatment discomfort, feelings of comfort and normality, and positive social interaction. Nursing staff noted better patient cooperation and a more relaxed unit atmosphere during visits. No adverse events occurred; all participants welcomed the intervention.

Conclusion/Application to practice

Weekly animal-assisted therapy with a therapy dog is feasible, safe, and well-accepted in a small military haemodialysis unit. It offers a simple, non-pharmacological way to reduce acute distress, enhance mood, and improve the treatment experience. Integrating structured AAT sessions could complement holistic nephrology care, support mental well-being, and potentially encourage better adherence—particularly in specialised or trauma-exposed populations.

References

1. Menna LF, Santaniello A, Amato A, et al. Changes of oxytocin and serotonin values in dialysis patients after animal assisted activities (AAAs) with a dog—a preliminary study. *Animals (Basel)*. 2019;9(8):526.
2. Stensland, M., Elorriaga, A., Block, M., Block, G., McGeary, D., Flaman, J., & Lugosi, S. (2024). Therapy dogs in the dialysis clinic: A qualitative study examining hemodialysis patients' attitudes toward an animal-assisted intervention. *Anthrozoös*, 37(4), 765-778. <https://doi.org/10.1080/08927936.2024.2339629>
3. Santaniello A, Garzillo S, Amato A, et al. Animal Assisted Activities (AAAs) with dogs in a dialysis center in Southern Italy: evaluation of serotonin and oxytocin values in involved patients. *Biomedicines*. 2025;13(10):2444.
4. Stensland, M., Sanford, E., Elorriaga, A., Block, M., Block, G., Houle, T., Flaman, J., & McGeary, D. (2025). Clinic-based animal-assisted intervention for haemodialysis patients' treatment adherence, pain and depression: An interrupted time series analysis. *Journal of Renal Care*, 51(2), e70013. <https://doi.org/10.1111/jorc.70013>
5. Santaniello, A., Perruolo, G., Amato, A., Garzillo, S., Mormone, F., Morelli, C., Formisano, P., Sansone, M., Fioretti, A., & Oriente, F. (2025). Animal Assisted Activities (AAAs) with Dogs in a Dialysis Center in Southern Italy: Evaluation of Serotonin and Oxytocin Values in Involved Patients. *Biomedicines*, 13(12), 2944.

Abstract Country

Greece

Disclosure of Interest

No

236

Obesity and kidney transplantation- case report

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Background

Obesity impacts multiple interrelated aspects of kidney transplantation, including candidate selection, risk stratification, waitlist management, and outcome prediction. Although obesity is not considered an absolute contraindication to kidney transplantation, it is associated with an increased risk for cardiovascular disease and surgical complications.

Objectives

Post- transplant weight gain is common and clinically significant. Long- term follow- up studies have demonstrated that BMI and BMI increase one year after transplantation are strongly associated with mortality and graft failure. Each 5 kg/m² increase in BMI confers an additional relative risk for death and death- censored graft failure. A BMI > 30 kg/m² one year post- transplant is associated with a nearly 40% higher risk of mortality, independent of steroid use or graft function.

Methods

Case- report: I. DJ., male, 22 years old

Dg.: FSGS, Adiposity

Weight before initiation of renal replacement therapy was 160 kg., with a BMI of 36 kg/m².

Hemodialysis was started on 12.02.2024.

16.01.2025. body weight was 125,5 kg.

Results

At the examination by the transplant urologist, further weight reduction was recommended, with a target body weight of approximately 110 kg. Treatment with a GLP-1 receptor agonist, which regulates appetite, was recommended to the patient; however, the patient declined this therapy.

Through regular nutritional counselling and adherence to a dietary regimen, the patient successfully reduced body weight to 110 kg and is currently on the kidney transplant waiting list.

References

case report from my department

Abstract Country

Croatia

Disclosure of Interest

Yes

237

Utilization of intelligent dialysis features in Libya: a national survey of technical operational gaps

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Background

Modern hemodialysis technology has shifted towards intelligent, closed-loop bio-feedback systems designed to enhance treatment precision and patient safety. Despite the widespread provision of high-specification dialysis infrastructure in Libya, there is a perceived clinical underutilization of advanced features such as real-time ionic dialysance and automated hemodynamic stability tools.

Objectives

This study, initiated by the Libyan Society of Dialysis Technicians, aims to evaluate the current integration of intelligent monitoring features in routine clinical practice and identify the systemic and educational barriers hindering the transition to sensor-driven therapy.

Methods

A national cross-sectional survey was conducted among 112 dialysis practitioners across various Libyan regions. This initial phase investigated the utilization frequency of adequacy monitoring (Kt/V), blood volume sensors (RBV), and automated convection controls. Data were analyzed to quantify the “Technology-Practice Gap.”

Results

The findings revealed a profound discrepancy between hardware capability and functional application. Only 30% of practitioners consistently utilize real-time Kt/V monitoring. Regarding patient safety, 42% of respondents recognized the high efficacy of bio-feedback systems in preventing intradialytic hypotension, yet its activation remains irregular. Primary barriers identified include a critical lack of specialized application training (63%) and chronic unavailability of sensor-specific consumables (44%). Significantly, 60% of the workforce supports a standardized National Protocol to mandate sensor-based monitoring.

Conclusion/Application to practice

The Libyan dialysis sector possesses advanced hardware, yet fails to achieve full clinical benefit due to operational and educational gaps. To optimize patient outcomes, there is an urgent need for a standardized training framework and a shift in procurement policies to ensure consumable availability. This study serves as a baseline for a national quality improvement initiative.

References

1. Gotch FA. The current place of urea kinetic modelling with continuous on-line monitoring of dialysis dose. *Nephrol Dial Transplant*. 2000;15 Suppl 1:43-6. doi: 10.1093/ndt/15.suppl_1.43.
2. Nesrallah GE, Suri RS, Moist L, Kortas C, Lindsay RM. Volume control and blood pressure management in patients undergoing cytosolic dialysis. *Nephrol Dial Transplant*. 2013;28(9):2327-35.
3. Agar JW. Technology in the dialysis room: are we using it or is it using us? *Clin J Am Soc Nephrol*. 2010;5(7):1151-3. doi: 10.2215/CJN.03570410.
4. Thomas N. *Renal Nursing: Care and Management of People with Kidney Disease*. 5th ed. London: Wiley-Blackwell; 2019. (EDTNA).
5. Santoro A, Mancini E, Basile C, et al. Blood volume and blood pressure control in dialysis and ultrafiltration: a review. *Int J Artif Organs*. 2007;30(11):936-48.

Abstract Country Libya**Disclosure of Interest** Yes

240

Holistic care in libyan dialysis centers and impact of peer support on young patients

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Background

Young hemodialysis patients in Libya (ages 18–40) often struggle with treatment adherence and psychosocial adjustment. While clinical protocols are standard, nurse-led peer support—integrating “expert patients” into the care process—remains underutilized in the North African context.

Objectives

To assess the effectiveness of a nurse-facilitated peer-support model on health literacy, psychosocial well-being, and clinical adherence among Libyan dialysis patients.

Methods

A national cross-sectional study was conducted across various Libyan regions (West, East, South, and Central). A 27-item validated questionnaire was administered to 320 young patients. Data focused on demographic variables, renal knowledge, and the impact of peer interaction on self-management and clinical outcomes.

Results

The analysis revealed a critical shift in patient outcomes across the 320 participants. Peer interaction significantly reduced social isolation for 84.3% of the sample. Health literacy reached high levels: 90.6% correctly identified fistula emergency procedures, and 87.5% understood phosphate-bone health links. Notably, clinical adherence improved significantly, with 78.2% reporting better fluid restriction and 85.9% enhanced medication compliance. Furthermore, 91.2% of patients endorsed integrating peer support as a standard nursing protocol. Regional data showed consistent positive trends across all Libyan territories, emphasizing the model’s scalability.

Conclusion/Application to practice

This study demonstrates that renal nurses can transcend traditional roles by acting as facilitators for peer-driven empowerment. Implementing structured peer-support units within Libyan dialysis centers significantly enhances patient autonomy and treatment outcomes. This model offers a cost-effective strategy to improve renal care quality in transition-economy healthcare systems.

References

1. EDTNA/ERCA. Empowering renal patients: a nursing perspective. *J Ren Care*. 2023.
2. Taylor NJ, Smith A, Jones M, et al. Peer support interventions in chronic kidney disease: a systematic review. *Nephrol Nurs J*. 2020;47(3):245-256.
3. Smith S. Health literacy and treatment adherence in hemodialysis patients. *J Ren Care*. 2021;47(2):110-118.

Abstract Country

Libya

Disclosure of Interest

Yes

241

Fatigue and occupational blood exposure among haemodialysis nurses as a patient safety challenge.

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Background

Haemodialysis units are high-risk environments for occupational blood exposure due to repetitive vascular access procedures, continuous blood handling and time pressure. International surveillance data report approximately 4.1 needlestick injuries per 10,000 haemodialysis procedures. Around 70% of exposures are percutaneous injuries and approximately 25% involve mucocutaneous blood splashes. Importantly, up to 40–50% of sharps injuries are not formally reported. Excessive workload and staffing shortages may further increase cumulative exposure risk.

Objectives

To assess the relationship between workload, fatigue and occupational blood exposure among haemodialysis nurses and to evaluate potential implications for patient safety.

Methods

A cross-sectional survey was conducted among 200 nephrology nurses working in haemodialysis units. The questionnaire included items on monthly working hours, number of workplaces, continuous working time, perceived fatigue, occupational exposure incidents and self-reported errors related to overtiredness.

Results

A substantial proportion of nurses reported extended monthly working hours, with many exceeding 250–300 hours and some reporting up to 400 hours per month. Multi-site employment was common. Fatigue was highly prevalent among respondents. Eighty-six percent of nurses admitted making mistakes due to overtiredness. Occupational injuries with sharp instruments were frequently reported, particularly during connection, disconnection and blood sampling procedures. Longer working hours were associated with a higher proportion of reported occupational exposure in the previous 12 months.

Conclusion/Application to practice

Occupational blood exposure in haemodialysis nursing represents not only a biological hazard but also a systems-level safety issue. Excessive workload, prolonged working hours and multi-site employment may increase both exposure risk and the likelihood of fatigue-related errors. Improving staffing levels, limiting excessive monthly hours, strengthening reporting culture and implementing safety-engineered devices are essential measures to protect nurses and enhance patient safety.

References

1. Saia M, Hofmann F, Sharman J, et al. Needlestick injuries in haemodialysis units in Italy. *J Hosp Infect.* 1995;29(2):109–118.
2. Rapisarda V, Loreto C, Vitale E, et al. Sharps injuries among healthcare workers: under-reporting and psychological consequences. *J Prev Med Hyg.* 2019;60(3):E200–E207.
3. Tarantola A, Koumaré A, Rachline A, et al. A descriptive, retrospective study of 567 accidental blood exposures in haemodialysis centres. *Nephrol Dial Transplant.* 2006;21(8):2364–2370.

Abstract Country

Poland

Disclosure of Interest

No

242

Shift work and hormonal health in nurses: survey findings in the context of evidence

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Background

Shift and night work disrupt circadian regulation of endocrine function, largely through exposure to light at night and sleep loss, which can suppress melatonin and alter metabolic and reproductive pathways. The International Agency for Research on Cancer (IARC) classified night shift work as “probably carcinogenic to humans” (Group 2A), reflecting biologically plausible mechanisms and epidemiological signals. Shift work is also associated with increased risk of type 2 diabetes and with menstrual and reproductive disturbances.

Objectives

To describe the burden of self-reported endocrine/metabolic and related health problems among nurses working shifts and to place these findings within the current evidence base.

Methods

A cross-sectional survey was conducted among 200 nurses working shift schedules. The questionnaire captured self-reported health problems potentially related to circadian disruption (sleep, gastrointestinal, metabolic, thyroid, reproductive and mental health domains). Results were summarized as proportions.

Results

High prevalence of symptoms and conditions consistent with circadian disruption was reported. Sleep disorders were the most frequent complaint (65.8%). Gastrointestinal motility disorders affected 42.5%, and 22.5% reported stomach ulcer. Excess body weight was common: 40.0% reported overweight (BMI 25–30) and 13.4% obesity (BMI >30); 5.9% reported diabetes. Thyroid disorders were frequent (hypothyroidism 32.5%, hyperthyroidism 9.6%). Reproductive health problems were reported by 30.8% (menstrual disorders) and 6.7% (problems conceiving). Mental health symptoms included depression (15.0%) and neurosis (5.0%). These findings align with published data showing that shift work disorder affects roughly one-third of nurses and that shift work is associated with increased risk of type 2 diabetes and higher odds of menstrual disorders.

Conclusion/Application to practice

Shift work in nursing is associated with a substantial burden of endocrine/metabolic, reproductive, sleep and gastrointestinal problems. Practical measures should include safer rota design (limit consecutive nights), screening for shift work disorder, sleep and metabolic risk monitoring, and organizational strategies to reduce chronic circadian disruption among nurses.

References

1. International Agency for Research on Cancer (IARC). *Night Shift Work (IARC Monographs Volume 124): Q&A; conclusion Group 2A*. 2019.
2. Flo E, Pallesen S, Magerøy N, et al. Shift work disorder in nurses—assessment, prevalence and related health problems. *PLoS One*. 2012;7(4):e33981. PMID: 22485153.
3. Gao Y, Gan T, Jiang L, et al. Association between shift work and risk of type 2 diabetes mellitus: a meta-analysis. *Chronobiol Int*. 2020. PMID: 31684766
4. Hu F, et al. Shift work and menstruation: a meta-analysis study. 2023. PMID: 37954014.

Abstract Country

POLAND

Disclosure of Interest

No

243

From policy to practice: persistent sharps injuries among nephrology nurses despite EU requirements

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Background

Sharps injuries and blood exposures remain a major occupational hazard in healthcare. The EU Sharps Directive (2010/32/EU) provides a legal framework for prevention, yet implementation and reporting gaps persist. European sources estimate around ~1 million sharps injuries annually among healthcare workers, and underreporting remains substantial. In Poland, published estimates indicate tens of thousands of sharps injuries per year, with many incidents not formally reported.

Objectives

To identify the most frequent circumstances of occupational exposure among nephrology nurses and assess organisational factors (availability of safety devices and training).

Methods

A cross-sectional study was conducted among 500 nephrology nurses using an author-developed 35-item questionnaire covering exposure circumstances, access to safety-engineered devices, and employer-provided training.

Results

Respondents reported frequent occupational exposure events linked to everyday procedures and preventable handling practices. The most commonly indicated high-risk moment was recapping/covering needles: insulin pen needles (94%), haemodialysis needles (84%), pre-filled syringe needles (71%), and standard needles after injection/blood draw (41%). Nurses indicated organisational deficits, including insufficient safety training and inconsistent employer attention to safety. These findings are consistent with international evidence that procedural steps involving needle handling and post-procedure disposal/recapping are key drivers of injuries and that prevention requires safety devices, training, and a strong reporting culture.

Conclusion/Application to practice

Occupational exposure among nephrology nurses remains frequent and largely preventable. Reducing injuries requires full implementation of the EU Sharps Directive in daily practice: eliminating recapping, universal access to safety-engineered devices, regular competency-based training, and easy, non-punitive reporting systems. Strengthening prevention in dialysis settings is urgent given high procedure volume and repeated vascular access work.

References

EU-OSHA OSHwiki. Prevention of sharp injuries.
Health and Safety Authority (Ireland). EU Sharps Directive and Regulations (Directive 2010/32/EU).
Goniewicz M, et al. Injuries caused by sharp instruments among healthcare workers in Poland (paper citing ~37,000 annually).
Frequency of sharps injuries among nurses in Poland; underreporting and safety device availability (recent Polish paper).
MDPI review on sharps injuries and prevention strategies under Directive 2010/32/EU.

Abstract Country

Poland

Disclosure of Interest

No

245

Who understands transplantation? A 2023 study of knowledge gaps beyond medical education

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Background

Organ transplantation is a critical life-saving therapy, yet donation rates depend strongly on public understanding of brain death, ethical concepts and transplantable organs. In Poland in 2023:

756 potential donors were reported nationally

573 donors became actual deceased donors

~1 897 organs were transplanted

Including 997 kidneys from deceased donors

And 78 kidneys from living donors

At the end of 2023, 1 193 patients were actively waiting for a kidney transplant

These data confirm ongoing transplant activity and a sustained gap between demand and organ availability.

Objectives

To compare transplant literacy and donation attitudes between students of nursing and economics faculties; to identify gaps in knowledge and ethical acceptance that may influence future donor decisions.

Methods

A cross-sectional survey conducted in 2023.

Author-designed questionnaire with 30 closed and open questions assessing:

- Definitions of transplantation
- Knowledge of brain death
- Identification of transplantable organs
- Attitudes toward deceased donation
- Willingness to donate organs

Participants:

- 100 nursing students
- 100 economics students

Results

Knowledge

- Correct definition of transplantation:

- Nursing students: 94%

- Economics students: 63%

- Correct identification of transplantable organs:

- Nursing: 78%

- Economics: 37%

- Understanding of brain death:

- Nursing: 82% correct

- Economics: 37% correct

- 63% of economics students reported not understanding brain death

Attitudes

Ethical acceptance of deceased donation:

- Nursing students: 81% “definitely yes”, 19% “probably yes”
- Economics students: 21% “definitely yes”, 28% “probably yes”, 26% “probably/definitely not”, 25% no opinion

Willingness to donate after death:

- Nursing students: 62% “definitely yes”
- Economics students: 15% “definitely yes”

Economics students had greater uncertainty or refusal.

Conclusion/Application to practice

A substantial literacy gap in transplantation exists outside medical education.

Knowledge of brain death and donation ethics was significantly higher in nursing students than in economics students.

Improving transplant literacy across all universities may support informed donor decisions, strengthen family consent rates and enhance national donation capacity.

References

Poltransplant 2023 data – potential and actual donors, organ transplants, waiting list.

IRODaT Transplant Activity 2023 (global context).

WHO/ONT Global Transplantation Observatory – 2023 report.

Relevant peer-reviewed research on transplant knowledge and attitudes in student populations.

Abstract Country

Poland

Disclosure of Interest

No

246

When dialysis feels safer than transplantation: loneliness as a driver of intentional immunosuppression discontinuation

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Background

Non-adherence to immunosuppressive therapy remains one of the leading preventable causes of graft loss. Meta-analyses indicate that non-adherence is associated with up to a sevenfold increase in risk of graft failure. While commonly attributed to forgetfulness or adverse effects, intentional discontinuation driven by psychosocial factors is less explored. Increasingly, clinicians observe patients who deliberately stop immunosuppressive therapy despite understanding medical consequences.

Objectives

To explore psychosocial determinants of intentional non-adherence after kidney transplantation and to assess pre-transplant fears among dialysis patients that may predict post-transplant maladaptation.

Methods

A cross-sectional survey included 100 dialysis patients (2024) awaiting or considering transplantation. The questionnaire assessed social status, fears related to post-transplant life, and perceived psychosocial risks. Additionally, data from transplant recipients who admitted non-adherence were analysed to identify reasons for discontinuation.

Results

Among transplant recipients who admitted non-adherence, 18% reported complete discontinuation of immunosuppressive therapy. Of these, 14% stated they intentionally stopped medication to return to dialysis because they felt lonely and unprepared for post-transplant life.

Among dialysis patients surveyed (72% women; 28% men; majority aged 55–74), fear of loneliness and loss of social contact with dialysis staff and fellow patients was reported by 92% of women and 65% of men. Concern about coping without thrice-weekly dialysis visits was expressed by 76% of women and 58% of men. Fear of losing social benefits affected over half of respondents. A substantial proportion were single and/or childless, indicating limited social support.

Conclusion/Application to practice

Intentional immunosuppression discontinuation may reflect unmet psychosocial needs rather than lack of knowledge. For some patients, dialysis provides structure, identity and social belonging. Pre- and post-transplant care must incorporate structured psychosocial assessment, loneliness screening and continuity-of-care models. Addressing social isolation may be as critical as optimizing pharmacotherapy in protecting graft survival.

References

1. Denhaerynck K, Dobbels F, Cleemput I, Desmyttere A, Schäfer-Keller P, Schaub S, De Geest S. Prevalence, consequences, and determinants of nonadherence in adult renal transplant patients: a literature review. *American Journal of Transplantation*. 2005;5(5):1081–1091.
2. Dew MA, DiMartini AF, De Vito Dabbs A, Myaskovsky L, Steel J, Unruh M, Switzer GE, Zomak R, Kormos RL, Greenhouse JB. Rates and risk factors for nonadherence to the medical regimen after adult solid organ transplantation. *Transplantation*. 2007;83(7):858–873.
3. Chisholm-Burns MA, Spivey CA, Tolley EA, Kaplan EK. Medication therapy management and adherence among US renal transplant recipients. *Drugs*. 2010;70(7):863–874.
4. De Geest S, Dobbels F, Fluri C, Paris W, Troosters T. Adherence to the therapeutic regimen in heart, liver, and lung transplant recipients: new insights and recommendations. *Transplant International*. 2005;18(3):295–304.
5. World Health Organization. *Adherence to Long-Term Therapies: Evidence for Action*. Geneva: World Health Organization; 2003.

Abstract Country Poland

Disclosure of Interest No

248

Out-of-Centre Arteriovenous Fistula Hemorrhage and the Cap Technique

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Background

Arteriovenous fistula (AVF) is the gold standard vascular access for haemodialysis. However, due to high arterialised flow rates frequently exceeding 600–1000 ml/min, AVF rupture can result in rapid and life-threatening haemorrhage. Although relatively rare, fatal vascular access bleeding accounts for approximately 0.4–1.6% of deaths among haemodialysis patients. The majority of fatal events occur outside dialysis centres, where immediate specialist care is unavailable.

Objectives

To highlight the clinical risk of out-of-centre AVF haemorrhage and to present the cap technique as a simple, low-cost emergency intervention applicable by healthcare professionals and patients.

Methods

Narrative clinical review based on international registry data, published literature on vascular access-related mortality, and practical experience in haemodialysis care and emergency response.

Results

Delayed or ineffective compression is the primary modifiable determinant of mortality in AVF haemorrhage. In non-specialist settings, staff may lack experience in fistula-specific bleeding control. Excessive compression risks thrombosis, while insufficient pressure may lead to exsanguination. The cap technique – placement of a bottle cap or dedicated compression device over the bleeding site secured with tape – provides focused point compression, facilitates clot formation within a confined chamber, and reduces the risk of complete fistula occlusion. Its simplicity enables rapid application in prehospital and non-nephrology environments.

Conclusion/Application to practice

Fatal AVF haemorrhage is uncommon but preventable. Education of dialysis patients, paramedics, nurses and physicians in focused compression techniques such as the cap method may significantly improve early haemostasis, reduce mortality and preserve vascular access. Simple interventions can bridge the gap between emergency response and specialist nephrology care.

References

1. Ellingson KD, Palekar RS, Lucero CA, Kurkjian KM, et al. Vascular access hemorrhage among hemodialysis patients — United States, 2000–2015. *American Journal of Kidney Diseases*. 2018;71(3):348–356.
2. Saran R, Robinson B, Abbott KC, et al. US Renal Data System 2023 Annual Data Report: Epidemiology of Kidney Disease in the United States. *American Journal of Kidney Diseases*. 2023;82(4 Suppl 1):S1–S603.
3. Lok CE, Huber TS, Lee T, et al. KDOQI Clinical Practice Guideline for Vascular Access: 2019 Update. *American Journal of Kidney Diseases*. 2020;75(4 Suppl 2):S1–S164.
4. Roca-Tey R, Samon R, Ibrik O, et al. Fatal haemorrhage from arteriovenous fistula in haemodialysis patients: a systematic review. *Clinical Kidney Journal*. 2016;9(4):596–603.
5. Inston N, Mistry H, Gilbert J, et al. Management of bleeding arteriovenous fistula and grafts in haemodialysis patients. *Journal of Vascular Access*. 2017;18(1):1–7.

Abstract Country

Poland

Disclosure of Interest

No

249

Primary Care as the Frontline of Global Chronic Kidney Disease Detection

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Background

Chronic kidney disease (CKD) affects approximately 10% of the global population and is projected to become one of the leading causes of years of life lost worldwide by 2040. Data from the Global Burden of Disease study demonstrate a steady rise in CKD-related mortality and cardiovascular complications. Despite this, CKD remains underdiagnosed, particularly in early stages. In many countries, including Poland, limited nephrology workforce capacity contributes to delayed specialist referral and late-stage presentation. International guidelines from KDIGO and major diabetes associations emphasise that early detection must occur in primary care through systematic assessment of estimated glomerular filtration rate (eGFR) and albuminuria in high-risk populations, especially individuals with type 2 diabetes and hypertension.

Objectives

To highlight the necessity of shifting early CKD detection to primary care in response to nephrologist shortages and to present national educational initiatives aligned with global recommendations.

Methods

Narrative system-level analysis integrating international epidemiological data, global guideline recommendations, and national primary care educational initiatives aimed at strengthening CKD recognition.

Results

Global evidence demonstrates that early identification and initiation of renoprotective therapy significantly delay CKD progression, reduce cardiovascular events, and decrease the need for renal replacement therapy. However, real-world implementation gaps persist. In Poland, the Polish Society of Family Medicine has introduced structured educational programmes designed to improve interpretation of kidney function parameters, integrate albuminuria screening into diabetes care pathways, and enhance interdisciplinary collaboration between physicians and primary care nurses. Strengthening primary care capacity directly addresses workforce limitations and promotes earlier risk stratification.

Conclusion/Application to practice

In the context of rising CKD prevalence and limited nephrology resources, primary care must function as the global frontline of kidney disease detection. Systematic integration of CKD screening into routine diabetes and hypertension management represents a scalable and sustainable strategy to reduce late referrals, delay progression, and improve long-term renal and cardiovascular outcomes.

References

1. GBD Chronic Kidney Disease Collaboration. Global, regional, and national burden of chronic kidney disease, 1990–2017: a systematic analysis for the Global Burden of Disease Study 2017. *The Lancet*. 2020;395(10225):709–733.
2. Luyckx VA, Tonelli M, Stanifer JW. The global burden of kidney disease and the sustainable development goals. *Bulletin of the World Health Organization*. 2018;96(6):414–422D.
3. Kidney Disease: Improving Global Outcomes (KDIGO) CKD Work Group. KDIGO 2024 Clinical Practice Guideline for the Evaluation and Management of Chronic Kidney Disease. *Kidney International*. 2024;105(4S):S1–S150.
4. Alicic RZ, Rooney MT, Tuttle KR. Diabetic Kidney Disease: Challenges, Progress, and Possibilities. *Clinical Journal of the American Society of Nephrology*. 2017;12(12):2032–2045.
5. Jager KJ, Kovesdy C, Langham R, Rosenberg M, Jha V, Zoccali C. A single number for advocacy and communication—worldwide more than 850 million individuals have kidney diseases. *Kidney International*. 2019;96(5):1048–1050.

Abstract Country POLAND

Disclosure of Interest No

250

Hemodialysis Catheter Care Determines Survival: Evidence-Based Infection Prevention

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Background

Central venous catheters used for haemodialysis remain a high-risk vascular access. Compared with arteriovenous fistula, catheter use is associated with a two- to threefold higher risk of infection-related hospitalization and death. Bloodstream infections occur at rates of 1.1 to 5.5 episodes per 1,000 catheter-days and mortality in haemodialysis patients with catheter-related bloodstream infection approaches 20%, while *Staphylococcus aureus* bacteraemia may reach 30–50% mortality. Bacterial contamination most frequently originates from skin flora and hub manipulation, with Gram-positive organisms responsible for 40–80% of cases.

Objectives

To present a comprehensive, evidence-based haemodialysis catheter care bundle integrating aseptic technique, hub disinfection, exit-site management, locking strategies and structured education, and to demonstrate its impact on patient safety.

Methods

Practice-based synthesis integrating international vascular access guidelines, infection prevention standards and structured quality-improvement elements reflected in the presented educational programme.

Results

Improper catheter care increases infection risk 5.5-fold, while staffing shortages may increase infection risk up to 61.5-fold. Catheter-related bacteraemia risk is estimated to be 7–10 times higher than in patients dialysed via arteriovenous fistula. Pathogenesis analysis shows that approximately 60% of infections originate from exit-site contamination and 12% from hub manipulation. Alcohol-based chlorhexidine for skin antisepsis, strict hand hygiene, aseptic non-touch technique and mandatory scrub-the-hub friction with appropriate drying time are core preventive measures. Transparent semi-permeable dressings, appropriate change intervals, avoidance of occlusive materials and individualized dressing selection are critical. Antimicrobial lock solutions such as citrate-based preparations reduce CRBSI rates by approximately 50% in selected populations, while taurolidine combinations require patency monitoring. Quality bundles incorporating checklists reduce infection rates by 50–70%.

Conclusion/Application to practice

For patients dependent on haemodialysis catheters, meticulous, standardized care is a life-preserving intervention. Consistent implementation of evidence-based bundles, supported by workforce education and patient engagement, significantly reduces infection, hospitalization, catheter loss and mortality. In high-risk vascular access, excellence in daily practice directly translates into survival.

References

1. Lok CE et al. KDOQI Clinical Practice Guideline for Vascular Access: 2019 Update. *Am J Kidney Dis.* 2020;75(4 Suppl 2):S1–S164.
2. O'Grady NP et al. Guidelines for the Prevention of Intravascular Catheter-Related Infections. CDC/HICPAC. *Clin Infect Dis.* 2011;52(9):e162–e193.
3. Bhojaraja MV et al. Hemodialysis catheter-related bloodstream infections. *J Nephropharmacol.* 2023;12(2):e10475.
4. Mokrzycki MH et al. Tunnelled Hemodialysis Catheter Outcomes. *Clin J Am Soc Nephrol.*
5. Apata IW et al. Chlorhexidine-impregnated transparent dressings decrease catheter-related infections in hemodialysis patients. *J Vasc Access.* 2017;18(2):103–108.
6. Xu H et al. Improving central venous catheter care with chlorhexidine gluconate dressings: systematic review and meta-analysis. *J Health Popul Nutr.* 2024.

Abstract Country POLAND

Disclosure of Interest No

251

Kidney Transplantation Beyond Limits: Xenografts, Bioengineering and Regenerative Futures

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Background

Kidney transplantation remains the optimal kidney replacement therapy, yet organ shortage continues to limit access. Between 2023 and 2026, several disruptive approaches have accelerated, aiming to complement or transform current transplantation and dialysis paradigms, including xenotransplantation, implantable bioartificial kidneys, wearable kidney replacement technologies, and regenerative strategies using stem-cell-derived organoids and bioprinting.

Objectives

To provide an evidence-focused overview of the most clinically relevant advances (2023–2026) that may expand transplant availability or deliver transplant-like kidney replacement.

Methods

Targeted narrative review of peer-reviewed publications, high-impact reviews, and institutional reports published between 2023 and 2026 addressing clinical and translational progress in xenotransplantation, implantable bioartificial kidneys, wearable KRT, kidney organoids, and renal bioprinting.

Results

Xenotransplantation reached a major milestone with the first gene-edited pig kidney transplanted into a living human recipient (2024), supported by mechanistic data from brain-dead human recipient models and ongoing refinement of gene-editing and immunosuppression strategies. Reports through 2025 indicate survival and graft function extending to many months in selected cases, while highlighting persistent challenges including hemodynamic instability, immune and coagulation incompatibilities, and long-term durability. Implantable bioartificial kidney programs continue to advance preclinical development of devices combining selective membranes with biological components designed for continuous kidney-like function. Wearable and portable KRT approaches using dialysate regeneration and miniaturized systems show renewed momentum, although vascular access, safety, and reliability remain key barriers. In regenerative medicine, kidney organoids demonstrate rapid progress in scalable production and experimental transplantation, yet functional maturation, vascular integration, and urine drainage remain limiting steps; bioprinting of renal constructs is advancing but remains preclinical.

Conclusion/Application to practice

From 2023 to 2026, the field moved from concept toward early clinical reality, particularly in xenotransplantation. While no single approach is ready to replace standard transplantation, the convergence of gene editing, device engineering, and regenerative biology suggests a realistic pathway to expand organ supply and deliver more physiologic kidney replacement. Near-term impact is most likely through carefully regulated clinical xenotransplantation trials and technology-enabled KRT, supported by continued advances in organoid maturation and biomanufacturing.

References

- Lok CE et al. KDOQI Clinical Practice Guideline for Vascular Access: 2019 Update. *Am J Kidney Dis.* 2020;75(4 Suppl 2):S1–S164.
- Porrett PM et al. First clinical transplantation of a gene-edited pig kidney into a living human recipient. *N Engl J Med.* 2024.
- Montgomery RA et al. Results of genetically engineered pig kidney xenotransplantation in a brain-dead human recipient. *JAMA Surg.* 2023.
- Fissell WH, Roy S. The implantable bioartificial kidney. *Nat Rev Nephrol.* 2023.
- Xu Y et al. Advances in kidney organoids and regenerative nephrology. *Am J Physiol Renal Physiol.* 2023.

Abstract Country POLAND

Disclosure of Interest No

253

Transplantation under pressure: how crises, policy, misinformation and celebrities reshape organ donation

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Background

Organ donation and transplantation are profoundly influenced by external systemic forces including pandemics, armed conflicts, legislative changes and information dynamics. Transplant activity depends not only on medical capability but also on public trust and healthcare resilience.

Objectives

To examine how global crises, public policy, misinformation and celebrity advocacy influence organ donation and kidney transplantation activity, and to identify mechanisms translating social events into measurable changes in donor registration and transplant volume.

Methods

Narrative review of international registry analyses, policy evaluations and peer-reviewed publications from the last decade with emphasis on pandemic-era data and large-scale communication interventions.

Results

Global analyses demonstrated a marked decline in transplant activity during the COVID-19 pandemic, with kidney transplantation among the most affected procedures. Armed conflict has been shown to disrupt transplant logistics and reduce donor availability due to infrastructure damage and legal constraints. Injury-prevention legislation, including motorcycle helmet laws, has been associated with changes in organ donation from traumatic brain injury, highlighting unintended policy effects. Digital health interventions provide strong evidence that simplifying online donor registration can produce more than twentyfold short-term increases in sign-ups. Celebrity disclosures of kidney disease, dialysis or transplantation correlate with increased public engagement, media coverage and donor awareness, functioning as accelerators of public health messaging.

Conclusion/Application to practice

Transplantation must be understood as a socially embedded medical system. Strengthening transplant activity requires resilient healthcare infrastructure, proactive countering of misinformation, clear digital pathways for donor registration and strategic collaboration with trusted public figures. Integrating clinical excellence with communication science may substantially enhance sustainable growth in organ donation worldwide.

References

1. Loupy A, Aubert O, Reese PP, et al. Organ procurement and transplantation during the COVID-19 pandemic. *The Lancet Public Health*. 2021.
2. Boyarsky BJ, Po-Yu Chiang T, Werbel WA, et al. Early impact of COVID-19 on transplant center practices and policies in the United States. *American Journal of Transplantation*. 2020.
3. Blattman C, et al. The impact of motorcycle helmet laws on organ donation. *Journal of Law and Economics*. 2012.
4. Cameron AM, Massie AB, Alexander CE, et al. Social media and organ donor registration: the Facebook effect. *American Journal of Transplantation*. 2013.
5. Global Observatory on Donation and Transplantation. International data reports 2022–2024.

Abstract Country

Poland

Disclosure of Interest

No

254

Poland and Ukraine: War, Dialysis Displacement and Transplant System Resilience

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Background

Organ donation and kidney replacement therapy are highly sensitive to systemic disruption. Armed conflict compromises healthcare infrastructure, supply chains and intensive care capacity, directly affecting dialysis continuity and transplant activity.

Objectives

To analyze the impact of the war in Ukraine on dialysis-dependent patients and transplantation systems, and to examine the role of Poland in maintaining cross-border continuity of kidney replacement therapy.

Methods

Narrative review of international registry data, published analyses of transplant activity during crises, and reports describing dialysis system adaptation in Ukraine and host countries receiving displaced patients.

Results

The 2022 invasion of Ukraine disrupted renal services through infrastructure damage, workforce displacement and logistical breakdown. Dialysis-dependent patients required uninterrupted treatment every 48–72 hours, making service interruption life-threatening. Poland received a substantial number of displaced Ukrainian dialysis patients and rapidly integrated them into national dialysis networks. This required immediate assessment of vascular access, protocol harmonization, pharmacological continuity and psychosocial stabilization. Concurrently, transplant systems in conflict-affected regions experienced reduced donor identification, constrained operating capacity and logistical barriers. The cross-border response demonstrated the importance of flexible health system capacity and coordinated nephrology networks.

Conclusion/Application to practice

Dialysis and transplantation must be considered components of health system resilience and security. The Polish-Ukrainian experience underscores the necessity of crisis preparedness frameworks, international cooperation and scalable dialysis capacity capable of protecting highly vulnerable populations during geopolitical instability.

References

Loupy A, Aubert O, Reese PP et al. Organ procurement and transplantation during the COVID-19 pandemic. *The Lancet Public Health*. 2021.
Boyarsky BJ, Werbel WA, Durand CM et al. Early impact of COVID-19 on transplant center practices. *American Journal of Transplantation*. 2020.
Sever MS, et al. Kidney replacement therapy during war and disasters. *Nephrology Dialysis Transplantation*. 2022.
Global Observatory on Donation and Transplantation. International activity reports 2022–2024.
European Renal Association reports on kidney care during armed conflict.

Abstract Country

POLAND

Disclosure of Interest

No

255

Seasonality, System Stress and Pandemic Shock: Determinants of Kidney Transplant Activity

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Background

Kidney transplantation activity varies throughout the year and is influenced by organizational, behavioral and epidemiological factors. Seasonal variation has been observed particularly in living donation, while infectious outbreaks and systemic crises may cause abrupt reductions in transplant volume.

Objectives

To examine the combined impact of seasonality, calendar-related factors and pandemic-related system stress on kidney transplant activity globally and in Poland.

Methods

Narrative analysis integrating international registry data, national transplant statistics and published studies evaluating seasonal trends and the impact of COVID-19 on transplantation.

Results

International data demonstrate seasonal variation in kidney transplantation, with lower activity during major holidays and winter months and increased living donation during late spring and summer. These patterns are associated with surgical scheduling, workforce availability and patient planning. In contrast, the COVID-19 pandemic caused a sharp and systemic reduction in transplant activity worldwide, estimated at approximately 16% in 2020, with living donation most affected. In Poland, reported potential deceased donors decreased by nearly 20% in 2020 compared with 2019, and transplant activity dropped markedly during the first pandemic wave, particularly in April 2020. Epidemiological crises therefore exert a stronger effect than predictable seasonal fluctuations, overwhelming healthcare capacity and disrupting donor identification and operative logistics.

Conclusion/Application to practice

Kidney transplantation operates within narrow system capacity margins influenced by both predictable calendar patterns and unpredictable epidemiological shocks. Strategic planning should account for seasonal workforce variability and protect transplant pathways during infectious outbreaks. Building resilient transplant systems capable of maintaining activity under crisis conditions is essential to ensure continuity of kidney replacement therapy.

References

Loupy A, Aubert O, Reese PP et al. Organ procurement and transplantation during the COVID-19 pandemic. *The Lancet Public Health*. 2021.
Boyarsky BJ, Werbel WA, Durand CM et al. Early impact of COVID-19 on transplant center practices. *American Journal of Transplantation*. 2020.
Cameron AM, et al. Seasonal variation in kidney transplantation and living donation. *American Journal of Transplantation*.
Poltransplant. Biuletyn Informacyjny 2021. Analiza aktywności donacyjnej i transplantacyjnej w 2020 roku.
Global Observatory on Donation and Transplantation. International activity reports 2019–2022.

Abstract Country

POLAND

Disclosure of Interest

No

257

Organisational Interventions in the Prevention of Burnout in Nephrology Nurses: A Systematic Review

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Introduction: Burnout is a highly relevant occupational phenomenon in nephrology nursing, characterised by emotional exhaustion, depersonalisation, and reduced personal accomplishment. Nurses in this setting face continuous technical demands, significant emotional strain linked to chronic kidney disease, and persistent organisational constraints, including workload pressure, resource shortages, and rigid work models. Prevention strategies have traditionally prioritised person-centred interventions, such as coping skills training, mindfulness, and resilience promotion. However, increasing attention has been directed towards organisational factors - leadership, work organisation, professional autonomy, and working conditions - as central determinants in both the development and mitigation of burnout. Nevertheless, comparative evidence on the effectiveness of organisational versus person-centred interventions remains fragmented and insufficiently synthesised within nephrology nursing.

Objective: To evaluate the effectiveness of organisational interventions, compared with person-centred interventions, in reducing overall burnout and its dimensions among nephrology nurses.

Methodology: A systematic review was conducted in accordance with Joanna Briggs Institute methodology, with the research question structured using the PICO framework. Searches were undertaken in MEDLINE, CINAHL, and Scopus for studies published between 2010 and 2024. Quantitative studies assessing organisational and/or person-centred interventions targeting nephrology nurses and employing validated burnout instruments were included. Study selection, methodological appraisal, and data extraction were independently performed by two reviewers using standardised tools.

Results: Ten studies were included, predominantly quasi-experimental and of moderate methodological quality. Person-centred interventions produced small to moderate reductions in burnout, particularly in emotional exhaustion. Organisational interventions, including proximal leadership, work reorganisation, and enhanced professional autonomy, demonstrated greater potential for overall reduction, although evidence was limited, heterogeneous, and largely derived from indirect comparisons.

Conclusion: Organisational interventions appear more effective in mitigating burnout by addressing structural determinants. However, methodological heterogeneity and the limited number of robust studies restrict generalisability, underscoring the need for rigorous designs and longitudinal evaluation studies.

References

1. Maslach, C., & Jackson, S. E. (1981). The measurement of experienced burnout. *Journal of Occupational Behavior*, 2(2), 99–113. <https://doi.org/10.1002/job.4030020205>
2. Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual Review of Psychology*, 52, 397–422. <https://doi.org/10.1146/annurev.psych.52.1.397>
3. West, C. P., Dyrbye, L. N., Erwin, P. J., & Shanafelt, T. D. (2016). Interventions to prevent and reduce physician burnout: A systematic review and meta-analysis. *The Lancet*, 388(10057), 2272–2281. [https://doi.org/10.1016/S0140-6736\(16\)31279-X](https://doi.org/10.1016/S0140-6736(16)31279-X)
4. Awa, W. L., Plaumann, M., & Walter, U. (2010). Burnout prevention: A review of intervention programs. *Patient Education and Counseling*, 78(2), 184–190. <https://doi.org/10.1016/j.pec.2009.04.008>
5. Aromataris, E., & Munn, Z. (Eds.). (2020). *JBIMES-20-01*. Joanna Briggs Institute. <https://doi.org/10.46658/JBIMES-20-01>

Abstract Country Portugal

Disclosure of Interest Yes

258

Religious Determinants of Kidney Transplantation: Critical Points and Clinical Solutions

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Abstract

Religious beliefs influence attitudes toward organ donation and kidney transplantation, yet evidence indicates that barriers rarely arise from doctrine alone. Instead, clinical conflicts most commonly occur at specific “critical points” within the transplantation pathway: determination of death, preservation of bodily integrity, use of blood products, family consent dynamics and trust in healthcare systems. Literature demonstrates that divergent interpretations of death by neurological criteria remain a central issue in certain faith traditions, while others raise concerns regarding post-mortem bodily integrity or ritual burial practices. In living and deceased donor transplantation, refusal of transfusion in specific religious communities presents perioperative challenges requiring structured bloodless surgery protocols. Family decision-making may be strongly shaped by consultation with religious authorities, particularly in high-context cultures. Additionally, mistrust fueled by misinformation or historical inequities can significantly reduce donation rates despite formal doctrinal acceptance.

Evidence-based approaches show that these barriers are modifiable. Early involvement of trained hospital chaplains or community religious representatives improves clarity and reduces decisional conflict. Clear standardized communication regarding neurological versus circulatory death, with transparent diagnostic criteria, supports family understanding. Donation after circulatory death pathways may align better with specific theological interpretations. Bloodless surgery protocols enable transplantation in patients declining transfusion. Culturally adapted educational materials and engagement with trusted community leaders strengthen institutional trust and donor registration willingness.

Rather than treating religion as a binary permissive/prohibitive variable, transplantation systems should address identifiable clinical friction points through structured, respectful and transparent interventions. Integrating ethical literacy, crisis communication and culturally competent care into transplant programs may significantly improve donation rates and reduce preventable refusal based on misunderstanding rather than doctrine.

Background

Religious affiliation influences organ donation attitudes; however, barriers to kidney transplantation typically arise from specific ethical and procedural concerns rather than categorical doctrinal prohibitions.

Objectives

To identify critical religiously sensitive points within the kidney transplantation pathway and propose evidence-based clinical strategies to address them.

Methods

Narrative review of peer-reviewed literature examining religion-related determinants of organ donation, ethical debates on death determination, transfusion refusal and culturally informed consent processes.

Results

Five recurrent critical points were identified. Divergent interpretations of death by neurological versus circulatory criteria affect acceptance of deceased donation in selected communities. Concerns regarding bodily integrity and burial rites may influence post-mortem consent. Refusal of transfusion in specific religious groups necessitates structured bloodless surgery protocols. Family consent decisions are frequently mediated by religious authorities. Trust deficits, often amplified by misinformation, significantly reduce donation willingness. Evidence supports targeted solutions including early chaplain consultation, standardized communication on death determination, availability of donation after circulatory death pathways, perioperative blood conservation strategies and culturally adapted educational interventions.

Conclusion/Application to practice

Religious considerations in transplantation are best addressed through structured clinical engagement rather than generalized assumptions. Identifying and managing specific ethical friction points enhances informed consent, preserves cultural respect and may improve kidney donation and transplantation outcomes.

References

1. Doerry K et al. Religious and cultural aspects of organ donation: narrowing the gap through understanding different religious beliefs. *Pediatric Transplantation*. 2022.
2. Padela AI et al. Muslims, Islam and organ donation: contextual plurality and ethical considerations. *Experimental and Clinical Transplantation*. 2022.
3. Akbulut S et al. Attitudes, knowledge and religious perspectives on organ donation. *Transplantation Proceedings*. 2020.
4. Bramstedt KA. Transfusion refusal and transplantation in Jehovah's Witness patients. *Clinical Ethics and Transplantation Literature*.
5. Catechism of the Catholic Church, paragraph 2296 and Vatican statements on organ donation as an act of charity.
6. NHS Organ Donation and Transplantation. Faith perspectives on organ donation and determination of death.

Abstract Country

Poland

Disclosure of Interest

No

259

Kidney Transplantation as a Marker of Health System Resilience

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Background

Kidney transplantation depends on intensive care capacity, surgical resources and system stability, making it vulnerable to systemic stress.

Objectives

To evaluate the combined impact of seasonal variation and the COVID-19 pandemic on transplant activity globally and in Poland.

Methods

Narrative analysis of international transplant activity reports and Polish national registry data from 2019–2021, including monthly variation.

Results

Global transplant activity declined by approximately 16% in 2020, with kidney transplantation and living donation most affected. In Poland, reported potential deceased donors decreased by nearly 19% compared with 2019, and actual deceased donors decreased by approximately 22%. A marked decline was observed during the first pandemic wave. Seasonal fluctuations primarily affected living donation, while epidemiological crises produced systemic reductions.

Conclusion/Application to practice

Kidney transplantation functions as a sensitive indicator of health system resilience. Strategic planning must protect transplant pathways during crises and incorporate predictable seasonal variability into organizational frameworks.

References

Loupy A, Aubert O, Reese PP et al. Organ procurement and transplantation during the COVID-19 pandemic. *The Lancet Public Health*. 2021.
Boyarsky BJ, Werbel WA, Durand CM et al. Early impact of COVID-19 on transplant center practices. *American Journal of Transplantation*. 2020.
Poltransplant. Biuletyn Informacyjny 2021. Analiza aktywności donacyjnej i transplantacyjnej w 2020 roku.
Global Observatory on Donation and Transplantation. International activity reports 2019–2022.
Cameron AM et al. Seasonal variation in kidney transplantation and living donation. *American Journal of Transplantation*.

Abstract Country

Poland

Disclosure of Interest

No

260

Blackout Scenarios in Dialysis: When Water Loss Becomes Fatal

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Background

Haemodialysis requires uninterrupted electricity and safe municipal water supply. Blackout scenarios combined with water failure represent a critical vulnerability for dialysis-dependent patients.

Objectives

To analyse extreme blackout and water disruption scenarios affecting dialysis services and to identify evidence-based strategies to reduce morbidity and mortality.

Methods

Narrative review of disaster nephrology literature and outcome studies evaluating dialysis disruption during major infrastructure failures.

Results

A 4-hour haemodialysis session requires approximately 120 litres of purified water, rendering dialysis highly vulnerable to water supply interruption. In regional blackout scenarios with transport limitations and facility damage, patient transfer becomes unfeasible. Disaster studies demonstrate increased emergency care utilisation and higher 30-day mortality among dialysis patients exposed to service disruption. Clinical deterioration is primarily driven by hyperkalaemia, fluid overload and cardiovascular decompensation.

Conclusion/Application to practice

Blackout preparedness must incorporate water system resilience and total utility failure planning. Dialysis services should be integrated into critical infrastructure protection policies, with predefined clinical and logistical mitigation pathways to safeguard patient survival.

References

- EDTNA/ERCA. War and mass disasters: guidance for dialysis and nephrology services.
Piccoli GB et al. Dialysis in disaster conditions. *Nephrology Dialysis Transplantation*. 2005.
Kelman J et al. Outcomes and healthcare use among hemodialysis patients after Hurricane Sandy. *American Journal of Kidney Diseases*. 2014.
Saran R et al. Missed hemodialysis treatments after Hurricane Katrina and associated factors. *Kidney International*. 2007.
Murphy J et al. Mortality and displacement among patients receiving dialysis after Hurricane Maria. *Kidney Medicine*. 2022.

Abstract Country

POLAND

Disclosure of Interest

No

264

Implementation of Advance Care Planning (ACP) Conversations in Hemodialysis Care

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Background

Patients receiving hemodialysis live with chronic and often progressive disease, where treatment choices and quality of life require ongoing discussion. Advance Care Planning (ACP) conversations support patient and family involvement, preserve dignity, and facilitate alignment of expectations regarding life with dialysis treatment. International nephrology and palliative care guidelines recommend that ACP be systematically integrated early in the care trajectory of patients with advanced chronic kidney disease. At Herlev and Hvidovre Hospital, ACP has not yet been implemented as a standardized and systematic offering within hemodialysis care and is often initiated late in the disease course. This highlights the need for a structured quality improvement implementation initiative.

Objectives

To execute a quality- and implementation project aimed at integrating structured ACP conversations into clinical practice through nurse competency development, establishment of standardized workflows, and systematic follow-up. As part of an early palliative care approach, patients are offered an ACP conversation three months after initiation of hemodialysis.

Methods

The project is conducted from May 2025 to the end of 2026 in four phases: organizational preparation, competency development through education, bedside training and workshops, clinical implementation, evaluation, and maintenance. Two dedicated nurse facilitators lead the implementation and train local key nurses. The intervention is adapted to local contexts, and workflows have been standardized for shared use. Quality indicators include the proportion of patients offered and completing ACP conversations, nurses' perceived competence, and patient feedback collected through surveys and qualitative interviews.

Results

Eight key nurses have been trained across six units, and ACP conversations have been initiated. The goal is for 75% of patients to be offered or complete an ACP conversation by the end of 2026.

Conclusion/Application to practice

The project is expected to strengthen patient and family involvement, promote timely palliative care, and contribute to sustainable cultural change in hemodialysis care.

References

1. Rodriguez de Sosa G, Nicklas A, Thamer M, Anderson E, Reddy N, Stevelos J et al., 2022, 'Implementing advance care planning for dialysis patients: HIGHway project', *BMC Palliative Care*, vol. 21, article 129, <https://doi.org/10.1186/s12904-022-01011-5>
2. Neergaard, M.A., et al., 2020. *Early specialised palliative care for patients with non-malignant disease: a randomized clinical trial*. *BMJ Supportive & Palliative Care*, 10(4), pp.446–454. <https://doi.org/10.1136/bmjspcare-2019-002075>

Abstract Country

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Disclosure of Interest

Yes

269

Nurses' use of ultrasound in dialysis clinics

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Background

Ultrasonography is a non-invasive, widely available, and effective tool for monitoring and assessing the functioning of arteriovenous fistulas in dialysis patients. It is increasingly recognized as a standard of care supporting the early detection of vascular complications. International guidelines (e.g., KDOQI) recommend the use of ultrasound to assess fistula maturation, monitor patency and flow, detect stenoses and thrombosis, and plan cannulation (including the selection of the cannulation method and puncture site).

Objectives

Assessment of nurses' use of ultrasound in dialysis clinics

Methods

The study was conducted at the beginning of 2026 and included 76 dialysis nurses. Diagnostic survey method was applied in the research, using the author's questionnaire.

Results

Seventy-six people were included in this study. Mean age was 48.5 (± 10.9) years. Despite their long experience (average 26.3 years), only one in five nurses has received training in the use of ultrasound examination in dialysis clinics, and one in two of them has access to the device in their dialysis clinic. Over half of patients undergo an ultrasound before their first puncture, although this is primarily performed by physicians both within and outside the dialysis clinic (marking the puncture site on the skin). Only one in ten nurses occasionally uses ultrasound to puncture arteriovenous fistulas, a few perform ultrasound to assess vascular access. Most respondents are aware of the impact of ultrasound on patient safety and the quality of nursing care and are interested in additional training. Lack of motivation and time emerged as the barriers to the use of ultrasound.

Conclusion/Application to practice

Nurses' preparation for using ultrasound in dialysis clinics is poor and requires improvement. A good solution could be to provide structured training in this area. Despite many barriers, interest in training among dialysis nurses is high.

References

Chung-Ming F et al.: Health-care Professionals' Perspectives on Ultrasound Evaluation of Arteriovenous Hemodialysis Fistula: A Narrative Review. *J Med Ultrasound*, 2024 Aug 28;32(3):195–201.

Abstract Country

Poland

Disclosure of Interest

No

274

Determinants of Sleep Disturbance in Hemodialysis Patients: The Impact of Fatigue and Uremic Pruritus

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Background

Depression is common among patients undergoing hemodialysis (HD) and substantially impairs quality of life. Although pharmacological treatments are available, accessible and low-cost non-pharmacological strategies are needed. Breathing exercises may represent a simple intervention to reduce psychological distress and improve well-being.

Objectives

This study aimed to examine the effectiveness of a structured breathing training program on depression and quality of life in patients receiving HD.

Methods

A quasi-experimental one-group pretest–posttest design was conducted across three dialysis centers. Baseline data were collected prior to the intervention. Participants then engaged in a structured breathing training program consisting of three breathing techniques, performed three times daily for 30 consecutive days. A total of 41 patients completed the study. Depression was assessed using the Beck Depression Inventory–II (BDI-II), and quality of life was measured using the Kidney Disease Quality of Life Short Form (KDQOL-SF). Paired statistical analyses were conducted to evaluate changes following the intervention.

Results

A statistically significant reduction in depressive symptoms was observed after the intervention (BDI-II mean difference = -3.9 , 95% CI: $0.35-7.45$, $p = 0.03$). Significant improvements were also found in overall quality of life (KDQOL mean difference = 6.09 , 95% CI: $0.48-11.70$, $p = 0.03$) and in the symptoms and problems domain (mean difference = 6.71 , 95% CI: $0.01-13.40$, $p = 0.05$). Improvements were noted in other quality-of-life domains; however, these did not reach statistical significance.

Conclusion/Application to practice

Breathing training was associated with reduced depression and improved quality of life among HD patients. As a safe, simple, and cost-effective approach, breathing exercises may serve as a valuable complementary intervention in routine dialysis care.

References

1. Al-Nashri F, Almutary H. Impact of anxiety and depression on the quality of life of haemodialysis patients. *J Clin Nurs*. 2022;31(1–2):220–30.
2. Chopra P, Ayers CK, Antick JR, Kansagara D, Kondo K. The effectiveness of depression treatment for adults with ESKD: a systematic review. *Kidney360*. 2021;2(3):558–85.
3. Stanley R, Leither TW, Sindelir C. Benefits of a holistic breathing technique in patients on hemodialysis. *Nephrol Nurs J*. 2011;38(2).
4. Hamed -A, Mohamed Abdel Aziz L. Effect of Deep Breathing Exercise training on Fatigue'Level among maintenance hemodialysis patients: randomized quasi-experimental study. *Egypt J Health Care*. 2020;11(4):634–44.

Abstract Country

Saudi Arabia

Disclosure of Interest

No

277

Care passport in a Haemodialysis Setting

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Background

Ongoing assessment of the delivery of care highlighted the need for a robust patient-centred approach to ensure the delivery of appropriate individual care within a dialysis setting.

Accessing relevant information about individual care needs of patients and focusing on communication which is clear, concise and relevant with a view to improving patient experience was the purpose of this project

Objectives

Promote a culture where assessment of additional needs becomes routine.

Allow information about patient difficulties/healthcare needs to be easily accessible to all clinical teams within the dialysis unit.

Promote a holistic approach and be aware of all healthcare professionals involved in delivery of care of individual patients.

Methods

Initial discussion and research done by the Nursing Practice Group examining existing documentation and different ways of working.

Regular workshops considering changing regulations and educational requirements relating to awareness of individual patient needs.

Formatting a document which will promote improved patient care and be easily implemented.

Results

Easy assessment of patients new to dialysis.

Ensuring all staff have access to information which will:

- Improve the delivery of care
- improve understanding of conditions which impact on patient experience

Allow the clinical team to work in a considered, consistent way to deliver high standards of patient care

Conclusion/Application to practice

By introducing early assessment of additional needs which may impact on how a person copes with the treatment burden we can ensure patients receive required support and that staff are equipped to deal with issues. This will allow assessment and application of new skills to be built into education of staff.

Abstract Country

United Kingdom

Disclosure of Interest

No

