

The background of the cover is a photograph of Porto, Portugal, showing a hillside with colorful buildings, a river with boats, and a large white building on the hill. A large green diagonal shape and a red diagonal shape overlap the image.

53rd EDTNA/ERCA International Conference

Addressing Inequities
in Kidney Care for a Healthier Future

Alfândega Congress Centre
Porto, Portugal
October 11–14, 2025

Book of Abstracts

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FOREWORD

Dear Colleagues,

On behalf of the EDTNA/ERCA Scientific Board I am honoured to welcome you all to the 53rd EDTNA/ERCA International Conference in Porto, Portugal, and to present to you with the Conference Abstract Book.

The conference theme this year is “Addressing Inequities in Kidney Care for a Healthier Future”. Along these lines we have developed a Scientific Programme, offering a significant and valuable contribution to renal care, focusing on best research and innovations in practice. But still without overlooking the nursing core values and also the values of other healthcare professionals.

The Scientific Programme has 39 sessions in total, 1 plenary session, 4 Corporate Education Sessions, lunch symposium, the DOPPS Clinical Symposium, Portuguese National Day, 10 E-poster sessions, 5 workshops that cover topics like Phenomenology and Ethics in Haemodialysis Nursing Care, Ultrasound and Vascular Access, Supporting Caregivers in Peritoneal Dialysis, and Exercise Prescription in CKD. The programme schedules also a Discussion on Co-developing peritoneal dialysis nursing sensitive indicators and, a special seminar to learn more about the EDTNA/ERCA Accreditation of Renal Education Programmes.

The international Council of Nurses has agreed accreditation of the Conference and awarded the 53rd EDTNA/ERCA Conference Scientific Programme with 18,75 credits.

The Abstract Book lists the abstracts of authors and guest speakers, presented in session order as they appear in the final Scientific Programme.

The book can be used to keep in touch with presenters and Association members.

I take this opportunity to thank all presenting authors and EDTNA/ERCA Volunteers. Their effort, time and enthusiasm made this Conference a success. Our gratitude goes also to Industry partners for supporting education sessions, workshops and the exhibition. I would like to thank the Conference Department for their professional collaboration and my colleagues of the Executive Committee and the Scientific Board. Conferences such as this provide a precious opportunity for research scientists, industry specialists and decision-makers to share experiences and update their expertise.

Sincerely,



Ilaria de Barbieri, RN, PhD

EDTNA/ERCA Scientific Board Chair

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SCIENTIFIC PROGRAMME HIGHLIGHTS

PLENARY SESSION

Welcome & Introduction

Ilaria de Barbieri & Edita Noruišienė

A fairytale for ChildrenThe Renaldi Brothers: A Journey to Health

Liana Poulia

A Guidebook on Exercise in Chronic Kidney Disease

Pedro Martins & João Luís Viana

Paediatric Kidney Replacement Therapy: A Guide for Nurses

Tadeja Kokelj Jeršin

Kidney Transplantation: A Guide to Clinical Practice

Naceur Chouayet

A Nurses' Guide to CKD-associated Pruritus-Understanding, Communication and Support

Anastasia Liossatos

Staff Ratio for Dialysis Services Across Europe: Unifying Criteria for a Better Quality Care

Afra Masià Plana

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

Joana Fontes

Kidney Care Health Literacy Initiative: Results from the Survey and Next Steps

Maria Arminda Tavares & Suzanne Pearce

Chronic Kidney Disease (4-5 stage). A Guide to Clinical Practice

Chrysanthi Avrami

OPENING CEREMONY

Addressing Inequities in Kidney Care for a Healthier Future

GS: Prof. Raymond Vanholder

Lunchtime Discussion

Renal Transplantation in Greece Nowadays: Facing the Future

Greek Symposium

Renal Transplantation: Challenges and Steps Ahead

Speaker: Sarantzi Xanthi, RN, MSc

Clinical Transplant Coordinator, Renal Transplantation Unit Laiko General Hospital of Athens

Renal Transplantation Surgery in Greece in 2025

Speaker: Barlas Alexandros, MD, FEBS, MSc

Laiko General Hospital of Athens

Risk management & Quality Improvement

Nursing Management in Dialysis Units: Leadership and Specialized Care

GS: David Hernán Gascueña

Peritoneal Dialysis & Home Therapies

Peritoneal Dialysis in Portugal: Reality, Challenges, and Pathways to the Future

GS: Cristiana Sarmento

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

John Sedgewick & Accreditation Committee

Vascular Access 2

3_Level Model: Model for Vascular Access Management

GS: Clemente Sousa

Experience of people with kidney disease

Beyond disease: choose life

GS: Mrs Marta Olim

PDOPPS SYMPOSIUM – VANTIVE

Overview of the International Peritoneal Dialysis Outcomes and Practice Patterns Study (PDOPPS)

Anna Marti i Monros

Sex-Specific Outcomes in The Peritoneal Dialysis Outcomes and Practice Patterns Study

Marisa Pegoraro

International Peritoneal Dialysis Modality and Outcomes

Thyago Proenca de Moraes, Pontificia Universidade Catolica do Parana, Curitiba, Brazil

Scratching the surface: Pruritus prevalence and association with quality of life in peritoneal dialysis patients

Anastasia Liossatos

Incremental PD start and clinical outcomes: Results from PDOPPS

Ashik Hayat, Princess Alexandra Hospital, Brisbane, Australia

WORKSHOPS

Phenomenology and Ethics in Haemodialysis Nursing Care: Exploring Different Cultural Experiences

Session chair: Joana Fontes

US and Vascular Access 1

Session chairs: Ruben Iglesias & Clemente Sousa

Breathing Again: The Role of Nurses in Supporting Caregivers in Peritoneal Dialysis

Session chairs: Sotiroula Glik & Stavroula Vovlianou

Prescribing Exercise in CKD: A Training Programme for Exercise and Health Professionals

Session chairs: João Viana, Pedro Martins

US and Vascular Access 2

Session chairs: Ruben Iglesias & Clemente Sousa

CORPORATE EDUCATION SESSIONS

Corporate Education Session Fresenius Medical Care:

Bridging the equity gap: From Theory to Bedside

Chair: Raquel Ribeiro (Fresenius Medical Care Germany, Director of Nursing Care EMEA)

Speakers:

Suzanne Mitrovich (Fresenius Medical Care Germany, Nursing Care Manager EMEA),

Michelle Carver (Fresenius Kidney Care, North America, Chief Nursing Officer, Senior Vice President Nursing and Clinical Services),

Laura Hignell (Director Clinical Learning and Education, Global Product Management – Home Therapies, Fresenius Medical Care),

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Björn Englund (Fresenius Medical Care, Switzerland, President Care Delivery International),

Marjelka Trkulja (Fresenius Medical Care Germany, Head of Nursing Care CDI)

Corporate Education Session CSL Vifor:

CKD-associated Pruritus: Voicing the unseen – Nursing strategies to restore Quality of Life in Dialysis

Welcome and Introduction

Helen Hurst

Beyond the itch – Living with CKD-aP and its real burden

Daniel Gallego

Making the invisible visible: Nurse leadership to restore Quality of life

Helen Hurst

Tools and techniques of pruritus assessment and communication

Anastasia Liossattou

Clinical insights: Latest data and outcomes on CKD-aP and Difelikefalin

Lucio Manenti

Round table discussion

chaired by Anastasia Liossattou

Conclusion and call to action

Helen Hurst and Anastasia Liossattou

Kdigo Session

Insights from the KDIGO 2025 Clinical Practice Guideline for the Evaluation, Management, and Treatment of Autosomal Dominant Polycystic Kidney Disease (ADPKD)

Paul Bennett, Australia

Impressions from the 2025 KDIGO Controversies Conference on Green Dialysis

Fokko Wieringa, PhD, IMEC & UMC Utrecht

Women's Health Controversies – What Dialysis and Transplant Teams Need to Know

Kate Wiles, United Kingdom

Q&A discussion

all presenters

Corporate Education Session Diaverum:

Beyond Dialysis: New Horizons in Research

Speakers:

Israel Silva (Corporate Nursing Director Diaverum),

Meshal Alkhulayfi (Corporate Nursing Director Diaverum)

Panel discussion:

Dr. Vidya Velagapudi (SVP-Precision Medicine & Academy of Education & Research M42)

Eliana Silva (Data analyst)

Fresenius Medical Care HHD:

The Nursing role in Home HD : key success factors and best practices sharing

Speakers: Carol Rhodes, Laura Thompson, Sandra Carrasco Rubio

Introduction: Nurse role in the patient Renal Replacement Therapy journey

Challenge 1: Find candidates for Home HD / Shared decision process

Challenge 2: Educate people for Home HD / Adult learning principles

Challenge 3: Maintain people on Home HD / Monitoring & Personalized Care

Conclusion: Professional experience with Home HD – sharing

SCIENTIFIC PROGRAMME

Saturday, October 11, 2025

16:00–17:35	Archive Hall	Plenary Session
17:50–19:20	Archive Hall	Opening Ceremony
19:20–21:45	Archive Hall	Welcome & Exhibition Opening

Sunday, October 12, 2025

09:00–10:30	Infante Hall	Fresenius Corporate Education Session	
09:00–10:30	D. Maria Hall	Transplantation	14
09:00–10:30	D. Luis Hall	Portuguese National Day	
09:00–10:30	Miragaia Hall	Education	21
09:00–10:30	Arrábida Hall	e-Poster Session (oral presentations)	
11:00–12:30	Infante Hall	CES CSL VIFOR	
11:00–12:30	D. Maria Hall	Haemodialysis 1	27
11:00–13:00	D. Luis Hall	Portuguese National Day	
11:00–12:30	Miragaia Hall	e-Poster Session (oral presentations)	
11:00–12:30	Arrábida Hall	e-Poster Session (oral presentations)	
12:30–14:00	D. Maria Hall	Greek Symposium	
14:00–15:30	Infante Hall	PDOPPS Symposium – Vantive	
14:00–15:30	D. Maria Hall	Risk management & Quality Improvement	33
14:30–16:30	D. Luis Hall	Portuguese National Day	
14:00–15:30	Miragaia Hall	e-Poster Session (oral presentations)	
16:00–17:30	Infante Hall	Nutrition & Diabetic foot	37
16:00–17:30	D. Maria Hall	Vascular Access 1	43
16:00–18:00	D. Luis Hall	Portuguese National Day	
16:00–17:30	Miragaia Hall	e-Poster Session (oral presentations)	
16:00–17:30	Arrábida Hall	Workshop: Phenomenology and Ethics in Haemodialysis Nursing Care: Exploring Different Cultural Experiences	

Monday, October 13, 2025

09:00–10:30	Infante Hall	KDIGO Session	
09:00–10:30	D. Maria Hall	Peritoneal Dialysis & Home Therapies	<u>51</u>
09:00–10:30	D. Luis Hall	Ethical, Psychological and Social Impact of CKD	<u>56</u>
09:00–10:30	Miragaia Hall	e-e-Poster Session (oral presentations) Session	
09:00–10:30	Porto Hall	Workshop: US and Vascular Access 1	
11:00–12:30	Infante Hall	CES DIAVERUM	
11:00–12:30	D. Maria Hall	EDTNA/ERCA Accreditation of Renal Education Programs – come learn more!	
11:00–12:30	D. Luis Hall	Children & Young Adults and Caregivers & Family	<u>63</u>
11:00–12:30	Miragaia Hall	e-Poster Session (oral presentations)	
11:00–12:30	Arrábida Hall	Workshop: Breathing Again: The Role of Nurses in Supporting Caregivers in Peritoneal Dialysis	
14:00–15:30	Infante Hall	Fresenius Medical Care HHD	
14:00–15:30	D. Maria Hall	Vascular Access 2	<u>70</u>
14:00–15:30	D. Luis Hall	Health literacy and Self-management	<u>75</u>
14:00–15:30	Miragaia Hall	e-Poster Session (oral presentations)	
14:00–15:30	Arrábida Hall	Workshop: Prescribing Exercise in CKD: A Training Programme for Exercise and Health Professionals	
16:00–17:30	Infante Hall	Haemodialysis 2	<u>80</u>
16:00–17:30	D. Maria Hall	New technologies	<u>87</u>
16:00–17:30	D. Luis Hall	Healthcare professional's experience	<u>93</u>
16:00–17:30	Miragaia Hall	e-Poster Session (oral presentations)	
16:00–17:30	Arrábida Hall	e-Poster Session (oral presentations)	
16:00–17:30	Porto Hall	Workshop: US and Vascular Access 2	

Tuesday, October 14, 2025

09:00–10:30	Infante Hall	Experience of people with kidney disease	<u>100</u>
11:00–12:30	Infante Hall	CKD prevention & Symptoms Management	<u>105</u>
12:30–12:50	Infante Hall	Closing Ceremony	

PORTUGUESE NATIONAL DAY

LIST OF PRESENTATIONS

Cerimónia de Abertura

Ilaria de Barbieri (EDTNA/ERCA), Fernando Vilares (APEDT), Miguel Vasconcelos (Ordem dos Enfermeiros)

Conferência Inaugural- Ambientes de Prática de Enfermagem Positivos

Moderadores: Eulália Novais (EDTNA/ERCA) e Arminda Tavares (EDTNA/ERCA)

Orador: Olga Ribeiro (Professora Escola Superior de Enfermagem do Porto)

Mesa Redonda – Hot Topics Acessos Vasculares

Moderadores: Clemente Sousa (APEDT) e Joana Fontes (EDTNA/ERCA HD Consultant)

Consulta avançada de Enfermagem em Acessos Vasculares

Sílvia Ramos (Davita, Portugal)

Desafios e oportunidades na promoção do autocuidado em pacientes com FAV: evidências de um estudo

Filipa Cabrita (Bbraun, Portugal)

Modelo de Tomada de Decisão para a canulação do Acesso Vascular

Rui Pinto (ULS Coimbra – CHUC)

Programa de Monitorização & Vigilância dos Acessos Vasculares

Carlos Gonçalves (Diaverum, Portugal)

Mudança de paradigma na canulação da FAV: MuST, da evidência à prática clínica

Ricardo Peralta (Fresenius Medical Care, Portugal)

Mesa Redonda – Do Ensino à Prática: Construir Excelência na Enfermagem Nefrológica

Moderadores: Arminda Tavares (EDTNA/ERCA) e Fernando Vilares (APEDT)

Oradores:

Clemente Sousa (Formação em Enfermagem de Nefrologia, APEDT)

Miguel Vasconcelos (Competências Acrescidas em Diálise, Presidente do Conselho Diretivo Regional da Secção Regional do Norte da Ordem dos Enfermeiros)

Abílio Silva (Country Nursing Director Davita Portugal)

Inês Fonseca (Country Nursing Director BBraun Portugal)

João Fazendeiro (Country Nursing Director Fresenius Medical Care, Portugal)

Mónica Silva (Country Nursing Director Diaverum Portugal)

Speeding Meetings em Português

Impacto da Referenciação para Ecografia na Patência dos Acessos Vasculares em Hemodiálise

Ana Marçalo (Diaverum, Aveiro)

A Influência da Experiência Profissional dos Enfermeiros na Detecção da Estenose da Fístula Arteriovenosa

Vera Miranda (Diaverum, Águeda)

Programa Mentes Ativas

Joana Caramelo (Davita, Portugal)

Consulta de enfermagem à pessoa em hemodiálise: uma oportunidade terapêutica

Carla Dias (BBraun, Portugal)

Indicadores Sensíveis aos cuidados de Enfermagem à pessoa em Hemodiálise

Catarina Brito (Diaverum, Portugal)

ORAL PRESENTATIONS

Transplantation

76

Qatar Pediatric Transplantation experience: retrospective study

Hind Alamri¹, Naceur Chouayet², Dr., Muthana Al-Salihi¹

¹Sidra Hospital, Doha, Qatar; ²Hamad Medical Corporation, Doha, Qatar

Background

Kidney transplantation is a life-saving procedure that offers children with end-stage kidney disease a renewed chance at health and improved quality of life. However, post-transplant complications remain a significant challenge. Understanding these complications is crucial for healthcare professionals, caregivers, and patients to ensure optimal management and long-term success.¹ Qatar has been actively advancing in the field of organ donation and transplantation, particularly in pediatric care. Sidra Hospital plays a pivotal role in providing excellent post-transplant follow-up for pediatric patients. Despite advancements since the first pediatric kidney transplant, managing post-transplant complications remains a critical concern for nephrology teams and impacts patient quality of life.²⁻³

Objectives

This study aims to assess post-transplant complications, allograft function, and patient survival in pediatric kidney transplant recipients.

Methods

This study is a retrospective analysis of 31 pediatric kidney transplant recipients, aged 2–17 years, who underwent transplantation between 2016 and 2024. The transplants were performed both within and outside Qatar, with all patients currently receiving follow-up care at Sidra Hospital. Patients over 18 years or those not followed at Sidra were excluded from the study. Data were collected from post-transplant office records and electronic patient records in Cerner. The analysis focused on identifying intra- and post-transplant complications, evaluating graft function, assessing patient survival, and monitoring long-term sequelae.

Results

Among the 31 pediatric patients studied, 13 received transplants in Qatar, while 18 were transplanted abroad. The mean patient age was 8.7 years (range: 2–17). Males comprised 64.5% (20/31), while females accounted for 35.5% (11/31). The most common etiology of chronic kidney disease (CKD) was classified as „other diseases“ (36%), including post-cardiac surgery and Pierson syndrome. Dysplastic kidney disease (23%) and Posterior Urethral Valve (16%) were also prevalent. Of the 31 transplants, 16 (52%) were from living-related donors, while 15 (48%) were from deceased donors. A total of 13 transplants were performed in Qatar. No intraoperative complications were observed; however, three major immediate post-transplant complications occurred: one arterial thrombus and two cases of delayed graft function. During follow-up, viral infections were the most frequently observed complications. BK virus, cytomegalovirus (CMV), and Epstein-Barr virus (EBV) were detected in 8, 4, and 2 cases, respectively, among 17 patients (51%). The mean estimated glomerular filtration rate (eGFR) was 84.74 mL/min/1.73m² (range: 32–155), calculated using the Schwartz equation. Most patients had no comorbidities. Seven patients underwent preemptive kidney transplants, 13 were on peritoneal dialysis, and 11 required hemodialysis for a minimum of one month before transplantation, with an average duration of 25 months (range: 1–192 months). None had undergone prior transplants.

Conclusion/Application to practice

Regular and long-term follow-up is essential for successful pediatric kidney transplantation.⁴ However, ensuring adherence to post-transplant care remains a challenge. Education for both children and caregivers is critical to improving compliance.⁵⁻⁶ Actively involving pediatric patients in discussions about their care and fostering accountability from an early age may enhance long-term outcomes and promote better self-management of their health.

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2. Hebert SA, Swinford RD, Hall DR, Au JK, Bynon JS. Special Considerations in Pediatric Kidney Transplantation. *Advances in Chronic Kidney Disease*. 2017 Nov;24(6):398–404.
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Abstract Country

Qatar

Disclosure of Interest

No

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Recipients' needs and preferences regarding an intervention supporting adaptation post-kidney transplantation: A qualitative study

Kirsten Back Pedersen¹, Anna Forsberg², Anne Sophie Mathiesen¹, Mary Jarden^{3,4}, Louise Sofia Petersen⁵, Mads Hornum^{1,4}, Marie Oxenbøll Collet^{6,4}

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Background

Kidney transplantation improves quality of life. However, it also presents a range of physical, emotional, and psychological challenges. Despite complexities such as ongoing medical management, lifestyle adjustments, and uncertainties, there is limited research on holistic approaches that address the specific needs and preferences of kidney transplant recipients in their adaptation process (1-3). This study explores patients' needs and perspectives on post-transplant challenges and their preferences for an intervention designed to facilitate adaptation, provide support, and ultimately enhance their overall quality of life after transplantation.

Methods

The study employs semi-structured interviews with 14 kidney transplant recipients (aged ≥18 years, with a functional graft, 6 months to 2 years post-transplant). The data are analyzed using Interpretative Phenomenological Analysis (4), and the findings are reported in accordance with the Standards for Reporting Qualitative Research (5).

Results

"Lost in transition – who sees me?": Recipients feel lost during the transition from acute medical care to managing their everyday lives post-transplant leaving them uncertain about where to turn for support.

"A life gained should also be lived": While recipients value the renewed opportunity for life post-transplant, they emphasize the importance of addressing emotional, social, and psychological aspects.

"Support and community for kidney transplant patients – A path through a new everyday life": Kidney transplant recipients request individual consultations with nurses, where time is allocated to review their treatment journey. Additionally, they highlight the importance of a group element, where kidney transplant recipients can connect with like-minded individuals, offer support, and share experiences.

Conclusion/Application to practice

The findings will inform the design of an intervention for clinical practice aimed at supporting recipients' adaptation to everyday life and improving lifelong follow-up care after kidney transplantation.

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Abstract Country

Denmark

Disclosure of Interest

No

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Cardiorespiratory fitness in kidney transplant recipients and the effects of home-based rehabilitation

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¹University of Leicester, Leicester, United Kingdom; ²Leeds Beckett, Leeds, United Kingdom; ³University Hospitals of Leicester, Leicester, United Kingdom;

⁴Loughborough University, Leicester, United Kingdom

Introduction

Kidney transplant recipients (KTR) have an increased burden of cardiovascular disease (CVD) and poor cardiorespiratory fitness (CRF) is associated with poorer clinical outcomes; particularly cardiovascular related. The aims of this study were: (1) to compare CRF parameters in KTR and age-sex matched healthy volunteers (HV), (2) explore the CRF related effects of 12-weeks of home-based exercise rehabilitation in KTR.

Methods

30 KTR (14 male; age 61±8 years) and 30 HV (14 male; age 61±7 years) completed a continuous ramp cardiopulmonary exercise test (CPET) to volitional exhaustion. 50 KTR (>1-year post-transplant; 50±14 years; 23 male) were randomised 1:1 to: intervention (INT: a 12-week home-based combined aerobic and resistance exercise programme) or control (CT: guideline-directed care).

Results

KTR had reduced exercise capacity and increased ventilatory response to exercise compared to HV. Relative $\dot{V}O_{2peak}$ was 5.29 ±1.35 ml/kg/min lower in KTRs v HV. Post-intervention $\dot{V}O_{2peak}$ after baseline adjustment, was greater in INT v CT (+1.50 ml/kg/min (95%CI: 0.1-2.9; $p=.03$) as was max power (+8 W, $p<.03$) and heart rate (+10 bpm, $p<.04$). Total number of aerobic exercise session performed was associated with greater change in $\dot{V}O_{2peak}$ ($R_2=.252$, $p=.04$).

Discussion

CRF is impaired in KTR compared to age-sex matched HV. This may relate to low levels of physical activity, but could imply underlying cardiovascular dysfunction. Home-based rehabilitation significantly improved CRF. These results indicate the need to prioritise the development and implementation of structured exercise and educational programmes for KTR as part of routine care.

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Abstract Country

United Kingdom

Disclosure of Interest

No

141

Developing and testing a self-management tool for patients receiving a kidney transplant

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Background

Patients receiving a kidney transplant at our hospital are admitted for an average of less than five days, which means they have to manage their treatment and live with a kidney transplant at home on their own shortly after the procedure. They will come to the hospital once or twice a week for check-ups in the outpatient clinic. Therefore, it is important to involve patients receiving a kidney transplant in their postoperative care to enhance their self-management¹.

Objectives

To develop and test a self-management tool in postoperative care for patients receiving a kidney transplant.

Methods

A three-month observation of clinic practice at Princess Alexandra Hospital, Brisbane, Australia, was conducted by a staff nurse. Based on these observations and a collaborative approach with a nurse manager, a development nurse, and a research nurse at home, a self-management tool was iteratively developed. The first prototype was alpha-tested with all the nursing staff on the ward before it was beta-tested with five patients and then prepared for final testing. The tool has been evaluated with feedback from patients and nurses.

Results

A self-management tool was developed to be used by patients from day one to day five postoperative. The patients observe and record in the tool six different domains important in self-management after a kidney transplant: 1) fluid balance, 2) daily weight, 3) nausea, 4) activity, 5) pain, and 6) constipation. The feedback showed that patients gained a better understanding of their condition and took more responsibility for their treatment, leading to improved adherence.

Conclusion/Application to practice

It is possible to involve patients receiving a kidney transplant in their postoperative care and to enhance their self-management, but a more rigorous evaluation is needed, along with follow-up data. Furthermore, this improvement study showed that international inspiration and local collaboration provide new opportunities in nursing and can innovate local practice.

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Abstract Country

Denmark

Disclosure of Interest

Yes

165 Attitudes of Health Workers Towards Organ Donation and Examination of Some Affecting Factors

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Background

Attitudes of healthcare professionals towards organ donation are an important factor affecting organ donation.

Objectives

The aim of this study is to determine the attitudes of healthcare professionals towards organ donation and the factors affecting them.

Methods

This study was conducted with a descriptive-analytical design. 358 healthcare professionals participated in the study. Data were obtained using the Personal Information Form and the “Organ Donation Attitude Scale”. Data were analyzed using the SPSS program.

Results

The mean score of the “Helpfulness” dimension of the Healthcare Professionals’ Organ Donation Attitude Scale, which shows positive attitudes, is 61.94 ± 12.88 , the mean score of the “Fear of Medical Neglect” sub-dimension, which has two dimensions showing negative attitudes, is 41.43 ± 5.55 , and the mean score of the “Fear of Bodily Injury” sub-dimension is 44.47 ± 6.50 . The total mean score of the scale is 147.99 ± 18.55 .

The mean score of the Benevolence sub-dimension, which is a positive attitude, was found to be higher and statistically significant in women, dentists, and those whose income exceeds their expenses ($p < 0.05$). On the other hand, the mean score of the Fear of Bodily Injury sub-dimension, which is a negative attitude, was found to be statistically significantly lower in singles, healthcare professionals with a master’s degree, women, and those whose income exceeds their expenses. The mean score of the Fear of Medical Neglect sub-dimension, which is another negative attitude sub-dimension regarding organ donation, was found to be higher in dentists, those who have been working for 11 years or more, those whose income exceeds their expenses, and those with chronic diseases other than CKD than those without chronic diseases ($p < 0.05$).

Conclusion/Application to practice

The positive attitudes of healthcare professionals towards organ donation are at a moderate level and their positive attitudes towards organ donation should be increased. Examining the attitudes of health professionals, who play a key role in increasing social awareness, towards organ donation and the factors affecting these attitudes can play a role in increasing organ donation by overcoming negative attitudes and obstacles towards organ donation

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Abstract Country

Turkey

Disclosure of Interest

No

206

Assessment of the knowledge of dialysis patients about kidney transplantation and living donors

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Background

Chronic kidney disease often progresses to end-stage renal disease, which requires renal replacement therapy. Kidney transplantation is the most effective therapeutic option for eligible patients, as it significantly improves their quality of life. To perform a kidney transplant, a donor is necessary, which may come from either a brain-dead donor or a living donor. Living donor kidney transplantation plays a crucial role in increasing transplant rates. However, the availability of living donors is limited, and insufficient awareness about transplantation worsens this critical issue. The primary barriers to improving transplant rates are the lack of knowledge in discussing kidney donation with potential donors.

Objectives

Evaluate patients' knowledge on hemodialysis regarding kidney transplantation and living donors while analyzing disparities in knowledge based on sociodemographic and clinical variables

Methods

An observational, cross-sectional study was conducted, in which the authors developed a questionnaire that was administered across four hemodialysis units, involving a total of 150 patients. Data collection took place during the last quarter of 2024 and the first quarter of 2025

Results

Significant disparities in knowledge were identified based on education level, time on dialysis, and previous follow-up. Patients demonstrated a strong understanding of the benefits of kidney transplantation, however, their knowledge regarding living donors was notably insufficient. There is a critical gap in understanding the advantages of receiving a transplant before starting dialysis, as well as the timeline required for the living donor transplantation process. Most patients have not approached acquaintances to discuss kidney donation, despite having received offers from relatives, which they declined

Conclusion/Application to practice

A comprehensive understanding of the key issues, as well as the sociodemographic and clinical conditions, is essential for identifying targeted areas for future intervention. Based on these findings, actionable recommendations have been made to tailor the patient education program on kidney transplantation, starting from the moment of admission to a hemodialysis clinic

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Abstract Country

Portugal

Disclosure of Interest

Yes

Education

69

From challenges to solutions: the impact of personalized care plans on dialysis patients

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Abstract

Dialysis significantly impacts various aspects of a patient's life, including physical, cognitive, emotional and social functioning, emphasizing the need for personalized care strategies.

Background

Individual care plans are essential for improving the health and quality of life of dialysis patients by addressing their specific needs. This study evaluates the effectiveness of these plans, developed from Quality of Life Short Form survey (KDQOL-SFTm) in improving patient outcomes.

Objectives

The primary goal was to improve patient health by addressing physical, cognitive, emotional, and social aspects. Additional objectives included identifying two critical areas for each patient, creating individualized plans, and assessing their impact on QoL.

Methods

In 2022, a QoL survey was conducted with dialysis patients, covering 22 domains, including the effects and burden of kidney disease, work, cognitive function, social interactions/support, sexual function, sleep, staff encouragement, overall health, physical functioning, role limitations, pain, general health, emotional well-being, social functioning, energy/fatigue, and composite scores for physical and mental health. This survey helped develop personalized care plans. In 2024, a follow-up survey assessed the effectiveness of these plans, leading to updates. For newly patients, the QoL survey was conducted two weeks after admission, followed by personalized care plans and repeated three months later to assess outcomes: improvement, stagnation or deterioration.

Results

Among 29 participants, 63% showed significant improvement in both domains, 11% improved in one while the other remained unchanged and 15% improved in one but worsened in the other. Additionally, 8% declined in one domain, with the other stable, while no patient worsened in both. Among newly admitted patients, 80% of topics with an action plan improved, 14% worsened, and 6% showed no change.

Conclusion/Application to practice

The findings confirm the effectiveness of personalized care plans based on QoL surveys in improving patient well-being. The variability in outcomes highlights the importance of continuous monitoring and adjustments to optimize care plans.

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Abstract Country

Republic of North Macedonia

Disclosure of Interest

No

158

Nurses' role in kidney health education among young generations: A step toward health equity

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Abstract

In a world where access to health knowledge remains uneven, preventive education serves as a powerful tool for change. Kidney disease, often called a „silent epidemic,“ is a growing global concern, yet awareness remains critically low among young people.

Background

In a world where access to health knowledge remains uneven, preventive education serves as a powerful tool for change. Kidney disease, often called a „silent epidemic,“ is a growing global concern, yet awareness remains critically low among young people. Socioeconomic factors, such as education, healthcare access, and living conditions play a decisive role in shaping health outcomes, leading to disparities in knowledge and prevention. Nurses, as frontline educators, have a unique opportunity to break these cycles of inequality by equipping young generations with essential knowledge on kidney health.

Objectives

The aim is to highlight the role of nurse-led education in raising awareness about kidney health among young generations and its potential to reduce health disparities. By addressing social determinants of health, this initiative seeks to ensure that all students, regardless of socioeconomic background, have equal access to crucial health knowledge that can prevent future kidney-related complications.

Methods

In 2024, more than 500 students from primary and secondary schools in North Macedonia participated in nurse-led kidney health education initiatives. These interactive sessions combined engaging lectures, hands-on activities, and personalized guidance to cover key topics such as hydration, nutrition, and early detection of kidney disease.

Results

The impact of these initiatives was clear: students gained a deeper understanding of kidney health, felt more empowered to make proactive health choices, and developed a stronger awareness of risk factors. However, variations in baseline knowledge were evident, with students from lower-income backgrounds demonstrating less prior exposure to health education. This highlights the urgent need for equitable access to health information. By bridging these gaps, nurses played a critical role in ensuring that every student, regardless of socioeconomic status, received the tools needed for a healthier future.

Conclusion/Application to practice

Nurses are more than caregivers, they are educators and key drivers of health equity. By expanding nurse-led kidney health initiatives, particularly in underserved communities, we can take meaningful steps toward reducing long-term health inequalities. Integrating these initiatives into formal education and broader public health strategies is essential for ensuring that knowledge truly becomes power, for everyone, everywhere.

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Abstract Country

Republic of North Macedonia

Disclosure of Interest

No

209 Tailoring initial training for hemodialysis nurses: a competency-based assessment approach

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Background

Training and education are crucial for preparing nurses in specialized settings like hemodialysis centers. Initial training significantly impacts nurses' confidence, competence and integration into healthcare teams. However, standardized programs often fail to accommodate diverse backgrounds, leading to inefficiencies and suboptimal outcomes. Individualized training approaches, based on specific learning needs, improve knowledge retention and skill application. Implementing an initial assessment tool during the onboarding process can ensure nurses receive the support necessary for optimal experience, development and performance.

Objectives

Developing an initial assessment tool that enables the design of individualized initial training programs for nurses in hemodialysis clinics.

Methods

We reviewed internal hemodialysis job descriptions, clinical tasks, e-learning resources and hemodialysis nursing practical competencies essential for clinical practice to assess training gaps. Additionally, 13 external hemodialysis nursing training documents were analyzed. A system with three entry levels—beginner, intermediate and advanced—was developed based on hemodialysis education, hemodialysis working experience and clinical case assessments based on real hemodialysis patients scenarios. A workgroup of 9 head nurses and regional nursing managers designed and tested the tool to ensure its effectiveness in evaluating competencies and guiding training allocation.

Results

The assessment tool successfully categorized new nurses into three training levels, each linked to a specific curriculum. Performed on the first day of onboarding in the clinics, the tool assessed theoretical knowledge, practical skills and critical thinking through closed questions and clinical scenarios. Nurse supervisors reported improved efficiency in identifying competency gaps and tailoring training programs. The tool also acknowledged self-directed learning, providing an adaptable approach for nurses without prior hemodialysis experience.

Conclusion/Application to practice

The structured assessment tool enhances hemodialysis nurse training efficiency. By aligning training with existing competencies, it optimizes resource utilization and improves onboarding experiences. Its individualized approach fosters motivation, professional growth, and staff satisfaction while ensuring clinical competence.

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Abstract Country

Spain

Disclosure of Interest

No

211

The role of Training & Education Lead in advancing hemodialysis nursing practice

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Background

Specialized hemodialysis nursing training is crucial for patient safety and care quality. A dedicated Training & Education Lead Nurse ensures training remains accurate, relevant and up-to-date. Onboarding and continuous education improve job satisfaction, reducing turnover and burnout. By addressing hemodialysis nursing challenges, this role promotes motivation and professional growth, creating a supportive environment. Their expertise ensures training aligns with clinical challenges, strengthening nurse confidence, improving patient outcomes and elevating care standards.

Objectives

To describe the impact of implementing a Training & Education Lead in hemodialysis nursing teams across a clinic network.

Methods

The Training & Education Lead Nurse role was implemented in phases across 47 clinics. In February 2024, the Lead Nurse underwent a one-month immersive training in a clinic to experience onboarding firsthand. From January to March 2024, a review of job descriptions, training plans, and skills was conducted. Additionally, in February 2024, a workgroup of Head Nurses and Regional Nursing Coordinators was established to enhance training, with monthly meetings ensuring improvement.

Results

The introduction of the Training & Education Lead (T&EL) role improved training engagement, aligned content with clinical needs, and enhanced communication between leadership and nursing staff. In its first year, the T&EL redesigned initial training, developed a „Train the Trainer“ adapted to hemodialysis nursing, and created trainer pocket guidelines. Welcome packs improved onboarding, and a new training plan was developed based on nurses' needs. Additionally, the T&EL supported training delivery and led the creation of an eco-guide for vascular access assessment.

Conclusion/Application to practice

The study demonstrates the T&EL role is essential for improving nursing training in hemodialysis. By offering specialized training, fostering collaboration, and improving communication, the T&EL supports professional growth and enhances patient care. This role is crucial in addressing hemodialysis nursing challenges and contributes to a more engaged, competent, and stable workforce.

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Abstract Country

Spain

Disclosure of Interest

No

220

Specialized training for specialized care: developing a Train-the-Trainer Program for hemodialysis nursing

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Background

Nursing and education are inherently linked, with teaching playing a critical role in ensuring high-quality care, particularly in specialized fields like hemodialysis. While expertise is essential, it does not guarantee effective teaching, highlighting the need for Train the Trainer (TTT) program. This type of course, specially designed for specific settings such as hemodialysis, is crucial for addressing unique staff needs and enhancing engagement.

Objectives

To analyze the impact of a tailored hemodialysis Train the Trainer program on nursing team perceptions, training barriers and areas of improvements.

Methods

TTT course development included collecting external resources, previous training programs and surveys with nursing teams to assess the training requirements. A workgroup of 9 experts structured the program, designing the curriculum to fit clinical needs. Training sessions were delivered in small-group webinars and participant feedback was collected pre- and post-training through surveys to assess effectiveness and guide future improvements.

Results

A total of 17 TTT webinars were delivered (68 hours), training 134 nurses across 47 clinics. Training topics included teaching tools, motivation, learning styles and organizational skills. Key barriers to training identified were workload, shift length, team support and resource availability. After attending the TTT program, survey data revealed a 22.18% increase in satisfaction with training resources, a 15.16% improvement in motivation and 34.10% increase in satisfaction with trainer role knowledge and definition. Additionally, 40.3% of attendees provided open-ended feedback, demonstrating increased engagement.

Conclusion/Application to practice

This tailored Train the Trainer program significantly improved hemodialysis nursing trainers' skills and confidence, with high satisfaction ratings and comments. Participant feedback highlighted the importance of meaningful and relatable training to their clinical day to day practice. The insights gained from this program have led to the development of new initiatives, including refresher sessions, monthly trainers email updates and annual TTT sessions to ensure continuous professional development.

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Abstract Country

Spain

Disclosure of Interest

No

255

The impact of exercise professionals in the implementation of intradialytic exercise

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Background

Integrating exercise professionals (ExP) into intradialytic exercise programmes (iEP) may enhance effectiveness and adherence.

Objectives

This study evaluated ExP impact during the first year of iEP implementation in 20 NephroCare Portugal dialysis units, comparing outcomes between units with and without ExP.

Methods

Implementation was assessed using the RE-AIM framework. Effectiveness was measured through Sit-to-Stand 30sec (STS-30), 5-times (STS-5), single-leg stance (SLS), timed-up-and-go (TUG), and handgrip strength (HGS).

Results

Only two units had ExP, with no differences in patient baseline characteristics ($p>0.05$).

Reach: Of 2,280 patients, 1,270 met eligibility criteria (148 in ExP, 1,122 in non-ExP units). Patient uptake was higher in ExP (79.7%, $N=118$) vs. non-ExP units (61.7%, $N=693$; $p<0.001$).

Effectiveness: STS-30 ($p<0.001$) and SLS ($p=0.006$) performance improved in ExP units. In non-ExP units, HGS decreased (-1.5kg , $p<0.001$), while all other variables improved ($p<0.001$). Yet, ExP elicited greater absolute change in STS-30 ($+1.7$ reps, $p=0.019$) and in HGS ($+2.9$ kg, $p=0.004$) than non-ExP units.

Implementation: Regardless of type, average number and duration of weekly exercise sessions was identical in ExP and non-ExP ($p>0.05$). However, the weekly workload (sets \times reps \times weight) in the resistance exercise sessions was higher in ExP than in non-ExP units (336 ± 489 vs. 146 ± 222 , $p<0.001$).

Maintenance: Attrition rate was identical between ExP (Dropout: $N=64$, 54.2%) and non-ExP (Dropout: $N=400$, 57.7%) units. Reasons for withdrawal were mainly voluntary in both ExP ($N=37$, 57.8%) and non-ExP ($N=253$, 63.2%) units.

Conclusion/Application to practice

ExP seems to be efficient in the recruitment process for iEP. Despite similar attrition rates and session frequency, ExP units show greater resistance training workload potentially responsible for greater absolute improvements in muscle endurance and strength. However, while ExP may enhance iEP reach and effectiveness, additional strategies may be needed to sustain long-term engagement. *This work is funded by the Portuguese Foundation for Science and Technology (project UI/04045).*

Abstract Country

Portugal

Disclosure of Interest

No

Haemodialysis 1

29

Comparison of Dialysis Symptom Index in people with Chronic Kidney Disease and Diabetic Nephropathy

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Background

Diabetes Mellitus (DM) is a chronic disease accompanied by complications, if left untreated. Diabetes is the leading cause of kidney disease leading, over the years, to the need for Renal Replacement Therapy (RRT) with Haemodialysis (HD) or Peritoneal Dialysis (PD). The chronicity of both diseases affects psychological, family and social interactions and Quality of Life (QoL).

Objectives

The present study aimed at estimating the disease burden of patients with Chronic Kidney Disease (CKD) compared to those with Diabetic Nephropathy (DN).

Methods

A sample of 103 people treated in the Renal Outpatient Clinic, HD and PD Units in a general hospital was studied in the present pilot study. The Dialysis Symptoms Index (DSI) was used for symptom load assessment and the European Quality of Life (EuroQol) questionnaire for assessing the QoL of participants.

Results

The sample was mainly males (64.1%, n=66), married (78.6%, n=81), primary school graduates (46.6%, n=48), pensioners (80.6%, n=83) and more than half (51.5%, n=53) with DN. From the 35.9% (n=37) who were treated in the outpatient's clinic, DN was diagnosed in twenty-one. In addition, DN was diagnosed in half of the people on PD (n=11) and in the 47.7% (n=21) of those on HD. It was found that self-assessment of painful symptoms were significantly affected by the stage of CKD, the type of RRT, duration of DN and female gender. In regards to quality of life it was found that mobility and self-care were affected by the disease.

Conclusion/Application to practice

The present study concluded that the duration of follow-up in the renal outpatient's clinic is positively related to QoL, which increases for each year of follow-up. It is advised for renal clinicians to focus on effective symptom management while caring for people with CKD as it constitutes the basis of a better QoL.

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Abstract Country

Greece

Disclosure of Interest

No

39

Time to recovery after hemodialysis, evaluation of novel routine for fluid management

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Background

Recovery time (RT), one aspect of dialysis-related fatigue, and overhydration are factors impacting the quality of life in patients with kidney failure. A decision aid, Recognition and Correction of Volume Alterations (Recova®) integrates clinical assessments with bioimpedance spectroscopy (BIS) and hence, represents a novel approach to improving fluid management in hemodialysis (HD).

Objectives

The aim of this project was to evaluate whether the use of Recova® is associated with changes in fluid status and RT after HD.

Methods

In a prospective intervention study, the health care professionals at 10 dialysis clinics in Sweden were trained to use Recova® in fluid management. Patients 18 years or older who had been treated with HD for more than three months and had a documented need for ultrafiltration, were screened for eligibility. Overhydration was measured using BIS. RT was measured asking the patients „How long does it take you to recover from dialysis treatment?“ The intervention was evaluated after 12 weeks. Comparisons were made using Wilcoxon's signed rank test.

Results

At baseline, of 118 included patients; 31% (n=37) had recovered after HD in less than 2 hours; 33.1% (n=39) needed 2-6 hours; 20.3% (n=24) 6-12 hours and 15.3% (n=18) more than 12 hours. Mean RT decreased from 6.7 hours before to 5.7 hours after the intervention (non-significant), in median RT was 4 (0.75-10) hours at baseline. At follow up the measured overhydration had decreased from 2.5 ± 1.8 L to 2.3 ± 2.0 L ($p=0.003$). During the intervention, there was an initial decline in signs and symptoms related to fluid status. However, at the fifth observation (week 10) the volume status score increased again.

Conclusion/Application to practice

The Recova® tool demonstrated potential for improving fluid management, as evidenced by a significant reduction in overhydration and a decline in fluid related symptoms. However, the intervention did not have a significant impact on RT.

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Abstract Country

Sweden

Disclosure of Interest

No

64

Impact of multifaceted nursing interventions on reducing intradialytic hypotension in hemodialysis patients

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Objectives

This study aimed to evaluate the effectiveness of various nursing interventions in reducing the frequency of intradialytic hypotension in hemodialysis patients. Key interventions include individualized fluid management, dialysate composition adjustment, patient monitoring, pharmacological strategies, and patient education.

Methods

Data were collected from 2021–2024 on the number of patients receiving treatment, the total dialysis sessions performed, and the instances of acute severe hypotension, defined as drops in systolic blood pressure below 90 mmHg with symptoms.

The analysis focused on two metrics to standardize results and track trends:

- 1. Episodes per Patient:** This metric represented the average number of hypotension incidents per patient each year.
- 2. Episodes per 1000 Dialysis Sessions:** This value adjusted the number of incidents based on the number of dialysis sessions, providing a standardized view of how frequently these episodes occurred each year.

A one-way ANOVA test was used to analyze whether the differences between years were statistically significant.

Results

The study revealed a steady and meaningful decline in acute severe hypotension incidents over the four years:

- **Episodes per Patient:** On average, each patient experienced 0.53 incidents in 2021. This dropped to 0.25 in 2022, and further decreased to 0.18 in 2024.
- **Episodes per 1000 Dialysis Sessions:** The frequency of incidents per 1000 sessions fell from 4.68 in 2021 to 2.05 in 2022, and then to 1.77 in 2024.

The statistical analysis confirmed that these differences were significant (p -value = 0.0005), indicating that the reduction was not due to random chance. Overall, the frequency of hypotensive episodes per 1000 sessions dropped by 62.18% over the study period.

Conclusion/Application to practice

These findings highlight a notable improvement in managing patient care during dialysis sessions, possibly due to enhanced nursing clinical practices, including better monitoring, and refinements in dialysis protocols implications.

References

Original work

Abstract Country

Saudi Arabia

Disclosure of Interest

No

75

Association of intradialytic exercise with mortality and hospitalization: a cohort study

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Background

Hemodialysis patients have an increased mortality and hospitalization risk that may be minimized increasing physical activity.

Objectives

This study aims to analyze the association of intradialytic exercise with mortality and hospitalization.

Methods

Multicentric prospective cohort study based on a national-level intradialytic exercise program. Exposure (aerobic exercise in min/week) was measured during the first year and patients were followed for three more years. Three groups were created: non-exercise group (patients who refused to exercise, n=394), low exercise group (<87min/week, n=174) and high exercise group (≥87min/week, n=173). Also, we performed a sub-analysis that was restricted to exercise participants, considering exposure a continuous variable. Outcomes included time to all-cause mortality and hospitalization; number of and days of hospitalization/year. Time-dependent proportional hazards models and Quade's test were used in statistical analysis

Results

741 patients with a mean (SD) age of 63.3 (14.3) years were followed during a median of 33.2 months. 129 (17.4%) deaths occurred, and 318 (42.9%) patients were hospitalized. Using the non-exercise group as a reference, adjusted all-cause mortality was similar for the low exercise group (p=0.602), but significantly reduced for the high exercise group (HR=0.38; 95% CI, 0.20-0.72; p=0.003). The subanalysis restricted to exercise participants, shows a significant mortality reduction per each 50 minutes/week (HR=0.46; 95% CI, 0.27-0.79; p=0.005). Similarly, adjusted hospitalization risk was similar for the low exercise group (p=0.459), but significantly reduced for the high exercise group (HR=0.73; 95% CI, 0.54-0.98; p=0.037). Adjusted number and days of hospitalization/year were gradually decreased with increasing exercise dose, but were significant only for the high exercise group (p=0.023 and p=0.029, respectively).

Conclusion/Application to practice

Above a considerable volume, intradialytic exercise is associated with reduced mortality and hospitalization. Thus, patients will need more support so they can achieve a protective exercise dose.

References

NA

Abstract Country

Portugal

Disclosure of Interest

Yes, No

79

Culturally responsive care for patients receiving haemodialysis: a global review

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Background

Understanding and responding to the varying cultural needs and preferences of patients receiving haemodialysis is important to improving outcomes. However, adapting care to accommodate those needs and preferences can be a challenge for haemodialysis nurses.

Objectives

The aim of this study was to describe how nurses provide culturally responsive care in haemodialysis units.

Methods

A scoping review was conducted following Arksey and O'Malley's framework. Five databases (Medline, CINAHL Complete, PsycINFO, Embase, ProQuest Theses) were searched for studies published in English between 1990 and 2023. Narrative synthesis was used to synthesise the data.

Results

Out of 17,271 records screened, 17 papers reporting 14 studies met the inclusion criteria. Two key themes emerged: (i) communication enablers and barriers including linguistic differences, and professional and lay interpreter use; and (ii) the importance of culture, which encompassed acknowledging cultural priorities, accommodating cultural food preferences and access to cultural training. There was inconsistency in how cultural needs and preferences were assessed and prioritised in haemodialysis care. Whilst patients' cultural needs and preferences were more comprehensively addressed at first haemodialysis, it was less so as haemodialysis treatment continued.

Conclusion/Application to practice

Culturally responsive care is complex and multidimensional. Providing care for individuals with diverse cultural characteristics in haemodialysis requires openness, a holistic approach to care and flexible haemodialysis schedules that continuously acknowledge and respect patients' cultural needs and preferences across the haemodialysis trajectory.

References

Nil

Abstract Country

Australia

Disclosure of Interest

Yes

90

Using behaviour change frameworks to synthesise evidence from lifestyle interventions in haemodialysis

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Background

There has been an abundance of systematic reviews and meta-analyses of physical activity, exercise, and lifestyle interventions in patients receiving haemodialysis. However, this relentless synthesis of evidence has not translated into improvements in levels of physical activity or improvements in quality of life, nor has it led to an increase in the delivery of programmes as part of clinical care. Principles drawn from theories of behaviour change as the foundations of interventions have been shown to translate into greater effectiveness in other populations. We must move towards synthesising multiple sources of evidence and utilising behaviour change tools to inform the choice of future intervention components.

Objectives

To synthesise evidence from qualitative and quantitative reviews of lifestyle in haemodialysis using behaviour change frameworks to identify effective intervention components.

Methods

Identify systematic reviews and/or meta-analysis of lifestyle, physical activity, and exercise in people receiving haemodialysis through systematic search. The Theoretical Domains Framework (TDF) and the COM-B system of behavioural change and the associated behaviour change wheel (BCW) will be applied to integrate the evidence and synthesise the findings.

Results

Thirty-four systematic reviews, meta-analyses or umbrella reviews were identified between November 2021-2024. Six further narrative reviews or reviews of qualitative evidence of the barriers and facilitators to exercise, physical activity, and lifestyle activities were identified. Work is ongoing to synthesise and integrate this evidence using the TDF and the COM-B/BCW. Full application of the framework is expected to be complete to present at the EDTNA/ERCA conference 2025.

Discussion

Exploring and integrating the existing evidence through the lens of behaviour change will identify key components that future interventions can utilise to support effectiveness and translational into clinical care; something that is lacking considerably in this patient population beyond structured clinical trials.

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Abstract Country

United Kingdom

Disclosure of Interest

No

Risk management & Quality Improvement

2

Enhancing respiratory infection prevention in a renal network setting: A clinical strategy implementation

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Abstract

Respiratory infections pose a significant risk to renal patients due to their immunocompromised state. To address this, a clinical strategy-driven intervention was implemented, focusing on reducing cross-contamination, ensuring early identification of infections, and promoting adherence to vaccination guidelines. This initiative emphasized personalized education and robust infection control practices to improve patient outcomes in dialysis clinics.

The primary objectives were to prevent respiratory infections, encourage timely symptom reporting, and increase vaccination uptake by enhancing patient engagement and adherence to infection prevention protocols.

A nurse-led, patient-centered intervention was deployed across multiple clinics. The key components included: **Tailored educational sessions** for patients, covering respiratory hygiene, early symptom recognition, and the importance of vaccination. **Distribution of Sneeze Kits** to symptomatic patients, containing disposable tissues, masks, and instructional flyers to minimize cross-infection. **Staff-led observations** to monitor and assess patient adherence to infection control measures, such as mask-wearing and hand hygiene.

Observations revealed increased patient engagement and improved compliance with infection prevention practices, including mask usage, hand hygiene, and timely symptom reporting. Additionally, vaccination rates, particularly for the influenza vaccine, showed a marked improvement across clinics following the intervention.

This intervention underscores the value of a structured, personalized approach to infection prevention in renal care. Incorporating individualized education and practical preventive tools, such as Sneeze Kits, into routine dialysis care proved effective in fostering patient compliance and mitigating respiratory infection risks. The results support the broader implementation of similar clinical strategy-driven interventions in other healthcare settings, contributing to safer environments for immunocompromised patients.

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Abstract Country

Greece

Disclosure of Interest

No

61

The impact of quality management review on the medical outcomes and patient satisfaction

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Objectives

The aim of this study is to evaluate the impact of the Quality Management Review (QMR) tool on improving clinical performance and patient satisfaction in the hemodialysis clinics of Saudi Arabia. The study seeks to demonstrate how the QMR tool has contributed to achieving positive medical outcomes and enhancing patient satisfaction from 2020 to Q3 2024.

Methods

The multidisciplinary team attends quarterly meetings to review the overall clinic performance using the QMR tool, which focuses on 11 key clinical areas. Over the years, the tool has undergone several revisions, with the current version being its eighteenth. This study focuses on the performance improvements achieved from 2020 onwards. Each clinic's data is reviewed, followed by follow-up visits and action plans based on the quarterly analysis.

Results

The study demonstrates a clear trend of improvement in clinical performance and patient satisfaction since 2020:

2020: Clinical Performance Measure (CPM) at 80.9 and Patient Satisfaction Score (PSS) at 87.13.

2021: CPM improved to 87.1 and PSS increased to 88.29.

2022: CPM rose to 90.2, while PSS reached 89.62.

2023: CPM continued to improve, reaching 90.9, while PSS reached 90.98.

Q3 2024: CPM reached its highest at 92.5, and PSS hit 91.49.

These results highlight the continuous upward trend in performance, showcasing the effectiveness of the QMR tool in driving clinical excellence and patient satisfaction.

Conclusion/Application to practice

The tool's continuous evolution, supported by a strong multidisciplinary approach, has led to consistent enhancements in medical outcomes and patient satisfaction. The active involvement of medical, nursing, operational, and clinic leaders has been critical to the tool's success. Regular refinement of KPIs, along with standardized practices and ongoing managerial support, has ensured sustained excellence in dialysis care across Saudi Arabia. The QMR tool has proven to be an indispensable part of achieving these results.

References

Original work

Abstract Country

Saudi Arabia

Disclosure of Interest

No

124

Improving dialysis quality across 27 clinics: A data-driven approach to quality improvement

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Background

In late 2023, an analysis of Medical Key Performance Indicators (MKPIs) highlighted the need to enhance dialysis quality across 27 clinics. The Kt/V indicator revealed suboptimal performance, influenced by ineffective dialysis time, blood volume processed, and blood flow rate. Additionally, the number of patients on the transplant waiting list was below expectations.

Objectives

To improve dialysis quality by optimizing effective dialysis time, blood volume processed, and blood flow rate. Improving registration rate on cadaver transplant waiting list.

Methods

A data-driven quality improvement initiative was launched, using Excel, Python, and Power BI to track:

- Effective dialysis time
- Blood flow rate
- Blood volume processed
- Patients on the transplant waiting list

A dynamic dashboard displayed clinic-specific trends, national benchmarks, and KPI trend rankings. Each clinic appointed „Quality Champions“ (nurses/physicians) to monitor progress. Monthly data-review meetings with country medical director included training on dialysis efficiency, Kt/V, and transplant eligibility, etc.

Results

Between January 2024 and January 2025:

- Effective dialysis time target increased by 23.19%
- Blood volume processed target improved by 33.61%
- Transplant waiting list target rose by 17.6%
- Overall Kt/V target improved by 16.53%
- Mean blood flow rate increased from 308 to 350 mL/min

Conclusion / Application to Practice

Real-time analytics, continuous monitoring, and transparency significantly improved dialysis quality. A structural, data-driven approach to KPI tracking and clinical education fosters sustainable improvements, emphasizing that quality care starts with accurate data and informed action.

References

Internal clinical data analysis, Fresenius Medical Care – Israel, 2023-2024

Abstract Country

Israel

Disclosure of Interest

Yes

218

Monitoring and Analysis of Dialysis Treatment Incidents: A Management Tool for Quality Control

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Background

Incidents during hemodialysis sessions—such as hypotension, muscle cramps, equipment malfunctions, vascular access infections, or behavioral issues—compromise patient safety and treatment efficacy. Proper management and recording of these events optimize dialysis care and uphold quality standards. Accurate reporting helps detect patterns, anticipate risks, and implement strategies to minimize adverse events. Strengthening this process enhances clinical decision-making and fosters a culture of safety and continuous improvement. Head nurses need structured tools to systematically monitor incidents and establish corrective actions

Objectives

To develop and implement a management tool that enables head nurses to monitor dialysis incidents, analyze trends, and implement corrective measures for quality improvement.

Methods

From January to June 2024, intra-dialysis incidents reported by nurses were analyzed and categorized into common areas, forming the basis for a dashboard designed for head nurses. Two dialysis centers participated in a pilot phase where head nurses received training on tool usage. Weekly meetings supported implementation, addressed concerns, and refined processes based on feedback.

Results

Thirty-nine types of incidents were grouped into eight thematic areas. Weekly reviews allowed head nurses to identify trends and implement corrective actions involving nurses, assistants, and nephrologists. Over five months, a 21% reduction in reported incidents per patient was observed, along with fewer corrective actions needed, indicating improved prevention and management.

Conclusion/Application to practice

The tool provides head nurses with a structured system to track incidents, identify patterns, and implement corrective measures, including staff training and direct interventions. Regular reviews ensure continuous improvement and adherence to best practices, reinforcing the critical role of head nurses in patient safety and quality improvement. The tool supports data-driven decision-making and enhances dialysis unit management.

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Abstract Country

Spain

Disclosure of Interest

No

Nutrition & Diabetic foot

71

Oral nutritional support of diabetic hemodialysis patients: an adherence and nutritional profile analysis

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Abstract

Nutritional Status, Diabetes, Oral Nutrition Support, Intradialytic Meal, Adherence

Background

Compensation of dialysis-related increase in energy and protein requirements should be part of the overall nutritional strategy. We have implemented a simple, feasible and well-accepted intradialytic meal model that prioritizes patient's autonomy, preference (allowing patients to choose within the available structure and options), literacy, comfort, nutritional goals and clinical targets. This emphasis on autonomy poses challenges in achieving optimal intradialytic nutritional intake for diabetic patients due to their metabolic control needs, higher nutritional risk and adherence patterns.

Objectives

Evaluate the differences in intradialytic nutritional intake chosen by diabetic patients compared with non-diabetic patients.

Methods

Cross-sectional nationwide analysis of hemodialysis patients from 27 outpatient clinics, examining the intradialytic meal chosen. Patients were divided into two groups: diabetic and non-diabetic. Patients hospitalized, with oral nutritional supplements, and/or did not eat during treatment were excluded. Group comparisons were conducted using the Chi-square test for categorical variables and the Mann-Whitney test for continuous variables, performed using SPSS 30 (IBM Corp., 2023).

Results

We analyzed 3032 patients: 61.5% males, 38.4% diabetic; 59.5% had MIS \geq 6.

When comparing the 2 groups, the diabetic had 64.5% males, older patients, with higher Charlson Comorbidity Index, Body Mass Index, C-Reactive Protein, and lower HD vintage, urea removal rate, serum creatinine, calcium, parathormone, potassium and normalized protein catabolic rate ($p < 0.05$). There was no difference concerning Malnutrition-inflammation Score, interdialytic weight gain, albumin, phosphate and transferrin. Concerning intradialytic nutritional intake, the diabetic group had lower energy, lipid, sugar, total carbohydrate and sodium intake ($p < 0.05$). No differences were found in starch, fiber, protein, cholesterol, potassium, calcium or phosphorus intake.

Conclusion/Application to practice

Despite the specificities related to diabetes management, promoting autonomy in selecting intradialytic meals while aligning with diabetic metabolic and disease control in a interdisciplinary setting, appears to be both safe and appropriate for the needs of diabetic patients. Therefore, we believe this approach should be encouraged and complemented with nutritional and diabetes management education and counseling.

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Abstract Country

Portugal

Disclosure of Interest

No

123

Liza's plate: Advising on Diabetes and Chronic Kidney Disease or Dialysis

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Abstract

Liza's plate is a didactic tool for nutrition counselling in chronic kidney disease and dialysis treatment.

It is mainly based on education on potassium and phosphate intake. The tool pictorially demonstrates, how to construct a recommended meal without exceeding the potassium intake limit. With guided help, the patient draws up the daily menu. For future a digital format is in preparation.

It was developed in 2024 in collaboration between the Endocrinology and Nephrology Sections of Slovenia and it is author's work of Natalija Kuharič and Jana Klavs.

The graphic design of the tool represents Liza's house, divided into three colours. Colours represent the potassium content of the food. Green colour for food that contain up to 200 mg of potassium., yellow from 200 to 500 mg and red over 500 mg of potassium.

Due to the influence of vegetables, which generally contain more potassium, Liza's plate is divided into thirds: 1/3 of the space to vegetables (fiber), 1/3 to protein foods, and 1/3 to starchy foods.

On each card is a written information of the quantity of the food and other elements.

When assembling meals, we take into account that all three colours and all groups of food are represented on the plate, depending on the needs of the patient.

In the education itself we have in mind Liza's 6, which means:

POTASSIUM: up to 2500 mg/day

PHOSPHATE: 800 -1000 mg/day

NATRIUM: 2000 mg /day

LIQUIDS: up to 1 litre (including yoghurts, soups, sauces and fruit)

QUANTITY: 1/3 of a plate for each food, special care with foods that have a high potassium content.

PREPARATION: It is recommended to cook and soak the vegetables in large quantities of water. Stewing and frying are not recommended. Use of spices and as little salt as possible for a fuller flavour.

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Abstract Country

Slovenija

Disclosure of Interest

Yes

170

Effect of Traditional Diets on Salt Intake, Compliance, Interdialytic Weight Gain in Hemodialysis Patients

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Background

Compliance with diet and fluid restriction in hemodialysis patients is an important component of treatment. In the Central Anatolian region where the study was conducted, the consumption of foods with high salt content such as pickles and brine increases during the winter months. Increased salt intake is expected to have a negative impact on dietary compliance and weight gain.

Objectives

This study was conducted to investigate the effects of traditional nutrition routines on salt consumption, diet compliance and interdialytic weight gain in hemodialysis patients.

Methods

This study was conducted with 68 patients in two dialysis centers. Nutritional routines of the patients will be evaluated twice during the summer and winter seasons. The data of the study were collected using the Patient Identification Form, Food Consumption Status, Food Consumption Record, Beliefs about Medication Compliance Scale, Biochemical Parameters (BMCS). The average energy and nutrient values of consumed foods were calculated using the Nutrition Information System 5 (BeBIS) computer program. The first step of the research was the evaluations in the winter months. In the second step of the research, the data from the summer months will be taken and both seasons will be compared.

Results

The mean scale score was 34.45 ± 4.49 and 39.7% of the patients had high dietary salt intake. A positive correlation was found between dietary sodium and interdialytic weight, a negative correlation between interdialytic weight and dietary compliance, and a negative correlation between dietary sodium and dietary compliance scale ($p < 0.05$). It has been found that those who consume high levels of sodium in their diet have more interdialytic weight gain and poor dietary compliance ($p < 0.05$).

Conclusion/Application to practice

It was concluded that the salt content of the patients' diet increased during the winter months and this negatively affected compliance with the diet by causing intra-dialytic weight gain. Patients should be continuously monitored for dietary compliance and given regular education about diet and fluid restriction.

Note: These data are preliminary data for a two-phase study. The entire study will be completed within one year.

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Abstract Country

TURKEY

Disclosure of Interest

No

189

The Expansion Of a Dialysis Footcare Program to Improve Patient Outcomes

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Background

It is well documented that dialysis patients are at high risk of foot complications, due to age, physical condition, and co-morbidities such as diabetes, with associated risks of neuropathy, and peripheral vascular disease.

Despite having implemented a Diabetic Footcare Program and risk assessment to identify at risk diabetic patients in our clinics, there continued to be an increase in reported patient foot health associated hospitalizations. To address this a Dialysis Footcare Program was launched for all patients.

Objectives

To implement a comprehensive Dialysis footcare program that focused on identifying early foot health problems for all patients and reduce associated hospitalizations, whilst increasing the patient's awareness of their role in foot problem identification and knowledge about prevention strategies.

Methods

The established Diabetic footcare program was expanded to include all dialysis patients, with a focus on patient foot screening and patient education regarding early detection and prevention strategies. This included pamphlets, videos, and one-on-one education sessions with at risk patients, with the inclusion of patient relatives in the risk assessment and education as required. Staff education was provided to advance knowledge and skills in providing effective foot health screening, and risk stratification procedures. Including developing and delivering individualized plans of care and patient education, based on assessment findings and risk level.

Results

Since implementation there has been a 150% decrease in hospitalizations related to amputations, the results indicating the program has improved patient outcomes.

Conclusion/Application to practice

Footcare programs are vital for dialysis patients and should go beyond the diabetic to include all patients. A continuous focus on prevention and patient-initiated reporting of foot health concerns is fundamental in identifying root causes as well as for risk management. Footcare programs provide opportunity to improve patient health outcomes.

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Abstract Country

Australia

Disclosure of Interest

No

190

Diabetic Foot Monitoring in Hemodialysis Units: Impact of early referral to prevent severe complications

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Abstract

Diabetic foot is a severe complication of diabetes mellitus, significantly affecting patient outcomes, including morbidity, quality of life, and survival.

Background

Hemodialysis patients face an increased risk due to underlying neuropathy, ischemia, and immunosuppression, making structured monitoring and early intervention essential. In response to this challenge, a Diabetic Foot Surveillance Program was implemented following corporate guidelines.

Objectives

This study aimed to evaluate the impact of monthly diabetic foot monitoring on the prevention of severe complications in hemodialysis patients

Methods

A quantitative, descriptive, and exploratory study was conducted between January and December 2024 in a hemodialysis unit in Centre region Portugal. The study included all patients with a diagnosis of type 1 or type 2 diabetes mellitus in hemodialysis. Patients were excluded if they were temporary or vacationing patients, had terminal conditions with incapacitating limitations, or declined participation. A total of 90 patients meeting the inclusion criteria were enrolled in the study, and a structured monitoring protocol was applied. Each patient underwent monthly foot assessments, which included clinical inspection, risk factor identification, documentation of findings, and referral for specialist care when needed. A total of 529 diabetic foot surveillance assessments were performed.

Results

Among the 90 enrolled patients, 37 were female and 53 were male, with an age range of 40 to 88 years. The majority of the study population (78%) was aged 65 years or older. Over the study period, 12 patients (13.3%) were referred to specialized care. At the time of assessment, 3 patients (3.3%) presented with active diabetic foot ulcers.

Conclusion/Application to practice

This study highlights the importance of structured diabetic foot monitoring in hemodialysis patients, demonstrating that a standardized surveillance program can facilitate early referral, reduce the incidence of severe complications, and potentially decrease the need for major amputations.

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Abstract Country

Portugal

Disclosure of Interest

No

256

Diabetic foot surveillance in haemodialysis patients – results of a national program

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Abstract

Diabetes, Diabetic foot ulcer, haemodialysis.

Background

Diabetes is one of the most frequent comorbidities in hemodialysis patients and was the cause of renal failure in 27,3% of prevalent patients in Portugal in 2023 (SPN, 2023).

Diabetes is also associated with a higher mortality rate in this population and represents a significant burden in their lives causing chronic wounds that result in prolonged treatments, amputations, reduced autonomy and frequent hospital admissions.

All these complications result in diminished quality of life (QOL) and have a significant economic impact for healthcare systems.

All this considered, implementing a diabetic foot surveillance program that allows early detection and intervention/ referral of patients with diabetic foot ulcers should result in gains in QOL and in costs with treating these patients.

Objectives

Implementing a surveillance program that allows early detection and referral of patients with diabetic foot ulcers. Characterize clinically and demographically the diabetic population in question.

Methods

An assessment form was created, including the following topics: amputation, footwear and sock inspection, symptoms, foot inspection, diabetic ulcer assessment and classification (PEDIS), referral/ education.

Surveillance should include an initial assessment and subsequent monthly evaluations.

Additionally, demographic data (age, gender, and dialysis unit) and clinical data (comorbidity index, etiology of kidney disease, and time on dialysis) were collected.

Results

Preliminary results compiled in April 2024 showed: among 411 patients, mean age **72.9±10.6 years**, **62.5%** men. Charlson comorbidity index **6.9±3.8**, average dialysis time **44.7±38.5 months**.

Fifty patients (**12.2%**) had some amputation at first assessment; **15 (3.6%)** in both limbs. **Twenty-two (5.4%)** had a major amputation.

During monthly follow-ups, new diabetic foot ulcers appeared in **2.8%** of patients.

New data will be collected in September 2025.

Conclusion/Application to practice

The diabetic foot surveillance program enabled identification and referral of patients with wounds. Program consolidation should yield significant health benefits.

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Abstract Country

Portugal

Disclosure of Interest

No

Vascular Access 1

3

Implementation of aseptic non-touch technique in vascular access care in renal care network

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Abstract

Infection prevention is a critical aspect of vascular access (VA) management in renal care, encompassing all types of VA, including central venous catheters (CVCs), arteriovenous fistulas (AVFs), and arteriovenous grafts (AVGs). The Aseptic Non-Touch Technique (ANTT) provides a standardized process to minimize contamination risks and improve procedural safety. Vascular access is essential for hemodialysis patients, and infections can lead to severe complications, increased morbidity, and extended hospital stays. Therefore, maintaining strict infection control protocols is paramount. We present a structured ANTT implementation in a renal care setting and evaluate its impact on infection prevention, procedural accuracy, and patient outcomes. The strategy consisted of several key components. First, comprehensive staff training was conducted, ensuring all clinical staff received in-depth education on ANTT principles through theoretical sessions, practical demonstrations, and competency assessments. Standardized VA protocols were developed to ensure consistent application of ANTT during procedures.

To monitor adherence and effectiveness, ongoing audits and compliance assessments were implemented, including direct observation of procedures, review of documentation, and feedback from both patients and staff. Performance metrics were tracked through key performance indicators (KPIs), focusing on infection rates associated with central venous catheters, arteriovenous fistulas and arteriovenous grafts, before and after ANTT implementation. Additionally, procedural consistency was monitored by evaluating adherence to standardized protocols, while qualitative feedback from staff and patients was collected to assess confidence in the procedures and overall satisfaction.

The implementation of the ANTT strategy resulted in significant improvements across several critical areas: reduction in infection rates, improved staff compliance and procedural accuracy, enhanced patient experience.

These findings emphasize the critical role of standardized aseptic strategies in fostering a safety culture within renal care settings. Future steps include expanding the ANTT training program to additional units and conducting longitudinal studies to assess the sustained impact of ANTT on clinical outcomes.

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Abstract Country

Greece

Disclosure of Interest

No

22

Evaluation of Point-of-care ultrasound (POCUS) workshops for peripheral intravenous cannulation in Western Australia

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Background

Point-of-care ultrasound (POCUS) is increasingly used as a non-invasive vascular access assessment method by clinicians from multiple disciplines worldwide, prior and during difficult vascular access cannulations. While POCUS is a relatively new method to establish a vascular access in patients with complex vascular conditions, it is also essential to train and educate individuals who are novices in the techniques of cannulation so that they become proficient in performing this task subsequently on patients safely and successfully. With this project, we sought to determine if participants of a simulated POCUS workshop for vascular access can use this technique successfully in their individual clinical environment after their attendance of a half-day workshop.

Objectives

With this project, we sought to determine if participants of a simulated POCUS workshop for vascular access can use this technique successfully in their individual clinical environment after their attendance of a half-day workshop.

Methods

A mixed-methods longitudinal study design was chosen and conducted to evaluate a point-of-care ultrasound workshop for peripheral intravenous cannula insertion. The workshops used simulation models for cannulation in combination with multiple ultrasound devices from various manufacturers. Participants self-assessed their cannulation skills using questionnaires prior to and directly after the workshop.

Results

A total of 81 Individuals participated in eleven half-day workshops through 2021 and 2022. Most workshop participants claimed that attending the workshop had enhanced their clinical skill of using ultrasound for the purpose of cannulating a venous vessel significantly. The level of confidence in using this technique had increased in all participants directly after conclusion of the workshop and had further advanced after individuals were able to use the ultrasound devices at their workplace when a device was available.

Conclusion/Application to practice

Globally, clinicians are increasingly using POCUS to establish vascular access in patients, and it is necessary that they receive sufficient and adequately structured and formal training to successfully apply this technique in their clinical practice. Offering a workshop which uses simulation models in combination with various POCUS devices to demonstrate this technique in a hands-on approach has proven to be useful to establish this skill in clinicians.

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Abstract Country

Australia

Disclosure of Interest

No

66

From challenges to solutions: a comprehensive approach to vascular access in hemodialysis

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Background

Since 2014, Saudi Arabia's Outsourcing Program has managed the VA for over 20,000 patients as part of a comprehensive service bundle.

Objectives

This study aims to share insights from our proactive management of VA challenges, highlighting significant enhancements in both patient and VA outcomes.

Methods

A retrospective analysis was conducted on the VA project spanning from 2014 to 2023. At the project's inception in 2014, the AVF utilization rate was 60%, and the CVC usage was notably high at 34%. The project's primary objective was to decrease the usage of CVCs to below 15%, facing hurdles such as limited resources, broad geographical patient distribution, and patient aversion to traveling for VA procedures.

Results

Initial resource constraints in three major cities and patient reluctance to travel significantly impacted VA service delivery. To overcome these obstacles, we enhanced patient education, addressed patients' reluctance to change, and recruited VA surgeons willing to operate across multiple cities. Additionally, we secured accredited facilities throughout various regions. A dedicated VA management team was established, featuring highly skilled personnel tasked with leading the initiative. The team innovated a new subcontracting model for surgeons based on a per capita approach, which significantly improved service delivery and cost-effectiveness. Furthermore, the adoption of a digital system facilitated seamless coordination among clinics, surgeons, and regional vascular supervisors, ensuring budget adherence and reducing disparities. By 2023, our patient cohort had increased to 4,300, achieving an AVF/AVG rate of 80 % and reducing the CVC rate to 15%, alongside a 25% reduction in costs.

Conclusion/Application to practice

The formation of a specialized, well-coordinated VA team, coupled with a tailored system for meticulous tracking and oversight, has been instrumental in enhancing VA services. Our strategy underscores the potential for significant improvements in patient outcomes and cost efficiency within any hemodialysis framework.

References

Original work

Abstract Country

Saudi Arabia

Disclosure of Interest

No

132

Comparison of Self-Care Behaviors Related to Arteriovenous Fistula: Home Hemodialysis vs. Clinical Hemodialysis

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Background

It has been determined that 97% of patients undergoing hemodialysis have insufficient knowledge about arteriovenous fistula (AVF) care (Pessoa et al., 2015) and that the majority of patients exhibit inadequate self-care practices related to AVF (Pessoa et al., 2015; Sousa et al., 2017).

Objectives

This study aims to compare AVF-related self-care behaviors between patients undergoing home hemodialysis (HHD) and clinical hemodialysis (CHD) and to identify the factors influencing these behaviors.

Methods

This descriptive study was conducted with a total of 322 patients, including those undergoing home hemodialysis (n=131) and clinical hemodialysis (n=191), from four different dialysis centers. Data were collected using a personal information form and the Self-Care Behaviors Assessment Scale for Arteriovenous Fistula in Hemodialysis Patients.

Results

The mean age of home hemodialysis (HHD) patients was **47.97±14.44**, while the mean age of clinical hemodialysis (CHD) patients was **61.46±11.04**. The self-care behavior assessment scale and subscale scores related to arteriovenous fistula (AVF) were statistically significantly higher in patients undergoing clinical hemodialysis compared to those undergoing home hemodialysis (**p<0.05**).

According to the results of the regression analysis, the effects of demographic variables on the AVF self-care behavior assessment scale score in HHD patients were examined. It was determined that the duration of hemodialysis treatment and the duration of AVF presence had a statistically significant effect (**p<0.05**).

Conclusion/Application to practice

It can be stated that CHD patients have better self-care behaviors. To improve self-care behaviors in HHD patients, it is recommended to assess their educational needs and update their training programs accordingly.

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Abstract Country

Turkey

Disclosure of Interest

No

157

Influencing factors in arteriovenous fistula needling suitability for hemodialysis

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Background

The suitability of arteriovenous fistula (AVF) for needling is critical for the hemodialysis (HD) treatment efficiency. Identifying factors that influence AVF needling suitability is essential to optimize HD clinical outcomes.

Objectives

This study aims to identify clinical patient specific and AVF-related factors in order to provide key indicators for determining AVF needling suitability.

Methods

This retrospective cross-sectional study analyzed data from 322 patients with AVF, assessed at a dedicated nursing vascular access consultation between January 2022 and December 2024. AVF maturation was evaluated through a comprehensive assessment, that combines structured physical examination with ultrasound criteria. The structured physical examination (PE) was conducted following predetermined parameters for inspection, palpation and auscultation. The ultrasound criteria considered a minimal vein diameter of at least 4 mm, a vein depth no greater than 6 mm, and a blood flow equal to or greater than 500 mL/min. Descriptive statistical analysis was carried out to characterize all the variables and a logistic regression model was used for to identify the predictors of AVF parameters to needling suitability.

Results

The patients had a mean age of 70.25±11.80 years and an average AVF maturity of 11.8 weeks. Of these, 250 (77.6%) achieved needling suitability. Factors negatively associated with needling suitability included greater vein depth ($\beta=-0.17$, $p=0.02$; OR=0.72 [95%CI:0.58–0.88]), older patients ($\beta=-0.02$, $p=0.02$; OR=0.97 [95%CI: 0.96–0.99]), and previous AVFs ($\beta=-0.60$, $p=0.004$; OR=0.54 [95%CI: 0.35–0.82]). Conversely, positive associations were identified with increased blood flow ($\beta=0.01$, $p<0.001$) and higher PE scores ($\beta=0.77$, $p<0.001$).

Conclusion/Application to practice

A combination of patient-specific and AVF-related factors, such as vein depth, blood flow, PE scores and patient age, provide reliable indicators for determining AVF readiness for needling.

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Abstract Country

Portugal

Disclosure of Interest

Yes

183

aXess conduit: Early clinical experience. Novel hemodialysis access following Endogenous Tissue Restoration process (ETR)

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Background

Hemodialysis patients often face challenges with vascular access, including prolonged maturation times and high failure rates for arteriovenous fistulas (AVFs). Synthetic grafts (AVGs) are quicker to use but carry higher infection risks and lower long-term patency. The aXess conduit, developed by (Xeltis B.V., Eindhoven), aims to address these issues by transforming a polymer-based conduit into a living blood vessel over time (ETR).

Methods

In a pivotal trial No. 112233 [NCT05473299] conducted in 9 different countries, across 18 European implant centres and over 50 HD units that included and treated a total of 120 patients. Patient demographics, procedural and serious adverse events are being collected throughout the 5 years follow-up study. Hemodialysis data have been collected, including cannulation technique, blood flow, venous pressure, session duration, and dialysis adequacy at participating centers. The study was 100% monitored and relevant Safety data is adjudicated by an independent Clinical Event Committee (CEC).

Results

The last patient was enrolled in December 2024. To date, over 12,000 hemodialysis sessions have been performed using the aXess conduit, showing its consistent and reliable performance. The participating nursing teams reported in 73% of the cases cannulation with a bevel-down approach. The average blood flow and venous pressure was 313 mL/min and 170 mmHg respectively, reflecting efficient vascular function. The average hemodialysis session lasted 3 hours and 55 minutes, achieving an average Kt/V of 1.48, which reflects adequate dialysis efficiency. The cannulation site infection was very low.

Conclusion/Application to practice

The aXess conduit offers compelling benefits by enabling early cannulation, rapid hemostasis, low risk of infection and durable vascular access to patients. The clinical outcomes and official data will be available at the time of the presentation Q3, 2025.

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Abstract Country

Portugal

Disclosure of Interest

Yes

184

The impact of vascular access types on the quality of life in hemodialysis patients

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Background

Autologous arteriovenous fistulae (AVF) have superior clinical outcomes compared with central venous catheters (CVC) among patients undergoing hemodialysis (HD).

Yet, there is increasing recognition that health related quality of life (HRQoL) play equal important role to patients and that differences may exist between AVF and CVCs in this regard. This study compared HRQoL outcome between AVF and CVC among Polish Hemodialysis Patients.

Objectives

To assess the impact of vascular access (Arteriovenous Fistula vs Central Venous Catheter) on Health Related Quality of Life patients undergoing hemodialysis

Methods

In 2024, the QoL was measured using the Kidney Disease Quality of Life Short Form in 22 haemodialysis clinics in Poland were 1849 patients completed the survey. The survey includes 22 domains covering generic chronic disease, including symptoms, illness burden, social interaction, staff encouragement and patient satisfaction. Participants had an age distribution of 71.2% above 60 years old and 61,7% were male. On average, the CCI was severe in more than 67,9% of patients, and the average year on HD was more than 1 year in 79,6% of cases. In whole group respondents 37,7% of patients had diabetes.

Results

HRQoL among Polish patients undergoing haemodialysis is directly affected by vascular access. The overall mean of QOL was 51.8. The QOL score was worse for patients with CVC tunneled than the patients with autologous AVF (56.6 vs. 62.1). Results show significant differences for patients below 75 years old using AVF compared with those using CVC in domains namely: physical functioning, role-emotional and energy/fatigue, sexual function and work status. For all age group significant differences were found in five SF-36 domain : cognitive function, emotional well-being, mental health, quality of social function and interaction. Moreover, was also found differences in ESRD target areas, namely : effects of kidney disease, general health, overall health and pain.

Conclusion/Application to practice

Results showed that ESRD patients using AVF as vascular access had higher HRQOL scores in several domains when compared with those using CVC. Additionally, also was found that using of AVF has significant impact for quality of life have social and physical function and perception of sexual life as well. Low scores in these areas may indicate limitations and negative impact on daily life by CVC. Highlighting those negative impact to quality of life of a dialysis patient may change the negative trend resulting from delays in creating a native fistula and patients refusals to create one.

Information about the impact of vascular access on HRQoL should be a key priority for strategy of creation vascular access and key part to connected patients education programs about chose of type vascular access.

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Abstract Country

Poland

Disclosure of Interest

No

193

Training program for nurses in haemodialysis vascular access ultrasound

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Background

Ultrasound has become an essential tool in clinical practice, enabling early detection of complications, improving the accuracy of arteriovenous fistula puncture, and reducing morbidity associated with vascular access. 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 necessary skills to perform ultrasound to haemodialysis vascular access.

Mentorship is a critical element in this process, as it offers personalized guidance, continuous feedback, and emotional support, which are essential for skill development and confidence building.

Objectives

Implement a training program for nurses in haemodialysis vascular access ultrasound

Methods

The training program initially certified 4 trainers haemodialysis vascular access ultrasound, with theoretical and practical training and a vascular access assessment exam. Subsequently, the training program for 14 nurses began, lasting 10 months, consisting of theoretical and practical training, mentoring meetings in online and in-person format where training was carried out and clinical cases were discussed. The training concluded with a practical examination to evaluate a vascular access.

Results

Mentorship enhances technical proficiency but also promotes critical thinking, problem-solving, and professional growth and improves knowledge retention, clinical performance, and job satisfaction among trainees. Furthermore, ongoing mentorship and continuous professional development are vital for maintaining high standards of care and adapting to advancements in ultrasound technology.

Conclusion/Application to practice

The combination of theoretical and practical training, supported by mentorship, is essential for preparing nurses to effectively use ultrasound in haemodialysis vascular access care. This approach improves clinical outcomes and contributes to the overall quality of patient care.

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Abstract Country

Portugal

Disclosure of Interest

No

Peritoneal Dialysis & Home Therapies

35

Is the dressing on the exit-site of the PD catheter is useful ?

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Background

The goal of PD catheter exit site care is to reduce bacterial contamination of the peritoneum. Each treatment center applies its own protocol. The use of dressings is common practice, although its safety and effectiveness have not been demonstrated in a European context.

Objectives

To compare the time to occurrence of a PD fluid infection (PDFI) and/or exit site infection (ESI) from PD catheter insertion, between a historical cohort of patients with dressing and a prospective group of patients without dressing, over a period of 24 months.

Methods

This was a comparative pilot study conducted from January 2020 to June 2023 in the PD unit of the Caen University Hospital. After the recommended 30-day healing period, no dressing was applied and the usual care, including the application of a dose of mupirocin, was realized for new and consenting PD patients.

The primary endpoint was the time to the occurrence of a PDFI and/or ESI. Data from the historical cohort were obtained from the French Language Peritoneal Dialysis Registry.

Results

Sixty patients were included in the historical cohort and 31 patients in the group without dressing. In the dressing group, 35% (n=21) developed a PDFI, and 5% (n=3) had an ESI, versus 25.8% (n=8) and 12.9% (n=4) in the no-dressing group, with no significant difference, and also in terms of the time to the occurrence of a PDFI (p=0.59) or ESI (p=0.21).

Conclusion/Application to practice

No wearing a dressing is not significantly associated with a higher incidence of infections or a shorter time to the occurrence of a PDFI or ESI. Not applying a dressing could simplify care, reduce costs, save time for nurses, and also reduce patients' exposure to allergens. Patients should have the option to choose whether or not to apply a dressing.

References

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Abstract Country

France

Disclosure of Interest

No

70

The Importance of Unambiguous Communication to Prevent Constipation Problems in PD-Patients

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Background

The outpatient kidney failure clinic team aims to provide a unified explanation on laxative use, but this is not consistently practiced. A national survey by the Dutch professional association revealed that improper laxative use is a major cause of PD (peritoneal dialysis) failure, dislocation, and runout issues, including at Bravis Hospital. The key question is how to ensure patients understand the importance of proper bowel movements and the consequences of neglecting them.

Objectives

To provide clear explanations about the importance of laxation and the risks of constipation to reduce complications.

Methods

A literature review and in-house research were conducted, surveying PD patients at Bravis Hospital (n=30) and Dutch dialysis centers (n=15).

Results

A UK multi-center study found that laxatives and a high-fiber diet contribute to optimal bowel movements, but did not specify the best laxatives or education methods. Bravis Hospital's research indicated that the type of laxatives used does not significantly impact constipation problems. However, the method of information delivery is crucial; examples and images are more memorable.

Conclusion/Application to practice

The type of laxatives does not affect constipation outcomes, but the way information is provided does. Using examples and images, such as the Bristol stool scale, improves patient understanding. Consistent discussions about laxatives by different disciplines at every treatment contact enhance compliance and treatment outcomes.

Bravis Hospital now uses the Bristol stool scale for all patients to visually emphasize the importance of good bowel movements. Bowel movement discussions are now routine at every checkup, reducing embarrassment and normalizing the topic. There is also consultation with pelvic floor specialists for potential physical therapy-guided exercises to prevent constipation.

References

Susan Rogers (EDTNA Member)
Sanne Borremans (Brand Ambassador Netherlands)
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Abstract Country

The Netherlands

Disclosure of Interest

No

244

Developing and evaluating a home hemodialysis training program – a quality improvement study

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Background

In 2018, our home hemodialysis (HHD) training program required 3–4 months to complete, with sessions lasting four hours, three times a week. Due to the time commitment, some patients, who preferred HHD, opted for alternative dialysis modalities.

Objectives

This study aimed to 1) identify potential improvements to Training Program 1.0, 2) develop Training Program 2.0, and 3) assess the outcomes of Training Program 2.0.

Methods

We reviewed literature, conducted focus groups¹ with HHD nurses in Helsinki, Finland, and interviewed² patients who participated in Training Program 1.0. Training Program 2.0 was developed in collaboration with patients and clinicians, using a „learning by doing“ approach. Evaluation included both qualitative interviews² and quantitative analysis of patient records.

Results

Patients' feedback, aligned with the literature and Helsinki's program, led to six major changes: 1) more frequent training sessions, 2) earlier introduction of self-cannulation, 3) a permanent team of training nurses, 4) a shorter and more structured program, 5) individualized weekly schedules, and 6) clearer instructions. Training frequency increased to four sessions per week, with self-cannulation introduced in the second week. Despite these changes, quantitative results showed no statistically significant reduction in the number of training sessions ($P=0.22$) or total training time ($P=0.20$). However, qualitative data indicated a marked improvement in patient experience.

Conclusion/Application to practice

The modifications in Training Program 2.0 created a more effective learning environment, as evidenced by improved patient satisfaction. While quantitative measures did not show significant reductions in training time, the qualitative improvements suggest that these changes positively impact the patient experience, aligning with findings from other HHD studies. These results underscore the importance of tailoring training programs to patient needs and preferences, contributing to better engagement and potentially higher adoption of home hemodialysis.

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Abstract Country

Denmark

Disclosure of Interest

No

248

Home-based dialysis and person-centered care: A scoping review

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Background

Managing dialysis at home requires the involvement of the patient in decisions, treatment, and their illness and health. Evidence-based person-centered care interventions focus on listening to the patient's narrative, establishing a partnership between patients and healthcare professionals, and documenting care and treatment in a shared health plan¹. Therefore, a person-centered care intervention is expected to enhance the patient's ability to manage dialysis at home

Objectives

This study aimed to identify and map evidence for person-centered interventions and home-based dialysis for individuals with kidney failure.

Methods

A scoping review was conducted based on the approach of Arksey and O'Malley². A systematic search was carried out in Medline, CINAHL, and Scopus for articles in all languages and without time restrictions. Person-centered care interventions concerning home dialysis were included. Two independent researchers assessed the literature. Data were extracted using NVIVO, and a relational analytical framework was employed to synthesise the data.

Results

The search identified 9,443 articles, of which 16 met the inclusion criteria. A total of 13 person-centered care interventions were identified. Eight interventions aimed to involve the patient in the decision regarding the type of dialysis modality, with six interventions identified to involve the patient in treatment, illness, and health. Only one intervention was identified to involve the patient in the decisions that follow once the patient has commenced dialysis treatment. Five interventions showed a correlation between a person-centered care intervention and the number of patients in home dialysis.

Conclusion/Application to practice

There is a need for interventions for patients in home dialysis to be adapted to a more person-centered care approach, particularly regarding the involvement of the patient in their treatment, illness and health, as well as the decisions that follow the initiation of dialysis treatment.

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Abstract Country

Denmark, Sweden, Norway

Disclosure of Interest

No

271

Unlocking Home in Czech Republic: A Scalable Model Expanding Patient Access to Home Haemodialysis

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Background

Home haemodialysis (HHD) offers clinical and lifestyle benefits, but as in many European countries, adoption remains low in the Czech Republic due to institutional biases, physician confidence, and patient safety concerns. The Home HD Booster Project in the was launched to address these challenges and increase access to home dialysis.

Methods

The project established a hub-and-spoke model across 22 dialysis clinics nationwide, designating 8 regional hubs as centres for HHD training, prescription, and support. These hubs built specialised teams, while satellite clinics focused on patient awareness. An 8-member team of HHD specialist nurses was trained to provide consistent education and enhance professional confidence.

Key barriers included healthcare professionals' preference for in-centre hemodiafiltration (HDF) and concerns about home dialysis quality, along with patient safety worries. These were addressed by:

A 26 module blended learning programme and interactive workshop featuring international HHD experts.

Development of Czech language patient materials to aid physician-patient discussions

Train-the-trainer model: two HHD specialists trained six new trainers through practical sessions and workshops.

Results

By the end of 2024, HHD patients increased by 39%, reaching 20 total. The Clinical Leaders – Unlocking Home workshop received excellent feedback, with 65% rating it as 'Excellent' and 29% as 'Very Good.' Healthcare professionals reported greater confidence in prescribing home dialysis, and clinics with no prior HHD experience began referring patients.

Conclusion/Application to practice

The Home HD Booster Project overcame systemic barriers and established a sustainable pipeline for home dialysis. With increased referrals and growing clinician confidence, this model is now being adapted for peritoneal dialysis expansion. The approach shows how structured regional support can drive cultural change, expand home dialysis, and reduce inequities in kidney care.

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Abstract Country

Czech Republic

Disclosure of Interest

No

Ethical, Psychological and Social Impact of CKD

17 A qualitative exploration of social prescribing for people with kidney disease

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Background

Social prescribing aims to link people to activities and services, typically provided by local voluntary and community sectors to address non-medical or social determinants of health and wellbeing. The target group is people who may require a greater level of social and emotional support than is available in routine care, including those living with long-term conditions. People living with chronic kidney disease and transplant often experience social and emotional challenges which impact their quality of life and wellbeing, and access to psychological and social support is limited.

Objectives

This qualitative exploration aims to explore if social prescribing could support a holistic approach to health and wellbeing for people living with kidney disease or transplant, and how this patient population could be supported to engage with this service.

Methods

Semi-structured interviews, guided by the Theoretical Domains Framework, were conducted with four groups of participants: people with kidney disease or transplant (n=10, 50% female), renal healthcare professionals (n=11, 81% female), social prescribing link workers (n=9, 89% female) and organisations providing socially prescribed activities or services (n=9, 78% female). Data collection took place between August and December 2024. Interview data is currently being analysed using Braun and Clarke's reflexive thematic analysis.

Results

Preliminary findings indicate limited knowledge of or engagement with social prescribing among people with kidney disease and renal healthcare professionals. Link workers and organisations had limited experience of working with people with kidney disease or transplant. Key themes centre around the social and emotional benefits for this patient group, integrating pathways to social prescribing into current care, and barriers and facilitators impacting implementation of this approach.

Conclusion/Application to practice

Results will contribute to the growing body of evidence in this field and support future implementation of social prescribing pathways and services for kidney disease populations.

References

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Abstract Country

Northern Ireland

Disclosure of Interest

No

24

Exploring the nurses role in addressing health inequities in chronic kidney disease healthcare

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Background

Chronic kidney disease (CKD) disproportionately affects individuals facing social determinants of health such as poverty, limited access to healthcare, and poor living conditions¹. Regardless of a country's socioeconomic standards, nurses have a crucial role in addressing these determinants to improve CKD outcomes.

Objective

To explore the multifaceted role of nurses in CKD management by emphasising their efforts to mitigate social determinants of health.

Findings

Emerging research highlights the critical contributions of nurses in CKD care, including comprehensive assessments of social factors such as income, education, housing, and healthcare access². Nurses provide culturally competent education, advocate for resources, and facilitate early screening and intervention—particularly for high-risk populations—to prevent disease progression. By ensuring equitable access to dialysis and transplantation, nurses help bridge healthcare disparities³. Additionally, collaboration with social workers and interdisciplinary teams enhances holistic care, integrating mental health support and community resources to address patients' broader needs.

Conclusion/Application to Practice: Renal nurses are instrumental in reducing disparities in CKD and dialysis care. Through advocacy, culturally sensitive education, and interdisciplinary collaboration, they help mitigate the impact of social determinants of health, ensuring all patients receive equitable, high-quality care. By improving health literacy, reducing barriers to treatment, and driving systemic change, renal nurses play a crucial role in advancing health equity for individuals with CKD.

References

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Abstract Country

Australia

Disclosure of Interest

No

65

Female sexual function in chronic kidney disease

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Background

In recent years, scientists have shown increasing interest in sexual function. After a detailed and intensive investigation of male sexual function, their attention quickly turned to female sexual function, as it remains a relatively unexplored field despite being a significant issue. Half of the female population reports experiencing some problem related to their sexual life and function at some point in their lives. Chronic kidney disease affects both sexual desire and the ability to complete sexual activity. This issue has not been fully documented due to patients' reluctance to discuss the topic.

Objectives

To investigate the prevalence and causes of this phenomenon, a study was conducted on the sexual function of women with end-stage chronic kidney disease (ESKD).

Methods

The study included women over 18 years old suffering from end-stage chronic kidney disease, with no restrictions on the duration of the disease. Demographic data (12 questions) were recorded, and the following scales were used: Perceived Stress Scale (10 questions), Y-SEX Scale (13 questions), SF-36 Health Survey (11 questions), BSSC-W (4 questions), and the Female Sexual Function Index (FSFI) (19 questions).

Results

The study included 100 women undergoing hemodialysis and 100 healthy women aged 21 to 65, with an average age of 50 years who were recruited between 2018 and 2024 from the Nephrology Clinics at the University Hospital of Larissa. General Hospital of Karditsa, General Hospital of Trikala and General Hospital of Volos. Regarding the comparison of the importance of sex between hemodialysis patients and healthy women, a statistically significant difference was observed (p-value <0.001).

Conclusion/Application to practice

In conclusion, hemodialysis patients considered sex more important than healthy women. However, healthy women were more satisfied with their sexual function compared to hemodialysis patients.

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Abstract Country

Greece

Disclosure of Interest

No

72

The prevalence of chronic kidney disease in severe mental illness: A systematic review

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Background

People with severe mental illness (SMI) are more likely to develop long-term physical health conditions compared to people without SMI. This contributes to an inequality in life expectancy known as the 'mortality gap'. Chronic kidney disease (CKD) is a growing global health concern set to be the 5th leading cause of life-years lost by 2040. However, there is limited research exploring the relationship between CKD and SMI.

Objectives

The aim of this review was to examine the prevalence and risk of CKD among people with SMI.

Methods

We searched Medline, Embase, PsycINFO, CINAHL, Scopus and Web of Science for primary epidemiological research reporting the prevalence of CKD among people with SMI. Records were imported into Covidence and screened by two independent reviewers. Meta-analyses were conducted using random effects models to examine the prevalence of CKD among people with SMI, and the risk of CKD among people with SMI compared to people without SMI.

Results

Forty-four studies were included in the review, and 28 studies had data that could be pooled in the meta-analyses of prevalence. The pooled prevalence of CKD was 0.09 (95% CI 0.04, 0.15), and was highest in studies focused only on participants with bipolar disorder and schizoaffective disorder (0.12 (95% CI 0.02, 0.28)). People with SMI were more than twice as likely to have CKD compared to people without SMI (OR= 2.34 (95% CI 1.68, 3.25)).

Conclusion/Application to practice

People with SMI are at a significantly higher risk of having CKD compared to people without SMI, yet the drivers of this inequality are under-researched. While lithium is known to play a role in the comparatively increased risk among people with bipolar and schizoaffective disorder, it is important to understand other factors contributing to this increased risk.

References

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Abstract Country

United Kingdom

Disclosure of Interest

No

81 Quality of Life in Hemodialysis Patients in Albania: A Comprehensive Assessment

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Abstract

Quality of Life (QoL) assessments are essential for evaluating the overall well-being of hemodialysis patients, especially in the context of chronic kidney disease.

Background

This study focuses on the QoL of hemodialysis patients in Albania, conducted annually across five private clinics. Understanding patient experiences in key areas such as physical health, mental health, and social support can help guide improvements in care and treatment outcomes.

Methods

A total of 440 out of 476 hemodialysis patients participated in the annual QoL survey, achieving a 92% response rate. The survey comprised 22 domain questions covering various factors impacting QoL, including *Dialysis Staff Encouragement*, *Sexual Function*, *Patient Satisfaction*, *Social Support*, *Physical and Mental Wellbeing*, and *Work Status*. Composite scores were calculated for mental and physical health, providing a broader perspective on patient well-being.

Results

Among the 22 domains, *Dialysis Staff Encouragement* received the highest positive response, with 87.5% of patients expressing satisfaction. In contrast, the *Work Status* domain had the lowest response rate, with only 23.1% of patients being employed. The *Mental Health Composite* score was 40.8%, while the *Physical Health Composite* score was 38%. These results reflect notable differences in patients' physical and mental health, as well as challenges with social integration, particularly related to employment.

Conclusion/Application to practice

The survey highlights that while patients are generally satisfied with dialysis staff support, significant barriers remain in areas such as employment and mental health. The low scores in *Work Status* and *Physical Health* indicate the need for targeted interventions to improve patients' ability to maintain employment and enhance both physical and mental well-being. These findings underscore the importance of ongoing annual assessments to refine patient care strategies and improve overall quality of life for hemodialysis patients in Albania.

References

Quality of Life Survey, Diaverum, Albania

Abstract Country

Albania

Disclosure of Interest

No

96

Monitoring quality of life in hemodialysis: trends, improvements, and challenges

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Background

Studies have shown that poorer Quality of Life (QoL) is associated with higher mortality and hospitalization in dialysis patients. Measuring QoL in this patient population is a key indicator for assessing the impact of treatment and the effectiveness of medical interventions.

Objectives

To analyze the results of the baseline and 2-year survey to identify improvements and areas of opportunity in the care of haemodialysis (HD) patients in outpatient facilities.

Methods

Observational, retrospective, multi-center study analyzing QoL surveys applied to prevalent eligible patients on HD (>3 months) in 2022 and 2024, using the KDQOL-SF36 instrument, in 49 HD facilities in Spain. The different areas of the generic and the CKD-specific part were assessed.

Descriptive analysis was performed to compare the composite scores in these categories and to determine significant variations between groups and over time. Variables are measured in absolute survey scores.

Results

Of the completed surveys analyzed: 3,157 in 2022 and 3,789 in 2024, results show an overall trend of improvement in perceived QoL: Significant improvements in the domains of sexual function (+1.46 points), work status (+1.37 points), pain (+1.17 points) and energy/fatigue (+0.87 points). Perception of the effect of kidney disease increased by 1.07 points. Satisfaction with the dialysis team remained high (100% at the median), with a slight increase in the mean score(+0.41 points). Moderate improvements in disease-associated symptoms (+0.35 points) and in physical and emotional limitations (+0.30 and +0.23 points, respectively).

Conclusion/Application to practice

Results suggest positive evolution in the QoL of haemodialysis patients between 2022 and 2024, highlighting improvements in physical well-being, adaptation to the disease and satisfaction with the care received. These results reinforce the importance of continuing to invest in strategies for a holistic approach to the patient and in measurement tools to assess and continuously improve the QoL of this population.

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Abstract Country

Spain

Disclosure of Interest

No

155

Post-Traumatic Growth and Patient Activation in Patients Undergoing Hemodialysis: A Cross-Sectional Study

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Background

Being diagnosed with end-stage renal disease is considered a traumatic experience for many people because of its unexpected and devastating impacts. Patients who continue their lives with hemodialysis treatment need to take responsibility for their own care and treatment in this process. The most effective management of chronic diseases is only possible with active patients who participate in their own care.

Objectives

The present study was conducted to examine the post-traumatic growth and patient activation levels of patients who undergo hemodialysis.

Methods

The study was conducted with 163 hemodialysis patients in the hemodialysis units of 2 hospitals in Istanbul between January and November 2024. The data were collected with face-to-face interviews by using the Descriptive Data Form, Post-Traumatic Growth Inventory, and Patient Activity Level Measurement Tool.

Results

The mean age of the patients was found to be 59.94±14.31 years, hemodialysis duration was 5.16±5.05 years, 64.4% were male, 58.9% were married, 46.6% were primary school graduates, 50.3% had less income than their expenses, 86.5% were unemployed, and 27% stated their general health status as moderate. The mean Post-Traumatic Growth Inventory score was 45.78±26.14, the mean Patient Activity Level Measurement Tool score was 49.56±21.03, and 56.2% of the patients were at Level 1. A negative and weakly significant relationship was detected between the age and patient activation ($r=-0.212$, $p<0.01$) and the variable of post-traumatic growth ($\beta=0.520$, $p<0.001$) had a positive and significant effect on patient activation.

Conclusion/Application to practice

The post-traumatic growth level of the patients was low and their activity level was 2. At this level, individuals experience a lack of confidence in understanding the recommended treatment modalities. As age increases, activity levels decrease. Also, it is observed that activity levels increase as post-traumatic growth scores increase.

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Abstract Country

Türkiye

Disclosure of Interest

Yes

Children & Young Adults and Caregivers & Family

6

We are family: An innovative project that responds to the needs of caregivers

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Background

The „We Are Families“ project was launched to address the critical needs of caregivers supporting chronic kidney disease (CKD) patients undergoing hemodialysis, as these caregivers often face significant challenges in managing the physical, emotional, and social demands of caregiving.

Objectives

Increase information regarding social and medical rights and guarantees and existing social resources.

Support the group so that they can make more conscious and informed decisions.

Methods

Chronic kidney disease (CKD) and dialysis treatment place continuous, multifaceted demands on patients, impacting them on multiple levels—biological, psychological, and social. Recognizing this, the „We Are Families“ project was developed in a Diaverum Clinic with a strong foundation in interdisciplinary, coordinated, and holistic care that is uniquely tailored to the needs of hemodialysis patients and their caregivers. This robust, individualized approach unites social workers, nurses, doctors, nutritionists, and pharmacists in a collaborative, patient-centered model designed to offer comprehensive support. With direct input from caregivers, the project was designed as a six-session program held bi-weekly, where caregivers could develop critical skills, boost resilience, and increase health literacy. Each session involved group dynamics that encouraged open dialogue and mutual support among caregivers, while the care team provided targeted education and resources. To ensure that caregivers' real-world needs were met, local community institutions were also engaged, extending a network of support beyond the clinical environment.

Results

The program achieved full participation from 11 caregivers (9 women and 2 men), with a 100% adherence rate. Caregivers reported that the sessions gave them greater confidence in their understanding of CKD and in managing the complex needs of their loved ones. In addition to improved knowledge, caregivers activated community resources in three cases, and many reported a newfound emphasis on self-care as an outcome of the program. Participant feedback underscored an increased sense of preparedness, greater access to relevant community resources, and an enhanced ability to balance caregiving demands with personal wellbeing.

Conclusion/Application to practice

The „We Are Families“ project demonstrates an effective, sustainable model of caregiver support, showing substantial improvements in caregiver knowledge, wellbeing, and access to resources. Given these positive outcomes, the program is slated for expansion to other regions, allowing for an evaluation of its impacts across demographic variables such as region, age, and gender. This project highlights the potential for a scalable, community-based approach to caregiver support, offering a framework for healthcare teams to address the complex, ongoing needs of caregivers in a holistic, proactive way.

References

Connecting Caregivers to Support: Lessons Learned From the VA Caregiver Support Program Education and Support programs for Caregivers.

Abstract Country

Portugal

Disclosure of Interest

Yes

113

Nursing interventions to minimize CKD impact on family caregivers: mixed methods systematic review

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Background

The importance of family care in managing health conditions and enhancing patient safety is increasingly recognized worldwide. Scientific evidence has highlighted the role of the family, particularly due to the increase in chronic diseases, which affect not only the individual, but the entire family system.

Objectives

To identify which interventions nurses can mobilize that are effective in improving the quality of life of the family caregiver of a patient on hemodialysis.

Methods

We used the reference frameworks that have underpinned the development of the Journal Brings Institute approach to conducting Mixed Methods Systematic Review. Data extraction, quality assessment and narrative synthesis were conducted in accordance with the PRISMA guidelines.

This review was registered on the PROSPERO platform (ID:CRD42024562666).

The searches were carried out on the EBSCOHost (selecting the ACADEMIC SEARCH COMPLETE, CINAHL, MEDLINE, MEDICLATINA, ERIC databases) and the PUBMED database.

Results

- Most studies were quantitative or mixed methods (n=21). Of quantitative studies, the majority were randomized trials (n=9), followed by non-randomized studies (n=10).
- The average score of the articles included, according to Mixed Methods Appraisal Tool, was 80% (IQR=80-100).
- Most of the interventions were related to disease management (n=10), followed by support the self-management process (n=9), practical and contextual interventions (n=2), health condition (n=1) and case management (n=1).
- The complex interventions represented in the studies were made up of an average of 3 components (IQR=2-5).
- The most used components included training on the disease and its complications (n=9), family-centered education (n=8), monitoring the results of interventions (n=8) and interventions related to coping strategies (n=6).

Conclusion/Application to practice

Interventions to improve the family caregiver's quality of life are predominantly characterized by educational content to train them to deal with the illness and its consequences, and often involve the mobilization of coping strategies as tools to facilitate the illness transition process.

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Abstract Country

Portugal

Disclosure of Interest

No

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Challenges in paediatric haemodialysis

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Background

Haemodialysis in paediatric and adult patients differs considerably due to the physiological and psychological characteristics of children. This paper examines the main differences and specific requirements of paediatric haemodialysis compared to adult dialysis. In doing so aspects such as vascular access, equipment settings, nutrition and complications are examined. In addition, the psychosocial challenges of the patients and their families also.

Objectives

The aim of this paper is to use the literature to highlight the main differences in the care of paediatric patients on haemodialysis compared to adult patients. The tasks and expectations of the members of the interdisciplinary treatment teams are explained regarding the care of paediatric dialysis patients.

Methods

We conducted a comprehensive literature research, the last 7 years in scientific databases Pubmed, Google Scholar. Inclusion criteria of literature in German or English was included in the search. The analysis focused on publications dealing with children undergoing haemodialysis treatment. Keywords: Chronic haemodialysis, Haemodialysis and children Paediatric AND Nephrology AND Dialysis, Management of Chronic Kidney Disease in Children

Results

Long-term vascular access in children poses a particular challenge due to the smaller blood vessels and growth. Central venous catheters are used more frequently but are more prone to complications such as infection and thrombosis. Device settings, fluid deprivation, nutrition and determining dry weight is particularly difficult in children due to their growth.

Conclusion/Application to practice

Prospects such as the development of portable artificial kidneys and the use of Tele Medicine point to possible innovations that could further improve the quality of life in the long term. The interdisciplinary collaboration is especially needed in paediatric dialysis units. To summarise, the treatment of children with ESRD is challenging and complex.

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Abstract Country

Austria

Disclosure of Interest

No

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Family assessment and intervention in families with a person on hemodialysis

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Background

Patients with chronic kidney disease, especially those who need function replacement therapy, such as hemodialysis, need frequent assistance with their activities of daily living. Family members are often the people most involved in caring for these patients. The difficulties faced by these families prompted an evaluation to identify their needs and implement support interventions to promote their empowerment and quality of life.

Objectives

To evaluate care needs and implement nursing interventions regarding the family caregiver of the person with end-stage kidney disease on hemodialysis.

Methods

We used a qualitative study approach based on case studies, through the theoretical framework of Meleis transitions and the Dynamic Model of Family Assessment and Intervention (MDAIF). The defined instruments and interventions of this model were performed to understand and step in the family's needs.

Results

- All the families were assessed in relation to the following aspects: residential building, family income, security precautions, marital satisfaction, the role of caregiver and the family process. ($n=4$).
- Regarding nursing interventions, all the families assessed ($n=4$) had a dysfunctional family process and an inadequate caregiver role; 75% of the families had poor marital satisfaction and 50% of the families had a neglected and unsafe residential building.
- The most prevalent nursing interventions were: systemic intervention questions and techniques ($n=19$); referral to community services and/or social support ($n=5$); promotion of expressive communication emotions ($n=4$), coping strategies for the role ($n=4$), and adaptive/coping strategies ($n=4$).
- In all the families, there were health gains after the intervention, measured by the positive change in diagnosis ($n=18$ versus $n=7$).

Conclusion/Application to practice

The diagnostic activity carried out led to the establishment of nursing interventions, namely coping strategies, expressive communication of emotions, the redefinition of family tasks and the use of family intervention techniques, with 61.1% of the diagnoses being resolved.

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Abstract Country

Portugal

Disclosure of Interest

No

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Haemodialysis vascular accesses in small children

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Background

One of the most significant and unique challenge in small children undergoing long-term hemodialysis (HD) is vascular access. Due to small sized vessels central venous catheters (CVC) are mainly used. Native arteriovenous fistula (AVF) is preferred but its creation is highly limited.

Methods

Describe the factor that is crucial for high quality HD – mainly vascular access. The aim of this review is to present the importance and the difficulty of the vascular approach for HD in small children.

Results

In paediatric population differs from adult practice all forms of venous accesses are constructed by surgeons in the operating room under general anesthesia. The studies review shows that most HD in small children is via CVC. AVF puncture is often complicated by the short segment, thin intravascular volume and general complexity. Successful approach can require a great deal of patience and skill for paediatric dialysis nurses. It is also proven, that repeated vein puncture for children on HD has been one of the greatest stress.

Conclusion/Application to practice

At least in small children weighing less than 15 kg the main HD vascular accesses are CVCs. Previous tunneled CVCs play an increasing role as vascular access for HD in children.

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Abstract Country

Slovenia

Disclosure of Interest

No

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How to support transition for adolescents with chronic kidney disease to adult kidney care

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Background

In the transition from paediatric kidney care to adult kidney care, the risks of kidney transplant rejection, loss of kidney function, and absence from check-up are well-documented in the literature¹. The current treatment in adult kidney care is organised based on the expectation that patients understand their illness, manage appointments and attend them. Patients are expected to take responsibility and be able to discuss, decide, and implement decisions about their own treatment. However, adolescents with kidney diseases are particularly vulnerable in this regard². Our purpose was to improve the patient pathway for adolescents transitioning to adult kidney care.

Objectives

To develop a transition clinic for adolescents with chronic kidney disease.

Methods

A collaborative approach was employed, involving paediatric kidney care staff to facilitate the transfer process for adolescents aged 17–19 years. A comprehensive literature search was conducted, and insights were gathered from other medical specialties. An adult kidney nurse was trained as an adolescent ambassador, equipping them with the necessary skills to support young patients effectively.

Results

A tool was developed to assess the readiness and timing for the transfer of adolescents with chronic kidney disease. The clinical check-up process was modified to include split visits, allowing adolescents to consult with an adult kidney nurse independently of their parents. This approach empowered adolescents to take charge of their health management using the HEADS framework³. Additionally, an adult kidney doctor was introduced into the paediatric kidney consultation process.

Conclusion/Application to practice

The establishment of a strong relationship between adolescents and their adult kidney nurse and doctor was identified as a crucial element in the transition to adult kidney care. This study highlights the need for education and training for adult kidney healthcare professionals regarding the specific needs of adolescent patients.

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Abstract Country

Denmark

Disclosure of Interest

No

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Quality of life in family caregivers of dialysis patients: a multicentric study

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Background

Family caregivers of dialysis patients often experience significant caregiving burdens, impacting their psychological and physical well-being. Stress, emotional exhaustion, and burnout are common but frequently overlooked in nephrological care.

Objectives

This multicenter study, conducted across six Italian nephrology centers aimed to evaluate caregivers' quality of life (QoL) and propose strategies for improved support.

Methods

The study included 400 primary caregivers of chronic hemodialysis patients (treatment duration >6 months). Exclusion criteria were paid caregivers, peritoneal dialysis patients, and caregivers with active psychiatric conditions. Data were collected using validated tools: the Maslach Burnout Inventory (MBI) for burnout and stress, the WHOQOL-BREF for QoL, and the Caregiver Burden Scale (CBS) for caregiving burden.

Results

Preliminary results showed 60% of caregivers experienced high stress levels, while 35% were at risk of burnout.

Conclusion/Application to practice

This study underscores the need for structured, accessible support for family caregivers of dialysis patients. Implementing these strategies can reduce burnout, improve caregivers' QoL, and positively impact patient outcomes.

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Abstract Country

Italy

Disclosure of Interest

Yes

Vascular Access 2

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Vascular access in octogenarians – analysis of a peripheral hemodialysis unit

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Background

The choice of vascular access for hemodialysis in elderly patients is complex due to the higher prevalence of comorbidities and frailty. This study compared the type of access, number of interventions, and survival rates of arteriovenous fistula (AVF) and arteriovenous prosthesis (PTFE) between patients aged <80 years and those aged ≥80 years.

Methods

A retrospective study was conducted, identifying 73 patients who started hemodialysis between January 2020 and August 2023. Five patients with less than 3 months of follow-up were excluded. Follow-up was defined as the period from the first use of access until failure/abandonment, death, or transfer. The number of surgeries or transluminal angioplasties (ATLs) was recorded. Statistical analysis was performed using SPSS, with a p-value of <0.05 considered statistically significant.

Results

A total of 68 patients were included, 57.4% of whom were men, with a mean age of 72.0±14.1 years. Comorbidities included 54.4% diabetes, 86.8% hypertension, 50% dyslipidemia, 30.9% heart failure, and 10.3% peripheral arterial disease (PAD). Among the 24 patients aged ≥80, 70.8% had AVF, 25% had a central venous catheter (CVC), and 4.2% had PTFE; 52.9% of AVFs were distal. Among the 44 patients aged <80, 79.5% had AVF, 11.4% had CVC, and 9.1% had PTFE; 57.1% of AVFs were distal. There were no significant differences between the groups in terms of comorbidities or access type/location. However, octogenarians required more interventions (p=0.009), but this association became non-significant after adjusting for comorbidities and location (p=0.052). Access survival was lower in octogenarians, though without statistical significance (p=0.158).

Conclusion/Application to practice

Although patients aged ≥80 may require more vascular access interventions, age alone is not a determining factor for access survival. So the decision to construct access in octogenarians is individualized as a rule in our workplace.

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Abstract Country

Portugal

Disclosure of Interest

No

199

Distal vs proximal arteriovenous fistulas – the perspective of a peripheral hemodialysis unit

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Background

This study compares distal and proximal arteriovenous fistulas (AVFs) for hemodialysis, focusing on intervention rates and access survival to guide clinical decisions. AVFs are preferred for their durability and lower complication risks. The choice of AVF location involves a shared decision-making process between the vascular surgeon and nephrologist, considering anatomical characteristics and comorbidities.

Methods

We conducted a retrospective observational study, identifying 73 patients who started renal replacement therapy between January 2020 and August 2024. Exclusions included 17 patients with central venous catheters or arteriovenous prostheses, and 14 with less than 6 months of follow-up. We collected demographic data, including sex, age, comorbidities, access location, and the date of first access use. Follow-up was defined as the period from the first use of access until failure/abandonment, death, or transfer. We recorded the number of surgeries or transluminal angioplasties (ATLs). Statistical analysis was performed using the Mann-Whitney U-test, chi-square test, logistic regression, and Kaplan-Meier survival curves.

Results

A total of 48 patients were included. The mean age was 71.6 ± 14.8 years, with common comorbidities including diabetes (58.3%), hypertension (85.4%), and heart failure (31.3%). Of the 48 patients, 54.2% had distal AVFs, and 45.8% had proximal AVFs. No significant differences were observed between the groups in terms of comorbidities or intervention rates. However, proximal AVF location was significantly associated with diabetes mellitus ($p=0.002$) and peripheral arterial disease ($p=0.038$). Survival analysis suggested that distal AVFs tended to have greater longevity, although the difference was not statistically significant ($p=0.069$).

Conclusion/Application to practice

No significant difference in interventions or access survival was found between distal and proximal AVFs. Comorbidities, especially diabetes and peripheral arterial disease, should be considered when selecting the vascular access location.

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Abstract Country

Portugal

Disclosure of Interest

No

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Ensuring Safe Cannulation of Novel Hemodialysis Graft in Clinical Trial: A Nursing Department Strategy

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Abstract

Ensuring Safe Cannulation of a Novel Hemodialysis Graft in Clinical Trial: A Nursing Department Strategy

Background

Clinical trials evaluate new medical devices before their integration into routine practice. In hemodialysis, vascular access is critical, and novel grafts aim to improve durability and outcomes. However, trial participation is decided at the reference hospital level, leaving dialysis units responsible for ensuring patient safety and procedural efficacy. Nursing teams must standardize processes, mitigate risks, and optimize care when integrating trial-phase devices.

Objectives

To implement a standardized protocol for the first cannulation of trial-phase vascular grafts, ensuring consistency, enhancing nursing competence, prioritizing patient safety, and coordinating stakeholders.

Methods

In 2024, a clinical trial introduced a new hemodialysis graft, used by five patients across four clinics. To ensure safe integration, the Nursing Department developed a structured protocol, coordinating with the referring hospital's vascular access unit, clinic head nurses, and the graft manufacturer. Staff received hands-on training, including cannulation practice on graft samples and ultrasound mapping to assess blood flow and optimal cannulation sites.

Results

The structured approach facilitated smooth trial graft integration. Training improved nursing confidence and competence, while real-time support minimized complications. Effective coordination ensured patient safety and optimized vascular access management. The first cannulation was performed with department support, adhering to best practices. Ongoing follow-ups monitored outcomes and addressed complications. To date, one patient transitioned to a central venous catheter (CVC).

Conclusion/Application to practice

A nursing-led protocol for clinical trial grafts proved successful, reinforcing procedural consistency and interdisciplinary collaboration. Despite not controlling trial participation, nursing leadership ensured safety and efficiency. This model highlights the essential role of nurses in integrating innovative vascular access solutions into routine hemodialysis care.

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Abstract Country

Spain

Disclosure of Interest

No

217

Implementation of the Multiple Single Cannulation Technique (MuST) in Spain: Training and Initial Experience

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Abstract

Implementation of the Multiple Single Cannulation Technique (MuST) in Spain: Training and Initial Experience

Background

The Multiple Single Cannulation Technique (MuST) for arteriovenous fistulas (AVF) has been used in Portugal since 2013, combining the benefits of the rope-ladder and buttonhole methods. It assigns specific cannulation sites per session, ensuring proper rotation and healing. MuST has been linked to reduced aneurysm formation and complications while maintaining AVF survival rates. Additionally, it improves patient comfort, safety, and vascular access management. Despite its advantages, structured training and adaptation are essential for implementation.

Objectives

To describe the implementation of MuST in Spanish hemodialysis clinics and identify key factors for its successful integration.

Methods

From September to December 2024, Spanish vascular access and head nurses participated in a structured training program, including an online pre-training phase, followed by in-person theoretical and practical sessions in Portugal. A Portuguese expert provided on-site support during the initial implementation in four Spanish hemodialysis units. Weekly follow-ups transitioned to monthly meetings to address challenges and optimize integration.

Results

The MuST technique was well received by healthcare professionals due to its structured and standardized methodology. Patients showed high interest, appreciating its benefits for vascular access preservation. Newly trained staff and rotating personnel found it easier to adopt. Preliminary observations suggest increased staff engagement and a potential reduction in aneurysms. However, the need for an expert team to facilitate training and standardization was identified as a key factor for broader adoption.

Conclusion/Application to practice

The initial implementation of MuST in Spain has been successful, receiving positive feedback from nurses and patients. Its structured methodology and benefits highlight the importance of expanding its adoption. Cross-border collaboration has proven valuable in enhancing vascular access practices. Future efforts will focus on expert teams to support wider implementation and ensure long-term success.

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Abstract Country

Spain

Disclosure of Interest

No

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Delivering high-quality Fundamental Care in the cannulation of arteriovenous fistula

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Background

Delivering high-quality fundamental care in hemodialysis (HD) patients with arteriovenous fistula (AVF) has been a challenge for nurses and other caregivers, in increasingly complex environments.

Much of the evidence suggests that cannulation techniques or the manner of cannulation are being neglected or delivered inadequately.

Objectives

Identify the advantages of MuST in the Fundamentals of Care Framework (FoC)

Methods

This is a multicenter study, prospective, non-blind, parallel group, randomized controlled trial with the intervention group undergoing MuST and a control group undergoing the rope-ladder (RL).

Results

One hundred and one HD patients were included in the MuST study, 49 in the interventional group.

The following results were obtained in the 3 dimensions of FoC:

Relationship – Establishment of a positive relationship of trust and no patient dropping out of MuST.

Integration of care – Physical element (Comfort and safety) – A greater reduction in pain was observed with MuST, although not significant, and a reduction in the rate of aneurysms with an impact on the person's image, as well as an absence of infections.

Psychosocial element (Education and information) – Training, education, and patient involvement in AVF self-care were provided.

Context of Care – System level element – all material resources were made available so that the FoCs could be delivered safely. Committed leadership, involving more than 60 nurses.

Policy level element – Financial resources were essential to implement this study; quality and safety environments; governance and accountability processes.

Conclusion/Application to practice

MuST has proven to be a superior and safer technique than RL. The FoC framework, provides care interventions in a holistic manner, focusing on the individual patient. Nurses must assess patients' needs and deliver treatment to the best of their abilities, based on the best evidence available and best practices of cannulation.

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Abstract Country

Portugal

Disclosure of Interest

No

Health literacy and Self-management

5

Understanding the connection between health literacy and health equity in kidney care

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Background

Chronic kidney disease (CKD) is a growing global health concern, with social determinants of health and health literacy having significant roles in disease progression and management. Fragmented healthcare and inadequate involvement of people in shared-decision making may also be important.

Objectives

To examine the evidence of individual, organisational and systems health literacy roles in public health policy related to chronic kidney disease.

Methods

Using Joanna Briggs Institute scoping review methods, five databases were searched for publications in English between 2015–2024. Key words were individual health literacy, organisational health literacy, social determinants of health, and chronic kidney disease. A narrative synthesis was undertaken.

Results

Low health literacy was linked to poorer CKD outcomes, lower adherence to treatment, and reduced self-management¹. Additionally, social determinants of health, such as socioeconomic status, education, and access to healthcare, further exacerbated disparities in CKD prevalence and progression. Disparities in CKD outcomes are particularly pronounced among vulnerable populations, including racial and ethnic minorities, those with lower incomes, and individuals with limited access to healthcare services². Studies have shown that these social factors influence not only CKD development but also access to kidney transplantation and treatment adherence.

Conclusion/Application to practice

Health literacy has the potential to improve public awareness of and capacity to act on the social determinants of CKD. Addressing these issues requires a comprehensive approach that includes enhancing health literacy, improving access to care, and addressing structural inequalities. Healthcare providers must assess patients' health literacy to ensure they can effectively manage CKD and participate in shared decision-making. Furthermore, public health initiatives should prioritise reducing the impact of social determinants of health to improve kidney health outcomes at the population level. Interventions targeting both health literacy and social determinants of health are essential to reducing CKD-related disparities and improving patient outcomes.

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Abstract Country

Australia

Disclosure of Interest

No

172

The Effect of Health Literacy and Dietary Compliance on Comfort of Patients Undergo Hemodialysis

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Background

With the increasing number of patients undergoing hemodialysis in Turkey and the high number of symptoms experienced during hemodialysis, determining the health literacy levels, dietary compliance and comfort levels of patients has also gained importance.

Objectives

The present study was conducted to determine the effects of health literacy levels and diet compliance on the comfort levels of patients who undergo hemodialysis.

Methods

This descriptive and cross-sectional study was conducted with a total of 374 patients who were receiving hemodialysis in 3 dialysis centers in Istanbul, Turkey. The data were collected by using the “Patient Information Form”, “Health Literacy Scale for Hemodialysis Patients (HLS-HP)”, “Attitudes of Hemodialysis Patients Towards Diet Treatment Scale (AHPDTS)” and “Hemodialysis Comfort Scale Version-II”.

Results

The mean HLS-HP total score of the patients was detected to be 25.81±9.24. The AHPDTS total scores of the patients were 46.86±7.07. A positive and significant relationship was detected between the total scores from the HLS-HP scale and the total AHPDTS and Hemodialysis Comfort Scale Version-II total scores. A positive and significant relationship was detected between the patients’ total AHPDTS scores and the total Hemodialysis Comfort Scale Version-II scores.

Conclusion/Application to practice

It was concluded that hemodialysis patients had problematic-limited health literacy levels, their compliance with diet was at a moderate level, and their comfort levels were moderate level. It was also found that as the health literacy levels of patients increased, their compliance and comfort levels with diet treatment increased, and as the compliance levels of patients with diet treatment increased, their comfort levels increased, and while the compliance level with diet increased the comfort level, the health literacy level supported this increase.

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Abstract Country

Türkiye

Disclosure of Interest

Yes

186

The Impact of mHealth on Self-Management in Chronic Kidney Disease: A Literature Review

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Background

Self-management is essential for improving quality of life and optimizing health outcomes, particularly in individuals with chronic kidney disease (CKD). It encompasses daily disease management, including managing physical and psychosocial consequences, adhering to therapeutic regimens, and adapting to new roles. Effective self-management requires knowledge, skills, and active engagement.

mHealth, defined as the use of wireless mobile technologies in healthcare, has emerged as a promising approach to enhance self-management in individuals with CKD.

Objectives

This study aims to review the literature to assess the impact of mHealth on promoting self-management in individuals with CKD and to identify evidence supporting its benefits.

Methods

A literature review was conducted using the MEDLINE, CINAHL and PubMed databases. Primary studies on mHealth interventions in adults with CKD, published in English or Portuguese within the past 10 years, were included. In total, five studies met the inclusion criteria and were selected for detailed analysis.

Results

All selected studies demonstrated benefits of mHealth, including:

- Analytical control ($n=5$): Reduction in critical potassium and phosphorus levels.
- Hemodynamic and symptom control ($n=4$): Increased number of assessments and improved blood pressure control.
- Dietary self-management ($n=3$): Reduced intake of certain foods and salt, along with healthier food choices.
- Medication regimen self-management ($n=1$): Identification of discrepancies between prescribed and administered medications.
- Physical activity self-management ($n=2$): Promotion of physical activity and improved performance in the six-minute walk test.

Conclusion/Application to practice

The findings highlight mHealth as a potentially effective tool for empowering individuals with CKD to take a more active and confident role in the self-management of their condition. Integrating this technology into healthcare appears to reinforce self-management practices, contributing to improved quality of life and clinical outcomes.

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Abstract Country

Portugal

Disclosure of Interest

No

224

Game on in dialysis: how interactive learning enhances knowledge and treatment adherence

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Background

Disparities in kidney care contribute to differences in health outcomes, particularly in managing hyperphosphatemia and hyperkalemia. Low health literacy and inadequate patient education often result in poor adherence to dietary and medication guidelines. Nephrology nurses play a key role in bridging these gaps through accessible and effective education. Game-based learning methods, such as Kahoot*, have been shown to enhance patient engagement and knowledge retention. This study evaluates the impact of a structured nurse-led educational intervention using interactive digital tools on patient knowledge, adherence, and clinical outcomes in dialysis patients.

**kahoot is an interactive learning and gaming platform that allows people to participate in quizzes and trivia competitions in real time. participants answer questions displayed on shared screen' such as large screen in a room or on mobile, creating an interactive and engaging experience*

Objectives

1. To evaluate the impact of interactive, nurse-led education on dialysis patients' knowledge retention regarding phosphorus and potassium management.
2. To assess the effectiveness of gamification (Kahoot) in patient education as a tool for improving engagement and learning outcomes.
3. To measure the effect of the educational intervention on clinical outcomes, specifically phosphorus and potassium levels in blood tests.

Methods

30 dialysis patients were randomly assigned to two groups:

intervention group (15 patients) and **Control group** (15 patients) both received the same educational sessions over one month, delivered by nurses using PowerPoint presentations. Topics covered included:

Low-phosphorus and low-potassium diet

Proper use of phosphate and potassium binder

Role of calcium supplements

The key difference between the two groups was that after the final session

The **Intervention group** participated in a Kahoot quiz to reinforce learning and assess knowledge retention.

The **Control group** did not participate in the Kahoot quiz, but completed the same standard care as before.

Results

The intervention group received high scored on the Kahoot quiz, indicating improved knowledge retention. The interactive learning format was particularly beneficial for patients with lower health literacy, boosting engagement and bridging knowledge gaps. Participants also reported increased confidence in managing dietary restrictions and medications. Blood tests showed a reduction in phosphorus and potassium levels in intervention group compared to the control group, suggesting improved adherence and better health outcomes.

Conclusion/Application to practice

This nurse-led, interactive educational intervention addresses inequities in kidney care by empowering patients through accessible and engaging learning methods. The observed improvements in knowledge, adherence, and clinical outcomes highlight the potential of game-based learning to reduce disparities in kidney care, ultimately contributing to a healthier future for dialysis patients.

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Abstract Country

israel

Disclosure of Interest

Yes

233

Exploring how adults with chronic kidney disease choose their dialysis modality: A qualitative study

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Background

Chronic kidney disease affects 8–16% of the global population, often requiring renal replacement therapy. While transplantation is the best replacement option, organ shortages, comorbidities, and long wait times make dialysis the primary alternative. In Switzerland, as in other developed countries, patients can choose peritoneal dialysis or three hemodialysis options (in-center, self-care, or home), yet home-based treatments remain underutilized. Given emerging modalities and the complexity of dialysis decisions, understanding patients' concerns and needs is crucial for informed choices.

Objectives

To explore how adults with chronic kidney disease choose their dialysis modality and the factors influencing their decision.

Methods

A descriptive qualitative approach was used. Patients receiving dialysis were recruited from eight dialysis centers in French-speaking Switzerland. Semi-structured interviews were recorded, transcribed verbatim and analyzed thematically to identify emerging themes.

Results

25 participants were enrolled in the study (mean age 61, SD 14; 72% men). Preliminary analysis identified four key themes: 1) Four-stage illness journey capturing the emotional shock of starting dialysis and the choice of the modality at the time announcing the start of dialysis, even when anticipated. 2) Personal Life and Social Context, highlighting how self-efficacy, family, social engagement and daily life influence decisions. 3) Cultural Context and Illness Perception, reflecting the role of cultural values in shaping choices. 4) Collaborative Decision-Making and Empowerment, emphasizing the involvement of healthcare providers, family, close circles and decision ownership.

Conclusion/Application to practice

Results highlight the complexity of dialysis treatment decisions, influenced by daily life and social factors. A collaborative approach that integrates patient experiences, personal context, and cultural values is crucial to supporting informed choices and reducing inequities.

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Abstract Country

Switzerland

Disclosure of Interest

No

Haemodialysis 2

156

“Risk factors for osteoporosis in hemodialysis patients”

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Background

Osteoporosis is a common complication in hemodialysis patients. Factors contributing to osteoporosis are age, gender, physical inactivity, weight, inflammation and bone markers. We examined the association of osteoporosis to the above parameters in our dialysis patients.

Methods

We studied 30 dialysis patients for six months: 13 male 17 female, median age 64, median dialysis vintage 78,66 months, 17 on hemodialysis, 13 on online hemodialysis. Primary disease: 10 unknown, 4 diabetes, 4 PKD, 6 glomerulonephritis, 3 obstructive-kidney stones, 3 hypertension. Calcium, phosphorus, albumin, creatinine, cholesterol, PTH, hsCRP, BMI, Kt/V and patients' exercise patterns were recorded. Total BMDg/cm² and T-score were measured by DEXA. Patients' BMD was compared by age, gender, BMI, Kt/V, exercise patterns, and all blood values.

Results

Patients <70 years had higher BMD, mean 0,842 median 0,878 than patients >70 years: mean 0,798 median 0,724. Healthy Weight patients with 25>BMI>18.5 had mean/median BMD 0,72/ 0,73, overweight patients with 30>BMI>25 had 0,9205/0,954 and obese patients with BMI>30 had mean/median 0,812/0,779 respectively. Patients with albumin>4mg/dl had T score=-1,65 compared to those with albumin <4mg/dl, T score=-2,03. Sedentary life had lower mean Kt/V= 1,15 and T score=-2,038 versus light exercise with 1,35 and -1,82 respectively. PTH levels were within KDIGO targets in 16 patients and did not influence BMD. Patients with CRP<1mg/dl had higher BMD: mean 0,822 median 0,8015 than those with CRP>1, mean 0,784 median 0,878. Pearson correlation between BMD and CRP was moderate, r=0,43 and p=0,01747 while analysis between BMD and BMI/phosphorus was weak 0,13/0,05 and between BMD and albumin was negative -0,03.

Conclusion/Application to practice

The influence of established osteoporosis risk factors: age, gender, adequate dialysis, healthy weight, and exercise on our dialysis patients' BMD was confirmed. Inflammation was higher correlated with BMD. Healthy weight, light exercise, younger age and low inflammation warrant a closer to normal BMD for dialysis patients.

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Abstract Country

Athens, Greece

Disclosure of Interest

Yes

160

Association of hydration status and physical function in haemodialysis patients

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Background

The interdialytic period may be characterised by weight fluctuations due to fluid overload and this hyperhydration environment may result in damage to the mechanisms for supplying oxygen to the muscles, which in turn may contribute to impaired physical function.

Objectives

To examine the association between hydration status and physical function in haemodialysis (HD) patients.

Methods

Retrospective cross-sectional study in 830 HD patients. Hydration status and body composition were determined using bioelectrical impedance. Hyperhydration/extracellular water ratio $\geq 7\%$ was used as an indicator of fluid overload. Time Up-and-Go (TUG), Sit-to-Stand 30 seconds and 5 reps (STS-30 and STS-5), and Handgrip Strength (HGS) were used to determine physical function. The association of hydration status and physical function outcomes was assessed by Spearman's correlation test. Patients were categorised as hyperhydrated or normohydrated, and physical function was compared using the Student's t-test or Mann-Whitney U-test.

Results

The examined patients had been on HD for 41 (17–79) months, and were 70 (58–79) years, with 62.5% being male. Correlation analyses showed that hydration status was associated with TUG ($r=0.207$; $p<0.001$), STS-30 ($r=-0.200$; $p<0.001$), STS-5 ($r=0.229$; $p<0.001$), and HGS ($r=-0.131$; $p<0.001$). Although these correlations were predominantly weak or very weak, these findings suggest that higher hydration status is associated to poorer physical function. Further, sub-group comparisons between hyperhydrated ($n=412$) and normohydrated ($n=418$) patients indicated that hyperhydrated patients were older, and had longer HD vintage, more comorbidities, lower lean and fat mass, and poorer performance on the TUG, STS-30, STS-5, and HGS tests ($p<0.050$ in all).

Conclusion/Application to practice

Maintaining an adequate hydration status is crucial, particularly for preserving physical function and muscle strength. Hypohydration can negatively impact these aspects, potentially increasing the risk of reduced mobility, physical frailty, and impaired daily functioning.

The Portuguese Foundation for Science and Technology funde this work under the project UI/04045.

References

N/A

Abstract Country

Portugal

Disclosure of Interest

Yes

181

Guaranteeing access to care for hemodialysis patients during natural disasters: our experience

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Background

Hemodialysis patients are especially vulnerable to natural disasters due to their critical dependence on treatment to survive.

On 29/10/2024, the Valencia Region in Spain suffered a severe flooding, causing catastrophic damage in certain areas. During this event hemodialysis patients and staff faced significant challenges.

Methods

Diaverum treats 1,700 hemodialysis patients in Valencia, distributed in 20 clinics, 13 in Valencia City area. 3 clinics were seriously affected, making their activity impossible.

A Contingency Plan was immediately established in coordination with Healthcare Authorities (HCA) and Reference Hospitals (RH) for the immediate relocation of the 280 patients directly affected. 90% of the patients were relocated in other Diaverum facilities. Priority was given to contact patients and staff and coordinate transportation in areas of difficult access, being the greatest challenge for both.

The most relevant actions to guarantee continuity of care were:

Strength communication and collaboration with RH and HCA.

Clinics preparation for eventualities: lack of power and/or water supply.

Guarantee sufficient stock and make urgent additional orders.

Ensure staff availability: Providing accommodation, transportation and additional staff from other Spanish Clinics.

Ensure access to medication and sanitary products.

Ensure access to basic needs for patients and staff.

Procedure development and training material for staff and patients.

Providing psychological support to patients and staff.

Results

Thanks to the coordinated efforts of all stakeholders involved all surviving patients were dialyzed and we could count with most of staff.

A week after, one clinic restarted activity. The other 2 clinics have been permanently disabled.

Conclusion/Application to practice

Early, clear and efficient communication between stakeholders is key. Commitment and professionalism of caregivers and solidarity of all participants in assuring all patient received their treatment is essential.

This successful experience, is an example to increase awareness of the need of contingency plans to guarantee care in vulnerable patient groups.

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Abstract Country

Spain

Disclosure of Interest

No

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Reconciliation and Therapeutic Monitoring in CKD patients undergoing Hemodialysis

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Background

Chronic Kidney Disease (CKD) requires complex management, with hemodialysis as a critical treatment. Patients are often polymedicated, increasing the risk of therapeutic errors and non-adherence, which may compromise treatment efficacy. Therapeutic reconciliation and adherence monitoring are essential to improving clinical outcomes.

Objectives

This study evaluates therapeutic reconciliation practices and medication adherence monitoring in CKD patients undergoing hemodialysis.

Methods

An observational study was conducted in a Hemodialysis Unit, involving 182 patients. A total of 231 therapeutic reconciliations were performed using a fluxogram, categorized as regular and post-hospitalization reconciliations. For adherence monitoring, a sub-population of 15 patients (aged 38–82 years, 53% male, 47% female) was selected based on suspected non-adherence. Monitoring was conducted through clinical interviews, the COM-B model, and medication consumption verification.

Results

Therapeutic reconciliation identified medication errors and enabled treatment adjustments, improving adherence. In the adherence sub-population, close monitoring reduced medication discrepancies and enhanced compliance. The main barriers identified were polypharmacy, complex regimens, adverse drug effects, lack of understanding, and poor commitment to treatment.

Conclusion/Application to practice

Regular therapeutic reconciliation and adherence monitoring are crucial for the safety and efficacy of treatment in hemodialysis patients. The COM-B model, combined with clinical interviews and medication verification, proved effective in identifying adherence failures and optimizing treatment. A multidisciplinary approach, patient education, and improved communication are key to enhancing clinical outcomes and quality of care.

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Abstract Country

Portugal

Disclosure of Interest

No

215

Assessment and Management of Patient Complexity in Hemodialysis: Experience in One Unit

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Background

Patient complexity in hemodialysis is influenced by multiple clinical, functional, and procedural factors, requiring a comprehensive evaluation to ensure optimal care and resource allocation. While validated tools exist to assess functional dependence, frailty, comorbidities, and cognitive impairment, there is limited literature that holistically addresses patient complexity in hemodialysis. Most studies focus on individual assessment tools rather than an integrated evaluation of complexity and its impact on patient care. Understanding and quantifying this complexity is essential for improving clinical efficiency and ensuring equitable care distribution.

Objectives

This study aims to analyze existing tools available for assessing patient complexity in hemodialysis.

Methods

A literature review was conducted to identify available tools for evaluating patient complexity in hemodialysis. Additionally, data from January 2025 using an internal complexity assessment tool in one hemodialysis center were analyzed.

Results

Our findings indicate that while there are established tools for assessing individual aspects of patient complexity, no comprehensive tool exists to evaluate overall complexity in hemodialysis patients. Based on data analysis from 145 patients using the internal complexity assessment tool, 75 (51.7%) were classified as very low complexity, 56 (38.6%) as low complexity, 12 (8.3%) as medium complexity, and 1 (0.7%) as high complexity. No patients were classified as very high complexity.

Conclusion/Application to practice

Assessing patient complexity can contribute to improved patient care and optimized resource distribution. A structured evaluation process may help balance workload and support decision-making in clinical settings. Further research is needed to explore its potential benefits and applications.

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Abstract Country

Spain

Disclosure of Interest

No

219

Association of diabetes with sarcopenia in patients on haemodialysis: a nationwide cross-sectional study

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Background

Diabetes mellitus is a major cause of chronic kidney disease and has been linked to an increased risk of sarcopenia in older people. However, evidence for this association remains inconclusive in patients on haemodialysis.

Objectives

To investigate the association between diabetes and sarcopenia in patients on haemodialysis.

Methods

A cross-sectional analysis was conducted using data from a nationwide cohort study conducted in 20 NephroCare Portugal dialysis units. Sarcopenia was diagnosed and staged according to the revised European Working Group on Sarcopenia in Older People, while diabetes was identified following the American Diabetes Association guideline.

Results

A total of 715 patients were included (median age 63 years; 37% female). The prevalence of confirmed sarcopenia and diabetes were 16% and 27%, respectively. Sarcopenia was twice as common in patients with diabetes (27% vs. 12%, $P < 0.001$), who also exhibited poorer physical function (all $P < 0.001$). Moreover, diabetes was independently associated with confirmed sarcopenia (adjusted odds ratio [aOR] = 2.41; 95% confidence interval [95% CI], 1.41–4.11). Subgroup analysis revealed that this association was only seen in male individuals (aOR = 2.64; 95% CI, 1.37–5.09).

Conclusion/Application to practice

Our findings demonstrated that diabetes mellitus was independently associated with sarcopenia in patients on haemodialysis, but this association was only observed in male patients. Therefore, early detection and management of diabetes in this population is crucial to mitigate adverse effects on physical function and muscle mass.

References

N/A

Abstract Country

Portugal

Disclosure of Interest

Yes

260

Oral health-related quality of life in chronic kidney disease patients undergoing dialysis

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Background

Patients with chronic kidney disease (CKD) undergoing dialysis face multiple health challenges that significantly impact their quality of life. Oral health is often overlooked in this population despite its known association with systemic health and overall well-being. Conditions such as xerostomia, periodontal disease, and dental decay are prevalent among dialysis patients due to metabolic disturbances, medication effects, and dietary restrictions. However, data on the specific impact of oral health on quality of life in dialysis patients remain scarce, particularly in Portugal.

Objectives

This study aims to evaluate oral health-related quality of life (OHRQoL) in dialysis patients and identify sociodemographic, clinical, and behavioural factors influencing it. By filling this knowledge gap, we seek to inform future interventions that improve patient care.

Methods

This is an ongoing, observational, prospective, non-interventional study conducted at two dialysis clinics in Portugal. Participants include adult CKD patients undergoing regular dialysis for at least three months. Data collection is based on a structured questionnaire incorporating the Oral Health Impact Profile-14 (OHIP-14), a validated instrument for assessing OHRQoL. The questionnaire covers sociodemographic variables, clinical history, and oral health-related factors such as xerostomia, periodontal disease, dental decay and habits concerning dental visits.

Expected Outcomes

This study is expected to provide insights into the prevalence of oral health issues and their perceived impact on patients' quality of life. By identifying key contributing factors, the findings will support the development of clinical guidelines and preventive strategies for improving oral health care in dialysis settings. Integrating oral health into routine nephrology care may enhance overall well-being and treatment outcomes for CKD patients.

Application to practice

The study's findings will serve as a foundation for personalized patient education, preventive oral health programs, and interdisciplinary collaboration between nephrology and dental care providers. This approach may lead to improved patient-centered care in dialysis clinics.

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Abstract Country

Portugal

Disclosure of Interest

No

New technologies

62

Developing a mobile application to support self-management of dialysis patients

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Objectives

To evaluate the effectiveness of the Diaverum d.CARE Patient App in enhancing self-management practices among dialysis patients over eight months period, from September 2023 to May 2024.

Methods

The Diaverum d.CARE Patient App was made available to dialysis patients across Diaverum clinics in Saudi Arabia. The app features modules for tracking fluid intake, medication adherence, and receiving educational content and reminders. Data on app usage were collected monthly, focusing on the number of registered users, active users, and specific feature interactions.

Results

By May 2024, a total of 2,700 patients had registered for the Diaverum d.CARE Patient App. The number of active users increased from 667 in September 2023 to 744 in May 2024, representing an 11.5% increase. This rise in active users was supported by continuous education and regular reminders provided by the clinic teams. The utilization of the fluid intake tracking feature showed a significant increase, with usage rising from 542 instances in September 2023 to 728 instances in May 2024, a 34.3% increase. Similarly, the medication navigation feature was used 348 times in September 2023, increasing to 400 times by May 2024, marking a 14.9% increase.

Conclusion/Application to practice

The Diaverum d.CARE Patient App demonstrated promising results in supporting dialysis patients' self-management over the observed period. The increase in both registered and active users, as well as the higher engagement with critical app features, suggests that mobile applications can be an effective tool in improving self-management behaviors among dialysis patients. Continuous education and support from clinic teams played a crucial role in enhancing patient engagement with the app.

References

Original work

Abstract Country

Diaverum Saudi Arabia

Disclosure of Interest

No

85

How to maintain and grow a successful home dialysis program using available digital tools.

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Background

The home haemodialysis program in this unit is successful, well established and internationally recognised, with around 35% home therapies population maintained for more than 5 years.

Objectives

However, we are faced with the challenge of both maintaining the prevalent population and growing the programme with limited staffing resources. Our aim is to continue to support the existing number of patients at home using digital tools to monitor our home haemodialysis population.

Methods

We introduced a remote monitoring tool which works alongside our home haemodialysis machine fleet, and we were the first pilot site in the UK to use this system. This digital monitoring tool is an iPad-based platform that collects cyclor data and transmits this to a clinical portal following each dialysis session. Having such a large number at home on haemodialysis with a relatively small staffing establishment and no planned investment in staffing, we needed a system in place to remotely monitor patients at home and give us accurate, up to date dialysis treatment data.

Results

Remote monitoring using this digital portal has allowed us to monitor a large population, covering a wide geographical area with minimal staffing numbers. We can see real time data which has allowed us to monitor and support patient adherence whilst also helping them feel more confident at home. We are working closely with our industry partners to further develop and enhance this monitoring platform, and possibly link to existing renal IT systems.

Conclusion/Application to practice

As a unit our program has grown and evolved. We continue to develop our program and embrace new technologies to help and encourage more patients to dialyse at home.

References

N/A

Abstract Country

United Kingdom

Disclosure of Interest

Yes

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Usability and experience testing of a digital health intervention to support CKD self-management

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Background

My Kidneys & Me is a digital health intervention (DHI) designed to support better self-management in people with non-dialysis CKD; it comprises theory-based education and ‘how to’ action sessions and trackers for goals, symptoms, physical activity, and clinical measures. The DHI was evaluated in a mixed-method multicentre randomised control trial (SMILE-K).

Objectives

To explore participants’ perspectives on usability, usage, and engagement with MK&M.

Methods

Interviews were conducted with people who had access to MK&M as part of SMILE-K. Semi-structured interviews were conducted via telephone, audio-recorded, and transcribed verbatim, with data analysed using thematic analysis.

Results

Twenty-seven semi-structured (59% male, mean age: 62 years) interviews were conducted. Six *themes* were identified to describe people’s experiences of using MK&M. Being provided with a self-management programme specifically designed for people with CKD made participants feel *personally involved and empowered*. Having a *logical flow and navigation* ensured working through educational content and moving around the programme was straightforward and coherent. The bite-sized information provided the *ability to ‘dip in and out’* of the programme enabling individuals to use it at their own pace and leisure. MK&M was considered to be comprehensive, with participants feeling like they needed *more time to engage* beyond the study time frame to review and process the information provided. Some features were not used during the trial (e.g., symptom tracker) but participants felt they would be *useful in future*. Participants had a *desire for continued learning* to improve their knowledge of how best to self-manage their CKD, and wanted alerts and reminders to let them know when new information was available.

Conclusion/Application to practice

My Kidneys & Me was considered comprehensive, and the presentation of information made it easy for users to access and engage with. Findings will be used to revise the programme to improve user experience.

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Abstract Country

United Kingdom

Disclosure of Interest

No

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Exploring the barriers and facilitators to digital health interventions in underserved populations

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Background

Digital health interventions (DHIs) are increasingly popular as a potential method to address educational and support needs of individuals with long-term conditions, as they are largely accessible by most people, can be highly effective, and delivered at low cost. We have developed a DHI to better support CKD self-management, and demonstrated its positive results. However, the trial population was fairly homogeneous, and those from underserved populations, who would have likely benefited from the DHI, may have been disadvantaged.

Objectives

To explore barriers and facilitators to DHIs in people from South Asian (SA) backgrounds.

Methods

Focus groups were conducted in-person with ten individuals (60% male, age: 69±7) from SA backgrounds thrice, audio-recorded and transcribed verbatim. Data were analysed using thematic analysis.

Results

Preliminary analysis identified several barriers and facilitators to accessing and using DHIs for people from SA backgrounds. Language was reported to be the biggest barrier as *“going on digital means that you are being forced to learn English”*. Having information in their own language would encourage people to use it, but it needs *“somebody that spoke that language to actually translate it”*. Not making assumptions and being respectful about individual choices as they can be *“such a cultural thing”* or *“because of religious beliefs”* was key to engaging people. Digital information was perceived to be *“more accessible and more easy to read and understand”*. Promotion by a trusted person (doctors, peers) and *“community communication”* would help alleviate the fear of DHIs and improve uptake and usage.

Conclusion/Application to practice

People from SA backgrounds are open to using DHIs, but they need to be available in their own language and be culturally appropriate. The findings will be used to adapt our CKD self-management DHI to better address the needs of those from SA backgrounds.

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Abstract Country

United Kingdom

Disclosure of Interest

No

198

Artificial intelligence and renal dialysis: What do we know and where are we Going

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Keywords: Artificial intelligence; renal care; chronic kidney disease; hemodialysis; renal dialysis

Background

Artificial Intelligence (AI) is the capacity of human-built machines to manifest complex decision-making or data analysis in a similar or augmented fashion in comparison to human intelligence. Machine Learning (ML) is the collection of algorithms that empower models to learn from data, and therefore to undertake complex tasks through complex calculations (4).

Chronic Kidney Disease (CKD) is a state of progressive loss of kidney function ultimately resulting in the need for renal replacement therapy (dialysis or transplantation) (4). This fact poses a significant public health challenge, affecting approximately 11% to 13% of the global population. This accounts for over 800 million people worldwide. CKD is projected to become the fifth-leading cause of death worldwide by 2040, with an estimated 5 to 10 million deaths annually. Survivors of CKD often experience a range of systemic complications, including cardiovascular disease, hypertension, anemia, mineral bone disorder, volume overload, electrolyte and acid-base abnormalities, malnutrition, sexual dysfunction, and pruritus, which can adversely affect their quality of life (5).

Dialysis patients are highly dependent on technology and their treatment generates a large and challenging volume of data that has to be analyzed for knowledge extraction. We argue that, by integrating the data acquired from hemodialysis treatments with the powerful conversational capabilities of large language models, nephrologists could personalize treatments adapted to patients' lifestyles and preferences (3).

The combination of technology, patient-specific data, and AI should contribute to create a more personalized and interactive dialysis process, improving patients' quality of life (3).

Objectives

Mapping knowledge, development, and potential projects related to artificial intelligence in renal dialysis care

Methods

Scoping Review following the Joanna Briggs Institute (JBI) methodology and PRISMA SCR.

The included databases will be COCHRANE Database of Systematic Reviews, MEDLINE, CINAHL Complete, Nursing & Allied Health Collection: Comprehensive, SciELO, and PubMed. This review will integrate articles focused on artificial intelligence (participants) related to renal dialysis care (concept) across the globe (context), whether these projects are ongoing or in the development phase. The review will take place between January 2025 and June 2025.

Results

It is expected to identify existing knowledge, developments, and the potential of artificial intelligence in renal dialysis care.

Conclusion/Application to practice

This review is expected to contribute to the growth of knowledge about artificial intelligence in renal dialysis care and, thereby, assist in the development of new projects that combine these two areas, promoting innovation and excellence in kidney care.

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Abstract Country

Portugal

Disclosure of Interest

No

210

The impact of the electronic health record systems implementation on professional satisfaction

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Abstract

electronic health record systems; hemodialysis, professional satisfaction

Background

The professional satisfaction is defined (Locke, 1976) as the degree of contentment or fulfillment felt by the worker in relation to his work. It aims various parameters such as working conditions, remuneration, recognition and opportunities for promotion. The professional satisfaction in healthcare providers is extremely important, have direct impact on the quality of health care provided and patient satisfaction.

Electronic Health Record Systems (EHRS) can be defined as systems that store clinical data about patients, allowing decision support, improving communication between professionals and optimizing health care. It also, has multiple advantages that contribute to the improvement of working conditions despite the high initial investment. They have the potential to improve the accessibility of information, patient safety, increase efficiency, reduce the workload for professionals, reduce error and risk, in general, contribute to the improvement the quality of care. The Treatment Guide System (TGS) is one of those innovative EHRS, that associates each dialysis machine with a touch-screen tablet and connects it to a corporate network, and allow us to constantly monitor all dialysis parameters and to make adjustments with greater effectiveness and accuracy in order to improve patients dialysis quality.

Objectives

To analyze the impact of the implementation of TGS on satisfaction in hemodialysis units healthcare providers

Methods

This a quantitative study with the objective of analyze the impact of the implementation of TGS on satisfaction in hemodialysis units healthcare providers. Data collection will be carried out between April and May 2025, using a questionnaire to health professionals who use TGS and provide care in 26 outpatient hemodialysis units in Portugal.

Conclusion/Application to practice

The knowledge of the impact that the use of a EHRS, such as TGS, has on the satisfaction of health professionals, along with the consideration of the other advantages may lead to initiatives to extend the implementation of the EHRS to other contexts, justifying the necessary investment in it.

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Abstract Country

Portugal

Disclosure of Interest

No

Healthcare professional's experience

38

User experience of a novel routine for fluid management in hemodialysis – a qualitative study

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Background

Recognition and Correction of Volume Alterations – Recova, is a decision aid for fluid management, which was developed to meet the need for increased precision in target weight determination in hemodialysis and contribute to individualized treatment for people with advanced chronic kidney disease. An ongoing prospective intervention study, involving 10 hemodialysis clinics, is testing the hypothesis that the use of a Recova can reduce the time to recovery after a hemodialysis session.

Objectives

The purpose of this study was to investigate nurses' and physicians' experience of using Recova for assessment of symptoms and evaluation of dialysis patients' target weight.

Methods

Focus group interviews with health care professionals from seven hemodialysis units were conducted 6–36 months after the implementation intervention. Four focus group interviews were held with 3–5 participants per group and content analysis was used to explore the users' experiences.

Results

In total 17 participants, three physicians and 14 nurses participated. Median (Md) age was 44 (range 32–60) years, Md number of years in the profession was 17 (range 3–36) years and Md years in kidney care 14 (3–30) years. Two out of 17 study participants were men.

The users' perception was that Recova contributed structure, improved communication and precision and increased patient involvement and use of bioimpedance. Challenges to use were the lack of time, staff, technical support and training and also different attitudes to change.

Conclusion/Application to practice

Interventions are often designed to meet the needs of a specific user. However, the user's perspective is often excluded in the process, this can minimize effectiveness due to a lack of understanding of the user, their perspective, and/or their needs. This qualitative study explored health care professionals' perceptions of a novel decision support and identified a number of experienced improvements in clinical care but also challenges to implementing a new routine into clinical practice.

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Abstract Country

Sweden

Disclosure of Interest

No

58

Why is it so hard to just let people die?

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Abstract

This presentation focuses on empowering healthcare workers to engage in conversations about shared decision-making (SDM) with patients and their caregivers regarding the initiation and withdrawal of dialysis. The primary goal is to enhance healthcare workers' comfort levels in facilitating these discussions, thereby enabling patients to assert more control over their lives and end-of-life decisions. Grounded in the clinical practice guideline developed by the Renal Physicians Association, the presentation emphasizes practical strategies and communication techniques for navigating sensitive topics related to treatment preferences, prognosis, and quality of life. By promoting patient autonomy and involvement in decision-making, healthcare workers can foster a collaborative approach that respects patients' values and preferences. This presentation aims to equip healthcare workers with the skills and confidence needed to support patients in making informed choices about dialysis initiation and withdrawal. Ultimately, by prioritizing patient-centered care and empowerment, healthcare workers can facilitate meaningful conversations that honor patients' autonomy and promote their well-being throughout their healthcare journey.

Background

The decision to initiate or withdraw from dialysis is one of the most critical and complex decisions faced by patients with end-stage renal disease (ESRD) and their healthcare teams. As dialysis treatment can profoundly impact a patient's quality of life, it is essential that decisions are made collaboratively, respecting both the clinical evidence and the patient's personal values, goals, and preferences. Shared decision-making (SDM) provides a structured approach to this process, where healthcare providers and patients work together to make informed treatment decisions.

The concept of SDM in dialysis decision-making has gained increasing importance in recent years, particularly as healthcare professionals seek to address the diverse needs of patients with chronic kidney disease (CKD). Research has shown that when patients are actively involved in decisions about their treatment, they are more likely to experience improved satisfaction with care, reduced anxiety, and better alignment between their treatment choices and personal values. Despite these benefits, many healthcare workers report feeling uncomfortable or unprepared to have conversations about dialysis initiation or withdrawal with patients and families.

The clinical practice guidelines developed by the Renal Physicians Association aim to address these challenges by providing evidence-based recommendations for facilitating SDM in dialysis decision-making. These guidelines emphasize the need for open communication, comprehensive patient education, and a collaborative approach to treatment planning. By improving healthcare workers' confidence in discussing these sensitive topics, the guidelines seek to ensure that patients' voices are central in determining their treatment paths, ultimately leading to more personalized and compassionate care.

Objectives

- 1: Enhance Healthcare Workers' Confidence in SDM
- 2: Promote Patient Autonomy and Informed Decision-Making
- 3: Facilitate Collaborative Decision-Making
- 4: Improve Communication Skills for Discussing Sensitive Topics
- 5: Integrate Clinical Practice Guidelines into Routine Care

Methods

The dialysis department at Ahus has placed a strong emphasis on this topic. I have provided training to my colleagues on both the subject matter and the guidelines. Our goal is for us, as nurses, to feel better prepared when patients spontaneously discuss end-of-life matters, as well as to be able to proactively initiate conversations about end-of-life care.

References

The clinical practice guideline developed by the Renal Physicians Association. 2nd edition. Shared decision-making in the appropriate initiation of and withdrawal from dialysis.

Abstract Country

Oslo, Norway

Disclosure of Interest

No

97

Patient-Centered Comprehensive Care score on Haemodialysis Nurses

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Background

Provision of Patient-Centered care is expected to benefit patients by promoting patients' independence and sense of control, improving quality of life, and increasing satisfaction with care.

The Patient-Centered Comprehensive Care (PCCC) score was adapted from the "Patient-Centered Comprehensive Care", subscale of the "Individualized Care Index" developed by van Servellen (1988). It includes 21 items and integrates 5 dimensions: (i) meet customer needs (4 items); (ii) resolving client health problems (3 items); (iii) respond to customer needs according to their preferences (5 items); (iv) client education (4 items) and (v) client counselling (5 items).

Objectives

Assess PCCC score on haemodialysis nurses

Methods

A cross-sectional study was performed on 127 nurses from 37 dialysis centres. The PCCC scale was administered by nurses in haemodialysis units. Factor analysis was performed and after the statistical analysis in all dimensions.

Results

A total of 127 nurses, 67.7% female and with average age of 39.5 (SD=11.00) years, with 15.7 (SD=11) years of professional experience and 11.9 (SD=9.2) on haemodialysis. Most nurses (57.1%) have basic skills at school, while 84.1% have retired. In factor analysis we identified four dimensions: (A) – meeting patient needs; (B) – respond to customer needs according to their preferences (C) – education (E) – information to patient/family. Nurses showed a PCCC score=3.89 (SD=.53). In dimension A=3.68 (SD=.64); B=4.21 (SD=.57); C=3.81 (SD=.65); D=3.86 (SD=.69); E=3.46 (SD=1.55).

Conclusion/Application to practice

The development of a nursing intervention model to promote PCCC in haemodialysis patients should consider the individuality of each patient, so that we can establish an individualized approach and define priorities in the approach, considering the different dimensions of the process of PCCC.

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Abstract Country

Portugal

Disclosure of Interest

No

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How can we help? Interventions to reduce dialysis stressors in the Dialysis center Kočevje

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Abstract

How can we help? Interventions to reduce dialysis stressors in the Dialysis center Kočevje

Background

Patients undergoing dialysis experience significant physical, emotional, and social stressors that impact their overall well-being and treatment. The chronic nature of kidney disease, coupled with the demanding dialysis regimen, contributes to anxiety, fatigue, and reduced quality of life. Identifying the most common stressors among dialysis patients is crucial for developing targeted interventions that enhance patient support and care outcomes.

Objectives

The aim of this survey was to identify the five most common stressors experienced by dialysis patients and then to develop appropriate interventions for their management. By doing so, we aim to contribute to improving the quality of life for these patients and support healthcare professionals in providing more comprehensive care.

Methods

A survey consisting of the Hemodialysis Stressor Scale was used, to identify the five most burdensome stressors for hemodialysis patients. Participants selected and ranked their top five stressors before, during and after dialysis from a list of 29, ranking them from 1 (most stressful) to 5 (least stressful). Demographic data were also collected.

Results

The five most frequently reported stressors among dialysis patients were fluid intake restrictions, followed by sleep disturbances, muscle cramps, limitations in physical activities, and fatigue.

Conclusion/Application to practice

Based on these findings, a thorough literature review will be conducted to develop evidence-based healthcare guidelines for managing of stressors among dialysis patients. The goal is to create a structured approach to reduce and prevent these stressors, providing healthcare professionals with a practical tool to enhance patient care. Ultimately, this initiative aims to improve the quality of life for dialysis patients by addressing their most pressing challenges.

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Abstract Country

Slovenija

Disclosure of Interest

No

174

Motivational interviewing in the care of the person with chronic kidney disease: scoping review

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Abstract

Motivational Interviewing; Chronic kidney Disease; Nursing

Background

Chronic kidney disease (CKD) significantly affects lifestyle and emotional well-being, making adherence to demanding, long-term therapeutic regimens challenging. Motivational interviewing (MI), a collaborative, person-centered approach, shows promise in addressing these challenges.

Objectives

To map the scientific evidence on the application of motivational interviewing in the care of individuals with CKD.

Methods

A scoping review was conducted following the JBI protocol and the PCC mnemonic: Population (people with CKD); Concept (Motivational Interviewing); Context (all nursing care context for CKD patients), according to PRISMA-ScR guidelines. Searches were performed in CINAHL (via EBSCOhost), MEDLINE (via PubMed), Scielo, LILACS, and RCAAP. Studies involving individuals under 19 years old were excluded.

Results

On the 41 articles identified, three studies met the inclusion criteria. The review included a multicenter, randomized, controlled, and blinded clinical trial, as well as two pilot studies, both of which assessed pre- and post-intervention outcomes using MI. All studies were conducted on individuals undergoing hemodialysis treatment. The studies suggest that MI may reduce symptoms of anxiety, depression, and sleep disturbances while improving social functioning, somatic symptoms, and adherence to therapy, although statistical significance was not achieved. However, a statistically significant improvement was observed in the perception of overall health quality in the intervention group compared to the control group in the clinical trial.

Conclusion/Application to practice

MI provides a collaborative, patient-centered approach that facilitates behavioral change, making it a promising strategy for managing the complex therapeutic regimen in individuals with CKD. Further studies with larger samples, across different CKD stages, and encompassing various modalities of renal replacement therapy are needed.

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Abstract Country

Portugal

Disclosure of Interest

No

204

Exploring the behavioral patterns on patient-nurse relationships in hemodialysis care

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Background

The relationship between nursing staff and patients in a hemodialysis unit is uniquely close, characterized by continuous interaction that fosters both a comprehensive assessment of the patient's condition and a meaningful emotional bond. However, this proximity also brings challenges and complexities. Hemodialysis patients often exhibit behavioral patterns such as denial, displacement, and avoidance, which can hinder communication and significantly affect care quality. Additionally, the layout of hemodialysis units, where patients are always visible to staff, complicates maintaining a balance between professionalism, emotional detachment, and personal privacy during work shifts.

Objectives

To analyze the relationship between nursing staff and the patient in a hemodialysis unit, identifying emotional, behavioral, and vulnerability factors that influence the quality of care.

Methods

This qualitative, observational, and descriptive study was based on a narrative literature review of publications from 2001 to 2022. Eight relevant articles addressing the psychosocial and emotional aspects of renal disease patients and the vulnerability of nursing professionals were selected for analysis.

Results

Hemodialysis patients experience various emotional stages—denial, anger, bargaining, depression, and acceptance—that shape their behavior and relationships with nursing staff. Two key phases emerge: the „honeymoon“ phase, marked by optimism, and the „disillusionment and discouragement“ phase, where sadness and helplessness dominate. Patients' dependence on nursing staff and dialysis machines can lead to conflicts over autonomy, while the open layout of hemodialysis units fosters both interaction and disputes. Nursing staff also face emotional vulnerability, needing to manage the stress of patient behaviors. Effective emotional regulation is essential to maintaining care quality and preventing burnout.

Conclusion/Application to practice

Implementing psychological support for patients and enhancing nursing staff training in communication and emotional management are crucial. Integrating coping strategies would improve therapeutic relationships, reduce stress, and foster a healthier, more sustainable work environment.

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Abstract Country

Spain

Disclosure of Interest

No

230 Relocation of a Dialysis Center During War – Impact on Patients and Nursing Medical Staff

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Abstract

Relocation of a Dialysis Center During War – Impact on Patients and Nursing Medical Staff

Background

In times of war, the relocation of medical facilities, including dialysis centers, is sometimes necessary to ensure the safety of patients and staff. Dialysis-dependent patients require uninterrupted treatment, and any sudden change in their treatment environment can have severe consequences. The abrupt relocation of a dialysis center during conflict can greatly affect both patient care and the operational dynamics of healthcare teams.

Objectives

This study aims to explore the impact of the sudden relocation of a dialysis center during war on treatment continuity, patient well-being, and the emotional and professional burden experienced by healthcare staff.

Methods

A qualitative assessment was carried out, analyzing patient health parameters, treatment adherence, medication intake, and emotional responses before, during, and after the relocation. Interviews with healthcare staff were conducted, focusing on logistical challenges, stress levels, adaptation to new working conditions, and the impact of the move to a protected facility.

Results

The findings revealed that patients experienced heightened anxiety and difficulties adjusting to the new environment. Treatment delays and patients' fears of travel due to potential dangers were also noted. Healthcare staff reported increased stress levels, challenges in maintaining medical protocols, and difficulties adjusting to the new facility's infrastructure. Despite these challenges, teamwork, flexibility, and strong communication were vital in minimizing disruptions and ensuring patient safety. Mutual support among staff members also helped provide psychological reassurance for patients.

Conclusion

The relocation of a dialysis center during wartime presents significant challenges to both patients and healthcare staff. Effective emergency preparedness, psychological support systems, and flexible medical protocols are essential for maintaining continuous care and ensuring patient safety. The insights from this study can guide the development of more effective crisis management strategies in nephrology care and similar healthcare settings.

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Abstract Country

ISRAEL

Disclosure of Interest

Yes

Experience of people with kidney disease

34

Insights from a patient and public involvement meeting in a Danish kidney care study

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Background

Patient and public involvement (PPI) in health research has the potential to bring important contributions to the research process. A partnership between representatives of study participants and researchers is based on democracy, life world perspectives, and shared knowledge, ensuring that the research is meaningful.

Objectives

Aim

To explore adults with advanced kidney disease (AKD), informal care givers and nurses' experiences of participating in a PPI meeting.

Methods

A partnership between researchers, adults with AKD, informal caregivers, and nurses was established prior to commencement of a kidney care study for the purpose of co-designing and test the effectiveness of symptom management interventions. At a six-hour PPI meeting in September 2024, facilitated by six members of the research team, participants evaluated the meeting with statements on placemats with prompts such as ideas, thoughts and questions, key words and wishes. Data consisted of 31 statements from 8 participants. Thematic analysis in six phases was used to analyze data¹. Additionally, 17 participants completed the Patient Engagement in Research Scale (PEIRS-22)², which was analyzed descriptively.

Results

In total three adults with AKD, two informal caregivers and 12 nurses attended the meeting. Thematic analysis showed that the meeting facilitated inclusion of personal experiences and respect of individual limitations. Research was an unknown area to almost all participants. Nevertheless, new insights into research practices resulted in suggestions for improvement of surveys and study information. All participants completed the PEIRS-22, means score was 83.49 out of 100, indicating a very high degree of meaningful engagement at the meeting.

Conclusion/Application to practice

The PPI meeting with active engagement of stakeholders fostered mutual understanding and respect among participants, provided new clinical and research insights, and generated diverse contributions for project improvement. The study underscores the value of PPI meetings in enhancing collaborative efforts and improving kidney care research.

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Abstract Country

Denmark

Disclosure of Interest

No

42

Bridging the gap in CKD care: A patient-centered pre-ESRD program

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Abstract

Chronic kidney disease (CKD) is a progressive condition that, if left unmanaged, often leads to end-stage renal disease (ESRD), requiring dialysis or transplantation. Early intervention through a structured pre-ESRD program is essential to slow disease progression, manage complications, and empower patients to make informed decisions about their care.

Background

In Greece, a new Pre-ESRD program is being implemented for the first time, focusing on patients with declining kidney function who are at high risk of progressing to kidney failure. This program aims to enhance patient stability, ensure timely interventions, and optimize long-term outcomes.

Objectives

Our objective is to present the study design evaluating the effectiveness of a structured pre-ESRD program in slowing CKD progression, delaying the need for dialysis or transplantation, and enhancing patient stability through proactive medical and lifestyle interventions. The study also aims to improve quality of life by integrating multidisciplinary support, early arteriovenous fistula (AVF) creation, and patient education.

Methods

A prospective, observational study was conducted to assess the impact of a structured pre-ESRD program on clinical outcomes, patient stability, and quality of life. The study included patients with declining kidney function who were at high risk of progressing to kidney failure.

Results

A structured Pre-ESRD program was developed, incorporating key components to improve patient outcomes. These included patient education on managing acute illnesses through 'sick day rules,' lifestyle modifications such as smoking cessation, blood pressure control, and increased physical activity, as well as tailored nutritional therapy to optimize protein, sodium, potassium, and phosphorus intake. The program also emphasized early preparation for vascular access with timely arteriovenous fistula (AVF) creation before dialysis initiation. A multidisciplinary care team, consisting of nephrologists, cardiologists, vascular surgeons, nurses, and dietitians, provided comprehensive patient management.

Outcome measures included the rate of CKD progression (assessed by eGFR decline and time to dialysis initiation), patient stability (hospitalization rates and incidence of acute complications), and quality of life (evaluated using validated patient-reported outcome measures).

Conclusion/Application to practice

The implementation of a structured pre-ESRD program is expected to enhance patient stability, delay disease progression, and improve overall quality of life. By integrating early intervention, education, and multidisciplinary support, this program equips patients with the necessary tools to better manage CKD and transition to ESRD more effectively.

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Abstract Country

Greece

Disclosure of Interest

No

125

Self-management barriers and facilitators in people with chronic kidney disease using consumer-led focus groups

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Background

The capacity of people living with chronic kidney disease to self-manage their health care is critical to improving their health-related outcomes and quality of life.

Objectives

This study aimed to explore self-management barriers and facilitators in people living with chronic kidney disease.

Methods

Three focus groups of 2 hours each were undertaken with people living with kidney disease and experienced kidney care clinicians using semi-structured questions. The question guide was co-designed by consumers working as co-investigators. Interviews were inductively thematically analysed using Braun and Clark analysis methods within a patient activation theoretical framework.

Results

A total of 17 participants from one Australian kidney care service contributed (11 people living with chronic kidney disease and 6 kidney care clinicians). Themes that were identified included external influencing factors: clinician educational style; individualised/ tailored approach and supportive network. Three intrinsic factors were symptom burden (physical and psychological), positive mindset and feeling empowered.

References

To increase the self-management of people living with kidney disease, clinicians can engage in a more effective way through increasing patient knowledge, utilising goal setting and finding ways an individual can access ongoing support, either from the health practitioner or through support networks. Integrating these barriers and facilitators into developing a future self-management program may improve the effectiveness of these programs.

Abstract Country

South Australia, Australia.

Disclosure of Interest

Yes

138

The patient's perspective: does it align with dialysis adequacy?

Background

The concept of patient-centered care puts the individual's health needs and desired health outcomes as the driving forces behind medical decision making and quality assessment in the health care system. Patients with ESKD treated by hemodialysis require frequent encounters with the dialysis facility to survive. Therefore, their satisfaction with care and perceived patient experience are important aspects that might affect their adherence to the care regimen. The aim of this study was to evaluate patient satisfaction and its association with perceived patient experience and objective clinical quality parameters, across three hemodialysis clinics.

Methods

A prospective cohort study analyzed the data of 126 patients with ESKD receiving chronic hemodialysis over 9 months in three different care facilities. Sociodemographic characteristics, medical history, treatment details, and dialysis adequacy (measures as STDKt/V) were collected. Perceived quality of care, patient satisfaction, and clinical outcomes were assessed.

Results

Patients differed significantly between sites by age, diabetes status, and biochemical parameters. Satisfaction scores varied significantly for 12/14 survey questions and at the site-level, with site 2 scoring the highest. Overall satisfaction did not correlate with Kt/V . At site 1, a moderate negative correlation was found between satisfaction and Kt/V . Kt/V correlated positively with age but inversely with satisfaction. Hospitalization rates were similar regardless of satisfaction. Mortality trended lower in the highest Kt/V quartile.

Conclusion/Application to practice

Achieving clinical quality while optimizing patient satisfaction requires multifactorial approaches tailored to the unique population of the hemodialysis facility. Further research is needed to fully understand factors influencing satisfaction and perceived quality.

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Abstract Country

ISRAEL

Disclosure of Interest

No

177

Awareness of the person on dialysis: scoping review

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Abstract

Awareness; Renal Dialysis; Peritoneal Dialysis; Chronic Kidney Failure; Nursing

Background

The initiation of dialysis treatment is a significant and challenging event, bringing physical, psychological, emotional, and social implications for the patient. Awareness, as a fundamental aspect of the transition process, plays a crucial role in adapting to treatment and encourages the individual's active participation in managing their own health.

Objectives

To map the scientific evidence on the awareness of individuals undergoing dialysis treatment.

Methods

A Scoping Review was carried out in accordance with JBI protocol and the PCC mnemonic: Population (people undergoing dialysis treatment); Concept (Awareness) and Context (all nursing care settings for dialysis patients), following the PRISMA-ScR guidelines. The literature search was conducted in MEDLINE (via PubMed), CINAHL Complete, Cochrane Plus Collection, Nursing & Allied Health Collection, MedicLatina (via EBSCOhost), SciELO, and RCAAP. Studies involving individuals under the age of 19, those in pre-dialysis, or receiving alternative treatments were excluded.

Results

Out of the 1543 articles identified, three studies met the inclusion criteria. These studies emphasized the connection between awareness and various factors, such as enhancing self-care, adapting to dialysis treatment, expanding knowledge, and supporting decision-making regarding treatment options.

Conclusion/Application to practice

There is a limited number of studies examining awareness in individuals after the initiation of dialysis. Awareness seems to play a crucial role in the adaptation to dialysis treatment. However, further research is needed to explore this concept and identify ways to enhance it throughout the treatment journey. Developing and validating instruments to assess awareness in dialysis patients presents an opportunity for future investigation. The implementation of educational programs aimed at fostering awareness could contribute to better treatment management, a reduction in complications, and an overall improvement in patients' quality of life.

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Abstract Country

Portugal

Disclosure of Interest

No

CKD prevention & Symptoms Management

15

Sleep disturbances in adults with chronic kidney disease: an umbrella review

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Abstract

This umbrella review aimed to synthesise the existing evidence on sleep disturbances and sleep disorders in adults with chronic kidney disease.

Methods

A systematic search across five electronic databases. Reviews were grouped according to aspects of sleep and the review's focus. The JBI critical appraisal checklist was used for quality assessment, and the Preferred Reporting Items for Overviews of Reviews (PRIOR) guideline was used for reporting. The protocol was registered in the international registry PROSPERO (CRD42024527039).

Results

We identified 50 reviews covering three main aspects of sleep (sleep apnoea, restless leg syndrome (RLS) and other sleep disturbances) across five focus areas (prevalence, interventions, health outcomes, determinants of sleep and patient experience). Most reviews reported on sleep disturbances (72%, 36 reviews) and focused on interventions (58%, 29 reviews). In contrast, evidence on sleep determinants and patient experience was limited. A high prevalence of sleep apnoea (49%), RLS (27.2%) and other sleep disturbances (55%) was reported. Non-pharmacological interventions, including aromatherapy, dialysis, muscle relaxation, yoga, music, and nurse-led management, were found to improve sleep. However, this evidence was based on a single meta-analysis with few primary studies.

Conclusion/Application to practice

Despite the growing number of reviews on interventions to improve sleep, the evidence for their effectiveness is limited by the small number of primary studies and the high degree of overlap between reviews. Further research is needed to identify effective interventions. Additionally, qualitative studies exploring patients' perspectives on sleep are essential, as evidence in this area remains scarce.

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Abstract Country

Australia

Disclosure of Interest

Yes

36

An association study between chronic kidney disease-associated pruritus and depression in individuals undergoing haemodialysis.

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Background

Chronic kidney disease-associated pruritus (CKD-aP) is a condition that causes a significant burden on the quality of life in people undergoing haemodialysis (HD) and is strongly associated with symptoms of depression.

Objectives

This study aimed to evaluate the association between CKD-aP and depression among individuals with CKD on HD in Greece.

Methods

This was a cross-sectional study conducted to explore the association between CKD-aP and depression among people receiving HD. To assess CKD-aP and depression, the 5-D Itch Scale and the Beck Depression Inventory-II (BDI-II) were utilised, respectively. To explore the associations between CKD-aP and depression, Spearman correlation coefficients (rho) were used. All reported p-values were two-tailed. Statistical significance was set at $p < 0.05$ and analyses were conducted using SPSS statistical software (version 27.0).

Results

The sample consisted of 300 individuals on HD (67.0% males), with a mean age of 65.0 years (SD=13.2 years). The mean time on HD was 6.1 years (SD=5.8) and their mean age at the time they started HD was 57.9 years (SD=15.6 years). The mean 5-D itch scale score was 11.1 points (SD=2.8) with the mean degree score to be 2.3 points (SD=0.7), with an estimated 72.7% of the participants to have experienced mild symptoms of pruritus. The mean BDI-II score was 11.2 (SD=7.3), with an estimated 13.9% of the study participants reporting a depressed mood. The correlations between the scales of depression and pruritus were significant and positive. More intense itching was associated with more intense depression (rho 0.37; $P < 0.001$).

Conclusion/Application to practice

The study demonstrated a significant positive association between the severity of CKD-aP and depression in individuals undergoing haemodialysis. These findings underscore the importance of integrating both pruritus and mental health assessments into routine care to enhance overall patient quality of life.

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Abstract Country

Greece

Disclosure of Interest

No

164

A symptom assessment instrument for patients with non-dialysis-dependent chronic kidney disease (NDD-CKD) stages 4-5

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Background

Patients with advanced CKD, not on dialysis, may have a significant symptom burden, which may negatively impact on health-related quality of life (HRQoL). Accordingly, proactive symptom management, tailored to individual patient requirements, is a key component of the care afforded to such patients. However, in order to be effectively managed, symptoms need to be formally assessed, using reliable and valid measures, specific to the patient population of interest. This paper reports the findings of a PhD study that focuses on designing such an instrument for advanced CKD.

Objectives

To develop a symptom assessment instrument (SAI) for NDD-CKD stages 4-5.

Methods

To realise the aim, a mixed-methods design was employed, consisting of a qualitative phase, followed by a design and, then, quantitative phase (phases 1, 2, and 3, respectively). Eighteen participant interviews were conducted in phase 1 and analysed to identify symptom themes. These themes informed the content of a 33-item symptom-rating scale in phase 2 (Section A), to which a 10-item symptom impact scale (Section B) was added. The instrument was tested in 331 participants (mean eGFR 18), to establish initial validity. Exploratory (EFA) and confirmatory factor analysis (CFA) were used to test the dimensionality of Section B, and Cronbach's alpha, to measure internal consistency.

Results

Section A demonstrated good validity, with all 33 symptom items being rated by participants. The most prevalent symptoms were 'Feeling tired', 'Muscle weakness', and 'Feeling cold', each of which was experienced by 75% of participants. EFA suggested that Section B had a two-factor structure, which was subsequently confirmed by CFA. The two subscales broadly measured physical and emotional HRQoL, with each having good internal consistency (Cronbach's alpha. 900).

Conclusion/Application to practice

This research has developed a SAI for patients with advanced CKD. The instrument measures symptoms and their impact on HRQoL and is a novel addition to currently available measures.

References

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Abstract Country

England.

Disclosure of Interest

No

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Chronic Pain Management in Hemodialysis Patients: A Pilot Study

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Background

Chronic pain is a prevalent and often underrecognized condition among hemodialysis patients, significantly impacting quality of life and treatment adherence. Results from a global health-related quality of life assessment, indicated that **41% of patients reported chronic pain**. These findings highlighted the need for a structured and standardized pain management approach, leading to the implementation of this prospective observational pilot study.

Objectives

This study aimed to assess the prevalence of chronic pain in HD patients and evaluate the effectiveness of a structured pain management algorithm in reducing pain severity.

Methods

This prospective observational pilot study was conducted from July to December 2023, including all patients undergoing HD treatment during the study period (n=221, 1,087 pain assessments). Inclusion criteria: HD patients receiving hemodialysis during the study period. Exclusion criteria: Patients with cognitive impairment or those who declined participation. Pain assessment was conducted using a standardized questionnaire before each HD session, with patients classified: Mild pain (score 1-4): Managed with non-opioid analgesics. Moderate pain (score 5-7): Treated with a combination of analgesics and opioids. Severe pain (score 8-10): Managed with opioid analgesics.

Results

Among the 221 patients, we obtained 1087 pain assessments. (42%) reported chronic pain and were managed according to the pain management algorithm. 9% (9/93) required no intervention, as their pain was mild and non-disruptive. 39% (36/93) received non-pharmacological management only. 19% (18/93) were managed exclusively with pharmacological treatment. 35% (33/93) received a combination of pharmacological and non-pharmacological interventions, demonstrating the need for multimodal pain management strategies.

Conclusion/Application to practice

Chronic pain in HD patients requires structured and continuous assessment to ensure appropriate management. The approach is scalable across dialysis centers and supports the inclusion of chronic pain monitoring as a routine clinical parameter, reinforcing the principle that everyone deserves a life free from pain.

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Abstract Country

Portugal

Disclosure of Interest

No

245

The experience of “feeling cold” in patients undergoing in-center haemodialysis – a phenomenological study

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Background

The symptom of “feeling cold” in patients with kidney failure is scarcely addressed in the literature and is not included in symptom assessment tools for this patient group. The experience of “feeling cold” is a common experience and is something everyone aims to prevent. Virginia Henderson identified the ability to regulate body temperature as a basic need¹, making it essential to include this symptom in kidney care.

Objectives

This study aims to explore the phenomenon of “feeling cold” by investigating how patients undergoing haemodialysis experience the symptom of „feeling cold“.

Methods

This study was conducted with a phenomenological approach, consisting of 26 semi-structured individual interviews with patients undergoing in-center haemodialysis. Data was collected during haemodialysis in November 2024. Data were analysed by using Malterud’s systematic text condensation².

Results

Participants with kidney failure experienced the symptom of „feeling cold“ in various ways and were often described in negative terms. This symptom significantly impacted their daily lives in different aspects such as psychologically, physically and socially. Additionally, participants also experienced episodes of „feeling hot“.

Conclusion/Application to practice

The findings show that the phenomenon of “feeling cold” exists among patients with kidney failure. Furthermore, the findings are valuable as they enhance the understanding and care for patients living with kidney failure. The prevalence and severity of the phenomenon needs to be investigated further together how patients with other stages of kidney failure experience the phenomenon.

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Abstract Country

Denmark

Disclosure of Interest

No

246

How to manage uremic symptoms – developing a clinical decision support tool using Delphi design

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Background

A number of interventions, both pharmacological and non-pharmacological, exist to manage uremic symptoms. Instruments exist to identify uremic symptoms, e.g. the IPOS-renal¹, but patients and clinicians need guidance in identifying relevant interventions and to choose the most relevant intervention for each symptom in IPOS-renal.

Objectives

To develop a clinical decision support tool to manage uremic symptoms

Methods

The Delphi technique was employed to achieve consensus among a national expert panel in symptom management comprising patients with advanced kidney disease, kidney nurses, and nephrologists. A systematic literature searches, alongside recommendations from the expert panel, identified potential interventions for managing uremic symptoms. Participants rated their agreement, importance, and frequency of each intervention through a series of online surveys, with consensus defined as greater than 70%.

Results

The expert panel consisted of 46 participants with the majority having more than 10 years of experience in the field. The panel represented various treatment modalities; haemodialysis, peritoneal dialysis, transplantation, pre-dialysis, and conservative kidney management. A total of four Delphi rounds were conducted online, achieving response rates of 100%, 78%, 72%, and 67%. The systematic literature search identified 225 interventions, with additional 80 suggested by the panel. Ultimately, 250 interventions reached the consensus threshold of over 70%, while 47 interventions that did not meet this criterion underwent retesting. In the final round, interventions were prioritised based on participants rated importance and frequency.

Conclusion/Application to practice

This Delphi study generated a comprehensive list of interventions for managing uremic symptoms, tailored to the context of Danish kidney care. By integrating scientific evidence, clinical expertise, and patient preferences, the decision support tool embodies evidence-based practice². Future enhancements should focus on incorporating shared decision-making and self-management support to empower patients and clinicians in management of uremic symptoms.

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Abstract Country

Denmark

Disclosure of Interest

No

258

Symptomatology in patients with advanced chronic kidney disease (CKD): results from a cross-sectional study

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Background

Patients with advanced chronic kidney disease (CKD), not in receipt of renal replacement therapy, have a high symptom burden, which may negatively impact on their quality of life and functional status. Effective, individualised symptom management is crucial for these patients. However, for management to be effective, symptoms must be formally assessed using reliable and valid measures tailored to this specific population. This study reports findings from a cross-sectional study exploring the symptom experience in non-dialysis-dependent CKD patients.

Objectives

To explore the range of symptoms experienced by patients with stages 4 and 5 non-dialysis-dependent CKD (NDD-CKD).

Methods

Symptoms were measured using the Chronic Kidney Disease Symptom Assessment Instrument (CKD-SAI), a novel tool developed to assess symptom prevalence, frequency, severity, and bothersomeness. The scale assesses 33 common symptoms in advanced CKD and allows patients to nominate additional symptoms. The instrument was tested for face and content validity in a cohort of 331 participants (mean eGFR 17.6, range 5–29).

Results

Participants reported a mean number of 17 symptoms (range 3–31) from the 33 listed. The most prevalent symptoms were 'Feeling tired', 'Muscle weakness', and 'Feeling cold', each experienced by over 75% of participants. Despite some symptoms ranking highly across all four dimensions (e.g., 'Feeling tired', 'Muscle weakness', and 'Itchy skin'), there was substantial variability in symptom frequency, severity, and perceived bothersomeness. This variability supports the notion that symptoms are multidimensional and should not be assessed on a single dimension alone.

Conclusion/Application to practice

Patients with NDD-CKD stages 4 and 5 experience a significant symptom burden. The CKD-SAI offers a comprehensive, individualised assessment, making it a valuable tool to complement existing measures in clinical practice.

References

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Abstract Country

England.

Disclosure of Interest

No

E-POSTERS WITH ORAL PRESENTATION

208

A new tool in your nursing belt: ultrasound guide for AV fistula assessment.

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Background

Vascular access is crucial for hemodialysis patients, requiring precise assessment for long-term success. In clinical practice, nurses often face uncertainties during vascular access evaluation, highlighting the need for accessible, ready, easy-to-use resources. Ultrasound (US) is vital for AVF surveillance, improving complication detection and cannulation. Providing nurses with standardized guidelines and real-time decision-making tools ensures more efficient assessments, ultimately enhancing patient care and contributing to the success of vascular access in hemodialysis.

Objectives

Design an on-hand comprehensive, practical guide for nurses on ultrasound use in arteriovenous fistula (AVF) assessment, covering ultrasound device operation, optimal settings and step-by-step procedures for effective vascular access evaluation.

Methods

Development of the practical guide began in May 2024, starting with a review of external resources such as manufacturer instructions, internal clinical protocols, and relevant vascular access guidelines. Input from international expert in vascular access was integrated for accuracy. The guide underwent internal review by the nursing team through meetings and clinic-based feedback.

Results

The guide development took 4 months, followed by 3 months of team awareness and presentation. It was then printed and distributed across 47 clinics. The final product is a compact, durable, and user-friendly guide with detailed instructions on ultrasound operation, AVF assessment, ultrasound-guided cannulation, and documentation. It includes step-by-step procedures for evaluating vascular access, assessing blood flow, and identifying complications like stenosis and thrombosis. Designed for easy access in clinical settings, it ensures a standardized approach to AVF assessment across clinics.

Conclusion/Application to practice

The creation of tailored materials, like this practical guide, empowers nurses to enhance their ultrasound skills in hemodialysis. This compact, durable, on-hand, and user-friendly guide contributes not only to standardize AVF assessment, documentation, and cannulation, but also serves as the perfect companion at the nurse's side, ready to be used when most needed during AVF ultrasound assessment.

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Abstract Country

Spain

Disclosure of Interest

No

212

Standardized guide for blood transfusion in hemodialysis: improving safety and quality

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Background

Anemia is a common complication in chronic kidney disease (CKD), affecting quality of life and increasing the risk of transfusions in hemodialysis. Although treatments such as hemoglobin control, anticoagulation optimization, online hemodiafiltration, erythropoiesis-stimulating agents, and iron therapy exist, transfusions are sometimes necessary. A lack of publications on standardized protocols may pose risks to patients.

Objectives

To develop a standardized guide for blood transfusion in hemodialysis, establishing clear criteria and guidelines to ensure a safe and effective process. The aim is to reduce variability in clinical practice, minimize risks, and improve the quality of care.

Methods

An extensive review of scientific literature and national and international hospital protocols was conducted to define evidence-based criteria. Eleven guidelines and manuals, as well as twelve articles related to blood transfusions and anemia treatment in CKD, were analyzed. Studies on safe transfusion practices, clinical guidelines, and experiences in hemodialysis units were examined to structure detailed protocols for each phase of the transfusion process, from medical indication to post-transfusion monitoring.

Results

A comprehensive guide was developed covering: medical indication, request verification, patient identification, informed consent, coordination with hematology, blood reception and preparation, safe administration, continuous monitoring, dialysis treatment adaptation, identification of adverse reactions, and procedure documentation.

Conclusion/Application to practice

The development of a standardized guide for blood transfusion in hemodialysis units improves procedural safety, reduces complications, and facilitates the work of healthcare personnel. Standardizing this process contributes to optimizing the quality of care, ensuring a more efficient and safer management of anemia in hemodialysis patients.

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Abstract Country

Spain

Disclosure of Interest

No

213

Depression and anxiety in hemodialysis

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Background

Depression and anxiety are common among hemodialysis patients affecting their treatment outcomes.

Objectives

Examine the prevalence of anxiety/depression and associated factors among patients receiving hemodialysis.

Methods

This cross-sectional study was carried out from May to June 2024 at the hemodialysis unit of DIAVERUM Régua (Portugal). All patients >18 years on hemodialysis for more than 6 months were included. Patient with known psychiatric illness or neurological illness, on antidepressant and antianxiety medication, with any kind of addiction (Alcohol, illicit drugs) were excluded. Hospital anxiety depression scale (HADS) was used to assess the presence of anxiety and depression and their severity. A score of 8–21 was considered abnormal disorder, and a score of 0–7 indicated absence of disorder.

Results

Total of 46 patients completed the questionnaire. The overall mean age was 72±13 years. 26 (56.5 %) of the participants were male and 40% had diabetes. The median period of hemodialysis treatment was 67 (17–163) months. Out of 46 participants, 37% of them had anxiety, while 63% had depression. Female participants were more anxious than male ($p<0.04$). Low educational level was associated with depression ($p<0.03$). We did not find a statistically significant relationship between anxiety/depression and age, marital status, employment position, health literacy, time on dialysis, diabetes and comorbid conditions.

Conclusion/Application to practice

Anxiety and depression were frequently found in our hemodialysis patients mainly in female and low educational level. Screening for symptoms of depression and anxiety should be part of routine care in patients with hemodialysis, as timely diagnosis and management helps in improving the quality of life. Age, co-morbidities, duration of chronic kidney disease were not associated with depression. Our study was done in a single center with a minimal sample size, which limits the external validity. Large-scale multicentric studies may be planned to validate our findings in various ethnic populations

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Abstract Country

Portugal

Disclosure of Interest

Yes

214

Relationship-based care: a theoretical framework. As strong as a nurse's caress can be.

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Abstract

„Relationship-based care“ (CBR) is a theoretical framework by Mary Koloroutis for nursing practice. It's been chosen by the Nursing Department of my organization to „shape“ the whole nursing activity in all settings (vision). It focuses on safety, quality, patient satisfaction and staff cohesion by improving the relationship; this is meant to be with yourself first, then with patients and families and with the colleagues. The CBR framework „stands“ on pillars: healing environment, leadership, team work, professional practice, delivering nursing care, resources, results. The Primary Nursing is the organizational model to perform the vision in the clinical practice (mission)

This model is applied after an educational and motivational program to be spread in all settings, and also in Nephrology field. In particular, the CKD patient has often a long-lasting relationship with the Nursing staff, so it's a perfect example for this new approach. The choice for the methodology is a challenge taken by our Director, whose enthusiastic and strong commitment has pushed the project from the very beginning phase. Then, a complete program of education for the nursing staff began, leading to knowledge of the vision and understanding the value of it for each professional. This „spread leadership“ has been a winning tool for change.

The nursing teams mentality is slowly changing from a „task-based“ activity plan towards a process-lead one, from a „vertical“ vision of the healthcare departments/services towards an „horizontal“ and „fluid“ organization of activities, in a lean-thinking/ patient-oriented definition. The Primary Nursing organizational model is applied to all settings; the Caring Leaders are colleagues who spread knowledge and inspire the staff nurses as facilitators.

The management of Nephrology and Hemodialysis settings can benefit of this new approach to Nursing, and we want to explore the Nursing Outcomes connected to this new approach.

Background

Nursing is facing a new era of development; we've reached the highest levels of education and the top positions in many national healthcare systems. But we are also facing continuous threads, beginning with the burden of staff shortage, cut of resources and the nursing professional „appeal“ which is world-wide decreasing. We need new motivation, new lymph for our professional management in a practical and „livable“ way. It means to feel the highest decisions and policies about the nurses work as useful, feasible and not just „what should be“.

We also need to get back our time with the patient, the privilege to „be there“, sometimes simply holding his/her hand and caress it. „Time for relationship is healing time“: this is one of the most powerful statements of our Code of Ethics.

The environment for this study is a big public healthcare company in Tuscany (Italy). It was created from the union of three previous companies of three big cities (Arezzo, Siena and Grosseto), and the population under its care is about 800.000 in 11.500 Km² of the South-East of Tuscany, central Italy region. Our company Nursing Department involves about 5000 nurses in three main hospitals, districts and all kind of healthcare settings.

The Nephrology and Dialysis Department is made up of one main centre in the three big cities and several small-low intensity care centers.

Objectives

This is a project for original research to investigate about the outcomes of a theoretical framework for both patients and nurses in a Nephrology and Dialysis Unit. The results could show the benefits of such an innovative approach to nursing management but also highlights the challenges and threats to fight. We can evaluate Nursing Sensitive Outcomes and how their values can change according to the new philosophy. The evaluations can show a before/after gradient.

Methods

Mixed method, using a qualitative observational design with a phenomenological approach: before and after the implementation of the framework.

Population=Nephrology and Hemodialysis patients and nurses; Situation=changes form the CBR framework

Data will be collected from renal professionals and from patients. We would use survey, interviews and focus groups in order to evaluate the quality of nursing care, satisfaction, stress levels and burnout on professionals, empowerment.

Conclusion/Application to practice

This could be the first study on the topic, as the theory is relatively new. The study can have several applications to practice and inspire other Nursing Departments to adopt a similar framework in case the outcomes would show objective benefits.

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Abstract Country

Italy

Disclosure of Interest

Yes

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Inspiratory muscle training – effectiveness in the intradialytic period

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Background

The function of the inspiratory muscles in hemodialyzed patients is compromised, with a decrease in diaphragm thickness, muscle strength, and altered lung volumes (1,2). Several studies have demonstrated the effectiveness of inspiratory muscle training: increased functional capacity and strength of inspiratory muscles, decreased sensation of dyspnea, improved quality of life, and lung volumes (3,4).

Objectives

To evaluate the impact of inspiratory muscle training in hemodialysis patients on muscle strength (Maximum Inspiratory Pressure) and electrical activity (Electromyography) of the inspiratory muscles, on functional capacity (6-minute Walk Test), and lung volumes (Spirometry).

Methods

We intend to carry out a randomized clinical trial (approved by the Ethics Committee of the Polytechnic Institute of Bragança) on a sample of 50 hemodialysis patients. In the intervention group, patients will undergo Inspiratory Muscle Training (IMT) with resistance of 50% of Maximum Inspiratory Pressure using an electronic device. The IMT involves 3 sets of 30 repetitions, during the intradialysis period, for 36 sessions. Pre and post-intervention assessments of the variables under study will be carried out.

Results

In hemodialysis patients, muscle weakening of the inspiratory muscles is still a little-studied reality: studies with small, heterogeneous samples and non-uniform procedures. It is known that IMT has proven scientific evidence in various chronic diseases. It's a simple and safe intervention, with the advantage that it can be performed during hemodialysis sessions in patients with compromised mobility. We intend to clarify the impact of Chronic Renal Failure on these muscle groups and develop an IMT protocol that can be replicated.

Conclusion/Application to practice

This is an innovative project in the Iberian Peninsula as there are no studies in this area with the variables proposed here. If the cost-effectiveness of this intervention is confirmed, it will be the first step towards integrating this care into all hemodialysis services.

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Abstract Country

Portugal

Disclosure of Interest

No

226

Conventional hemodialysis vs Nocturnal hemodialysis: What quality of life? Comparative study

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Abstract

Convencional hemodialysis; nocturnal hemodialysis; Quality of life

Background

People with chronic kidney disease (CKD) in need of replacement treatment with hemodialysis (HD) have nocturnal hemodialysis as an alternative to conventional treatment, which offers some benefits. It is a treatment performed at night, taking advantage of the rest time, allowing the person with CKD to have the day free to dedicate themselves to professional, social, family and leisure activities, which contributes to better social integration and a greater sense of normality. The improvement in physical capacity and cognitive function, seen in long-night hemodialysis, also contributes to a more active life and better professional performance. Nocturnal hemodialysis is performed in prolonged sessions, usually 6 to 8 hours, which can allow for a more physiological clearance, easier control of fluid removal, fewer episodes of hypotension, better blood pressure control, greater liberalization of the diet and a potential reduction in cardiovascular complications. The quality of life of people with chronic disease, and more specifically with CKD undergoing HD, is a constant concern and target of intervention by health professionals.

Objectives

To know the quality of life of people with CKD undergoing nocturnal HD;

To compare the quality of life of people with CKD undergoing conventional HD with people who perform nocturnal HD.

Methods

This is a quantitative, descriptive, comparative and prospective study of the quality of life reception of all patients with CKD undergoing HD in 26 HD units in Portugal, through the QoL questionnaire application.

Conclusion/Application to practice

The characterization of the quality of life of patients with CKD undergoing HD and comparison with patients with CKD undergoing nocturnal HD may show the impact of CKD on quality of life, aiming at its advantages and disadvantages. Providing data that support the counseling and monitoring of patients' options for the selection of the most appropriate HD treatment for their needs and preferences, thus supporting decision-making based on scientific evidence.

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Abstract Country

Portugal

Disclosure of Interest

No

231

Needle Selection and Patient Complexity in Hemodialysis: A Preliminary Study

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Background

The COVID-19 pandemic significantly impacted dialysis care, influencing patient stability, vascular access management, and clinical decision-making. Needle selection in hemodialysis, often guided by patient complexity, may have been indirectly affected by these disruptions. Thinner needles (e.g., 17G) are commonly used in patients with higher comorbidities, and fluctuations in their use during the pandemic may provide insight into shifts in patient complexity and survival trends.

Objectives

To evaluate trends in needle selection during the pandemic period (2020-2023) and explore its potential relationship with patient complexity in hemodialysis.

Methods

A retrospective analysis was conducted across multiple dialysis clinics from 2020 to 2023, categorizing needle selection into four groups (14G, 15G, 16G, and 17G). Changes in needle use patterns were assessed in the context of the pandemic and its potential impact on patient complexity.

Results

During 2020-2021, a decline in the use of thinner needles (17G) was observed, suggesting a shift in the dialysis population, possibly due to increased mortality among highly complex patients. By 2022-2023, needle selection patterns began returning to pre-pandemic distributions, coinciding with the stabilization of dialysis patient populations.

Conclusion

The pandemic provided a unique opportunity to examine how external disruptions influence dialysis care, including decisions related to needle selection. While initial findings suggest that changes in patient complexity may have contributed to the observed trends, further studies are needed to clarify the underlying mechanisms. A deeper understanding of these factors could support future strategies for optimizing vascular access management in hemodialysis patients.

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Abstract Country

Spain

Disclosure of Interest

Yes

4

Conservative therapy in end-stage renal failure, treatment in a Dutch hospital

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Background

Increasingly more patients consciously decline dialysis or transplantation and choose conservative therapy. This is a broad, patient-centred treatment focused on quality of life, advance care planning, symptom control and slowing the decline of kidney function. It is consequently an active treatment including more than simply forgoing renal function replacement therapy.

Objectives

Provide insight into how conservative therapy in end-stage renal failure is applied in a Dutch hospital

Methods

Setup of a new outpatient group for a Nurse Practitioner within the hospital. The protocol was developed based on literature and current guidelines e.g. “care in end-stage renal failure” published on the Dutch website, Federation Medical Specialists..

Results

The protocol includes a medication framework, dietary advice, defining laboratory values and, advanced care planning, using the PROMs questionnaires and “what I want to say” booklet. Herein are questions such as, “how do I look at my life right now,” “what do I think is important”, “how am I doing” and “what am I afraid of”. Finally, the booklet addresses what a person considers important in care and treatment and ends with the question, “How can I feel better despite not getting better?”

Conclusion/Application to practice

With conservative therapy, using the application of advanced care planning and shared decision making, the best achievable quality of life is sought together, and tailored to individual wishes and needs. More effective and efficient work was achieved due to the nurse specialist having more time to see and treat patients, and the Nephrologist freed up to treat ever increasing numbers of critical care patients.

After the protocol was written and the care organized, patients were notified. All patients with conservative therapy were transferred from the Nephrologist to the nurse specialist. The first patient was seen in December 2024.

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2. Richtlijn palliatieve zorg bij eindstadium nierfalen --> Federatie van Medisch Specialisten
3. Boekje „Wat ik wil zeggen in mijn laatste levensfase“ Netwerk palliatieve Zorg
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Abstract Country

The Netherlands

Disclosure of Interest

Yes

10

Motivating factors of patients on hemodialysis therapy to manage with the diseaseIngrida Kriaučiūnienė¹, Lina Spirgienė¹, Jūratė Ezelskienė²¹Lithuanian University of Health Sciences, Faculty of Nursing, Nursing Department, Kaunas, Lithuania; ²Hospital of Lithuanian University of Health Sciences Kauno klinikos, Nephrology Department, Kaunas, Lithuania**Background**

For most people the diagnosis is a critical situation that significantly affected their world. Appropriate strategies can be developed by clinical teams to address specific concerns raised by people on dialysis and to better equip them to cope with the illness and dialysis routine (Elias, M.A et al., 2025).

Objectives

To explore motivating factors to manage the disease among patients on hemodialysis therapy.

Methods

The research was conducted in 2024 January in Hemodialysis clinic. 52 patients participated in the study. Questionnaire was made according literature review by authors. Motivating factors was determined as personal character features, social factors, alternative medicine and health care specialists.

The study protocol was approved by the University Bioethics Centre No. 2023-BEC2-394. Scores was calculated from 1 strongly not motivated to 10 strongly motivated. Average score was calculated.

Results

Patients on hemodialysis therapy as the most important motivating and coping factor keep personal character features as positivity (mean (SD) 8.3 (0.40)) and patience (mean (SD) 8.2 (0.45)). Patients on hemodialysis therapy for ≥ 2 yr. were more motivated to cope with the diseases by dialysis nurse (mean (SD) 8.2 (0.62), although no one respondent was motivated by family doctor or community nurse. The most motivating factor of alternative therapies was breathing exercises (mean (SD) 2.0 (4.21).

Patients on hemodialysis therapy for < 2 yr. have more willingness to work (mean (SD) 6.3 (3.72) and travel (mean (SD) 5.0 (4.65) than patients on hemodialysis therapy for ≥ 2 yr. (mean (SD) 4.9 (1.37) and mean (SD) 4.4 (1.28) respectively).

Conclusion/Application to practice

The most important motivating factors of patients on hemodialysis therapy to manage the disease was personal character features as positivity, patience, flexibility, perseverance. Patients were the most motivated to cope with disease by dialysis nurses and nephrologist. Alternative therapy was the least factor to manage disease.

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Abstract Country

Lithuania

Disclosure of Interest

No

20

Challenges and Analysis of Technicians' Performance in Handling Dialysis Machines: Comparison of Experience Levels

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Background

Hemodialysis machines are essential in managing patients with kidney failure. Operating and maintaining these machines require high efficiency from technicians to avoid technical and professional challenges that could affect service quality. However, technicians' experiences and professional qualifications vary across health institutions, influencing their performance and ability to address technical challenges.

Objectives

This research aims to explore the challenges technicians face when operating hemodialysis machines and analyze the impact of varying experiences and institutional environments on their performance.

Methods

A total of 165 hemodialysis technicians participated in this study by completing an electronic questionnaire distributed to professionals working in government and private hospitals, as well as specialized centers located in urban, rural, and remote areas. The questionnaire covered five main domains:

1. Professional Information:

Age, gender, educational qualifications, years of experience, type of institution, and geographical area.

2. Technical Challenges:

Frequent malfunctions, difficulties in handling modern equipment, lack of spare parts, and work-related pressures.

3. Technicians' Performance:

Assessment of technical skills, ability to manage unexpected malfunctions, and job satisfaction levels.

4. Institutional Support:

Availability of resources, training programs, and professional support.

5. Recommendations:

Suggestions from participants on improving performance and addressing challenges.

Results

The questionnaire has not been closed, and the data is being collected.

Conclusion/Application to practice

The study is expected to reveal the impact of experience level and institutional environment on technician performance, highlighting the most common challenges. It is likely to identify key areas for improvement, such as implementing ongoing training programs, strengthening institutional support, and ensuring the availability of necessary resources. These enhancements will contribute to improving technician efficiency and elevating the quality of care provided to patients with kidney failure.

References

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Abstract Country

Libya

Disclosure of Interest

Yes

21

The Impact of Technician's Knowledge and Management on Acute and Chronic Dialysis Patient's Outcomes

Rima Gergi, Fatma Sulaiman

LADT, Tripoli, Libya

Background

Acute kidney injury (AKI) often necessitates urgent dialysis, where dialysis technicians play a crucial role in patient management. However, the influence of technicians' knowledge and adherence to management protocols on dialysis outcomes is underexplored in developing countries.

Objectives

This study aims to assess the relationship between dialysis technicians' knowledge, management practices, and their effects on patient outcomes, including complication rates, recovery times, and patient satisfaction. It is hypothesized that knowledgeable technicians who adhere to hospital protocols will lead to improved patient satisfaction.

Methods

A prospective cohort study was conducted with 302 patients undergoing acute and chronic dialysis, accompanied by 309 corresponding dialysis technicians. Technicians' professionalism was evaluated through questionnaires covering electrolyte management, acute complication recognition, and patient safety protocols. Direct observations of dialysis sessions focused on protocol adherence, communication skills, and emergency response readiness. Patient outcomes were assessed based on post-dialysis recovery times, complication rates, and satisfaction scores. Statistical analyses, including correlation and regression models, were utilized to explore the relationship between technician knowledge and patient outcomes, with group comparisons conducted using ANOVA and Kruskal-Wallis tests.

Results

Preliminary findings revealed a strong positive correlation between technician knowledge and adherence to management protocols ($r=0.72$, $p<0.05$). Patients managed by knowledgeable technicians experienced shorter recovery times (mean: 4.2 hours) and fewer complications (infection rate: 8%) compared to those managed by technicians with lower knowledge (mean recovery time: 7.5 hours, infection rate: 22%). Additionally, patient satisfaction was significantly higher among those managed by knowledgeable technicians rather than solely experienced ones.

Conclusion/Application to practice

Technician knowledge and adherence to protocols are critical for improving patient outcomes in acute dialysis. Strategies should emphasize continuous education and adherence monitoring. Limitations include reliance on observational assessments and self-reported satisfaction data. Future research should investigate the impacts of targeted training interventions and raise awareness among technicians and hospital administration regarding acute dialysis protocols.

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Abstract Country

libya

Disclosure of Interest

Yes

25 Artificial intelligence as a tool to address inequities in kidney care and nutritional management

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Background

Chronic kidney disease (CKD) is a global health challenge that significantly impacts patients' quality of life and healthcare systems. Nutritional management, anemia care, and vascular access maintenance are critical components of CKD treatment but are often marked by disparities in access and personalization. Artificial intelligence (AI) offers innovative solutions to address these inequities by optimizing anemia management, monitoring vascular access, and delivering personalized dietary interventions.

Objectives

To explore the role of AI in addressing disparities in kidney care through personalized anemia management, vascular access monitoring, and nutritional interventions for CKD patients.

Methods

This scoping review was conducted using the Joanna Briggs Institute methodology and PRISMA-ScR guidelines. Data from three key domains, anemia management, vascular access monitoring, and nutritional care, were extracted from studies identified through PubMed, Embase, CINAHL database and grey literature searches. AI applications were analyzed for their potential to enhance equity and precision in CKD management.

Results

AI demonstrated significant potential to improve CKD management. Predictive models, such as the Anemia Control Model, improved hemoglobin (Hb) target achievement from 70.6% to 83.2%, reduced Hb fluctuations by 22%-33%, and optimized erythropoiesis-stimulating agent dosing. In vascular access care, machine learning models, including convolutional neural networks, achieved up to 95% accuracy in predicting vascular access complications, such as stenosis and thrombosis, enabling timely interventions and improving dialysis continuity. Nutritional management benefited from AI-powered tools that delivered personalized dietary recommendations, reduced hyperkalemia, and improved dietary adherence.

Conclusion/Application to practice

AI technologies offer transformative solutions to reduce inequities in CKD care by enhancing personalized management of anemia, vascular access, and nutrition. These advancements improve patient outcomes and healthcare provider efficiency while addressing disparities in treatment access and quality. Further research is needed to validate these technologies in diverse clinical settings and ensure equitable implementation.

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Abstract Country

ITALY

Disclosure of Interest

No

26

High quality care in times of Nurse-shortages by implementing a team of travel-nursesUrsula Schneider*B.Braun via medis GmbH, Melsungen, Germany. FNB, Berlin, Germany. IAD, Braunschweig, Germany***Background**

There is a shortage of nurses in Germany. This also affects dialysis centers. During the pandemic, renal nurses moved to other nursing areas, causing a decline in renal-care expertise and experience. A team of Travel-Nurses has been implemented within the company to provide support through flexible assignments to dialysis centers concerned.

Objectives

Finding out whether the implementation of a travel-nurse-team stabilizes the quality of care, helps head nurses to plan more reliably and reduces the strain on staff.

Methods

Qualitative study design with data collection from head nurses, travel nurses and patients conducted by interview.

Results

The deployment of renal nurses who are willing to travel is a concept designed to counteract the shortage of nurses as well as reduced expertise and experience.

This makes it easier to cope with planned absences such as notices, maternity leave or holidays, as well as short-term absences in the respective centres.

The concept offers opportunities to exchange ideas and expertise between the dialysis centers, thereby ensuring high-quality patient-centered care and strengthening motivation within the team.

As some renal-travel-nurses are also qualified as practice instructor, they can take over the onboarding-process of new nurses, practical teaching of nurses in advanced education to become a renal nurse and conduct in-house training courses

Additionally travel-renal-nurses establish cooperations with nursing schools by offering teaching lessons on nephrology and dialysis and organizing internships for nursing students.

For the travel nurses themselves the benefit lies in a good work-life balance, as they can organize their working and off-duty days more freely. As they all belong to the same company there is a strong connection in the travel-nurse-team itself as well as being part of the teams in the dialysis-centers.

Conclusion/Application to practice

The concept of a travel-nurses-team within a company to cover staff-shortages and declining expertise and experience has proven its merits.

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Abstract Country

Germany

Disclosure of Interest

No

27 The impact of vascular access on the quality of life of people on hemodialysis.

Victoria Antoniou
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Abstract

Chronic Kidney Disease is a significant and serious progressive condition that affects the quality of kidney function and the patient's health, having serious consequences on their quality of life.

Objectives

The purpose of this study was to examine the effect of long-term access on the quality of life of individuals undergoing hemodialysis and to study which of the three options, arteriovenous shunting, arteriovenous connection or central venous catheter, provides the optimal quality of life.

Methods

The method used was the search of the relevant Greek and international literature in databases (EMBASE, MEDLINE, PUBMED) with key words "Hemodialysis", "Renal dialysis", "types of hemodialysis access", "quality of life", "patient" in all possible combinations.

Results

The search resulted in 9 studies, during the period 2013-2023 that met the predetermined criteria. Through the literature search, it was found that arteriovenous anastomosis has the best survival rates in dialysis patients and affects their quality of life in a better way than other vascular accesses.

Conclusion/Application to practice

Each of the vascular accesses has its appropriateness based on the individual patient and affects the patient's quality of life differently. Arteriovenous anastomosis has shown to cause fewer comorbidities and patients are satisfied both physically and psychologically.

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Abstract Country

Cyprus

Disclosure of Interest

Yes

236

Vascular access under regular surveillance – wich causes can be identified?

Tiago Pereira, Carlos Goncalves, Cátia Soares, Miguel Bento, Bruno Murtinheira, João Torres, Ana Domingos, Helena Boquinhas
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Abstract

Hemodialysis (HD) is an extracorporeal blood purification technique dependent on a functioning vascular access (VA). Arteriovenous fistulas (AVFs), both native and graft, are the preferred VA for HD, offering advantages over central venous catheters. To optimize VA function and longevity, thereby preventing complications like thrombosis, which can lead to lower dialytic performance, increased patient morbidity and mortality, and significant healthcare costs, a robust clinical monitoring and surveillance strategy is essential.

Background

The Diaverum Linda-a-Velha unit, with its substantial patient population and stable clinical staff, has maintained a registry of VA-related clinical events for all patients since their enrollment. In addition to routine clinical and laboratory monitoring, volume flow (Qa) surveillance was implemented in 2021 to mitigate major VA events, particularly thrombosis, access loss, and associated morbidity and mortality. Despite these improvements, VA thrombosis and its sequelae remain a persistent clinical challenge.

Objectives

Our goal is to identify predictive characteristics and findings associated with VA thrombosis, ultimately leading to improved VA care for our patients.

Methods

Therefore, we propose a retrospective observational study to analyze patients who experienced VA thrombosis and compare them with a control group of patients who did not. This analysis will examine sociodemographic factors, clinical characteristics and comorbidities, VA parameters (type, age, and Qa measurements), and parameters from the last HD session before the thrombotic event (blood pressure, arterial and venous pressures, and dialysis efficiency).

References

Integrating vascular access surveillance with clinical monitoring for stenosis prediction.

Wu, CK., Lin, CH. J Nephrol **37**, 461–470 (2024). <https://doi.org/10.1007/s40620-023-01799-2>

Hemodialysis Vascular Access: Core Curriculum 2025. Lok, Charmaine E. et al. American Journal of Kidney Diseases, Volume 85, Issue 2, 236 – 252

Abstract Country

Portugal

Disclosure of Interest

Yes

237

Vascular access surveillance through volume flow measurement – comparison between selective and universal screening

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Abstract

Hemodialysis (HD) depends on the proper functioning of a vascular access (VA). Arteriovenous accesses (native and graft arteriovenous fistulae) are the main vascular accesses used for HD, recognized as better options compared to central venous catheters.

However, in order to promote VA functioning and survival, while preventing VA complications leading to thrombosis underdialysis, patient morbidity and mortality, and associated economic costs, a clinical monitoring and surveillance strategy is necessary.

Background

The Diaverum Linda-a-velha unit, composed of a large number of patients and stable clinical staff in recent years, has implemented a scheduled volume flow (Qa) measurement strategy since 2021, through dilutional methods. Facing greater availability and team expertise, the strategy evolved from a less regular measurement, restricted to selected and high-risk patients to a more regular and universal measurement.

Objectives

As such, it is important to verify the clinical impact of measuring Qa in a regular way in an HD unit, raising the key question of how often should it be performed and for whom. Given the higher time and material consumption, is an intensive method worthwhile by improving clinical benefits on HD care.

Methods

We recurred to a retrospective observational study, through data collection from 2021, the date on which periodic evaluation of the Qa in the unit began. Two period times were compared, 06/2021 to 12/2022 (18 months), corresponding to selective Qa evaluations, and 12/2022 to 12/2023 (12 months), when universal screening were applied.

Conclusion/Application to practice

In this study we aimed to compare the clinical results concerning VA complications (thrombosis and need for endovascular/surgical interventions) between the two strategies for Qa measurement.

References

Integrating vascular access surveillance with clinical monitoring for stenosis prediction.

Wu, CK., Lin, CH. J Nephrol **37**, 461–470 (2024). <https://doi.org/10.1007/s40620-023-01799-2>

Hemodialysis Vascular Access: Core Curriculum 2025. Lok, Charmaine E. et al. American Journal of Kidney Diseases, Volume 85, Issue 2, 236 – 252

Abstract Country

Portugal

Disclosure of Interest

Yes

242 Evaluating Home Dialysis Self-Cannulation Practices: Experience from NephroCare Villejuif and NephroCare Bièvres in France.

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Background

Self-cannulation of arteriovenous fistulas in home dialysis patients is crucial for enhancing care quality and patient autonomy

Objectives

This study aims to analyze patient feedback on self-cannulation, assessing prerequisites, safety, and efficacy.

Methods

We conducted a survey using a questionnaire designed for patients trained in self-cannulation. The questionnaire collected data on their training experience, acquired skills, challenges faced, and the impact of self-cannulation on their quality of life

Results

This retrospective study involved 16 patients with a mean age of 42 years. Thirteen patients were undergoing daily home hemodialysis (HDQ), and three were in self-dialysis units. Fourteen patients were right-handed, and ten had been performing self-cannulation for over a year. Most information about the technique came from the healthcare team (11 patients). The primary motivation for self-cannulation was autonomy (15 patients), followed by pain reduction (3 patients) and stress alleviation (2 patients). Key concerns included pain and the success of the cannulation. Fifteen patients adopted the Button-Hole technique, with eight using anesthetic cream beforehand. Six patients reported reduced pain and bruising, while 13 felt more autonomous, and six expressed reassurances when attending other dialysis centers. Eight patients initiated home dialysis. All felt supported by healthcare staff during their first attempts, and 14 received advice on complication prevention. Twelve patients recognized warning signs of complications, while three did not. Fifteen patients deemed their training adequate, with seven noting improved relationships with nurses. This survey highlights the importance of personalized training and regular follow-up for patients. In response, we adapted training materials, creating illustrative tools and a demonstration video.

Conclusion/Application to practice

The study results indicate that most patients feel more autonomous and confident in managing their treatment through self-cannulation, significantly improving their quality of life. This experience underscores the need for optimized training protocols and support to enhance patient benefits and satisfaction.

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Abstract Country

FRANCE

Disclosure of Interest

Yes

250

Kidney injury after human bite: case report

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Abstract

Kidney injury after human bite: case report

Background

Group A streptococcal (GAS) is an aerobic gram positive coccus that causes a broad array infections. GAS is most commonly associated with pharyngitis or skin and soft tissue infection.

Less commonly GAS causes invasive disease.

Forms of invasive GAS infection include:

Necrotizing soft tissue infection, bactirimia, respiratory tract infection, toxic shock syndrome(TSS), occurs as a complication of invasive GAS disease in approximately on third of cases.

There are estimated 3.5 cases of invasive GAS infection per 100000 persons, with case fatality rate of 30-60 percent. In general invasive GAS infection may occur in patient of any age.

Risk factors associated with development of invasive GAS infection include:

Minor trauma, including injuries resulting in hematoma or muscle strain, due of NSAID'S medication, recent surgery, HIV, burns, diabetes mellitus

Streptococcal TSS is a complication of invasive GAS DISEASE CHARACTERIZED BY SHOCK And multiorgan failure, it occurs as a result of capillary leak and tissue damage due to release of inflammatory cytokines induced by streptococcal toxins/

Renal failure occurs among nearly all patients with 48-72 hours.

Many patients require dialysis for up to three weeks, in patients who survive the serum creatinine concentration returns to base line four to six weeks

Objectives

A 19-year-old patient with no background disease

About a month and a half before she was admitted to the hospital she was bitten by a foreign woman.

Complained of urgency and urgency, accompanied by waist pain, fever 39

The day after her hospitalization, her condition worsened, and she developed a septic shock, in blood cultures there was a picture of streptococcal infection

With renal injury

Intensive care required intensive care, in light of missed care, needed alternative renal care

Antibiotic therapy was applied

Due to septic shock, she received an immunoglobulin transfusion, in light of this treatment, a gradual improvement in her condition, except for the appearance of many ischemic skin changes.

During the hospitalization she needed hemodialysis, during the hospitalization she suffered several times from shortness of breath, so the frequency of dialysis was increased to 4 times, there was an improvement in respiratory condition.

There was a renal biopsy indicating acute cortical necrosis,

Widespread ulcers appeared in the feet, during the hospitalization required repeated necrosis, and even a finger resection. With this intensive treatment, the patient's condition improved, dialysis was discontinued, but unfortunately she remained with grade 3 renal injury.

Meanwhile, the patient is being monitored at our institution

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Abstract Country

israel

Disclosure of Interest

Yes

252

Determinant factors in interdialytic weight gain in renal patients in hemodialysis program

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Keywords: End-Stage Chronic Kidney Disease; Interdialytic Weight Gain; Hemodialysis.

Background

End-stage chronic kidney disease leads to the irreversible loss of renal function, ceasing the excretion of fluids and waste. Interdialytic weight gain (IDWG), which reflects fluid retention between hemodialysis (HD) sessions, should range between 2% and 4% of the dry weight. Excessive IDWG increases complications, reduces quality of life, and raises the risk of mortality. Additionally, it requires an excessive ultrafiltration, which can result in intradialytic complications.

Objectives

To explore the connection between sociodemographic, clinical, psychological, cultural and nutritional factors and IDWG in adults with CKD undergoing hemodialysis treatments.

Methods

A quantitative, correlational and cross-sectional study. A convenience sample of 300 participants over 18 years old and undergoing HD for at least three months will be selected. The study will take place in Diaverum dialysis units in northern Portugal. Data collection will be conducted through a sociodemographic, biological and clinical questionnaire. Quality of life will be assessed using the Diaverum Quality of Life Survey.

Results

The study aims to test hypotheses related to IDWG and its associated factors, contributing to a deeper understanding of the phenomenon.

Conclusion/Application to practice

The study will provide evidence to optimize IDWG control strategies, improve clinical outcomes and enhance patients' quality of life. Additionally, it will contribute to the multidisciplinary training of healthcare professionals and encourage further research on the topic.

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Abstract Country

Portugal

Disclosure of Interest

No

254

Introducing New Practices in Nursing: Central Venous Catheter Handling

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Abstract

The introduction of new practices in nursing is crucial for ensuring safe and high-quality patient care. Aseptic techniques, such as the Aseptic Non-Touch Technique (ANTT®), play a key role in minimizing the risk of catheter-related bloodstream infections (CRBSI) associated with central venous catheter (CVC) handling. Improper manipulation of CVCs can lead to severe complications, significantly impacting patient morbidity and mortality.

Background

This study aimed to evaluate the impact of implementing the ANTT® technique on nurses' satisfaction and the time and materials required for CVC connection and disconnection procedures. A comparative analysis was conducted before and after ANTT® implementation, assessing nursing staff opinions and procedural efficiency. The findings demonstrated increased nurse satisfaction and a reduction in both material usage and time required for CVC handling. These results underscore the importance of strict adherence to aseptic principles in preventing infections and improving procedural efficiency.

Objectives

Successful integration of ANTT® principles necessitates comprehensive staff education, continuous practice monitoring, and standardized protocols to ensure long-term benefits. Our experience highlights that interdisciplinary collaboration and consistent quality control are essential for effective implementation. Furthermore, continuous monitoring of each procedure for early signs of infection and catheter patency is in place for ongoing safety assessment.

Conclusion/Application to practice

Based on our findings, we recommend the broader adoption of ANTT® in clinical practice as a valuable strategy for enhancing healthcare staff efficiency and satisfaction. The success of this approach relies on consistent application and institutional support, emphasizing the need for investment in education and systematic outcome monitoring.

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Abstract Country

Slovenia

Disclosure of Interest

No

28 The Impact of Work Environment Stress on Job Performance of Dialysis Technicians

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Background

Work environment stress is one of the most prominent challenges that greatly affect the job performance of health sector workers, especially dialysis technicians who bear precise and complex responsibilities that require high skills and accuracy in performance.

Objectives

study aims to explore the impact of work environment stress on the job performance of dialysis technicians in five centers in Tripoli – Libya, focusing on three main axes: the physical work environment, career advancement, and relationships within the work.

Methods

The study used a descriptive analytical methodology, and data were collected through questionnaires distributed to 120 technicians, and 107 valid questionnaires were analyzed using SPSS version 26 to obtain accurate and reliable results.

Results

results showed that technicians face many challenges, including a lack of basic resources such as medical devices and equipment, in addition to weak training programs and the lack of a fair system for incentives and promotions. There was also a statistically significant inverse relationship between work environment stress and job performance, with high stress leading to lower performance quality and job satisfaction. Other challenges included weak communication channels with management and lack of cooperation between technicians and their colleagues, which increases feelings of stress and dissatisfaction.

Conclusion/Application to practice

the study recommends implementing comprehensive policies to improve the work environment, including providing regular maintenance for devices and equipment, and launching ongoing training programs to enhance technicians' skills. It also calls for improving incentive and promotion systems to ensure job fairness, and enhancing communication channels between technicians and management to reduce conflicts and solve problems. In addition, periodic meetings should be organized to discuss workers' needs and enhance cooperation between different health cadres. Improving these aspects would contribute to raising the efficiency of technicians and achieving higher quality in health services provided to patients.

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Abstract Country

Libya

Disclosure of Interest

Yes

31

Health literacy: implications for self-care with the arteriovenous fistula

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Background

Inadequate health literacy negatively impacts health outcomes and healthcare costs. Vascular access (VA) is essential for quality dialysis but is a major cause of complications and hospitalizations. Vascular access (VA) is crucial for ensuring high-quality dialysis treatment, and its complications are among the leading causes of hospitalization, morbidity, and healthcare expenses. Nurses, as frontline healthcare professionals, play a key role in educating and guiding patients on self-care practices.

Objectives

Assess the level of health literacy;

Identify the frequency of self-care behaviors among patients with an AVF undergoing HD;

Correlate health literacy levels with the frequency of self-care behaviors in AVF patients on HD.

Methods

Data collection was conducted through semi-structured interviews with all participants, using a sociodemographic/clinical questionnaire, the Hemodialysis Arteriovenous Fistula Self-Care Behavior Assessment Scale (ECAHD-FAV), and the European Health Literacy Survey in Portuguese (HLS-EU-PT).

The final sample consisted of 183 individuals. Statistical analysis was performed using SPSS v.28 for Windows, employing both descriptive and inferential statistical methods. The significance level for rejecting the null hypothesis was set at $\alpha \leq 0.05$.

Results

Pearson's correlation analysis between health literacy and self-care in AVF patients showed significant positive correlations for total self-care scores and the complication prevention subscale ($r=0.208$ and $r=0.221$, respectively, $p \leq 0.05$).

The average score for self-care behavior frequency was 74.6%, with the highest values observed in the Signs and Symptoms Management subscale (83.31%). The mean health literacy score was 31.5%. In the sample, 9.4% had an excellent level of health literacy, while 36.7% had a sufficient level.

Conclusion/Application to practice

This study concludes that health literacy is significantly and positively correlated with total self-care scores and the complication prevention subscale. Thus, health literacy directly influences the frequency of self-care behaviors in AVF patients: higher health literacy scores are associated with better self-care practices, and the inverse is also true.

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Abstract Country

Portugal

Disclosure of Interest

Yes

33 54 Years of KT experience. The performance report of Greece's higher volume center.

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Background

Our hospital performs kidney transplantations (KT) since 1971. Since then, major changes have taken place in the field of KT and our unit took over a leading role in KT in our country.

Objectives

To record the evolutions of the kidney transplantation program in our unit during the last 54 years

Methods

We performed a retrospective analysis of the transplant activity in our unit

Results

Since 1971, 3249 KTx were performed in our unit, 1558 from deceased and 1691 from living donors. In 2005 an incompatible transplantation programme started, initially ABOi and then HLAi. To overcome more incompatibility issues, a paired donation program was initiated in 2011. Furthermore in 2021 our center started living donation to the national waiting list from deceased donor, with simultaneous prioritization of the respective recipient in the waiting list. Since then 12 were performed that way.

The pediatric KT program was initiated in 2019, which led to transplantation 34 children (mean age of 13.6 years).

It is worth to mention that our unit is the second in Europe that started using Imlifidase (IDES) as part of desensitisation protocol in potential recipients with preformed antibodies to the donor and positive cross match. So far 4 patients were transplanted.

10-year patient survival rate of the ABOi KTx was 91.9%, with graft survival 75.6% compared to 93.7% and 79.4% for the compatible KT respectively.

Conclusion/Application to practice

If there is something that characterizes our renal transplantation unit, is the desire to lead more patients to a successful renal transplantation. The performance of high immunological risk, pediatric and paired KT combined with the increased postmortem donation rate from 4.4 donors pmp in 2019 to 10 in 2024, has led to the expansion of transplant activity in the country.

References

All data collected from our Renal Transplantation Unit records

Abstract Country

Greece

Disclosure of Interest

No

40

Health related Quality of life: already impaired in earlier stages of chronic kidney disease

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Abstract

The number of patients with chronic kidney disease (CKD) and end-stage renal disease (ESRD) is increasing rapidly worldwide. These prospects lead to an increasing necessity of care, not only to delay a decline in renal function but also to prevent the loss of health-related quality of life (HR-QoL) experienced by patients with ESRD.

We report the baseline data of a cross-sectional study with 54 patients CKD stage 3 (68±9years; 74%male), 77 patients with CKD stage 4 and 5 (68±9 years;65% male) and 73 matched healthy controls (66±9years; 75% male). Results of the physical (PCS) and mental scores (MCS) of SF-12 questionnaire and results of the EQ-5d were compared between the different groups by the Kruskal Wallis and Mann Whitney tests.

Mean PCS scores were 52±4,7 for healthy controls, 43±10,6 for patients with CKD3 and 38±10,8 for patients with CKD 4-5. Scores were significantly different between both patients groups and controls, as well as between CKD3 and CKD 4-5 patients (p<0,05). The health quality scores were significantly different between controls (87 ±8,5) versus CKD3 (73 ±16) and CKD4-5 patients (71 ±16), the daily activity score (health controls 1,1 ±0,3 vs CKD3 1,7 ±1 and CKD4+5 1,8 ±0,9)

Mean MCS scores were not significantly different between patients and controls (55 ±6,9 in controls; 52±10,8 in the CKD3 and 53±9,7 in the CKD 4-5). The same held true for fear scores: healthy controls 1,2 ±0,4 vs CKD3 1,3 ±0,6 and CKD4+5 1,3 ±0,6) from the EQ-5D show the similar results.

HR-QoL in the physical domains is already reduced in earlier stages of CKD as compared to controls whereas the mental scores were not significantly different. Earlier detection of changes may facilitate early intervention. Prevention of loss development of frailty can help the quality of life.

References

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Abstract Country

The Netherlands

Disclosure of Interest

Yes

43

The role of the pre-End-Stage Renal Disease (Pre-ESRD) nurse coordinator: Facilitating comprehensive CKD care

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Abstract

The Pre-ESRD nurse coordinator plays a pivotal role in the management and support of patients with chronic kidney disease (CKD), ensuring they are well-prepared for potential kidney replacement therapies (KRT), such as hemodialysis or transplantation. This role combines clinical expertise with patient-centered care, focusing on education, multidisciplinary collaboration, and optimizing patient outcomes.

Background

A pioneering program, implemented for the first time in Greece, highlights the critical role of the pre-ESRD nurse coordinator in enhancing patient preparedness, improving care coordination, and ensuring a smooth transition to KRT.

Objectives

The objective of this study is to evaluate the impact of a structured, nurse coordinator-led pre-ESRD program on key aspects of patient care. This includes enhancing patient education on CKD progression, treatment options, and self-management strategies, as well as facilitating multidisciplinary collaboration to improve care coordination. Additionally, the program aims to optimize patient preparedness for kidney replacement therapy (KRT) by ensuring timely vascular access creation and necessary diagnostic follow-ups. Lastly, the study assesses the program's effectiveness in improving both clinical and psychosocial outcomes through proactive interventions.

Methods

A prospective, observational study was conducted to assess the effectiveness of a Nurse Coordinator-led Pre-ESRD program in improving CKD management, patient readiness for kidney replacement therapy (KRT), and overall quality of life.

The study population included patients with advanced CKD (Stage 4-5) who were at high risk of progressing to kidney failure. The intervention consisted of a structured Pre-ESRD program led by a Nurse Coordinator, incorporating several key components: individualized clinical assessments focusing on CKD progression and comorbidities; tailored patient education on CKD, medication safety, dietary modifications, and self-management; and multidisciplinary coordination with nephrologists, vascular surgeons, dietitians, and other specialists. Additionally, the program facilitated timely vascular access creation (e.g., arteriovenous fistula) and necessary diagnostic evaluations while providing emotional and logistical support for both patients and families during the transition to KRT.

The study evaluated several outcome measures, including patient knowledge and self-management skills, the timeliness of AVF creation and dialysis preparedness, the reduction in emergency dialysis starts, and improvements in patient adherence to treatment and lifestyle modifications.

Results

The evaluated outcome measures included improvements in patient knowledge and self-management skills, timely arteriovenous fistula (AVF) creation, and enhanced dialysis preparedness. The program also led to a reduction in emergency dialysis starts and an increase in patient adherence to treatment and lifestyle modifications.

Conclusion/Application to practice

The pre-ESRD nurse coordinator is a key figure in CKD management, ensuring structured patient education, care facilitation, and timely interventions. This program is expected to improve patient preparedness for KRT, reduce unplanned dialysis starts, and enhance overall quality of life.

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Abstract Country

Greece

Disclosure of Interest

No

44

Implementation of practical teaching during advanced specialist training by a renal travel nurse

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Background

In Germany, the Nursing Professions Act has stipulated a minimum of ten per cent practical teaching by a recertified practice instructor and renal nurse since January 2020.

As many renal nurses have left their professional field during the pandemic, dialysis centers are unable to provide renal nurses with practice instructor qualifications.

To enable nurses to receive advanced renal training, practical instruction was provided by a travel nurse with the required qualification in cooperation with a local mentor.

Objectives

Training is guaranteed in accordance with the Nursing Professions Act.

The quality of practical teaching is high.

Successful advanced renal training with appropriate expertise to ensure high-quality care.

Methods

Qualitative data collection through interviews.

Evaluation of the experience reports from the renal travel nurse with practical instructor qualification, nurse in advanced training in renal care, local mentor and teacher at school.

Results

A travel nurse taking over the practical teaching ensures good practical learning results and participation in advanced training. Coordination between the practice instructor and mentor on site could be improved. This concept enables nurses to train as renal nurses and ensure high quality of renal care in established dialysis centers.

Conclusion/Application to practice

The concept of ensuring practical teaching by a travel nurse with the required qualification enables nurses to complete advanced training as a renal nurse. As the traveling nurse is additionally planned, there is more time for practical teaching in times of nurse shortages. In the long run, good quality renal care is guaranteed.

References

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Abstract Country

Germany

Disclosure of Interest

Yes

56

The evaluation of virtual nurse education program for hemodialysis nurses at Diaverum Saudi Arabia.

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Diaverum, Riyadh, Saudi Arabia

Background

New nurses are scheduled for online self-learning orientation and basic dialysis programs during their probationary period (90 days), followed by virtual Nurse Education Program (NEP) within 6 months from hiring.

Objectives

This abstract aims to evaluate virtual NEP training for newly hired hemodialysis nurses at Diaverum Saudi Arabia.

Methods

80 participants (newly hired nurses) were scheduled for virtual NEP training over 3 weeks (30 training-hours). Pre- and post-test of 50 items (multiple-choice with one correct answer) were designed and piloted ahead of the training. Participants answered the unannounced pre-test without releasing correct answers or scores. Post-test was answered immediately by the end of the training. NEP training Google evaluation form including open and closed ended questions based on kirkpatrick model was developed and completed by participants after the end of training

Results

One sample t-test comparing pre and post tests of NEP training showed statistically significant improvement over all scores for all the participants, (27.35 ± 5.2) & (37.76 ± 5.78) are the pre and post test scores respectively, p-value < 0.001 (Figure-1). NEP evaluation form were collected after the training (n=70; 88%). Participants overall rated the scientific content of the training (4.7/5), performance of speakers (4.55/5), effectiveness of using WhatsApp for communication and interaction during the course (4.71/5), stability of internet connection in the clinic (94% answered yes), and evaluation of training (4.65/5). 100% felt confident regarding their role as renal care nurse after the training. Medication calculation, UF calculation and ANTT were the most useful topics in the training. 97.1% would recommend this training to a colleague. Suggested strategies to improve training including enhance interactive learning, more demonstration videos and to conduct the training before deployment to clinic.

Conclusion/Application to practice

NEP training is an effective induction program. Increasing the frequency of training to quarterly, enhance speakers instructional skills, and include more demonstration videos are the actions to be taken.

References

Original

Abstract Country

Saudi Arabia

Disclosure of Interest

No

63

On-line Hemoglobin monitoring (hemoscan) in follow up of hemoglobin in hemodialysis patient

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Background

On-line Hemoglobin monitoring (Hemoscan) is a noninvasive blood volume monitoring integrated recently into dialysis machines and used to follow up on patient's Hemoglobin levels.

Objectives

To determine the validity of initial Hemoglobin measurement by Hemoscan in the follow-up of hemoglobin inpatient on hemodialysis

Methods

We included a patient on regular hemodialysis for at least 3 months at Diaverum Center Makkah 9011, we are using the Hemoscan feature of the machine (Gambro Artis dialysis system) with the online Hemoscan feature activated and recorded by connecting the dialysis nurse the initial hemoglobin reading 6-7 minutes after connection

Results

(69) patients included in our trial 39 males (56%) and 30 female (44%) age $M \pm SD$ 52.2 ± 18.15 years, their duration on dialysis 52.8 ± 43.2 months. The average Hemoscan of the 3-week session was then compared to the Mid-week laboratory Hemoglobin level and linear regression analysis was performed to detect the relation results shown in Figure (1), which showed a highly significant correlation between laboratory-measured Hemoglobin and average Hemoscan during the same session. R 0.81 AND p -value < 0.001 , Figure (2) showed the difference between Laboratories measured Hemoglobin and Hemoscan Measured Hemoglobin with a mean difference of 1.39 ± 0.84 gm/dl.

Conclusion/Application to practice

Hemoglobin Hemoscan is a tool that is readily available in dialysis machines and has a strong correlation with laboratory-measured Hemoglobin. This can be used as a measure of follow-up of Hemoglobin level provided following the correct sampling procedure (initial reading 1st 6 to 7 minutes) and correct candidate selection (HB 6-16gm/dl) this will reduce the laboratory cost and improve dialysis unit staff care for the patient on maintenance hemodialysis.

References

Original work

Abstract Country

Saudi Arabia

Disclosure of Interest

No

68

Validation of dialysis machine integrated online monitoring in comparison to monthly laboratory measurements

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Objectives

To assess the accuracy and reliability of integrated online Kt/V monitoring in dialysis machines.

To compare these online measurements with standard laboratory Kt/V assessments conducted monthly.

Methods

The study included a group of 50 patients who regularly undergo hemodialysis over a period of six months. Kt/V values were obtained from both online monitoring and laboratory tests, including sample size and duration of the study.

Results

We prospectively studied 50 patients, including 28 males (56%) and 22 females (44%), with a mean age of 38.74 ± 11.18 years. All patients were on thrice-weekly hemodialysis for six months, using synthetic hollow fiber polynephron dialyzers Nipro Elisio 21 patient received dialysis with Nipro Surdial X machine, with a treatment duration of 4 hours. Among the participants, 42 patients (84%) had arteriovenous fistulas (AVF) and 8 patients (16%) had central venous catheters (CVC). Blood flow rates varied between 400–450 mL/min, with the dialysate flow fixed at 500 mL/min. No changes were made to any of the dialysis prescriptions during the study period. The p-values were 0.01 for Kt/V (D) and 0.009 for Kt/V (OCM), respectively. The Kt/V (D) measured by the Daugirdas formula was 1.53 ± 0.22 , while the Kt/V (OCM) measured by the online clearance monitor was 1.51 ± 0.21 . The intra class correlation coefficient indicated a strong agreement between both methods, with an r-value of 0.964. Additionally, the study observed potential impacts on patient health, treatment efficacy, and quality of life related to real-time Kt/V monitoring.

Conclusion/Application to practice

Study shows the validation of online Kt/v monitoring function incorporated in recent dialysis machine as tool for adequacy which can reduce both the nursing time and running cost of repeated blood sampling and provide continuous monitoring of dialysis adequacy for patients

References

Original work

Abstract Country

Saudi Arabia

Disclosure of Interest

No

74

Plastic Cannula in Hemodialysis: New Paradigm?

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Abstract

all fields filled below

Background

Plastic cannulas appear to offer a new and revolutionary form of cannulation, with advantages in several contexts, namely in agitated patients, in long nocturnal dialysis and in accesses with a greater degree of difficulty in cannulation (1,2). However, the literature emphasizes the need to develop more robust studies that support these benefits and justify the economic investment in view of minimizing potential complications and interventions related to vascular access (3,4). In line with an innovative patient-centered approach, the most recent lines of consensus recommend scientific investment in studying the use of plastic cannulas with regard to measuring indicators such as safety, effectiveness and patient satisfaction.

Objectives

Map plastic cannulas advantages and disadvantages is dialysis

Methods

Integrative review with research submitted in the MedLine Complete, Cinahl, Scopus and Web of Science and analysis of the results obtained, after applying the inclusion and exclusion criteria and analysis of backward citation by three researchers, with the aim of mapping possible advantages of using a plastic cannula in arteriovenous access.

Results

The use of a plastic cannula can be useful in people allergic to metal, in nocturnal dialysis, in vascular access and in uncooperative patients. Enables an increase in the puncture area and a reduction in the risk of injury to the wall of the vessel when removing it. The dissipation of the blood jet and certain devices has the potential to reduce turbulence and neo-intimate proliferation. Cannulas allow the reduction of biological and sting risk accidental. The requirement for trained personnel and usual landing fixation can be a disadvantage in wingless cannulas. A reduction in the overall cost is estimated resulting from the smaller number of interventions required and, inherently, less suffering for the patient. Early cannulation of the AVF (<10 days) with plastic cannulas does not affect the its permeability, and may reduce the need to use temporary central venous catheter

Conclusion/Application to practice

The use of a plastic cannula in a dialysis presents itself as a valid alternative to the traditional needle metal and enriches decision-making processes in nursing, offering an alternative in nursing management of integrated arteriovenous access for dialysis.

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Abstract Country

Portugal

Disclosure of Interest

No

77

Necrotizing fasciitis with toxic shock syndrome caused by group A streptococcus – case report

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Abstract

Streptococcus pyogenes, a β -hemolytic Group A *Streptococcus* (BHS-A), can cause necrotizing fasciitis (NF), a rapidly progressing soft tissue infection with high mortality (30–70%). Symptoms include severe pain, fever, redness, and tissue necrosis due to vascular thrombosis, often leading to shock and organ failure.

We report a case of a young male admitted with septic shock, right hemithorax hematoma, and extensive cellulitis. CT revealed NF spreading to the abdomen, arm, and inguinal region. Laboratory tests showed kidney dysfunction, prompting renal replacement therapy (CVVHDF) with a Cytosorb filter. Despite aggressive surgical debridement, broad-spectrum antibiotics, and intensive care, the patient succumbed after seven days.

Early diagnosis, surgical intervention, antibiotics, and multidisciplinary intensive care are critical in NF management.

Keywords: *Streptococcus pyogenes*, necrotizing fasciitis, septic shock, renal replacement therapy

Background

Streptococcus pyogenes (BHS-A) is a Gram-positive, β -hemolytic pathogen causing severe infections like necrotizing fasciitis (NF). NF is a rapidly progressing soft tissue infection leading to necrosis, septic shock, and multi-organ failure.

Objectives

This case report highlights the fulminant progression of NF caused by BHS-A, emphasizing the importance of early recognition, multidisciplinary management, and advanced intensive care strategies, including renal replacement therapy with a Cytosorb filter.

Methods

A young male in septic shock with extensive right thoracic infection was admitted to the ICU. CT showed rapidly spreading cellulitis. Due to kidney dysfunction and worsening shock, CVVHDF with a Cytosorb filter was initiated.

Results

Despite early antibiotics, surgical debridements, and intensive care, the infection progressed, causing rapid necrosis, toxic shock, and multi-organ failure. The patient succumbed after seven days of treatment.

Conclusion/Application to practice

NF requires early recognition, surgical intervention, and intensive care. CVVHDF with a Cytosorb filter may help manage septic shock and kidney dysfunction. Multidisciplinary collaboration is crucial for optimal outcomes.

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Abstract Country

Croatia

Disclosure of Interest

Yes

54

Nutritional intake of patients with chronic kidney disease during hospital admission

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Background

Patients with chronic kidney disease (CKD) needs to follow a complex diet.

Objectives

This study aimed to describe the nutritional intake of patients admitted to the Nephrology department in the Radboudumc, the Netherlands.

Methods

In this prospective cohort study, data were collected at hospital admission, from February to December 2024. Risk of malnutrition was defined as a score of ≥ 4 on the Patient-Generated Subjective Global Assessment Short Form (PG-SGA SF). Nutritional intake was assessed combining patient-reported food diaries and documentation in the electronic patient record by a nutrition assistant over a period of 2–3 days. Total daily intake and amount of protein per meal was assessed. Energy and protein requirements were calculated according to the guidelines of the Dutch Association of Nephrology Dietitians.

Results

A total of 54 patients were included in this study, of which 31/54 were male. The mean age was 58 ± 14 years, and the mean body mass index was $27 \pm 4 \text{ kg/m}^2$. The most common reason for hospital admission was kidney transplantation (26/54). Of all patients, 23% were at risk of malnutrition. The mean energy and protein intake were low, respectively $1754 \pm 548 \text{ kCal/day}$ and $71 \pm 21 \text{ grams of protein/day}$. Only 36% of the patients met their energy requirements, and 50% met their protein requirements. Protein intake per meal was lowest at breakfast and lunch. Respectively, 42% and 59% reached the target of 20g protein/meal, while 78% reached the target at dinner.

Conclusion/Application to practice

During hospital admission, patients with CKD exhibit low energy and protein intake, yet the prevalence of malnutrition risk remains low. This provides an opportunity to prevent malnutrition during hospital admission. Previous studies found also low energy and protein intake during hospital admission. Focusing on enhancing protein intake during breakfast and lunch is recommended, as this may lead to improvements.

References

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Abstract Country

the Netherlands

Disclosure of Interest

No

45

Adaptability and agility – ensuring continuity of care during the healthcare workforce crisis

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Background

The Health and Social Care Industry is currently facing the greatest workforce crisis with persistent and significant staffing issues posing a serious risk to staff and patient safety.

Despite continuing with recruitment drives and having an increased focus on staff engagement it is recognised that unplanned staff absence may result in an inability to meet contracted staffing ratios, resulting in a possible disruption of patient care which may have a detrimental affect on patient outcomes.

Objectives

Provide a consistent framework to enable nurse led units to safely risk assess staffing levels vs patient cohorts

Equip clinical teams with documented processes and escalation pathways

Ensure all staff felt supported when making decisions regarding staffing levels during times of unplanned staffing absences.

Methods

A Safer Staffing Tool was developed which enabled clinical teams to safely review the current patient cohort vs the current staffing cohort to establish if patient treatments could be safely commenced. A RAG (Red, Amber, Green) rating was used to provide clear guidance for teams on the action that should be taken based on the risk assessment completed.

Results

Upon roll out Clinical Teams reported that by using the Safer Staffing Tool they were able to safely assess the patient cohort against the clinical staff on duty and where safe to do so continue to deliver the high quality patient centred care that they strived for.

Conclusion/Application to practice

A formalised process to risk assess staffing situations ensures a consistent, safe methodology is applied in all circumstances. Whilst ensuring staff felt supported, this process also meets the requirements of healthcare regulators and provides a documented governance framework.

References

N/A

Abstract Country

United Kingdom

Disclosure of Interest

No

46

Aligning Governance and Quality to Ensure Operational Excellence

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Background

With an ongoing focus on the recruitment and retention of nurses it's vital that we reduce the burden on our clinical teams, ensuring a focus on operational excellence, enhanced patient safety and regulatory compliance through an effective review of all clinical processes.

Objectives

To reduce unnecessary burden on our clinical teams and allow teams to spend more time with patients

Ensure staff feel supported and confident

Alignment to regulatory compliance

Methods

A gap analysis was completed for all documents within the quality management system which enabled all policies to be assigned to one of the 12 identified chapters within our governance framework.

Working project groups were then formed of subject matter experts who were able to effectively review the content/processes for each chapter and identify areas for improvement.

Results

Through effective reviews and collaboration of subject matter experts we have been able to successfully reduce the number of documents within our governance framework whilst ensuring all guidance is clear and concise. By involving our clinical teams we were able to empower and engage employees, giving them a voice and allowing them to help shape our service.

Conclusion/Application to practice

By empowering our teams and utilising subject matter experts we were able to effectively review our governance processes and ensure these ensure the delivery of high quality, safe and effective care

References

NA

Abstract Country

United Kingdom

Disclosure of Interest

No

100

The role of the family in care of patients at the start of hemodialysis

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Keywords

family; family role; hemodialysis; CKD; quality of life.

Background

Recent literature highlights the importance of family support for individuals with chronic kidney disease beginning hemodialysis. The active presence of the family significantly contributes to treatment adherence and the patient's quality of life. Family involvement is essential for adapting to the changes imposed by dialysis therapy, providing emotional and practical support that helps patients cope with the challenges associated with the disease. Furthermore, a positive family dynamic is linked to better treatment outcomes, emphasizing the need for strategies that strengthen the role of the family in caring for chronic kidney disease patients (Brotto & Guimarães, 2017).

Objectives

To identify the importance of the family's role as an essential support network for chronic kidney disease patients starting hemodialysis;

To identify family factors that promote a healthy transition for chronic kidney disease patients starting hemodialysis;

To identify family factors that hinder a healthy transition for chronic kidney disease patients starting hemodialysis.

Methods

Scoping Review

Results

Preliminary findings indicate that family involvement is essential in supporting chronic kidney disease patients starting hemodialysis, facilitating their transition and treatment adherence, and leading to clinical improvements, better quality of life, and enhanced perception of healthcare.

Conclusion/Application to practice

Understanding the family's role in the context of starting hemodialysis guides the development of health-promoting strategies that improve treatment adherence. Therefore, a multidisciplinary care plan for chronic kidney disease patients starting hemodialysis should include the family. Actions involving the family should be encouraged and developed.

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Abstract Country

Portugal

Disclosure of Interest

No

103

Patient perception of care survey: key tool for monitoring and improving hemodialysis patient experience

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Background

Patient Perception of Care (PPC) is a key indicator for assessing the quality of health services and how it is perceived by hemodialysis patients.

PPC Survey allows us to understand what is important to patients and to identify areas of direct impact on their quality of life guiding strategies towards a holistic and patient-centered approach.

Methods

A multicenter retrospective observational study was performed in Spain in 49 outpatient hemodialysis facilities from 2021–2024. Responses of the annual PPC Survey were analyzed, consisting in 39 questions organized in 12 domains of care.

Two scales were considered: **Global Score (GS)** measuring patient perception by domain on **0–7 scale**, and **Patient Global Experience (PGE)** assessing overall patient experience on **0–10 scale**. **Net Promoter Score (NPS) was calculated**.

Trends in overall patient experience were identified and domain-specific conclusions were drawn to highlight improvements and challenges.

Results

Average participation rate: 94.45%. 16,187 surveys included. 2021:3,703(93%), 2022: 4,154 (97%); 2023: 4,201 (98.71%); 2024:4,129 (96.7%). GS showed continued improvement from 6.30 in 2021 to 6.48 in 2024. PGE increased from 8.67 in 2021 to 8.81 in 2024. The NPS remained above the threshold of excellence (>50), reaching 61.98% in 2024. Improvements observed in ‘Communication’ (from 6.26 in 2021 to 6.47 in 2024) and ‘Fluid Intake and Diet’ (from 6.40 in 2021 to 6.53 in 2024), reflecting significant progress in these dimensions.

Data showed steady progress in patients’ reported comfort and access to additional assistance.

‘Support’ area presented opportunities for improvement in some of the periods studied.

Conclusion/Application to practice

PPC survey is an effective tool for monitoring trends in patient experience

The sustained improvement of these indicators reaffirms the importance of applying these measurement, consolidating a patient-centered model of care and promoting a positive impact on quality of life of haemodialysis patients and standards of clinical practice.

References

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Abstract Country

Spain

Disclosure of Interest

No

105

Pan-European registry addressing difelikefalin in goal-oriented medical treatment for chronic kidney disease-associated pruritus (PARADIGM)

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Background and Aims

Chronic kidney disease-associated pruritus (CKD-aP) affects 40–60% of hemodialysis (HD) patients, significantly impacting health-related quality of life (HRQoL). It is associated with poor sleep, depression, hospitalization, and increased mortality. Despite its high prevalence, CKD-aP remains under-recognized and inadequately treated. Difelikefalin (DFK), a selective kappa-opioid receptor agonist, was approved by the FDA (2021) and EMA (2022) for CKD-aP. Clinical trials have demonstrated that DFK reduces pruritus, improves HRQoL, and alleviates sleep disturbances. However, real-world data on its effectiveness, safety, and healthcare resource utilization (HCRU) remain limited. The PARADIGM study will collect real-world data on DFK use in HD patients, aiming to (1) characterize patients initiating DFK, (2) examine treatment patterns, (3) assess effectiveness, (4) evaluate safety and tolerability, and (5) analyze HCRU.

Method

PARADIGM is an investigator-initiated, observational registry led by Arbor Research Collaborative for Health. At least 400 HD patients initiating DFK for CKD-aP across facilities in France, Germany, Italy, Spain, and the UK will be enrolled. Data will be collected via medical records, patient-reported outcome (PRO) questionnaires, and facility questionnaires using ArborLink, a web-based system. Assessments will occur at baseline and months 1, 3, 6, and 12 post-initiation. Patients continuing DFK beyond 12 months will be followed every 6 months. If discontinued, follow-up PROs will be collected at 2 weeks, 2 months, and 6 months. Facility questionnaires will track DFK prescribing trends annually.

Results

Recruitment is expected to begin in Q2 2025. PROs will assess changes in itch severity, sleep, fatigue, depression, and life participation. Symptoms will be evaluated regularly, and HCRU analysis will include hospitalizations, emergency visits, dialysis disruptions, and medication changes.

Conclusion

PARADIGM will provide critical real-world evidence on DFK's role in CKD-aP management, informing clinical guidelines, regulatory decisions, and healthcare policies to improve HD patient outcomes.

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Abstract Country

Spain; Switzerland; USA

Disclosure of Interest

Yes

110

Life at the Rhythm of Haemodialysis: Family Dynamics, Sources of Stress, and Support

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Keywords: Family; Haemodialysis; Quality of life; Family dynamics; Stress

Background

Chronic Kidney Disease (CKD) affects all aspects of patients' lives as well as the lives of their caregivers (Skoulatou et al., 2024). Many patients with end-stage kidney disease opt for maintenance haemodialysis as a life-saving measure. However, the need for continuous haemodialysis can exacerbate the stress caused by this chronic and irreversible condition for both patients and their caregivers (Zhang et al., 2024).

Being a caregiver for a patient on haemodialysis can be highly demanding, as these patients typically require significant physical, psychological, social, and even financial support. This support often involves assisting with their daily routines, accompanying them to treatments, and helping with difficulties that arise from the various complications associated with haemodialysis. Consequently, caregivers often face limitations in their own social activities, experience a loss of freedom, and endure a high level of caregiver burden, which may ultimately affect their own psychological well-being (Skoulatou et al., 2024).

The care burden on caregivers of patients undergoing haemodialysis is extremely high and can have a severe impact on the caregiver's quality of life. Moreover, high levels of care burden and lower quality of life may also influence the quality of care that patients receive, as caregivers may become exhausted, stressed, or depressed (Skoulatou et al., 2024).

Since the introduction of the Patient and Family-Centred Care model, healthcare systems have regarded family members as an integral part of patient care, incorporating their preferences, needs, and values into the treatment plan (Zhang et al., 2024).

In their study, Kukihiro et al. identified mediating effects of resilience on the relationship between family functioning (adaptability and communication) and mental well-being among haemodialysis patients in Japan. It was found that higher family adaptability and communication were associated with greater resilience, which in turn was related to better mental health.

Objectives

This review was conducted with the aim of mapping knowledge about the impact of haemodialysis treatment on family structure, cohesion, and dynamics, and identifying sources of stress and support for the family of the person undergoing haemodialysis.

Methods

The methodological strategy used is based on the Joanna Briggs Institute's scoping review framework. The databases used were: PUBMED, CINAHL Complete, MEDLINE Complete, Nursing and Allied Health Collection: Comprehensive, Cochrane Central Register of Controlled Trials, Cochrane Database of Systematic Reviews, Cochrane Methodology Register, Library, Information Science and Technology Abstracts, MEDICLATINA, and Cochrane Clinical Answers. This study will run from January 2025 to July 2025.

Conclusion/Application to practice

This study aims to identify action lines and a theoretical framework for the development of future research in the local population using a qualitative methodology of focus groups. Subsequently, a support and intervention programme will be developed, focusing on nursing care for the family of the person undergoing haemodialysis, with an emphasis on the health-disease transition related to dialysis treatment.

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Abstract Country

Portugal

Disclosure of Interest

No

115

Examination of Symptom Severity and Resilience Levels in Hemodialysis Patients

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Keywords: Hemodialysis, Resilience, Symptom, Comorbidity Index

Background

Symptoms associated with hemodialysis can make it difficult for patients to carry out their daily lives and can impair their resilience.

Objectives

This study was conducted to determine symptom severity, and endurance levels in hemodialysis patients.

Methods

It was carried out between September and December 2023 in the hemodialysis units of four hospitals in Istanbul, involving 121 hemodialysis patients. The research data were collected through face-to-face interviews using the Patient Identification Form, Modified Charlson Comorbidity Index (MCCI), Dialysis Symptom Index (DSI), and Hemodialysis Resilience Scale (HRS).

Results

The most common symptoms experienced by patients were feeling tired and reduced energy (67.8%), muscle cramps (49.6%), nausea (39.7%), headaches (38%), bone or joint pain (37.8%), and shortness of breath (35.5%). The mean MCCI score was 4.30 ± 1.74 , the mean DSI score was 20.19 ± 12.79 , and the mean HRS score was 58.76 ± 10.31 . The sub-dimensions of HRS were as follows: Pursuing a Positive Meaning in Life (mean score: 29.25 ± 5.66), Accepting Hemodialysis as a Part of Daily Life (mean score: 17.98 ± 3.10), and Willingness to Live through Meaningful Relationships (mean score: 11.52 ± 2.07). A positive correlation ($r=0.226$, $p=0.013$) was found between DSI and the comorbidity index, while negative correlations were found between HRS and the comorbidity index ($r=-0.49$, $p=0.000$) and between HRS and DSI ($r=-0.370$, $p=0.000$). The comorbidity index and DSI explained 29.9% of the variance in resilience levels. The comorbidity index ($\beta=-0.428$) and symptom severity ($\beta=-0.274$) reduced resilience levels.

Conclusion/Application to practice

Patients were found to have low symptom severity and moderate resilience levels. The comorbidity index and symptom severity negatively affected resilience levels. Patients should be educated about symptom management, stress coping techniques and strategies to increase resilience.

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Abstract Country

Türkiye

Disclosure of Interest

No

128

A holistic approach to managing chronic hyperkalemia in hemodialysis patients

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Background

Cardiovascular diseases are the leading cause of mortality in dialysis patients, with hyperkalemia being a significant risk factor for arrhythmias and worsening cardiac conditions. Due to the high prevalence of hyperkalemia in hemodialysis patients, it is essential to implement a modern, holistic management approach that goes beyond dietary restrictions (such as limiting fruits and vegetables) and instead promotes appropriate dietary choices while considering other risk factors for elevated potassium levels.

Objectives

The primary goals of this intervention are to reduce the proportion of patients with potassium levels above 5.5 mmol/L and to enhance their understanding of the importance of a healthy diet in hemodialysis. By employing an individualized and interdisciplinary approach, we aim to actively involve patients in managing hyperkalemia, fostering long-term improvements in dietary habits and overall health.

Methods

This study employs a qualitative research approach and a descriptive methodology. Despite regular monthly monitoring of serum potassium levels, patient education, dietary journals, and the provision of a broad range of cooking recipes, 45% of patients in our clinic have an annual average serum potassium level above 5.5 mmol/L.

We invited all 45% of patients to participate in workshops. Four patients declined participation, while the rest accepted the invitation. Workshops are conducted in the outpatient clinic post-dialysis, ensuring patient privacy. On the day of the workshop, potassium and bicarbonate (HCO_3) levels are measured before and after dialysis.

Results

The results of the workshops will be followed-up as the intervention is long-term and still ongoing.

Conclusion/Application to practice

The primary goals of this intervention are to reduce the proportion of patients with potassium levels above 5.5 mmol/L and to enhance their understanding of the importance of a healthy diet in hemodialysis. By employing an individualized and interdisciplinary approach, we aim to actively involve patients in managing hyperkalemia, fostering long-term improvements in dietary habits and overall health.

References

easier understanding of the importance of a healthy diet in hemodialysis, actively involve patients in managing hyperkalemia

Abstract Country

Slovenia

Disclosure of Interest

Yes

131

Support Groups: The Power of Peer Contact, Empowerment, and Methodologies

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Background

Living with kidney failure presents challenges in many aspects of life. Many (pre-)dialysis patients share similar concerns, such as struggling with energy management, coping with feelings of sadness, and dealing with a lack of understanding from their surroundings. The social work team has decided to offer support groups in addition to individual counseling. This aligns with the patients' need for peer contact. Peer support promotes physical, social, and psychological well-being (Movisie, 2024). Additionally, this approach allows specialists to support multiple patients at the same time.

The goal is:

To improve the quality of life of our patients through peer contact, empowerment, and the use of structured methodologies.

Methods

Patients are invited to participate in three group sessions led by two social workers. Depending on the topic, an additional specialist can join the sessions. Each group consists of five to twelve participants. To create a safe environment, all participants are expected to attend all sessions. Patients share their experiences, listen to each other, and actively participate in exercises designed to address their concerns. The role of the social worker is to facilitate the sessions using various methodologies and exercises adapted to the patients' needs.

Results

After completing the sessions, patients report feeling acknowledged and supported by their peers. The methodologies and shared experiences provided them with new insights, helping them better cope with the consequences of kidney failure.

Conclusion/Application to practice

Both patients and specialists regard the support groups as a valuable addition to individual counseling. Patients feel supported and acknowledged, apply new insights in their daily lives, and experience an improved quality of life as a result.

References

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Abstract Country

The Netherlands

Disclosure of Interest

Yes

144

Mental health and quality of professional life of nephrology nurses in Hungary

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Background

Mental Health and Quality of Professional Life of Nephrology nurses should be considered seriously because it is related to patient safety and satisfaction. Shortage of nephrology nurses result in a demanding workload, emotional and physical stress. Nurses in dialysis unit provide complex, individualized care to patients who have a substantial clinical burden. In this long term, chronic care nurses are building close relationships with their patients over the years or decades.

Objectives

This study aims to analyze the mental health and quality of professional life of nurses working in dialysis clinics.

Methods

This study is 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.

The Professional Quality of Life Scale (ProQOL) is a 30 item self-report questionnaire designed to measure compassion fatigue, work satisfaction and burnout amongst healthcare professionals.

IBM SPSS 23.0 software was used for the statistical analysis.

Results

Compassion satisfaction score was generally on a moderately high range. Overall nurses are feeling positively about working with their colleagues and help others through their day to day work. Burnout is one of the elements of compassion fatigue. Higher burnout score is associated with high workload, extensive hours of work and increased work related stress.

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. At clinic level, active participation in various programs of quality of life along with physical recreational activities has to be promoted. At organisational level, team building exercises and burnout prevention trainings should be in place. This is an ongoing project and the results of the interventions will be reassess again next year.

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Abstract Country

Hungary

Disclosure of Interest

No

145

Prevalence and Impact of Mental Disorders Among Renal Dialysis Patients

[aya abouzikry](#)

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Background

Mental health disorders are highly prevalent among dialysis patients, significantly affecting their quality of life, treatment adherence, and overall health outcomes. Despite their impact, these conditions are often underdiagnosed and undertreated.

Objectives

This study aims to assess the prevalence and impact of mental disorders among dialysis patients, identify key risk factors, and highlight the importance of psychological support in improving patient outcomes.

Methods

A randomized study was conducted at the Kidney Dialysis Center – Janzour in 2024, including 100 dialysis patients (70% males, 30% females). Data were collected through clinical assessments and patient-reported symptoms, focusing on depression, anxiety, cognitive impairment, sleep disorders, and suicide risk.

Results

1-35% of patients were diagnosed with anxiety and depressive disorders.

2-Depression prevalence: 20%–40%, linked to a **1.5 to 3-fold higher mortality risk**.

3-Anxiety disorders: Affected **30%–50%** of patients, often due to financial stress and treatment burden.

4-Cognitive impairment: Reported in **30%–60%** of patients, increasing dementia risk.

5-Sleep disorders: Found in **60%–70%**, affecting adherence and overall well-being.

6-Suicide risk: Dialysis patients had a **2–3 times higher suicide risk** than the general population.

7-Psychological symptoms were more common in females, with **65% reporting mood and behavior changes** and **45% experiencing sleep and appetite disturbances**.

8-10% of males and 8% of females showed improvement with long-term psychological care

Conclusion/Application to practice

Mental health disorders significantly impact dialysis patients, leading to poor treatment adherence and higher morbidity. Routine psychological screening, integrated mental health services, and multidisciplinary care approaches are essential to improving patient outcomes and overall quality of life. Healthcare providers should prioritize mental health support as part of dialysis care to enhance patient well-being and prognosis.

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Abstract Country

libya

Disclosure of Interest

Yes

146

Nocturnal Dialysis – Improving Patient Quality of Life

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Abstract

Nocturnal dialysis is a unique service offered at Tel Aviv Medical Center, designed to improve the quality of life for dialysis patients. By providing treatment while patients sleep, they can maintain their daily routines, including work and family responsibilities, without disruption. Currently, nocturnal dialysis is conducted three times a week (Sunday, Tuesday, Thursday) from 23:00 to 05:30 under medical supervision. This program is not intended for emergency cases and is suitable only for stable patients. Technical Details: • Monitoring: Requires careful supervision due to dim lighting and potential tubing issues • Heparin Administration: Over 6,000 units via PUMP syringe • Staffing: 1 nurse per 5 patients, nephrologist available 24/7, but no technicians or additional support staff at night Advantages of Nocturnal Dialysis: • Improves patient lifestyle – allows them to work and maintain a normal daily routine • Longer sessions (6+ hours) – enhances dialysis efficiency and patient outcomes • Fewer complications, such as blood pressure drops, muscle cramps, and post-treatment fatigue • Gradual fluid removal, reducing stress on the body and preventing sudden drops in blood pressure Challenges of Nocturnal Dialysis: • Limited staff availability – no technicians or support staff • Restricted access to additional services – social worker and dietitian appointments must be scheduled during daytime hours • Increased fluid intake risk – extended treatment time may lead to excess fluid consumption • Requires close monitoring – dim lighting increases the risk of tubing disconnection or other complications Results & Conclusion: Nocturnal dialysis has shown significant benefits, including improved patient well-being, better blood pressure control, and reduced medication dependency. Expanding night dialysis services could improve patient accessibility and long-term health outcomes, offering a new standard of care for individuals requiring ongoing dialysis treatment.

Background

Nocturnal dialysis is a unique service offered at Tel Aviv Medical Center, designed to improve the quality of life for dialysis patients. By providing treatment while patients sleep, they can maintain their daily routines, including work and family responsibilities, without disruption. Currently, nocturnal dialysis is conducted three times a week (Sunday, Tuesday, Thursday) from 23:00 to 05:30 under medical supervision. This program is not intended for emergency cases and is suitable only for stable patients. It is important to note that there are quite a few countries where night hemodialysis is available, but in the vast majority of cases, it is based on home hemodialysis, which is the foundation of most studies.

Objectives

To show that Nocturnal dialysis has significant benefits in terms of the patients status and medication.

Methods

Observation and comparing the results of several parameters such as blood pressure, blood test results, fluid balance and dialysis quality (KT/V) in night and day patients. In addition there were used satisfaction questionnaires.

Results

Nocturnal dialysis has shown significant benefits, including improved patient well-being, better blood pressure control, fluid balance and reduced medication dependency.

Conclusion/Application to practice

Expanding nocturnal dialysis services could improve patient accessibility and long-term health outcomes, offering a new standard of care for individuals requiring ongoing dialysis treatment.

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Abstract Country

Israel

Disclosure of Interest

No

147

Strengthening kidney care systems: How timely intervention can improve health equity

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Abstract

Kidney disease is a growing global health concern, affecting millions of individuals, yet access to essential treatment and transplantation remains unequal.

Background

In many regions, including North Macedonia, systemic barriers such as socioeconomic status, geographic limitations, and insufficient healthcare infrastructure hinder timely intervention and quality care. One of the most pressing issues is the limited availability of appointments for arteriovenous fistula (AVF) creation, leading to prolonged reliance on non-tunneled central venous catheters (CVCs), which pose severe health risks, including infections, increased hospitalizations, and higher mortality rates.

Objectives

Our goal was not only to reduce delays in AVF creation but also to improve overall health outcomes and enhance the quality of life for affected patients.

Methods

Recognizing these challenges, our healthcare company, in collaboration with a private hospital, took proactive measures to provide patients with timely AVF creation. By covering the financial costs of these procedures, we ensured that patients received the necessary interventions without delays, ultimately improving their treatment outcomes and reducing reliance on temporary CVCs.

Results

27 patients have benefited from this initiative. Reducing the wait time for vascular access significantly improves patient care by ensuring timely and appropriate treatment. Establishing AVFs enables patients to receive optimal dialysis access, reducing the risk of infections and hospitalizations while improving overall health outcomes and contributing to a better quality of life.

Conclusion/Application to practice

Achieving equitable access to kidney care requires a multi-faceted approach that prioritizes timely vascular access, financial support, and systemic improvements in healthcare infrastructure. Our initiative, in partnership with a private hospital, demonstrates the impact of collaborative efforts in overcoming systemic barriers and ensuring timely treatment for patients. Moving forward, expanding such interventions and advocating for policies that improve vascular access availability will be crucial in reducing health disparities in nephrology and fostering a more just and effective healthcare system.

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Abstract Country

North Macedonia

Disclosure of Interest

No

151

The importance of social environment in the management of chronic kidney disease

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Background

Chronic kidney disease is an increasingly common health challenge with serious consequences for patients. In addition to medical treatment, the social environment plays a significant role in the acceptance and management of chronic kidney disease. Social support improves quality of life, treatment adherence, and psychological adjustment, yet it is often under-researched and overlooked in clinical practice.

Objectives

The aim of the study was to explore the impact of the social environment on patients with chronic kidney disease, focusing on the role of family and partner relationships, as well as social connections. We concentrated on quality of life and satisfaction with treatment.

Methods

The study was based on a mixed-methods approach. In the quantitative part, a questionnaire was used, which included sections on demographic data, family and partner relationships, social connections, quality of life, and treatment satisfaction. The questionnaire was distributed among patients in dialysis centres. The collected data were analysed using descriptive statistics. In the qualitative part, semi-structured interviews were conducted with randomly selected patients with chronic kidney disease.

Results

The questionnaire was distributed to 165 dialysis patients at the Dialysis Centre. It was completed by 140 dialysis patients, the majority of whom were over 55 years old. The results showed that 35% of respondents began treatment for early symptoms of kidney disease between the ages of 15 and 30. Regardless of age at the start of treatment, patients face challenges in family and partner relationships, workplace difficulties, and participation in social activities. This negatively impacted their quality of life and treatment, reducing satisfaction with the treatment process. Interviews conducted with a smaller, randomly selected group of dialysis patients confirmed and elaborated on the questionnaire results.

Conclusion/Application to practice

The findings of this study will contribute to a better understanding of the influence of social and interpersonal environments on patients with chronic kidney disease. They will serve as a guide for medical staff in involving patients in effective support and social programs to improve the quality of life and treatment for patients with chronic kidney disease.

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Abstract Country

Slovenia

Disclosure of Interest

Yes

152

Enhancing Hemodialysis Practices: A Technical Perspective from Libya

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Background

Hemodialysis treatment for end-stage renal disease (ESRD) in Libya faces major challenges, including outdated infrastructure, inadequate technical expertise, and poor resource management. These deficiencies result in frequent machine breakdowns, inconsistent infection control, poor water treatment, and high mortality rates. Limited access to trained personnel and essential equipment further exacerbates the crisis, leading to longer treatment times, increased infection risks, and reduced patient survival. Libya has one of the highest ESRD prevalence rates in the region, yet peritoneal dialysis remains underutilized, and kidney transplant programs are suboptimal.

Objectives

This study evaluates the infrastructure, equipment, and training programs across 96 hemodialysis centers in Libya, focusing on infection control, resource allocation, technological integration, and staff competency.

Methods

A structured survey targeted more than 400 dialysis nurses across these centers, assessing:

- Facility adequacy (waiting areas, emergency rooms, infection control).
- Equipment status (availability, age, and functionality of dialysis machines).
- Water treatment quality (testing frequency, compliance with safety standards).
- Staffing levels (technician-to-patient ratio, adequacy of training programs).
- Infection control (disinfection protocols, single-use dialyzers).
- Resource management (power outages, inventory shortages).

Results

Preliminary findings indicate that aging equipment, infrastructure gaps, and inadequate infection control negatively impact patient outcomes. Many centers lack qualified staff and structured training programs, further lowering the quality of care. Digital health solutions, such as telemedicine and patient monitoring systems, could enhance healthcare accessibility and efficiency.

Conclusion/Application to practice

The findings emphasize the urgent need for policy reforms and infrastructural improvements in Libya's dialysis care system. Stricter quality control, enhanced training, and improved resource distribution are critical for better patient outcomes. Future policies should prioritize technological advancements and sustainability. Further research is required to assess long-term interventions and policy impacts.

References

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Abstract Country

Libya

Disclosure of Interest

Yes

159

The Effect of Predialysis Education on the Decision to Undergo Replacement Therapy

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Objectives

Chronic kidney disease (CKD) is increasingly recognised as a global public health problem that contributes to high patient morbidity and mortality. Carefully planned pre-dialysis education plays a crucial role in helping patients to actively participate in treatment planning. The aim of this study was to investigate the impact of predialysis education in CKD patients on the decision about the type of renal replacement therapy (RRT).

Methods

We conducted a retrospective study in a single dialysis centre, enrolling 444 patients with stage 5 CKD who had received predialysis education. It was conducted by nurses with specialised skills in peritoneal dialysis between February 2015 and December 2024. Patients were followed up until the start of RRT or death, or until the end of 2024.

Results

The mean age of patients was 67,2 years, and 62,8% were men. Thirty-seven (8,3%) patients opted for peritoneal dialysis, 158 (35,6%) patients opted for haemodialysis, 7 (1,6%) were transplanted. One hundred thirteen (25,5%) patients had already been informed and continued to be treated as outpatients. We lost track of 25 (5,6%) patients – they came for education, did not respond to outpatient treatment later and did not require RRT. One hundred four (23,4%) patients responded to pre-dialysis education but died before starting RRT.

Conclusion/Application to practice

The purpose of pre-dialysis education is to improve the quality of life of patients with CKD and to provide them with timely and unbiased information about their disease, its complications and the possibilities of RRT. The aim of pre-dialysis education is for the patient to start RRT either with a functioning AV fistula or with a peritoneal catheter in place, or to be on the waiting list for a kidney transplant.

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Abstract Country

Slovenia

Disclosure of Interest

No

161

Statistical data on hemodialysis initiation based on vascular access

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Abstract

The type of vascular access at the initiation of hemodialysis significantly influences patient outcomes. The Kidney Disease Outcomes Quality Initiative (KDOQI) recommends arteriovenous fistula (AVF) due to its lower infection rates and better long-term patency, yet central venous catheters (CVCs) remain common, raising morbidity and mortality risks. Analyzing data from 625 patients across 12 dialysis centers of Mesogeios Group over two years reveals that 40.40% started with CVC, 29.7% with AVF, and 3.48% with an arteriovenous graft (AVG). Notably, CVC use was higher among females and patients referred from public hospitals, while AVF was more prevalent in private center patients. The study emphasizes the importance of early vascular access planning through structured nephrology referrals and patient education to enhance AVF utilization and decrease CVC dependence, highlighting the need for continuous evaluation and multidisciplinary efforts to sustain improvements.

Background

The importance of life plan design for patients with end-stage chronic kidney disease is immense. Proper planning also includes selecting the most appropriate vascular access for the patient. By analyzing a significant sample of patients who initiated hemodialysis over the past two years across a total of 12 hemodialysis centers of Mesogeios Group, and a sample of 625 patients, we have reached particularly significant conclusions

Objectives

To measure the percentage of patients who initiated hemodialysis by type of vascular access
To analyze the distribution of vascular access types among patients initiating hemodialysis.
To identify barriers preventing timely AVF placement.

Methods

A retrospective review of 625 patients initiating hemodialysis over 2023-2024 was conducted. Utilized variables such as the type of vascular access, the patients' gender, the referring medical center, the age group, and the time period since the initiation of hemodialysis.

Results

In the overall patient population, 40.40% started dialysis with a CVC, 29.7% with an AVF, and 3.48% with an arteriovenous graft (AVG). Some of the most notable and exploratory results of the analysis are those in female patients with a CVC rate of 41.38% at the start of dialysis. Remarkable rates of 40.59% of Temporary Dialysis Catheter in patients From public hospitals and 42.7% patients with AVF From private centers.

Conclusion/Application to practice

The findings of our study point to the need for quality improvement in routine dialysis care to improve patient safety and outcomes. Early vascular access planning, facilitated through structured nephrology referrals and patient education, significantly improves AVF use and reduces reliance on CVCs. Continuous evaluation and multidisciplinary collaboration remain essential to sustain improvements.

References

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Abstract Country

Greece

Disclosure of Interest

Yes

162

Peritoneal dialysis: by choice or by necessity?

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Background

In addition to patients who consciously choose peritoneal dialysis—appreciating the advantages of the method—there are those who resort to it due to a lack of vascular access and, consequently, the inability to continue their therapy with hemodialysis.

Methods

We compared the clinical and social characteristics, as well as the clinical course, of nine patients who switched their renal replacement therapy from hemodialysis to peritoneal dialysis due to lack of vascular access (group A) with those of 33 patients who deliberately chose peritoneal dialysis, either as a primary treatment ($n = 29$) or later after initially being urgently started on hemodialysis ($n = 9$) (group B).

Results

Patients in group A tended to be younger (60.2 ± 13.5 vs. 68.6 ± 14.5 years, $p = 0.131$) and were more often capable of performing the procedure independently without the need for a caregiver (assisted peritoneal dialysis in group A: 22% vs. 58% in group B, $p = 0.060$). There was no statistically significant difference in the percentage of patients undergoing automated peritoneal dialysis between the two groups (88.9% vs. 80.6%, ns). Patients in group A, being mostly anuric, used icodextrin at a higher rate (88.9% vs. 51.6%, $p < 0.05$). Group A patients experienced fewer exit site infections (0.10 vs. 0.29 per year, $p < 0.05$) but had more episodes of peritonitis (0.52 vs. 0.17 per year, $p < 0.05$). No statistically significant difference was observed in either patient survival or technique survival between the two groups (ns).

Conclusion/Application to practice

Peritoneal dialysis is a reliable option, even when it is employed out of necessity due to the lack of vascular access.

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Abstract Country

Greece

Disclosure of Interest

Yes

163

Impact of vascular access type on dialysis adequacy

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Background

Dialysis adequacy is a crucial factor in maintaining the health and quality of life of patients with chronic kidney disease undergoing hemodialysis. The type of vascular access significantly influences dialysis efficiency, with the two primary approaches being the arteriovenous fistula (AVF) and the central venous catheter (CVC).

Objectives

This study aimed to compare dialysis adequacy between patients with AVF and those with CVC using key parameters such as urea clearance (Kt/V), urea reduction ratio (URR) and serum levels of potassium and phosphorus.

Methods

A total of 42 patients (30 males and 12 females) undergoing chronic hemodialysis were included in the study, divided into two groups: 30 patients with AVF and 12 with CVC. Dialysis adequacy was assessed using Kt/V and URR values. Time average values for serum potassium and phosphate were recorded over a period of six months.

Results

CVCs were more frequently in female (41.7%) than in male patients (23.3%). Patients with CVC were older than patients with AVF (68.3 ± 19.3 vs. 62.1 ± 12.4 years). Patients with AVF had higher Kt/V values (1.52 ± 0.2 vs. 1.39 ± 0.2) and URR (72.1 ± 5.1 vs. $69.3 \pm 5.7\%$) than patients with CVC, indicating superior dialysis efficiency. Time average serum potassium values were similar in the two groups (AVF: 4.8 ± 0.4 , CVC: 4.9 ± 0.5 mmol/l). Time average serum phosphate was higher among CVC patients (5.5 ± 1.1 mg/dl) than in patients with AVF (4.9 ± 0.9 mg/dl).

Conclusion/Application to practice

The use of an arteriovenous fistula is associated with better dialysis adequacy compared to the central venous catheter. Our findings reinforce the recommendation to prioritize AVF as the preferred vascular access method for patients undergoing chronic hemodialysis.

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Abstract Country

Greece

Disclosure of Interest

Yes

166

Adverse events in dialysis care – SWOT analysis

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Abstract

The subject of presentation is the issue of adverse events in dialysis care. They can be medical or nonmedical. Through a SWOT analysis, we analyzed the basic elements of adverse events in dialysis care and their risks. For the purposes of the SWOT analysis, a research study was carried out, the aim of which was to monitor all possible events and situations of adverse events in dialysis care.

Objectives

Identify all possible events that may affect or disrupt dialysis care.

Methods

In analysis we paid attention to internal (Strength, weaknesses) and external (opportunities, threats) factors affecting dialysis care. We analyse internal reports in medical databases : Focus was to reported accidents during intradialysis treatment and interdialysis period and their cause.

It includes:

1. Injuries and falls.
2. Unintentional damage.
3. Serious events – death, permanent consequences.
4. Suicide attempt/perfect suicide
5. Self-mutilation – removal of CVK, dial. Needles.
6. Events related to the diagnosis, treatment and use of medicinal products.
7. Epidemiological emergencies- MDRO, COVID, returning of old diseases-TBC, scabies etc.
8. Extraordinary events from non medical reasons- Loss or damage to the patient's property, Loss or damage to company assets,
9. Natural disasters and other events.

Results

Strength – excellent reporting, quality management, high educated staff.

Weaknesses- staff fluctuation, nurse shortage, fear of reporting due to consequences.

Opportunities- prevention, education, cooperation.

Threats- socially disadvantaged population of patients, an aging population of nurses and doctors working in dialysis care, an increased level of stress factors in dialysis care- patient with multiple comorbidities, political interference in health care, war conflicts.

Conclusion/Application to practice

Reporting of adverse events creates the basis for analysis, evaluation and prioritization in the field of safety and quality of dialysis care.

Supports mutual learning of health professionals – training, educational activities to make prevention. Developing crisis management.

Making the profession of a nurse more attractive.

Cooperate with authorities in country level.

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Abstract Country

Slovakia

Disclosure of Interest

No

169

The Effect of Chopin's „Spring Watz“ and Monet's Paintings on Pain-Anxiety-Comfort in Hemodialysis Patients

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Background

In addition to pharmacological treatments, art therapy can be used as a complementary and alternative treatment method in the management of hemodialysis symptoms. Attitudes of healthcare professionals towards organ donation are an important factor affecting organ donation.

Objectives

This study was conducted to Investigate the Effect of Exhibiting Claude Monet's Paintings Together with Chopin's „Spring Watz“ on Pain, Anxiety and Comfort in Hemodialysis Patients.

Methods

This randomized controlled trial was conducted with a total of 60 patients, 30 in the intervention group and 30 in the control group. In addition to their routine treatments, patients in the intervention group were shown a video of Claude Monet's paintings accompanied by Chopin's „Spring Watz“ during hemodialysis. Patients in the control group were given only their routine treatments. Data were obtained using the Patient Information Form, Visual Analog Scale, Beck Anxiety Scale and Hemodialysis Comfort Scale.

Results

The mean Visual Analog Scale and Beck Anxiety Scale scores of the intervention group decreased statistically significantly compared to the control group ($p < 0.05$). On the other hand, the mean Hemodialysis Comfort Scale scores increased statistically significantly compared to the control group ($p < 0.05$) after the intervention.

Conclusion/Application to practice

In this study, art therapy with the concept of music and painting was found to be effective in reducing pain and anxiety and increasing patient comfort in patients undergoing hemodialysis. The use of art therapy in hemodialysis units should be routinely used as an integrated treatment method due to its effect of reducing pain and anxiety and increasing patient comfort. This approach, which is offered with a multidisciplinary approach, can be effective in increasing the quality of patient care as a supportive, non-invasive and cost-effective method in symptom management.

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Abstract Country

Turkey

Disclosure of Interest

No

171

Green dialysis: a Literature review

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Background

High-technology medicine saves lives and produces waste; this is the case of dialysis. The increasing amounts of waste products can be biologically dangerous in different ways. The terms pollution, sustainability, carbon footprint, and ecology are increasingly encountered in talks. It appears that time is ripe for applying a “green policy” to all our activities.

Objectives

To investigate and focus on the importance of how a green nephrology approach can contribute to sustainability.

Methods

Literature review in the scientific databases Pubmed, Google scholar in the last 5 years. Keywords: Hemodialysis, Dialysis fluid management, Protection of environment, medical waste management, Natural resource management

Results

Hemodialysis is one of the most resources consuming medical intervention. Due to its concept, the proper management of dialysis is crucial to obtaining the expected outcomes.

Conclusion/Application to practice

The medical community should be particularly sensitive to environmental issues and try to limit the impact of its activities on the state of the environment. It is highly recommended to rethink some common rules : dialysate flow, investment in the modern system of concentration production in the center, and reduction of a number of concentrate compositions. Every small step toward reducing the impact of our activities on the environment multiplied by the number of medical procedures performed can be a big step for the whole of humanity.

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Abstract Country

AUSTRIA

Disclosure of Interest

No

175

Falls and quality of life in people under haemodialysis

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Background

Patients with chronic kidney disease and hemodialysis patients are highly exposed to catabolism, inflammation and physical inactivity that are major contributors for sarcopenia. This condition per se is an important risk factor for falls, reason that may explain the high incidence of falls in this population. Mineral bone disease is a hallmark of chronic kidney disease and may contribute for the catastrophic consequences of falls in this population. Thus, falls may have a negative impact on very important health outcomes, including on health-related quality of life (HRQoL).

Objectives

To compare the HRQoL between hemodialysis patients with and without fall

Methods

Cross-sectional study in which patients were divided in two groups (fallers vs. non-fallers) according to their self-report on the occurrence of falls during the last year. HRQoL was measured for both groups using the KDQOL-SF (version 1.3). Mann-Whitney or student-t tests were used for comparisons between groups.

Results

Among the 62 participants, with an average age of 70 years ($SD \pm 12$ years), 25 (40.3%) were frail and 20 (32.2%) reported falls. Of the 35 falls reported, 19 (54.3%) occurred at home, and 17 (48.6%) occurred after a hemodialysis treatment. In relation to the HRQoL subscales, patients with previous falls had worst results for symptoms and problems (68.2 vs. 85.4, $p < 0.001$) and effects of kidney disease on daily life (57.8 vs. 78.4, $p < 0.001$). No significant differences were found for the other HRQoL subscales (burden of kidney disease, cognitive function, social interaction, sleep, social support, satisfaction, pain, general health, emotional functioning, and social functioning).

Conclusion/Application to practice

These results reinforce the importance of falls prevention to improve the symptoms associated with chronic kidney diseases and hemodialysis, which are important HRQoL subscales. Thus, people under hemodialysis can benefit from exercise programs, carried out by rehabilitation nurses and which can be specifically designed to improve postural balance and prevent falls.

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Abstract Country

Portugal

Disclosure of Interest

Yes

179

Case study of intradialytic hypotension in hemodialysis – nursing interventions for treatment and prevention

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Abstract

Nurses play a critical role in the identification, management and prevention of intradialytic hypotension through careful monitoring, individualized care strategies and effective communication within the multidisciplinary team (Patel & Chan, 2023).

This paper is a case study using treatment data collected after an episode of intradialytic hypotension (IDH) in December 2024, in a patient in the Hemodialysis (HD) unit of Limassol General Hospital. For confidentiality reasons, the patient's details have been changed to virtual. The data were extracted from the specific session where the patient presented with the episode.

Background

Intradialytic hypotension (IDH) is a common complication in patients undergoing hemodialysis, characterized by a significant drop in blood pressure during treatment. This condition can lead to serious adverse events, including decreased dialysis efficacy, organ hypoperfusion, and increased mortality. Effective nursing interventions are crucial for the management of IDH and ensuring patient safety.

Objectives

The primary objective of this study was to present a case of intradialytic hypotension (IDH) in a hemodialysis setting and to critically analyze nursing interventions that can effectively prevent and manage such cases. The study sought to enhance clinical practice by identifying evidence-based strategies to mitigate the risks associated with IDH and improve patient outcomes.

Methods

A case study approach was adopted to provide an in-depth analysis of a patient undergoing hemodialysis who developed IDH. The study used the Gibbs reflective cycle as a framework for analyzing the situation, exploring nursing interventions, and evaluating outcomes. A comprehensive literature review was conducted using scientific search engines such as PubMed, CINAHL, and Google Scholar to support evidence-based practices. Key interventions included continuous vital sign monitoring, assessment of pitting edema prior to hemodialysis, and use of bio-metric body monitoring to optimize fluid management.

Results

The analysis highlighted that regular assessment of body weight, pressure-point edema, and blood pressure, along with individualized ultrafiltration goals and proper fluid management through bio-metric body monitoring, significantly reduced the incidence of IDH. The case study demonstrated the effectiveness of these targeted nursing interventions in stabilizing the patient's hemodynamic status.

Conclusion/Application to practice

The study highlights the critical role of nurses in the prevention and management of IDH in patients undergoing hemodialysis. By implementing structured assessment tools and evidence-based interventions, professional nurses can improve treatment safety and patient outcomes. Through this study, we created a pre-HD patient nursing assessment checklist that was proposed to the Organization's management for pilot implementation. Also, information management forms for Unit Nurses were prepared for IDH cases and its management in the clinical setting.

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Abstract Country

Cyprus

Disclosure of Interest

No

185 Self-care behaviours with arteriovenous fistula in hemodialysis: a study in two Portuguese units

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Background

Patients with Chronic Kidney Disease (CKD) have high educational needs for self-management of the therapeutic regime. Self-management is defined by Shen et al. (2019) as an individual's ability to manage the symptoms, treatment, physical and psychosocial consequences and lifestyle changes intrinsic to a chronic disease. Regarding this diseases, self-management is considered crucial for promoting health, with the encouragement of self-care. Active patient participation in treatment includes care with Vascular Access (VA), which involves spontaneous behavior's aimed at promoting health, well-being and the proper functioning of VA.

Objectives

Measure the VA self-care profile of a population of CKD patients in ambulatory hemodialysis units

Methods

Prospective, quantitative and cross-sectional study. The data was collected in September 2024. We collected the following variables: age, sex, household, level of education and professional status, etiology of CKD, time on HD, time on HD with Arteriovenous fistula (AVF), location/typology of AVF and previous complications with VA. The assessment of self-care behaviours with the AVF was carried out through the Scale for the Assessment of Self-Care Behaviours with the AVF in HD developed by Sousa et al. (2015).

Results

A total of 178 patients were included in the study. The average age is 69.5 years old, the average time in HD is 4 years and the average time in HD with AV FAV is 4 years.

The overall score, resulting from the application of the Scale for the Assessment of Self-Care Behaviours with the AVF in HD, was 84.4. In the signs and symptoms dimension, the mean score was 95.8, and in the complication prevention dimension, it was 77.5.

Conclusion/Application to practice

Given the obtained results, we believe it is crucial to carry out educational interventions aiming to improve the patient's self-care behaviours with AVF.

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Abstract Country

Portugal

Disclosure of Interest

No

191

Frailty indicators in patients with chronic kidney disease undergoing hemodialysis: an integrative literature review

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Background

Frailty is a multidimensional syndrome that significantly affects patients with chronic kidney disease (CKD) undergoing hemodialysis, increasing the risk of adverse events such as hospitalizations, falls, and mortality.

Frailty has been described as a multidimensional syndrome involving a complex network of biopsychosocial factors that interact dynamically and synergistically, with a significant impact on the ability to resist stressors.

Identifying the main frailty indicators in this group is essential to improve care and promote targeted interventions.

Objectives

- To identify and analyze the most prevalent and relevant frailty indicators in CKD patients on hemodialysis.
- To understand how these indicators influence the prognosis and clinical management of these patients.

Methods

An integrative literature review was conducted using scientific databases such as CINAHL, MEDLINE and SCOPUS. Articles published from 2014–2024 that addressed frailty in CKD patients on hemodialysis were selected. Inclusion criteria were English and Portuguese articles of primary studies (quantitative/qualitative) and the research followed the flowchart of the Joanna Briggs Institute (JBI), allowing six final studies to be selected for analysis.

Results

Analysis of the articles shows that the population of hemodialysis patients has a high incidence of frailty, assessed by its multiple indicators in specific domains: physical, sociodemographic, analytical, psychological, and social indicators. The main frailty indicators found were sarcopenia, muscle mass loss, functional incapacity, the presence of comorbidities (such as hypertension and diabetes), and poor nutritional status. Frailty assessment was associated with higher mortality rates, frequent hospitalizations, and functional decline.

Conclusion/Application to practice

Frailty in CKD patients on hemodialysis is multifactorial, involving physical, nutritional, and comorbid aspects. Early identification of frailty indicators is essential to improve clinical management and the patients' quality of life, as well as to contribute to the reduction of complications associated with hemodialysis, promoting a more holistic care environment centered on the patient.

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Abstract Country

Portugal

Disclosure of Interest

No

200

Evaluation of the relationship between dialysis patients' self-care agency and loneliness experiences

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Background

Improved self-management behavior in patients with chronic kidney disease is an important factor in health management and management of the symptoms to be experienced. It is known that individuals with high self-management power increase their ability to manage physical and psychosocial problems. Chronic disease and treatment force patients to stay at home and may cause social and emotional loneliness.

Objectives

This study aimed to determine the relationship between disease management, self-management status and social and emotional loneliness of patients receiving chronic dialysis treatment.

Methods

The research carried in a descriptive and relationship seeking model.

The universe of the study consisted of 154 patients and the sample consisted of 100 patients. Considering that the effect size (p) was 0.3, alpha error was 0.05, the power probability was 90% and the probability of data loss was 10%, data were collected from 110 patients.

Personal information form, Social and Emotional Loneliness Scale for Adults and Chronic Disease Self-Management Scale were used to collect data.

Results

According to preliminary statistical analysis the average age of participant found to be 60.45 ± 10.54 ; 64% were male. The mean Loneliness Scale score was 58.68 ± 18.36 (above the intermediate level) and the mean score of the self-care was found to be 13.72 ± 3.84 , that is, at a moderate level. A positive correlation was found between self care and loneliness. The process of comprehensive statistical analysis is ongoing

Conclusion/Application to practice

In order to manage patients successfully, to improve their self-care abilities and to decrease their levels of loneliness and social isolation, nurses should provide physical, social and emotional support. Nurses should cooperate with patients, their families and other social support sources to manage with self-care actions and to develop strategies for improving quality of life.

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Abstract Country

Turkey

Disclosure of Interest

No

202

Evaluating user experience in Home Hemodialysis: traditional dialysate bags versus PureFlow Home-Produced dialysate

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Background

Intensive home hemodialysis (HHD) offers significant benefits for quality of life and clinical outcomes. However, patients face logistical challenges, and any initiative to mitigate them should be explored. In September 2022, NephroCare France introduced the NxStage PureFlow system, which produces ultrapure water and a 60L batch of ready-to-use dialysate from drinking water, reducing dependence on pre-packaged dialysate bags. Several patients previously using dialysate bags with the NxStage cyclor transitioned to PureFlow.

Objectives

This study evaluated user experiences with PureFlow compared to traditional dialysate bags, focusing on practical and logistical aspects.

Methods

In January 2025 a survey was conducted with seven patients who had used dialysate bags for over three months and Pure Flow at least three months completed a structured questionnaire assessing home storage, dialysis waste management, session preparation, session completion, training in device usage, dialysate batch preparation, and PureFlow consumables replacement.

Results

All patients (7/7) reported a significant reduction in home storage requirements with PureFlow, with 6/7 considering this a personal benefit.

All patients (7/7) noted a substantial reduction in dialysis-related waste, with 6/7 perceiving a personal benefit.

All patients (7/7) found session preparation easier with PureFlow.

No patient expressed a desire to permanently return to dialysate bags, and 6/7 would consider temporary use of bags under specific circumstances.

Conclusion/Application to practice

For this group of patients with comparative experience, the findings indicate that PureFlow significantly reduces logistical challenges associated with home hemodialysis, supporting its promotion of home use. Continued efforts are needed to enhance accessibility to home HHD.

References

NO

Abstract Country

France

Disclosure of Interest

Yes

80

Get cooking for kidney health: engaging dialysis patients in dietary management

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Abstract

Introduction: Dietary adherence is crucial for dialysis patients, but complex restrictions often hinder success. Traditional education struggles to translate knowledge into practical skills and maintain patient engagement. This project introduces a novel approach: a cooking show series, “The Kidney Friendly Kitchen,” led by healthcare professionals.

Objectives

To develop and evaluate a 5-part cooking show series educating dialysis patients on key dietary restrictions (fluid, potassium, sodium, phosphorus, protein) in an engaging and practical manner. The method uses registered nurses and a nephrologist to prepare kidney-friendly recipes, explaining ingredient choices and cooking techniques. Each episode focused on a specific dietary restriction. Participants must then complete pre- and post-questionnaires assessing knowledge, self-efficacy, and motivation related to dietary management.

Methods

The method uses registered nurses and a nephrologist to prepare kidney-friendly recipes, explaining ingredient choices and cooking techniques. Each episode focused on a specific dietary restriction. Participants must then complete pre- and post-questionnaires assessing knowledge, self-efficacy, and motivation related to dietary management.

Results

This format, called “Edutainment” is anticipated to increase patient knowledge, enhance the benefit of managing dietary intake, and increase motivation to adhere to dietary guidelines.

Conclusion/Application to practice

In today’s media-focused culture, “The Kidney Friendly Kitchen” offers a transformative approach to dietary education, making it engaging, practical, and potentially more effective than traditional media in improving health outcomes. Further research will evaluate its long-term impact.

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Abstract Country

Hungary

Disclosure of Interest

No

235

Vascular Access Detachment – fears of yesterday or reality today

Background

Venous Needle Dislodgement (VND) and Access-Bloodline Separation (ABLS) pose significant risks for patients undergoing chronic hemodialysis. With extracorporeal blood flow rates of 300–500 mL/min, these incidents can rapidly lead to hemorrhagic shock within minutes¹. Although rare, such events remain underreported despite being a fundamental component of nephrology education. The literature predominantly addresses VND, yet the increasing prevalence of Central Venous Catheters (CVCs) necessitates equal focus on both vascular access types. To unify these risks, we introduce the concept of Vascular Access Detachment (VAD)—a comprehensive term encompassing both VND and ABLS. Educational materials should integrate strategies for preventing VAD, ensuring awareness among clinical staff and patients.

Objectives

To raise awareness of the risks associated with Vascular Access Detachment and to promote unified prevention and education strategies. This includes updating educational materials for both clinical staff and patients.

Methods

A review of current knowledge and guidelines was conducted to refine prevention strategies and enhance educational materials.

Conclusion/Application to practice

Effectively addressing prevention of Vascular Access Detachment requires a multifaceted approach. Key components include comprehensive education for clinical staff and patients, standardized procedures during connection times, vigilant patient monitoring, and ensuring vascular access visibility. Looking ahead, integrating innovative technologies will further minimize the risks.

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Abstract Country

Germany

121

Haemodialysis arteriovenous vascular access cannulation complications: narrative review of vascular access guidelines

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Background

The field of vascular access (VA) is complex and easily we can observe substantial management differences in different countries and even in different states or regions. Frequent cannulation of the VA leads to cannulations difficulties, hematomas, bleeding, infection and can promote the development of aneurysms, thrombosed and VA loss.

Objectives

To analyze vascular access clinical practice guidelines (VACPG) about arteriovenous vascular access cannulation complications.

Methods

The search strategy used keywords with terms identified as relevant through the selected databases, CINAHL, MEDLINE, and Nursing & Allied Health Collection. Only English publications were considered. The date of publication of the guidelines ranges from 2006 to 2023. We identified nine VACPG.

Results

Almost all guidelines discuss cannulation or needling as a chapter, only two do not address this topic. Cannulation techniques are also a very common topic, especially in recent publications. The only complication addressed in all the documents was infection, one guideline has an exclusive chapter about infection and it's the only topic where there are incidence rates. Aneurysm was the second most complication analyzed (8 VACPG). Regarding other cannulation problems, they were less mentioned, such pain, bleeding, hematoma and hemostasis and misscannulations (1 VACPG). Empirically we know that the most frequent complication is the misscannulation, and this is the complication least frequently mentioned in all VACPG. The most used strategy was to be related the cannulation problems normally with two cannulation techniques (rope-ladder and buttonhole).

Conclusion/Application to practice

We can say that despite a considerable number of VACPG, cannulation complications are not well defined or evaluated, except the infection and aneurysms. The strategy to only related with the cannulation techniques seems to be reductive. There are no incidence rates and no strategies for reducing the prevalence. Complications such hematomas or misscannulations need more research and better definitions.

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Abstract Country

Portugal

Disclosure of Interest

No

207

Beginning of hemodialysis: What experiences? – research project.

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Abstract

Hemodialysis, Transition, changes strategies

Background

Chronic kidney disease (CKD) is characterized by kidney failure, and in the last stages requires the use of renal replacement therapy, such as hemodialysis (HD). The increasing number of people with CKD undergoing HD represents a significant cost in health care, and the transition process to the beginning this type of treatment dictates its success, but also the person's quality of life, the associated complications, the health gains and the costs. Understanding the person's experiences in this transition is essential to ensure the holistic and person-centered care. The person with CKD at the beginning of HD is a complex patient, in the process of transition, with highly differentiated needs, which requires a highly differentiated multidisciplinary team capable to provide an adequate care and adapted to the uniqueness of the person and his personal experience. The phenomenon of the person experience in the transition phase to HD treatment should be a focus of study in Nursing. Experiences are understood as the way in which person lives and experiences his life, it is the perception and the meaning that he gives to them (Forghieri, 2004).

Objectives

To understand the experience of people with chronic kidney disease at the beginning of HD

Methods

This is a qualitative, exploratory phenomenological study. Data collection will be done through semi-structured interviews to people with CKD undergoing HD treatment, thus ensuring that all participants share the experience of the same phenomenon. The data analysis will be carried out according to the methodological interpretation proposed by Bardin, and using the webQDA digital tool;

Results

When we will present this paper at the congress, we hope to obtain significant knowledge about a specific phenomenon, the transition of people with CKD to HD, their experiences, strategies for change and adaptation.

Conclusion/Application to practice

Nurse is a facilitating player on the transition process, but to facilitate clinical decision-making it's very important to be supported by the experiences of the person with CKD at the beginning of HD. Nurse's intervention could be more adjusted and effective.

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Abstract Country

Portugal

Disclosure of Interest

No

257

Training as a factor in the prevention of musculoskeletal disorders among hemodialysis professionals

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Abstract

EU-OSHA defines musculoskeletal disorders (MSDs) as impairments of bodily structures such as muscles, joints, tendons, ligaments, nerves, cartilage, bones and the localized blood circulation system. If MSDs are caused or aggravated primarily by work and by the effects of the immediate environment in which work is carried out, they are known as work-related MSDs.

MSDs are the most prevalent work related problem. The most common reported are backache and muscular pain, with implications for the productivity, absenteeism and reduced quality of life.

Analyze the prevalence of MSDs in health workers on a hemodialysis units at national level and applied to all professional classes, as well as analyzing the effect of different risk factors for the development of MSDs in their prevalence.

Conceptualize a study of a quantitative nature, of transversal and descriptive-correlational typology, using a non-probabilistic sample. As a harvesting tool data, a self-completion questionnaire was used, with the incorporation of a sociodemographic characterization form based on the adaptation of the Nordic Musculoskeletal Questionnaire.

We expect to conclude according to the bibliography, which tells us that a higher proportion of MSDs occurs in female individuals, older than 35 years old, married, on a work contract and with professionals over 5 years. Also who presents knowledge of the perception of the risk of developing MSDs and use of equipment in services, presents smaller proportions of MSDs.

Conclusion, Investing in preventive measures have proven to be effective. Therefore the group proposed the implementation of a training program with a brief contextualization of the theme and with exercises aimed at preventing MSD through the application of the principles of body mechanics.

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Abstract Country

Portugal, Diaverum Almada

Disclosure of Interest

No

263

Preserving mental health in hemodialysis patients

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Background

Hemodialysis is a process that significantly impacts the daily life of patients, not only physically but also emotionally and socially. Like many chronic illnesses, chronic kidney disease can disrupt a patient's psychological well-being.

Objectives

There are three main sources of stress: numerous restrictions that are part of the treatment, dependence on the dialysis machine, and the fact that the machine is operated by others; and the increase in aggression due to numerous frustrations. The greatest psychological distress occurs in the initial stage when patients begin dialysis, and there is a clear sense of anxiety. The second stage is marked by anxiety and emotional fluctuations. The third stage involves more intense psychological symptoms, leading to numbness and insensitivity. Patients often associate fear of death with the underlying illness and the dialysis machine. Among the many psychiatric comorbidities, depression and insomnia are the most prevalent. These conditions seriously affect the quality of life and prognosis in terms of nutrition, sleep, and adherence to treatment. Cognitive – behavioral therapy and counseling provide patients with tools for managing stress, understanding their emotions, and developing positive coping mechanisms.

Results

Family plays a key role in providing emotional support to patients. Close family connections can alleviate feelings of loneliness and offer practical help with daily activities. Patients who accept and better understand their illness tend to have a higher level of trust in their treatment. Actively involving patients in treatment planning and decision-making improves their sense of control and motivation. Encouraging patients to engage in hobbies or activities that do not interfere with treatment helps maintain a sense of purpose and satisfaction, while accepting the illness as part of their life is essential.

Conclusion/Application to practice

The key is understanding that mental health is inseparably linked to physical health, and that a holistic approach is the best way to achieve optimal results.

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Abstract Country

Serbia

Disclosure of Interest

Yes

264

Pain due to AVF punctions: how can we reduce it

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Background

The pain due to AVF punctions has many faces from irritation to acute pain. Puncture techniques, stress, AVF location, and the needles are factors that influence the pain experience. Pain can evolve to anxiety which can lead to negative dialyses experience, lower therapy and an impact on their health.

Objectives

The aim is to see which method our intervention can help to reduce the pain due to AVF punctions.

Methods

There are pharmacological (local anesthesia or other pain killers...) and non-pharmacological (diversion techniques, cold therapy,...) interventions. The combination of both seems to be the most effective. Beside the physical component the psychological component is even more important. Anxiety can effort the pain. An psychological intervention (comfort, support of cognitive therapy) can be useful to reduce the pain.

Results

There is no standard care to reduce pain. It depends on the patient. The caregiver has to be able to search for the best individual way to reduce the pain. Therefore, education and training of the nurses is essential. Not only on their techniques but also on their psychological skills.

Conclusion/Application to practice

In our center we made a brochure to inform our patient on the first puncture. The brochure gives information on the preparation (hygiene, comfort), AVF control (observation) anesthesia, puncture, position during dialysis and process at the end of the session (removal and after care).

Studies show that there are diverse ways to reduce the pain experiences. Nevertheless, there is no overall consensus. The ideal way is an individual approach, a combination of pharmacological and non-pharmacological interventions. At our unit we try to use this individual approach to reduce the pain experience of our patients.

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Abstract Country

Belgium

Disclosure of Interest

No

E-POSTERS WITHOUT ORAL PRESENTATION

7

Challenges of diagnosis and treatment of HUS – hemolytic uremic syndrome, center experience

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Background

Hemolytic uremic syndrome (HUS) involves hemolysis, thrombocytopenia, and acute renal failure, with potential multi-organ impact. Most cases result from Shiga toxin-producing *Escherichia coli* (STEC) infections, while 10% are atypical HUS, primarily caused by hereditary or acquired complement system dysregulation.

Methods

Types of treatment and outcomes in HUS patients at the Clinical Center of Montenegro in the past year.

Results

In the last year, seven patients with confirmed HUS were treated at the Clinical Center of Montenegro in intensive care units. Three patients had typical HUS caused by Shiga toxin-producing *Escherichia coli* (STEC) after gastroenteritis, presenting milder symptoms but with acute kidney injury (AKI). Four patients had atypical HUS, all presenting with severe symptoms, AKI, and multiorgan failure (MOF).

Patients with atypical HUS were treated with CRRT in CVVHDF modality to manage AKI and remove inflammatory cytokines and complement factors. Hemoperfusion with an Oxyris membrane was employed for sepsis mediator removal. Additionally, all patients underwent TIP therapy with six plasma exchange sessions using fresh frozen plasma due to coagulopathy and thrombocytopenia. Intravenous corticosteroids, rehydration, broad-spectrum antibiotics, and supportive therapies were administered.

One patient developed atypical HUS during pregnancy, treated successfully with CRRT, TIP, and corticosteroids, achieving disease remission and renal recovery. Another patient experienced TRALI after seven TIP sessions, requiring NIV for respiratory stability. In four atypical HUS cases, conventional therapies failed, necessitating biological treatment with ravulizumab, administered at initial and follow-up intervals.

Genetic analysis identified 3–4 mutations per patient linked to HUS, including CFH and C3 gene polymorphisms. In a pregnancy-associated HUS case, CFHR1 and CFHR4 deletions were noted. All ravulizumab-treated patients received moxifloxacin prophylaxis to prevent meningococcal infections, given the absence of prior vaccination.

Conclusion/Application to practice

Infection prevention remains the primary challenge in managing these cases.

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Abstract Country

Montenegro

Disclosure of Interest

No

8

Current status and issues of end-of-life decision support for hemodialysis patients

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Background

In recent years, end-of-life palliative care for patients with chronic diseases and cancer has been attracting attention in Japan. In particular, end-of-life decision support for dialysis patients has just begun, and it is known that nurses experience difficulties in various situations.

Objectives

The objective of this study is to clarify the difficulties faced by nurses involved in end-of-life decision support for dialysis patients.

Methods

A content analysis was conducted using free-form response data from a self-administered questionnaire on end-of-life decision support for dialysis patients obtained from 150 dialysis medical facilities nationwide.

Results

Of the 249 valid responses, 150 were free-form responses.

It was revealed that facilities that have not introduced end-of-life decision support for dialysis patients or are considering introducing it have difficulty providing decision support when there is little cooperation from surrounding medical professionals or when it is difficult to determine the timing of starting decision support. On the other hand, it was revealed that facilities that actively provide support have difficulty when the wishes of the patient and the family differ or when the family decides to discontinue treatment due to lack of communication with the patient.

Conclusion/Application to practice

Facilities that have not yet introduced end-of-life decision support for dialysis patients feel the need for support, but have problems with the medical system, such as a lack of cooperation from those around them before the introduction and a lack of knowledge about decision support. On the other hand, facilities that have already implemented support have problems building relationships with patients and their families.

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Abstract Country

Japan

Disclosure of Interest

Yes

9

Nursing problems of patients on hemodialysis therapy according the Roper-Logan-Tierney Model

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Background

Patients undergoing hemodialysis therapy (HD) experience a change in their well-being (D'Onofrio G. et al., 2017, Naderifar M. et al., 2018). Identifying factors influencing self-care management and the most effective interventions should be considered a priority in HD patients' care (Yasin F. et al., 2024).

Objectives

To assess nursing problems of patients on hemodialysis therapy according the Roper-Logan-Tierney Model.

Methods

The research was conducted in Nephrology clinic. 55 HD patients and 55 nurses of Nephrology clinic participated in the study. Response rate was 82.8 %. Questionnaire was made according Roper-Logan-Tierney Model by authors.

The study was approved by University Bioethics Centre No. BEC-SL(N)-248. Scores was evaluated from 1 to 10, as 10 was extremely important problem. Independent samples t-test and Pearson Chi-square (χ^2) test was used.

Results

Nurses all 12 activities of daily living were assessed as more important than HD patients. Mobility activity of daily living was reported as the most relevant problem for patients among nurses ((mean (SD) 7.6 (1.51)) as HD patients evaluated as less important ((mean (SD) 4.6 (2.61)), $p < 0.001$. Sleeping problems nurses evaluated as more important ((mean (SD) 7.4 (1.79)), than HD patients ((mean (SD) 4.6 (2.63)), $p < 0.001$.

According HD patients, the most important problems for them was fatigue ((mean (SD) 5.5 (2.63)), difficulties to sleep ((mean (SD) 5.3 (3.23)), high blood pressure ((mean (SD) 5.3 (3.08)), weakness ((mean (SD) 5.1 (2.82)).

The most reveal problems for patient's nurses reported as high blood pressure ((mean (SD) 8.0 (1.92)), fatigue ((mean (SD) 7.9 (1.75)), weakness ((mean (SD) 7.8 (2.05)).

Conclusion/Application to practice

HD patients have nursing problems in all activities of daily living. It is important for nurses to assess the problems, taking into account the patients' opinions. The results of the study will help more effectively solve nursing problems and ensure better HD patients care.

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Abstract Country

Lithuania

Disclosure of Interest

No

11

Treatment of a severe form of leptospirosis with methods of hemodiafiltration and hemoperfusion

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Abstract

Leptospirosis is an endemic zoonosis in Montenegro, sometimes with severe clinical presentation of multi-organ failure, sepsis and severe complications: renal and liver failure, pulmonary hemorrhage. Hemodiafiltration and hemoperfusion are effective adjuvant therapies in managing severe multi-organ failure patients.

Methods

Case report.

Results

Male patient age 31 presented with severe multi-organ failure with epidemiological anamnesis of fishing in endemic area of leptospirosis during rainy period. He had severe acute kidney injury (AKI) with anuria and severe liver failure with severe hyperbilirubinemia, hemodynamically unstable with signs of shock and need for high dosage of vasoactive support with fast form of atrial fibrillation and without signs of pulmonary hemorrhage. The diagnosis of leptospirosis was confirmed by microbiological analysis. No prior medical history. He was admitted to our intensive care unit (ICU). At the beginning he was treated with standard protocol for leptospirosis – massive hydration, antibiotics – cefotaxime, three – day steroid pulsing and hypotension and atrial fibrillation treatment (inotropes and amiodarone), but without significant improvement. Due to AKI and high inflammatory parameters (CRP, IL-6, PTC), he was treated with continuous venovenous hemodiafiltration (CVV HDF) using an Oxyris hemoperfusion membrane for 72 hours. Pulmonary function was maintained without the occurrence of ARDS and the need for ECMO support. After that, hemodynamic stability was achieved, diuresis was established with successive recovery of renal function on irregular days, with a slow gradual recovery of liver function, resolution of icterus and significant reduction of inflammatory parameters, with reduction in SOFA score. Despite the difficult clinical picture, the patient survived with full recovery of liver function.

Conclusion/Application to practice

Hemoperfusion can be considered as an additional method of treatment in severe forms of leptospirosis with multi-organ dysfunction as a safe and effective method.

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Abstract Country

Montenegro

Disclosure of Interest

Yes

12

Reduction of medical waste in hemodialysis

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Background

Waste generated in the dialysis centers has a major impact on the environment. Waste is generated in the dialysis rooms during the treatment procedure, such as dialyzers, blood lines, needles, dressings/bandages, gloves, masks, protective materials, food containers, drinking glasses and other products, that can reach 1.5 kg weight per hemodialysis (HD) treatment and over. By reducing the generated waste, we protect the environment and reduce the costs of delivered medical infectious waste.

Objectives

To evaluate yearly generated waste per HD treatment and adherence to the waste management policy regarding cost reduction and environmental protection.

Methods

Using the hospital software system, the data for generated waste per HD treatment over a period of five years (2018–2023) were collected. Over a followed period, continuous education of staff with protocols for selection along with weekly and monthly control of generated medical waste was applied.

Results

Five year analysis since 2018 until 2023 showed that the average generated medical waste per HD treatment was decreased linearly, from 0.917 kg in 2018, 0.832 kg in 2019, 0.822 kg in 2020, 0.806kg in 2021, 0.792 kg in 2022, to 0.786 kg in 2023, that is the average generated medical waste was reduced by 0.131 kg per HD treatment over a followed period.

Conclusion/Application to practice

Weekly and monthly inspection enables timely recognition of irregularities, suspicious waste generation and defining and undertaking procedures in order to reduce generated medical waste. Continuous education of staff that include theoretical and practical elements and development of modern training programs, through simulations, videos, electronic platforms and self-learning modules would contribute to valuable common goals of generated waste reduction and environment protection.

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WHO (www.who.int/gpsc/en) and CDC(<https://www.cdc.gov/dialysis/clinician/CE/infection-prevent-outpatient-hemo>)

Abstract Country

Republic of North Macedonia.

Disclosure of Interest

No

13

Development of intradialytic parenteral nutrition administration protocol for diabetic hemodialysis patients

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Background

Intradialytic parenteral nutrition (IDPN) is an effective intervention for malnourished hemodialysis patients, particularly those with diabetes and protein-energy wasting (PEW). It is recommended when oral or enteral nutrition is insufficient. IDPN administration requires careful insulin dose adjustments for diabetic patients to avoid hyperglycemia.

Objectives

1) To establish a protocol for treating diabetic patients using basal-bolus insulin regimens to avoid hyperglycemia during IDPN administration in dialysis treatments. 2) To specify and define the responsibilities of each member of the multidisciplinary team in administering IDPN and treating hyperglycemia.

Methods

IDPN is administered at the beginning of hemodialysis through the venous drip chamber with a unique filter and drop counter. Treatment is initiated gradually, with accurate monitoring of blood glucose levels. Short-acting insulin is given before treatment to diabetic patients receiving insulin at home. Patients are monitored for clinical signs of sensitivity to fat emulsion.

Results

A protocol was developed for glucose management during IDPN. It includes pre-treatment glucose checks, insulin dosage adjustments based on the IDPN stage, and additional insulin for elevated glucose levels. The protocol specifies when to notify physicians and how to adjust insulin dosages for patients previously treated. Glucose monitoring is required at the beginning of hemodialysis treatment, 90 minutes after IDPN treatment begins, at the end of the treatment, and 30 minutes after the treatment ends.

Conclusion

IDPN can assist patients with malnutrition but requires careful monitoring, especially for diabetic patients treated with basal-bolus insulin. Treatment should be tailored to each patient, with strict adherence to medication administration procedures. A skilled multidisciplinary team is necessary for administering and monitoring IDPN treatment. Regular nutritional assessments and follow-ups are crucial for optimizing patient outcomes.

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Abstract Country

Israel

Disclosure of Interest

No

14

Promoting equity in kidney care for a healthier and sustainable future in Greece

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Abstract

Promoting Equity in Kidney Care for a Healthier and Sustainable Future in Greece

Background

Chronic kidney disease (CKD) represents a significant healthcare challenge in Greece, affecting a growing number of patients. Inequities in kidney care, driven by economic disparities, regional healthcare access limitations, and insufficient preventive services, have compounded the disease burden. Vulnerable populations, including those in rural and economically disadvantaged areas, are particularly at risk of poor outcomes due to late diagnosis and restricted access to specialized treatments.

Objectives

This study aims to identify the primary factors contributing to inequities in kidney care in Greece, assess the impact on health outcomes, and propose strategies to enhance equitable access and quality of care for CKD patients.

Methods

A comprehensive literature review, national healthcare data analysis, and stakeholder interviews were conducted to examine disparities in diagnosis, treatment availability, and patient outcomes across different regions and socioeconomic groups. Additionally, comparisons with best practices from countries with more equitable kidney care systems were utilized to inform policy recommendations.

Results

Findings reveal significant geographic disparities, with patients in rural and island regions experiencing delayed access to nephrology services. Economic constraints further limit access to advanced dialysis options and transplantation. Preventive care and early diagnosis programs are underutilized, contributing to advanced disease stages at presentation. Evidence supports that integrated care models and investment in regional nephrology services can mitigate these disparities.

Conclusion/Application to practice

Addressing inequities in kidney care in Greece requires systemic reforms, including expanding early screening programs, enhancing rural healthcare infrastructure, and subsidizing access to essential treatments. Policymakers must prioritize equitable resource allocation and strengthen multidisciplinary collaborations to improve CKD management. These interventions have the potential to reduce the disease burden, improve quality of life for patients, and promote sustainable healthcare development.

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Abstract Country

Greece

Disclosure of Interest

No

16

Case study: unconventional treatment in an end-stage renal disease patient with diabetes

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Background

Managing diabetes in End-Stage Renal Disease (ESRD) patients on hemodialysis (HD) presents significant challenges. A.B., a 55-year old male with ESRD, Type 2 Diabetes Mellitus (DM II), and Hypertension (HTN), struggled with hyperglycemia and weight management. Despite treatment with Repaglinide and Linagliptin, his glycemic control was poorly managed. His BMI was 35, and he had been on HD for two years. Addressing these metabolic challenges required an individualized treatment strategy.

Objectives

This case study aimed to describe the potential efficacy and safety of GLP-1 receptor agonist and off-label SGLT2 inhibitor use, in improving metabolic control, weight management, preserving residual renal function and improving hemoglobin in a hemodialysis patient.

Methods

A stepwise intervention strategy:

1. GLP-1 Receptor Agonist (Semaglutide) Introduction: Initiated at 0.5 mg weekly, titrated over six months.
2. Off-Label SGLT2 Inhibitor (Dapagliflozin) Addition: Prescribed at 10 mg/day after observed benefits with Semaglutide.

Patient outcomes were monitored, including glycemic control (A1C, fasting glucose), weight, residual urine output, dialysis frequency, and anemia markers.

Results

GLP-1 Receptor Agonist Outcomes: Reduced A1C from 8.8% to 7.8%, weight loss of 10 % over one year, increased urine output (1,200 mL/day), and reduced dialysis frequency (twice weekly).

SGLT2 Inhibitor Outcomes: Increased urine output to 2,000 mL/day, hemoglobin improved from 10.5 g/dL to 12.7 g/dL, erythropoiesis-stimulating agent (ESA) discontinued, hematocrit stabilized (37-39%), and dialysis reduced to 1-2 times weekly.

Conclusion

This case illustrates the potential benefits of combining GLP-1 receptor agonists and SGLT2 inhibitors in select dialysis patients for glycemic and weight control, as well as preserving residual renal function. While the off-label use of SGLT2 inhibitors in ESRD remains controversial, this case highlights their possible role in improving anemia and reducing dialysis dependence. Careful monitoring and further clinical trials are necessary to establish safety and efficacy in this population.

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Abstract Country

Israel

Disclosure of Interest

No

18

The influence of AI in the prediction of IDH: a review of the literature

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Background

Intradialytic hypotension (IDH) is one of the most common complications of hemodialysis (HD) in clinical practice. Its incidence varies between 8 and 40% and is characterized by a significant drop in blood pressure during hemodialysis sessions. There are numerous factors that determine its onset, including advanced age, frailty, the increasing prevalence of comorbidities (diabetes mellitus and heart failure), excessive interdialytic weight gain (IDWG). The occurrence of this event not only creates discomfort to the patient who requires attention from healthcare personnel, but can also lead to serious consequences, including myocardial stunning, silent myocardial damage, cerebral ischemia, intestinal ischemia, causing an increased risk of hospitalization and mortality. However, measures such as dry weight adjustments, sodium profiling, and dialysate cooling have shown limited efficacy in reducing the incidence of intra-dialysis hypotension, therefore, there is an urgent need for more accurate data and personalized approaches to predict and prevent this complication. The incorporation of artificial intelligence (AI) could provide a completely new method to data analysis opening the door to preventive interventions enabling innovative advances in dialysis therapies.

Objectives

This review summarizes and analyzes articles relevant to the identification, application, and evaluation of different machine learning (ML) models for IDH prediction and provides recommendations for future research.

Methods

A literature review was conducted by formulating the research question using the PICO framework through the analysis of three PIO elements: (P) patients undergoing hemodialysis; (I): identification of studies that apply AI in the prediction of IDH; (O) evaluation of the impact of predictors and performance metrics of AI appropriate to the results in the prediction of IDH. The search involved the identification of 19 relevant articles published in the literature by querying scientific databases (PubMed/Medline, Embase, EBSCO, Web of Science, Cochrane Library), websites of Scientific Societies and digital archives. An analysis of the included documents and a narrative synthesis of the main contents that emerged were performed.

Results

The results of the 19 included articles highlight the potential of these modern computational approaches to address the long-standing challenge of IDH. The predictive models developed in these studies utilized a wide range of features. Large datasets involved retrospective analyses including patient demographics, clinical data, laboratory results, dialysis-related parameters, using different algorithms such as Artificial Neural Networks (ANN), Decision Trees (DT), Support Vector Machines (SVM), XGBoost, Random Forests (RF), LightGBM, and Ensemble Methods. Other studies, in addition to specific data obtained during dialysis treatment, utilized electromedical devices such as ECG and PPG in detecting and predicting IDH episodes. This multimodal approach aligns with the multifactorial etiology of dialysis hypotension.

Conclusion/Application to practice

Despite numerous advances in dialysis management, IDH remains a pervasive problem. Due primarily to the lack of a generally accepted definition of IDH, its true prevalence remains unclear. The use of machine learning could help detect and predict IDH enabling earlier interventions and resulting in improved outcomes for hemodialysis patients. The included studies demonstrated promising results with different AI/ML models that achieved high predictive performance. However, several limitations need to be considered including variations in study populations, retrospective designs, and the need for interpretable and transparent models. Additionally, future research should explore the potential of combining models with other technological advances such as wearable sensors or continuous blood pressure monitoring devices to enable real-time predictions and timely interventions during hemodialysis sessions. Overall, the review highlights the growing interest and capability of AI/ML techniques in predicting IDH; a critical step towards personalized and proactive management of this complication in hemodialysis patients.

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Abstract Country

Italy

Disclosure of Interest

No

19

Alternative solutions in pain control during hemodialysis session

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Abstract

Keywords: Pain, Chronic Kidney Disease, Hemodialysis, Quality of Life

Background

Despite technological advances, renal replacement therapies, particularly hemodialysis, do not have the same efficacy as physiological renal function. It is worth noting that chronic kidney disease patients undergoing hemodialysis spend a significant portion of their time in dialysis treatments, and often report pain during the session, which impacts their well-being and quality of life.

Objectives

A study was conducted to demonstrate the need to implement non-pharmacological interventions to control pain during hemodialysis, aiming to minimize discomfort caused by symptoms and promote the physical and emotional well-being of the patient.

Methods

A Scoping Review was conducted in the first quarter of 2024 by consulting the MEDLINE Complete, CINAHL Complete, and Web of Science Core Collection databases. The participants were chronic kidney disease patients over the age of 18, undergoing hemodialysis in hospital settings and peripheral units, excluding non-dialyzed patients. The concept was non-pharmacological interventions for pain relief during hemodialysis sessions, including studies with full-text availability, published in English or Portuguese between 2018 and 2024.

Results

There are several non-invasive, relaxing techniques without side effects that are highly appreciated by patients, namely: muscle stretching exercises; visual and auditory distraction; aromatherapy; Benson relaxation technique; reiki; yoga and meditation. To reduce pain during vascular access cannulation, in addition to optimizing the puncture technique, complementary therapies can be used.

Conclusion/Application to practice

Given the potential benefits of non-pharmacological strategies, their low risk of side effects, and their cost-effectiveness, it is crucial that these techniques be incorporated into nursing care planning. Their recognition by patients themselves is essential to enable their implementation.

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Abstract Country

Portugal

Disclosure of Interest

Yes

23 Pharmacological nephrectomy in patients with chronic kidney disease (CKD) – a case report

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Abstract

Pharmacological nephrectomy in patients with chronic kidney disease (CKD) involves the use of medications in the treatment of patients with progressive kidney insufficiency, aimed at reducing disease progression and managing symptoms, rather than the surgical removal of the kidney (nephrectomy). This approach does not refer to actual surgical nephrectomy but to a pharmacological intervention aimed at preserving kidney function and controlling CKD symptoms.

Background

Pharmacological nephrectomy (also known as chemical nephrectomy) is a medical procedure used to destroy or eliminate kidney function with the help of medications (pharmacological substances), instead of using surgical methods. This approach is typically used in specific cases, such as therapies for treating kidney diseases or when it is necessary to decrease kidney functionality due to certain pathological conditions (e.g., kidney tumors, acute infections, or other severe conditions that threaten the patient's life).

Objectives

Pharmacological nephrectomy may involve the use of cytotoxic drugs that cause the destruction of kidney cells or substances that block kidney function. This procedure is less invasive than traditional surgical nephrectomy, but it is used in specific clinical circumstances that require careful monitoring.

Methods

Although surgical nephrectomy (complete or partial removal of the kidney) is the most common method for addressing kidney issues, pharmacological nephrectomy can be an alternative in certain situations.

Results

With this paper, I want to present the case of a patient on hemodialysis with CKD (focal segmental glomerulosclerosis with proteinuria), along with complications such as dyslipidemia, elevated lipoprotein (a), and hypoalbuminemia, who underwent pharmacological nephrectomy.

Conclusion/Application to practice

The experience and conscious work of nurses, who have great responsibility, contribute to better patient care, thereby raising treatment and nursing care results to a higher level.

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Abstract Country

Croatia

Disclosure of Interest

Yes

37

Plasma exchange therapy in a young woman with dyslipidemia – the nurse role

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Background

Dyslipidemia is a condition signified by abnormal lipid levels in the blood. A patient born in 1995 was diagnosed with triglyceridemia (TGC = 40.7) and a homozygous LPL-PVU II genotype, indicating a genetic defect and a lifelong need for medication to lower triglyceride levels.

Objectives

Elevated triglyceride levels increase the risk of cardiovascular diseases, heart attacks, strokes and acute pancreatitis. Despite medication, the desired reduction of triglycerides was not achieved, therefore the patient was referred to the dialysis department so the therapeutic plasma exchange procedures could be performed.

Methods

Due to peripheral blood vessels serving as the vascular access and high triglyceride levels that pose a significant risk of clotting of blood lines and hemofilters, it was decided the plasma would be exchanged using a centrifugal plasma exchange device. Centrifugal plasma exchange is a specific procedure because it uses centrifugal force to separate plasma and continuous citrate anticoagulation, reducing the possibility of blood and plasma clotting in the lines (there are no filters).

Results

By the end of January 2025, a total of 55 procedures were performed. Each procedure involves replacing 3000 mL of plasma with the same amount of albumin. During the last check, triglyceride levels were 40.72 mmol/L before the procedure and at 8.95 mmol/L after the procedure (reference interval <1.7). The patient had pancreatitis six times before the plasma exchange therapy began. Since starting plasma exchange therapy, the patient has not had any pancreatitis episodes. The procedures are performed without complications, with electrolyte monitoring and replacement.

Conclusion/Application to practice

Procedures like centrifugal plasma exchange are specific and not commonly performed, but when they are carried out, they are of vital importance to patients. Therefore, it is essential for nurses to continually educate and train themselves to be able to perform out these technically specific procedures and provide adequate care to patients.

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Abstract Country

Croatia

Disclosure of Interest

No

47 Nephrology nurse burnout in the United States and globally: a scoping review

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Background

Burnout among nephrology nurses is a growing concern, affecting nurse well-being and patient care. Due to the high-stress nature of treating patients with kidney disease, nephrology nurses are particularly vulnerable to burnout. More understanding is needed to develop practical support and interventions.

Objectives

This review aims to map the literature on nephrology nurse burnout by:

- Identifying its prevalence
- Examining contributing factors
- Assessing its impact on nurses and patient care
- Implement mitigation strategies

Methods

A scoping review was conducted following Joanna Briggs Institute guidelines. Between 2015 and 2025, articles were searched in the CINHAL, PubMed, and EBSCO databases. The eligible studies were assessed for quality, while non-English and non-nephrology studies were excluded.

Results

From 73 studies, 28 were selected. Burnout prevalence ranged from 25% to 60% with the highest rates in the US and Western Europe (1).

Contributing Factors:

- High patient-to-nurse ratios
- Emotional toll (2) of chronic and terminal illnesses
- Lack of organization support and resources
- Long working hours

Impact of Burnout:

- Increased turnover and absenteeism
- Reduced job satisfaction
- Compromised patient care quality

Effective mitigation strategies include:

- Mental health support programs
- Workforce management initiatives
- Professional development opportunities

Conclusion/Application to practice

Burnout is a significant issue in nephrology nursing, impacting professionals and patients. Addressing it requires systemic policy changes, improved working conditions, and targeted mental health interventions. Future research should evaluate the long-term burnout reduction strategies.

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Abstract Country

United States of America

Disclosure of Interest

No

48 Pain Management in NephroCare France: Insights from the 2024 National Survey

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Background

Pain management is a key concern in NephroCare dialysis facilities. The 2024 national survey, conducted with 2,306 dialysis patients, highlights both progress and challenges in improving patient well-being.

Objectives

The survey aimed to assess patient satisfaction with pain management, identify persistent pain issues, and explore areas for improvement.

Methods

Patients provided feedback on their pain experiences, including spontaneous reporting, pain during procedures, post-treatment reassessment, and pain outside dialysis sessions.

Results

- Overall Satisfaction: 93% of patients were satisfied with pain management, a slight increase from 2023.
- Pain During Fistula Puncture: 32% reported significant discomfort, a notable rise from last year.
- Pain Reporting: 70% of patients spontaneously reported pain (slight decrease), while 79% did so when asked (increase from 2023).
- Post-Treatment Pain Reassessment: 90% had their pain reassessed, but gaps remain for 10%.
- Pain Outside Dialysis: 62% took pain medication outside sessions, a 7-point increase.

Conclusion/Application to practice

NephroCare has launched an action plan to enhance pain management by:

- Encouraging proactive pain reporting.
- Improving evaluation before and after dialysis.
- Strengthening vascular access pain management.
- Training staff to use digital tools for real-time pain monitoring.

While progress is evident, further efforts are needed to ensure all patients experience dialysis with minimal pain. Continued collaboration between patients and healthcare teams is essential.

Abstract Country

France

Disclosure of Interest

No

50

The importance of performing a comprehensive assessment prior to starting peritoneal dialysis treatment

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Background

Thorough assessment is paramount when providing peritoneal dialysis treatment (Oliver et al., 2024). Comprehensive assessment includes a physical assessment, checking vital signs, including sitting and standing blood pressure, assessing for pain, measuring urine output, tracking weight trends, noting the date of the last bowel movement, and reviewing blood work results.

The assessment will guide nurses to identify the most suitable solution based on the patient's condition to prevent hypovolemia or hypervolemia symptoms (Bodin, 2022). These components are vital for safe and effective treatment. Choosing the wrong peritoneal solution can cause fluid overload or dehydration (Wang et al., 2015).

Objectives

To identify the key patient assessments necessary for effective peritoneal dialysis treatment.

To recognize the consequences of ineffective patient assessments.

Methods

Education was provided to peritoneal dialysis nurses working in acute care, long-term care, rehabilitation, and home care about the importance of patient assessment. Nurses conducted comprehensive head-to-toe assessments, measured urine output, compared target weights with current weights, recorded the date of the last bowel movement, reviewed recent blood work results and took vital signs (sitting and standing blood pressure).

Results

Peritoneal dialysis solutions were prescribed based on the patient's condition. Nurses informed the providers about the patient's fluid status and were able to consult with the nephrologists and advocate for the right solutions.

Conclusion/Application to practice

Peritoneal dialysis (PD) offers patients greater control and independence in managing their treatment. PD nurses play a crucial role throughout the patient's journey by educating patients on solution selection based on physical assessments, weight trends, fluid status evaluations, and recognizing symptoms of hypervolemia and hypovolemia (Oliver et al., 2024). The project equipped nurses with the necessary knowledge, skills, and judgment to prepare patients for effective home peritoneal dialysis and to deliver quality peritoneal dialysis treatment in the inpatient hospital setting.

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Abstract Country

Canada

Disclosure of Interest

No

51

Dilatation of av fistula through one-day observation by dialysis nurses

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Abstract

Fistula stenosis reduces blood flow and may precede AV fistula thrombosis. With an aging population and increased comorbidities, cases are rising. Endovascular interventions are a treatment option, while hospital bed shortages and renovations have shifted management toward one-day observation and early discharge.

Background

Between 2023 and 2024, interventional radiologists at Unneversity Hospital Centre Sestre milosrdnice performed 79 AVF interventions on 44 patients (34 men, 10 women, aged 34-89, average 70 years). Diabetes was present in 40% of patients, and hypertension in 50%. Among 44 patients undergoing intervention, 5 had endovascularly created AVFs, while 39 had surgically created ones. 35 interventions were performed under one-day observation.

Objectives

Before the procedure, patients were informed, underwent a physical exam, therapy assessment and preparation of documentation and the intervention site.

Methods

During the procedure and after the intervention pain were monitored using VAS and NRS scale

Results

During the procedure, most patients rated pain at 4/10 (max 8/10) on the NRS scale, describing as brief and tolerable. No respiratory, circulatory, or neurological complications occurred. Only one patient preferred anesthesia for future procedures. Post-procedure, pain levels were 0-3/10 on the VAS scale. One patient received 1 g Paracetamol, resolving the pain. One case of minor post-compression bleeding was managed with prolonged compression. No other complications occurred. All patients were discharged without complications. No post-discharge bleeding, hematomas or pain were observed.

Conclusion/Application to practice

Endovascular interventions are effective and repeatable, safely performed in an outpatient setting, reducing hospital stays while patient safety.

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Abstract Country

Croatia

Disclosure of Interest

No

53

Ankle-brachial index and monofilament test for early detection of renal foot complications

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Background

The vascular system is a key organ in the human body, supplying nutrients and oxygen to all cells and organs, enabling their normal function. Vascular diseases can seriously endanger health, with some of the most common being atherosclerosis, peripheral arterial disease (PAD), and complications related to kidney disease, such as renal foot. PAD, which affects the arteries of the lower extremities, is widespread among the elderly population and often leads to serious complications, such as ulcers, gangrene, and amputations. Renal foot, associated with chronic kidney disease, combines issues of reduced blood circulation and neuropathy, increasing the risk of foot infections and injuries.

Objectives

1. To assess the blood circulation and nerve sensitivity of the lower extremities using the ankle-brachial index (ABI) and monofilament test, and to analyze their usefulness in the early detection of complications related to renal foot.
2. To investigate the correlation between reduced circulation (PAD), neuropathy, and the development of ischemic changes in patients with renal foot, and to define the significance of combined diagnostics in preventing severe complications.

Methods

1. How effective are the ankle-brachial index (ABI) and monofilament test in the early detection of neuropathy?
2. What is the correlation between ABI and monofilament test results and the development of ischemic changes?
3. What is the relationship between ABI test results, monofilament test results, and the progression of complications?

Results

The study included 45 patients, measuring the values of the ankle-brachial index (ABI) for the left and right leg, the presence of diabetes, and the results of the monofilament test.

ABI for the left and right leg: Measures blood circulation in the lower extremities. Normal ABI values range between 0.9 and 1.4, while values below 0.9 indicate peripheral arterial disease (PAD). Most patients had normal ABI values for the right leg, whereas for the left leg, values of 0.0 were frequently recorded, which may indicate severe circulatory impairment.

Monofilament test: Measures the sensory function of the foot. Normal values are below 4, while values of 4 or higher indicate a loss of protective sensory function, increasing the risk of ulcers and injuries. Values above 7 (e.g., patients 3, 37, and 38) indicate severe neuropathy.

A total of 11 diabetic patients had more frequent low ABI values (below 0.9) and higher monofilament test scores, suggesting a higher risk of complications.

Conclusion/Application to practice

The study confirms that ABI enables early identification of peripheral arterial disease, while the monofilament test effectively detects sensory impairments. The combined use of both tests is essential for preventing severe complications, as it allows for the timely identification of patients who require more intensive medical care. The findings emphasize that comprehensive diagnostics are crucial for preventing amputations, improving patients' quality of life, and reducing the costs of treating complications related to renal foot. The collected data can be valuable for improving clinical guidelines and preventive measures for patients with renal foot.

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Abstract Country

Slovenia

Disclosure of Interest

Yes

55

Staff experience towards virtual code blue drill monitoring in hemodialysis, Diaverum Saudia Arabia

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Background

Resuscitation is a crucial competency for hemodialysis staff. The monthly code blue drill is standard practice in Diaverum. However, monitoring 40 clinics in different cities is a challenge.

Objectives

This abstract aims to evaluate staff experience towards virtual code blue drill monitoring within Diaverum Saudia Arabia.

Methods

Four BLS/ACLS instructors were scheduled to virtually monitor the one-hour drill in 40 clinics. On the drill time, the Instructor shares one of the drill scenarios (Acute Coronary syndrome; severe hypotension; arrhythmia; choking); the code blue team should act accordingly, virtual surveillance by the instructor, then an immediate debriefing session with all members.

Results

Google form questionnaires completed by the code blue team participating in the virtual monitoring. 243 responses collected (87% response rate). Participants reported their confidence level towards their assigned role before and after the drill respectively significantly improved as completely confident %(n) 47.3% (115) & 72% (175) p-value < 0.001; fairly confident 37.4% (91) & 24.7% (60) p-value 0.002; somewhat confident 9.5% (23) & 1.6% (4) p-value < 0.001; slightly confident 4.9% (12) & 1.2% (n=3) p-value 0.01 and not confident at all 0.8% (2) & 0.4% (1).

95.1% (231) agreed that sharing the guide ahead of time before the drill was helpful. 95% (231) were satisfied with the virtual code blue drill monitoring. 94.6% (n=230) were satisfied with the quality of the monitoring. 94.2% (229) recommended to continue with the virtual monitoring. Participants recommended scheduling the monitoring quarterly 34.1% (72); biannually 30.8% (65); and monthly 21.3% (45). As shown in Table (1&2), Significantly higher satisfaction level among those confident in their rule. Significantly higher satisfaction with the team dynamics during the drill among those who were confident in their rule.

Conclusion/Application to practice

Instructor-led virtual code blue drill can be an adjunct approach to the monthly physical drill at the clinic level.

References

Original

Abstract Country

Saudi Arabia

Disclosure of Interest

No

57

Intradialytic cognitive and physical training in hemodialysis patients: a randomized controlled study

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Background

Patients undergoing hemodialysis (HD) often experience declines in both cognitive and physical functions, adversely affecting their quality of life. Brain-derived neurotrophic factor (BDNF) is essential for cognitive health, but its levels may be reduced in HD patients. This study investigates the effects of a 12-week combined cognitive and physical training program during HD sessions on cognitive performance, mobility, and BDNF levels.

Methods

In this randomized controlled trial, 44 HD patients were assigned to either an intervention group (n=22) or a control group (n=22). The intervention group participated in intradialytic cycling coupled with tablet-based cognitive exercises three times weekly for 12 weeks, while the control group received standard care. Cognitive function was assessed using the Trail Making Test A and B (TMT-A and TMT-B), mobility was evaluated with the Timed Up and Go (TUG) test, and serum BDNF levels were measured at baseline and post-intervention.

Results

The intervention group demonstrated significant improvements in cognitive function, evidenced by reduced completion time in TMT-A (–3.6 seconds, $p=0.006$) and TMT-B (–14.0 seconds, $p<0.001$). Mobility also improved, with decreased TUG test time (–0.8 seconds, $p<0.001$). In contrast, the control group showed significant declines in TMT performance ($p=0.009$ for TMT-A and $p=0.026$ for TMT-B) and no significant changes in TUG test time. BDNF levels remained stable in the intervention group but decreased significantly in the control group ($p=0.006$).

Conclusion

A 12-week program combining cognitive and physical training during HD sessions effectively enhances cognitive function and mobility while maintaining BDNF levels in HD patients. These findings suggest that such integrative interventions can mitigate cognitive and physical decline in this population. Further research with larger sample sizes and extended follow-up periods is recommended to validate these results.

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Abstract Country

Slovenia

Disclosure of Interest

Yes

59

Access to peripheral venous circulation in a dehydrated patient using ultrasound

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Background

Peripheral venous cannulation is a procedure in which a vein is punctured with an IV cannula, ensuring continuous access to the venous circulation for fluid replacement and therapy administration. In patients with severe dehydration, establishing an IV line is challenging due to collapsed veins. In such cases, ultrasound has proven to be a valuable tool that facilitates the procedure, increasing success rates and reducing patient discomfort. The use of ultrasound for venous access is becoming increasingly common in clinical practice, as research shows that this method improves success rates and reduces complications such as multiple puncture attempts and patient discomfort. While ultrasound-guided venipuncture requires additional nurse training, it ultimately decreases stress for both patients and healthcare staff.

Objectives

To highlight the importance of using ultrasound for peripheral venous cannulation in dehydrated patients in the nephrology department.

- To analyze the advantages of this method compared to the traditional vein palpation technique.

Methods

This study is based on a case report of a dehydrated patient with difficult venous access. Using ultrasound, veins were visualized, enabling successful cannulation on the first attempt. The method includes patient preparation, ultrasound probe placement, vein identification, and needle guidance under ultrasound control. Key procedural steps are illustrated through images and descriptions, with an emphasis on proper technique and complication prevention.

Results

The success rate of ultrasound-guided IV cannulation was high, as the IV line was successfully placed on the first attempt. The patient experienced less discomfort. Nurses who used ultrasound guidance found the procedure to be useful and efficient.

Conclusion/Application to practice

Ultrasound-guided peripheral venipuncture is a safer and more effective method for venous access. Its implementation in nephrology departments can significantly improve patient care by reducing complications and increasing success rates. Further nurse training is recommended to ensure the routine use of this method in clinical practice.

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Abstract Country

Croatia

Disclosure of Interest

Yes

60

Implementing a comprehensive clinical audit tool across a multi-center dialysis network

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Background

Diaverum Saudi Arabia offers holistic renal care to patients with Chronic Kidney Disease (CKD), operating across 33 cities and managing 40 dialysis clinics. This network requires a high standard of care, which necessitated the creation of a comprehensive clinical audit tool.

Objectives

To showcase the implementation and impact of a comprehensive clinical audit tool designed to enhance patient safety and standardize care across a multi-center dialysis network. This tool aims to ensure consistent quality and safety across all centers.

Methods

The audit framework implemented by Diaverum Saudi Arabia includes unannounced audits conducted at least every two years by Country Nursing Managers and the Country Medical Director. The audit process is divided into five phases:

- 1. Audit Planning:** Setting objectives, defining the scope, and assembling the audit team.
- 2. Findings and Observations:** Documenting any discrepancies or non-compliance issues.
- 3. Reporting:** Preparing comprehensive reports that include findings, evidence, and assessments.
- 4. Follow-Up:** Monitoring corrective actions and ensuring issues are resolved.
- 5. Closure and Continuous Improvement:** Finalizing reports and updating processes.

The audit criteria encompass 34 primary categories, ranging from medical practices and facility standards to infection control and educational needs.

Results

The audits have significantly impacted patient safety by identifying areas of deficiency and promoting adherence to clinical guidelines. For example:

Overall Audit Score: The average audit score across the clinics was 89.98, with a range of performance outcomes from „Very Good“ to „Requires Improvement“.

Safety and Core Criteria: Clinics achieved 99.2% compliance with safety criteria and 86.1% compliance with core criteria.

Conclusion/Application to practice

The clinical audit tool developed by Diaverum has successfully enhanced patient safety and standardized care across its network. The project's sustainability is secured by strategic measures and ongoing collaboration across departments.

References

original

Abstract Country

Saudi Arabia

Disclosure of Interest

No

67

Teaching fistula puncture techniques for dialysis treatments to nurses. The Multiple Single Cannulation Technique

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Background

For dialysis patients, the appropriate hemodialysis treatment can be provided through an arteriovenous fistula with the least severe complications. Maintaining proper blood access is essential for patient survival. Implementing the correct puncture technique, makes educating our nurses on the proper execution of interventions a critical point.

Objectives

Alongside our decades-old traditional teaching practice, our goal was to develop, introduce, and widely disseminate the innovative Multiple Single Cannulation Technique (MuST) puncture technique in nursing thought.

Methods

At our center, the puncture technique of the fistula is individually determined for each patient. The traditional puncture techniques applied are the rope ladder, buttonhole, and area-defining techniques. The MuST technique combines the advantages of traditional methods by creating 2x3 buttonholes in the fistula at 1 cm distance from each other for arterial and venous puncture points, which are alternated sequentially on treatment days. Beyond theoretical foundations (advantages and disadvantages), the aspects to be mastered in practical training are: a needle forming a 30-degree angle with the skin surface, the needle tip being on top during puncture, and removal at a 30-degree angle. During practice, the nurse punctures the same spot on the model at least 100 times in succession, while the instructor monitors the puncture angle, the enlargement of the hole, and possible needle sticking.

Results

At our center, the puncture technique of the fistula is individually determined for each patient. The traditional puncture techniques applied are the rope ladder, buttonhole, and area-defining techniques. The MuST technique combines the advantages of traditional methods by creating 2x3 buttonholes in the fistula at 1 cm distance from each other for arterial and venous puncture points, which are alternated sequentially on treatment days. Beyond theoretical foundations (advantages and disadvantages), the aspects to be mastered in practical training are: a needle forming a 30-degree angle with the skin surface, the needle tip being on top during puncture, and removal at a 30-degree angle. During practice, the nurse punctures the same spot on the model at least 100 times in succession, while the instructor monitors the puncture angle, the enlargement of the hole, and possible needle sticking.

Conclusion/Application to practice

The foundation for disseminating innovative solutions in nursing practice is appropriate education. Acquiring new practical skills provides us the opportunity for higher-quality patient care, increased fistula survival, and patient safety.

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Abstract Country

Hungary

Disclosure of Interest

Yes

83

The importance of psychiatric patient management in dialysis

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Background

In chronic kidney disease, the quality of life deteriorates, existential and financial problems can occur. Therefore, we often experience mood swings and sometimes depression. Due to stress caused by regular medication and insulin treatment, strict diet, complications and associated interventions, dependence on dialysis, depression is twice as common at diabetic, dialysed patients compared to non-diabetics, that can hinder the achievement of optimal metabolism too.

Objectives

We aimed to identify and treat mental disorders in dialysed patients as early as possible.

Methods

I present the case history of a 45-year-old female patient with type I. diabetes, treated with peritoneal dialysis (PD) and then hemodialysis (HD) due to diabetic nephropathy. She was diagnosed with type I. diabetes at the age of 16 and came to our institute with multiple diabetic complications. After 6 years of nephrological care, she chose PD treatment among dialysis modalities. In predialysis patient education, she developed previously unknown panic symptoms and hallucinations. Although she accepted PD, she also required psychiatric inpatient treatment due to deteriorating mental status, and was treated with antidepressants. We were temporarily forced to switch to HD treatment, then at the patient's request we switched back to PD, which we continued for 4 years. In the meantime, patient was placed on a combined kidney-pancreas transplant waiting list, and after a year and a half of waiting, she was successfully transplanted. Since then, the patient has been psychologically well-balanced without antidepressant therapy.

Results

The patient's negative outlook on life and the changes between dialysis modalities presented many challenges for the healthcare professional team as well. However, the psychiatric management alongside dialysis treatment and the chance of a kidney-pancreas transplantation were motivating factors in overcoming depression.

Conclusion/Application to practice

In alleviating psychological distress, it's important to find the appropriate, individualised communication between patient, doctor and healthcare professional, as well as identifying motivating factors.

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Abstract Country

Hungary

Disclosure of Interest

No

84

Implementing Lean Healthcare Management in renal centres to increase quality of care

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Background

There is a current and future shortage of qualified nurses, which may negatively impact the care of patients with kidney disease. Lean Healthcare Management (LHM) offers solutions to optimize processes by engaging all employees in continuous improvement.

Objectives

To enhance the care of nephrology patients by incorporating the knowledge and ideas of all employees through LHM in nephrology centres.

Methods

The LHM concept was rolled out systematically, involving training and information sessions for all staff, including medical, nursing, and administrative teams. LHM emphasizes equal participation and the belief that current practices can always be improved. LHM-Tools were developed to identify inefficiencies, optimize collaboration, and reinvest freed capacity to improve quality care. A LHM-Core-Team was trained to support management and staff during implementation and ongoing process. Lean Healthcare Experts were trained and designated at each centre. Continuous communication and idea-sharing between centres were encouraged.

Results

To date, 20 of 30 centres have a trained Lean Healthcare Expert. These figures vary as new staff members need to be trained to accommodate staff changes.

Regular shop-floor meetings have been established in 15 centres to share ideas and improvements. The Five S and Seven Wastes tools are the most frequently used. Equal participation and productive error management are ongoing as the change process continues.

Conclusion/Application to practice

LHM provides valuable tools and a framework for effective teamwork to maintain and improve quality care. Starting and sustaining this process is crucial to adapting to both current and future challenges in healthcare.

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Abstract Country

Germany

Disclosure of Interest

No

86

Relationship between secondary hyperparathyroidism and the functional physical status of chronic hemodialysis patients

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Background

Although secondary hyperparathyroidism (SHPT) is now treatable in chronic hemodialysis patients with end-stage renal disease (ESRD), it still causes many comorbidities in these patients. SHPT is one of the most common causes of poor musculoskeletal status in these patients. In our study, we assessed whether there is a relationship between the functional physical status and comorbidities of patients with SHPT.

Methods

Our study included 165 patients with ESRD on chronic hemodialysis (median age: 63.9±10.2 years; 53% men). In our cross-sectional study, we assessed the patients' Karnofsky performance scale (KPS) index and the Charlson comorbidity index (CCI) score. Routine laboratory results were conducted.

Results

We divided the patients into two groups based on the location of the dialysis site (in-center or satellite dialysis unit). Results showed that the KPS index was significantly lower in patients treated with in-center hemodialysis compared to patients hemodialyzed in a satellite unit (67.9 vs. 85.7; $p < 0.001$). The in-center hemodialyzed patients' CCI score was significantly higher (6.62 vs. 5.55; $p = 0.003$) compared to the patients' in the satellite unit dialyzed. Parathormone (PTH) levels were significantly different between the two groups (68.3 pmol/l vs. 49.3 pmol/l; $p = 0.024$). Then we divided the patients into two groups based on the median KPS index (81). There was a significantly higher PTH value in the lower KPS score (<81) group compared to the higher KPS score (≥81) group (61.8 pmol/l vs. 47.08 pmol/l; $p = 0.039$). Multivariate regression analysis showed an independent association between the KPS index and PTH.

Conclusion/Application to practice

Secondary hyperparathyroidism in hemodialysis ESRD patients contributes to a higher prevalence of comorbidity and a more pronounced deterioration of physical performance in these patients, all of which further worsens the patients' quality of life.

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Abstract Country

Hungary

Disclosure of Interest

No

87

Nephrology team in treatments of kidney stones

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Background

Nephrolithiasis is a widespread disease caused by various factors, most importantly those related to diet and climate. The prevalence in the general population varies from 1% to 20%, is higher in developed countries, and shows an increasing trend in all age groups regardless of gender. The treatment of nephrolithiasis is primarily handled by a urologist, but in the last ten years, there has been an increasing tendency to establish lithiasis teams where the nephrology team is actively involved. The main task of the nephrology team is metabolic assessment to determine the underlying causes of kidney stones, thus reducing the possibility of recurrence.

Methods

Following global trends, an outpatient clinic for metabolic stone treatment was established at the Clinical Hospital Centre Rijeka in September 2023.

Results

By the end of January 2024, 89 patients were included in the study, 52 women and 37 men, aged 26 to 76 years, the average age being 55. In 19 patients (21.34%) no metabolic disorder was found, while in 70 of them (78.65%) it was. Hypocitraturia was present in 21 (30%) patients, and hypercitraturia in 1 (1.42%). Hyperoxaluria was found in 15 (21.42%) subjects, and hyperoxaluria in 10 (14.28%). The disorder of hypercalcemia with hypercalciuria was detected in 13 (18.75%) patients and primary hyperparathyroidism was suspected in 6 of them. Hyperuricosuria occurred in 8 (11.42%) patients. The least represented group was patients with hyper cystinuria only 2 (2.85%) and with hypo cystinuria 1 (1.42%). Stone analysis was performed for 9 (10.11%) patients. All were calcium in combination with phosphates or oxalates.

Conclusion/Application to practice

All patients received advice on fluid intake, dietary guidelines, and instructions on stone analysis. The disorder has been resolved in 11 (15.7%) patients within 1 to 16 months, in some cases only by changing the diet, in others via therapy.

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Abstract Country

Croatia

Disclosure of Interest

No

88

Role of social media and smartphones in the lives of chronic kidney disease patients

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Background

Social media has a significant impact on the quality of life of patients living with chronic kidney disease (CKD). Social platforms provide opportunities to share authentic information about CKD, but there is also the risk of spreading fake news. With the spread of smartphones, we already have these informations in our pockets.

Objectives

To explore the role of online support groups and social media in aiding CKD patients by providing emotional support, sharing personal experiences, and disseminating credible information. Additionally, to assess how these platforms improve communication between patients and healthcare professionals.

Methods

We observed that newly admitted patients in dialysis programs often turn to online groups for advice and emotional support. Furthermore, we analyzed the presence of official organizations in these groups, their role in combating misinformation, and the use of smartphones among patients.

Results

Online groups enable CKD patients to share personal stories, gain emotional support, and better understand their condition through others' experiences. Official organizations contribute by sharing research updates and refuting misinformation. In a center treating 85 hemodialysis patients, over 50% use smartphones, including a 93-year-old patient. Smartphones facilitate communication between patients and healthcare staff, such as notifying delays for dialysis appointments.

Last year, we consulted with three patients, as a result of which two of them now turn directly to us for information, while one patient occasionally seeks advice online, but significantly less frequently than before.

Conclusion/Application to practice

If patients build deeper trust with the professional staff and receive necessary and credible information directly from them, the need for using social media platforms, which unfortunately often convey unreliable or incorrect information, may decrease. Overall, the use of social media can be advantageous in more developed countries, as information spreads more easily.

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Abstract Country

Hungary

Disclosure of Interest

No

89

My inheritance

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Background

Polycystic kidney disease (PKD) is the most common inherited kidney disease. It affects nearly 10% of all dialysis patients. In PKD, cysts grow in the kidneys, liver, pancreas, and blood vessel walls and can manifest as aneurysms.

Methods

This condition has accompanied our 23-year-old female patient since she was 5 years old. Several of her family members were also affected by the disease: her father had been a hemodialysis patient for years, and her 2 sisters had been receiving nephrology care. We started CAPD (continuous ambulatory peritoneal dialysis) for her in January 2019. Her symptoms, typical of PKD, were high blood pressure, kidney pain, urinary problems, frequent headaches and fatigue.

Results

We started CAPD six weeks after the PD catheter was implanted, and then switched to automated peritoneal dialysis (APD) in 2022. Transplant studies began. In addition to APD, insufficient renal parameters and hyperhydration occurred, so we returned to CAPD. In June 2021, an unsuccessful parathyroidectomy was performed. In October 2021, he had another parathyroid surgery, which was followed by recurrent hypocalcemic crises lasting several weeks. In February 2024, the PD catheter was repositioned due to cuff slippage and continuous exit site inflammation. She was on temporary hemodialysis treatment for 2 months, after which we returned to PD. The patient had several episodes of hypertensive crises and severe headaches, which led to hospitalization. Her metabolic function deteriorated and we planned a fistula surgery, but she rejected. Finally, she underwent a successful kidney transplant in 2024

Conclusion/Application to practice

12% of ours CAPD patients have PKD. The patient had watched her father suffering from polycystic kidney disease, witnessed his struggle, deterioration and death. She was aware that she and her siblings also suffered from this disease. The patient showed great will to live, maintaining a positive outlook despite many obstacles, and was finally transplanted.

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Abstract Country

Hungary

Disclosure of Interest

No

93

Problem-based education. The role of simulation education in theoretical and practical application

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Background

The basic goal of healthcare simulation education is to model clinical situations and practical tasks, integrating theoretical knowledge, allowing learners to acquire skills in the most realistic environment possible.

Objectives

To present the wide spectrum of nursing education programs required and applied in the field of nephrology in Hungary, ranging from nephrological care through hemodialysis and peritoneal dialysis, to the implementation of intensive therapy organ replacement treatments.

Methods

Simulation education is essential in the various fields and tasks to be mastered during individual or grouped practical trainings. It offers a chance for risk-free practice, increasing self-confidence, reducing stress levels, providing opportunities for training solution scenarios and allowing for repetition by simulating non-technical and technical errors and problems.

Results

Simulation training must be preceded by theoretical education. It's necessary to assess the abilities and skills of the learner or group. Over the past 3 years, I have conducted theoretical, practical, and combined simulation trainings at 7 clinics, intensive care units in hospitals, and dialysis centers. My tasks included demonstrating use of various dialysis machines and practical mastery of intermittent and continuous dialysis treatments. The number of trainees ranges from 50 to 60 who attend from time to time, mostly in small groups. In all cases, close contact develops with the heads and staff of the respective departments, units. Sometimes a particular treatment occurs only once every six months. 7 departments/units were trained for continuous or intermittent dialysis treatments which were performed without obstacles. Due to the high turnover rate among nursing and medical staff, I often conduct repeated trainings, too.

Conclusion/Application to practice

Problem-based learning has numerous positive effects both for learners and instructors. It promotes conscious active attention, supports personal learning, thereby stimulating the evolvement of individual goals and visions. It enhances practical problem-solving ability, and allows for drawing conclusions during the evaluation of experiences.

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Abstract Country

Hungary

Disclosure of Interest

No

95

Occurrence of multidrug-resistant pathogens among hemodialysis patients

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Abstract

Occurrence of multidrug-resistant pathogens among hemodialysis patients

Objectives

The prevalence of multidrug-resistant pathogens (MDRs) represents a significant global health issue. Chronic kidney failure itself induces an immunocompromised state, rendering dialysis patients particularly vulnerable to infections.

Methods

Dialysis centers operate under stringent hygiene protocols to prevent infections and limit their spread. In 2024, our center recorded eight cases of bloodstream infections associated with central venous catheters (CVCs). In all cases, microbiological testing confirmed *Staphylococcus aureus* infections. Initially, we investigated potential sources within our system. Nasal and throat swabs were collected from staff, and we rigorously monitored all CVC care and dialysis procedures for CVC-treated patients, including the pre-insertion protocol and hygienic practices during catheter insertion. According to protocol, our CVC-treated patients are screened for methicillin-resistant *Staphylococcus aureus* (MRSA) before catheter insertion, annually, and when symptoms occur. Despite extensive review, no procedural lapses were identified within our center. We then explored external factors. All infected patients had undergone hospital treatment lasting a minimum of one week. During hospitalization, healthcare staff used patients' CVCs for sample collection or medication administration, which did not adhere to our center's hygiene standards.

Results

We hypothesize that the improper use of CVCs and failure to comply with hygiene protocols during hospitalization resulted in the observed nosocomial infections. None of the CVC-treated patients who were not hospitalized experienced infections, and all staff screenings yielded negative results.

Conclusion/Application to practice

Adherence to infection control and hygiene protocols in dialysis centers effectively eliminates the risk of infections and prevents the spread of existing infections. However, educating hospital healthcare workers on basic hygiene practices and the proper protocol for managing CVCs during dialysis is essential. Our goal is to implement training programs for hospital nursing staff to enhance patient safety.

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Abstract Country

Hungary

Disclosure of Interest

No

98

The role of dialysis nurses in patient support

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Background

A significant proportion of patients undergoing dialysis due to end-stage renal failure are in a multiply disadvantaged position, living in poor social and financial conditions, which negatively affects their quality of life. Due to the specific characteristics of dialysis care in Hungary, patients do not receive adequate social support, although experience shows that there is a great need for it. Because of their low level of education, they lack the ability to advocate for themselves and, without assistance, are unable to obtain the benefits they are entitled to.

Methods

Assessing patients' quality of life and identifying their psychosocial problems with the help of dialysis nurses. Our 2023 survey, conducted at the Miskolc Dialysis Center, included 270 patients undergoing chronic hemodialysis treatment. The patients provided information about their illness, social and financial situation by completing a questionnaire.

Results

More than 24% of the patients were over 60 years old, 28% were over 70, 18% lived alone, and 37% had an income below the minimum wage. Among those treated in the chronic hemodialysis (CHD) program, 34% had diabetes, a significant proportion had multiple disabilities, 46% suffered from depression, and only 10% were able to work alongside their illness and dialysis treatment.

Conclusion/Application to practice

The condition of individuals treated in the CHD program could be improved through complex rehabilitation. To achieve this, supplementing the work of dialysis nurses with social workers would be essential, as chronic kidney disease presents not only physical but also psychosocial and financial challenges for patients. This approach would allow nurses to focus more on healthcare, while social workers could provide psychological and social support to patients.

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Abstract Country

Hungary

Disclosure of Interest

No

99

Clinical Audit Process: Sharing Experiences from an International Renal Network

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Background

Ensuring patient safety and high-quality care in renal facilities is paramount, given the associated risks. Clinical audits play a critical role in monitoring adherence to established clinical guidelines, identifying areas for improvement, and fostering a culture of continuous quality enhancement. This paper outlines a structured audit framework aimed at standardising clinical practices, reducing risks, and improving overall outcomes in an international renal network.

Methods

An audit strategy was implemented across all renal facilities, involving various types of audits: pre-integration, post-integration, unannounced, relocation, and internal audits. Audits are conducted by Country Nursing and Medical Directors. A two-year audit plan is developed, with 50% of facilities audited in the first year. Each audit involves an in-depth evaluation of clinical documentation, patient safety measures, and facility compliance with corporate policies. Post-audit, detailed reports are prepared, and action plans are developed for non-compliant areas, focusing on SMART (specific, measurable, achievable, relevant, and timed) objectives.

Results

The process implementation led to improved compliance with clinical protocols, enhanced identification of risks, and timely corrective actions. Facilities undergoing audits showed significant improvements in subsequent re-audits, particularly those initially rated as “requiring improvement.” The structured approach ensured that non-compliance issues were systematically addressed, and continuous monitoring ensured sustained improvements. Corporate support in high-risk scenarios strengthened the audit process and outcomes.

Conclusion/Application to practice

This process provides a practical framework for renal care facilities to implement regular audits, identify non-compliance, and develop corrective measures. The systematic approach with regular audits ensures that clinical practice aligns with corporate standards and policies, resulting in safer environments for both patients and staff. The focus on continuous quality improvement through structured audits can be replicated in other healthcare settings to enhance overall care delivery.

The collaborative efforts between clinical teams and corporate management foster a proactive approach to risk management and clinical excellence, and ultimately protects patients safety.

References

0

Abstract Country

United Kingdom

Disclosure of Interest

No

101 Desensitization Procedure in a Young Immunologically High-Risk Patient for Future Kidney Transplantation-A Case Report

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Abstract

Kidney transplantation is the preferred treatment for patients with end-stage chronic kidney disease. Sensitized patients have a significantly lower likelihood of finding a compatible donor, resulting in prolonged waiting periods on transplant lists, increased morbidity, and higher mortality rates. According to the latest global studies, 30-40% of patients on transplant waiting lists are sensitized. Of those, 10-15% are highly sensitized, with a calculated panel-reactive antibody level above 95%.

Background

Patients may develop HLA-specific immune responses due to pregnancy, blood transfusions, or previous transplantations.

Objectives

This paper presents a complex case of a young female patient currently undergoing chronic dialysis. She was admitted to our hospital for a desensitization procedure in preparation for a second kidney transplant. The patient previously underwent cadaveric kidney transplantation in March 2021, which was complicated by recurrent urinary tract infections, leading to graft nephrectomy and multiple red blood cell transfusions, contributing to her high sensitization status (PRA >99.9%).

Methods

The fundamental principle of desensitization is antibody removal and prevention of their reformation. The agreed desensitization protocol for our patient included: administration of Rituximab in two doses and intensified immunoadsorption sessions. Administration of a total of 120 g of intravenous immunoglobulin (IVIG), divided into four doses, administered between immunoadsorption procedures.

Results

The hospitalization period proceeded without complications. Initial results from the Tissue Typing Laboratory showed satisfactory outcomes.

Conclusion/Application to practice

The desensitization procedure requires highly trained nurses familiar with protocol implementation, the administration of specific therapies, and the independent execution of immunoadsorption procedures. For immunologically high-risk patients, such as our patient, these advancements increase the likelihood of successful re-transplantation.

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Abstract Country

Croatia

Disclosure of Interest

Yes

102

Challenges faced in the treatment of an uncooperative bodybuilder dialysis patient

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Background

We treated a 49-year-old patient with dialysis in our clinic from 2018, who was a dedicated bodybuilder, trainer and competitor for 20 years. He was diagnosed with renal failure requiring immediate dialysis during one of his competitions. Initially, the cause was suspected to be rhabdomyolysis and excessive diuretic use before competition. Upon returning home from competition, a kidney biopsy was performed, which confirmed glomerular scarring and hypertensive damage.

Objectives

To monitor phosphorus and parathyroid hormone (PTH) levels, to explore the causes of poor compliance, and to develop effective strategies for patient education.

Methods

Initially, our patient followed medical prescriptions and diet. After a year, he resumed competitive sports. Dietary supplements used by bodybuilders, such as protein powders, amino acids, multivitamins, electrolytes, creatine supplements contribute to excessive phosphate intake. His laboratory results showed significant deterioration; his PTH and phosphate levels increased significantly. He missed treatments due to competitions, preparations, and vacations. In 2022, neck ultrasound and parathyroid scintigraphy did not confirm adenoma, but his PTH level continued to increase despite the therapy. The patient refused surgery.

Results

High phosphorus and persistent PTH levels (elevated for years) increase the risk of fractures and cardiovascular diseases. After a long persuasion, the patient accepted the surgical solution, which was scheduled for October 29, 2024. On October 4, 2024, he had an accident when he fell while pushing his scooter, resulting in multiple fractures of the ribs, shoulder, thigh, nose fractures and lung contusion, and died suddenly the day after accident.

Conclusion/Application to practice

Treatment of an uncooperative patient is a serious challenge, especially if it's accompanied with a commitment to bodybuilding. Nutrition, missed treatments and neglected hyperparathyroidism may have contributed to development of renal osteodystrophy and subsequent death of the patient. Educating and supporting patients can play a key role in maintaining their health and preventing their condition from worsening.

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Abstract Country

Hungary

Disclosure of Interest

No

104

Attempts to balance the carbohydrate metabolism of diabetic patients undergoing peritoneal dialysis

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Background

Nowadays, diabetes is one of the biggest public health issues and the most common cause of chronic renal failure. In our center, the proportion of diabetic patients treated in the peritoneal dialysis (PD) program over the last 25 years has been 36.8%. The solutions used in PD treatments still most often contain glucose as an osmotic agent.

Objectives

To personalize the PD modality in diabetic patients based on glucose absorption from the solution.

Methods

Examination of glucose absorption from the PD solution of patients by laboratory testing of collected solution. Blood sugar measurement several times a day, and monitoring of carbohydrate intake during the PD solution retention period.

Results

At the beginning of the treatment, it is a challenge to reduce possible hyperhydration. Absorbed glucose further reduces ultrafiltration. During the study, we experienced 109.3 g/day sugar absorption from the solution with the set 2.3% glucose content solution, along with 63 g of carbohydrate intake with meals. Blood sugar values: ranged from 7.9 to 14.2 mmol/l, with 1250 ml ultrafiltration. As a result of the modification of the treatment (use of a solution with 1.5% glucose content, diet consultation, modification of insulin administration), the absorbed glucose from the solution was 92.5 g/day, while the carbohydrate ingested with meals was 52 g/day. Blood sugar values ranged from 6.3 to 8 mmol/l, with 2121 ml ultrafiltration. In the patient who used the 2.3% solution unchanged, we were able to reduce the blood sugar levels during the retention period of the more concentrated solution by modifying the insulin.

Conclusion/Application to practice

Successful PD treatment with acceptable quality of life can be achieved through close blood sugar monitoring, diet, and distribution of carbohydrates absorbed from the solution.

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Abstract Country

Hungary

Disclosure of Interest

No

107

Implementation of assisted peritoneal dialysis in the dialysis of General hospital Nova Gorica, Slovenia

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Abstract

We use the term assisted peritoneal dialysis (PD) when a health professional provides all or part of dialysis treatment, allowing more patients in the community to receive this type of treatment.

The number of new patients is increasing due to the growing age of the population. Many want home-based treatment but do not have the opportunity or even the choice to do so. Assisted PD enables patients to receive effective and safe treatment. For patients starting dialysis treatment, this can be challenging due to comorbidities, functional impairment-disability, age, etc.

Home-based assisted PD in Slovenia has been paid for by the National Health Insurance Fund since 2018 and from 2019 General Agreement also regulates the payment of assisted PD in retirement homes.

The potential benefits of PD in the elderly are a reduced burden on the cardiovascular system and fewer transfers to the dialysis centre.

Any patient who cannot perform PD on their own or with the help of relatives, but wishes to do so, or whose doctor considers this method to be better than HD and agrees to it, is eligible for assistance with PD.

The providers are the healthcare homes' patronage service and the nurses in the retirement homes.

Training of community nurses and nurses in retirement homes takes place at the local peritoneal dialysis centre. It is delivered by registered nurses, who are the providers of PD on our dialysis.

In our centre, we started with assisted PD in 1998. From 2020-2024, we have trained 46 community nurses who have received a certificate of additional skills in the field of PD.

The collaboration of medical personnel from the dialysis centre, medical personnel from retirement homes, and the community nurses as well as frequent refreshers ensures the appropriate level of competence and performance in the delivery of assisted PD.

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Abstract Country

Slovenia

Disclosure of Interest

Yes

108

Training of the teaching nurses in our network

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Background

Dialysis is a very specialized area of healthcare that determines the conditions, processes and necessary training for quality patient care. The proper operation requires the help of teaching nurses that are needed for the daily routine work of dialysis clinics.

Objectives

Maintain the quality of patient care by increasing safety and reducing risks. Teaching nurses should be aware of expectations for an ideal mentoring role. To know and apply special communication elements of the mentoring process, the most frequently occurring conflict situations and the methods of dealing with them.

Methods

We organized a training course for our teaching nurses, attended by 60 nurses. In addition to theoretical and practical background of dialysis, the course covered communication, patient safety, educational process, resolution of situational tasks in conflicts, use of moulage as a tool for „proper puncture technique“, as well as the theory and practice of resuscitation. Additionally, we made a video demonstrating the steps of connection, disconnection of hemodialysis with various vascular accesses, which is used by teaching nurses during practical education of student nurses.

Results

At the end of training, our teaching nurses passed the test exam successfully, with a minimum score requirement of 80%. In 2024, our new nurses (n=52) passed the exam in dialysis theory and practice after the 3-month training, as a result of the efforts of our teaching nurses. Our new nurses participate in patient care as „learner“ for the first 3 months under the leadership and supervision of our teaching nurses. They can only start working after the exam independently. Through continuing education, our teaching nurses are able to support personalized learning and use training systems.

Conclusion/Application to practice

By employing effective motivational and learning techniques, teaching nurses provide practical assistance in the personal development and learning processes of their mentees, simultaneously improving and modernizing the quality of education.

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Abstract Country

Hungary

Disclosure of Interest

No

111

The impact of hybrid treatment on the quality of life of dialysis patients

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Background

The quality of life of patients with chronic kidney failure is greatly influenced by dialysis performed three times a week. Hybrid treatment, which combines elements of hemodialysis (HD) and peritoneal dialysis (PD), offers a more flexible lifestyle. It reduces the time spent on travel and helps improve the quality of life by creating a balance between schedule and free time.

Objectives

The aim of the study was to evaluate the effect of combining once-per week HD with home PD treatment on the quality of life of the given patient.

Methods

I examined lifestyle of a middle-aged male patient undergoing hybrid treatment. He comes to clinic for HD once a week, and performs PD at home on the other days of week. The patient didn't accept three HD sessions per week, but due to the excess fluid and high waste levels, it became essential for him in addition to PD. Based on the patient's interviews, I assessed his quality of life, with particular attention to his physical, mental and social well-being.

Results

The hybrid treatment provided a more flexible lifestyle, improving the patient's activity, social relationships and psychological well-being. The less frequent HD and use of PD at home provided greater independence for him. As he works as an agriculturist and a manager, it was of utmost importance that he could devote enough time to his work. The HD performed every second day limited that, causing financial losses, stress and elevated blood pressure.

Conclusion/Application to practice

The combination of one HD session per week and PD performed at home significantly improved our patient's quality of life, enhancing a more independent lifestyle and psychological well-being. Hybrid dialysis offers a more flexible lifestyle for those for whom this is of utmost importance. PD allows for greater freedom in lifestyle and diet, but unfortunately, it is not a permanent solution.

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Abstract Country

Hungary

Disclosure of Interest

No

112

Moist wound healing in patients at a dialysis center

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Introduction

Moist wound healing is a modern method that supports natural healing, reduces pain, lowers the risk of infection, and minimizes scar formation. This approach is particularly beneficial for dialysis patients, who suffer from complications and have a reduced ability to heal wounds due to chronic kidney disease and other associated diseases. When properly applied, this method stimulates tissue regeneration, helps reduce complications, which all lead to faster healing.

Objectives

Our goal is to present various materials, products, and treatment procedures used at our center, with a detailed demonstration through photographs and case studies. Additionally, we would like to produce a proposal for the implementation of a dedicated wound care nurse at every dialysis center.

Methods

We applied the moist wound healing method at our dialysis center under the supervision of a dedicated wound care nurse. The study was conducted over a three-month period, during which we monitored and evaluated the results of the chosen health care method applied to a selected set of patients.

Results

With this method, we aimed to achieve faster, more effective, and less burdensome wound healing for our patients. A significant benefit is the reduction of additional strain on both patients and the healthcare system (home/ambulance care). Another advantage is the prevention of further risks and complications, as well as avoiding redundant treatments.

Conclusion/Application to practice

Moist wound healing in dialysis care improves clinical outcomes, reduces the incidence of infectious complications, and significantly enhances the quality of patient's life. Implementing this method benefits both patients and healthcare professionals while optimizing the treatment process. Therefore, we strongly recommend introducing a dedicated wound care nurse as a standard practice.

References

B. Braun medical documentation

Abstract Country

Czech Republic

Disclosure of Interest

Yes

114

Home dialysis and its environmental impact

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Abstract

Home dialysis is one of the available dialysis therapy options. Given the current regulations focused on monitoring human activities' environmental impact, it is essential to consider this issue in dialysis care as well. Therefore, this study aims to explore the environmental aspects of home dialysis and examine ways to reduce its negative environmental impact.

Objectives

The main objective of this study is to assess the environmental impact at a specific home dialysis center, focusing on minimizing waste production, optimizing logistics, and improving water and energy efficiency. Additionally, we aim to identify factors that can be influenced to reduce the ecological footprint.

Methods

We conducted a retrospective data analysis from available home dialysis documentation a numbers. The data analysis focused on water consumption, waste production, energy use, and transportation-related carbon footprint. Over one year, we monitored selected indicators with their environmental impact.

Results

The data analysis showed that it is possible to reduce the environmental impact of home dialysis. By comparing data from home dialysis treatments, we identified modifiable factors that can positively influence ecological outcomes. The detailed evaluation also helped us determine which aspects can be adjusted to achieve a more environmentally friendly approach.

Conclusion/Application to practice

Home dialysis methods are not appropriate for every patient. However, when home dialysis is chosen, some of the factors have been identified as manageable to minimize environmental impact. Our findings confirm that considering environmental factors is crucial when planning, organizing, and realizing home dialysis care. Furthermore, our study results confirm the importance of addressing these factors in home dialysis care on an individual basis.

References

Domácí hemodialýza

Abstract Country

Czech Republic

Disclosure of Interest

Yes

116

The increased prevalence of de quervain's tenosynovitis and carpal tunnel syndrome in dialysis nurses

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Abstract

Dialysis nurses are more likely to develop muscoskeletal problems, than nurses in other hospital departments, constituting the leading cause of sick leave.

Background

Dialysis nurses are more likely to develop muscoskeletal problems, than nurses in other hospital departments, constituting the leading cause of sick leave. Repetitive wrist movements and activities that require a lot of force contribute to the development of Carpal Tunnel Syndrome (CTS) and De Quervain's Tenosynovitis (DQT).

Objectives

The purpose of this study is to evaluate the prevalence of DQT and CTS in the dialysis nurses of General Hospital of Kilkis.

Methods

Our study is an observational cohort study. Every dialysis nurse of our hospital was clinically examined by a single orthopedic surgeon using the Tinel, Phalen, Eichhoff and Finkelstein test for DQT and CTS respectively. The statistical analysis was performed using SPSS.

Results

Dialysis nurses participated in the study. All of them were female. The average age was 53,1 years old. The average working years were 19,4, with 8 nurses working more than 20 years in a dialysis unit. 27% were tested positive for DQT. 45,5% were tested positive for CTS. A statistically significant correlation between the dominant and the affected hand was found ($p < 0,05$), as well as between the dialysis nurses working more than 20 years and the occurrence of DQT or CTS.

Conclusion/Application to practice

The repetitive movements of the wrist and hand, in combination with the poor ergonomics of hemodialysis materials may result in a high prevalence of DQT and CTS among dialysis nurses, affecting their ability to perform their job and leading to an increased amount of sick leave. Preventive measures and ergonomic modifications are needed to reduce hand and wrist strain in dialysis nurses.

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Abstract Country

Greece

Disclosure of Interest

Yes

117

Support for kidney transplantation from living donors and the role of nurses

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Abstract

Kidney transplantation from living donors is currently the best method of treatment for final stage kidney failure. In the Czech Republic, 524 kidney transplants were performed last year, of which only 40 were from living donors. In many countries, a significantly higher number of kidney transplants from living donors is performed compared to the Czech Republic. One of the reasons is insufficient awareness of patients of this method.

Objectives

Our goal is to ensure adequate awareness among patients with chronic kidney failure, their family members regarding problematics of this method. We want to achieve this by a better involvement of nephrology nurses into the educational process on the patient's side.

Methods

The method of a closer involvement of nephrology nurses in the educational process was chosen because nurses spend much more time with patients than doctors, know their patients well, communicate more clearly, and hence are well-positioned to provide educational support to patients.

Conclusion/Application to practice

In case transplantation method from a living donor is chosen, the concerned patient together with his/her closest ones should be educated at an early stage in a proper manner. Our study confirms that a proper awareness of pros and cons of this method on the side of patient contribute positively to the treatment process.

In clinical practice, we recommend the introduction of a transplant coordinator position at each dialysis center, regular education for nephrology nurses provided by national educational events, and the renewal of nurse education projects in the field of transplantation in collaboration with transplant center in the Czech Republic-IKEM.

References

Transplantcentrum | IKEM

Abstract Country

Czech Republic

Disclosure of Interest

Yes

118

The Relationship Between Physical Activity and Workplace Health

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Abstract

The objective of this study is to evaluate the effects of physical activity on employee health and determine the impact of a 3-month exercise program on body composition, well-being and work performance. We also explore potential strategies for integrating movement into the work environment, particularly in healthcare settings where employees face physical and psychological strain. Data were collected via a questionnaire completed at the end of the study and body composition measurements taken before and after the program. Based on previous research, we anticipate improvements in musculoskeletal health, stress reduction, productivity, and job satisfaction, reinforcing the importance of workplace physical activity programs.

Background

Prolonged sitting, high work demands, and lack of movement are significant challenges in modern workplaces, especially in healthcare environments where shift work and physical strain contribute to occupational health issues. This study investigates how regular physical activity influences employees' well-being and health, as well as how structured movement programs can mitigate the negative effects of sedentary or physically demanding work. A questionnaire was used at the end of the study, and body composition measurements were taken before and after the three-month exercise program.

Objectives

Hypotheses

1. Regular physical activity in the workplace reduces musculoskeletal issues among employees, particularly back and neck pain and improves muscle strength and posture.
2. Participation in a 3-month physical activity program leads to improved overall well-being, reduced stress levels, and enhanced mood.
3. Frequent workplace physical activity positively impacts productivity, job satisfaction, as research suggests that active employees report higher work efficiency and reduces fatigue, supporting employee engagement and overall work performance.

Methods

The study involved 7 employees from various sectors including healthcare professionals. Data were collected using a questionnaire and body composition measurements taken before and after the physical activity program. Measurement instruments included a body composition scale, waist and hip circumference measurements, and dynamic flexibility tests. Statistical analysis involved descriptive statistics, t-tests for mean comparisons, and correlation analysis to examine relationships between variables. Additionally, we identified barriers and facilitators to implementing physical activity programs in workplace settings.

Results

Study results are currently being analyzed. Based on previous research, we expect that the 3-month exercise program will lead to reduced musculoskeletal discomfort, improved psychological well-being, and increased employee productivity. Furthermore, we anticipate measurable improvements in body composition, such as reduced fat percentage and increased muscle mass, supporting findings on the importance of regular workplace physical activity.

Conclusion/Application to practice

Regular physical activity in the workplace has a positive impact on employee health, well-being and performance. Based on this study, we recommend:

- Implementing short, structured movement breaks during working hours.
- Organizing short and structured physical activities at the workplace.
- Providing educational programs for employees on appropriate physical activity. Previous studies have identified effective strategies such as introducing active workstations, encouraging walking and cycling to work, and incorporating structured physical activity sessions. Companies that have implemented these interventions report better employee health outcomes and increased efficiency. Therefore, we recommend that employers consider adopting similar approaches tailored to their specific workplace needs. Future research should explore the long-term impact of workplace exercise programs and their potential role in preventing chronic diseases, particularly in high-risk professions such as healthcare.

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Abstract Country

Slovenia

Disclosure of Interest

No

119

Homeless patients requiring hemodialysis (three case studies)

Michaela Černá

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Abstract

Homelessness is one of the most challenging social problems to solve. It affects diverse groups of people, has different causes and consequences and therefore requires ideally comprehensive and tailor-made interventions implemented by professionals. Among the many impacts of homelessness on physical health is also the higher risk factor for development of kidney failure. The findings of Koyma et al.(1) support a growing body of evidence linking housing status with kidney health disparities.

Background

CASE PRESENTATION

A case study of 60-year-old male diabetic with end stage renal disease receiving dialysis, status post bilateral amputation above knee. Divorced, no income, living in the car.

Social work interventions: advocacy and counselling housing, finance, home care, adjustment to illness.

A case study of 58-year -old female with end stage renal disease receiving dialysis, ethanol abuser, experience of abuse by her husband. Living with her partner in a shelter in junkyard, no income.

Social work interventions: counselling housing, finance, mental health, adjustment to illness.

A cases study of 65 -year-old male with end stage renal disease receiving dialysis. Single man, no income, lived on the street or in Salvation Army hostel. Aggressive to health care staff and other patients, non compliance.

Social work interventions: counselling mental health, housing, finance, crisis intervention, adjustment to illness.

Methods

The methods of the presented project are based on three case reports. On these three case studies I want to present the main social problems which affect the vulnerable population of homeless people, as well as strategies and tools helping homeless hemodialysis patients solve their difficult situation, which directly influence their health status.

Conclusion/Application to practice

Achieving kidney health equality requires attention to those at higher risk. People experiencing homelessness are among the most vulnerable. Prioritising interventions on housing and other social determinants of health is needed to improve outcomes and advance care for this population.

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Abstract Country

Czech Republic

Disclosure of Interest

Yes

123

Liza's plate: Advising on Diabetes and Chronic Kidney Disease or Dialysis

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Abstract

Liza's plate is a didactic tool for nutrition counselling in chronic kidney disease and dialysis treatment..

It is mainly based on education on potassium and phosphate intake. The tool pictorially demonstrates, how to construct a recommended meal without exceeding the potassium intake limit. With guided help, the patient draws up the daily menu. For future a digital format is in preparation.

It was developed in 2024 in collaboration between the Endocrinology and Nephrology Sections of Slovenia and it is author's work of Natalija Kuharič and Jana Klavs.

The graphic design of the tool represents Liza's house, divided into three colours. Colours represent the potassium content of the food. Green colour for food that contain up to 200 mg of potassium., yellow from 200 to 500 mg and red over 500 mg of potassium.

Due to the influence of vegetables, which generally contain more potassium, Liza's plate is divided into thirds: 1/3 of the space to vegetables (fiber), 1/3 to protein foods, and 1/3 to starchy foods.

On each card is a written information of the quantity of the food and other elements.

When assembling meals, we take into account that all three colours and all groups of food are represented on the plate, depending on the needs of the patient.

In the education itself we have in mind Liza's 6, which means:

POTASSIUM: up to 2500 mg/day

PHOSPHATE: 800 -1000 mg/day

NATRIUM: 2000 mg /day

LIQUIDS: up to 1 litre (including yoghurts, soups, sauces and fruit)

QUANTITY: 1/3 of a plate for each food, special care with foods that have a high potassium content.

PREPARATION: It is recommended to cook and soak the vegetables in large quantities of water. Stewing and frying are not recommended. Use of spices and as little salt as possible for a fuller flavour.

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Abstract Country

Slovenija

Disclosure of Interest

Yes

126

The impact of creative activity on dialysis patients

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Abstract

The impact of creative activity on dialysis patients

Background

For dialysis patients, the time spent during dialysis treatment can be a significant burden. Creative activities can help endure the treatment, reduce stress, and improve patients' quality of life.

Objectives

Patients of different ages and genders have various interests. In our dialysis center, we follow the case of a patient engaged in crocheting and examine how creative activities help her cope with her illness. Conversations with the patient can provide insight into her physical and mental health.

Methods

Upon entering the dialysis program, our patient often experienced anxiety, discomfort and boredom during the long hours of treatment. The time-consuming nature of the treatments limited her free time, increasing her despondency. It was important for her to find a creative activity that made the time spent during dialysis useful and enjoyable. Every patient is unique, so it is essential to offer activities that consider their abilities, interests, and current condition.

Results

Creative activity is a relaxation technique that reduces stress and anxiety during treatment. Attention is diverted from physical discomfort, the pain threshold increases, and the sense of time changes. This can indirectly contribute to reducing side effects. The patient can express her feelings and thoughts, improving concentration. It can also contribute to increased self-esteem as others recognize her tangible work. It strengthens social relationships, too.

Conclusion/Application to practice

Incorporating creative activities into dialysis treatment can not only improve patients' quality of life but also enhance the quality of patient care. It provides patients with a tool to actively participate in and support their healing process.

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<https://scholar.google.hu/><https://scholar.google.hu/><https://scholar.google.hu/><https://scholar.google.hu/>

Abstract Country

Hungary

Disclosure of Interest

No

127

Evaluation of the impact of pre dialysis nurse consultation for the patients CKD

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Background

The number of people suffering from chronic renal failure is 3 million in France. The number of patients undergoing dialysis treatment is regularly increased at rate of around +4% per year. Since 2019, the CKD pathway for patients has been reinforced by multidisciplinary care, including a recommended annual nursing consultation. Nurses providing these consultations are trained in therapeutic education to advise on kidney protection in order to delay disease progression. Our study focuses on the impact of their consultation on patients prior their transition to replacement therapy.

Objectives

To assess patient satisfaction and the quality of the information provided during nurse consultation

To evaluate the impact of their nurse consultation before transition to dialysis

Promote the role of nurses with refractory doctors

Methods

We used a quizz to interview 90 patients who had started replacement therapy since 2023 in 9 clinics in France

Results

52% of patients benefited from nurse consultation and 48% would have liked to have benefited. Qualitatively, 98% of them said that the prevention advice helped them during their hemodialysis treatment and 87% felt less anxious. We note an overall satisfactory evaluation of 09/10. However this survey also highlighted patient refusal of nursing consultation

Conclusion/Application to practice

This study has highlighted the positive impact of nurse consultation in the management of chronic kidney disease.

An action plan was defined to make nurse consultation more accessible :

- presentation of the survey results to convince doctors to refer patients for nursing consultation
- creation a fun flyer on nurse consultation (in progress)
- establishment of a CDK patient expert partner. Their role would be to provide feedback

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High Authority of Health
The order of may 7 2024 amending of September 25, 2019 relating to the flat rates allocated to healthcare establishments in the context of the care patients with chronic kidney disease in application of article L.162-22-6-2 of the social security code

Abstract Country

France

Disclosure of Interest

Yes

130

Permanent dialysis catheter- hidden place of problemCase- report

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Abstract

A reliable and well- functioning vascular access is fundamental for adequate hemodialysis (HD) treatment. Although an arteriovenous fistula is the preferred option, an increasing number of HD patients rely on central venous catheters (CVCs) as permanent vascular access.

Background

We present the case of a 50- year- old male patient with end- stage renal disease (ESRD) due to hantavirus infection and IgA nephropathy, diagnosed via kidney biopsy several years later. He initially started renal replacement therapy with peritoneal dialysis (PD) but transitioned to HD after two years. Due to unsuccessful AVF creation, a tunneled cuffed dual- lumen catheter (Tesio type) was placed as a long- term vascular access. In August 2023., the patient successfully underwent cadaveric kidney transplantation.

Objectives

In December 2023., an attempt was made to remove the catheter, however, only the extravascular portion could be extracted due to suspected intravascular ingrowth. Since early 2024., the patient has been hospitalized multiple times due to recurrent episodes of fever of unknown origin and sepsis. During his most recent hospital stay, a repeat echocardiogram revealed a floating vegetation attached to the retained catheter tip in the right atrium. Endovascular retrieval with aspiration of the mass was performed without complications. Histopathological analysis confirmed inflammatory cells and fibrin, while microbiological cultures were negative. Following antimicrobial treatment and clinical recovery with sterile follow- up blood cultures, the retained catheter was successfully detached from the vessel wall using the endovascular snare technique.

Results

When complete catheter removal is not feasible, internalization of retained fragments may be considered. Although rare, these retained segments can serve as potential infection sources. There are currently no established guidelines on antibiotic prophylaxis for retained catheter fragments, making it challenging to assess the true impact of this issue.

Conclusion/Application to practice

Our case highlights the need for appropriate management strategies for retained catheters and demonstrate the effectiveness of safe endovascular techniques for retrieving catheter fragments that become fixed to the vein wall.

References

Case- report from our Department

Abstract Country

Croatia

Disclosure of Interest

No

136

Introduction the association of kidney patients, helping and supporting kidney patients and their families

Mária Németh*National Dialysis Center, Debrecen, Hungary*

Our motto: „We cannot do great things, only small ones, with great love.“

Background

Nowadays, every 10th person in Hungary is affected by some kind of kidney disease. Obesity, high blood pressure, and diabetes are considered national diseases in our country. These conditions are predisposing factors to kidney disease.

Objectives

The association was founded in 1989. The aim of its establishment is to represent the interests of people in different stages of kidney disease, to organize kidney patients into a community that knows and helps each other, and to educate society about the different forms of kidney disease. We are working with the patients and their family members to solve everyday problems.

Methods

The association's work has several pillars. Its primary task is to help and support people with kidney disease by providing information about the disease, health preservation, improvement of the condition, and maintaining the health status. This can be done verbally, by providing written materials, or by showing short films. The family support, involving relatives, includes introducing the disease, participating in joint programs, trips, involving family members and children in joint cooking. Collecting food, programs such as preparing Christmas packages are organized to help patients in need like elderly patients. The association also organizes cultural and leisure sports activities regularly such as bike rides, team building gatherings, and communal cooking. Additionally, we promote equal opportunities for disadvantaged patients.

Results

With a good knowledge and understanding of their kidney disease, our patients learn to accept the disease and will be able to live a balanced family and community life.

Conclusion/Application to practice

By gaining sufficient knowledge about kidney disease and the associated dialysis treatment, our patients can live full lives. They find opportunities to continue working, spend their free time usefully, and participate in cultural and sports activities with fellow patients and family members.

Our motto: „We cannot do great things, only small ones, with great love.“

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Abstract Country

Hungary

Disclosure of Interest

No

137

Croatia as one of world champions in salt reduction program

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Abstract

The World Health Organization recommends reducing salt intake to reduce cardio-reno morbidity and mortality as a crucial and the most cost-effective intervention.

Background

In Croatia, the Croatian Action on Salt and Health was started in 2006 with the aim to decrease salt intake gradually. The action was organized under umbrella of the Croatian Society for Hypertension and the Croatian Hypertension League.

Objectives

We have organized educative activities to increase awareness on salt harmfulness, define food categories of prime interest, collaborate with industries and determine salt intake (24h urine sodium excretion).

Methods

It was determined that the proportion of ready-to-eat baked bread should not exceed 1.4%. In the period 2014–2022, salt in bread was reduced by 14%, to 22% in bakery and bread, respectively, and by 25% in the largest meat industry. Awareness of the harmfulness of salt on health increased from 65.3% in 2008 to 96.9% in 2023 and salt intake was reduced by 15.9–1.8 g/day (22.8% men, 11.7% women).

Results

In the last 18 years, a significant decrease in salt intake (by an average of 2 gram per day) was achieved in Croatia, awareness of its harmfulness increased, collaboration with the food industry was established and regulatory documents were launched. However, salt intake is still very high as less than ¼ of population ingest recommended 5 gram or less per day, underlying the need for continuation of efforts and even stronger activities.

Conclusion/Application to practice

Significant differences were found between men and women, between rural and urban areas and interestingly between continental and Mediterranean part of Croatia. Although significant improvement was achieved, there is a lot of work in front of us.

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Abstract Country

Croatia

Disclosure of Interest

Yes

139

Understanding and Monitoring Fluid Intake in Hemodialysis Patients: Insights from Dialysis Centers in Slovenia

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Background

Fluid intake management is an essential part of care for hemodialysis (HD) patients. While patients receive regular guidance on fluid restrictions, many struggle with managing excessive fluid intake.

Methods

A survey was conducted among 127 HD patients from dialysis centers in Slovenia. The study aimed to assess patient awareness regarding fluid content in food, whether they have difficulty limiting their fluid intake, current tracking practices and patient attitudes and beliefs regarding fluid intake.

Results

The majority of patients agreed that a significant amount of fluid can be ingested through food (98%).

Findings show that 41% of patients manage to limit their fluid intake well, 55% find it difficult, but are trying, 3% find it very hard, and 1% do not adhere to the fluid intake restrictions.

We discovered that 47% of patients have trouble limiting their fluid intake, while 43% have no troubles.

Findings show that 55% of respondents assess their total fluid intake from food and drinks every day, 11% do so several times a week, 24% assess it occasionally and 10% never do.

Findings show that 87% of respondents think monitoring their fluid intake is very important for their health, 12% consider it partially important and 1% believe it is not important.

Key challenges included persistent thirst (71%), social situations (16%) and fluid intake from food (13%).

Conclusion/Application to practice

To improve fluid intake management, it would be beneficial to provide education on fluid sources in food, develop tools for tracking fluid intake (such as a mobile application) and offer additional support for those struggling with fluid restriction. It is also important to assist patients in addressing challenges such as thirst, as well as to increase motivation for monitoring fluid intake. These strategies can enhance patients' health and quality of life.

References

None.

Abstract Country

Slovenia

Disclosure of Interest

Yes

140

Nursing Intervention in Dietary Behavior of Patients Undergoing Renal Replacement Therapy

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Background

Nursing Intervention in Dietary Behavior of Patients Undergoing Renal Replacement Therapy

The management of renal failure, depending on its type and stage of progression, involves not only pharmacological or extrarenal treatments but also the implementation of a specialized diet.

The diet should be considered as a therapeutic intervention of primary importance, the application of which is essential regardless of any other therapy chosen to address renal.

The composition of the human body is disrupted due to uremia and the type of therapeutic intervention applied. The implementation of an appropriate diet, both in terms of quantity and quality, is the only way to maintain the balance of essential ions in the body. In many cases, the prescribed therapeutic regimen does not yield satisfactory results or has limited effectiveness when it is not complemented by a diet specifically tailored to the individual needs of each patient. The progression of renal disease is influenced by nutrition, despite pharmacological treatment, making it essential that the diet be based on specific clinical parameters.

Critical factors that should be considered when determining the diet include the patient's gender and age, the underlying kidney disease, comorbid conditions, the stage of renal disease, pharmacological treatment, and the type of extrarenal replacement therapy.

However, nurses maintain the privilege of having close and frequent contact with renal patients, which allows them to identify their specific needs and requirements, or to detect any difficulties in following dietary guidelines. Thus, it is imperative that nurses acquire knowledge in this field so that their participation in shaping the dietary behavior of renal patients is grounded in expertise.

It is also crucial to emphasize, is the importance of close and effective collaboration between the nursing staff, the dietetics department, and the medical team monitoring the patient, for the benefit of the renal patient.

References

Diet of patient
Renal nurse

Abstract Country

Greece

Disclosure of Interest

Yes

142

When prevention means protection: Influenza vaccination in international renal care network

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Abstract

Influenza, a persistent seasonal threat, poses severe risks to renal patients due to their vulnerable health status.

Background

Complications from influenza potentially leading to serious outcomes, proactive vaccination becomes a critical line of defense. In our renal network influenza vaccination strategy ensures that no patient is left unprotected, emphasizing the importance of timely immunization, consistent documentation, and vigilant monitoring of adverse reactions. This abstract showcases our unwavering commitment to safeguarding patient well-being.

Methods

A meticulously crafted vaccination strategy is implemented across all clinics. The process involves: **Annual Vaccination Advocacy:** Every patient, barring those with specific medical contraindications, is strongly advised to receive the influenza vaccine before the onset of the season. **Empowered Patient Communication:** Comprehensive verbal and written information is provided to patients, adhering to local and regional regulations, ensuring informed decisions. **Tailored Country Procedures:** Where applicable, country-specific procedures are established for vaccinations administered by Diaverum staff. **Precision in Administration:** Vaccines are administered in strict accordance with prescriptions and manufacturer guidelines. **Comprehensive Documentation:** All vaccination details are meticulously recorded in the our patient electronic medical record and the vaccination module, even for vaccinations given outside the clinic. **Adverse Reaction Monitoring:** Patients are closely observed post-vaccination, and any adverse drug reactions (ADRs) are promptly recorded in the electronic medical record and vaccination module. **Timely Reporting:** Vaccination coverage is reported to the Corporate Medical Team by the specified deadlines—no later than July 31 for the southern hemisphere and January 31 for the northern hemisphere. **Dynamic Country-Specific Protocols:** Clinical teams may develop additional procedures to ensure alignment with local regulations and overarching corporate guidelines.

Results

By championing this proactive vaccination policy, we have achieved heightened vaccination rates, robust documentation, and enhanced patient safety. The introduction of early reporting mechanisms and rigorous adverse reaction monitoring has significantly reduced risks. Furthermore, standardized procedures across clinics have ensured compliance and fostered a unified approach to preventive care.

Conclusion/Application to practice

Influenza remains a formidable adversary, but with a structured and vigilant approach, we can mitigate its impact on renal patients. Our strategy exemplifies a gold standard in preventive care, ensuring that our patients remain shielded from seasonal threats. Consistent education, systematic procedures, and unwavering vigilance are the cornerstones of our success.

This strategy serves as a blueprint for healthcare organizations striving to elevate their preventive care initiatives. By emphasizing proactive communication, standardized documentation, and timely reporting, it reinforces a culture of preparedness. In an ever-evolving healthcare landscape, staying vigilant ensures that we remain one step ahead—because the risks are still out there, and so is our commitment to protecting those we serve.

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Abstract Country

Diaverum Corporate, Malmo, Sweden

Disclosure of Interest

No

143

Rapidly progressive glomerulonephritis – case report

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KBC Zagreb, Zagreb, Croatia

Abstract

Rapidly progressive glomerulonephritis is type of nephritic syndrome defined by hematuria and varying degrees of proteinuria. It is a pathological condition that causes extensive formation of crescent changes in the glomeruli. Without therapy, it leads to uremia in couple of weeks or months. Nephritis mainly occurs in a rapidly progressive course. Rarely, renal function can be preserved for several months. It is relatively rare and represents 10–15% of all glomerulonephritis. Mostly, it occurs between the ages 20 and 50.

Diagnosis is based on history, urine findings, serological tests and kidney biopsy. Types and causes of glomerulonephritis are classified according to the findings of immunofluorescence microscopy and serological tests; such as the glomerular basement membrane antibody (anti-GBM) assay. Anti-GBM is a disorder in which the immune system makes antibodies that attack kidneys and/or lungs.

If left untreated, the disease can worsen quickly and lead to kidney failure and death.

The disease incidence is estimated to be approximately 0.6–1.8 cases per million, per year in the Asian and European Caucasian (more commonly affected) population. Men and women are equally affected. The disorder is responsible for 1–5% of all cases of glomerulonephritis.

Patient DB born in 1981 admitted to our ward for a planned kidney biopsy, upon arrival in antiGBM findings 1:10000.

In the past two years, he has been treated for arterial hypertension; currently undergoing hemodialysis three times a week. Also, six immunoadsorption and eight plasmapheresis procedures have been carried out. Blood tests improve and the patient is discharged to parent institution with recommendations on further treatment.

The nurse is an active member of the team. She is involved in the collection of anamnestic data, the application of therapy, the patient's preparation for diagnostic and/or therapeutic procedures such as kidney biopsy, independently carries out hemodialysis, plasmapheresis and immunoadsorption procedures.

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Abstract Country

Croatia

Disclosure of Interest

Yes

148

Case report: Cryptococcal infection in a kidney transplant recipient

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Abstract

Cryptococcal infections represent a serious complication for kidney transplant recipients due to their immunocompromised status. This report presents the clinical course, diagnosis, and treatment of a cryptococcal infection in such a patient, emphasising the complexity of managing post-transplant complications. The objectives are to highlight the diagnostic challenge and therapeutic options in managing the infection and to comment on the implications for the improvement of patient management. We present a case of a 39-year-old male patient with end-stage kidney disease due to Immunoglobulin A (IgA) nephropathy who underwent a cadaveric kidney transplant with initially good allograft function. The patient presented with a post-transplant recurrence of Immunoglobulin A Nephropathy (IgAN), which was successfully treated. Subsequently, acute allograft dysfunction required a re-biopsy, which revealed acute rejection. The patient was immunosuppressed but non-compliant, with low tacrolimus levels and high donor-specific antibody titres, which complicated the reduction of steroid dosage. In August 2024, he presented with signs of fever, headache, confusion and somnolence. Magnetic Resonance Imaging (MRI) showed the need for immediate ventriculoperitoneal (VP) drainage. *Cryptococcus* was cultured in the cerebrospinal fluid cultures. Despite long-term fluconazole treatment and resistance akin to intrahospital infections, the patient required permanent VP drainage after repeatedly negative cerebrospinal fluid cultures. The management of the cryptococcal infection resulted in the stabilisation of the patient's condition, with a proper explanation of the effectiveness of treatment and the recovery process. This case is an example of the importance of early and correct treatment to achieve successful outcomes in such high-risk patients. This case report also highlights the importance of being careful and having prompt intervention in kidney transplant recipients who present with unusual symptoms. It demonstrates how prompt and proper management can greatly enhance results and is full of lessons that could guide future approaches in comparable situations.

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Abstract Country

Croatia

Disclosure of Interest

Yes

149

Case report: Subcutaneous administration of immunoglobulins in a kidney transplant recipient

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Abstract

Organ transplantation is one of the most important medical achievements of the 20th century. Kidney transplantation is the best form of kidney replacement therapy for most patients, but it is often associated with the development of complications. Patients who have undergone kidney transplantation have a higher risk of infections due to immunosuppressive therapy, which reduces the immune response but also prevents rejection of the transplant. The use of immunoglobulins is a method of immune system protection for these patients. Immunoglobulins are proteins that play an important role in the body's own immune defence, the recognition and neutralisation of pathogens. Immunoglobulin therapy is crucial for the prevention and treatment of infections in immunocompromised patients. While intravenous administration is a conventional way, the latest forms of immunoglobulins can be administered subcutaneously. An important development in the treatment of immunodeficient patients, particularly those who have received kidney transplants, is the subcutaneous delivery of immunoglobulin. At our transplant centre, we have administered immunoglobulin subcutaneously to a patient with chronic active antibody-mediated rejection. The patient was a 68-year-old kidney transplant recipient who had undergone a kidney transplantation in 2013. Deterioration of graft function was detected during a routine examination. Diagnostic tests revealed elevated proteinuria and creatinine levels as well as the presence of positive donor-specific antibodies. The patient was then hospitalised. A graft biopsy was performed, which proved chronic antibody-mediated rejection. Subcutaneous administration of immunoglobulins was done to reduce the risk of infections and facilitate the administration of therapy. Advantages such as convenience, reduced side effects, and better quality of life make this therapy extremely useful for patients requiring long-term immunoglobulin application. This therapy can improve the quality of life, reduce the number of hospitalisations, and increase the autonomy of patients, which is crucial for their daily life and long-term prognosis.

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Abstract Country

Croatia

Disclosure of Interest

Yes

154

Translation, validation and reliability of the Inpatient Dignity Scale among patients undergoing hemodialysis

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Abstract

260 words

Background

Patient dignity is an integral aspect of nursing practice.

Objectives

This study aimed to investigate the psychometric properties of the Inpatient Dignity Scale (IPDS) among hemodialysis (HD) patients.

Methods

This was a descriptive, cross-sectional study. Patients (N=267) on HD from three HD Units in Athens completed the IPDS. The IPDS explores patients' expectations and satisfaction regarding dignity. The IPDS was translated into Greek according to the WHO guidelines. Reliability was tested through the Intraclass Correlation Coefficient (n=20), and internal consistency through Cronbach's Alpha Index. Confirmatory factor analysis with a maximum likelihood procedure was used to test the construct validity. Convergent validity was tested through the correlation with the Caring Behaviors Inventory-16. Statistical significance was set at 0.05. The statistical program SPSS 26.0 was used for the analysis.

Results

The sample consisted of 176 men (65.9%) and 91 women (34.1%). Reliability was found acceptable (ICC > 0.70, p<0.001 for most of the items). The internal consistency was considered satisfactory (Cronbach's Alpha for expectations 0.70-0.79, and 0.74-0.79 for satisfaction). Confirmatory factor analysis showed an acceptable adjustment of the questionnaire regarding patients' expectations (CFI:0.92, TLI > 0.91, and RMSEA > 0.059) and patients' satisfaction (CFI: 0.93, TLI:0.94, and RMSEA: 0.049). Convergent validity showed a positive and significant association of the IPDS with the CBI-16 (r=0.18-0.40 for each factor of expectations, p<0.001 and r=0.30-0.58 for each factor of satisfaction, p<0.001).

Conclusion/Application to practice

The IPDS is a valid and reliable instrument for the assessment of patients' expectations and satisfaction on dignity.

References

Dignity, respect, hemodialysis, patient.

Abstract Country

Greece

Disclosure of Interest

No

167

Work environment management in dialysis center in Greece

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Abstract

Over the past years the working environment has played a major role in employee satisfaction and general well-being.

All Dialysis Companies have tried to invest on the development of a healthy and thriving working environment, applying democratic leadership models.

A democratic leadership model emphasizes cooperation and unanimous decision making as well as a more democratic and participatory approach.

Companies have invested on the implementation of democratic leadership model, which has had a positive impact on the emotional and psychological needs of the employees, targeting the development of their empathy and emotional intelligence.

This specific survey focuses on Private Dialysis Centers in Greece, which have applied the democratic leadership model.

The questionnaire was sent to a total of 13 Dialysis Centers. It was anonymous and was answered by all the employees of all departments in these units.

According to the findings it is evident that all employees are most satisfied and content with their working environment and the way their duties are carried out.

However, one of the points that needs to be discussed is the employees, wish to participate more, taking responsibility as well as have more freedom of movement as, according to the answers, there was low satisfaction in this category.

That means that in this particular field there is definitely room for improvement so as to achieve more effective and efficient performance as a team.

The positive outcome of the survey is proof that the democratic leadership model has been successfully implemented, though it needs a little more improvement in some areas.

On the whole, by implementing democratic leadership in dialysis centers we see personal development, promotion, team spirit and safety, as well as work satisfaction, all of which focus on the employee.

Methods

The tool to carry out this research has been the Herzberg Test, which assesses work satisfaction of the personnel.

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Abstract Country

Greece

Disclosure of Interest

Yes

173

Nursing consultation for people on haemodialysis: SOAR analysis

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Background

The nursing consultation is an act conducted by a nurse whereby a patient's clinical situation is assessed and which presupposes prior and subsequent planning of the provision of care. It uses a record in an information system and can be face-to-face or mediated by information technology. In the case of people on haemodialysis, care should be provided by a nurse with specialised or recognised training in the area and should include the dimensions of direct care, health education and psychosocial aspects. Organisational change must be framed in structured methodologies. SOAR analysis frames issues from a solution-oriented perspective focused on strengths and development ideas.

Objectives

This study aims to discuss the importance and feasibility of implementing a nursing consultation in haemodialysis units, analysing the issue from a business perspective provided by SOAR analysis.

Methods

Focus group of specialist haemodialysis nurses using the SOAR methodology, which is constituted as a strategic dialogue between stakeholders. It includes discussion of what works well (strengths), possibilities for growth (opportunities), individual and collective desires (aspirations) and possible indicators of success (results).

Results

Implementing this care methodology can contribute to improved outcomes and can serve incident and prevalent patients with the same degree of interest. Formal follow-up, reducing complications and designing educational plans based on the dialysed person's life plan are important opportunities. The initial and ongoing investment is related to the reallocation of pre-existing human resources. Difficulties mainly relate to the funding model used, as well as hiring policies.

Conclusion/Application to practice

The implementation and expansion of the nursing consultation may be limited due to a requirement of financial investment. However, specialised monitoring by nurses is crucial for significantly improving self-management of the therapeutic regime. This accompaniment prevents complications and avoids acute episodes of the disease.

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Abstract Country

Portugal

Disclosure of Interest

No

178

Reducing the Risk of Venous Needle Dislodgement During Hemodialysis

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Background

Venous needle dislodgement (VND) is a severe technical complication of hemodialysis, occurring when the bloodline detaches from the fistula needle or central catheter. The highest risk arises from the venous needle slipping out or the venous bloodline disconnecting. If this incident goes unnoticed, the patient can lose a significant amount of blood within a short time, which can be fatal.

Objectives

With this presentation, I aim to raise awareness of the risks associated with bloodline disconnection and propose ways to minimize these risks, ensuring patient safety throughout dialysis treatment.

Methods

Within the B.Braun Avitum Dialysis Network, undesirable events are reported in the Adverse Patient Occurrence (APO) Monitoring System.

VND events are also reported in this system as high risk events. These occurrences can be assessed through APO reports.

We have analyzed VND cases between 2019 and 2024 retrospectively within the B. Braun Avitum Hungary Network.

Results

In the first two years 2019 and 2020 there were 11 and 14 cases reported respectively. These high numbers prompted the introduction of the Bloodline Disconnection Prevention Project based on EDTNA guidelines, consisting of six key measures.

Following the implementation of this prevention project the number of events has decreased significantly:

There were 3, 8, 4 and 4 cases respectively in the next four years.

We observed the current practices of needle taping and bloodline fixation.

We investigated the circumstances of the incidents, patient's activities at the time, their cognitive status, and the outcomes of these events

Conclusion/Application to practice

Minimizing the risks of VND requires a combination of human skills, vigilance, and technology. Through this study, we ensured that the EDTNA guidelines are clearly implemented across all dialysis units in our network.

Effective education, secure fixation, regular monitoring, clear visibility of access points, and an evaluation system significantly reduces the risk of VND.

References

none

Abstract Country

Hungary

Disclosure of Interest

No

180

Differences in Kidney Transplantation Outcomes Among Different Ethnic Groups

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Abstract

Differences in kidney transplant outcomes among different ethnic groups are the result of a combination of genetics, socioeconomic conditions, cultural factors, and access to healthcare. Several key factors may explain these differences: Genetic factors, Socioeconomic factors, Cultural and religious barriers, Comorbidities, differences in access to transplantation and waiting for donors.

Background

Genetic factors: Genetic variations among ethnic groups can affect transplant outcomes. Some ethnic groups, such as African Americans, may have specific genetic characteristics that increase the risk of organ rejection. While specific genetic studies on Roma are not common, it can be assumed that genetic heritage affects immune response and transplant success, similar to other ethnic groups.

Socioeconomic factors and access to healthcare: Ethnic minorities, including Roma, face barriers to accessing quality healthcare, which can impact the diagnosis and treatment of kidney diseases. Low socioeconomic status, unemployment, and limited access to healthcare institutions can delay the initiation of treatment, thus increasing the need for transplantation in later stages of the disease.

Objectives

Cultural and religious barriers: Cultural beliefs, as well as attitudes toward medical interventions, can influence the decision to undergo a transplant. In Roma communities, as well as in many other minority groups, there may be uncertainty or prejudice against organ donation, which can reduce the rate of transplant acceptance and affect outcomes.

Comorbidities and health complications: Roma are often affected by high rates of conditions such as hypertension, diabetes, and cardiovascular diseases, which are risk factors for kidney disease. These comorbidities can increase the risk of complications during and after transplantation, reducing the chances of long-term success.

Methods

Differences in access to transplantation and waiting for donors: In many countries, ethnic minorities may have reduced access to transplantation due to lower organ donation rates or geographical and social factors. This can lead to longer waiting times for a transplant and increased rejection rates due to immune responses to organs that are not ideally compatible.

Results

We will present the differences in patients' interest in kidney transplantation as well as the outcomes among ethnic groups.

Conclusion/Application to practice

In conclusion, the outcome of kidney transplantation among Roma, as well as other ethnic groups, depends on a combination of genetic, socioeconomic, cultural, and health factors. Improving access to healthcare, education about transplantation, and promoting awareness of organ donation are crucial to reducing these disparities and improving outcomes for all patients.

References

Case-report from our Department

Abstract Country

Croatia

Disclosure of Interest

Yes

182

Technological innovations for individuals with kidney failure receiving hemodialysis: a scoping review

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Keywords: Hemodialysis; Patient Education; Renal Dialysis; Digital Healthcare Technologies; Scoping Review

Background

Individuals receiving hemodialysis treatment are typically subjected to an average of four hours of treatment, restricted to a chair, often without an occupation suited to the treatment process. Additionally, many require information and empowerment for some activities due to lifestyle limitations, and this is the challenge we intend to contextualize in this research.

Objectives

This scoping review synthesized and mapped the breadth of existing literature on technological resources used to support individuals undergoing hemodialysis treatment.

Methods

Following the methodological guidelines of the Joanna Briggs Institute for scoping reviews and the PRISMA-ScR checklist, comprehensive searches were conducted across multiple databases, including MEDLINE®, CINAHL®, Scopus, Psychology and Behavioral Sciences Collection, Cochrane and MedicLatina, with no time restrictions.

Results

A total of thirty-nine studies published between 2003 and 2023 met the inclusion criteria. These studies covered a range of technological innovations developed specifically for hemodialysis treatment, including mobile applications, virtual reality, exergames and websites. These technologies were designed with diverse objectives: to facilitate physical exercise, improve disease adherence and management, optimize dietary and medication management and promote self-efficacy and self-care in patients.

Conclusion/Application to practice

The review revealed a wide variety of technological resources that can be used by individuals with kidney failure receiving hemodialysis. These digital solutions show great potential to transform care by promoting more engaged and personalized health practices. Although this study did not directly assess the impact of these technologies, it provides a solid foundation for future research that can explore deeper how such innovations contribute to effective disease management and improvement in clinical outcomes.

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Abstract Country

Portugal

Disclosure of Interest

Yes

195

Assessment of quality of life of hemodialysis patients in a dialysis center in Montenegro

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Background

Health Related Quality of Life (HRQoL) is related to health and represents one of the important indicators in populations suffering from chronic diseases such as chronic kidney disease, this indicator can be used as a reliable predictor of mortality and hospitalization in patients on chronic hemodialysis (HD) program.

Objectives

The aim of our study was to examine the health-related HRQoL of the population suffering from end-stage renal failure treated with HD.

Methods

Our study was conducted in January 2025 at the Clinical Center of Montenegro, Center for Hemodialysis, Clinic for Nephrology. The total sample of dialysis patients who participated in the study was 43. Patients completed a standardized anonymous questionnaire “Kidney Disease Quality of Life Short Form (KDQOL-SF™)”, Serbian language version.

Results

There is a significant negative correlation between the experience of success, satisfaction and preoccupation with the disease when performing daily activities ($r=-0.45$; $p=0.01$). Satisfaction with HD treatment is lower the greater the impact of the disease on the patient’s life ($r=-0.47$; $p=0.00$). The greater the impact of the disease on the psychological state, the more problems there are in sexual functioning ($r=0.54$; $p=0.00$) and the greater the preoccupation with the disease during daily life activities ($r=0.67$; $p=0.00$).

Conclusion/Application to practice

The most significant results we have obtained in this study relate to the importance of work ability and work engagement for the experience of HRQoL in HD patients, as well as numerous significant intercorrelations between physical, emotional, social and functional indicators of HRQoL in these individuals.

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Abstract Country

Montenegro

Disclosure of Interest

No

201

Improving the care that Hemodialysis patients receive when admitted to hospital in non-renal areas

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Abstract

Abstract broken down into sections below

Background

Whilst working at the renal unit patients have shared with staff their experiences of being in hospital in non-renal areas, this is not always a positive experience for them, and some have expressed their concerns about how their dialysis needs are met whilst in hospital.

Objectives

The overall objectives were to:

Design and implement a standardised document that would provide information regarding patient's dialysis needs.

Improve the care received by our patients.

Monitor effectiveness of document through feedback

Methods

A review of relevant literature was conducted and this highlighted areas where knowledge was lacking. Through the NPG a document was formed to bridge that gap and improve the care and safety of our patients. It was then peer reviewed to look at its effectiveness.

Results

Document was created and rolled out for use. Training on the completion and use of document completed. Patient report feeling empowered by the document and feel their needs are better met.

Conclusion/Application to practice

Renal patients often have other co morbidities and as a healthcare professional it is important that all patients are treated and assessed holistically, and that all their needs are addressed. The use of this document will go a long way to ensure that these needs are met within a healthcare setting.

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Abstract Country

United Kingdom

Disclosure of Interest

No

205

How do patients choose their dialysis modality: insights from healthcare professionals

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Background

Patients whose kidneys function at less than 10% require dialysis to survive. In Switzerland, nearly 5,000 people depend on dialysis, which is performed through hemodialysis (in a center or at home) or peritoneal dialysis. Previous studies highlighted nephrologist follow-up, nursing support, and pre-dialysis information as factors influencing patients' choice of dialysis modality. Understanding decision-making from nurses' and nephrologists' perspectives is crucial to supporting informed patient choices.

Objectives

To explore the process of patients' choice of dialysis modality from the perspective of nurses and nephrologists.

Methods

A qualitative exploratory study was conducted in French-speaking Switzerland. Nurses (n=4) and nephrologists (n=8) were recruited from eight dialysis centers. 12 semi-structured individual interviews were conducted. Collected data underwent two rounds of systematic coding. Codes were then refined into themes.

Results

Preliminary analysis revealed 4 themes with sub-themes: 1) A collaborative decision-making process focusing on the roles of the healthcare providers, the patients, and their families, 2) Patient personal factors and self-efficacy including age, working conditions, and desire for autonomy, 3) Cultural factors and perception of illness, including the fact that some patients prefer going to the hospital for dialysis to separate social spaces from "illness spaces", and 4) the influence of healthcare professionals on the decision, including nephrologists' knowledge on the diverse modalities and clinical judgment, interprofessional collaboration, as well as insurance and health policies.

Conclusion/Application to practice

Findings suggest that when supporting patients' decision-making for dialysis modality, healthcare professionals consider various individual, social, and interprofessional factors. They emphasize the importance of participatory discussions with patients. Implementing decision-making support programs in dialysis centers would improve patients' informed choices.

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Abstract Country

Switzerland

Disclosure of Interest

No

223

Caring for the paediatric renal patient and their environment in a holistic manner

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Abstract

Paediatric ESRD is included in the group of complex chronic diseases, these patients are fragile for multiple reasons, not only intrinsic to the disease (polymedication, need for frequent admissions, dependence on the dialysis monitor...), but also derived from the psychological, educational and socioeconomic situation of each patient. All this requires a multidisciplinary, anthropological and humanistic approach.

Dialysis patients share long periods of time with the medical and nursing staff of the dialysis unit, and on many occasions we are the first resource to help both the patient and their parents or carers with any problem, not necessarily related to health, which means that we are often unable to address them without the support of other disciplines.

Since 2019, we have been organising multidisciplinary meetings in our unit in which the different professionals can also bring to light the different problems identified by them and address the cases of the patients we care for in a comprehensive and individualised way, drawing up an action plan coordinated by the entire multidisciplinary team involved in their care.

These meetings allow us to propose new projects and select patients and parents or carers so that they can actively participate in them.

Once each case has been discussed, an individualised action plan is drawn up for each of them.

The implementation of this project has achieved, among others:

- Addressing psychological conflicts
- Guaranteeing food and housing support for patients with limited resources.
- Minimising the impact of dialysis on school performance.
- Raising awareness of the complexity of each patient's case, their open problems and their individual circumstances.
- The active participation of our patients in each of our projects.

Abstract Country

Spain

Disclosure of Interest

Yes

227

Minimizing Biological Accidents in Dialysis Facilities: A Proven Approach

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Background

The field of dialysis nursing presents unique challenges and risks, particularly concerning biological hazards. Healthcare professionals in dialysis units are frequently exposed to bloodborne pathogens, needle-stick injuries, and contamination risks due to the invasive nature of the procedures involved. These incidents not only endanger healthcare personnel but also compromise patient safety, increasing the potential for infections and other complications.

Objectives

The project aimed to decrease the incidence of biological accidents in dialysis centers by implementing a multifaceted prevention strategy, including targeted education, improved reporting, and proactive communication of preventive measures.

Methods

Three key interventions were introduced: (1) Monthly distribution of accident prevention measures to head nurses, based on reported incidents, (2) Specific training for trainers responsible for onboarding new nurses (Train the Trainers model), and (3) Workplace dissemination of key accident trends and preventive measures through posters in staff break rooms. Data from 2023 and 2024 were analyzed to assess the impact of these interventions based on the incidence rate, a standardized measure used to assess the frequency of accidents per 100,000 professionals.

Results

After the intervention, the number of biological accidents decreased by 40% compared to the previous year. The incidence rate dropped from 3,773 cases in 2023 to 2,270 cases in 2024. The most common accident causes included improper handling of needles, defective personal protective equipment, and patient-related interventions. Improved awareness and training led to a measurable reduction in incidents.

Conclusion

The implementation of structured preventive measures, continuous education, and targeted dissemination strategies effectively reduced the incidence of biological accidents in dialysis centers. Expanding and reinforcing these interventions can further enhance workplace safety and protect healthcare workers from occupational hazards.

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Abstract Country

Spain

Disclosure of Interest

Yes

228

Transforming Care: Therapeutic Reconciliation for a Safer Future in Hemodialysis

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Abstract

Therapeutic Reconciliation; Care transitions ; hemodialysis

Background

Patients with chronic kidney disease (CKD) undergoing treatment through hemodialysis (HD) are clinically complex patients with high medication overload and frequent hospitalizations (Codd, Martinusen, Cardone, Cho, & Pai, 2020; Frament, Hall, & Mzanley, 2020).

Several studies show that therapeutic reconciliation in HD patients is of great importance in controlling costs associated with medication-related problems, such as: adverse drug events, hospitalizations, decreased quality of life (Mitsi, Kourakos, Poulimenakou, Latsou, & Sarris, 2018) and increased morbidity and mortality (Pai, et al., 2013)

Objectives

- To conceptualize and apply a procedure that improves patient medication management during transitions of care.
- To increase patient knowledge about drug management.
- To improve the detection and resolution of discrepancies in the therapeutic regimen.

Methods

Project guided by a research/action methodology and supported by the continuous cycle of quality improvement based on a Plan-Do-Check-Act scheme. The convenience sample include all patients with CKD in an HD program from four hemodialysis units in the North of Portugal that experienced a moment of transition of care and therapeutic changes.

Data analysis is descriptive and comparative during the steps of project.

Results

After the implementation of the project, we expect an increase in the level of knowledge about management and therapeutic reconciliation, early detection and resolution of discrepancies, decreased risk of medication-related problems, increased adherence to the medication regimen which is expected to result in greater safety for patients and a significant reduction in adverse events, hospitalizations and re-hospitalizations. These results ultimately aim to improve the health and well-being of chronic kidney patients undergoing treatment, reinforcing the importance of patient-centered care and evidence-based practices.

Conclusion/Application to practice

This project could show us the importance of nursing role to ability this people with theoretical and technical competences to control medication and clinical status.

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Abstract Country

Portugal

Disclosure of Interest

No

232

Improving healthcare systems proficiency with care pathway in chronic kidney disease – scoping review

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Background

Chronic kidney disease (CKD) is a public health problem that affects approximately 850 million people worldwide, constituting a very significant socio-economic burden for Health Systems (KDIGO 2024). The care pathway in CKD is an organizational model of structured and complex care that involves all health sectors across the board. It includes a set of steps from early diagnosis in risk groups to control of CKD symptoms, replacement therapy of renal function and monitoring of quality of life indicators. Its implementation allows improving clinical results and optimizing health systems.

Objectives

The objective of this study is to conduct a systematic review of the available literature on the implementation of care pathways in CKD, highlighting their relationship with the proficiency of health systems, with an emphasis on patient-reported outcomes (PROMS), health gains and quality of life.

Methods

A systematic review of the literature was conducted and included studies that address the integration of care pathways in CKD care, focusing on quality of life metrics and the impact of the application of PROMS on clinical management and health system performance. The review covered sources of scientific literature indexed in databases such as PubMed, Scopus and Web of Science using the PRISMA guidelines and MeSH descriptors: chronic kidney disease, health gains, quality of life, PROMS.

Results

The results indicate that the implementation of care pathways can contribute to better management of CKD, promoting health gains, namely in the patient's perception of their quality of life. The application of PROMS allows a more patient-centered approach and identifies areas for improvement in clinical indicators, with a focus on resource efficiency and the quality of care provided.

Conclusion/Application to practice

The integration of care pathways in the management of CKD is a very effective tool with clear clinical and functional results for people with CKD. Its implementation allows early detection and reduction of the rate of progression of CKD, promotes therapeutic adherence and improves the perception of quality of life of people with CKD.

References

NA

Abstract Country

Portugal

Disclosure of Interest

Yes

234

Evaluation of the Lifespan and Determinants of Vascular Access in Hemodialysis Patients

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Background

Vascular access is a crucial component of hemodialysis, directly affecting treatment outcomes and patient survival. Its durability depends on multiple factors, including patient demographics, ESRD causes, access type, and placement site. Understanding these factors is key to improving vascular access management and reducing complications

Objectives

This study aims to assess vascular access lifespan, identify common complications, evaluate the role of healthcare providers in access maintenance, and examine the impact of early diagnosis and timely interventions

Methods

A cross-sectional study was conducted in multiple hemodialysis centers in Tripoli, Libya, targeting 700 patients. Data were collected through an online questionnaire covering vascular access type, duration, complications, and medical interventions

Results

The Preliminary findings reveal significant variations in vascular access durability based on type, Common complications include thrombosis, infection, stenosis, and mispuncture, which leading to access replacement, The study highlights the crucial role of healthcare providers in monitoring, early detection, and timely intervention to prevent access failure

Conclusion/Application to practice

Optimizing vascular access management requires a multidisciplinary approach involving patient education, proactive healthcare provider involvement, and early intervention strategies, Implementing best practices can minimize complications, prolong access lifespan, and enhance hemodialysis outcomes, and improving patient quality of life

Abstract Country

LIBYA

Disclosure of Interest

Yes

238 Healthcare Team Contributions to the CONVINCe Study: Lessons from NephroCare Bièvres and Villejuif

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Abstract

Background: The multicenter randomized European study (Convince) comparing high-flow online hemodiafiltration to high-flow hemodialysis demonstrated that high-volume hemodiafiltration significantly reduces the risk of all-cause mortality, without impacting cardiovascular mortality. Additionally, HDF improves quality of life scores compared to hemodialysis. **Objectives:** We aim to show for the first time the potential role of nurses in clinical research, to highlight respectively their technical and communication expertise not yet investigated in our Dialysis units. **Methods:** Conducted at NephroCare Villejuif and Bièvres in France, convince study included 26 hemodialysis patients (average age 54), including 19 men and 7 women, all with an arteriovenous fistula (AVF), with 27% diabetics. 14 patients were on HDF with an average convective volume of 25 L/session. The nursing team performed a central role in patient inclusion and follow-up, in coordination with a clinical Research Associate. Their responsibilities included collection of informed consents, coordination of periodic visits, in collaboration with nephrologists. They carry out physical tests according to the study protocol. They reported adverse events. Physical performance tests were carried out at the beginning of the study, and quality of life questionnaires were administered at 3, 6, and 9 months. The nephrologist ensured the updating of data during quarterly visits, including the monthly biological collection, while the clinical research associate ensured the progress of visits and clinical-biological data. **Results:** Convince study showed that high-volume HDF significantly reduces the risk of all-cause mortality. These results underline the importance of strict agreement with medical prescriptions to achieve therapeutic objectives. Convince study contributed to deepening nurses' knowledge of HDF and improving session monitoring with increased team involvement. **Conclusion:** The success of the study highlights the essential participation of trained nursing teams in clinical research, highlighting their new role for enhancing patient support and suggest new opportunities for greater nurse participation in future.

Objectives

The multicenter randomized European Convince study, comparing high-flow online hemodiafiltration to high-flow hemodialysis demonstrated that high-volume hemodiafiltration significantly reduces the risk of all-cause mortality, without impacting cardiovascular mortality. Additionally, HDF improves quality of life scores compared to hemodialysis

Methods

We aim to show for the first time the potential role of nurses in clinical research, to highlight respectively their technical and communication expertise not yet investigated in our Dialysis units

Results

Convince study showed that high-volume HDF significantly reduces the risk of all-cause mortality. These results underline the importance of strict agreement with medical prescriptions to achieve therapeutic objectives. Convince study contributed to deepening nurses' knowledge of HDF and improving session monitoring with increased team involvement.

Conclusion/Application to practice

The success of the study highlights the essential participation of trained nursing teams in clinical research, highlighting their new role for enhancing patient support and suggest new opportunities for greater nurse participation in future.

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Abstract Country

FRANCE

Disclosure of Interest

Yes

239

Evaluating Dialysis Quality and Patient Quality of Life in Home Hemodialysis: NephroCare Bièvres Feedback

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Background

Home hemodialysis is associated with increased autonomy and improved quality of life for patients. Its clinical outcomes are equivalent to, or even better than, those of conventional hemodialysis

Objectives

This study analyzes the correlation between biological indicators of dialysis and the quality of life perceived by patients (PROMS).

Methods

This study was conducted at the NephroCare Bièvres Dialysis unit from February 2022 to December 2024, including 11 patients (mean age 54, 6 men and 5 women). It included standardized SF-36 questionnaire assessing physical constraints, sleep, and pain, as well as monthly biological indicators

Results

All patients had an arteriovenous fistula (AVF). Three patients had diabetes and eight had hypertension. All patients had a home caregiver. Nine patients were active, and ten were on the transplant list. Seven patients were dialyzed six days a week, and four were dialyzed five days a week. The average duration of sessions was 2 hours and 15 minutes. Nine patients used the PureFlow system. The analysis of monthly biological results revealed an average hemoglobin level of 12 g/dl (10-13). Four patients reported sleep disturbances. The main constraints were related to the weight of the home technique and the mental load it created. Two patients experienced episodes of depression, necessitating her return to our unit. One patient maintained one weekly session at the center to alleviate personal constraints. The dialysis program was adjusted for three patients. Psychological support and adaptation of medical prescriptions to individual needs are essential for improving patients' quality of life

Conclusion/Application to practice

Our results show that integrating PROMS into follow-up can enhance patient well-being. A comprehensive approach to managing patients in home hemodialysis, considering quality of life as a key indicator, is fundamental for the success of care

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Abstract Country

France

Disclosure of Interest

Yes

240

Physical exercise and hemodialysis – reality in Portugal

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Background

Patients with chronic kidney disease often experience fatigue and a low capacity to perform activities of daily living due to the burden of symptoms, leading to a decrease in quality of life (1).

Physical exercise is recommended and safe for hemodialysis patients, in different types of training (aerobic, resistance, or combined) (2,3), with individualized prescription and supervised by health professionals (4).

Objectives

To gather and characterize the existing scientific evidence in Portugal on the benefits of physical exercise in hemodialysis patients.

Methods

An integrative review was carried out, with a search in February 2025, in the Portuguese Open Access Scientific Repository, which included studies on physical exercise in hemodialysis patients. Summary information was extracted from each study for critical analysis and presentation of the evidence found.

Results

We analyzed 15 studies published between 2009 and 2022, including 1 case study, 1 multi-case study, and the rest with an intervention group and a control group. The sample size ranged from 1 patient for the case study to 59 for the studies with two groups. Aerobic training was carried out in 11 studies, resistance training in 2, and combined training in the remaining 2. Training was carried out intradialytically in 7 studies, interdialytically in another 7, and mixed in 2. In 14 studies there were improvements in functional/aerobic capacity, 8 improvements in quality of life and 1 reported a reduction in treatment costs.

Conclusion/Application to practice

This review included studies demonstrating the effectiveness of exercise programs in hemodialysis patients, whether through aerobic, resistance, or mixed training, regardless of the training time. Its effectiveness has been demonstrated in variables such as functional capacity and quality of life. Despite being widely recommended, physical exercise is still not a consolidated reality in this population in Portugal.

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Abstract Country

Portugal

Disclosure of Interest

No

241

Functional capacity of hemodialysis patients – 13 years of evolution

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Background

Chronic kidney disease and hemodialysis are factors that affect functional capacity, and physical inactivity, sarcopenia and a sedentary lifestyle are important risk factors for mortality (1,2).

Physical exercise can offer multiple benefits to patients with chronic kidney disease, such as improving aerobic and functional capacity and having a positive impact on quality of life (3,4).

Objectives

To describe the changes in functional capacity over 13 years in the same group of people with chronic kidney disease on hemodialysis.

Methods

Functional capacity was assessed at two different times, spaced 13 years apart, using the 6-meter Timed Up and Go, the 30-second sit to stand test and the handgrip strength test. The data is presented using measures of central tendency and dispersion (compared using the non-parametric Wilcoxon test).

Results

Seven people (4 women and 3 men) with an average age of 55.49±11.98 years in 2012 (average age of 68.49 years in 2025) took part in the two assessments.

The subjects showed statistically significant changes in the results of the tests [2012 data vs. 2025 data] Up and Go (9.66±4.06 vs. 12.03±5.07 seconds), sit to stand (17.33±7.66 vs. 12.15±4.33 repetitions), average right and left hand grip strength (19.12±7.43 vs. 14.72±8.42 Kg/f).

From the analysis of the results, it can be seen that the patients saw a clear reduction in their functional capacity when comparing the two assessment moments.

Conclusion/Application to practice

There was a marked reduction in levels of functionality over the 13 years between the two assessments. The implementation of intervention programs could mitigate the negative effects of biological aging, sedentary lifestyle and the catabolic state resulting from chronic kidney disease and hemodialysis.

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Abstract Country

Portugal

Disclosure of Interest

No

243

Haemodialysis: an interesting story

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Abstract

Since technology runs very fast, optimizing old methods and creating new ones, this paper is a tribute to the early history of the artificial kidney and haemodialysis. This life-saving therapy began as an exploratory attempt to sustain the lives of selected patients in the 1950s.

The replacement of renal function by haemodialysis (HD) demonstrated for the first time that at least the most vital functions of a complex organ could be replaced by a man-made device. The Scottish chemist Thomas Graham (1805-1869), who in 1861 found that colloid and crystalloid substances contained in fluids could be separated by diffusion of crystalloids through vegetable parchment acting as a semipermeable membrane, can properly be called the father of modern dialysis. He coined this phenomenon as „dialysis“. His apparatus to study the behavior of biological fluids through a semipermeable membrane clearly presaged the artificial kidney in clinical use today.

Unaware of Abel's work, Georg Haas was the scientist who--in 1924--was the first to successfully conduct an extracorporeal hemodialysis on a patient in Giessen. Haas began his experiments in 1914 shortly after joining the Medical Clinic of the University of Giessen. Haas's experiments aimed to develop a therapeutic method based on the principle „primum nil nocere“. Neither protocols nor any of the set-ups were preserved from these early experiments. In 1913, John Abel and coworkers reported the first application of the principles of diffusion to remove substances from the blood of living animals.

But it was not until 1945 that Willem Johan Kolff, working under extremely difficult wartime conditions in The Netherlands, achieved the first clinically successful hemodialysis in a human patient.

Methods

Review in the literature

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Abstract Country

Austria

Disclosure of Interest

No

249

Therapy data management system

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Background

Today, despite all the usual daily medical activities in hemodialysis centers, an increasing amount of time is being spent on data management and documenting dialysis treatments. Therapy data management system is a useful solution for automating the data transfer process.

Objectives

The possibility of error during treatment has been minimized. The role of this system includes:

- Recording patient weight before and after treatment
- Preparing and setting up dialysis equipment
- Documenting the treatment process
- Documenting laboratory analyses during the treatment
- Documenting every medication administered during dialysis
- Documenting any changes in dialysis procedures.

Methods

Data transfer is designed to simplify the collection, processing and management of data that medical staff need to know and use during a hemodialysis session. After treatment, all data is sent to the clinical database, where it is stored.

Results

In the vast majority of our company's centers around the world, we have a data transfer system and it is an indispensable and very reliable assistant that medical staff eagerly rely on. When we compare activities in centers with and without a data transfer system, we noticed significant time savings in the following areas:

- Adjusting prescribed prescriptions
- Documenting laboratory analyses, BCM results, materials used, medications, and administrative data
- Fewer errors
- Medical staff has more time to focus on patients

Conclusion/Application to practice

From all of the above, it is clear that the data transfer system is a seamless connection between the world of dialysis and information technology, providing the right tool for healthcare professionals in dialysis centers. With this system, we achieve significant time savings, which can be dedicated to patient education, updating our own and each other's knowledge and skills, and providing better and higher quality patient care.

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Abstract Country

Serbia

Disclosure of Interest

Yes

265

Detecting Chronic Kidney Disease in Seniors

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Background

According to estimates, chronic kidney disease may constitute as much as 13.4% of the population. Among those who require renal replacement therapy, the largest group are people over 65 years old. Early detection of the disease can help extend the time without dialysis, which promotes a good quality of life and reduces treatment costs.

Objectives

Assessment of urine parameters using a rapid screening test and detection of abnormalities requiring observation and/or medical intervention.

Methods

The study was conducted in September 2023 during the Senioriada – senior citizens meeting in Krakow. Diagnostic survey method was applied in the research, using the author's questionnaire. Ten urine parameters were also analyzed using Siemens Healthcare Diagnostics test strips – Siemens Multistix 10.

Results

Seventy-four people were included in this study. Mean age was 68.7 (± 3.9) years. 93.2% were female. Only one senior was under the care of a nephrology clinic.

48.7% of all respondents had regular laboratory tests performed least once a year, among whom the largest group were people with diagnosed hypertension, diabetes, circulatory system diseases and urolithiasis. Every fourth respondent underwent laboratory tests less frequently than once every two years. 54.1% of seniors had their last preventive examinations performed within the last 6 months, but 13.5% (n=10) of respondents didn't remember when they last underwent tests.

Using a urine screening test, deviations from the norm were detected in 39.2% (n=29) of respondents, including those of high intensity: presence of blood – 3, protein – 2, nitrite ions – 2, glucose – 1.

Conclusion/Application to practice

Rapid screening tests are easy to perform, detect a range of abnormalities and can facilitate initial diagnosis in seniors. However, tests require further action, among which raising awareness is the key.

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Abstract Country

Poland

Disclosure of Interest

No

266

The impact of cultural differences on hemodialysis

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Abstract

In the Roma population, the same diseases dominate as in the general population: cardiovascular diseases, diabetes, cancer, and asthma. General demographic data indicate that the Roma are a young population (more than 50% are under 25 years old), but also that mortality is higher in this population. Significant inequalities in mortality, nutrition, and education have been observed. Furthermore, there is still a high level of people in this group without basic education, which is the most significant condition for accepting health education recommendations, thereby influencing behavior changes. In our three dialysis centers in Serbia, out of 320 patients, we have 30 Roma. Their general health status is well-maintained because they are under constant supervision by doctors who care for them. The most extreme example of inequality in our dialysis center involved a female patient who lives in a non-hygienic settlement with her family and has bad habits she cannot break. She comes to dialysis in clean clothes, but her jacket sleeves are often dirty, and we noticed that she has a habit of rummaging through dumpsters. One day, she had very high values of prothrombin time. She was hospitalized, and it was determined that she had eaten food from a dumpster that had come into contact with rat poison. By ingesting this food, she consumed a substance that caused her blood to thin.

The problems faced by the Roma in terms of accessing healthcare services are related to issues of registration, discrimination, lack of information about diseases, and the distance and inaccessibility of healthcare facilities, which result in the Roma being one of the groups with the highest mortality rates. In fact, only one in 100 Roma live to be over 60 years old, and their average life expectancy is around 40 years.

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Abstract Country

Serbia

Disclosure of Interest

Yes

267

Does a uniform procedure contributes to a correct screening of infectious diseases?

Mary Jane Beya

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Abstract

Infections are one of the main reasons of death at our dialysis patients. Screenings play a crucial role in the early detection and reducing the spread of infections. It contributes to the infection prevention and increases the patient safety. The use of uniform and scientific build up procedures helps to increase quality and safety of dialyses patients.

How can a uniform procedure contribute to screening of infectious diseases.

The most frequent infectious diseases are methicillin resistant staphylococcus aureus, carbapenems producing enterobacteria, vancomycin resistant enterococcus, candida auris, HIV, hepatitis B and hepatitis C

Standardization is important is reduces the risk of mistakes, it gives a consistent quality of care, improves the efficiency and lowers the cost. But standardization gives resilience, lack of consensus between caregivers, it requires money, time and staff. The legislation is not the same everywhere, and there is a patient variability.

At our center we have screenings protocols for new patients, patient that come on holiday and patients returning from holiday. Our protocols are functional, but we noticed that they where not always followed correctly. We tried to combine all of them to an in one procedure to enlarge the efficiency.

According to the team, the new procedure was very clear and results in less confusing. The length of the protocol and knowledge of the nursing staff is important to follow a procedure. also, the lack of time, high pressure and formulation of the procedure are marked as reason to not follow this procedure. Therefore, it is important to inform the team on the new procedure, to mark who is responsible for the interpretation of the results and correct isolation procedure. We keep continuing updating and evaluating our procedures.

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Abstract Country

Belgium

Disclosure of Interest

No

268

Nephrology path of coordinated care in primary health care

Anna Kliš^{1,2,3}, Aneta Trzcińska^{1,2,3}¹Medical University of Silesia, Katowice, Poland; ²Polish Nephrology Nurses Association, Gdańsk, Poland; ³Polish Nurses Association, Warszawa, Poland

Background

The prognosis for chronic kidney disease is getting worse, both in terms of incidence and risk of death. Therefore, national and local government institutions and associations are undertaking various initiatives, which aim to detect, but also to provide comprehensive care for patients with kidney diseases, and above all to increase awareness. The most famous include the initiative to organize events on the occasion of World Kidney Day, screening tests, the establishment of a parliamentary nephrology team or the approval of new drugs for the prevention of kidney diseases. Undoubtedly, the biggest change in the systemic approach to kidney diseases was the introduction of the nephrology path of coordinated care (NPCC) in primary health care.

The aim of the NPCC is to improve care for patients with kidney diseases and individualize therapy.

Methods

Introduction in 2023 in the Polish healthcare system of a nephrological care path coordinated within primary healthcare: from diagnostics in order to make a diagnosis, through specialist diagnostics allowing monitoring of the patient's treatment, and above all, establishing a treatment plan and conducting pharmacotherapy, education and, if necessary, dietary and other specialists consultations. All this is to lead the patient to improve their health.

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.

Conclusion

The process of implementing coordinated care is ongoing and focuses on a long-term and preventive approach. Unfortunately, only a few clinics have undertaken this task. Therefore, it is necessary to create tools that will facilitate the implementation of coordinated care. The Polish Nephrology Nurses Association is participating in one of the projects.

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RAPORT Z BADANIA ANKIETOWEGO OPIEKA KOORDYNOWANA W POZ. Raport opracowany w ramach projektu Fundacji My Pacjenci
Wytyczne konsultantów krajowych dot. PChN w opiece koordynowanej w POZ – 19/07/2024

Abstract Country

Poland

Disclosure of Interest

No

269

A retrospective audit of haemodialysis central line infections rates in an Irish Unit.

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Background

Central venous catheters (CVC) account for a considerable portion of haemodialysis access. The arterio-venous fistula (AVF) is deemed the preferred route of access (1). Central venous catheters traditionally have higher infection rates, increased thrombosis risk and higher mortality rates. However, there is a developing awareness that AVF's may not be the best option for everyone, especially the very elderly. If more lines are being used, infection rates must be kept as low as possible.

Objectives

The objective was to review incidence of CVC line infection rates in the previous five years, to see if improvements could be made. The literature reports CVC infection rates from 1.1 to 5.5 per 1000 haemodialysis catheter days (3). The Unit already undertakes most of the standards for preventing CVC infections (1,3).

Methods

The study reviews the incidence of catheter infections on an Irish Unit between 01 January 2020-31st December 2024. The standard CVC infection rate tool was used-

Number of infection/number of catheter days x 1000 (4)

The blood stream infections are recorded on a sheet, these are updated monthly and patient notes reviewed for source of infections.

The total number of CVC's and AVF's are recorded weekly on a denominator sheet.

If there was a query over cause it was included as a line related infection. Only positive cultures attributed to haemodialysis CVC's were included.

Results

During the first year of Covid the rates were 0 for the first 6 months of the year. The Unit's line infection rates were below 1 per 1000 catheter days for 17 of the 20 quarters reviewed. Yearly rate from 0.16-0.71 infections per 1000 catheter days.

Conclusion/Application to practice

Ideally the CVC infection rate would be 0, as AVF infections are rare on the unit. The review shows that in 35 months out of 60 the infection rate is 0. Good unit practices are contributing to low infection rates as per guidelines (1), this provides some reassurance for when AVF is not an option.

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Abstract Country

Ireland

Disclosure of Interest

No

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Hemodiyaliz Hastalarında Renk Terapisinin Depresyon, Stres, Anksiyete ve Yaşam Kalitesi Üzerine Etkisi

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Abstract

Rastgele Kontrollü Bir Çalışma

Background

Many patients on hemodialysis treatment require hemodialysis, which requires hospitalization three times a week for four hours each dialysis session. Therefore, practices such as color therapy may be useful in the management of psychological symptoms in these patients.

Objectives

This study was conducted to examine the effect of color therapy on depression, stress, anxiety and quality of life in hemodialysis patients.

Methods

The research was conducted as a randomized experimental study with pre-test and post-test control group. The population of the study consisted of dialysis patients receiving treatment in the Hemodialysis Unit of Firat University Hospital between April 2024 and February 2025, while the sample consisted of a total of 60 hemodialysis patients, 30 experimental and 30 control, randomly selected from the defined population, who approved to participate in the study and met the research criteria. In the experimental group, color therapy was applied 3 days a week for the first two weeks, while no intervention was performed in the third and fourth weeks. In the fifth and seventh weeks, color therapy was applied for 15 minutes each day, while no intervention was performed in the sixth week. In the eighth week, no intervention was made, only the data form was filled. Patients in the control group did not receive any intervention during the study.

Results

In the study, it was found that the mean scores of depression, stress and anxiety of the patients in the experimental group decreased statistically significantly after the application compared to the patients in the control group ($p<0.05$). In addition, it was determined that the mean scores of the patients in the experimental group increased statistically significantly after the application compared to the control group ($p<0.05$).

Conclusion/Application to practice

In conclusion, color therapy was found to decrease depression, stress and anxiety levels and improve quality of life in patients receiving hemodialysis treatment. Color therapy can be recommended as a complementary nursing intervention in hemodialysis patients.

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