Conference Theme
Global Approach to Renal Care Innovation – Balancing Compassion and Health Technologies

Abstract Book
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ACKNOWLEDGEMENTS – CORPORATE MEMBERS

It is of utmost importance for our Association to acknowledge the Support we get from our Industry Partners and the successful Collaboration we have. The EDTNA/ERCA Collaboration Programme allows both our Industry Partners as well as our Association to identify the gap of Education and Knowledge for certain topics. Topics which EDTNA/ERCA would like to focus on. Develop Educational Material to achieve the Best Standards of Education and Research for all renal care professionals Caring and Supporting for the benefit of their Patients and Families around the world!

Our Partners’ support, involvement and advice are greatly appreciated. Together we live and act according to our Mission and Vision and we are continuously working on achieving a high level of quality care for patients and their families. Being a Corporate Member sharing the key values, visions and missions of EDTNA/ERCA means that you are a very important part of the EDTNA/ERCA Community.
ACKNOWLEDGEMENTS – CONFERENCE SUPPORT

We would like to express our appreciation for the valuable support our Industry Partner brings by participating at the 47th EDTNA/ERCA International Conference. Partners’ support, involvement and advice are greatly appreciated, and the success would not be possible without the fantastic collaboration we have. Thank You very much!

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FOREWORD

Dear Colleagues,

In the behalf of the Scientific Programme Committee (SPC) it is a great honour to welcome you all to the 47th EDTNA/ERCA International Conference in Genova, Italy 2018, and to present to you with the Conference Abstract Book.

In accordance with the conference theme, “Global Approach to Renal Care Innovation – Balancing Compassion and Health Care Technologies”, we have developed a Scientific Programme (SP) offering a significant and valuable contribution to renal care focusing on best research and innovations in practice but still being deeply rooted into nursing and it’s core values. We have altered the format of the Scientific Programme as the Poster Presentation on stage is now changed back to Short Orals as requested by a number of delegates.

In total there were 277 abstracts submitted and blind reviewed, of which 57 were accepted for oral presentation, 48 for short oral presentation and 157 for E-poster presentation. As you probably noticed, we significatly increased the number of oral presentations by reducing the number of guest speakers and giving more opportunities to our members. Talking about the guest speakers, there are four of them, coming from both clinical and educational backgrounds: dr. Gianluca Catania from Italy, prof. Nicola Thomas from United Kingdom, Mrs. Magda Von Loon from Holland and Mrs. Elaine Bowes from United Kingdom.

Lunchtime sessions & workshops include: The Dialysis Outcomes and Practice Patterns Study (DOPPS) Programme; Greek Forum (Session in Greek language), Workshop - Developing your renal research project by Dr. Helen Noble; Workshop - Oral Care – How to support patients with CKD with Dr. Navdeep Kumar (United Kingdom) & Mrs. Tai Mooi Ho Wong (Spain), Workshop – Ultrasound of Vascular Access – Theoretical Presentation by Mr. Ruben Iglesias, Round Table Discussion by B. Braun – Exploring Nutrition Support Practices in Haemodialysis Unit, Round Table Discussion by NxStage – A Guide to Implement Home HD – Meet the Authors and Translators, Workshop by Innovative Health Technologies – Dialysis Catheter Care – Results from a Theoretical Analysis, Workshop – The Leadership Challenge...Are YOU up for it!by Dr. John Sedgewick and dr. Helen Noble, Workshop – Peritoneal Dialysis – Exit site care dressing best practice by Mrs. Maria Arminda Tavares and Mrs. Aase Riemann, Anaemia Workshop by Mrs. Manning, Mrs. Bennett and Mrs. Jenkins, Workshop – How do we Study? By Mrs. Jeanette Findrup, Workshop – A Guide for Nurses in their day to day communication with patients by Mr. Kelly and Mrs. Fortnum, Round Table Discussion about the cannulation devices by MEDTRONIC and CES by Fresenius Medical Care “Creating a culture for leadership”

Corporate Education Session has been organized by Fresenius Medical Care and Round Table sessions organised by NxStage, B. Braun, IHT and Medtronic.

The international Council of Nurses has agreed accreditation of the Conference and awarded the 47th EDTNA/ERCA Conference Scientific Programme with 18 European CME 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 who with their effort, time and enthusiasm make the Conference a success; to Industry partners for supporting education sessions and the exhibition, and the Conference Department for their professional collaboration.

Conferences such as this provide a valuable opportunity for research scientists, industry specialists and decision-makers to share experiences. I am grateful to the many experts who have come to share their knowledge during these four days.

I am sure you will have fruitful and rewarding exchanges in the next few days. I wish you every success with this important conference and I look forward to learning about the outcome.

Berislav Poje
Scientific Programme Committee Chair

www.edtnaerca.org
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#### Executive Committee

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<th>Name</th>
<th>Position</th>
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<tbody>
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#### Publications

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<tr>
<th>Name</th>
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<tr>
<td>Maria Cruz Casal</td>
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#### Conference Scientific Programme Committee

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<tr>
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<tr>
<td>Berislav Poje</td>
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<td>Member</td>
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<td>Member</td>
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#### Conference, Marketing, Exhibition & Sponsorship, Industry Relations, Secretariat

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<tr>
<td>Anki Davidson</td>
<td>Marketing Director</td>
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#### Finance Support Services

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<tr>
<td>Alois Gorke</td>
<td>Finance Coordinator</td>
<td><a href="mailto:alois.gorke@edtnaerca.org">alois.gorke@edtnaerca.org</a></td>
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<td>CKD Prevention &amp; Delay</td>
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<td>Karen Jenkins</td>
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<td>Education</td>
<td>John Sedgewick</td>
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<td>Ethical, Psychological and Social Impact of Renal Disease</td>
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<td>Risk management &amp; Quality Improvement</td>
<td>Jitka Pancirova</td>
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## INVITED SPEAKERS

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<td>Germany</td>
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<tr>
<td>Martin Meier, B. Braun</td>
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<td>Kalliopi-Anna Poulia, EDTNA/ERCA</td>
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<td>Siobhan Gladding, Nxstage Medical</td>
<td>United Kingdom</td>
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<td>Michel Roden, EDTNA/ERCA</td>
<td>Belgium</td>
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<td>Ruben Iglesias, EDTNA/ERCA</td>
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<tr>
<td>Sebastien Bollue, Redsense Medical</td>
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<tr>
<td>Tai Mooi Ho Wong, EDTNA/ERCA</td>
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<tr>
<td>Andrew Cox, Medtronic</td>
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<tr>
<td>Ilaria de Barbieri, EDTNA/ERCA</td>
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<tr>
<td>Gianluca Catania</td>
<td>Italy</td>
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**Guest speaker - Closing Ceremony**

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<tr>
<td>Gill Manning</td>
<td>United Kingdom</td>
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<td>Rosa Marticorena</td>
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<td>Vicki Smith</td>
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<td>Enrico Fiaccadori</td>
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<td>Jennie King</td>
<td>United Kingdom</td>
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<td>Solene Laville</td>
<td>France</td>
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<td>W 07; W 10</td>
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<td>Konstantinos Mavromatidis</td>
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<td>Nicola Pacy</td>
<td>United Kingdom</td>
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<td>Susan Rogers (The Netherlands)</td>
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<td>John Sedgewick (Saudi Arabia)</td>
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<td>Marjelka Trkulja (Germany)</td>
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<tr>
<td>Lesley Bennett (United Kingdom)</td>
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<td>Ruben Iglesias (Spain)</td>
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<td>Aase Riemann (The Netherlands)</td>
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<td>John Sedgewick (Saudi Arabia)</td>
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<td>Maria Arminda Tavares (Portugal)</td>
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SCIENTIFIC PROGRAMME HIGHLIGHTS

Scientific Parallel Sessions
Invited Guest Speakers discuss the latest developments in renal care during the plenary sessions. Quality Abstracts including the Short orals presentations has been selected for inclusion in the parallel sessions.

S 02  Opening Ceremony
Palliative care perspective on patients with end-stage renal disease
Dr. Gianluca Catania (Italy)

S 13  Vascular Access
The organization of vascular access care
Mrs. Magda van Loon (The Netherlands)

S 20  CKD prevention and delay
Innovative person-centered care for people with chronic kidney disease
Prof. Nicola Thomas (United Kingdom)

S 21  Peritoneal Dialysis
Nurse Inserted PD access: one units experience 9 years on
Mrs. Elaine Bowes (United Kingdom)

S 23  Closing Ceremony
Patient and public involvement in quality improvement and research
Prof. Nicola Thomas (United Kingdom)

LUNCH TIME SYMPOSIA

S 07  DOPPS Symposium
Update from the DOPPS Program: Improving care, outcomes, and the patient experience
DOPPS: Key hemodialysis practice changes and their impact
Dr. Loreto Gesualdo (Italy)

PDOPPS: New insights into optimal PD practice
Mrs. Jennie King (United Kingdom)

CKDopps: Opportunities to improve care now for patients with advanced CKD
Ms. Solene Laville, PharmD. (France)

Empowering patients: Understanding and improving patientprovider connections
Mrs. Marisa Pegoraro (Italy)

S 08  Greek Forum
Ion kinetic during the dialysis session
Mr. Konstantinos Mavromatidis, MD (Greece)

Acute complications during hemodialysis session
Mrs. Hellen Rapti (Greece)

WORKSHOPS & ROUND TABLE SESSIONS

W 01A/W 01B Workshop
Ultrasound of Vascular Access – Theoretical presentation
Mr. Ruben Iglesias (Spain)
W 02  Workshop
The Leadership Challenge... Are YOU up for it!
Dr. John Sedgewick (Saudi Arabia)
Dr. Helen Noble (United Kingdom)

W 03  Round Table Discussion – B. Braun
Exploring Nutrition Support Practices in Haemodialysis Units
Dr. Enrico Fiaccadori, MD, PhD (Italy)
Dr. Kalliopi-Anna Poulia (Greece)
Mrs. Susan Rogers (The Netherlands)

W 04  Workshop
Developing your Renal Research Project
Dr. Helen Noble (United Kingdom)

W 05  Round Table Discussion – NxStage
A Guide to Implement Home Haemodialysis – Meet the Authors & Translators
Mrs. Nicola Pacy (United Kingdom)
Ms. Carol Rhodes (United Kingdom)
Mr. Michel Roden (Belgium)

W 06  Workshop
Oral Care – How to support Patients with CKD
Dr. Navdeep Kumar (United Kingdom)
Mrs. Tai Mooi Ho Wong (Spain)

W 07  Workshop – Part I – Theoretical – IHT
Dialysis Catheter Care – Results from a Theoretical analysis
Mrs. Sonja Pečolar (Slovenia)
Mrs. Anna Lepkowska (Poland)

W 08  Workshop
Peritoneal dialysis – exit-site care dressing best practices
Mrs. Maria Arminda Tavares, MSc. (Portugal)
Mrs. Aase Riemann (The Netherlands)

W 09  Workshop
Anaemia Workshop
Mrs. Gill Manning, BSc (Hons) (United Kingdom)
Mrs. Lesley Bennett (United Kingdom)
Mrs. Karen Jenkins (United Kingdom)

W 10  Workshop – Part II – Practical – IHT
Dialysis Access site care – A country based approach
Mrs. Sonja Pečolar (Slovenia)
Mrs. Anna Lepkowska (Poland)

W 11  Workshop
How to do a case study?
Mrs. Jeanette Finderup (Denmark)

W 12  Workshop
A guide for Nurses in their day to day communication with patients
Dr. Mike Kelly (Ireland)
Mrs. Debbie Fortnum (Australia)
S 09 Round Table Discussion – Medtronic

Plastic Cannulae vs Metal Needles: Is metal needle the right cannulation device for every patient?
Mrs. Vicki Smith (Australia)

Clinical and economical considerations that drive the cost of cannulation using metal needles vs plastic cannulae
Mrs. Rosa Marticorena, BSc (Canada)

CORPORATE EDUCATION SESSION

S 03 Corporate Education Session – Fresenius Medical Care
Creating a culture for leadership – Making the difference in dialysis care
Dr. John Sedgewick (Saudi Arabia)
Mr. Ben Brierley (United Kingdom)
Mr. Alessandro Pizzo (Italy)
Ms. Marjelka Trkulja (Germany)
Mrs. Maria Teresa Parisotto (Germany)
## SCIENTIFIC PROGRAMME

### SATURDAY, SEPTEMBER 15, 2018

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### SUNDAY, SEPTEMBER 16, 2018

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ABSTRACTS
SATURDAY, SEPTEMBER 15, 2018
S 01  Plenary Session
Maestrale, 16:00-17:45
Abstracts for this session are not available

Global Approach to Renal Care Innovation – Balancing Compassion and Health Technologies – What, Why & How
Maria Teresa Parisotto, EDTNA/ERCA (Germany)

Martin Meier, B. Braun (Germany)
Kalliopi-Anna Pouli, EDTNA/ERCA (Greece)

The Home Haemodialysis Guide – One year of Experience – A joint project between EDTNA/ERCA & NxStage Medical
Siobhan Gladding, NxStage Medical (United Kingdom)
Michel Roden, EDTNA/ERCA (Belgium)

The Vascular Access Booklet Trilogy Completed: When, Why and How to use a Central Venous Catheter
Maria Teresa Parisotto, Fresenius Medical Care (Germany)

Handbook in Ultrasound for Vascular Access Examination – From the Specialist to the Nurse
Ruben Iglesias, EDTNA/ERCA (Spain)

How do we Minimize the Risk of Venous Needle Dislodgement? A joint project between EDTNA/ERCA & Redsense Medical.
Sebastien Bollue, Redsense Medical (Sweden)
Tai Mooi Ho Wong, EDTNA/ERCA (Spain)

Nurses Perspective on Cannulation device – Results of an International Survey – A joint project between EDTNA/ERCA & Medtronic
Andrew Cox, Medtronic (United Kingdom)
Ilaria de Barbieri, EDTNA/ERCA (Italy)
Palliative care perspective on patients with end-stage renal disease
Gianluca Catania (Italy)

Abstract is not available
SUNDAY, SEPTEMBER 16, 2018
S 03 Corporate Education Session - Fresenius Medical Care
Creating a culture for leadership – Making the difference in dialysis care
Maestrale, 9:00-10:30

Abstracts for this session are not available.

Creating a culture for leadership – Making the difference in dialysis care

Session Programme:
Uncovering the power of extra-ordinary nursing leadership
John Sedgewick (Saudi Arabia)

Making the difference – Leading the dialysis care team
Ben Brierley (United Kingdom)

Lead to manage – Inspiring nurses to improve the quality of care
Alessandro Pizzo (Italy)

Voicing expectations – Defining tomorrow’s leadership in dialysis
Marjelka Trkulja (Germany)

How can a leader support nurses in facing key challenges?
Panel Discussion with all speakers
& Maria Teresa Parisotto (Germany)
Can Nursing procedures have an influence on improving anaemia control?

M. T. Parisotto¹, C. Miriunis¹, F. Pelliccia²
¹Care Value Management, Fresenius Medical Care, Bad Homburg, Germany; ²Freelance, Naples, Italy

Background
Most patients who require haemodialysis have a variety of serious health problems. One of them anaemia, a common complication of both renal failure and haemodialysis. Failing kidneys reduce their production of erythropoietin which stimulates the formation of red blood cells. The haemodialysis procedure itself leads to a loss of 300 to 600 grams of haemoglobin (Hb) per year due to blood retention in the dialysis lines and filters (extracorporeal blood circuit).

Objectives
To maintain an adequate level of haemoglobin and a high quality of care by optimising the blood reinfusion at the end of treatment.

Methods
840 haemodialysis patients were recruited and followed up from December 2011 to September 2013. Data related to haemoglobin level, erythropoiesis stimulating agents (ESA) consumption were collected to compare the results before and after the blood reinfusion optimization procedure.

Results
The restitution volume increased from 284.86 ± 25.77 mL in December 2011 to 318.62 ± 48.40 mL in December 2012 reaching 323.91 ± 51.14 mL in September 2013.
At baseline (Dec 2011), with ESA and iron doses of 1.87 ± 1.87 mcg/Kg/month, 2.21 ± 2.42 mg/Kg/month respectively, the haemoglobin level was 11.25 ± 1.24 g/dL. While in December 2012, with ESA and iron doses of 1.21 ± 1.31 mcg/Kg/month and 3.18 ± 2.17 mg/Kg/month respectively, the haemoglobin level was 11.34 ± 1.22 g/dL vs September 2013 (ESA and Iron doses of 1.39 ± 1.43 mcg/Kg/month and 1.98 ± 2.13 mg/Kg/month respectively) the haemoglobin level was 11.22 ± 1.18 g/dL (p=0.57 NS).

Conclusion/Application to practice
The analysis demonstrated that by performing a proper reinfusion procedure it is possible to reduce the quantity of residual blood in the extracorporeal circuit, thereby reducing anaemia risks (and the related consumption of ESA) and increasing safety, while optimising costs.

Disclosure of Interest
no
Factors influencing haemodialysis patients’ body balance

H. Oliveira, L. Amado, V. Miranda, P. Martins, J. Fazendeiro Matos, M. T. Parisotto

1NephroCare Maia, Fresenius Medical Care, Maia, Portugal; 2NephroCare Portugal, Fresenius Medical Care, Lisboa, Portugal; 3NephroCare Portugal, Fresenius Medical Care, Porto, Portugal; 4Care Value Management, Fresenius Medical Care, Bad Homburg, Germany

Background
Many studies show that haemodialysis (HD) patients have an increased fall risk. The individual fall risk is determined by both intrinsic and extrinsic factors. One of the intrinsic factors is the body balance (BB).

Objectives
To evaluate the influence of age, body composition (BC), blood pressure, and diabetes mellitus (DM) on BB of HD patients

Methods
BB was evaluated using Single Leg Stance (SLS) test before-and-after the HD session (second of the week), BC (Lean Tissue Index-LTI; Fat Tissue Index-FTI) was obtained by bio-impedance spectroscopy. Before the HD session, the diastolic blood pressure (DBP) was measured. Correlation between factors was analysed by SPSS.

Results
75 patients, 53% were male, mean age 66.72±13.75 years; HD vintage was 63.78±69.01 months and 32% were diabetics.

Age and performance in SLS had a statistically significant relation before-and-after the HD session (p<0.001, r=-0.46 and p<0.001, r=-0.45, respectively).

The relation between LTI and the performance in SLS test was statistically significant before-and-after HD (p<0.001, r=0.42 and p<0.001, r=0.45, respectively). The inverse relation happens with FTI and BB before-and-after HD (p<0.001, r=-0.48 and p<0.001, r=-0.46).

Pre-dialysis DBP influenced the performance in SLS before-and-after HD (p=0.001, r=0.39 and p=0.001, r=0.37, respectively). The same applied for DBP measured after HD (p=0.001, r=0.40 and p=0.003, r=0.34).

Diabetic patients demonstrated worse results in SLS before-and-after HD (4.89±8.80 versus 13.38±14.83; p=0.010 and 2.70±8.60 versus 13.90±16.43; p<0.001, respectively) as compared to non-diabetic patients.

Conclusion/Application to practice
There was a correlation between age, BC, DBP and DM and BB in HD patients. Strategies to improve lean muscle and DBP pressure must be implemented as well as strategies to prevent falls, especially in elderly, diabetic, hypotensive, and impaired LTI patients. Further studies are required to evaluate the efficiency of these strategies on BB and fall incidence.

Disclosure of Interest
no
Optimization of ultrapure water consumption in the context of Green Hemodialysis

J. Sanchez Jimenez¹, F. J. Lopez Sanchez¹, M. A. Pinedo Olabarria¹, S. Hillebrand Ortega¹, X. Perez Saenz Azkunaga¹
¹Nephrocare Dialysis Center Bilbao-Fresenius Medical Care, Bilbao, Spain

Background
The primary outcome was to evaluate the effects of optimization of the ultrapure water use on clearance adequacy in patients on OLHDF-High-flux dialysis treatment.

Objectives
A quasi-experimental single-centre longitudinal retrospective study conducted between November 2016 and October 2017. Sixty-two hemodialysis patients were included.

Methods
The following dialytic parameters were kept constant in all sessions studied: dialysis time; dialyzer and Cordiax 5008TS.

The initial default setting recommended by the monitor for AutoFlow Qd/Qb ratio was 1.2: this recommendation has been changed to 1.0 if Qb is equal to or greater than 400 mL/min, or 1.2 if Qb is less than 400mL/min. After two hours of hemodialysis session: 1) Post-dilution OL-HDF (Qb > 400 ml/min): if convective volume is greater than 28 L, we decrease Qb to 400 ml/min. If Kt/V is greater than 1.8, we stop Qd autoflow system and decrease Qd to 400 ml/min.

2) High-flux dialysis (Qb > 400 ml/min): If Kt/V is greater than 1.8, we stop Qd autoflow system and decrease Qd to 400 ml/min.

3) Post-dilution OL-HDF// High-flux dialysis (Qb = or < 400 ml/min): If Kt/V is greater than 1.8, we stop Qd autoflow system and decrease Qd to 400 ml/min.

The Student’s t-test was used for paired data (A P-value < 0.05 was considered statistically significant). SPSS v20.0

Results
A decrease in dialysate volume per session was observed: from 137.8 ± 12.01 L to 123.35 ± 9.1 L (P < 0.05).

There were no differences in dialysis time, convective volume (>23L) and Kt/V (> 1.4) between the two periods of study.

Conclusion/Application to practice
This intradialysis procedure allows us to optimize ultrapure water consumption without negative effects on clearance adequacy in patients on OLHDF-High-flux dialysis treatment. It seems as an excellent way to maintain the sustainability and quality in hemodialysis.

Disclosure of Interest
no
Implementation of a frailty tool for patients with end stage renal disease in a dialysis unit

M. Rolea

Dialysis, B Braun Wellstone Clinic, Galway, Ireland

Background
Frailty in patients with ESRD is associated with many clinical manifestations such as weight loss, low physical activity, muscle weakness, fatigue, decreased mobility with risk of falls, cardiovascular issues, mineral bone disorders, anaemia, diabetes, obesity, loss of kidney function and poor mental state. Frailty implies decreased body energy and protein reserves and reduced strength. Causes include inadequate protein intake, loss of essential nutrients and electrolytes during dialysis, acidosis, catabolic stress from dialysis itself, low levels of resistance to anabolic hormones such as insulin, increased levels of catabolic hormones such as PTH and blood loss/haemolytic anaemia. ESRD accelerates the aging process of cells and damages the organs themselves due to uremic toxins, inflammation and oxidative stress.

Objectives
The main objective for using this tool is to reduce adverse outcomes, to improve quality of health and reduce hospital admission for patients who have ESRD.

Methods
The frailty assessment tool was implemented specifically for our dialysis unit. ESRD patients are most vulnerable and early intervention is vital. Patients will be assessed every 3 months or earlier depending on circumstances. There are various tools available such as the Prism questionnaire, Clinical frailty scale or Edmonton frailty scale.

Results
The work is ongoing over 6 months.

Conclusion/Application to practice
Frailty is more than just slowing down. When a person is frail they have trouble doing everyday tasks such as shopping, dressing, going to bathroom. They may feel weak and off balance and fear falling. Applying the tool in clinic has helped us improve the quality of health and overall wellbeing of the patients.

Disclosure of Interest
No
The effect of hemodialysis patients education program on fluid control and dietary compliance

E. Başer¹, M. Mollaoglu¹

¹Nursing Department, Cumhuriyet University, Sivas, Turkey

Background
Patient education is one of the basic stones in the hemodialysis patients in compliance with fluid and diet.

Objectives
Purpose of the study is to examine the effect of the education program given to hemodialysis patients on fluid control and dietary compliance.

Methods
The research was carried out on 78 persons, 38 of which were Intervention Group (IG) and 40 Control Group (CG). Data were collected using the Patient Presentation Form, Dialysis Diet and Fluid Non-adherence Questionnaire (DDFQ) and Hemodialysis Patients Fluid Control Scale (HPFCS). Individuals in IG were given the "Nutrition Education Booklet in Dialysis Patients". Educations for the patients in the IG were repeated for 4 months in the form of 1., 2., 3. and 4. interviews and scales were applied. A total of two interviews were conducted within the CG as the first interview and the second interview after the two months, and scales were applied.

Results
The interdialytic weight, UF amount, blood pressure values before and after dialysis were decreased in IG. It was found to have a statistically significant decrease (p<0.05) in the frequency of diet nonadherence, the degree of diet nonadherence, frequency of fluid nonadherence and the degree of diet nonadherence in favor of the IG. There was a statistically significant increase (p <0.05) in the HPFCS subscale and total scores of the CG of the patients in the study group after the given training sessions.

Conclusion/Application to practice
As a result, the education program for hemodialysis patients has been positively impacting patients' dietary and fluid restriction. Patients' compliance with dietary and fluid restriction has increased. In the line with these results, it is suggested to arrange the continuing education programs and counseling to determine the factors affecting the compliance of the hemodialysis patients with care and to eliminate negative factors.

Disclosure of Interest
no
Neurological disorders as a complication of haemodialysis

G. Novaković

Department of Nephrology and Dialysis, University Hospital Center „Sestre Milosrdnice“, Zagreb, Croatia

Background
Treatment with Hemodialysis may lead to significant hemodynamic imbalances in the body. Long term treatment may cause a range of acute and chronic complications that often have neurological manifestations like headaches, sleep disorders, reduction of cognitive function, polyneuropathy and myopathy.

Objectives
This research aims to determine the presence of neurological disorders in patients treated with hemodialysis, define the most common ones, and to investigate if these neurological disorders are more pronounced during the process of hemodialysis.

Methods
The study includes 66 patients in the chronic hemodialysis treatment program at the Department of Nephrology and Dialysis, UHC "Sestre milosrdnice". The method used is a questionnaire drawn up by the researchers, to be completed independently or with the help of interviewers if the respondent needs help. The questionnaire consists of 14 multiple choice questions.

Results
The results show that 26 subjects (39.4%) complain of headaches, with 88.4% expressing this after dialysis and with statistical significance ($X^2=5.569, p<0.05$) in patients with central venous catheters and those with neurological disorders (CVI, ACI) ($X^2=4.723, p<0.05$). Sleep disorders are present in 27 patients (40.9%), and a statistically significant difference ($t = 2.184, p <0.05$) was present in patients with higher initial urea concentration. "Restless legs" was a problem for 24 patients (36.4%), out of which 20.8% have more pronounced "restless leg" during hemodialysis and is found more often in patients with diabetes ($X^2=4.737, p<0.05$).

Conclusion/Application to practice
Headaches and sleep disorders are significantly present and are associated with higher levels of glucose and urea. "Restless legs" and polyneuropathy problems are more prevalent in patients with diabetes on hemodialysis. The results indicate that the neurological disorders are most common among respondents with diabetes on hemodialysis, meaning that they need increased health care through an individual approach.

Disclosure of Interest
no
The malnutrition pilot project: Improving the nutritional status of haemodialysis patients

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H. T. Nutrition Team UZ Brusel¹

¹Hemodialysis, Nephrology Department UZ Brussel Hospital, Brussel, Belgium; ²Nutrition Department, UZ Brussel Hospital, Brussel, Belgium

Background
Due to the impact of chronic kidney disease on their body and intensive renal replacement treatments, the haemodialysis patients have a precarious equilibrium. The nutritional status has a major impact on their general well-being and quality of life. Haemodialysis patients must adhere to a strict low potassium, sodium and phosphorus diet combined with a fluid restriction. In addition diabetics need to follow a diabetic diet. Due to this numerous rules, it is hard to comply with the prescribed diet and many haemodialysis patients are at high risk of malnutrition.

Objectives
This pilot study aims to decrease the number of malnourished patients and improve the long-term nutritional status of haemodialysis patients.

Methods
A prospective study with repeated measurements was conducted on a haemodialysis unit in Brussels. Baseline nutritional status is compared to intervention outcome status, after a 4-month period of structured nutrition counselling.

The nutritional status of the whole chronic haemodialysis population was listed. Patients at risk of malnutrition were invited to join the project.

Baseline nutritional status was determined using a self-developed screening tool. Patients at risk for malnutrition received 4 consecutive monthly nutrition consultations at the dialysis unit, from dieticians with nephrological expertise. After the intervention period of 4 months, the nutrition status of all patients was re-evaluated using the initial tool.

Results
At baseline, 35 patients (28%) were at risk for malnutrition; 10 patients participated in the nutrition project. After 5 months, there is a decreasing trend in the number of patients at risk for malnutrition. Final results will be available in May 2018.

Conclusion/Application to practice
A short nutrition counselling period of 4 months already shows an improvement in the nutrition status of chronic haemodialysis patients. There is a rationale for future expansion of this project with longitudinal counselling and counselling from the start of dialysis.

Disclosure of Interest
no
Nutritional support practices and barriers for renal nurses – results from a worldwide survey

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Background
Protein – energy wasting (PEW) is a common problem in patients with chronic kidney disease (CKD). Provision of adequate and individualized nutritional support is proven to improve the nutritional status of these patients and thus minimize the sequel of malnutrition.

Objectives
The aim of the present survey was the evaluation of nutritional support practices applied by renal care professionals.

Methods
Online questionnaires were developed and translated into 9 languages to facilitate its completion in Europe, Asia, Middle East, Africa and America. The questionnaire included questions regarding nutritional screening and assessment, nutritional support practices in different clinical settings (i.e. conservative treatment, hemodialysis, peritoneal dialysis, and transplantation units) and common barriers of the provision of medical nutrition therapy.

Results
Four hundred and eighty five questionnaires were analyzed from twenty countries (10 European, 2 from the Middle East, 2 from Africa and 4 from Asia, USA and 1 from Latin America). 62% of the nurses replied that nutritional care is a part of their clinical practice and 61% that they are responsible for providing nutritional support. 45.5% are performing nutritional risk assessment routinely, 30% occasionally and only 12.5% do not assess nutritional risk. 17% of the participants reported that barriers in the provision of nutritional support do exist. The main barriers reported were the lack of sufficient knowledge (40% ) and the lack of time (29.6%). 13.6% reported that either the doctors or the patients do not approve it.

Conclusion/Application to practice
Provision of nutrition support is halted by the lack of sufficient knowledge and time of the professionals. Provision of continuous education and actions to raise awareness among health professionals dealing with CKD patients could improve the early detection of malnutrition and the provision of nutritional support in these patients.

Disclosure of Interest
yes
Renal dietary information to help ethnic minority groups worldwide

R. Patel¹, D. Kariyawasam¹, S. Dawe¹, S. Gregory-Smith¹, L. Chandrasekaran¹, T. Dilloway¹, G. Ramlan¹

¹British Dietetic Association, RNG Ethnic Working Group Party, London, United Kingdom

Background
UK census data for London shows 27% of the population are African, Caribbean, Indian, Polish or Greek. An audit of patients from London dialysis units showed 74% of men and 96% of women from Black and minority ethnic groups would like ethnic-specific dietary information. Given this need, diet resources for a low potassium diet incorporating South Asian, Chinese, African-Caribbean and Eastern European foods were produced.

Methods
International online food databases were used:
EuroFIR http://www.eurofir.org/foodexplorer/instructionfoodexplorer.html
Indian composition of foods https://drive.google.com/file/d/0B03Wh4Dk4Vq7a1otenZWWk9pYmM/view

Foods to include in the diet booklets were decided by a working group of renal dietitians and patients familiar with these foods. Low K diet was set at < 70mmols of K/day with the following cut offs:
Fruit and vegetables - 20mmol/d
Dairy - 12mmol/d
High potassium starchy foods (once per day max) - 10mmol/d
Breakfast cereal - 3mmol/serve
Protein portion (2 x 10mmol) – 20mmol/d
Snacks – 4mmol/d

Results
It was possible to produce comprehensive diet resources for a 70mmol/d K diet for the 4 main ethnic groups within the UK, which will be available online to BDA RNG members.

Conclusion/Application to practice
The dietary booklets will now help support dietitians to provide more culturally appropriate information and empower patients to be able to consume native foods. It will also be translated into some of the key languages in order for dietitians to be able to provide an equitable service, and it is envisaged that it can be used worldwide. Further support for dietitians by way of a training course and supporting information including an ethnic food atlas, is also being planned to improve knowledge. Familiarity with the variety of foods consumed may improve patient experience and satisfaction.

Disclosure of Interest
no
The role of nurses in the nutritional education of dialysis patients
L. Menichelli, R. Nicolais, L. Trombia, A. Pizzo, M. T. Parisotto
1NephroCare Italy, Only Dialysis NephroCare Unit, Fiumicino, Italy; 2NephroCare Italy, Nursing Coordination, Naples, Italy; 3Fresenius Medical Care, Care Value Management, Bad Homburg, Germany

Background
Chronic kidney disease (CKD) requires extensive dietary and lifestyle changes. Nutrition plays a vital role in CKD patients under dialysis and a well-balanced diet can make a major difference in the pathogenesis of the disease. Providing effective nutritional counselling in dialysis patients is essential to ensure adherence to the diet and intake of the right dose of calories, proteins, sodium, potassium, calcium, phosphorus, and fluid.

Objectives
To evaluate the effectiveness of an educational programme for patients of a dialysis centre to improve their knowledge and nutritional habits.

Methods
The study was performed on 40 dialysis patients from June to December 2017. The methodological approach foresaw a training program for nurses, with the aim of improving their training competencies on the fundamental concepts on the management of the nutritional regimen in haemodialysis. A generic food guide enriched with recipes and nutritional advice was created by the multidisciplinary team. This food guide was used in patient training to promote patient involvement. At the beginning and end of the course, patients were asked to complete a cognitive questionnaire to evaluate the effectiveness of the educational programme.

Results
The questionnaire was distributed to 40 patients of a dialysis unit, and the participation rate was 100%. 57.5% of patients were male, 27.5% with age between 51 and 70 years and 47% with age between 71 and 90. 10 patients (25%) reported regular physical activity. In December 2017, six months after the start of the educational project, 20 patients (50%) reported an improved nutritional knowledge and dietary habits.

Conclusion/Application to practice
Nutritional status is a strong predictor of patient outcome, including mortality. As this study shows, nurses play a major role in patient education ensuring maximum benefit from today’s knowledge on nutrition, prevent complications and ensure timely identification and determination of malnutrition.

Disclosure of Interest
no
S-O 12
Nutrition care practice patterns in CKD patients
B. Weise¹, D. Marcelli¹, M. Cruz Casal Garcia², A. P. Kalliopi³
¹Medical Scientific Affairs, B. Braun Avitum AG, Melsungen, Germany; ²Laboratory of Nephrology, Hospital Universario 12 de Octubre/ EDTNA-ERCA, Madrid, Spain; ³Nutrition and dietetics, Laiko General Hospital of Athens/ EDTNA-ERCA, Vrilissia, Greece

Background
Malnutrition is a burden in dialysis patients, affecting more than 30 % of dialysis patients. Studies show that providing nutrition therapy to CKD patients can improve the nutrition status of treated patients and quality of life. Little is known about the availability and the practice patterns of nutritional care in renal care centres.

Objectives
The aim of the present survey was to explore the nutritional care in renal care patients.

Methods
An online questionnaire was designed to investigate nutritional care in renal care patients, containing questions related to the training on nutrition expertise, level of knowledge on nutritional care and the local practice patterns. It was distributed globally to 485 renal care professionals. Results were collected anonymously and network centred.

Results
482 completed questionnaires, covering renal care professionals from 19 countries in 4 continents (Europe, Asia-Pacific, South-America, Africa) were analyzed. 421 of the 482 participants (87,3 %) reported that nutritional care is provided mainly by nurses (294/ 421; 69,8 %), dietitians (226/421; 53,7%) and medical doctors (198/421; 47,0 %). 12.5% of the nurses reported not performing any form of screening for malnutrition, 55% reported not performing it routinely. Provision of dietary counselling as a form of medical nutrition therapy is reported by 376 participants. Provision of Oral Nutritional Supplements (ONS), snacks during haemodialysis and food fortification is reported as a common practice in all countries. Intradialytic parenteral nutrition (IDPN) is reported by 168 participants (34,9 %) and intraperitoneal parenteral nutrition (IPPN) by 95 (19,7 %). 12,7 % of the participants do not provide any form of nutrition therapy.

Conclusion/Application to practice
Nurses seem to have a good level of awareness on nutritional care. A more systematic implementation of nutrition screening and assessment can improve nutritional care in this population.

Disclosure of Interest
yes
Educational interventions for phosphate control in patients receiving haemodialysis: A systematic review and Meta-analysis

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Background
Hyperphosphataemia develops in end stage kidney disease as a result of the kidneys’ reduced ability to excrete ingested phosphate load and is characterised by high bone turnover, increase in musculoskeletal morbidity, bone pain and muscle weakness.

Objectives
To systematically review education or behavioural interventions on adherence to phosphate control in adults receiving haemodialysis.

Methods
A search of electronic databases between the dates of January 2005 to December 2015 using keywords adherence, end stage kidney disease, chronic kidney disease, haemodialysis, phosphate control, educational, behavioural, knowledge and self-management to identify eligible quantitative studies. The methodological quality of these studies was assessed using the standardised critical appraisal instruments from the Joanna Briggs Institute. Meta-analysis was possible only for serum phosphate levels, and other outcomes were narratively summarised.

Results
The review included 18 studies of which 8 were randomised control trials (RCTs). Seven studies focused on dietary phosphate, four on phosphate binders and six on dietary phosphate and medications. Only one study explicitly taught patients about diet (both food and drinks), medications and haemodialysis to control phosphate. Sixteen studies showed significant improvements in phosphate levels. Meta-analysis of 8 RCTs favoured educational or behavioural interventions over standard care for phosphate control, with a weighted mean reduction of -0.23 mmol/L (95% CI 0.37, -0.08) in treatment groups. While other outcomes were measured inconsistently, there was some evidence of improvement in patient knowledge and adherence to phosphate control methods, self-management behaviours and perceived self-efficacy related to phosphate control.

Conclusion/Application to practice
Control of hyperphosphataemia requires four strategies bundled together to educate patients about diet (food), drinks, drugs (phosphate binders) and dialysis. Currently there is limited evidence on patient knowledge, adherence and perceived self-efficacy and how these are important for phosphate control. As current studies largely focus on one method of phosphate control, further RCTs of bundled strategies are required to inform practice.

Disclosure of Interest
no
Nurse-led teach back intervention to improve adherence with phosphate control in people receiving haemodialysis

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**Background**
Teach-back also known as “show me” or “closing the loop”, is a teaching method that is used to reinforce knowledge. Teach-back involves asking learners to repeat key points in their own words that have been presented to them. It is a non-shaming approach, and if the person responds with an incorrect explanation or seems to have a gap in understanding, then the educator can identify what information should be repeated or clarified.

**Objectives**
Teach-back aims to increase understanding of the information that is being communicated, provide quality education, promote adherence, assist in engaging people in their care and improve communication between the educator and learner.

**Methods**
The numerous behaviours required to manage end stage kidney disease (ESKD) are challenging. Simply being told to “do this, restrict that” does not necessarily translate into behavioural change. To overcome non-adherence with phosphate control methods we developed an educational intervention that uses the teach-back method for delivering education. The intervention consists of six individual face to face teach-back sessions of 30-45 minutes provided during routine treatment. Each session is structured to support understanding phosphate control methods and to allow participants to identify their individual goals. As feedback is immediate, each of the sessions promote the development of progressive achievement and independence through verbal persuasion.

**Conclusion/Application to practice**
Teach-back is an active process of increasing patient engagement, confidence and understanding. Ensuring understanding is important in ESKD, because of the complex treatment regimens, medication schedules and food and fluid restrictions.

**Disclosure of Interest**
no
O 15
The Challenge of Central Venous Catheters – How to ease our work?
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Background
Analysis of the nursing workflow shows that the connection and disconnection procedures of the central venous catheter patients are one of the major bottle necks of daily activities in nursing care, mainly due to the number of movements needed to collect the diversity of materials needed to complete these tasks.

Objectives
To develop, test and implement a safe ready-to-use set to reduce the nurses’ workload, improve safety and reduce the risk of infection.

Methods
A quality controlled directive including the instructions for connection and disconnection procedure for the central venous catheters was developed, released and implemented in more than 15 countries in private dialysis network. An analysis evaluated effort, time consumption and risks of using separate materials versus a pre-defined, ready-to-use set for these procedures on the basis of quality-controlled documents. A spaghetti diagram before and after introduction of the set was used to evaluate the changes of the nurses’ workload. The current patient safety and further improvements were also part of the overall analysis.

Results
The implementation of the ready-to-use sets had led to a reduction of 25% of the movements needed to collect the material required for each central venous catheter connection and disconnection. Nurses and patients perceived the improvements in safety working with sterile material. Procedure time could be reduced, as all material needed was available in dedicated packages for each procedure. Further analysis showed that costs for the development will be amortised within a three-year period. Working with corporate suppliers for 80% of the network’s needs would result in very low production costs. Savings of up to 30% are expected over the three-year implementation period.

Conclusion/Application to practice
The implementation of predefined sterile connection and disconnection sets had a positive impact on nursing activities by reducing the time needed to collect materials required for the procedures and adding safety to the operations.

Disclosure of Interest
no
Intravascular fluid assessment, comparison between ultrasound on the inferior vena cava and bioimpedance spectroscopy

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Background
Predialytic fluid assessment remains a daily challenge for renal nurses, when aiming for a successful and adverse-event free haemodialysis treatment. Traditionally, clinical nursing assessments consist mostly of pre-, intra- and post-dialytic blood pressure readings and the determination of Ideal Body Weight (IBW). Adding further objective parameters obtained through swift and non-invasive methods into this assessment could potentially be beneficial and could improve health outcomes for haemodialysis patients.

Objectives
Assessing the usefulness of two additional clinical fluid assessment methods in a simulative pilot study and their correlation with clinical outcomes.

Methods
30 randomly selected patients attending maintenance haemodialysis in a satellite dialysis clinic were observed at three different moments (start, middle and cessation) of a single treatment session. Their intravascular volume status measured with (1) ultrasound of the inferior vena cava (IVC-US) were compared with (2) an initial bioimpedance spectroscopy (BIS) and (3) the traditional clinical nursing assessment upon treatment initiation.

Results
Both additional methods completely agreed on pre-dialytic volume status in 13 out of 30 patients resulting in a $k_w$-value of 0.25 ($p=0.16$, 95%CI: 0.09 - 0.41). This reflects fair agreement amongst the two objective methods. Similarly, ratings of volume status at treatment cessation showed 15 agreements between the two methods, with a $k_w$-value of 0.49 ($p=0.006$, 95%CI:0.22 – 0.76), indicating moderate agreement between IVC-US and BIS. Seven subjects experienced episodes of symptomatic intradialytic hypotension (S-IDH), which would have been anticipated by IVC-US or by BIS in 5 patients (71%). Using an algorithm to predict IDH would have provided a sensitivity of 95% and specificity of 100%.

Conclusion/Application to practice
Both additional fluid assessment methods would have provided critical information before and during each haemodialysis session. Therefore, we consider them as being potentially effective for the prevention of intradialytic hypotension, with IVC-US being superior to BIS.

Disclosure of Interest
no
Ultimate approach in treating chronic hyperkalemia associated colonic diversion in hemodialysis patients

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Background
Usually potassium concentration increases along the passage from the caecum to feces. The capacity of the colon to secrete potassium increases substantially with impaired kidney function. Extra renal excretion of potassium remains deranged in between dialysis session.

Methods
Herein, we report two cases of end stage renal failure patients undergoing hemodialysis who develop severe chronic hyperkalemia after colonic diversion surgery. Colonic diversion was adopted as a route of fecal excretion after total colonic resection performed after massive lower gastro intestinal hemorrhage from arterio venous malformation in the first case. On other hand, it was decided after surgery and radiotherapy performed for the second case found to have cancer of the rectum. All measures failed to correct symptomatic chronic hyperkalemia mandating urgent dialysis. both patients were anuric and attempting alkalisation was followed by fluid overload and pulmonary edema. patients became asymptomatique whenever, we decide to increase the frequency of hemodialysis fore times weekly.

Results
Pathophysiological mechanisms of chronic hyperkalemia include drug induced, arterio venous fistula dysfunction, and hyporeninism hypoadosteronism, impaired extra renal excretion and decrease dialysis delivery. Treating hyperkalemia observed in end stage renal disease take in consideration four axes separately or combined. However, the most important axe is that including removal of potassium excess by intensifying dialysis and using potassium binding resins. Unfortunately the combined use of sorbitol and polystyrenes can cause bowel necrosis and perforation on the top of constipation or bowel occlusion after surgery. Furthermore, in patients with pseudo hypoadosteronism, hypoadosteronism and colonic diversion; the use of resins to treat hyperkalemia is a waste of time and money. Our patients were having chronic severe hyperkalemia which appeared following colonic diversion that controlled solely by increasing the frequency of hemodialysis.

Conclusion/Application to practice
Patient with end stage renal failure carrying colonic diversion are prone to develop chronic hyperkalemia controlled by increasing frequency of dialysis.

Disclosure of Interest
no
Examination Of The Association Between Health Literacy And Health Perceptions In Hemodialysis Patients

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Background
A Successful treatment of chronic kidney disease (CKD) requires patient self-management and individuals’ active participation in process. In the process of adaptation to treatment patients are required to have a high health literacy level and health perceptions which are positive.

Objectives
This study was conducted to examine the association between the levels of health literacy and health perception in hemodialysis patients.

Methods
This descriptive study was conducted with a total of 110 patients attending at dialysis centers. The data were collected using Health Literacy Index, the Health Perception Scale and the Patient Information Form to identify the demographic characteristics of patients. The statistical analyses were performed using SPSS.

Results
50.9 % of the patients were women and 54.5 % of the participating patients were between the ages of 46-65. Of the study patients, 48.2% were primary school graduates. The duration of hemodialysis was between 0 and 4 years in 56.4% of the patients. 82.7% had other chronic diseases in addition to the CKD. The most common chronic diseases other than the CKD in the study patients were hypertension and diabetes mellitus at rates of 60% and 50.9%, respectively. The mean scores of the health care literacy index were 77.40 ± 12.94. The appraisal of the subscales yielded the highest scores. The mean score of the health perception scale was found to be 47.56 ± 4.10. The relationship between the age, gender, education level, duration of illness and health literacy index of patients was significant. Besides, a positive statistically significant association was found between the health literacy and health perception.

Conclusion/Application to practice
Patients’ health literacy and health perception are related. We are of the opinion that the levels of health literacy and health perceptions of the hemodialysis patients need to be increased in order for the hemodialysis treatment process to be effective.

Disclosure of Interest
No
Clinical pathways improving vaccination status: A four-year one centre evaluation.

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Background
Patients with End-Stage Kidney Disease (ESKD) on haemodialysis (HD) are at risk of developing nosocomial infection due to impaired immune response as compared to the general population. Vaccination is a proven measure in preventing infections such as hepatitis B, flu and pneumococcal diseases.

Objectives
The Centre for Disease Control and Prevention (CDC) recommends three major vaccines in the dialysis population namely; hepatitis B, flu and pneumococcal vaccines. In 2014, SEHA Dialysis Services, Mafraq - Abu Dhabi started a nurse led vaccination programme to facilitate this initiative. Prior to this initiative, there was no vaccination policy or monitoring structure available in the centre. Vaccination screening relied on the primary nurse utilizing the information in the patient’s electronic record. Therefore, clinical pathways were used primarily to guide nurses and doctors in the hope to improve the vaccination status of patients undergoing HD.

Results
The record reflected 266, 375, 380 and 398 patients by the end of 2014, 2015, 2016 and 2017 respectively. There were 84 (93%) in 2014, 73 (94.5%) in 2015, 58 (100%) in 2016, and 47 (68.1%) in 2017 new patients with <10 miU/ml (HBsAb) who have received the complete dose of hep B vaccine. Moreover, Annual influenza was administered to 232 (87.2%) patients in 2014, 366 (97.6%) patients in 2015, 369 (97.1%) patients in 2016 and 383 (96.2%) in 2017 as per the patient census. Pneumococcal vaccine was administered to 100% of the patients in 2014 with 87% in 2015, 90.7% and 89.6% new patients and 2016 and 2017 respectively.

Conclusion/Application to practice
Comprehensive vaccination clinical pathways are pivotal in improving the vaccination statuses of the dialysis population.

Disclosure of Interest
no
S-O 20
Intradialytic hypotension: Are we getting used to it?

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Background
Intradialytic hypotension is one of the most common side-effects of haemodialysis caused by ultrafiltration provoking a temporary volume depletion. The prevalence of asymptomatic hypotension during dialysis has been rarely reported, but is considered to have the same negative consequences as symptomatic hypotension on various end organs like the brain and the gastro-intestinal tract.

Objectives
Measuring the prevalence of symptomatic (S-IDH) and asymptomatic intradialytic hypotension (A-IDH) or post-dialysis overhydration in a satellite haemodialysis clinic in Western Australia.

Methods
Observational study on a retrospective 3-month period of nurse-recorded fluid related adverse events. Data collection on the occurrence of S-IDH and A-IDH during a total of 2357 haemodialysis treatments in 64 patients. Body weight of patients at the time of cessation of treatment was recorded, and patients whose weight exceeded their ideal body weight by at least 0.5 kg, were classified as overhydrated. Data analysis was performed using SPSS version 24 software.

Results
Symptomatic intradialytic hypotension was the most common adverse event measured in this cohort, and occurred during 221 (9.4%) of all treatments, whereas asymptomatic intradialytic hypotension occurred in 88 (3.7%) of all treatments. The total occurrence of intradialytic hypotension was 13.1% and symptomatic was observed in 30 patients, implying that nearly every second patient had at least one symptomatic episode within three months. Overhydration occurred in a total of 103 (4.4%) of all treatments, and involved 17 patients.

Conclusion/Application to practice
Symptomatic and asymptomatic intradialytic hypotension were the most commonly observed adverse events in this cohort, overhydration occurrence was considerably less common.

Disclosure of Interest
no
Improving the pathway for Home Haemodialysis: National Nurses Board (NNB)

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Background
Although HHD is proven to be clinically effective with numerous benefits which contribute to improving the patients' quality of life there is still poor uptake nationally. Studies have reported that providing adequate support and resources which meet patients individualised needs will help increase HHD programmes (NHS Kidney Care 2012)

In 2015, a number of Health Care Professionals from across various NHS trusts (hospitals) came together to form a network group to discuss the provision of home haemodialysis (HD) across the UK. From discussions this group quickly realised that each hospital had the common aim to offer home HD as a real choice for patients. Although they were successfully training patients to carry out their own treatment at home there were a variety of differing processes in place.

Methods
From the original network group a subgroup was created with the participation of Senior nurses from 5 units all of whom have a wealth of knowledge and experience. The represented units are Derby, Devon and Exeter, Portsmouth, Salford and Sunderland. This encompasses a wide geographical area with varied demographics and the National Nurses Board was formed. Over the past six months the group has been collecting data looking at patient referrals and pathways, and all had variations in practice. From the analysis of this data the group were in agreement that Standard Operating Procedures (SOPs) were required in order to deliver best practice.

Results
The group will work together as a collective to standardise changes to improve patient experience when moving to home haemodialysis and to share their work with the renal community

- Initial SOPs that require standardising and developing:
  - Nocturnal
  - Solo dialysis
  - Self-cannulation training
  - Workforce provision

Conclusion/Application to practice
Moving forward the National Nurses Board will work towards creating robust national standards for home haemodialysis to provide renal units with a standardised approach to dialysis care.

Disclosure of Interest
yes
S 07  Lunch Symposium
DOPPS Symposium - Update from the DOPPS Program: Improving care, outcomes, and the patient experience
Grecale, 12:45-13:45

Abstracts for this session are not available.

Session Programme:
DOPPS: Key hemodialysis practice changes and their impact
Loreto Gesualdo (Italy)

PDOPPS: New insights into optimal PD practice
Jennie King (United Kingdom)

CKDopps: Opportunities to improve care now for patients with advanced CKD
Solene Laville (France)

Empowering patients: Understanding and improving patient-provider connections
Marisa Pegoraro (Italy)
S 08  Lunch Symposium
      Greek Forum
      Levante, 12:45-13:45

Abstracts for this session are not available.

Session Programme:

**Ion kinetic during the dialysis session**
Konstantinos Mavromatidis (Greece)

**Acute complications during haemodialysis session**
Hellen Rapti (Greece)
Round Table Discussion - Medtronic
Plastic Cannulae vs Metal Needles: Is metal needle the right cannulation device for every patient?
Maestrale, 14:00-15:30

How to build up a Successful Training Process – Introducing the use of Plastic Cannulae!

Vicki Smith

Introduction: In early 2013 plastic cannulas were introduced into the renal unit at Barwon Health, Geelong, Australia. With benefits touted as; a reduced risk of infiltration, reduced trauma to tissue and vein and the ability to cannulate difficult and tortuous sections of the arteriovenous fistula, a comprehensive training program was undertaken to familiarize all haemodialysis staff with their use. Initially, the timeframe of the training program was projected to be 6 months, but actual timing was 18 months and presented many challenges for staff and patients. Used only on new arteriovenous fistulas, needling with a plastic cannula provided the staff member with a novel cannulation technique. The cannula were different to the metal needles as they displayed “no flashback”, included a longer length to hold with no wings and required a 2 step procedure for insertion. Resistance to this new technique and low overall success of cannulation early-on contributed to the long training program. Three years after the program’s inception, a retrospective audit was undertaken to determine whether plastic cannulas had better outcomes than metal needles for new patients. Whilst cannulation success rates were better with metal needles, patients with plastic cannulas experienced no aborted dialysis sessions and no intradialytic extravasations. Through the introduction of a comprehensive training program for dialysis staff, plastic cannulas can be successfully introduced to provide a novel and innovative cannulation program that provides a myriad of benefits to dialysis patients.

Clinical and economical considerations that drive the cost of cannulation using metal needles vs plastic cannulae

Rosa Marticorena

Hemodialysis requires needle insertions every treatment. Needle injury (mechanical or hemodynamic) may cause complications (aneurysms/stenosis) that compromise dialysis delivery requiring interventions. Metal needles have a sharp slanted “V”-shaped cutting tip; plastic cannulae have a dull round tip and four side holes. Preliminary observations demonstrated a difference in intradialytic blood flow images and mean Doppler velocities at cannulation sites between the two devices. Complications from mechanical and hemodynamic trauma requiring interventions were compared in each group. 33 patients (13 females and 17 new accesses) were randomized to metal group (n = 17) and plastic group (n = 16). Mechanical trauma was minimized by having five nurses performing all cannulations guided by ultrasound. Complications were identified by the clinician and addressed by the interventionalists, both blinded to study participation. Patients were followed for up to 12 months. Decreased burden of illness related to cannulation (fewer infiltrations during hemodialysis) and Qb were associated with plastic cannulae. Decreased procedure costs were suggested during the study period in the plastic group.
O 22
Clinical nurse educators in the haemodialysis unit- 20 years on
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Background
We are a 40 bedded hemodialysis unit with 39 nurses and 19 healthcare assistants. In 1998 clinical nurse educators were appointed as a job share for the sole purpose of training and educating nurses and healthcare assistants.

Methods
Initially, we addressed our own training needs as we wanted to deliver knowledge that provided a person-centered approach. So we completed the teaching and assessing in clinical practice course which studies theoretical perspectives of learning styles in a variety of settings.
We then developed a robust competency based training and assessment programme for staff. A supernumerary period is guaranteed for 6-8 weeks and is attractive for staff as it is protected time working with us one to one. Competencies are then signed off before the learner is allowed to practice independently. This provides assurances for managers and alleviates stress for staff in a busy unit.
Due to the success of our achievements our unique job role has escalated to provide more formal education and has extended to the multidisciplinary team, community and beyond.
We work well as a team due to our compatible personalities. Job share has maintained enthusiasm and creativity enhancing output because of collaboration and exchange of ideas between ourselves.

Conclusion/Application to practice
Our role over the last 20 years has expanded. We have matured in our post and have gained the confidence to challenge, question and recognize the needs of the staff. Because every member of staff is trained by us we have built up a trusting and supportive relationship with them which has been reinforced by positive feedback.
Investment of a good training programme and continued education is vital for recruitment and retention of staff.

Disclosure of Interest
no
A cluster randomised control trial study protocol to improve phosphate control in haemodialysis patients

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**Background**
Hyperphosphataemia is associated with increased morbidity and mortality. While hyperphosphataemia can be managed through four methods, diet and drinks, drugs and dialysis, adherence to these methods is challenging for patients. Studies also tend to focus on one method of phosphate control rather than bundling all methods together into a theoretically driven intervention.

**Objectives**
To describe a study protocol that tests the effectiveness of a bundled intervention “Taking control of your phosphate with the 4Ds”.

**Methods**
A multi-site cluster randomised control trial with repeated measures. Participants will be adults receiving chronic haemodialysis with high serum phosphate levels (>1.6 mmol/L for at least 3 months) and cluster randomised to standard care or intervention according to haemodialysis treatment shift. The intervention, informed by Social Cognitive Theory, focuses on improving self-efficacy and also incorporates the “teach-back” method of patient education. The intervention brings together essential phosphate control strategies of diet, drinks, drugs (phosphate binders) and dialysis prescription in a 12-week education program. The primary outcome is serum phosphate level. Secondary outcomes are knowledge of and adherence to phosphate control strategies, and self-efficacy. Outcomes will be analysed for both intention-to-treat and per-protocol. Chi-square test will analyse categorical data, Two-tailed t-tests will assess continuous data and Mixed Linear Model will determine statistical significance.

**Conclusion/Application to practice**
By integrating the 4Ds together and if it is demonstrated to be effective in lowering serum phosphate, this study will have implications for patient education through embedded Social Cognitive Theory and teach-back into other areas of renal health care

**Disclosure of Interest**
no
Pre-dialysis education and information and relationship to dialysis treatment type in SA

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Background
Patients with End Stage Renal Disease (ESRD) face major challenges in their lives regarding dialysis therapy for survival, challenges which include making informed treatment choices.

Objectives
To determine what information patients in KSA have been given and to identify patients’ perceptions of the factors that influence the treatment they receive.

Methods
Survey research; the questionnaire from the USA study by Mehrotra et al. (2005) was utilized, with additional questions related to patients' views and recommendations for pre-dialysis education. ESRD patients who were ≥18 years and who had been receiving dialysis, for at least 3 months to 1 year, were recruited from four hospitals in the western region of the KSA.

Results
Ninety-two patients out of 100 patients recruited completed the questionnaire (a response rate of 92%). The majority (61.9%) of participants were on haemodialysis (HD); 38% received peritoneal dialysis (PD). Nearly 20% of patients were not given any option about which modality or type of dialysis they received. This was for clinical reasons. Almost 60% of patients were given a delayed treatment option; i.e. they received an option either after their treatment commenced or less than 1 month before they started dialysis. There was a significant association between participants rating the dialysis education/information as ‘poor’ or ‘totally inadequate’ and receiving HD (p=0.000) and between patients’ needs for additional information and treatment type (HD) (p=0.000). Binary logistic regression indicated that having someone at home to help with treatment was a predictor for patients who opted for PD.

Conclusion/Application to practice
Recommendations to improve pre-dialysis education include the provision of more educational materials, and increased time spent on education. The provision should be adjusted according to patients’ needs, level of education, and consideration made of family involvement in decisions.

Disclosure of Interest
no
A new way of thinking how to increase patients' adherence in homedialysis

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Background
Patients need different kinds of information before they can do dialysis on their own. Patients remember only a small part of education. Our purpose is to increase patient adherence on homedialysis by using new teaching methods.

Objectives
To get better adherence to homedialysis we developed an education program from early stage kidney disease to dialysis and transplantation. We want to increase the knowledge of kidney diseases generally for citizens, patients and professionals.

Methods
In Helsinki University Hospital we have an internet based hospital, called Health Village, in which we built a “Kidney House”. It has a part which is open for all, a part for professionals and also digital personal care pathways to homedialysis and transplant patients. Through those digital care pathways professionals can communicate and hold remote meetings with patients. We use technology e.g. e-form, so patients can educate themselves to homedialysis partly via internet. In peritoneal dialysis we also offer a computer, a big tablet, to practice instructions at home.

Results
Patients and care givers get reliable information from Kidney House and they can choose their dialysis modality based on better knowledge. Patients and care-givers find themselves more secure and self confident as they can learn about dialysis subjects beforehand and practice them afterwards.

Conclusion/Application to practice
We need to measure the number of visits to the homedialysis unit, infection rates, patient satisfaction and other indicators as well the indicators in Kidney House, to gain better knowledge of the effectiveness and usage of our new service.

Disclosure of Interest
no
Multidisciplinary nephrology healthcare team perspective and comparison of pre-dialysis practices and experiences

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Background
Ideally patients should be referred in a timely manner, receive good education about dialysis modalities and should begin renal replacement therapy at the right time. However many studies show that patients with CKD are referred too late to the nephrology team and this is associated with increased morbidity and mortality.

Objectives
The aim of this research is to assess and evaluate the experiences and existing practices of the multidisciplinary team related to pre-dialysis applications, training programs, patient requirements and decision making about treatment.

Methods
One hundred and four nephrology health care members participated in the study. A nonvalidated questionnaire was used to obtain information from the renal team consisting of nephrologists, predialysis, haemodialysis (both home and hospital based), peritoneal and transplant nurses.
The study was approved by local ethic committee.
Statistical analysis of made using SPSS software.

Results
According to the data obtained from 104 members in the multidisciplinary dialysis teams;
It was found that no predialysis education was provided in 30% of the centers which participated in the survey.
It was observed that there was no systematic education programme in 29% of the centers providing pre-dialysis education and rate of patients having an education in this programme was 40%.
It was determined that only 18% of the patients who started dialysis in emergency conditions had received information about treatment modalities.

Conclusion/Application to practice
Findings: to identify and underline the importance and need for systematic predialysis education and support enabling patients make informed decisions.

Disclosure of Interest
no
Education and health promotion in haemodialysis patients – nurses’ role in the learning process

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Background
Patients on haemodialysis are subject to new experiences, procedures, and modifications in their lifestyle. This requires basic knowledge, information and skills to induce the required behavioural changes. Patient education is part of nursing competencies, enabling them to plan, implement and evaluate health improvements. The importance of enhancing this aspect of the educational role nurses in haemodialysis units is evident.

Objectives
▪ To describe the process of education and health promotion;
▪ To identify the most frequent training needs.

Methods
We performed a descriptive, quantitative, retrospective, study.
An initial knowledge assessment is provided by the responsible nurse, but all nurses were involved (training was performed by the nurse responsible for the treatments, during dialysis).
All trainings were documented in a central data base in a dedicated field. The nurse selects 1 of the 25 training topics including duration, type (initial/repetitive) and speaker.

Results
1347 training moments, a total of 737 hours with 476 patients during 2016. 69% were male and 54% were over 66 years of age.
The main training subjects were ‘patient welcoming’ (61%), ‘diet and nutrition’ (21%), ‘hygiene and infection control’ (13.4%), ‘vascular access’ (12.4%) and ‘other subjects’ 58.2%. Average training time was 30 minutes.
Training about self-dialysis programme, specifically evolving vascular access care and handling of the dialysis machine was the longest training session.

Conclusion/Application to practice
With the educational activities of our patients we want to achieve sustainable behavioural changes by involving patients in their care, this is reflected in our results on training time and training subjects that may be beneficial for future patient outcomes contributing to increase patient well-being.
It is important to highlight the importance of a good central database for a proper documentation and continuous monitoring, making the nurses’ work visible.

Disclosure of Interest
no
1. Improve the Quality of Care in the Hemodialysis unit

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Background
Internal monitoring as well as observations of nursing treatment procedures and knowledge, indicated significant gap between nurses. There are several reasons for this gap:

- Senior nurses verses novices
- Different education: with/without post basic Nephrology Course
- Lack of self-motivation or system requirements to expand knowledge once formal studies are finished.
- Pressure by patients to start daily treatment as quickly as possible, creates an automated work which sometimes lack correspondance with guidelines.
- Nurses with small children do not have the time or effort to read and/or learn.
- JCI accreditation system created another problem, especially when new components are occasionally being installed in the software without our consent. This causes a lot of confusion creating new priorities.

Since sharing and increasing personal knowledge influences the quality of healthcare services, we have decided to do something to close the gap among nurses.

Objectives
- Improve Quality of Care in the unit, by increasing nurses knowledge in Nephrology
- Empower nurses by increasing their knowledge in Nephrology
- Improve nurses motivation and satisfaction

Methods
1. Individual and group trainings by experts to bridge the gap of knowledge.
2. Immediate feedback by Senior nurses or Quality Assurance team to respond directly to nurses needs
3. Create a new individual personal update program
4. Burnout workshop guided by a Psychologist
5. Involving the staff nurses in the learning activities

Results
Primary feedback from the participants was very positive:

- Nurses were surprised for how many nuances they have forgotten or did not know in the first place.
- The timing of studies between the nurses’ shifts was perfect.
- The one-on-one feedback and training was very productive.
- The nurses were very satisfied with the new personal program.
- The later monitoring showed improvement of the nurses marks.

Conclusion/Application to practice
Will be presented later

Disclosure of Interest
no
Evolution of frailty patient after kidney transplant, first review.

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Background
Common assessment of patients for surgery based on traditional functional test offers limited prognostic information. Frailty has arisen as a new tool to better characterize patients. It is defined as a biologic syndrome with a decreased reserve and resistance to stressors causing vulnerability to adverse outcomes. It is known that almost 25% patients on the waiting-list for kidney transplantation have some degree of frailty. Frailty has been correlated with outcomes in US kidney transplant recipients.

Objectives
We analyzed the potential correlation of frailty and short-term outcomes after transplantation.

Methods
We designed a prospective evaluation of frailty in patients with chronic renal failure on the waiting-list for kidney transplantation. From 250 patients evaluated, 110 of them were transplanted between June 2016 and February 2018.

Results
Kidney transplantation was performed in 110 patients evaluated on the waiting-list. Mean age was 59.55±11.45 years, 58.2% were men and 63.3% were on haemodialysis, 28.2% on peritoneal dialysis and 8.2% received preemptive transplantation. Median time on the waiting-list was 11.08 [0-58] months. We identified that 25.5% patients had some grade of frailty.

Frail and non-frail patients were similar in age at transplantation (60.46 vs 59.24) and days of hospitalization for kidney transplantation (13.37±12.17 vs 11.32±12.68). But frail patients presented more complications of the surgical wound (32% vs 14%, p=0.045), were more frequently readmitted within the first 3 months after surgery (44% vs 18%, p=0.007) and had the highest mortality at follow-up (14% vs 1%, p=0.015).

Conclusion/Application to practice
In our experience, frail patients suffer more complications, readmissions and mortality. This type of patient represents around 30% of our waiting-list for kidney transplantation, so it is crucial we develop specific strategies in order to improve outcomes after transplantation.

Disclosure of Interest
no
Measuring the renal transplant patient experience in Saudi Arabia.

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Background
In March 2015, the renal transplant unit was opened due to the increasing number of renal transplants undertaken. In 2017, 220 transplants were performed representing the highest number of renal transplants in Saudi Arabia. Currently there are no published studies in Saudi Arabia exploring the renal transplant patient experience.

Objectives
This study identified areas for improving the renal transplant patient experience with a focus on the cultural dimensions of care and assessing quality of patient care.

Methods
A descriptive, exploratory study over a ten month period was undertaken. 185 adult patients transplanted between March 2015 to August 2016 were included. Data was collected using the modified Irish Society for Quality & Safety in Healthcare questionnaire (ISQSH) which measures dimensions of inpatient quality of care. Data was analyzed using inferential and descriptive statistics. Qualitative comments were analyzed thematically.

Results
Whilst patients were satisfied with their transplant experience areas for improvement included admission and discharge process. 47 % of patients were uneducated and had little understanding of their CKD. Transplant information was provided to patients mainly through verbal means. Despite 90% of patients receiving advice on stopping smoking, 82% of patients continued to smoke, especially smoking Shisha which is against Islam. Due to cultural beliefs patients’ consume Zam Zam holy water which is known to be high in potassium. Patients continue to drink camel milk from camel farms, despite its potentially infectious risk. Patients eat large quantities of honey which poses a risk of diabetes due to immunosuppressive therapy.

Conclusion/Application to practice
The study identified how cultural values influence the renal transplant experience of patients. The importance of involving religious support through the hospital Sheik to educate patients to stop smoking and foster healthy life styles following a transplant is recommended. Developing creative strategies to educate patients and families which reflect their cultural beliefs is important.

Disclosure of Interest
no
Skin cancer in renal transplant recipients

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Background
Renal transplant recipients are three times more likely to develop cancers compared to the general population, one contributing factor being the use of immunosuppressive medications. Skin cancers are the most common malignancies, in particular SCC (squamous cell carcinoma) and BCC (basal cell carcinoma). In most patients, cancer remains limited to the skin and can be successfully treated. However, in some patients locoregional or distant metastases can develop thus increasing risk for mortality.

Objectives
71-year old patient underwent kidney transplantation in August 2014. Immunosuppressive therapy included tacrolimus, everolimus and glucocorticoido. In January 2015, everolimus was excluded from therapy due to intolerance, and mycophenolate mofetil was included. Since December 2015, he was repeatedly diagnosed and surgically treated for SCC located on head and ears. In November 2016, he was diagnosed with metastases in both parotid glands, succesfully underwent parotidectomy and radiation therapy. In October 2017,, extensive metastasis on the neck with infiltration was found.

45-year old patient underwent kidney transplantation in 2014., immunosuppressive therapy included mycophenolate mofetil, everolimus, and glucocorticoido. In december 2016. SCC of the eyelid was diagnosed and treated. In may 2017. malignant dissemination in parotid gland and lymph nodes of neck and lung lesions were diagnosed.

Immunosuppressive medications in both patients were carefully dosed and allograft function was stable. After all possibilities of oncological treatment were exhausted patients received palliative treatment.

Conclusion/Application to practice
Skin cancer is a serious risk factor for increased morbidity and mortality in renal transplant patients. Regular screening for skin lesions prior and following transplantation is an important part of preventative care. Nursing interventions should aim at education and promotion of regular skin self-examination, importance of sun protection and regular follow-up examination by the nephrologist and dermatologist.

Disclosure of Interest
no
Body Mass index in renal transplant recipients, nurse led clinics: a heavy weight fight

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Background
The prevalence of renal transplant recipients (RTR) in South Australia (SA) with a body mass index (BMI) above the recommended healthy weight range has been rapidly increasing. High BMI in RTR is associated with poor graft function, wound complications and the development of new onset of diabetes after transplantation. In addition, these weight gains impact on lipid profiles and are a risk factor for the development of cardiac disease. The renal unit at Flinders Medical Centre in SA, has developed a strategy to improve long term outcomes for RTR. Nurse led clinic post-transplant, has a strong focus on education to improve patient wellbeing, with an emphasis on improving patient BMI and improve long term graft survival. Ongoing supportive education in nurse led clinic for RTR enables good patient rapport to be established and an ability to assess lifestyle behaviours. Risk factors can be identified; the nurse practitioner is ideally positioned with expert clinical and professional skills to assist, modify and implement changes to improve patient wellbeing, ultimately resulting in improved longevity of graft function. Overview will be given on a proposed research conducted at Flinders Medical Centre, comparing BMI results in the first 2 years post-transplant, in RTR attending the wellness nurse led clinics.

Disclosure of Interest

No
New evidence based fast-track program improves restitution of living kidney donors

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Background
An audit of twenty journals in 2016 showed severe postoperative challenges for living kidney donors. Data showed: 50% of the donors experienced nausea, 40% were not mobilized day 0 (day of operation), 85% experienced pain, only 45% had normal food intake after operation, 87% of the donors had a weight gain > 2 kilo, 60% experienced paralytic ileus (stools median 4.day) and prolonged hospital stay.

Objectives
Implementation of clinical evidence based fast track program for living kidney donors.

Methods
An interdisciplinary cooperation between the nurses in the kidney transplantation unit, nephrologists, anesthesiologists and surgeons. This cooperation resulted in new initiatives: Updated standard care plans; Teaching fast-track principles for the kidney donor nursing staff; New evidence based guidelines for painkiller pre, per and postoperativel; Revised patient information leaflets for the living kidney donors. Evidence of effects have been proven by auditing the state of the patients before and after the changes.

Results
An audit in 2017 after the implementation showed significantly reduced postoperative challenges on all parameters: 90% of the living kidney donors were now mobilized day 0 (day of operation), 0% had nausea, 55% still had pain, 100% of the living kidney donors reduced their paralytic ileus (stools median 2.day), 22% had a gain of weight > 2 kilo, and 80% had normal food intake on the day of operation. The above improvements have led to a reduction in the need of hospitalization from mean 7 days to 3,6 days.

Conclusion/Application to practice
Implementation of the interdisciplinary cooperation at the kidney transplantation department has resulted in major reduction of postoperative challenges on all parameters and have reduced the average number of days in hospital after the operation from 7 to 3,6 days.

Disclosure of Interest
no
Opinions of the Nurses about Organ Donation and Their Professional Values

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Background
The great difficulty with organ transplantation is the lack of donors. Nurses' thoughts and professional values are important in educating society about the importance of organ donation.

Objectives
The aim of this study is to examine the relationship between the nurses' opinions about organ donation and their professional values.

Methods
120 nurses were interviewed for this descriptive study. Data was collected by using Survey Form of nurses' beliefs about organ donation and Professional Values Scale (PVS). The data has been evaluated using SPSS program.

Results
86.7% of nurses stated they wanted to donate their own organs, while 94.7% said they wanted their relatives to donate their organs. In order of preference nurses thought; "I think that organ donation is a very important issue" (99.2%), and "to be a conscientious citizen I should be required to donate my organs" (97.5%).

The mean value of the PVS has been determined to be 95.10 ± 25.41. The nurses wishing to donate organs were found to have higher scores on the PVS and the difference between the scores of the nurses not wishing to donate their organs was determined to be statistically significant (p <0.05). Female and higher educated nurses were determined to be more eager to donate their organs than others (p <0.05), and their professional values were found to be statistically higher.

Conclusion/Application to practice
Almost all of the nurses are aware of the importance of organ donation. The nurses with higher professional values are more likely to donate their organs. Nurses, using their training and skills, can educate their local community about the importance of organ donation, increase sensitivity on the issue and thus increase the chance of organ transplantation.

Disclosure of Interest
no
Is the coping in our hands? Dealing with home peritoneal dialysis
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Background
Dialysis patients cope with chronic, life threatening and incurable illness. The emotional consequences of the chronic disease cause a sense of stress. Lack of the resources to cope increases the levels of tension and stress.
In peritoneal dialysis (PD), the patient performs the treatment within his home, away from the peer group.

Objectives
Providing tools for coping by using emotional and social supports.

Methods
There was a closed structured group, attended by 12 PD patients, led by a social worker and nurses. Working in the group was based on the resilience model (The "BASIC Ph" Model of Coping and Resiliency) that aims to help people cope effectively with trauma and crisis events. Questionnaires were completed at the beginning and end of the process. In the preliminary questionnaire, 93% of patients expressed the need for group support, 71% indicated the need for coping tools.

Results
Process:
In each session, psycho-educational information was provided, with cognitive definitions that assists patients to understand the emotional and behavioral processes.
Practical skills taught empowerment and resilience. During the sessions we worked on relaxation, building positive thinking, active coping, problem solving and emotional processing through conversation and a variety of arts such as painting and sculpture, reading and more. In addition, two experiential workshops for creativity and cooking were held. At the final meeting, mutual feedback was given and participants responded to the questionnaires, 100% felt they acquired the tools to cope. 86% expressed great satisfaction with the content and all expressed their desire for additional meetings.

Conclusion/Application to practice
Patients expressed high satisfaction with the process, acquiring tools for emotional and social coping. The patients expressed interest and continued contact after the end of the group, and observed relationships of mutual responsibility.

Disclosure of Interest
no
An effective education program for home hemodialysis

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Background
Home hemodialysis (HHD) has been shown to improve patient wellbeing and it is also an economically beneficial alternative.
The main issue is that although we know that HHD is effective, we don’t have many patients in that therapy. One of the barriers is lack of experience of both nephrologists and nurses in HHD.

Objectives
To grow home therapy using the essential key of an effective HHD education program. Nurses provide the lead through the training program working together with the patients.

Methods
Our HHD education program takes six weeks containing 25 dialysis sessions on average from the patient’s first dialysis in our unit to his/hers first dialysis at home. Patients learn both practical skills and theoretical knowledge. We agree the training schedule with the patients when starting the program. It is amazing how well the goals are reached with the planned timetable. Usually the patients are ready on the planned day.

Results
We have developed our HHD education program over 20 years. Since 1998 we have trained almost 500 patients in our HHD unit to carry out home hemodialysis. During year 2017 our patients did 13,686 hemodialysis treatments at home.
A good training program for HHD gives necessary skills and knowledge to the patients, but equally important is building up the patient’s self-confidence, because it empowers them to be independent.

Conclusion/Application to practice
An effective HHD education program is a key to the growth of home therapy. It needs highly motivated team with competent nursing expertise and a dedicated nephrologist.

Disclosure of Interest
no
Patient reflections after changing Haemodialysis treatment, from Hospital to Home

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Background
After some years without Home Haemodialysis (HHD) our Hospital re-established it in 2016, and since then, 14 patients have opted to take advantage of it, 9 were already on Haemodialysis (HD) and 5 started Renal Replacement with HHD.
The programme was set up by two enthusiastic nurses and a nephrologist, who decided to use Nx-Stage-System-One® as it’s purpose-designed, portable, eliminates the need for a large water-purification system, is easy to manipulate and the self care approach.
In addition to the clinical advantages of more frequent treatments, many patients prefer HHD for its convenience flexibility of scheduling treatments, dietary advantages, fluid restrictions..., in other words, coupled with the clinical advantages, HHD improves patients quality of life.
We present the opinion of our 9 patients on HHD who were previously on Hospital based HD and discuses whether it matches the literature findings or not.
Following the approach of a qualitative nursing research, a nurse from the HHD team interviewed them asking to mention at least three positive and two negative aspects of HHD comparing it with Hospital HD.

Positive aspects:
All mentioned: Independence, Freedom, Flexibility of timetable, to regain control of his/her life, No recovery time.
Four mentioned: dietary and fluid restrictions advantages and one security due to the absence of contamination risk from others.

Negative aspects:
Five patients could not find any negative aspects: all were positive.
The remaining four patients answers ware:
1.- self-needling.
2.- dialysate bags weight.
3.- loneliness: no social life at hospital.
4.- material boxes at home

With this we conclude that as found in the literature, patients transferred from Hospital HD to HHD are extremely satisfied and felt an improvement in their quality of life, we’ll inform the service provider and deal with the negative aspects in order to minimize them.

Disclosure of Interest
no
Reducing burden on patients, improving treatment data: Introduction of Nx2Me in a home haemodialysis population

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Background
The home haemodialysis (HHD) programme in Derby continues to expand, with 51 (46 on NxStage System One) patients currently on therapy (16% current dialysis programme). Nx2me Connected health is an Ipad-based platform that collects NxStage System One cycler data as well as patient factors such as blood pressure and weight. The system transmits the data to providers following each session, enabling the provider to review the data in the Nx2me clinical portal, a web based platform.

Objectives
To study the introduction of Nx2me in an established home haemodialysis programme, including incident and prevalent patients on HHD.

Methods
Staff underwent training on the system. Following this, cohorts of patients were trained at the HHD training centre. A single training session lasted 1-2 hours. Patients were issued with an iPad and a home assessment followed to establish the WiFi network to allow communication with the database.

Results
Five members of staff underwent training (3 nurses, 1 treatment technician and 1 doctor). In the initial cohort 5 patients were taught how to use Nx2me, including 2 patients as part of their training for HHD. A further 10 patients already established on HHD were trained and put onto Nx2me 4 weeks later. Currently a total of 18/46 patients are using Nx2me within 10 weeks of launch.

Training was intuitive and easy for both staff and patients. No training sessions were extended, and evaluation post launch has been good. Patients particularly commented on the reduction in routine paperwork, and the clinical teams are now using it in day to day working. Technical issues have been restricted to WiFi connection issues.

Conclusion/Application to practice
This new technology provides real time data on patients dialysing at home. It allows us to monitor and support patient adherence, potentially reduce complications, reduce patient burden and enhance patient confidence.

Disclosure of Interest
no
Nursing analysis of the evolution of Home haemodialysis with different care approach and technology.

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Background
Back in 1984, our Public University Hospital opened the Nephrology Department and from the beginning home haemodialysis (HHD) was one of the treatment options. We have had three HHD programs as follow:

Machine: Hospal Monitral BSM 20Ò
Needling technique: area/rope ladder performed by a caregiver (relative) in all but one.
No of patients: 12.
Patients gender: 10 males: (caregiver: 7 wives, 3 mothers), 2 females (caregiver: 1 mother, 1 daughter).
Reasons for programme closure: Patients were transplanted, DPCA availability, and the identification by the team of tensions induced in the couples by the treatment. The technique was female gender-exclusive. The relative was always a female (spouse/mother/daughter). We were not able to find a husband ready to dialyse his wife.

Programme two: 2008-2010.
Machine: Aurora Baxter Dialysis SystemÒ
Needling technique: Self-needling using the buttonhole technique in all patients but one with a Central Venous Catheter.
No of patients: 10
Patients gender: 8 males, 2 females. No caregiver specific training, the only suggestion was not to be alone during the treatment. Due to the self-care approach, no family problems were identified. Both the HHD team and patients/family were extremely satisfied.
Reasons for program closure: Patient transplantation and new Department management.

Programme three: 2016– still open and growing.
Machine: Nx Stage System OneÒ
Needling technique: Self-needling buttonhole technique in all but one patient with a Central Venous Catheter.
No of patients: 14. No caregiver training at all, and the only suggestion was not to be alone during treatment.
Patients gender: 8 males 6 females

In our opinion and based on our experience and literature findings, the appropriate machine, (HHD purpose designed) and especially self-care including self-needling are fundamental for a successful HHD programme, as it avoids HHD related family problems. The programme enhances patient rehabilitation and became attractive and feasible for both males and females.

Disclosure of Interest
no
Background
End of 2015 our Nephrology Department reopened the Home Haemodialysis program (HHD) with the new monitor Nx Stage System One, and the self care approach.
April 2017 when we had already placed seven patients on HHD, a 48 years old patient was transferred to us from another Hospital following his request.
September 2016, he initiated haemodialysis for end stage renal failure (vascular access: right forearm arteriovenous/fistula.).
The HHD team acknowledged the challenges of this patient request based on his reports, but despite them, decided to interview him to assess suitability, inform and double check his willingness to meet all the demands of HHD. He made clear his interest on HHD in order to gain autonomy, treatment tolerance and to improve recovery time.
The extra burdens identified derived mainly from the right hemiparesis, as he was not able to fill in the HD form or to self needle with the buttonhole technique.
The HHD team prepared a plan to optimise patient skills on his left hand and started the training on May 2015. Six weeks later the patient was able not only of performing all technical aspects of the HHD including self needling, but he’d learned to fill in the treatment forms using his left hand, and he was sent home where he was happily managing his treatment (8months).
During this time he has had no problem at all, has been working and the tolerance during the HD session has improved dramatically: total absence of hypotensive and vomi's episodes.
With this case we show that despite some apparently insurmountable difficulties, when properly trained, HHD can be an excellent option helping the patient's holistic rehabilitation.

Disclosure of Interest
no
The organization of vascular access care

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Background

The organization of care regarding the creation and maintenance of the vascular access (VA) is a complex process. Providing high quality of care can reduce morbidity, improve quality of life and reduces costs. Given the multidisciplinary character of the VA care and the increased age and comorbidity of the dialysis population, it requires a well-coordinated, and dedicated multidisciplinary approach. Nurses play a pivotal role in the VA management. A successful organised VA program focuses on the pre- and postoperative care and is based on the national and international guidelines.

The main processes are continuous education of staff and patients, adequate planning, and early identification or prevention of complications with elective treatment by ongoing monitoring and surveillance. Conditions to realizing these processes are a coordinated multidisciplinary approach and VA data collection to continuously improve the VA quality and measure the effect of the performance and effort.

Disclosure of Interest

no
Multiple single puncture cannulation technique – 5-year results

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Background
Complications related to cannulation can seriously affect the proper functioning of the vascular access. However, little research has been conducted so far on the influence of the cannulation technique and the survival of a vascular access (VA). With the multiple single puncture cannulation technique (MuST), we want to combine some advantages of the rope ladder technique (using the correct venous and rotating path) and the buttonhole technique (specific cannulation sites) without their disadvantages.

Objectives
To evaluate the application of the MuST cannulation technique by assessing complications that has occurred.

Methods
The technique was developed and implemented at our unit after training of the nursing team on the technical aspects and objectives of the project. In 2013, we have implemented the MuST technique. We conducted a longitudinal quantitative, descriptive study by analysing all complications that have occurred between 2013 and 2017.

Results
Since 2013, we have gradually implemented the MuST technique in 97 patients with an arteriovenous fistula (AVF). 41 patients had a new AVF and 56 an established AVF and were previously cannulated using another technique. At the end of our analysis, 47 patients were still remaining. The selected patients were predominantly male 72 (75%), and 46.4% of them were diabetic. Most fistulae were brachiocephalic: 57 (58.7%). We performed almost 48,000 cannulations and observed 9 thromboses, (4 for central and 5 for juxta-anastomotic stenosis) that were not related to the technique used. The mean pain score remains 2 (0-10). The most common complications were cannulation problems, followed by difficulty in haemostasis. Local inflammatory signs occurred in 5 cases.

Conclusion/Application to practice
During the implementation period of the MuST technique (2013-2017), most common problems were related to cannulation and haemostasis. However, the rate of thrombosis and inflammatory signs as well as pain was low. Therefore, this technique could be a potential improvement for our patients.

Disclosure of Interest
no
Training and validation of a nephrology nurse team in ultrasound for complex fistula needling


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Background
Haemodialysis patients require vascular access with long patency and low complications rate. The multidisciplinary team is key to helping achieve this goal and although nursing is part of the team, has limited responsibility. We propose to evaluate the use of ultrasound under protocol by nursing in pathology screening and needling of complex arteriovenous fistulae.

Objectives
1. Nursing ultrasound validation under multidisciplinary protocol with Nephrology, Vascular Surgery and, Interventional Radiology for the recognition of fistula suitable for needling after ruling out anatomical variants and flow measurement
2. To evaluate the usefulness of ultrasound by nursing in complex needling

Methods
Training/validation:
1. Theoretical-practical training by physicians
2. Exam
3. Clinical practice accreditation

Design
Prospective cohort study

Inclusion criteria:
Patient with complex AVF. Informed consent

Study period:
Training/validation: June 2013-June 2015
Study: May 2015-April 2016

Results
- Pathology suspicion: 24 (35.8%), with confirmation: 20 (83.3%).
- Anatomical alteration: 15 (22.4%).
- Complex fistula findings and evolution:
  - Underlying pathology: 6 (33.3%). Flow < 500 ml/min: 9 (13.4%)
  - Immediate resolution 15 (83.3%): modification cannulation area: 11 (73.3%), Buttonhole repermeabilization: 2 (13.3%), long needle use: 1 (6.66%), buttonhole start: 1 (6.66%)
  - Medium-term resolution (6 consecutive sessions):
    - No difficult needling episodes: 10 (55.5%)
    - 1 episode of difficult needling: 3 (16.6%)
  - First cannulation with ultrasound maturation criteria: 13 (86.6%)

Conclusion/Application to practice
1. Ultrasound is a necessary resource for nursing in VA management
2. Nursing participation in the multidisciplinary team, using ultrasound diagnostic orientation and decision making "in situ", can reduce morbidity in complex AVF in an immediate way
3. Regulated use of ultrasound by nursing is possible and should become a routine care

Disclosure of Interest
no
The vascular access challenge

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Background
vascular access remains a key component of hemodialysis, the ideal vascular access should provide safe and effective therapy, vascular access should be with minimal risk to the individual receiving HD. Unfortunately the vast majority of patients are still initiate HD using CVC. We examined the systemic barriers to providing optimal HD access. The root cause analysis delineates patients, physician and system related factors that if modified would lead to improve fistula placement and reduce CVC use.

Objectives
At our clinic we have 72 patients, we accept 8-10 acute patients yearly. Most of them were not examined by nephrologists within 3 months period of dialysis initiation. 95% of these patients start their HD with CVC. For this, we considered that there is a need for change.

Methods
we started to:
- Base relations with different vascular surgeons, and angiographists
- Educating patients about dialysis modalities and vascular access

Results
we succeeded in reducing the number of the patients with CVC, we still have 45% patients with CVC.

Conclusion/Application to practice
Our aims: to reduce the the CVC use, as we know catheter use is related with poor solute clearance and with higher complications. Establishing predialitic clinic educate patients for RRT modality. Conclusion: multiple factors both remidal and nonremidal contribute to CVC usage, including late referral, rapid decrease in kidney function, delay in delivery or acceptance of education and decision making and other system delay.

Disclosure of Interest
no
Dialysis nurses play an essential role in the survival of arteriovenous fistula

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Background
Active monitoring of arteriovenous fistula (AVF) is a top priority in nursing care. Patient survival is directly linked to proper monitoring of the vascular access (VA). In our centre, (80%) patients are dialysed by an AVF. The goal of AVF management is to maintain a functional access with sufficient flow and prevent potential dysfunctions. Thus, nurses must anticipate and treat potential AVF complications.

Objectives
To evaluate the benefit of vascular access monitoring in the reduction of complications.

Methods
Nursing practices included three main roles:

▪ Clinical assessment role for the evaluation of the AVF based on physical inspection, assessment of the thrill and the bruit.
▪ Technical role ensuring the best possible AVF cannulation and proper use of appropriate tools.
▪ Educational and preventive role complying with hygiene and infection control policies and best practice guidelines.

The use of a protocol (developed by the nurses) to monitor the AVF blood flow measuring the recirculation using the thermo-dilution method. Measurement was performed at one, three or six months to ensure optimal and personalized monitoring. Procedure: 1 measurement per month for a period of 3 months, follow by one measurement per quarter, and one measurement every six months afterwards.

Results
From January 2015 to December 2016, 919 thermo-dilution measurements were performed on 95 patients:

▪ 100 required fistulography (11%);
▪ Of which 96% resulted in angioplasty;

During that period:

▪ 8 resections of pseudo-aneurysms;
▪ 1 resection of aneurysms;
▪ 1 removal of fistula due to complications;
▪ 0 thrombosis or necrosis.

Conclusion/Application to practice
Monitoring of the VA is essential for longevity. A multidisciplinary approach allows optimizing the AVF management. Thus, early detection of VA complications by nurses ensures a long lifetime of the VA, comfort and quality of life of the patient.

Disclosure of Interest
no
Evaluation of vascular access: A descriptive study as start of a long term follow-up

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Background
Vascular access (VA) is the lifeline of a haemodialysis patient. Currently arteriovenous fistula (AVF) and arteriovenous graft (AVG) have been recognized as the gold standard of permanent accesses for a dialysis patient, with tunnelled cuffed catheter (CVC) being the bridge to obtain a permanent dialysis access. This study takes advantage of the opportunity to utilize data from 19 associated Dialysis Clinics to examine trends in VA use and trends in patient characteristics and practices associated with VA.

Objectives
Determine the status quo of the overall information related to VA to start a five years’ follow-up study with the aims to reduce VA complications and related hospitalization days to improve patient’s quality of life.

Methods
VA data was collected for each patient at study entry. Practice pattern data from the facility medical director, nurse manager and VA surgeon were also analyzed.

Results
Average age of the 801 patients enrolled was 73.5 years. Native arteriovenous fistula was used by 79%, AVG by 2% and CVC by 19%. As the age increases the use of CVC does as well, moving from 6% (15-39 years) to 50.5% in patients aged over 85. Most frequent complications were: Thrombosis 16.5% and Infections 5.5%. Related VA hospitalizations days are 28.7% of the total days. Dialysis goals achieved were: average Qb 290 mL/min; average blood processed 69.7 L; average Kt/V 1.35.

Conclusion/Application to practice
Achievement of target goals can only be met by a dedicated and sustained teamwork and the development of specific expertise. Effective data management plays an important role in improving the performance and the survival of Vascular Access. Collecting, analysing, interpreting, and acting on data for specific performance measures using accurate reports allows health care professionals to highlight the Vascular Access performance/inefficiencies and provide correct information to the clinical staff to support them their daily clinical practice and decision making.

Disclosure of Interest
no
O 47
Kidney transplant candidates health literacy and how they access health information in non-traditional formats

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**Background**
Transplant candidates receive a significant amount of information during work-up, which, at our institution, is provided during face-to-face sessions, transplant education sessions and annual review clinics, with printed information provided for reference. Nonetheless, retention of this information is poor, and can lead to non-concordance with treatment and adverse outcomes. We examined the demographics of our transplant candidate population, with particular reference to health literacy scores and information-seeking behaviour.

**Objectives**
Understand how health literacy influences kidney transplant candidates

**Methods**
A service evaluation questionnaire was completed by listed transplant candidates on haemodialysis, alongside performance of a rapid estimate of adult literacy in medicine (REALM-R) based on word recognition to record health literacy.

**Results**
61 patients participated, with a mean age of 52 (range 24-75). 41%(25) had previously undergone kidney transplantation. 41%(25) were black, 26%(16) were white and 15%(9) Asian; 8%(5) identified with multiple ethnic groups and 10%(6) as other. 46%(28) reported English as a second language; 53%(32) scored at risk of poor health literacy (Range 2-6, mean 4.46). Education levels varied from less than completion of secondary school (5%) to university qualifications (30%).

Digital natives (individuals born after 1980) represented 13%, while 87%(53) owned a smartphone/tablet and 54%(33) availed of free WiFi during dialysis. 60% reported often searching the Internet to learn about their condition. 70% had never attended a transplant education session, while only 15%(9) had read all of the written information provided. 74% requested to see the printed material as an online digital publication with videos and screen reader function. Crucially, those with lower REALM-R scores were significantly less likely to read the printed material (p=0.004).

**Conclusion/Application to practice**
Our data indicate a critical need to produce transplant-specific patient information aimed at lower health literacy levels and in different formats, in efforts to efficiently and robustly disseminate important information prior to transplantation.

**Disclosure of Interest**
No
Assessment of physical fitness and functional capacity between hemodialysis and peritoneal dialysis patients

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Background
Assessment of physical fitness and functional ability is mandatory in ESRD patients since a small decrease in both of them could lead to a state of disability characterized by the need for assistance in performing daily activities.

Objectives
To determine the physical condition, functional capacity, muscle strength, physical activity level, health related quality of life and depressive symptomatology in patients with ESRD on hemodialysis (HD) and peritoneal dialysis (PD).

Methods
A descriptive analysis using biochemical parameters, basic anthropometric measures and muscle tone. Muscular strength and functional capacity test: Short Physical Performance battery (SPPB), Sit to stand to sit 10 (STS10) and 6 minutes walking test (6MWT), dominant hand grip (HG). Health related quality of life (EuroQol5d) and depressive symptomatology (Beck). Physical Activity (Human Activity Profile (HAP) and Physical Activity Scale questionnaires (PASE))

Results
93 patients, 34 HD and 18 PD included, 61.5% men. Mean age 68.5±14.7 and 40±19 months on dialysis. No statistically significant differences were found between the study groups in relation to demographic and clinical history data. The results of the functional capacity, STS10 (HD 35.9±16.5 vs DP 39.5±23.1 seg), 6MWT (HD 348.1±115.5 vs DP 346.6±86.9 m), HG (HD 24.2±8.6; DP 24.4±10.8 kg) and physical activity (HAP HD 88.9% vs PD 91.2%), decreased physical activity; PASE (HD 51.9±51.2; PD 61.8±49.2) showed no significant differences between the two treatment modalities. No significant differences were observed between the different dimensions of the EQ-5D. In relation to depressive symptomatology, there are no significant differences in the two treatment modalities (BECK HD 11.9±10.9; PD 11.3±8.7), and our results show a mild depression index in the two populations

Conclusion/Application to practice
It would be necessary to establish controls routinely to assess the status of patients in the two treatment modalities and thus be able to detect the early physical deterioration of these patients.

Disclosure of Interest
no
**Evaluation of a shared decision-making intervention for dialysis choice**

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**Background**

At Aarhus University Hospital we have developed an intervention based on shared decision-making for patients facing a choice of dialysis modality. The decision is between haemodialysis and peritoneal dialysis either performed by the patient on his own or with help from the healthcare professional. The intervention is supposed to be tailored to the individual patients and consists of three meetings with a dialysis coordinator who introduces a patient decision aid, named “Dialysis choice” to the patient. The intervention has been implemented at four different hospitals in Denmark.

**Objectives**

The aim of this study was to evaluate how the intervention influenced the patients’ experiences of involvement in their choice of dialysis modality and to investigate how and why the intervention works.

**Methods**

Semi-structured individual interviews with 29 patients were conducted using Systematic text condensation for data analysis.

**Results**

Intervention based on shared decision-making and including the decision aid “Dialysis choice” involved the patients in their choice of dialysis modality. Patients experienced the decision-making process as circular and iterative. Although the patients expressed that they had been unable to make the decision without the meetings with the dialysis coordinator or without using the decision support, they considered the decision to be their own.

**Conclusion/Application to practice**

Due to the circular and iterative decision-making process a shared decision-making intervention on dialysis choice needs to be adapted individually. The active mechanisms of the meetings with the dialysis coordinator were 1) questions to and from the patient and 2) the dialysis coordinator dissemination of exact knowledge about the options. Especially the overview of options and the value clarification in the decision aid contributed to the decision-making process.

**Disclosure of Interest**

no
Education in renal nursing: ultrasound on the inferior vena cava for intravascular volume assessment

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Background
Knowledge of individual intravascular volume status is of great significance for renal nurses when they perform haemodialysis treatments. If ultrafiltration rates exceed plasma refilling rates during haemodialysis intradialytic hypotension can occur. Intradialytic hypotension has been described as the most common adverse event during haemodialysis.

Objectives
Volume status of haemodialysis patients can be evaluated by trained doctors using ultrasound on the inferior vena cava (IVC). To date, renal nurses have not been taught this skill. As part of a larger study exploring the use of ultrasound by renal nurses, we developed an educational programme to ensure that renal nurses received adequate ultrasound training to attain competence in IVC ultrasound.

Methods
The educational programme was divided into 4 parts. Initially, a clinical ultrasound expert delivered the necessary theoretical and then practical components of the programme. After this, the nurse undertook a period of self-directed ultrasound practice (100 scans). During this period three formative reviews of the recorded scan clips with feedback occurred. Specific feedback covered ultrasound technique, image optimisation and acquisition and image interpretation. Finally, as a summative assessment, the nurse performed and interpreted 60 scans on 10 haemodialysis patients. These scans were independently assessed for quality and the nurse interpretations reviewed for accuracy, prior to deeming the candidate competent to independently perform IVC ultrasound.

Results
Ultrasound education involves knowledge and skill acquisition. Initial theoretical and practical education must be translated into competence through task repetition and targeted feedback. A staged educational programme that involves these components is likely to be successful. The rate for ultrasound skill acquisition varies and a summative assessment ensuring competence prior to independent scanning is important.

Conclusion/Application to practice
This four-step programme demonstrated that it is feasible to educate a renal nurse in ultrasound of the IVC for intravascular volume assessment in haemodialysis patients.

Disclosure of Interest
no
Digital videos for kidney transplant candidates with low health literacy educate all

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Background
Previous work in our department revealed a significant difference between patient preferences for digital information platforms and the predominantly traditional formats currently offered, indicating insufficient institutional adaptation to the digital age. It is also evident that a significant number of patients are at risk of low health literacy, and likely to be failed by traditional programs.

Objectives
identify the best strategies to increase health literacy for kidney transplants

Methods
Short digital videos featuring healthcare professionals were created for kidney transplant candidates on living donation, the kidney offer and transplant medications; for living donation and the kidney offer, a paired video was made with a corresponding patient testimonial. An online questionnaire, wherein videos were embedded, was completed by 61 actively-listed transplant candidates while receiving haemodialysis; all patients had received previous transplant information in clinical sessions or via attendance at a transplant education seminar. Patients were asked knowledge-based questions before and after watching the 5 short videos to assess understanding of key messages from healthcare professionals.

Results
Patients with lower health literacy levels were significantly less likely to read printed patient information (p<0.004) and more likely to find videos helpful (<p<0.001). Statistically significant improvements in self-assessed patient knowledge (p<0.001) and mean correct answers for all questions were seen following the videos. Patients reported consistently positive responses to questions regarding the quality of each video (length, speed, pace and interest), while the patient testimonial videos evoked a strong emotional connection and reported synergy with the paired healthcare professional videos.

Conclusion/Application to practice
We created an education intervention aimed at lower health literacy levels but achieved improvements in knowledge and patient engagement regardless of education level. Short digital videos are an effective medium to receive health messages, and allow access and refreshment of knowledge at a time and place convenient for patients.

Disclosure of Interest
no
Applicability of a Patient Decision Aid in App-Format for Patients with Chronic Kidney Disease

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Background
The Dialysis Guide is an app designed to guide patient decisions and aimed at patients with chronic kidney disease making a choice of dialysis modality.

Objectives
The purpose of the study was to uncover the applicability of the Dialysis Guide as a patient decision aid - including whether the Dialysis Guide reduced the decisional conflict and how high the level of usability was.

Methods
The respondents first filled in a pre-intervention questionnaire, then used the Dialysis Guide, and afterwards filled in a post-intervention questionnaire. The respondents' decisional conflict was examined using the Decisional Conflict Scale, and the usability was examined using the System Usability Scale. The change in decisional conflict after using the Dialysis Guide was determined with a paired t-test.

Results
Six respondents at an average age of 65.7 years participated. All had attended a patient school. Following the Dialysis Guide, the respondents' decisional conflict was reduced significantly (p = 0.015). The mean value (SD) of the System Usability score was 65 (13.509), which corresponded to a low usability.

Conclusion/Application to practice
The significantly reduced decisional conflict indicated that the Dialysis Guide helped the respondents' choice of dialysis modality. Having attended a patient school is assumed to have had an impact on the low amount of decisional conflict before using the Dialysis Guide. The usability of the Dialysis Guide was not found sufficient, which might be explained by the respondents' average age. The overall applicability of the Dialysis Guide cannot be determined on the basis of this study.

Disclosure of Interest

no
Knowledge and educational needs of renal nurses in the oral hygiene of dialysis patients

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Background
Dental and oral cavity diseases are common problem among patients undergoing dialysis. Oral health is also deteriorated by inadequate hygiene. The education increases the awareness of patients and improves their health. It is necessary that nurses conduct education tailored to the patient's needs in order to provide efficient nursing care of highest quality standards.

Objectives
The aim of the study was to assess the level of knowledge and educational needs of renal nurses in the field of oral hygiene of patients undergoing dialysis.

Methods
The study was conducted among 68 renal nurses from all over Poland. The author’s questionnaire has been used to collect the data.

Results
All of the respondents were women, and the mean time of work as a renal nurse was 19.5 ± 9 years. 42.6% of the respondents gained knowledge about oral hygiene through self-education, only 23.5% learnt it at the nursing school.

94.1% of nurses indicated the correct number of teeth. The majority of surveyed (55.9%) had knowledge of brushing frequency, 29.4% knew the duration of brushing.

Few of the respondents (11.8%) were aware that caries occurs less frequently in haemodialysis patients than in the general population.

All participants pointed out that the education about oral hygiene of dialysis patients is needed.

Conclusion/Application to practice
The knowledge of renal nurses on oral hygiene of dialysis patients is general and insufficient, which results from the lack of education. The respondents indicated the need to conduct training and expressed their willingness to participate in them.

The implementation of the educational program for this group would increase the level of knowledge, allow to develop a model of action and create educational programs for patients, and consequently improve the health and quality of life of patients undergoing dialysis.

Disclosure of Interest
no
Symptom reporting in patients with chronic kidney disease: insights from a UK qualitative study

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Background
Patients with chronic kidney disease (CKD) stages 4 and 5 experience a high symptom burden, comparable to that of palliative care patient populations. Nonetheless, in the demanding clinical environment where symptoms may not be systematically assessed, clinician awareness of patient symptom status is dependent on patient voluntary self-report. Given the significance of symptom identification as a precursor to the instigation of symptom management strategies, there is little information on the extent by which patients self-report their symptoms to clinicians.

Objectives
1. To explore symptom reporting behaviour in patients with CKD stages 4 and 5.
2. To identify barriers to symptom assessment in this patient population.

Methods
Eighteen semi-structured patient interviews were conducted, using an interview schedule to guide discussion. Data were analysed using thematic analysis to identify themes and patterns across the patient experiences.

Results
Almost all (n=15) of the study participants stated that they would not routinely report their symptoms to clinicians. Reasons for not reporting symptoms were clustered around the following five themes:

- guilt at wasting clinicians’ time unnecessarily in busy out-patient kidney clinics;
- guilt at impinging on other patients’ clinic time;
- fear of the unknown and of being initiated onto dialysis;
- lack of knowledge that the symptoms were CKD-associated;
- and, an assumption that the symptoms were age-related and consequently untreatable.

Conclusion/Application to practice
This study suggests that patients with CKD stages 4 and 5 do not habitually report their symptoms to clinicians, resulting in the non-treatment of potentially manageable symptoms. This finding underlies a need for standardised symptom assessment in the clinical setting, as a means by which to identify CKD-associated symptoms and target appropriate symptom alleviation strategies.

Disclosure of Interest
no
How do family and informal carers of patients undergoing HD influence adherence to treatment?

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Background
The incidence of end-stage kidney disease (ESKD) is increasing. Renal replacement therapies replace the function of damaged kidneys but each treatment option has its own set of restrictions and lifestyle choices. Adherence, to hemodialysis (HD), can be difficult due to the complex, challenging and restrictive nature of this therapy and the treatment burden is high. The reasons why patients chose to adhere to HD treatment or not are multifactorial and are intertwined with their family and informal carer’s relationships.

Objectives
To establish, how family and informal carers of patients, undergoing HD, influence adherence to treatment.

Methods
A systematic review of the literature.

Results
A total of 207 studies were examined for this study. After applying, the predetermined inclusion and exclusion criteria, a total of eighteen studies were included in the final review. Many of the studies examined the issue of nutritional adherence. All the data obtained was qualitative in nature with the majority relying on questionnaires and semi-structured interviews.

Findings were divided into four key themes, the first two themes examined the experiences of family and informal carers, and the influence they had. The third theme explored factors that limited family and informal carers’ ability to influence adherence to HD. The fourth theme looked at the influence HCPs had in helping family and informal carers improve adherence, in loved ones undergoing HD.

Conclusion/Application to practice
In order to help support family an increased awareness of ESKD, the symptom burden and treatment options is required, by families and HCPs alike. In order to help families and informal carers influence adherence to treatment, education, and family involvement must be prioritised. The relationships between HCPs and family and informal carers must also be given careful consideration, to ensure therapeutic relationships are built.

Disclosure of Interest
no
Implementation of a welcome programme for patients

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Background
Welcoming patients in dialysis clinics is very important to help patient and family to eliminate negative feelings that may arise, prevent situations of discomfort and mistrust and create a pleasant environment. It is the first care provided to dialysis patients and a unique moment, as it is the beginning of a relationship between the dialysis team. The first impression is often the one that last.

Objectives
To describe the implementation of a welcoming programme for patients in dialysis clinics.

Methods
Prospective and descriptive study over one year from 1/12/2016 until 31/12/2017.
The welcome programme was conducted over 3 months period across several professional categories. We involved the patients and their caregivers.
- Care Assistants: Facilities presentation and related safety advices.
- Nurses: Matters related to treatment and vascular access.
- Social Assistants: Social supports.
- Nutritionist: Nutrition advices.
- Pharmacist: Drugs management.
- Nephrologist: Dialysis prescription.

Results
25 patients and 40 caregivers were enrolled. On the basis of the content analysis we extracted the following comments: “it’s very important to understand the patient and help him to fulfill necessary recommendations”, “too much information for a single person”, “we’re family, cannot give up”. Patients said: “today I learned more about my treatment”, “we feel closer to the team”. The evaluation of this implementation has proven that the professional/patient/family interconnection has created closer bonds and contributed to a better treatment acceptance.

Conclusion/Application to practice
Development of new and innovative patient welcome programmes is of great importance, as it will determine the relationship between the patient, family and the multidisciplinary team. We consider the integration of the family as part of the team to be of crucial importance.

Disclosure of Interest
no
Social media usage behaviour of chronic haemodialysis patients

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Background
In today's world many patients search for medical information in social media networks. Thus, they have become an important communication tool to inform and train the patients.

Objectives
In this study, we wanted to evaluate the social media usage behaviour of the chronic dialysis patients treated in a dialysis network in Turkey.

Methods
4,683 patients from 41 clinics with free internet access were given a questionnaire with 19 questions. The clinic staff was asked not to help patients with the questions to prevent a potential bias. 15 patients who were illiterate were excluded.

Results
27.1% (n=1,271) of the patients said that they use the internet (29.7% female, 98.8% literate). Of these patients, 2.5% were under 20 (n=32), 38.3% were 20-25 (n=487) and 59.2% over 45 years old (n=752). 21% used the internet very frequently and 29.1% regularly. 76.4% (n=971) considered this usage too high. 86% had a smartphone and >98% said that they use their phone for internet and apps. 44.4% (n=564) of patients had 5 or more apps on the phone and used them intensively. 14% (n=178) used social media to make new friends, 33.4% (n=424) to follow their friends’ activities, 36.2% (n=460) to be kept updated, 21.2% (n=270) to play games, 7.9% (n=100) to follow brands, 22.8% (n=290) to chat and 27.1 (n=344) to post something.

Conclusion/Application to practice
In haemodialysis patients the use of the internet and social media is increasing. It may be an important platform to train patients, have them follow their health status and guide them with more accurate and updated information.

Disclosure of Interest
no
Reduced sleep and sleep quality in dialysis patients

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Background
Peritoneal (PD) as well as hemodialysis (HD) patients experience a high burden of physical and emotional symptoms directly affecting their quality of life. In this study, objective and subjective measures to quantify sleep have been applied and were compared to those of healthy controls.

Methods
We included 10 PD (age 66±17y; 7 male), 42 daytime HD (64±18y; 30 male) and 12 nocturnal HD (55±13y; 8 male) patients (in-centre HD 3x/week), and corresponding one to one age and gender-matched healthy controls. Actual sleep time, sleep efficiency (i.e. actual sleep as % of time in bed) and fragmentation index (measure for sleep quality) were measured by application of a Motion-watch for at least two consecutive nights and parameters were extrapolated to weekly basis. Patients and controls also completed Insomnia Severity Index (ISI) (i.e. sleep quality) and Pittsburgh Sleep Quality Index (PSQI) (i.e. sleep habits) questionnaires.

Results
Nocturnal HD patients had lower actual sleep (5h56±1h12) than daytime HD (6h55±1h29;P=0.043) and PD patients (6h44±0h53;P=0.020), while sleep efficiency, fragmentation index, ISI and PSQI score were not different between the different dialysis modalities. In each group, sleep efficiency was lower and the fragmentation index higher than in healthy controls, resulting in a median to poor sleep quality, as defined as sleep efficiency <85%, fragmentation index >25, and actual sleep <7h. Remarkably, ISI and PSQI scores were not different between PD patients and healthy controls, while both scores were higher in both HD groups as compared to controls.

Conclusion/Application to practice
Independent of the modality, dialysis patients have a poor sleep quality, compared to age and gender-matched healthy controls. Nocturnal HD patients sleep least.

Disclosure of Interest
no
Comparative usability evaluation of a novel peritoneal dialysis assistance device using mobile eye tracking

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Background

Patients in peritoneal dialysis (PD) have besides of their disease further comorbidities like diabetes, arthritis and more. This result in several limitations like tactile and visual restrictions or dexterity shortfalls. In product development, it is mandatory to consider characteristic of later users and to focus on its safe and efficient use.

Objectives

Usability evaluation comparing two different prototype status of a novel dialysis patient assistance device. Relevant questions: (1) Is the development of the user interface continuously gone in the direction of a safer and more efficient use? and (2) Where are the differences in the usability of the main interface features?

Methods

This is achieved with a usability study using mobile eye tracking and nine representative novice participants (77% younger 65 years (av. 25 years), 23% older than 65 years (av. 73 years)). Participants use recent prototype vs a previous prototype.

Results

Gaze data shows that the challenges in the PD handling cycle with the device are comparable between the two user groups. The main user interface features of the device are three buttons and a lever. Gaze data of the interaction shows differences between the two prototype versions can be found. The lever is gazed at less than one second on average in the relevant handling stages for both versions, with slightly lower focus times for the older version. The buttons of the most recent version are gazed at between 33 percent (1.36 / 2.03 seconds) up to 51 percent (0.75 / 1.53 seconds) on average shorter.

Conclusion/Application to practice

The gaze data of the main user interface features indicate for both prototype versions a low level of cognitive load. While the usability of the lever is comparable for both versions, the buttons of the most recent prototype version seem to need a lower level of concentration compared with the the older prototype version.

Disclosure of Interest

yes
S-O 60
Chronic Kidney Disease patients and self-care: what has been studied about this?
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Background
Very little is known about the daily challenges of facing a life changing event such as CKD. Individual, social, emotional, physical and mental health aspects are common to the process of adaptation to CKD.

Objectives
To identify whether there are nursing care programmes that promote the self-care of CKD patients.

Methods
In order to identify whether there are nursing care programmes that promote self-care of CKD patients, we performed a literature review. B-on and EBSCO databases were used with the search words "chronic kidney disease" AND "haemodialysis" AND "nursing care" AND "intervention programme". We obtained 21,812 results. In order to reduce the number of articles, we reduced the time interval to articles published between 2012 and 2017 and only selected articles that provided full text and that had been reviewed by specialists amounting to 172 results. After reading the titles, 9 papers were selected for a more detailed analysis.

Results
All articles reviewed report that only limited research has been performed on the effects of self-management interventions among haemodialysis patients. However, one of them referred to a chronic condition management programme, i.e. a structured programme that provides a consistent and reproducible approach to assessing self-management behaviours, identifying problems, setting goals, and developing care plans.

Conclusion/Application to practice
The chronic condition management programme may help patients with CKD to perceive and identify their biggest problems and promote self-management skills for their chronic illness.

Disclosure of Interest
no
Screen care (video communication) for patients on home dialysis

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Background
About 17 per cent of dialysis patients in The Netherlands prefer home dialysis (HD or PD) to in-centre dialysis.

Objectives
It is expected that more patients will choose home dialysis if provided with custom tailored support by means of eHealth applications such as screen care (video communication).

Methods
In our project 33 HD patients and 25 PD home dialysis patients were provided with a tablet pc (iPad) for screen care.

Results
Scientific evaluation showed that screen care is a substantial addition to their life and treatment at home. As patients experienced the inability to continue with all their daily activities as a consequence of their illness due to either the lack of time or energy, screen care contributed positively giving them more time to carry out their activities. Examples of applications of screen care are, amongst other things, video consultations with their Nephrologist instead of outpatient trips to the dialysis centre, as well as support at a distance when they have questions, doubts or when they experience an unexpected situation. Home dialysis patients are above all engaged in being not ill. All practical support is profitable for the patient. Screen care contributes first of all in diminishing the impact of their illness on daily life. Professionals that took part in the project mentioned the advantages of screen care diagnosing from a distance, for example inspecting oedema, an allergic reaction, or an infected fistula, and were able to give instructions. Furthermore video communication offers excellent support for solving machine alarm problems from afar.

Conclusion/Application to practice
Screen care proved to be a valuable contribution to self management of the home dialysis patients thus improving the quality of home dialysis and quality of life.

Disclosure of Interest
no
Dialysis disaster evacuation plan- Emergency dialysis patients' self-disconnection through ‘Clamp & Cut’ procedure.

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Background
The Emergency hospital evacuation plans have always been a major and important part of the disaster management, particularly those caused by natural phenomena such as a powerful earthquake. Hospitals worldwide, especially in the US and Japan who have experience in dealing with such natural disasters. The key to a successful natural disaster management is a well organized preparedness plan.

Objectives
In this paper, a special disaster dialysis unit evacuation & preparedness plan is presented which has been implemented in our unit since the strong earthquakes of Kefalonia, Greece in January-February 2014, to prepare staff and patients in the event of an earthquake. A detailed description is made of the special training plan for dialysis patients with the << Clamp & Cut >> self-disconnection procedure.

Methods
For the development and the design of this plan, a review of both Greek and international literature search was performed using electronic databases. The plan includes the emergency evacuation plan of the hospital building, as well as the training plan for all suitable haemodialysis patients (following assessment) in emergency self-disconnection from dialysis machine using the << Clamp & Cut >> technique. A video demonstration will be included in the presentation.

Results
The plan has promoted patients’ confidence, by alleviating their anxiety of being on dialysis if an earthquake occurs. This has reinforced the need for patients to keep calm and not to pull out their needles which could lead to catastrophic consequences for the fistula/graft or venous catheter.

Conclusion/Application to practice
The implementation of the dialysis unit disaster evacuation and preparedness plan is recommended for every haemodialysis unit. Developing and implementing a special emergency evacuation and preparedness plan, which includes patients training, using the << Clamp & Cut >> self-disconnection procedure not only prepares them for natural disasters but also for other emergency situations.

Disclosure of Interest
no
Performance and indicator management system in haemodialysis

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Background
Today, quality management has become reality in many healthcare facilities; however performance and indicator management systems monitoring, evaluating and measuring the results of the dialysis services are also important to ensure continuous quality.

Objectives
To improve patient safety and quality of treatment outcomes by analysing in terms of efficacy and efficiency by the implementation of an indicator management system

Methods
This system was applied to evaluate the compliance of our clinics with institutional targets at regular intervals by processing patients’ treatment inputs and outputs in consideration of the Personal Data Protection Law, via electronic information systems, such as Automatic Data Transfer Systems (ADTS) and Clinical Management System (CMS). Clinical Review Reports were created for a more effective use of the Corporate Scorecard, which has been used since 2011 and represents a basis of the Performance and Indicator Management System. Thus, the implementation status of the main and sub-indicators can be observed, if any improvements made and the taken actions from all perspectives but mainly from the patient perspective reflecting the quality of treatment both at clinical and at the administrative level.

Results
As a result of the implementation, a significant improvement was observed in the parameters used to measure the quality of the dialysis. In addition, the interest and participation of the health workers in the quality management system has increased.

Conclusion/Application to practice
In order to ensure a successful performance and indicator management system at healthcare institutes, the system must be understandable and create a culture by healthcare professional at all levels of the institution and especially by policy makers. Consequently, the use of various technological resources and management tools provide an indisputable benefit.

Disclosure of Interest
no
Australian Accreditation Standards, a challenge for Haemodialysis Units

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Background
Australian hospitals have to comply with the ten National Safety and Quality Health Service Standards (NSQSH) to ensure compliance for accreditation. Haemodialysis (HD) units based in hospital also have to adhere to these hospital standards for both documentation and policy.

In our hospital based unit, daily documentation and policy did not meet NSQHS standards. Clinical incidents or near misses further demonstrated there was inadequate handover and also confusion about when to initiate medical emergency treatment (MET) alerts during clinical deterioration.

Objectives
To update all policy, forms and handover process to meet the NSQHS standards. To provide nursing staff with clear guidelines on when to initiate a MET alert.

Methods
All unit policy and forms were reviewed in relation to all ten NSQHS standards. Obtaining consent, conducting patient identification, clinical handover and clinical deterioration were all identified as areas for improvement. Consent forms, an identification armband system, a bedside handover process and newly formatted dialysis treatment forms with a track and trigger component for MET were developed and introduced over 6 months.

A quantitative compliance audit was conducted on 44 completed dialysis treatment forms, assessing 21 areas of the form. Survey monkey was used to conduct a quantitative nursing survey regarding clinical handover. Recent MET events were evaluated.

Results
Compliance with documentation on the treatment form ranged from 56% (recording respirations) to 100% for multiple components (mean 92.6%, SD 11.7). Integrated notes were appropriately written for 86% treatments. The nurse handover survey found that 100% of nurses felt better informed about the patients they were due to care for. Four episodes of major clinical deterioration were managed confidently and appropriately.

Conclusion/Application to practice
An integrated approach to meeting Australian accreditation standards was successfully implemented into the HD unit. The risk of an adverse event has been reduced. Further audits are planned to monitor compliance.

Disclosure of Interest
no
Improving management in emergency situations via full scale hemodialysis specific simulation.

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Background

Holstebro Dialysis Center, Denmark employs 58 nurses and takes care of 120 patients with acute and chronic kidney disease.

During hemodialysis treatment, emergency situations occur.

It has been of great importance to the leading nurse to improve the nurses' qualifications and ability to handle emergency situations based on existing guidelines.

It is evident, that a full scale simulation improves technical and non technical skills in areas such as team work and communication. A group of 3 nurses with special competences in patient safety, quality improvement and simulation was established in order to plan simulation sessions for all nurses.

Objectives

To improve:

* nurses qualifications and abilities to handle emergency situations in patients on hemodialysis and optimize patient safety and quality in these situations.
* team work and communication.

Methods

Using the PDSA-circle the working group:

* planned and conducted theoretical and practical simulation sessions.
* designed 2 emergency haemodialysis specific scenarios including debriefing.
* designed a quantitative questionnaire, handed out to nurses before simulation sessions, 1 month and 6 months after simulation.

48 nurses divided into 12 teams attended the education.

Results

Before simulation and 1 month after, nurses were asked how “capable they felt in handling emergency situations”.

Answers showed that before simulation 55% felt capable to some extent and 35% felt capable to a great extent. 1 month after, 33% responded to some extent and 60% to a great extent.

Conclusion/Application to practice

Simulation sessions have developed and strenghtened the nurses' qualifications in handling emergency situations. Knowledge of the importance of team work and communication has also increased.

Patient safety has improved too. Nurses have increased qualifications in handling emergency situations.

We expect repeating simulation for all nurses every year.

Disclosure of Interest

no
Compassion fatigue of the nursing staff at the Dialysis unit

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Background
The nursing staff that treats chronically ill patients with incurable diseases, such as dialysis patients, is exposed to the ongoing, routine work with suffering, stories and experiences of patients, causing emotional stress and loss of energy, which can lead to compassion fatigue. This can be due to secondary trauma and professional burnout, resulting in decreased emotional involvement, depersonalization, and problems in work efficiency to the point of harming treatment.

Objectives
Nurses in the dialysis department meet with chronic and terminal patients suffering physically and mentally, so it is important to deepen and expand knowledge about compassion fatigue in order to create activities aimed at reducing this phenomenon, to improve the quality and safety of treatment and the welfare of the staff.

Methods
A professional quality of life questionnaire was sent to examine compassion fatigue among the nursing staff of 20 nurses, 5 male and 15 female nurses all graduates of the Basic Course for Nephrology with professional experience 5-25 years and a range of ages between 28 and 58 years.

Results
From the responses to the questionnaires we saw that most of the staff had a medium level of compassion towards the patients. Also among the staff we saw both high and low levels of satisfaction from helping patients, however their average level of risk for compassion fatigue was high compared to their satisfaction.

Conclusion/Application to practice
Dialysis nurses may be suffering from compassion fatigue more than other sectors. The fact that they are unaware of the hidden dangers of this phenomenon is reflected in the results of the questionnaires. Expanding knowledge on the subject and providing activities giving professional, personal and organizational support will help reduce compassion fatigue and lead to improved quality and safety of treatment.

Disclosure of Interest
no
S-O 67
Work on the night shift cause of health loss.

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Background
The work of a nurse is an extremely difficult and responsible job. Nurses, caring about the health of patients during night shifts, usually are drained & exhausted. The night shift is particularly detrimental to their well-being. Nurses’ work is one of the most dangerous jobs in healthcare professions.
In Poland, nurses work about 150-350 hours per month. This is due to the low earnings and immigration of nurses to the west.

Objectives
In this study we wanted to draw attention to the dangers that are caused by night work. Our physiology requires us to be active during the day, sleep and rest at night. When this circadian rhythm is not preserved, we expose ourselves to the loss of concentration and exhaust.

Methods
The study group consisted of 1,600 nurses.
In the research we used the original questionnaire. We analyzed the results of the nurses’ research.

Results
Our research shows that nearly 90% of nurses suffer from health problems that may be caused by night work and disturbance to the circadian rhythm.

Nurses are more likely to get breast cancer, get divorced, drug and alcohol abuse. Nurses have problems getting pregnant or keeping a pregnancy. Nurses suffer from: hypertension, coronary heart disease, stomach ulcers, dyspepsia, irritable bowel syndrome, problems with defecation, depression, neurosis, hormonal disorders. Nurses have different skin diseases (gloves, disinfectants). In Poland, nurses suffer from overwork.

Conclusion/Application to practice
A nurse’s job is a difficult and responsible job. The nurse should be healthy in order to look after the sick patients. The nurse should set an example to patients - how to live a healthy life and care for it. While, nurses disregard their health because of duty obligations. Helping other people will make them pay the highest price - they might end up losing their health and life.

Disclosure of Interest
no
O 68
Talking about Sex: The Challenge to Holistic Care
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Background
Renal teams focus predominantly on renal replacement therapy and physical symptom management; rather than mental health, body image or self-esteem. Sexual dysfunction in patients with ESRD is recognized and estimated to affect 83% of men and women on Haemodialysis (HD) but there are little qualitative data exploring communication between clinical teams and patients about this issue.

Objectives
We aimed to increase understanding of how renal nurses feel about discussing sexual issues with patients.

Methods
We conducted semi-structured, audio recorded interviews (approximately 90-minute duration) with six renal nurses using an iterative process. We adopted a phenomenological approach to encourage in-depth reflection. The narrative was analyzed, interpreted and themed independently by three researchers.

Results
All nurses described sexual issues as important to them personally, but rarely considered the impact of sexual dysfunction on patients. HD nurses especially described that talking about intimate issues with patients wasn’t their job; “I’d hope those discussions would happen with the renal consultant”. Some felt the setting was not conducive to an intimate discussion “It’s not a great environment for that, just a curtain between each patient”. Nurses appreciated the importance of intimate discussion but felt communication around sensitive issues was not the priority “The objective is to get people on and off (dialysis) personal things don’t come into it”. Some nurses felt uncomfortable about talking to older patients about sex and believed, if the issue wasn’t ‘raised’, it wasn’t a problem “I’d be surprised to be asked (about sexual function) I don’t think I’m prepared for it”.

Conclusion/Application to practice
Nurses rarely initiate discussions about sexuality so this raises important questions about achieving complete patient-centered care and who should be discussing the QOL issues with patients? Is a change of culture required to champion the importance of attaining therapeutic intimacy and discussion about sensitive issues?

Disclosure of Interest
no
Arts-based interventions for patients with end-stage kidney disease receiving haemodialysis: An integrative literature review

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\textbf{Background}

End stage kidney disease (ESKD) is a life changing illness. Many patients requiring haemodialysis, a treatment that involves patients attending hospital three times a week for four hours each time. This treatment impacts profoundly on quality of life (Ho and Li, 2016) and many patients report depression and anxiety (Bujang \textit{et al.}, 2015). Arts-based interventions have been used across healthcare settings to improve depression, anxiety and quality of life (Boyce \textit{et al.}, 2017), therefore arts-based interventions could help address the impact of this challenging treatment on patients with ESKD.

\textbf{Objectives}

To examine the effects of arts-based interventions on patients with ESKD receiving haemodialysis, and explore how these interventions are implemented.

\textbf{Methods}

The electronic databases searched included MEDLINE, EMBASE, CINAHL, PsycINFO, Web of Science and Scopus. Relevant journals were hand searched, and reference lists of identified articles were reviewed. Articles were included that involved an arts-based intervention and participants receiving haemodialysis. Articles were excluded if the intervention described was an arts therapy. No exclusion criteria were applied to methodology or outcomes.

\textbf{Results}

16 articles were identified after screening titles, abstracts and full texts. 13 articles focused on music listening interventions, utilising quasi-experimental designs, while 3 articles explored arts-in-medicine programmes. A variety of outcome measures were used, the most common were anxiety, pain and physiological measures. While most articles reported statistically significant improvements there is a lack of consistency in methodology and few rigorous randomised controlled trials.

\textbf{Conclusion/Application to practice}

There is a lack of literature assessing the effectiveness of arts-based interventions for patients with ESKD receiving haemodialysis. The current evidence focuses on music listening interventions using quasi-experimental approaches, therefore exploration of non-music interventions and more rigorous randomised controlled trials are needed.

\textbf{Disclosure of Interest}

no
Nurse Practitioner Role Vital for Vulnerable Patient Populations Living with Renal Disease

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Background
Within the nephrology specialty, the nephrology nurse practitioner (NP) role has proven to be a valuable asset to the multidisciplinary renal team. Nephrology NPs possess competencies to diagnose, treat and manage patients with renal dysfunction and utilize a holistic approach to care to meet the complex needs of their patients. In a diverse metropolitan area, patients with renal disease often present with complex medical and social issues that increase their vulnerability. Examples of vulnerable patients include elderly patients, patients with complex social needs and palliative renal patients. Given the complexity of these patients, a quality improvement initiative was conducted to further develop the inpatient nephrology NP role around improving the level and quality of care for this unique patient population.

Methods
The first initiative was to strengthen the inpatient multidisciplinary team, through a team building exercise that focused on identifying preferred team culture and roles, identifying key patient groups and defining the role of the NP on the team. The team building exercise proved successful in building a more collaborative and cohesive team. To build the nurse practitioner competencies in the care of the elderly, socially complex and palliative renal patients, mentorship with the geriatric-nephrology consult service was initiated to guide the nurse practitioner in comprehensive management of these patients. Additionally, strong collaboration with allied health workers to support patients with transportation and home supportive services were initiated.

Results
The results of the utilization of the nephrology NP role found: (1) Elderly patients; the NP role was key in maximizing patients return to the community (2) Palliative renal patients; the NP role was key in maximizing comfort for patients discontinuing dialysis (3) Socially complex patients; the NP role was key in facilitating access to hospital and community supports.

Conclusion/Application to practice
Nephrology NP role is vital for facilitating access, support and quality of care for vulnerable patients living with renal disease.

Disclosure of Interest
no
Evaluation of the quality of life of haemodialysis patients in Abu Dhabi.

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Background
The quality of life (QOL) among haemodialysis (HD) patients is greatly associated with clinical outcomes such as morbidity and hospitalization. QOL is not routinely assessed in HD facilities within Abu Dhabi.

Objectives
The study aimed to describe the QOL of HD patients as an initial step to determine an appropriate service development plan to be implemented within the organization.

Methods
40 HD patients at one unit were asked to complete the self-administered Kidney Disease Quality of Life short form 36 (KDQOL-SF 36 QOL) survey. 28 patients consented to participate over a period of 2 weeks.

Results
The study revealed low mean scores for the physical (PCS) (42.4±8.11) and mental (MCS) (51.7±8.55), with the lowest scores being from the burden of kidney disease (BKD)(40.18±21.41) component. 60.7% (n=17) scored less than 43 for PCS scores while 42.9% (n=12) scored less than 51 for MCS scores. Scores at this level are associated with a higher risk of death. Patients also scored highly in the symptoms and problem list subscale, with mean scores around 79.68 (±13.60).

Conclusion/Application to practice
The study revealed low QOL scores, additionally patients scored highly for symptoms and problem list, however few dialysis-related complications were reported. To date there have been no comparisons between KDQOL-SF-36 sores between Arab and western dialysis patients which may explain some discrepancies. In an attempt to address these findings, in particular the symptoms, a 3-phase service development plan (SDP) was proposed adopting a standard anaemia protocol, mentoring of anaemia link nurses, and the utilization of a nurse practitioner (NP) to lead a protocol-driven collaborative approach towards anaemia management. This is expected to improve patient outcomes, improve QOL and decrease anaemia-related symptoms. It ensures value-based service, uniformity in work-processes, improved team work and upgraded status of renal nursing practice in the UAE.

Disclosure of Interest
No
Background
Nowadays dialysis machines are extremely sophisticated instruments. Nephrology nursing, from its historical beginnings, needs to keep pace with the development of techniques and technologies. On one hand, implementing technological advances from other disciplines and on the other, developing its own nursing techniques in renal patient care.

Objectives
- Think about how technique and technology influence nephrology nursing and people undergoing renal replacement therapy.
- Identify narrative care and dialogue as tools for comprehensive nephrological care.

Methods
This work uses qualitative methodology. It is a hermeneutical research based on Paul Ricoeur’s philosophical view.

Results
Ortega y Gasset states that: “the technique is what makes us fully human”. He considers that we relate to the world through technology, and that human nature has inherently the ability to create an artificial world that is complementary to its purely nature biological. At the same time, Collière proposes that: “technology is not neutral” and we must emphasize that hypertchnicization in hemodialysis has led to the fact that although annual mortality is higher than in oncological diseases, end of life care does not have the same importance to people on hemodialysis and peritoneal dialysis. When considering the narrative dimension in care, what is proposed is to take into account the temporal dimension of human experience, and the story is the linguistic dimension that we provide to the temporal dimension of life.

Conclusion/Application to practice
Technique and technology are the “ways of life” where the relationship between the nephrology nurse and the person receiving renal replacement therapy develops. Hypertchnicization in hemodialysis is not neutral, it has physical, social, enviromental and economic consequences. To contextualize technical and technological care we need a space for dialogue and listening in which we can agree on an ethical framework.

Caring from the narrative identity implies that we take into account the temporal, historical and social dimensión of the other.

Disclosure of Interest
no
S-O 73

Depression in dialysis patients

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Background
Depression is defined as a mood disorder. Some studies show that the prevalence of depressive symptoms is high in dialysis patients. Nurses don't have a sufficient understanding of depressive experiences to ensure a proper approach to care. It’s therefore important to put the patient at ease, be neutral, avoid judgments and prejudices, let them tell their story and reassure them wherever possible.

Objectives
To evaluate potential depressive states of the patients treated in two dialysis centres of a large network

Methods
In October 2017, patients of two dialysis units were provided with the Patient Health Questionnaire-9, a multipurpose instrument for screening, diagnosing, monitoring and measuring the severity of depression, (PHQ-9). In February 2018, we applied the Hospital-Anxiety and Depression-Score to evaluate psychiatric comorbidities in various clinical settings, except for the accident and emergency department, (HADS) in patients who were in lower moderate and severe depression according to the previous PHQ-9 measures.

Results
In the first step, out of 100 patients, 96 responded to PHQ-9, 22 (22.9%) were not depressed, 39 (40.62%) in mild depression, 23 (23.9%) moderate, 11 (11.45%) moderately severe and 1(1.13%) in severe. In the second step, patients with positive results in the first test (35), responded to HADS. 4 were normal, 13 in mild depression, 14 in moderate and 4 in severe depression. Final results: 31(32.3%) patients are positive for both tests showing persistent depressive symptoms for at least four weeks. The public health service psychologist was involved in the process and decided with the multidisciplinary team to take care of the patients with positive results in both tests.

Conclusion/Application to practice
The study’s results show that depression is a fact in the dialysis environment. Consequently, validated questionnaires can be a useful tool for nurses to screen depressive symptoms in haemodialysis patients and improve quality of care and patients outcome.

Disclosure of Interest
no
Factors influencing adherence to medication in patients with chronic kidney disease

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Background
Non-adherence to multi-pharmacological treatment, increases the risk of morbidity, mortality and hospitalization. We know little about the perspective of patients with chronic kidney disease in regard to factors influencing medicine taking.

Objectives
Our aim was to synthesize the available qualitative research on factors that facilitate and hinder adherence to medication from the perspective of patients with chronic kidney disease.

Methods
A systematic review of qualitative research adhering to the Enhancing transparency in reporting the synthesis of qualitative research (ENTREQ) framework. We used thematic synthesis and the Confidence in the Evidence from Reviews of Qualitative Research (GRADE-CERQual) approach to assess the confidence of the evidence.

Results
Nineteen studies involving 358 patients with chronic kidney disease were included. We identified 3 analytical themes; logistics, benchmarking the need for medication; and the quality of the patient-physician relationship with 7 descriptive sub-themes as factors influencing patients’ adherence to medications.

Conclusion/Application to practice
Helping patients to map their everyday activities and motivating them to associate medications with everyday activities may facilitate adherence to medications. Addressing patient beliefs about medications, supporting patients in coping with side effects of medications and eliciting patients’ wishes for involvement in treatment decisions may also facilitate adherence. Barriers to adherence were the costs of buying medications, and lacking understanding of the indications and effects of medications.

Disclosure of Interest
no
Quality of Life, decision making, cognition, performance and frailty in conservative management

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Background
Conservative management is an approach for patients who do not wish to dialyse and addresses physical and psychological needs of patients and carers.

Objectives
To describe QoL, decision making, cognition, performance and frailty in patients who chose conservative management.

Methods
The PAlliative Care in chronic Kidney diSease study (PACKS) was a UK multicenter, prospective, observational study, undertaken between January 2016 to May 2017, which included patients with an eGFR ≤ 20 mL/min who had opted for conservative management of end-stage kidney disease (ESKD). The primary outcome was QoL at 3 months measured using the EQ-5D-5L visual analogue scale. Secondary outcome measures included: QoL over 12 months, symptoms, cognition, frailty status, performance and satisfaction in decision making in patients, and carer assessment of patient QoL and decisional conflict by proxy.

Results
Forty-two patients (female=59%) and 19 carers were recruited. 85.7% had cardiovascular disease. Average eGFR was 12.47 ± 3.22 mL/min at baseline and remained stable over 12 months. The mean EQ-5D-5L Visual Analogue Scale at baseline was 63.55 ± 15.86 (n=42) with no substantial change at 12 months (-2.00 ± 21.70 n= 10). At baseline 83.3% (n=35) reported problems with mobility and 73.8% (n=31) with usual activities. Participants scored higher measures of QoL compared to when administered by proxy. Scores of the Palliative Performance Scale reduced over time. In relation to frailty, participants scored as ‘vulnerable’ to ‘mildly frail’ at baseline (4.19 ± 1.47) (n=42), with average change from baseline at 12 months being 0.50 ± 0.85, indicating a small increase in frailty over time. Decisional conflict was low (18.38 ± 10.98 n =42).

Conclusion/Application to practice
Frail patients with reduced performance maintained QoL over 12 months. Conservative management should be offered as a treatment option, particularly for elderly patients with high rates of co-morbidity.

Disclosure of Interest
no
Nurses' perspective on palliative care approach in the dialysis clinic

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Background
Palliative care approach for ESRD patients has been beneficial for the better quality of life and outcomes for family caregivers and less use of intensive care pathway at the end of life. However, there is still no structured process of providing palliative care for ESRD patients within dialysis units. Most nephrology nurses still don’t consider palliative care as part of their scope of practice.

Objectives
To study knowledge, attitudes, personal responsibility and barriers among nephrology nurses in providing palliative care in dialysis units.

Methods
A questionnaire consisting of 5 parts was distributed: demographic data, attitudes towards palliative care (Alfa Cronbah=0.74), knowledge, experience, personal responsibility and possible barriers for providing palliative care. 109 nurses from in-hospital and community dialysis clinics and nephrology departments countrywide participated in the survey.

Results
58% of participants had positive attitudes towards palliative care approach in the dialysis clinic. However, 60%, 72% and 83% of the nurses respectively noted that conversation about palliative care option, advance directive or conservative treatment may have a negative impact on patients and families. There was a positive correlation between knowledge and attitude Rp=0.23,p>0.05 and experience and positive attitude to the palliative care χ² (2, N=109) =4.58 p>0.05. Only 15.6% of nurses noted that palliative care and conversation about advanced directive are under their responsibility. 21% of participants initiated the conversation about advance directive at least once. More experienced nurse perceived themselves to be responsible for the initiation of palliative care more frequently in comparison with less experienced staff Z=-2.04,p>0.05. Lack of knowledge, experience, professional support and workload were mentioned as barriers to the palliative care approach in the unit.

Conclusion/Application to practice
The importance of appropriate training, including practical experience, was highlighted. The crucial role of nephrology nurses in the palliative care process should be mentioned and myth and prejudice regarding palliative care approach should be dispelled.

Disclosure of Interest
no
Patient and carer experience of joint renal and palliative care nurse led clinics.

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Background
Joint renal and palliative care nurse led clinics were initially established in the Royal Free London NHS Foundation Trust as part of a quality improvement initiative in response to the National Framework for Renal Services (2005). This guidance encouraged renal services to develop stronger links with palliative care services in order to draw on their expertise in developing individualised advance care plans and to promote effective communication between the agencies involved in providing patient care. Since this time provision in our Hospital Trust has increased to 3 joint clinics a month in order to meet demand and to ensure an equitable service is provided across the chronic kidney disease service.

Objectives
In order to evaluate the service provided and, to ensure that we were meeting both the patients and carers expectations, a patient and carer experience survey was conducted in 2017.

Methods
Anonymised questionnaires were distributed to all patients and carers who attended the joint clinics (n=55) over a 1 year period. All of the questions were based on the interventions offered as per the operational policy.

Results
With an overall response rate of 47% the results were generally very positive. Key themes included the value of carer support and the importance of time, information giving and choice to discuss advance care planning and symptom control needs in the context of a chronic life threatening illness.

Conclusion/Application to practice
A collaborative approach to providing joint renal and palliative care clinics results in patients and those important to them benefitting from the expertise of both specialities. As the focus of the clinics is to provide therapeutic interventions and the opportunity for patients to be fully involved in their advance care planning it promotes a shared care approach.

Disclosure of Interest
no
Background
Chronic kidney disease has been considered a public health problem, partially because its incidence and prevalence are increasingly significant, and partially due to the associated chronic pathologies, either at its origin or because of the disease evolution.

Objectives
▪ To understand in which way dialysis nurses from private clinics can provide individual care to the patients and their families, in terminal phases.
▪ To identify palliative measures that can be developed to provide care to patients and their families in the terminal phases of the disease.

Methods
Case study of critical analysis focusing on the course of a patient, from admission and until her death. Patient medical and nursing data were obtained from a central data base.

Results
An 82 year old woman, Caucasian, retired teacher, living in a nursing home. She started dialysis (HD) on December, 2015, via an arteriovenous fistula (AVF). Clinical history of dementia related to Alzheimer’s disease. Over time, the patient’s general condition deteriorated: severe weight loss, loss of autonomy, development of decubitus sores, AVF failure with the need for a Central Venous Catheter and increased incidents during HD. Taking into account the residual renal functional and haemodynamic stability, the number of weekly HD sessions was reduced. However, due to the increase of respiratory distress episodes and lack of support of her nursing home, the patient returned to regular HD programme where she died in January 2017.

Conclusion/Application to practice
It is fundamental that nephrology nurses acquire knowledge and skills in palliative care in order to improve the care provided to the patient and family. It is also important to maintain contact with other institutions involved in the care of these patients on a truly multidisciplinary basis. Only in this way, resources can be streamlined. For this purpose, it is necessary to focus on the motivation and training of professionals in palliative care.

Disclosure of Interest
No
Background
Palliative care is an approach that improves the quality of life of patients and their families facing problems associated with life-threatening illness such as CKD and dialysis. Unfortunately, no formal palliative care education program in nephrology exists in Israel.

Objectives
Provide knowledge and practical tools for palliative care and its implementation into everyday practice in the nephrology units. Create common concepts of palliative care in dialysis units across the country.

Methods
The course consisted of 14 full study days, 20 workshops. Before the initiation of the program, individual goals were presented by students. Theoretical, practical and emotional issues of palliative care approach were evaluated by five-point Likert scale after each study day.

Results
30 nurses from nephrology departments, in hospital and community dialysis units, were enrolled in the program; aged 42±8, 23% were male.

The individual goals for the program were identified: new knowledge needed, emotional personal need and implementation of palliative care approach in the unit.

According to the daily evaluation, 40-60% of participants agreed that they gained new knowledge, 48-67% agreed that the lectures met their professional expectations and 62-70% agreed that they thought about the subject later. In comparison, the workshops provided more personal emotional experience, especially coping with end-of-life issues. 75-80% agreed that the workshops provided practical tools for daily work in the unit, 65-75% agreed that they will use these tools or are thinking of trying them with their patients. However, 76% agreed that more practical and emotional experience is needed for successful use of the studied material.

Conclusion/Application to practice
Palliative care is mandatory for the elderly, frail CKD patient. Nephrology nurses should undergo a formal education including theoretical and practical aspects of palliative care, to provide better care for the patients. The importance of practical experience during the course was highlighted. Nephrology nurses from various units should be in enrolled.

Disclosure of Interest
no
The experience of kidney patients: A qualitative research

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Background
An ideal approach for patients whose kidneys are failing is; a timely referral to a Nephrologist, good patient education and a right time to begin dialysis. Many studies have shown that patients with CKD are generally referred too late to the nephrology team and this is associated with increased morbidity and mortality.

Objectives
The purpose of this study is to determine the physical and psychosocial experiences of dialysis patients before and after the initiation of treatment and disease management.

Methods
Two focus groups were conducted at two separate hospitals in order to learn about the patients' knowledge and experience in a qualitatively designed semi-structured study. 14 patients participated in the study. Informed consent of patients was obtained. Voice recordings of participants and negotiations were fully conveyed. Precautions were taken to ensure patient confidentiality, the names of the participants and institutions were kept secret. Transcripts and analysis were carried out by two academics together with a researcher.

Results
5 major themes with associated subthemes were identified.
The first theme was “Predialysis education or information”, revealed how patients received education or information before dialysis initiation.
Second theme; “initiation process of renal replacement therapy” included the process of starting dialysis in planned or emerged manner.
Third theme identified; “treatment decision support”. Fourth theme; “expectation from treatment” and finally “treatment burden”.
Transcript analysis showed that “patients are not sufficiently informed on kidney disease and treatment options”, “majority of patients start dialysis in emergency conditions”, “they do not get any support during their decision making process about starting dialysis treatment” and “they have difficulties in adapting their treatment to their everyday routine and managing their treatment process”

Conclusion/Application to practice
Findings: identify the importance and need of systematic predialysis education and support for patients so that they can make informed decisions.

Disclosure of Interest
no
Hyperphosphataemia in patients with CKD

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Background
Increased phosphate levels may cause bone disease. The key aim of treatment of bone disease in the dialysis patient is to reduce high levels of phosphate.

Objectives
To achieve serum phosphate levels between 3.5 and 4.5 mg / dL

Methods
For the following study, 30 patients with phosphate values over 6 mg / dL with the age of 30-65 years were selected. Patients were monitored for a period of 6 months, during which the most difficult thing was the adaptation to diet and to educate them about the importance of medication. Together with the nutritionist and the physician we implemented a diet plan with recommendations for all patients. Patients were educated about an appropriate diet in terms of phosphate consumption. Due to the good relationship with most study patients it was easy to explain which products should be limited, but eating habits have hardly changed.

Results
At commencement 70% of patients had a serum phosphate ≥6,5 mg/dl and 30% between 5,5-6,5 mg/dl, but levels have changed noticeably. In approximately 80% of patients high phosphate values remained unchanged after one month of binder therapy, but the results were observed changing during the second month and 40% of them had normal values at the end of the study, Thus, the results of the nutritional education was quite promising.

Conclusion/Application to practice
Education plays an important role, because every patient has to change eating habits to balance phosphate values. Following prescribed treatment and dietary recommendations, patients have good prospects for a good life even if they suffer from chronic kidney disease.

Disclosure of Interest
No
O 82
Associations between toxin concentrations and quality of life in children with chronic kidney disease
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Background
As kidney function deteriorates, uraemic toxins accumulate and contribute to the clinical picture of children with chronic kidney disease (CKD). These children are reporting poorer overall quality of life (QoL) and poorer physical, school, emotional, and social functioning. The aim of this study was to explore the association between different levels of uraemic toxins and QoL.

Methods
In 23 children (11.0 [6.9;14.6] years, 61% boys) with non-dialysis CKD stage 1-5, plasma concentrations of small solutes (creatinine), middle molecules, and protein-bound solutes [e.g. hippuric acid (HA), indole acetic acid (IAA), and 3-carboxy-4-methyl-5-propyl-furanpropionic acid (CMPF)] were measured. Parents were asked to fill in the general (PedsQL™4.0 Generic Core: total score, physical & education subscale) and disease-specific QoL questionnaire (PedsQL™ End Stage Renal Disease (ESRD): disease & fatigue subscale). Lasso regression was used as an explorative method to select a set of predictive uraemic toxins (when β≠0) in models for the PedsQL questionnaires.

Results
The mean estimated GFR was 50.4 [31.2;74.5] mL/min/1.73 m². CMPF was found to predict the total PedsQL (β=-0.34) and physical PedsQL subscales score (β=-1.19). Besides CMPF, IAA was predominant in the prediction of the total PedsQL and physical PedsQL subscale score (respectively β=-0.84 and β=-1.26); and HA in the education PedsQL subscale (β=-0.31). The disease subscale of the PedsQL ESRD questionnaire was predominantly predicted by HA (β=-1.18) and IAA (β=-2.30). Using this model, creatinine was for none of the questionnaires selected as a possible predictor.

Conclusion/Application to practice
This model selected CMPF, IAA and HA as promising predictors for the hard endpoint QoL in children with CKD. Moreover, creatinine was not selected as a possible predictor for any of the QoL measures. A more extensive longitudinal study is necessary to strengthen our findings of the impact of uraemic toxins on the QoL in children with CKD.

Disclosure of Interest
no
Background
Haemodialysis (HD) is nowadays considered a safe technique that can be performed in children of all ages. Although the principles of HD are similar in children and adults, there are technical aspects and complications, which are unique in the paediatric population and particularly important in children weighting less than 10 Kg.

Objectives
We aimed to describe the last 14 years’ experience of our HD Unit in children weighting less than 10 Kg.

Methods
A retrospective analysis of the clinical records of all children that started HD with less than 10kg in our Paediatric Nephrology Unit, from 2004 to 2018, was performed.

Results
We included ten children (5 males) with a median age of 1 year and 10 months (P25-P75: 1 year and 1 month to 3 years and 5 months) and a median weight of 8 kg (7 to 9 kg) at haemodialysis start. Congenital anomalies of the kidney and urinary tract (CAKUT) were the main cause of renal failure, present in 70% of patients. A double-lumen central venous catheter (CVC) (tunnelled CVC in 50% patients), and an extracorporeal circuit with a total volume of 50 mL, was used in all patients. The median treatment duration was 93 days (50 to 211 days) and all patients were dialysed 3 to 5 times per week. The most common complication was vascular access malfunction but the main cause for HD termination was the patients’ transition to peritoneal dialysis or transplantation.

Conclusion/Application to practice
Chronic HD in small children is a very challenging technique, only applicable until transition to peritoneal dialysis or a successful kidney transplant. Nursing intervention has a determinant role in both patients and family adaptation. The technique success is directly related to its performance in reference centres with skilled nurses and a specialised multidisciplinary team.

Disclosure of Interest
no
Learning Peritoneal Dialysis: never the first time on my child

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Background
Peritoneal dialysis (PD) is a common dialysis modality for pediatric end stage renal disease (ESRD). In infants and children, parents are responsible for the PD procedure at home, after an educational program in hospitalization. This program is based on both a theoretical teaching and a practical training. Parents are sometimes scared to first perform the technical gestures on their child, which may impact the learning.

Objectives
We developed a simulation program to educate parents and children to PD technical cares on a practice doll before operating on their child.

Methods
The PD educational program is conducted by 2 dedicated nurses on 15 days during hospitalization. After an individual educational diagnosis and theoretical teaching, parents train on different doll models for catheter cares and PD procedures. When parents have acquired practical skills and feel confident, they perform the care on their child. The parents practice also on different fictive clinical situations.

Results
In 2017, 6 families were educated with this new simulation program. Parents were satisfied to first practice on a doll and fear to do wrong was considerably reduced. The running of the teaching program was also facilitated for nurses.

Conclusion/Application to practice
This simulation-based PD educational program has brought a certain benefit for nurses and patient’s families. The effect on quality and security of PD cares at home remains to be evaluated. Moreover, this simulation program is also useful for teaching other caregivers and will be developed in our unit for other technical cares such as gastrostomy or urinary catheterisms.

Disclosure of Interest
no
Hemolytic uremic syndrome in children: a case study

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Background

Hemolytic Uremic Syndrome (HUS) is characterized by microangiopathic hemolytic anemia, low platelet counts, and acute renal failure. Although rare, HUS is one of the common causes of acute renal failure in children. Classification of HUS is by etiology; Typical HUS (D+) with diarrhea and atypical HUS (D-) without diarrhea. The most common cause of typical HUS is Shiga toxin-producing Escherichia Coli. Other causes are Shiga toxin producing shigella and pneumococci. Atypical HUS is caused by functional defects of the complementary system.

Treatment for typical HUS D+ is supportive as antibiotics are not recommended and can cause impairment of kidney function. The mortality rate is 5-10%. About 30% of the patients have renal impairment. Early diagnosis and treatment are important for a better prognosis.

A normally healthy 8-month-old baby presented to a hospital with fever, bloody diarrhea, multiple vomiting. He was pale and in a medium state of dehydration. Antibiotic treatment was started at community clinic followed by additional deterioration in his condition. Laboratory tests showed 10,000 platelets, hemoglobin 4mg%, microangiopathic anemia and renal failure. He was diagnosed with typical HUS D+.

Methods

Antibiotic treatment was stopped immediately. Due to kidney dysfunction, dialysis treatments were started. Symptomatic treatment that included plate cell, albumin and emotional support for the parents was provided. After 16 treatments, the kidney function improved partially and dialysis stopped.

Results

The patient remained with a small amount of protein-urea, slightly elevated blood pressure and 75% GFR.

Conclusion/Application to practice

This case study highlights the importance of increasing staff awareness in taking fecal cultures in small children with bloody diarrhea as soon as possible. Emphasis must be made on holding off any antibiotic treatment until results are reviewed, therefore providing the right differential diagnoses. The correct and quick diagnosis and early start of the appropriate support treatment can prevent kidney damage.

Disclosure of Interest

No
Complications during continuous renal replacement therapy in children with liver transplantation

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Background
Prior to liver transplantation some patients develop multiorgan failure. During post transplantation procedures rejection of transplanted liver may occur in some patients. In both cases renal failure may coexist. If liver retransplantation is scheduled, a continuous renal replacement therapy (CRRT) is required.

Objectives
Display of continuous renal replacement therapy (CRRT) during liver transplantation/retransplantation with complications during procedure.

Methods
The most common method is haemodiafiltration. All medical procedures require skilled medical and nursing personnel. A variety of potential complications may develop during this procedure such as dialysis set clotting, filter puncture, bleeding, central venous catheter complications, malfunction of dialysis device, poor medical personnel coordination or unnecessary visitation by other medical staff).

Results
The first liver transplantation in our hospital was performed in 2001. Until 2018 a total of 39 liver transplantations (36 children, 3 retransplantations) were successfully completed. From 2011 the method of continuous renal replacement therapy (CRRT) is performed during liver transplantation (6 liver transplantations and one retransplantation).

Conclusion/Application to practice
Continuous renal replacement therapy (CRRT) is a complex procedure which requires skilled and trained nurses. A multidisciplinary approach and a well coordinated cooperation between all medical staff is prerequisite for successful liver transplantation in order to minimize potential complications.

Disclosure of Interest
no
Perception of the quality of life of parents with children on dialysis

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Background
ESRD in children is rarer compared to the adult population. The plan of care is complex and challenging not only to the healthcare providers but equally so for the parents who take care of their children not only in the hospital but also at home. There have been studies showing that the quality of life of the parents involved in the care of children with chronic diseases such as ESRD affect the care that these children receive. Having awareness of the quality of life of the parents of the children on hemodialysis will help care providers, most especially the nurses, work closely with them to plan their children’s care by helping them improve their quality of life.

Objectives
This study explored the perception of the quality of life of parents with children on dialysis who are directly or indirectly involved in their care. It examined the modality of treatment (PD or HD) and the relationship of demographic data (age, educational attainment, gender, and employment status) of parents on their perception of their quality of life.

Methods
A survey questionnaire was used using PART A of the Ferrans and Powers Quality of Life Index Generic Version III and distributed to the parents of children undergoing hemodialysis on the specified 2-week duration. Only parents who can read English were included in the study.

Results
The 8 parents who participated in the study had overall a low quality of life. They rated themselves low in the four domains of the Ferrans and Powers QLI namely health/function, socioeconomic, psychological/spiritual and family. Psychological/spiritual domain has the lowest score.

Conclusion/Application to practice
These data are worrying and require a more indepth study to ascertain if they are representative of the whole paediatric dialysis population. If this were the case then interventions should be designed to address these issues.

Disclosure of Interest
No
Enhanced Sliding Short Axis (ESSAX) technique: An innovation for a 100% cannulation accuracy

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Background
The precision with needle placement has been a long-standing challenge.

With conventional assessment, nursing skills are limited to creating merely an impression or an imagination of the depth, the size, and the direction of the access.

The Enhanced Sliding Short Axis (ESSAX) technique is an ultrasound-guided method that facilitates monitoring of the needle tip, upon insertion into the Arterio-venous fistula or graft.

ESSAX had revolutionized the way we carry out cannulation, as we treat each vascular lifeline with great importance & respect.

The innovation was conceived with the earnest desire to resolve the problems with cannulation.

Disclosure of Interest
no
Innovative person-centred care for people with chronic kidney disease

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This presentation will review the classification and stages of CKD and will identify which patients are at risk. Current projects that have developed an intervention to delay the progression of CKD will be presented. Evidence-based strategies for self-management of CKD will be discussed. Finally, an outline of an innovative programme to identify, manage and care for people with CKD in a Community Kidney Service in London, UK will be presented alongside initial results of the programme.
Risk factors for CKD: Prevention campaign and survey on World Kidney Day 2018

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Background
The objective of the 2018 World Kidney Day (WKD) is to highlight importance of women’s kidney health. Chronic kidney disease (CKD) is the 8th leading cause of death in women worldwide. For several years, epidemiology of CKD and its associated risk factors have been rapidly increasing. Despite the importance of prevention and early detection of kidney disease, a significant proportion of the population is unaware of the risk factors. Therefore screening and prevention are two of the main aims of this awareness day.

Objectives
Understand how World Kidney Day is important to prevention on CKD

Methods
On WKD 2010 and 2015, a CKD prevention campaign was organised in the lobby of our hospital. Passers-by were invited to an anonymous screening of measurement of blood pressure, blood glucose level, abdominal girth, weight and height under standardized conditions. Age, gender, smoking status and categorical information on personal and family history were also collected. On WKD 2018, this survey will be repeated and former results will be compared in order to find a trend in prevalence of risk factors and to determine differences in risk factors between the sexes.

Results
During previous campaigns, over 600 subjects were screened of which 56% were women. Being obese was significantly more prevalent in men. 54% of the participants had hypertension, and women showed a significant lower systolic BP. Remarkably 22% of the subjects believed that they were not overweight although their BMI was markedly elevated.

Conclusion/Application to practice
Screening in 2010 and 2015 revealed a high prevalence of risk factors for CKD: eg hypertension, obesity, diabetes mellitus and smoking. The campaign brought awareness to participants, since a significant proportion were previously unaware of this. The survey will be repeated in order to identify more at risk people. We will also compare the 3 surveys to gather data on the evolving epidemiology and to promote life-style changes to citizens and authorities.

Disclosure of Interest
no
Predictors of ESRD in a large Middle East population

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Background
Middle Eastern and African CKD populations are severely understudied. The generalizability of predictive models of CKD progression developed among Caucasian population is questionable.

Objectives
We aimed at evaluating correlates of dialysis initiation among a large sample of Middle Eastern patients.

Methods
All patients registered in the SEHA health system from 01/01/14 to 31/12/15 were evaluated. We conducted an historical cohort study enrolling CKD patients with at least 2 eGFRs 90 days apart and 1 ACR assessment within 12 months prior to first eGFR assessment. We graded CKD according to standard definitions. We ascertained comorbidities by ICD9 codes at the time of second eGFR. Information was available for lipids and blood pressure. We evaluated correlates of hemodialysis initiation with Cox's Proportional Hazard Regression.

Results
We enrolled 16602 eligible patients (mean age: 54±15 years; women: 8308, 50%). The average eGFR was 90±27 and ACR=48±108. CKD stage 3-5 represented 15% of the sample (n=2454). 32% of patients were diabetic, high LDL (27%), high triglycerides (21%) and low HDL (63%). During the follow up, 210 commenced dialysis (17.2 events/1000 person-years). The incidence of dialysis initiation increased with CKD stage from 0.9 events/1000 person-years (CKD 1) to 490.6 events/1000 person-years (CKD 5). Correlates of dialysis initiation were initial eGFR (HR: 0.94, p<0.001), ACR>30 mg/mmol (HR: 6.44, p<0.001), Diabetes (HR: 1.81, p<0.001), fluid and electrolyte imbalance (HR: 1.64, p<0.05), age (HR=0.98, p<0.001), LDL>2.6 mmol/L (HR: 1.66, p<0.01), systolic blood pressure (HR: 1.02, p<0.001) and diastolic blood pressure (HR: 0.98, p<0.01).

Conclusion/Application to practice
We identified unmodifiable and modifiable factors associated with dialysis initiation in a Middle Eastern population. Correlates largely confirms association patterns observed in Caucasian populations. Risk estimates for specific risk factors significantly diverge from published figures. This study provides the rationale for a region-specific risk score for CKD progression.

Disclosure of Interest
No
Relevance of a "Right Start Program" for dialysis

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Background
"Right Start Program" (RSP) is a tool created by a multidisciplinary team in order to ensure the global and optimal implementation of a patient haemodialysis care programme for the first four months of dialysis in our clinic.

Objectives
Objectives were to assess the effects of the "Right Start Program" from its implementation from January 2016 to December 2017.

Methods
This programme included an evaluation of 26 aspects (AVF possible or not, treatment time, Kt/v, hydration, albumin, etc.) for all new patients.

131 new patients in 2016 and 106 in 2017 were included in this specific programme.

At the end of the four-month period, patients completed the RSP creating a stable basis for precise and targeted care.

Results
The implementation of this program revealed that a fast and collegial involvement of the nursing staff helps to better understand the challenges relating to the patient care programme.

In addition to a personalised and optimal care, this programme resulted in a multidisciplinary collaboration between the different professions thus bringing dialysis clinics closer to its partners (associate / public centres).

Conclusion/Application to practice
At present, we cannot conclude that this programme reduces mortality in the first four months of dialysis. However, after two years of RSP, we can conclude that this specific, targeted and tailored tool gave an insight (in four months) into the benefits for the dialysis patient.

Disclosure of Interest
no
Estimation of the Progression Rate of Chronical Renal Failure
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Background
There are several models used to estimate the progression of chronic renal failure (CRF).

Objectives
This study is to identify the patients’ risk of progression of the chronic renal failure in 2 and 5 years period.

Methods
A Nephrology clinic was chosen by random sampling method. Patients at different levels of CRF and attending the clinic during the last month were analysed retrospectively. Glomerular filtration rate (GFR) of the patients were calculated by using the Chronic Kidney Disease Epidemiology Collaboration method. Kidney Failure Risk Equation model, which is a quadrivariant model developed by Tangri et al. was used to calculate the risk rate of renal failure. This was done in 5 risk categories: for 2 years, 0 to <2%, 2 to <6%, 6 to <10%, 10 to <20%, and ≥20%; for 5 years, 0 to <5%, 5 to <15%, 15 to <25%, 25 to <50%, ≥50%.

Results
Comorbidity diseases of CRF were hypertension in 67.6%, and diabetes in 46.7%. 45.2% of the patients had stage III CRF. 59.7% of the patients attended the nephrology clinic for control purposes. Risk rate of renal failure in 2 years were 0%-<2 for 43.9% of the patients. Risk rate of renal failure in 5 years were ≥20% for 2.4% of the patients. When the relationship between the CRF stage of patients and laboratory results and blood pressure were analysed, it was detected that there was a significant relationship between systolic blood pressure and parathormone, creatinine, BUN, phosphorus, Hb, albumin/creatinine and eGFR (p<0.05).

Conclusion/Application to practice
The most common co-morbid diseases of CRF were Hypertension and Diabetes Mellitus. BUN, creatinine, Hb, phosphorus, parathormone, albumin/creatinine and eGFR are the factors affecting the stage of CRF. Therefore, individual patient follow-ups by calculating the risk rate and education processes would be beneficial to decrease the incidence of renal failure.

Disclosure of Interest
no
Prevention of the Progression of Polycystic Kidney Disease

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Background
Polycystic kidney disease is the most commonly inherited renal disease worldwide with approximately 6-10% of the patients who start on renal replacement therapy doing so due to the evolution of this disease. Patients with this disease typically start on renal replacement therapy in their fifties. There are some factors that can accelerate its progression, such as: Hypertension, poor intake of water, high fat and salt diet, caffeine... Polycystic kidney disease is asymptomatic in teenagers.

Objectives
The aim of the study is to identify the degree of involvement of our teenage patients in relation to their kidney disease in our health area.

Methods
All patients under 22 years of age who were diagnosed with polycystic kidney disease are included in the study. We collected data from dietary and health habits surveys that patient filled in at home. The survey was based on scientific guidelines. We analyzed the results with a statistical package for Windows.

Results
23 patients participated in the survey. 61% of them were female and 39% were male. The age range was between 9 and 24 years old. 52% of the participants reported feeling well in regards to their health condition. 47.8% of the participants did not practice any sport at all, and 21.7% practiced sports occasionally. Regarding nutrition habits, 8.7% of the participants said they considered their nutrition and 69.2% knew the recommendations for appropriate nutrition.

Conclusion/Application to practice
According to the results obtained in our sample, we can confirm that compliance with the recommendations is low despite the fact that they report to be aware about recommendations and are concerned about their health.

Disclosure of Interest
yes
Nurse Inserted PD access:” one units experience 9 years on”

E. Bowes

Introduction
High quality peritoneal access is vital to the delivery of Peritoneal Dialysis (PD). Patient outcomes including survival technique are very likely to be impacted by the success of the peritoneal dialysis access service. With this in mind in November 2009 at King’s College Hospital, London a nurse was trained to perform PD catheter insertions independently. Since then a further nurse has been trained to cover the service. The PD Access service has grown to acute start PD catheter insertions, PD catheter removal under local anaesthetic, repositioning of PD catheters to treat migration and removal of distal Dacron Cuff and creation of new exit site.

Method
A retrospective review of all Nurse performed procedures at King’s College Hospital, including outcomes, procedure related complications and the management thereof.

Conclusion
Nurse performed percutaneous PD access procedures performed under local anaesthetic assist in providing a quality, responsive PD access service inclusive of late referred and acute renal failure patients.
Telephone nursing counseling for Peritoneal Dialysis patients: relation to re-admissions number and patients’ satisfaction.

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Background
- Introduction: In order to have a desirable quality of life, patients with end-stage renal disease (ESRD) on dialysis treatments, especially those who handle home therapies, need to have special health care. Several studies have shown that nursing telephone counselling communication affects patients in a positive way. No research in the literature refers to peritoneal dialysis patients.
- Purpose: The purpose of this study is to highlight the importance of nursing telephone counselling by a special nurse in patients with ESRD on Peritoneal Dialysis at Cyprus Limassol General Hospital. The study also presents the number and reasons for telephone counselling.

Objectives
- Objective: The aim of the study is to present the results of nursing telephone counselling, which according to the researchers, lead to reduced visits to the Casualty department, hospital visits, re-admissions, prevention of complications, and satisfaction of patients and relatives.

Methods
- Methods: Study of all cases by daily recording at the Limassol Hospital's Peritoneal Dialysis Clinic from January 2017 until the end of December 2017. The control group consists of 35 patients with ESRD who undergo Peritoneal Dialysis at home (PD, APD) and receive telephone counselling support from a qualified nurse.

Results
- Results: The results are related to the prevention of complications, treatment of Peritoneal Dialysis, medication, clarification of infection symptoms such as peritonitis and catheter exit site infection, various processes, instructions and other problems that may have occurred, reinforcement of self-confidence, psychological support etc.

Conclusion/Application to practice
- Conclusions: Telephone counselling communication between a qualified nurse and patients with ESRD who undergo Peritoneal Dialysis at home, was effective. Effectiveness was seen in reducing re-admissions by solving many problems and enhancing patients and their families QoL. Reducing re-admissions helps reduce health care costs and improve the quality of life of patients. Collaboration between the multidisciplinary team and trained nurses in problem-solving benefits both the patients and the Health Organization.

Disclosure of Interest
- no
O 95

What are we missing to improve PD care in Portugal?

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Introduction

The Portuguese society of nephrology every year presents the aggregated data with a 100% response rate, of the different hemodialysis units, peritoneal dialysis and renal transplantation. In Portugal, there are 123 hemodialysis centers, 25 peritoneal dialysis units, 8 adult renal transplantation centers and 1 pediatric renal transplantation center. Peritoneal dialysis had its greatest growth expression between 2009 and 2011, from 571 to 704 people in PD. In the last 5 years (2012-2017) the number of patients prevalent in peritoneal dialysis remains above 700 with fluctuations and there is no greater growth of people with peritoneal dialysis preference.

Objectives

Analyze the evolution of the prevalence of patients in peritoneal dialysis in Portugal.

Identify possible criteria for improving care in PD by analyzing the data.

Methods

Retrospective descriptive analysis of the data from the Portuguese registry of dialysis and transplantation in the period from 2012 to 2017. Analysis of the number of new patients; prevalent patients; evolution of the mean age; distribution by modality of Peritoneal Dialysis, number of episodes peritonitis patient. Cause of interruption and causes of death.

Results

The analysis of Portuguese registry data on the incidence and prevalence of patients on peritoneal dialysis in the period 2012 to 2017 shows that in this period there is an average incidence of 219 new patients per year. The average prevalence in the period under review is 739 patients per year. The average age has increased, in the year 2012 the average age was 52 years and in 2017 54.8 years. The most prevalent modality of Peritoneal Dialysis in Portugal is CAPD with 58, 2%. Chronic glomerulonephritis and diabetes are the main etiologies of patients in PD. The analysis of the data shows that the causes of interruption of peritoneal dialysis technique are infectious complications (33.58%); failure of UF / inadequate dialysis (31.42%); mechanical complications (9.35%); (9.22%) and other causes (16.43%). The number of episodes of peritonitis. patient.year has been decreasing, standing in 2017 in the 0.29 episodes of peritonitis.patient.year. From the analysis of the registry data, the causes of death in patients with peritoneal dialysis are cardiovascular (37.78%); sudden death (15.52%); Infection related to Peritoneal Access (5.20%); Infection not related to Peritoneal Access (16.35%).

Conclusions

From 2012 to 2017, the prevalence of PD patients remained stable. The growth of peritoneal dialysis is certainly dependent on the implementation of improvements in the units for the prevention of infection, either through the application of concrete projects for continuous improvement of quality, or in the adoption of new technologies that allow people to carry out their treatment with quality and safety. The improvement of quality of care will be achieved through a critical analysis of the results of each unit by the multidisciplinary team.
Retrospective evaluation of the incipient peritoneal dialysis patients

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Background
Interest in peritoneal dialysis is decreasing both in our country and in the world in recent years.

Objectives
The aim of this study is to investigate the conditions of the patients who started peritoneal dialysis between the years 2016-2017.

Methods
The population of the research consists of patients in the peritoneal dialysis unit of the hospitals in Amasya (n=12) and Sivas (n=16). The sample of the study consists of patients who started PD in 2016-2017 (n=17). Data is gathered retrospectively by using “PD patient evaluation form”, which is prepared with the guidance of the registry report of Turkey Nephrology, Dialysis and Transplantation Association.

Results
In the last two years, PD catheters were inserted into 12 patients at the centre which has started providing PD service recently, and into 5 patients in a university which has provided PD for 20 years. It was detected that the aetiology of 41.1% of the patients were diabetic nephropathy, Kt/V urea values of 70.5% were above 2, serum albumin levels of 76.4% were between 3.5-4, and Hb levels of 70.5% were 10.0-11.9 gr/dl. It was also detected that 94.1% of the patients did not use iron medication, and 52.9% used erythropoietin. Serum phosphorus levels of 52.9% were 4.5-5.49 mg/dl, PTH levels of 41.1% were between 300-600 pg/ml and no patient had fractures. It was also observed that patients did not get peritonitis, 47% had ultrafiltration problems and 11.7% were transferred to haemodialysis due to mechanical complications. The reasons for calling the nurses were usually problems with drainage, oral medication use, PD machine and catheter.

Conclusion/Application to practice
Aetiological factors of PD are hypertension and diabetic nephropathy. Therefore, early diagnosis, treatment and patient follow-up is important for patients with renal disease. Peritoneal dialysis treatment is advantageous for the patients who did not go through severe complications such as albuminaemia, hyperphosphataemia, anaemia, contagious disease, fracture of peritonitis.

Disclosure of Interest
no
Assisted automated peritoneal dialysis increasing options for Western Australians

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Background
Australian dialysis units operate a home first philosophy. However peritoneal dialysis (PD) models offer limited support at home, meaning frail populations or those with illness (either long-term or short-term) often transfer to center-based HD. This is costly for health services and stress-inducing for the patient. Internationally, assisted Automated PD models (aAPD) have been developed to overcome this hurdle.

Objectives
To develop and evaluate a pilot aAPD programme to temporarily support patients in Western Australia.

Methods
The hospital Home Link nursing service staff received training to provide the aAPD support, with an ongoing backup of a specialist PD team. Programme evaluation included 1. Perceptions of dialysis survey 2. Patient user data including the Charlson Comorbidity Index, Quality of Life (QOL) (SF36), clinical outcomes and quantitative evaluation 3. Staff evaluation 4. Economic evaluation.

Results
Over 90% of PD patients agreed they would use the service if needed. During the pilot, 17 patients were enrolled into the service for an average of 37 (range 1-165) days of care (respite and pre-training). Clinical outcomes were good despite the patient population having high Charlson comorbidity scores (high score correlated with poorer outcomes). Survey results demonstrated that patient acceptance was high although QOL scores ranged widely (mean 25-64 in different categories). Stakeholder evaluations were extremely positive recommending broadening of the service. Nurses gained confidence (p<0.001) following more than 20 episodes of program delivery. Cost savings were calculated at over A$500 000 (cost aAPD compared to hospital dialysis).

Conclusion/Application to practice
AAPD performed by a nursing service who are not PD specialists is a viable treatment option for patients reducing the need for hospitalization and transfers to HD and can achieve significant cost benefits.

Disclosure of Interest
no
Impact of gender on depression prevalence quality of life among Arab Israeli ESRD patients

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Background
Depression is very common among patients with ESRD, especially in HD vs PD. However, these studies were conducted in certain groups of patients and could not automatically extrapolate to all ethnicities and genders.

Objectives
To examine whether PD or HD therapy yield any differences in terms of depression prevalence or quality of life among Arab dialytic patients, and to explore how gender influences the incidence of depression and quality of life in these subjects.

Methods
The study included 61 HD patients and 19 PD patients. All were patients were Arabs from northern Israel, Dialysis Unit at the English Hospital of Nazareth and Nahariya Hospital Dialysis Department. The subjects have completed two questionnaires: 1. Beck Depression Inventory (BDI) for measuring the severity of depression; 2. Kidney Disease Quality of Life Short Form (KDQOL-SF, Version 1.3.).

Results
The well-being was low in both HD and PD. Depression was higher in HD patients compared with PD subjects (42 vs 36%). These differences could be attributed to health, occupational functioning, education, and socioeconomical status, which were significantly lower in HD subgroup. Moreover, sexual function and nutrition were found to be higher in PD patients. Therefore, it is not surprising that more HD patients required social support. Noteworthy, the majority of depressed patients in HD subgroup were female (69% (F) vs 31% (M)), whereas in PD most of the depressed were males (43% (F) vs 57% (M)). This gender distinct pattern in depression prevalence among ESRD patients may stem from the high housekeeping demand from women in general and Arab ones in particular.

Conclusion/Application to practice
The prevalence of depression is higher among HD patients, where the majority of patients suffering from depression were females, as compared with a higher incidence of males among depressed PD.

Disclosure of Interest
no
Background
There is a wide variety in the amount of care chronic haemodialysis patients need. In order to offer customized care adapted to patient's needs, the dialysis centre of this hospital is divided into a high and a low care auto-dialysis unit. In the auto-dialysis centre, patients are expected to participate in their renal treatment, and must be self-reliant and mobile. Due to an increase of the Belgian dialysis population in age and number over the past years, more patients have a high care profile. Unfortunately, there is lack of clear guidelines for when the low care profile becomes high care. The low care nursing staff reported a rapidly increasing burden of care due to some patients' deteriorating medical condition. Combined with the amount of administrative and logistic tasks there remains less time for patient care. Since it's an auto-dialysis unit, there is no supporting staff available.

Objectives
Understand the importance of identifying a hemodialysis care profile to avoid work burden

Methods
The low care profile was redefined by the nephrologists and nurses team involved. All patients were re-assessed whether they still met the new definition of the profile. Based on this assessment, two patients were transferred to the high care unit. Daily objective and subjective burden of care was measured. Structured nurse-nephrologist communication and systematic profile re-assessment of all low care patients were introduced.

Results
After a few simple modifications, the staff have already reported a reduction in the burden of care, and the work is experienced as more manageable.

Conclusion/Application to practice
The current exercise is finding a new balance in efficiently deploying the available staff, based on an objective and systematic assessment of the work burden. A structured burden of care assessment will be employed in the future.

Disclosure of Interest
no
Use of traditional, complementary and alternative medicine in the clinical practice of nephrology.
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Background
The WHO, advocates for the safe, rational and informed use of traditional, complementary and alternative medicine (TCAM) and promotes research to provide evidence.

Objectives
To describe the use of TCAM in the clinical practice of the nephrology staff.

Methods
Descriptive, observational, cross-sectional study. Sociodemographic data (sex, age, studies, experience and professional category) was collected and administered on an ad hoc closed response scale. For the analysis we used the Student’s t-distribution for the comparison of means between parametric variables, the Mann–Whitney U test for nonparametric variables and the Chi-squared test for the comparison of proportions. The results were analyzed by SPSSv23.

Results
62 professionals were included (54.83% nurses, 20.97% technicians and 24.19% nephrologists) with an average of 37.61±11.05 years. 84% were women. 32.26% had received training on TCAM without significant differences between the professional groups. 41.93% use TCAM in their personal life. 67.74% recommend TCAM to patients, without significance to personal use (p = 0.758) and training received (p = 1). 62.90% approve their inclusion in clinical practice, 77.42% advocate its introduction in university teaching programs, 27.42% claim to have had information requests from their patients and 50% recognize its importance with possible interference with conventional treatment.

Conclusion/Application to practice
The health professionals surveyed has not been trained in relation to TCAM but there is interest in including it in clinical practice and in university education. TCAM is recommended for patients but neither training nor personal experience are significant factors in relation to these recommendations. This study describes the need for training of healthcare staff in relation to TCAM to ensure safe delivery.

Disclosure of Interest
no
Physical fitness and body composition in diabetic patients undergoing an intradialytic exercise programme

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Background
Haemodialysis patients are mainly less active, leading to decrease physical fitness (PF) and body composition (BC), which is particularly a critical state especialy among diabetic patients.

Objectives
▪ To analyse the influence of diabetes mellitus on PF and BC among haemodialysis patients
▪ To compare the adherence to, and the influence of the intradialytic exercise programme (IEP) on PF and BC in diabetic versus non-diabetic patients.

Methods
IEP was implemented in 19 dialysis units.
the PF (sit-to-stand 30, handgrip strength, 8-foot up-and-go, sit-to-stand 5, single-leg-stance) and the BC (bio-impedance spectroscopy) were assessed before-and-after the exercise for a period of 6 months. The IEP included aerobic training (cycling) during the first three months. After that, the programme comprised both aerobic and strength training.

Independent sample t-test was used to compare both groups and paired samples t-test to compare baseline to PF and BC after 6 months.

Results
419 patients concluded the six month follow-up [139 (33.2%) women; age average 61.97±14.14 years; 112 (26.7%) diabetics].
Training sessions' adherence: 76%.

Diabetic patients have worse performance on all PF tests compared to non-diabetic:
▪ sit-to-stand 30: 11.08±3.64 repetitions versus 13.08±4.44 repetitions, p<0.001;
▪ handgrip strength: 26.67±9.33±11.62kg versus 30.47±11.62kg, p=0.001;
▪ 8-foot up-and-go: 10.85±13.70 seconds versus 7.74±4.10 seconds, p<0.001;
▪ sit-to-stand 5: 11.64±4.96 versus 9.94±4.51 seconds, p=0.002;
▪ single-leg-stance: 8.19±12.25 seconds versus 20.81±17.74 seconds, p<0.001.

BC:
▪ fat-tissue-index: (15.09±4.62 kg/m² versus 11.31±5.29 kg/m², p<0.001;
▪ lean-tissue-index: (12.41±2.54 kg/m² versus 14.15±3.14 kg/m², p<0.001.
Both groups have similar training adherence rates (78.38% and 77.47%) with PF improvement

Conclusion/Application to practice
▪ Diabetic patients have worse PF and BC outcomes.
▪ IEP adherence rates were similar in diabetic and non-diabetic patients.
▪ This programme had a positive influence on the patients' PF and BC, mainly in diabetic patients.

Disclosure of Interest
no
The effect of an intradialytic exercise programme on blood pressure and antihypertensive medication use.

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Background
Hypertension is a common comorbidity in haemodialysis (HD) patients affecting their mortality rates. The control of hypertension became a huge challenge for healthcare professionals. Poor adherence to antihypertensive medications (AHM) is also frequent in HD patients. Physical exercise can be used as an adjunctive therapy for blood pressure control in the general population. Several studies report a positive relationship between exercise and a better blood pressure control also in HD patients.

Objectives
To analyse the influence of an intradialytic exercise programme (IEP) on blood pressure and the use of antihypertensive medication.

Methods
An IEP was implemented in 19 dialysis units of a Portuguese network with aerobic training (cycling) during the first 3 months. After this period, the programme involved a combination of aerobic and strength training. We analysed the clinical data on blood pressure, over-hydration and AHM before and 6 months after IEP using the paired sample t-test.

Results
419 patients concluded the six month follow up period. 139 (33.2%) were women with an average age of 61.97±14.14 years). Adherence to training sessions was 76%. Before the IEP, 140 (33.4%) of patients used AHM. The commonly used drugs were amlodipine (39.3%), nifedipine (27.1%), and losartan (20.7%).

After 6 months:
- The number of patients taking AHM was reduced by 13.8%.
- The average number of different AHM was also reduced significantly from 0.52±0.85 before to 0.31±0.72, (p<0.001) after the programme.
- The patients already taking AHM, 40 (31.4%) reduced their daily dose.

Blood pressure and overhydration levels remained stable during the study period. No major adverse events were reported.

Conclusion/Application to practice
Intradialytic exercise is a feasible, safe and cost saving therapy promoting a better blood pressure control in HD patients thus reducing the use of AHM.

Disclosure of Interest
no
Treatment of a patient with calciphylaxis following several months treatment and multiple relapses

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Background
Calciphylaxis or calcific uremic arteriolopathy (CUA) is a rare yet potentially fatal syndrome. It typically occurs in women, obese, haemodialysed with “bad” dialysis showing secondary hyperparathyroidism and increased product of blood calcium-phosphorous. In haemodialysed patients, the prevalence ranges between 1-4%, the mortality however amounts to 80%, whereas the rate concerning beyond one year survival does not exceed 45%.

Case description: A woman, 45 years old, with morbid obesity (BMI: 53), was admitted for the detection of necrotic lesions in the lower abdomen area, the buttocks and the inner surface of the thighs. The lesions were deep, malodorous and painful, especially during the haemodialysis treatment. The laboratory findings showed severe uremia and increased calcium-phosphorous values, while she was clinically diagnosed with calciphylaxis. The patient was treated with daily haemodialysis and she was administered with sodium thiosulphate, cinacalcet, bisphosphonates and appropriate antibiotics. She also received surgical cleaning regarding the ulcerative skin lesions, underwent plastic surgeries for their recovery and followed hyperbaric oxygen therapy sessions. As far as nursing care is concerned, besides the precise administration of the medication and the daily sessions of the haemodialysis, the treatment of the patient’s immense pain and of the medication’s adverse reactions have also played an important role. A crucial factor for overcoming the infection-lesion vicious circle was the thorough and daily care of the lesions. Nursing attention was also given to the motivation and the promotion of self-care of the patient, to the prevention of institutionalization, as well as to the psychological support of the patient and her family.

Comment: The patient’s response to treatment showed exacerbations and remissions, however with constant medical attention, as well as with nursing care and psychological support the patient followed the treatment successfully, lost 30 kilos and gradually managed to regain her ambulatory capacity.

Disclosure of Interest
no
S-O 104
Can social networks contribute to the growth of a scientific association?

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Background
The use of social networks has been extended in recent years, creating a new form of communication in all aspects of life. In the scientific world, this impact has equal visibility and has also meant great changes in the dissemination of articles, news, activities, etc.

Objectives
Describe the use that the Associació Catalana d’Infermeria Nefrològica (ACIN) is making of social networks and the impact this use is having on the number of members.

Methods
Descriptive, observational, cross-sectional study. The monthly data of followers of each social network used, the number of publications and the number of members of the association were collected. The observation period was from May 2015 to December 2017. In order to establish the correlation between the variables, Pearson correlation coefficient was used. Values of p<0.05 were considered significant.

Results
Up to December 2017, the 5 social networks used by the ACIN were analyzed: Facebook (342 followers and 1004 publications), Twitter (84 followers and 49 publications), Instagram (77 followers and 39 publications), Youtube (2 followers and 4 publications) and Blogger (9 followers and 99 publications). The final members were 98.
According to the Pearson correlation coefficient, there is a positive correlation of 0.9 between followers of social networks and the number of publications made in them (p=0.003). In addition, positive correlations were found between the number of followers and the number of members within Facebook (r=0.5, p=0.001), Twitter (r=0.8, p=0.002) and Blogger (r=0.7, p=0.004).

Conclusion/Application to practice
Using social networks is a good dissemination strategy and this use is correlated with the number of members achieved. Although the scientific literature warns that the potential of social networks is about to explode and its usefulness has been questioned, it is a field of interest in terms of growth.

Disclosure of Interest
no
Is this the end of the buttonhole cannulation technique?

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Background
Over the last decade, the buttonhole technique has become popular. The repetitive process of needling of arteriovenous fistula (AVF) at the same site for at least three times per week may impair proper and complete wound healing in most patients. This can contribute to several unforeseen complications which have in turn led to increased infection rates in AVF.

Objectives
To analyse the cannulation sites of the buttonhole technique.

Methods
Taking photos of vascular accesses (VA) at regular intervals is an integral part of the vascular access monitoring and surveillance programme in our unit. In 2017, we extended this monitoring programme to taking photographs of the cannulation sites through a digital microscope with a magnification of up to 500x.

Results
We started evaluating 18 (50%) patients in whom we applied the buttonhole technique. As we perceived from this first evaluation, the scab of cannulation sites is usually large (>2.5x3mm) in most cases (88%). Besides these big dimensions we observed that after removal only small scabs (<1mm) remain at the cannulation sites that are virtually invisible. Moreover, we observed that the skin of the cannulation site appears fibrosed without its normal characteristics, such as elasticity. This situation probably increases the risk of local infections or bacteraemia if small particles are not removed during disinfection after removal of the scab.

Conclusion/Application to practice
With this new methodology we can see that cannulation sites in the buttonhole technique require extreme attention and care by the nursing team at the time of cannulation. In fact, the presence of small residual scabs (<1mm) increases the infection risk of the vascular access significantly.

Disclosure of Interest
no
Patient and public involvement in quality improvement and research

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This session will explore the ways in which patient and public involvement (PPI) in quality improvement and research can be undertaken, using the ‘Involvement Ladder’ as a framework. Different levels of involvement in quality improvement and research will be explored, illustrated by case studies to demonstrate the practical and ethical issues that might need to be overcome. A critical discussion of the potential impact of PPI will be examined. Two new initiatives will then be showcased: the newly formed *Kidney Patient Involvement Network* (KPIN) in the UK and the forthcoming role of Patient Editor for the *Journal of Renal Care*. 
WORKSHOPS
W 01A; W 01B WORKSHOP
Ultrasound of Vascular Access – Theoretical presentation
Ultrasound of Vascular Access – Workshop
Ponente

ULTRASOUND OF VASCULAR ACCESS WORKSHOP
Description of the nature of the event:
Provide comprehensive basic knowledge and skills in ultrasonography for vascular access in dialysis. The objectives are to learn basic concepts of ultrasonography and how to apply it to vascular access. It will be organized in two sessions, theoretical and practical.

Duration
The theoretical class will take 1 hour. It will be given by one teacher only and it's supported by power point presentation. It first will include basic theoretical concepts of ultrasound, usefulness on daily practice and basic ultrasound for vascular access.
Hands On Workshop will take two hours. It will be done by 4 teachers expertise in ultrasound of vascular access and attendees will do ultrasound of vascular access to real haemodialysis patients from around the conference site. To do this we will have various portable Doppler ultrasound machines.

Target audience
Target audience are nurses interested in vascular access for haemodialysis, and particularly those who wish to make a first contact with ultrasound of it.
This event will give people the opportunity to, on one side introduce in the field of vascular access ultrasound, and secondly learn to use it with real patients, what upgrades the experience to a higher level.

Educational needs and expected outcomes
One of the latest innovations in nephrology nursing, and particularly in vascular access management, is the use of ultrasound. After this event, people will be able to do a basic vascular access ultrasound and, for example, localize the best place to insert the needle avoiding failed punctures. So, what is learned in the workshop can be immediately applied to daily practice.
The Leadership Challenge....Are YOU up for it!

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Background
Leadership is important in shaping organisational culture, therefore, developing effective leadership behaviours, strategies and qualities is critical. Despite this truism how much do we truly know and understand about effective leadership. When leadership works well it positively impacts upon direct care delivery and healthcare system effectiveness and efficiency. Effective leaders are important in shaping positive work environments and driving work place cultures. A significant amount of attention has focused upon what are the ideal characteristics and qualities of an effective leader resulting in leadership being defined as situational, skills driven, vision driven, collective and involving exchange relationships.

Leaders within organisations whether at the bed side or board level need to demonstrate consistency in their leadership styles and behaviours and how they develop shared leadership of those around them. This includes the expression of the organisations vision and values, fostering commitment to performance management as well as the nurturing compassion as an important cultural value in organisational relationships. Vitally important is the role of leaders in encouraging and rewarding learning, in supporting quality improvement and innovative work practices and developing teams.

Objectives of workshop
Provide an opportunity for participants to explore how the five practices of exemplary leadership practice can be applied within the context of renal nursing practice.

Following completion of this workshop, participants will be able to:
1. Reflect on and review the frequency of personal leadership behaviours within their individual renal nursing practice.
2. Discuss how great leadership is about communicating fundamental values and beliefs
3. Understand the five pillars of exemplary leadership as a framework for personal leadership effectiveness:
   - Model the way
   - Inspire a shared vision
   - Challenge the process
   - Enable others to act
   - Encourage the heart
4. Examine and identify opportunities for change and improvement in renal nursing practice through critical reflection on own leadership experiences and leadership capability.

Methods
Using a variety of participative learning approaches, participants will explore through personal reflections, theoretical discussions and group based activities, develop an increasing understanding and awareness of their own individual capacity and potential to become more effective leaders.

Conclusion
Leaders who are able to mobilise others to perform extraordinary things are able to ‘transform values into actions, visions into realities, obstacles into innovations, separateness into solidarity, and risks into rewards. It’s about leadership that makes a positive difference in the workplace and creates the climate in which people turn challenging opportunities into remarkable successes’ (Kouzes & Posner, 2017, p. xi).
Exploring Nutrition Support Practices in Haemodialysis Units

Dietary intervention is of high importance for patients with Chronic Kidney Disease (CKD), both for disease outcome and for prevention and treatment of malnutrition (over- and under-nutrition), which is quite common in renal patients. In order to early identify and treat malnutrition, a nutritional screening is necessary, followed by a detailed nutritional assessment to provide optimal care to individuals with CKD.

Session Programme:
Chair: Kalliopi-Anna Poulia (Greece)

Nutritional support in hemodialysis: what are the options
Enrico Fiaccadori (Italy)

Nutritional Assessment vs Nutritional Screening – Is there a Difference?
Kalliopi-Anna Poulia (Greece)

Is Nutritional Care part of the Practice of Your Unit? The Result of an International Survey
Susan Rogers (The Netherlands)

What are the main barriers for not screening for malnutrition?
Panel Discussion
W 04 WORKSHOP
Developing your Renal Research Project
Levante

Developing your Renal Research Project
On behalf of the “EDTNA/ERCA Research Group”.

H. Noble
1School of Nursing and Midwifery, Centre for Evidence and Social Innovation, Nursing and Midwifery, Queens University Belfast, Belfast, Northern Ireland

Aim of Seminar
The aim of this seminar is to offer a general overview of the research process focusing on the development of ideas for renal research based on gaps in practice identified by participants.

Overarching aims of the seminar – to present and discuss:

Presentation
i) Coming up with a research question (10m)
ii) Aims and objectives of the research (5m)
iii) How will you answer your questions? (15m)
   - Participants
   - Study site
   - Methods
iv) Including patients and carers (5m)
v) Analysis of your data (15m)
   - Qualitative
   - Quantitative
vi) Sharing your findings and implementation into practice (10m).

Breakout session
Future study ideas – breakout session (30m).
The decision regarding the choice of the RRT modality is crucial. It impacts all aspects of patients’ lives and the lives of their families. Studies demonstrate that many patients, when given the freedom to choose, will select a treatment modality on the basis of their lifestyle. Frequent Home Haemodialysis (FFHHD) is a RRT modality that can provide an efficient and flexible treatment schedule. Patients who take responsibility for their dialysis treatments are empowered and this can improve the quality of their life.

**Session Programme:**

**Chairs:** Maria Cruz Casal (Spain)
Debbie Fortnum (Australia)

**The Purpose of the Guide**
Carol Rhodes (United Kingdom)

**Are the Patients aware of Home HD as a Treatment Option?**
Nicola Pacy (United Kingdom)

**Every country offers Home Haemodialysis in a slightly different way – The importance of Translations**
Michel Roden (Belgium)

**Digital v/s Traditional Learning – Why Online Education is here to Stay**
Panel Discussion
ORAL CARE WORKSHOP - HOW TO SUPPORT PATIENTS WITH CKD

N. Kumar

Special Care Dentistry, Eastman Dental Hospital / University College London, London, United Kingdom

Background
Mouth care is essential in order to maintain good oral hygiene and also to reduce complications, thus promoting patients’ general health.

Studies have identified significant interactions between oral health and CKD that can affect the well-being of renal patients and their quality of life. It has been demonstrated that physicians / nurses may have limited knowledge and clinical experience of assessment of the oral cavity and the importance of oral care protocols. These findings suggest the need for theoretical and practical training in oral health at both undergraduate (medicine and nursing) and postgraduate levels (medical and multiprofessional residency programmes).

This workshop aims to raise awareness and knowledge among renal nurses about the impact of poor oral health.

Objectives
1. To raise awareness of the impact of oral changes on the well being and quality of life for patients with CKD
2. To detail the direct association between oral disease and CKD
3. To describe the most common oral signs and symptoms which are seen in patients with CKD
4. To outline a systemic approach for oral screening which can be used by nurses looking after patients with CKD

Methods
The workshop will be conducted through a combination of lecture and interactive case scenarios.

Results
At the beginning of the session, all participants will be given a questionnaire which explores their knowledge and experience in the oral aspects of CKD.

This will be repeated at the end of the session to determine the impact of the workshop.

Conclusion/Application to practice
It is important to raise awareness amongst patients and healthcare staff regarding the impact of CKD on the mouth. This will result in early prevention strategies being implemented, timely management and ultimately an improvement in the quality of life for patients.

Disclosure of Interest
no
Dialysis Catheter Care – Results from a Theoretical analysis
The objective of this multicenter analysis is to compare the current protection systems that are made by hand by healthcare personnel (traditional dressings) vs a self-adhesive dressing-pouch.

To verify if the self-adhesive dressing-pouch scientifically improves substantially the quality of life of patients with hemodialysis central venous catheter.

Session Programme:
Chair: Irmina Vaicekauskyte (Lithuania)

Catheter Protection Dressings – Traditional dressings vs self-adhesive dressing-pouch
Sonja Pečolar (Slovenia)

Patients’ Quality of Life – How to Improve!
Anna Lepkowska (Poland)
Peritoneal dialysis -exit-site care dressing best practices

M. A. Tavares¹, A. Riemann¹
¹EDTNA/ERCA - PD Consultant; ²EDTNA/ERCA member/volunteer; Previous ETNA/ERCA PD Consultant

Fundamentation
Peritoneal dialysis (PD) is a home treatment. According to Rodrigues (2010), peritoneal dialysis presents itself as an effective dialytic technique that preserves individual freedom and leads to a better rehabilitation of the patient. The PD area is an excellence field of nursing activity, from the pre-dialysis phase, to the beginning of treatment and to the subsequent follow-up at home. Nursing actions focus on facilitating patient change processes by informing, training and retraining them in order to acquire the knowledge and necessary skills to perform their dialysis therapy. The daily care of peritoneal dialysis exit-site is fundamental to prevent serious infections complications. It is important to know and work with the best practices to outcome the best results. Nurses must be proficient with technical, scientific, relational, and pedagogical and management / leadership skills that promote the education and self-care of the person in PD (Bernardini, Price and Figueiredo, 2006).

Objectives
- Promote nurses' knowledge about peritoneal dialysis exit-site dressing
  - Acquire knowledge in peritoneal dialysis;
  - Prevent infection complications
  - Discuss the best practices performing exit-site care dressing
  - Acquire knowledge in performing exit-site care dressing
  - Sharing experiences

Contents
1 – Interactive Module (60 minutes) – 5 round tables with 4 participants
- Best practices in performing the exit-site dressing
- Analysis the group answers
2 – Theoretical module (30 minutes)
  Discuss and analyses the best practices in Peritoneal Dialysis

Methodology
Expositive / interactive method
Shared practice

Bibliography
W 09 WORKSHOP
Anaemia Workshop
Levante

Anemia Workshop

Aim of anaemia workshop

- To understand the theory behind blood tests
- To realise the significance of the results in regard to diagnosing anaemia
- To discuss safety issues with ESA and iron treatments

Methods

- Undertake a series of questions within a team to complete an interactive game
- Using a case study to relate learning to practice
- A plenary lecture that discusses safety issues related to treatments for renal anaemia

Learning outcomes
At the end of the workshop the delegate should be able to discuss why specific blood investigations are ordered, the significance of the results and how this impacts on practice and treatment decisions. They should realise that anaemia treatments often involve the use of drugs and that health care professionals should not become complacent with their use
Dialysis Catheter Care – Results from a Theoretical analysis
The objective of this multicenter analysis is to compare the current protection systems that are made by hand by healthcare personnel (traditional dressings) vs a self-adhesive dressing-pouch.

To verify if the self-adhesive dressing-pouch scientifically improves substantially the quality of life of patients with hemodialysis central venous catheter.

Session Programme:
Chair: Irmina Vaicekauskyte (Lithuania)

Do we need local Adaptations?
Sonja Pečolar (Slovenia)

Workshop – Dialysis Access site care in Practice
Anna Lepkowska (Poland)
W 11 WORKSHOP
How to do a case study?
Marin

How to do a case study?
On behalf of the "EDTNA/ERCA Scientific committee".
J. Finderup

Background
Case study is an important research method. Many randomised controlled trial are based on case studies. Some time case study is the only appropriate method to use.

Aim of the Workshop
The aim of this workshop is to offer some tools for doing a proper case study supported by short presentations followed by discussions and breakout sessions.

Agenda for the workshop:
When to do a case study?
A comparison of different approach to case studies
A presentation of Yin’s approach to case studies
How to make the objectives for a case study?
How to do the data collection for a case study?
How to do the analysis of a case study?
Should we do a case study together?

THE CARE GUIDELINES
A guide for Nurses in their day to day communication with patients

M. Kelly¹, D. Fortnum²

¹EDTNA/ERCA Psychological Care Consultant; ²CNM, Joondalup Dialysis, Australia

Description:
We all know the value and importance of clear and regular communication in our work with patients. We can all recall times when our communication has led to misunderstanding rather than clarity. Also, there are times we can point to when our communication was crystal clear and had its desired effect. This demonstrates that communication is not as straightforward as we imagine. Our communication can be influenced by many factors, for example, language, culture, mood and body language.

This interactive workshop will explore different types and styles of communication. We will consider some of the common mistakes we make in communication and then complete the workshop by focusing on how stress plays a part in how we communicate.

A PowerPoint presentation will frame the workshop. Participation in the workshop will be encouraged. Your own experiences and questions will be a valuable resource in this workshop.
E-POSTERS

E-P 001
Palliative care for a dialysis patient from the viewpoint of a social worker

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Background
Palliative care is a team approach to care that can help us make decisions about treatment options including dialysis.
A social worker may be a bridge between the patient, his family and the healthcare staff.

Objectives
The introduction of palliative care procedures in clinical practice for a patient enrolled in a regular dialysis program in order to take into consideration the individual wishes of the patient and his needs.

Methods
CASE REPORT
Patient JP, 1965, Haemodialysis treatment was started in November 2016, in March 2017 the patient died at home.
- Chronic renal insufficiency
- Dilation cardiomyopathy
- Locally advanced adenocarcinoma of the pancreas
- Bilateral pulmonary embolism
During an examination of the pancreas, the patient was found to have a non-functional left kidney, following the contrast CT examination the right kidney failed. Regular haemodialysis treatment was started. No anti-cancer therapy was indicated.
The patient’s mother decided to care for their son at home. However, she gradually lost control and needed help caring for her son and household. Due to his medical condition, the father was not involved in the care.
The patient’s and his family’s greatest wish was for him to die at home.

METHODS:
Identification of the needs of the patient and his family
Shared decision-making on treatment and social care
Accepted medical, psycho-social and spiritual care plan for patient.
Multi-disciplinary approach (general practitioner, cancer specialist, home care, nursing service, mobile hospice “Cesta domů”

Results
Dialysis centers are not capable of providing comprehensive palliative care, however the solution could involve all concerned parties:
- family
- general practitioner,
- home care, nursing service
- home hospice care
- by a social worker from the dialysis center

Conclusion/Application to practice
Only thanks to this cooperation, the patient’s and his family’s wish for him to die at home could be satisfied.

Disclosure of Interest
no
Crossing borders; destination dialysis. Going the distance for kidney patients, insights and reflections

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Background
While many countries have systems of healthcare in place, marginalized communities have difficulty obtaining the health care they need due to limited medical resources.

Methods
When I was asked to travel to Sierra Leone in West Africa to help organize and educate the nursing staff in the only dialysis unit in the country, I was both excited and frightened. The dialysis unit was donated to the people of Sierra Leone by the Israeli ministry of foreign affairs 5 years ago and included a reverse osmosis water system, 8 dialysis machines with all the equipment necessary for a fully functioning unit. With the outbreak of Ebola in the country and the lack of medical management, the unit's function was abrupt. In December 2016 the unit reopened due to its necessity with a local staff of 7 nurses, a medical director, a technician and 9 patients.

My travel to Africa on this medical mission was entertaining and challenging. The unit set-up is smart, efficient, and well planned but their resources are so little that we often wondered how we are going to make it work. We had to rely heavily on assessment skills and collaboration with the team when faced with a questionable diagnosis due to the lack of diagnostic equipment. Excuses don't get results in Africa; improvisation, on the other hand, works wonders.

The ethical dilemmas the unit is faced with are complex and new to the local team, they have limited resources to cope with such issues. In Africa it's all about cost as each dialysis session, every medication or x-ray has to be paid for in advance by the patient.

Conclusion/Application to practice
It was professionally and personally an experience that humbled me, empowered me, and revitalized my passion for nursing. It's a feeling of being part of something bigger than your own world.

Disclosure of Interest
no
Importance of dialysis nursing in the nursing curriculum in Turkey

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Background
The increase in the number of patients experiencing renal failure and receiving dialysis treatment necessitates the diversity of educational courses specific for this field of medicine.

Objectives
The aim of this study was to investigate the curriculums of dialysis nursing programs in Turkey and identify their importance.

Methods
Population and sample of the research consists of all state and private universities in Turkey (n=185). Study was designed in two stages. In the first stage, course content of the universities which have nursing program (n=119) and provide dialysis nursing course (n=25) was examined from the online course catalogue. In the second stage, views of the students studying at a university and taking Dialysis Nursing classes (n=17) were obtained using a cross-sectional sampling method by using “Dialysis Nursing Course Evaluation Form”.

Results
Among the 18 universities whose course contents were obtained, 55.5% included renal anatomy and physiology, 27.7% presented associations of dialysis with dialysis nursing, 77.7% included indications and contraindications of dialysis types, 100% included dialysis materials plus acute and chronic complications of dialysis, 22.2% included body image and quality of life of dialysis patients and education requirements (patient and family), 66.6% included dialysis treatment for specific situations, 55.5% included psychosocial problems caused by dialysis and 83.3% included nutrition for dialysis.

Conclusion/Application to practice
It was found that dialysis nursing courses are not included at every university and the course contents differed. When the student views and the increasing number of dialysis patients are taken into consideration, it is evident that it is important to provide this course in every university and create a common language for the course content.

Disclosure of Interest
no
Malnutrition assessment in hemodialysis patients: the phase angle as a marker of nutritional status

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Background
Phase angle (PA) obtained from bioimpedance analysis (BIA) has been proposed as a nutritional status marker, with low values (£4.7° in women, £5° in men) associated with malnutrition, higher morbidity and mortality. Malnutrition is common in hemodialysis (HD) patients, some studies showed that the prevalence increases with the duration of HD.

Objectives
The aim of the study was to determine the correlation between different nutritional status markers (PA, BMI, serum albumin and Nutritional Risk Screening (NRS) 2002 questionnaire) in HD patients.

Methods
Patients from our outpatient dialysis centre were included in the study. BIA measurements were made in the supine position, 10 minutes before the start of HD. All measurements were made between January 1st, 2018 and February 15th, 2018. Statistical analysis was performed with the SPSS software; values £0.05 were statistically significant.

Results
40 HD patients (21 men and 19 women, average age 65.4±15.9 years) were included in the study. Lower PA values correlated with lower serum albumin levels (p<0.001), a higher score on the Nutritional Risk Screening (NRS) 2002 questionnaire (p<0.001) and higher age (p<0.001), but not with BMI (p=0.306). We divided our patients into two groups: patients on HD up to 1 year (group 1; N=20) and patients on HD over 10 years (group 2; N=20). Both groups were similar in demographic data, BMI, serum albumin and NRS 2002 score. Patients in group 2, however, had lower values of PA compared to group 1 (4.8 vs 4.5; p=0.027).

Conclusion/Application to practice
BIA with PA is helpful in identifying malnourished HD patients, and could be routinely performed in every dialysis centre. More attention should be given to recognition, prevention and treatment of malnutrition in HD patients.

Disclosure of Interest
no
E-P 005
Serum phosphate and albumin are associated with the onset of first peritonitis
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Objectives
The purpose of our study was to analyse the association between different clinical factors and biochemical values and peritonitis in patients treated with peritoneal dialysis (PD).

Methods
In our retrospective, single-centre study we analysed 53 patients, aged 15 to 67 years who started PD treatment in the period from May 1998 to November 2016. We examined the biochemical values and clinical characteristics of patients at the beginning of the PD treatment and their association with the occurrence of first peritonitis. In the observational time of 1.615 months (1–124months, mean 30.5±31 months), 15 patients (28.3%) developed peritonitis (peritonitis group).

Results
Patients in the peritonitis group had higher levels of serum phosphate (1.85±0.45mmol/L vs 1.53±0.38mmol/L, p=0.012) at the start of PD treatment. Using independent sample T-test, we did not find statistically significant differences between both groups in age, serum creatinine, albumin, hemoglobin, calcium, potassium, eGFR and iPTH. With multivariate regression analysis peritonitis as a dependent variable turned out to be statistically significantly associated with phosphate (p=0.004) and serum albumin (p=0.02). The average time to the occurrence of first peritonitis in all patients was 77.4 months (95% CI [59.7 - 95]). Patients with normal serum phosphorus at the start of PD treatment had survival time to the first episode of peritonitis 110 months (95% CI [92.1 - 127.9]), and patients with higher serum phosphate had this survival time 67.3 months (95% CI [10 - 47.7]).

Conclusion/Application to practice
The results of our study demonstrated a significant association of serum phosphate and albumin values on the occurrence of first peritonitis episode. These findings could help identify patients who start PD treatment with a higher serum phosphate as having a higher risk of peritonitis.

Disclosure of Interest
yes
E-P 006
Management of dialysis adequacy in hemodialysis clinic

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Background
Hemodialysis treatment time and KT/V are primary measures of hemodialysis adequacy. Guidelines have recommended single pool KT/V > 1.2 as the minimum dose for chronic hemodialysis patients on three times weekly HD, and this in order to reach positive outcomes. Close follow up after KT/V is strongly recommended.

Objectives
To build up the process of follow up after dialysis treatments duration and measurement of dialysis adequacy by single pool Kt/V.

Methods
Computerized program for calculation of dialysis adequacy was implemented in the dialysis clinic. Staff was educated about the importance of complete dialysis treatment and correct performance of Kt/V measurement. All patients who were dialyzed in the unit were enrolled in the study. In the final data analysis, three times weekly treatments were included. Daily follow up after the duration of dialysis and monthly follow up after Kt/V measurements were done. Patient education regarding the importance of complete dialysis was provided on regular basis.

Results
Data collection was done in 9 months. The average number of patients per month was 187±4.3. The average duration of the treatments was 3.8 hour for the first 6 months, then increased to 3.9 hours. A monthly appropriately reported data regarding KT/V increased from 21% during the first month of evaluation to 66% after 4 months and reached 96% after 8 months. The number of patients with KT/V higher or equal to 1.2 increased during the follow-up period from 82% to 85%. Low KT/V was identified and appropriate intervention was provided.

Conclusion/Application to practice
Management of dialysis unit should include regular follow up after the dialysis adequacy parameters and increase staff awareness regarding KT/V measurement and appropriate intervention. Lack of these process may cause missing or wrong data and as a result, increase in morbidity and mortality of dialysis patients.

Disclosure of Interest
no
Do you Think I’m Sexy? How sexual harassment declines nurse’s quality of care

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Background
As healthcare workers, we witness a phenomenon of sexual harassment by patients. A subject that is neglected and not dealt with among colleagues and senior management. This study is the first of its kind in Israel. Sexual harassment is defined as sexual behavior that can hurt another person. There are several types of sexual harassment such as: verbal, nonverbal, physical and any of their combination. Sexual harassment of nurses at work is a prominent phenomenon that affects the morale of the staff and its function, as well as the performance, efficiency, and productivity at work. Nurses reported that they tend to confront disturbing patients.

Objectives
To find a link between sexual harassment of nurses by the patients, and the extent of damage to the quality of care.
Hypothesis: The greater the degree of sexual harassment, the greater the decline in the quality of treatment.

Methods
We provided 22 questionnaires for nephrology nurses in our unit and analyzed the data using Person analysis. The questionnaire was anonymous. 19 questions were asked and the answers were ranked on a scale of 1-5. Questions such as: have you witnessed unwanted sexual behavior? Did you try to prevent it? Did it bother you? Did you file a complaint?

Results
The nurses described sexual comments and behavior, some of which were blunt. There was a significant positive correlation between the variables ($P <0.001$, $r_p = 0.759$). The more the therapist experiences sexual harassment, the quality of treatment was declined.

Conclusion/Application to practice
It is important that the system learns how to measure the scope of sexual Harassment, treat and eradicate it in order to prevent a decrease in the quality of treatment. As a consequence of this study, we presented these findings to the senior management and established a task group to deal with this phenomenon.

Disclosure of Interest
no
New dialysis technology designed to improved patient comfort and quality of dialysis treatment

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Background
This is the first system with biological feedback. It is used to control the rate of ultrafiltration during dialysis.

Objectives
Improved patient comfort
Stabilization of the patient’s cardiovascular status
Reduced risk of hypotension episodes

Methods
A combination of two physiological parameters is used to calculate the appropriate rate of ultrafiltration for individual treated patients:

1. Systolic blood pressure - measurements are performed every 20 minutes until 65% of the ultrafiltration volume is reached, long regular intervals prevent the serious deterioration of the patient’s comfort caused by frequent measurements
2. Relative Blood Volume - the system monitors the RBV decline slope limit.

The trends are evaluated over 5-minute intervals and the results are used to calculate and set the corresponding ultrafiltration rate for the next 5 minutes of treatment. Blood pressure changes from up to 100 prior treatments are stored in the memory designated for the patient and saved in the patient’s card.
The Guideline Technique tool searches the saved patient’s tracings to find the trace with the best correlation to the current blood pressure measurements, and this identified tracing is then used as a guideline to adjust the rate of ultrafiltration.

Results
The patient’s physiological parameters are continuously monitored during dialysis. The system has been proven in patients suffering from intradialysis hypotension. Hypotension episodes are eliminated and cardiovascular stabilization is improved.

Conclusion/Application to practice
Thanks to this innovative system, we are capable of providing better comfort to patients during dialysis treatment.

Disclosure of Interest
no
Vascular access link nurses initiative: An extra-ordinary campaign by ordinary nurses

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Background

Every nurse has their unique motives & career plans. Some are content with the day to day life in the renal unit & consequently have become stagnant with practice, being an “eternal novice” in the world of renal nursing.

Our team started the idea of getting together to share their experiences & findings. Thus, coming up with a unified understanding in the care & management of AV Fistula & of AV Graft.

Amidst all challenges, our team has managed to promote such initiative with compassion, commitment, & camaraderie.

Subsequently, its motivations & plans of action were consolidated, for the greater benefit of the patients & for their own professional practice.

Disclosure of Interest

no
E-P 010
Effect of thermotherapy on punctures of internal vascular access for hemodialysis
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Background
Patients on hemodialysis (HD) with internal vascular access (VA), require multiple punctures of their VA each treatment. These punctures, on many occasions they can be painful. There is some evidence in the literature about the analgesic effect of thermotherapy.

Objectives
Evaluate the analgesic effect derived from thermotherapy on the punctures, of the internal VA in patients in HD.

Methods
Prospective unicentric study.
Analysis: 1 Demographic data and VA type. 2 Amount of pain using Visual Analog Scale, (VAS); Week 1, the perceived pain was quantified at all punctures of AV (no thermotherapy); Week 2, following local application of thermotherapy on the VA, the perceived pain was quantified at all VA punctures. 3 Hemodynamics data. 4 Local complications.

Results
61 patients on HD, 43 VA (native or prosthetic). 33 patients included; 60.6% men. Mean age: 67.3 ± 16.4 years. 49.1±66.3 months on HD. Main etiology: NAE y DM 21.2%, I. Charlson: 7.6±3.1. Arterial Hypertension (81.8%), DM (39.4%), Dyslipidemia (39.4%).
Left radiocephalic fistula (45.5%). Average number of weekly punctures/patient 6.03 ± 0.2. VAS average 3.8 ± 2.4.
The prostheses scored the highest average VAS value, 5.3±2.0. The application of local heat on the AV, evidenced a significant decrease in the pain scale VAS 3.9±2.4 vs 2.6±2.0, (p=0.002). We did not identify significant hemodynamic changes before and after punctures (MBP: 88±14.2 vs 90±16.1 mmHg, p=0.261). One patient presented with a mild superficial burn. No changes in the usual analgesic or antihypertensive treatment. We did not identify any complications.

Conclusion/Application to practice
1 - The application of local heat (thermotherapy) on the VA, managed to reduce the pain during the punctures of the VA. There were no complications related to the VA. 2 - We will consider its future clinical application in those patients who experience pain during puncture of their fistulas in our HD unit.

Disclosure of Interest
no
Creating an optimal education strategy in dialysis units to achieve better patient outcomes

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1
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Background
In recent years, technical and medical advances in medicine have made their way through to the provision of healthcare. The patients place greater demands on the medical personnel and require access to state-of-the-art medical procedures and technologies. This fact is reflected in the necessary change in the approach to the provision of nursing care, including patient education.

Objectives
To create an educational structure within the system of primary care for pre-dialysis and dialysis patients to enable the understanding of the management of the treatment and to ensure the cooperation of the patients in the treatment of chronic kidney disease. The primary education of the healthcare personnel is, of course, an essential pre-requisite.

Methods
A system of coordinator nurses was established in order to provide methodical support to other primary nurses, including:

- Education of primary nurses in their roles and competencies
- Addressing complex patient problems
- Self-education in the field, catching up on the latest advances and their introduction in the clinical practice
- Sharing of knowledge and experience (coordinator work days, intranet)
- Provision of statistical information on the functioning of the dialysis centre
- Active participation in external educational events

Results
The system of nurse-coordinators, with key competencies such as communication skills, HR management and interpersonal skills, problem-solving skills, and the capability of processing information using state-of-the-art technology are some of the pre-requisites for a successful educational process and have been proven in practice. This results in a competent medical staff and an adequately informed patient, well-acquainted to the recommended procedures.

Conclusion/Application to practice
Patient education is a complex process across several levels and therefore it is necessary to know the individual objectives defined for the medical personnel as well as for the patients. Involving the patient in the treatment process increases his/her chances to achieve a better quality of life.

Disclosure of Interest
no
Factors influencing dialysis modality choice the United Arab Emirates

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Background
New dialysis patients in the UAE mostly end up on in-centre HD because they present as an emergency. With the advent of early detection of CKD and pre-dialysis clinics, this is changing. In some cultures, doctors primarily decide the most suitable treatment for the patients with little discussion or joint decision making.

Objectives
The objectives were to explore the factors influencing patients’ modality choice.

Methods
A cross-sectional survey was used as a pilot study. A purposive convenience sample of fourteen patients commencing dialysis, eight on haemodialysis and six on peritoneal dialysis were selected.

Results
This study showed that (92.8 %) of patients in both HD and PD groups first dialysis modality was exclusively upon the Doctor’s decision. In addition, in the PD group, there were significantly more patients living with a family member than the HD group (n=6, 100%; n=5, 62.5% respectively) reflecting the importance of social support for performing PD.

Regarding their knowledge of dialysis modalities, (n=5, 83.3%) of PD patients knew about HD before they started PD and 66.6% of PD patients (n =4, 66.6%) had pre-dialysis education about options. In contrast, 62.5% of HD patients (n = 5, 62.5%) did not have knowledge about PD and 62.5% of HD patients did not receive pre-dialysis modality education.

Conclusion/Application to practice
Factors influencing patients’ modality choice include lack of choice due to medical decisions, lack of knowledge of the available options, and lack of pre-dialysis education. Therefore, implementation of a structured pre-dialysis education program including an introduction to HD, PD, transplantation and HHD plus other issues such as nutrition and social and psychological support is vital. Pre-dialysis education should enable patients to make informed choices about RRT options. Patients and their families should receive well-balanced information about the different RRT modalities, by means of a structured educational programme.

Disclosure of Interest
no
E-P 013
Palliative care options in a social facility for dialysis patients
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Background
Considering how to expand palliative care in ESRD in a facility for individuals with disabilities is a pressing topic due to the fact that we offer long-term in-patient social services to people with kidney disorders, most of them requiring dialysis therapy. Those incapable of living alone in their natural environment especially require help to support their needs, and transport to dialysis centres can be complicated. Our objective is for the clients to live a full life despite their disease. However, their quality of life is subject to several adverse factors upon the initiation of dialysis therapy. These factors often include advanced age, immobility, complicated transfers to the HDS (haemodialysis centre), hydration restrictions, dietary restrictions, multiple drug use, and time spent at the HDS.

Objectives
The objective of this work is to describe realistic options for the use of palliative care at our facility. We will reflect on the observance of medical principles in line with respect towards the clients, their wishes and needs necessary with regard to the provision of social services. We will describe ethical dilemmas and touch on the topic of death, the taboo of death and the transfer of dying patients to hospitals.

Methods
Observation, interview, and case report.

Conclusion/Application to practice
The research outcomes will help us further develop the process involving the use of the palliative care elements in the social services provided by our facility. It is important for an individual to be able to die where one feels at home and free of pain and shortness of breath, while the patient’s deteriorating condition must remain manageable.

Disclosure of Interest
no
Mentoring as an important part of integration dialysis nurse into clinical practice

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1

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Background
One of the priorities of every functioning organization is the hiring and subsequent stabilization of newly-hired staff. This is mainly based on a well set-up adaptation process. The appropriate course of the adaptation process is the responsibility of the mentor, who provides assistance and support for the new staff. The adaptation process at our workplace is based on three phases. The first phase is focused on the acquisition of general and basic clinical knowledge and skills. The second phase involves an explanation of the terms necessary for the understanding of the effectiveness of dialysis, and the third phase verifies the acquired knowledge in practice.

Objectives
Successful integration of the staff in the clinical practice and quick adaptation into the role of a competent nurse.

Methods
Qualitative assessment and analysis of all three phases of the adaptation process set up within the network of our dialysis centres. Comparing the experience of newly-hired staff at our dialysis centres with that of newly-hired staff at other healthcare facilities

Results
We found that the staff hired to our dialysis centres are more satisfied with the course of the adaptation process with clearly defined rules, compared to the staff hired by other healthcare facilities, where the adaptation process is not precisely established.

Conclusion/Application to practice
The adaptation process plays an important role in the proper integration of a new member into the work team. Nurses first starting a new job often suffer from anxiety, insecurity and fear. The period of adaptation process properly managed by an experienced mentor helps to eliminate these feelings. A properly and clearly defined adaptation process is a basic pre-requisite for hiring high-quality and competent nurses

Disclosure of Interest
no
How a novel patient aid could prevent early drop-out of PD therapy

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Background
Enrolling patients on PD requires resources for training and education, especially at the beginning. In general, registries include patients only after 90 days. Retrospective studies in the US and UK have shown that early drop-out of PD therapy within the first 90 days is as high as 13 – 20%. If these drop-outs can be reduced, the healthcare system would save resources, time, and money.

Objectives
The aim was to understand how a newly developed connect device would help to prevent early drop-out and support patients during their first weeks on PD therapy prior to the product launch.

Methods
Reasons for the drop-out were identified and compared with patient profiles that would benefit from such a device as well as with functionalities such as a connecting mechanism where the patient cannot interfere with the open catheter as well as a therapy guidance that leads the patient through the therapy steps.

Results
The analysis showed that 60% of early drop-out events during the first 90 days could potentially be addressed by a patient connection device, because 35% of drop-outs are peritonitis related, and 25% psychosocial related.

Conclusion/Application to practice
The fact that with the patient aid, the catheter system is secluded from the patient might help to prevent drop-outs early in the therapy. However, more evidence is required through clinical data.

Disclosure of Interest
yes
E-P 016
Patients who benefit from a novel auto-connect device in pd

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Background
In many countries, it is increasingly difficult to put patients on PD because they are getting more frail, more elderly and many of them are multi-morbid/multiple comorbidities. Many of the patients have impairments that seem to be an additional barrier to PD. These are manifold and potential patient restrictions range from tactile or visual restrictions, to dexterity shortfalls, arthritis or other causes.

Objectives
The aim was to understand how a newly developed auto-connect device would allow more patients to be treated at home. With what kind of patients would such a device make patients and health care professionals feel safer and how many patients could profit from such a device.

Methods
A survey performed at EuroPD 2017 encompassing interviews with 29 participants: 45% nephrologists, 45% nurses and therapy specialists and 10% others. The participants watched a demonstrative video of the device and its functionality and then they had to discuss and rate pre-defined patient profiles and statements.

Results
The majority immediately recognized the potential of the device to protect from infections and appreciated its functional simplicity. Five patient profiles were confirmed by at least two thirds of participants: visual/dexterity impairment (93%), patients exposed to an increased infection risk (83%), patients at the edge of assistance (76%), Patients with anxiety (72%), Patients who already suffered from peritonitis (66%).

Conclusion/Application to practice
The survey confirmed the key advantages of such a device for home dialysis patients. 26% would use it for 6-20% of their patients, 30% of respondents would use it for 21-35% of their patients. The data suggests that more patients can be treated at home with such a device.

Disclosure of Interest
yes
Immobile dialysis patients increase the demands on a nurse’s time and direct care

Z. Švarcová

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Background
The number of chronic patients has been recently increasing as well as the proportion of non-self-reliant or immobile patients. This must be reflected in nursing care as it increases the demands on the time of the nurses and direct care.

Objectives
To provide the patients with safe care corresponding to their current medical condition and to reduce the physical and mental load on the nurses providing the care.

Methods
We currently manage 69 patients at our workplace. Of this number, 11 patients are immobile and 10 patients require increased nurse monitoring. These patients are more in danger of dialysis treatment-related complications.

Prevention of complications:
1. Screening of patients included in the risk group.
2. Safety of the patient by:
   1. provision and administration of medication
   2. cooperation of the family in specialized examinations
   3. prevention of falls
   4. safety of the patient’s connection to the dialysis machine

Results
Through the application of the above procedures, we are capable of providing the patients with dignified and safe care. Even though the growing number of non-self-reliant patients at our dialysis centre directly increases the physical and mental demands on the attending personnel, the nurse migration rate is low as well as the incidence of burn-out.

Conclusion/Application to practice
Early implementation of the above measures to provide a sufficient number of nursing staff to adequately respond to the patients’ requirements, and to be capable of monitoring and properly assessing all risks affecting the particular patients. Attention given to nurses should equal the attention devoted to the care for the patient and efforts should be made to prevent their being overloaded.

Disclosure of Interest
no
Patients’ perceptions of haemodialysis with regard to participation in their care

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Background
It is well documented that there are significant benefits to encouraging patient participation in care and decision making. However, some cultures in the middle east struggle with these concepts and healthcare is viewed as a prescriptive domain of physicians.

Objectives
This study is aimed at exploring the perception of haemodialysis patients with regard to participation in their care in Abu Dhabi.

Methods
A descriptive quantitative approach using self-reported questionnaire was used to obtain data from 50 HD patients on maintenance HD. 45 responses were analyzed using descriptive statistics with excel. These included: treatment decision making; self-care management activities; home haemodialysis; and treatment adherence.

Results
Most of the study participants admitted that they were very involved in their treatment decisions and believed in the importance of this involvement; around half of them think that they should decide their treatment and all care should be carried out by nurses, whereas the majority believed that doctors are the best to decide for them. With regards to self-care activities, there was an acceptance of these activities by highlighting the importance of educating the haemodialysis patient on their treatment aspects. Some patients were interested in home haemodialysis and half of them did not adhere to their clinician’s instructions.

Conclusion/Application to practice
The findings of this study might be used to structure and implement training for the provision of care for haemodialysis patients, which might encourage them to participate and engage in their care. Self-care in the dialysis unit might be the first step to home dialysis. Time and resources are needed to offer the required training in order to implement and support the self-care concept. A culturally delicate coaching and counselling programme should be established for HD patients about treatment regimens, in order to empower patients and engage them in their care that may improve their quality of life.

Disclosure of Interest
no
Needle dislodgement management in dialysis – causes and consequences

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**Background**

Needle Dislodgement (ND) is a life-threatening incident that is more frequent than desirable, with several potential harm levels, such as catastrophic blood loss and even death. In fact, the incidence of this event might be as high as 6.1% of all haemodialysis incidents, but published reports are probably just the tip of the iceberg, as this kind of event is usually managed locally.

**Objectives**

Our objectives were:

- To assess the incidence of ND on a large scale.
- To identify the causes and consequences using a systematic approach.

**Methods**

This was a prospective, descriptive, observational study with 4,700 patients from 37 HD units during 2017. Previous nursing training was performed involving an e-learning training course. All event descriptions and corrective actions are recorded in a central database, including the level of harm to the patient. Small blood loss (SBL) was considered <100mL, serious bleeding event (SBE) ≥100mL or when a blood sample was taken for a blood count.

**Results**

136 ND events were recorded from 732,941 treatments involving 118 patients. 58% were male, mean age 69.81 ± 14.52 years. 88 (67.2%) involved venous ND, 28 (21.4%) arterial ND. 39 (28.8%) with SBL, 25 (19.1%) with SBE and 67 (51.1%) without blood loss or missing data. From a total number of events, 29 incurred in the same 12 patients. 82 events required new cannulation and 29 had early treatment disconnections.

The main causes of ND were related to restless/non-compliant patients (25) and mental confusion/disorientation (10). There were no fatal consequences, and only one patient was referred to hospital. We observed 3.41/100,000 SBE events.

**Conclusion/Application to practice**

In conclusion, restless/non-compliant and confused/disorientated patients are often associated with more frequent ND events. Venous ND was more frequent than arterial, without fatal consequences. Thanks to careful monitoring of nurses and careful patient training more favourable outcomes were achieved. This assessment is only possible thanks to a centralised database.

**Disclosure of Interest**

no
E-P 020
Vascular access coordination in patients undergoing haemodialysis: evaluation of risk factors of fistula thrombosis

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Background
Arteriovenous fistulas (AVF) allows for rapid extracorporeal blood flow that is necessary for haemodialysis; however, vascular stenosis is common and can lead to inadequate haemodialysis or fistula thrombosis.

Objectives
To understand the factors that can predict AVF thrombosis.

Methods
We evaluated patients with AVF thrombosis from 2014 to 2017. Only patients with successful cannulations for at least 6 months were considered.

Results
Thrombosis' rate in AVF during the study period was 6.1% (34 patients). All thrombosed AVF have an underlying pathological anatomy, 47.1% cephalic arch stenosis (CAS), 20.6% proximal stenosis (PS), 20.6% distal or arterial anastomosis (DAA), whereas the remaining stenosis were spread across the access cannulation track and central veins. The data show us that each stenosis was specific to an AVF type: CAS is seen most commonly with a brachial-cephalic AVF; DAA is identified only in the radial-cephalic AVF. The results shows that the prevalence of AVF depending on the stenosis location: Prevalence of AVF on patients with CAS is two years and eleven months; Prevalence of AVF on patients with DAA is six years and nine months. The risk factors associated with failure of an AVF were reviewed separately: Patients with CAS have normal Kt/V (average 1.88), lower substitution volume (19.7L), normal Qa (average 1420mL/min), difficulties on haemostasis, high venous pressure (average 281mmHg) and an optimal blood flow of 419 mL/min; Patients with PS or DAA have lower Kt/V (1.34); lower substitution volume (19.4L); lower Qa (520mL/min); Patients with DAA have also lower arterial pressure (average of -245mmHg) and decrease on the average of blood flow to 348mL/min.

Conclusion/Application to practice
Proper fistula maintenance and care can help to prevent injury of the fistula that might cause problems. The location of the AVF is important and should be considered on an individual basis, because they have specific risk factors.

Disclosure of Interest
no
Reference nurse: myth or reality?

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Background
Providing good nursing care suggests looking at a person in all dimensions (bio-psycho-social and economic) and identifying interventions in order to improve, not only physical and haemodynamic status, but also well-being and quality of life. Using the approach of a Reference Nurse (RefN) is a method of nursing care in which a nurse takes the responsibility for coordinating a group of patients inside a dialysis unit and becomes their interface between the healthcare team, family/caregivers, and primary health care system.

Objectives
To evaluate the nurses perspective and feelings about RefN as a method of nursing care in patients undergoing haemodialysis.

Methods
This is a qualitative, cross-sectional study. We used an open-answer questionnaire and the sample comprised of five renal nurses who were employed full time.

Results
80% of nurses reported that the RefN method promoted personalised and human care;
100% of them felt recognition for the care provided and reported that since they are RefN, they have a better understanding of the patients, their families and social conditions.
The main difficulties mentioned (reported by 40% of nurses) were the short time to communicate with nephrologists and resident physicians, and being able to investigate other areas of knowledge.
60% of nurses reported that the time available per month was sufficient to keep up to date the nursing care plan of their patients.

Conclusion/Application to practice
As already demonstrated in previous studies, RefN care method allows the nurses to take care of patients using a holistic approach and achieve high standards of quality in nursing care. This methodology of care also allows nurses to practice nursing care as a whole, contributed to a personal sense of professional fulfilment using scientific methodology in the provision of care and the recognition by patients, family/caregivers, and other members of the health team.

Disclosure of Interest
no
E-P 022

Lean methodology for management of Hepatitis B & C patients in the Hemodialysis

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Background
The Scarborough and Rouge Hospital (SRH) hemodialysis program consist of four physical locations which service a total of over 680 hemodialysis patients. Surveillance and care delivery model at hemodialysis (HD) patients with hepatitis B and/or C was in fragmentation state. The lack of integrated frameworks and systematic approach to patient serology management has resulted in duplication of serology testing, unnecessary of vaccine given, insufficient patient isolation spots for hemodialysis program. After years of different mitigation strategies, rapid improvement event and logistically change, the program was able to develop a streamline process to ensure all patients hepatitis serology status are up to date.

Objectives
Develop a comprehensive seamless patient serology data base, surveillance process, and vaccination protocol regardless of patient dialysis location at SRH.

Methods
A comprehensive review of current status and best practice guideline was done. It concluded that a change of model of care is necessary. In collaboration with other essential support services such as infection control and IT, a new system was developed.

Results

Conclusion/Application to practice
Serology core team was developed to sustain this new serology model of care and ongoing audit. With this proof of concept, the core team model may be adopted in future initiative hemodialysis program or other health service programs.

Disclosure of Interest
no
Nursing-sensitive outcomes related to haemodialysis patients: a systematic review

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Background
To evaluate the quality of care and services provided, outcome measures are required. The outcomes related to nursing care allow the assessment of the influence of independent and interdependent actions of nurses and the effect on the patient. Nurses play an important role in ensuring the continuous improvement of the quality of care to achieve the maximum efficiency in their organisation.

Objectives
To identify nursing-sensitive outcomes related to nursing care to Patient on dialysis.

Methods
The systematic review considered research studies in the area of nursing care for dialysis patients evaluating nursing interventions and respective results. The databases used were PubMed, Medline, the Nursing & Allied Health Collection, MedicLatina, CINAHL, LILACS and Health Technology Assessments.

Results
We identified 55 articles and with the Prisma Flow Chart we found 5 articles meeting the established criteria. After analysis of the articles, 2 qualitative analyses were identified; one was related to the dimension of patient centred care by health care professionals in the sick person. The other was related to quality of life. In two quantitative studies, the quality of life was evaluated using SF36 instruments, the first was related to KDQOL and mortality and the second to hospitalisation and adverse events, assessed through the scale identified as Risk for Outcomes Adverse to Dialysis (ROAD). The remaining study evaluated quantitatively, the care environment through the instrument Practice Environment Scale of Nursing Work Index PES-NWI and adverse events related to treatment.

Conclusion/Application to practice
Nursing care has considerably promoted the development of autonomous interventions, requiring indicators to assess its impact on a patient. Our results reveal the need for research in the field of nursing-sensitive outcomes related to haemodialysis patients and identify effective measures that can be validated and used in future studies.

Disclosure of Interest
no
E-P 024

Holiday Patients Portugal: a database available for patient’s service

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Background

Many factors contribute to dialysis patient well-being; one of the most important is to be a productive individual without loss of identity and self-confidence by maintaining employment status. Recent studies have shown that outside outcomes such as services-level variables might also influence the patient employment status. We investigated these trends to discuss an encouraging example of this influence.

Objectives

- To understand the potential of a service on the basis of a national database to support mobility of dialysis patients and its possible association with increased employment rates;
- To identify the potential of a service on the basis of a national database to support mobility of patients and its impact in the well-being of the haemodialysis patient.

Methods

Descriptive, single holistic case study. Qualitative research was chosen as it provides the opportunity to explore the experiences of an active female adult about the dialysis treatment and her daily struggles to cope with her job with the support from Holiday Patients Portugal database.

Results

Female, mother, 51 years old, on haemodialysis since 2015, works as a travelling merchant. Being restricted by her renal dialysis treatment, medical condition and surrounding environment, she states that the family support and the labour network are fundamental to cope with her daily life. Formal caregivers’ staff, clinical know-how and exceptional organisation enables her to be a productive individual without loss of identity by maintaining employment status. She indicated the service of the private dialysis clinic, Holiday Patients Portugal being the mainly contributing factor.

Conclusion/Application to practice

The most remarkable finding is that loss of employment is not an inevitable consequence of ESRD for working-age individuals. Data also indicates the importance of promoting remunerated employment as a means to enhancing autonomy, self-care, and self-esteem; these factors need to be improved to further enhance the well-being of dialysis patients.

Disclosure of Interest

no
Musical environment in the dialysis room

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Background
The environment in which haemodialysis care is provided is determined by several conditions: physical, social, cultural, and economic factors. On the physical aspect, a potential optimisation of the treatment conditions was found. With the introduction of a controlled musical environment it was intended to improve the working and therapeutic environment.

Objectives
▪ To create a favourable environment to improve the well-being of health professionals and patients;
▪ To contribute to the elimination of unpleasant sounds;
▪ To promote the focus of attention and efficiency of professionals;
▪ To encourage virtues such as respect, tolerance, discipline, collaboration, unity and sharing.

Methods
▪ Implementation of an infrastructure for musical reproduction in the dialysis room;
▪ Creation of musical playlists for different moments of work / treatment;
▪ 18 month of exposure to music in the dialysis room;
▪ Evaluation of the project, in an initial phase among healthcare professionals, by means of a self-administered questionnaire.

Results
▪ Project was successfully implemented, involving professionals and patients in the creation of musical playlists;
▪ 95% of surveyed professionals are very satisfied / satisfied with the project. Percentages between 70 and 100% recognise several benefits at the emotional, behavioural level and in the physical environment of the room;
▪ Only 20% of those interviewed professionals reported an occasional annoyance caused by the musical reproduction.

Conclusion/Application to practice
The creation of the musical environment has increased the levels of satisfaction of healthcare professionals, with emotional, behavioral and social benefits.
Music in the dialysis room is nowadays an element perfectly integrated into the physical environment in which dialysis care is provided.
A second phase of the evaluation will involve hemodialysis patients.

Disclosure of Interest
no
Background
There is a wide range of dressing types as well as disposables safety features to address the Central Venous Catheters (CVC) exit site, to protect it from microbiological colonization and provide comfort for the patient. However, allergic reactions to both adhesive and antiseptic solution are not uncommon.

Objectives
To describe a CVC safety procedure in patients with both allergy to adhesive strips and antiseptic solution.

Methods
This is a case study of a 78 year old male on dialysis for 24 months with CVC for the past 8 months, with signs of a severe allergic reaction in the skin surrounding the exit site. A technical protocol was established for all treatments including monitoring using a visual scale and procedures before the connection, after the beginning of the dialysis treatment, after disconnection, and at the end of treatment. A visual scale was used to compare lesion evolution and a non-adhesive silver-coated film dressing was used, over the entire length of the lesion.

Results
Initially the patient had an allergic lesion of approximately 11 cm, which was assessed with visual records at the beginning of the treatments to follow the evolution of the situation. With the use of non-adhesive silver-based film dressing and minimal contact of adhesive strips with the skin, healing of the lesion was observed after 1 week.

Conclusion/Application to practice
Individual patient care is considered an important component of continuous nursing assessment, proactively attending special needs in overcoming barriers in HD patients avoiding major clinical events and even hospitalization. In view of the positive results obtained, we apply the same protocol to other patients in similar situations. In this case, the nurse’s role was crucial in minimising harm for the patient.

Disclosure of Interest
no
E-P 027
Elevated dynamic venous pressure values: a marker of complications in vascular access?

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Background
The most common complications associated with a vascular access are stenotic vascular lesions (venous stenosis, arterial stenosis), thrombosis, infection, aneurysm, and extremity ischemia (KDOQI, 2006). Asymptomatic, but haemodynamically significant stenoses are usually detected by means of a systematic monitoring and surveillance programme.

Objectives
- To understand the relevance of dynamic venous pressure evaluation in arteriovenous fistula (AVF) and arteriovenous graft (AVG);
- To analyse dynamic venous pressure data in AVF and AVG before angiographic interventions.

Methods
This is a descriptive retrospective study. We assessed dynamic venous pressure data during access flow (Qa) evaluation before angiographic interventions that identify stenosis which were performed between January, 1st 2015 and December 31st of 2016.

Results
We analysed 134 interventions: 64.2% AVG and 35.8% AVF. Values of dynamic venous pressure > 100mmHg in 66.3% of AVG and in 41.7% of AVF.

Conclusion/Application to practice
In conclusion, the evaluation of dynamic venous pressure possibly helped us:
- to prevent serious complications in vascular accesses.
- to reduce the rate of thrombosis by early detection and correction of stenosis
- to increase life expectancy of vascular access and to promotie better quality of life for patients.

Disclosure of Interest
no
Arteriovenous fistula: self-care

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Background
Chronic kidney disease (CKD) is often characterised by a progressive and irreversible loss of renal function. The most frequently used treatment is haemodialysis, which is a complex and specialised treatment process requiring the use of adequate materials and equipment, technical-scientific competence of the healthcare professionals, and the proper nursing care of the patient. It also depends on the presence of an efficient vascular access. Vascular access can be considered as the survival line of the CKD patient. To ensure that it remains in good condition, specific care is needed. Therefore, the nursing team that is directly involved in patient care should encourage self-care.

Objectives
To analyse and describe studies that provide a better understanding of the guidelines for good practice of self-care for the Arteriovenous Fistula (AVF).

Methods
Systematic review of literature, including three published studies on patients undergoing haemodialytic treatment.

Results
A literature review was carried out in October 2017 using the databases B-On and ScieELO. From a total of 10 articles (published between 2006 and 2016), 3 were selected after review. The remaining articles did not meet the intended criteria and were excluded.

Adequate care of the AVF requires constant attention. Therefore, the patient needs to be aware of the care to be taken with the fistula, since these studies show that although patients are motivated, they may not always have sufficient knowledge or may care for the AVF incorrectly. Patients may know the need to develop these activities and may already practise them but they can still be improved.

Conclusion/Application to practice
The results of these studies show that it is very important for healthcare professionals to involve the patient in the treatment process and inform him/her properly about self-care of AVF to enable him/her to promote a change of behaviour and adopt safe practice.

Disclosure of Interest
no
Diabetic foot project: 6 months results

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Background
Diabetes type 2 (DM2) is associated with multiple complications due to insufficient peripheral vascularisation, such as the diabetic foot compromising the patient’s productivity, quality of life, and survival. Every year, a few hundred people are hospitalised with a diabetic foot in Portugal and many of these cases result in lower limb amputation. In addition to the associated suffering, there is a great deal of investment in the prophylaxis and therapy of this disease. A more active approach to prevention and referral is therefore of crucial importance.

Objectives
To show preliminary project results on the prevalence of neuropathic and vascular disorders in DM2 patients as compared to those without DM2.

Methods
Diabetic Foot Appointment was applied to 68 patients with CKD who were divided in two groups: an experimental group of 27 patients with DM2 and a control group of 41 patients without DM2.

Results
We found out that the number of patients with neuropathic and vascular disorders is higher in DM2 patients than in those without DM2: 17 (25%) versus 12 (17.7%) and 21 (30.9%) versus 14 (20.6%), respectively. Of the 27 evaluated DM2 patients, 21 (77.8%) were assigned a high risk (with neuropathy or peripheral arterial disease or ulceration or previous amputation), 5 (18.5%) were assigned a medium risk (with neuropathy) and 1 (3.7%) was assigned a low risk (without neuropathy).

Conclusion/Application to practice
The results obtained in these first 6 months and the identification of situations that require specialised referral justifies the continuation of this project with all the improvements achieved.

Disclosure of Interest
no
E-P 030
Peritoneal dialysis patient education in Turkey
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Background
The most important complications of peritoneal dialysis (PD) are infections. PD patient education is important to avoid infections.

Objectives
In our study, we aimed to identify how PD patient education is conducted in Turkey.

Methods
The population and sample of the study consisted of PC centers in Turkey (n=85). The "PD Education Question Form", which is prepared according to PD guides, was used for data collection. The study was completed with 54 centers who filled out the form.

Results
PD has been available for more than 10 years at 71% of the units. 1 nurse works at 43% of the units and two nurses work at 46% of the units. Oral education and written materials were provided in all of the units and models were used for education in 89%. The majority of the units (91%) used a standard education program; 57.4% started education before placing the PD catheter and 56% provided on-foot education. It was observed that more than half of the units (574%) evaluated the efficiency of the education by using a form. All of the units provided education on PD application technique, hygiene, house environment and rules of asepsis, peritonitis, exit-site infections, volume control, personal hygiene, solution supply, what to do before examinations and what to do during an emergency at home. 89% of the units provided education on the patients' sexual life. Educations lasted less than 7 days at 13% of the units, between 7-14 days at 61% of the units and more than 15 days at 26% of the units. It was detected that no standard time was determined for education at 81.5% of the units and 54% of the units provided regular education.

Conclusion/Application to practice
These results can be used to provide improved PD education for the patients.

Disclosure of Interest
no
The nurse’s role in a multidisciplinary team for efficiency enhancement in dialysis

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Background

Kt/V is used to measure dialysis adequacy and effectiveness, and can be calculated mathematically [single-pool Kt/V (spKt/V)], from the ratio of post-to predialytic blood urea nitrogen or by automatic intradialytic measurements which are equivalent to spKt/V measurements. Several procedures can improve Kt/V and if applied regularly, can provide a steady and efficient treatment to patients, improving quality of life and survival ratio.

Objectives

- Identify the mechanisms available for nurses to increase dialysis efficacy;
- Determine the importance of the multidisciplinary team in dialysis efficacy.

Methods

An observational, retrospective descriptive study was carried out. Over a period of 4 years (from January 2014 to November 2017) a sample of 18 dialysis patients was observed. During the follow-up, automatic intradialytic Kt/V was assessed by the multidisciplinary team regularly and both blood flow (Qb) and needle gauge optimised, within safety parameters such as:

- vascular access (VA) shunt’s pressures;
- assessing VA internal access flow (Qa).

Treatment data was automatically transferred from the machine to a central database.

Results

Mean age was 65 years and 10 (56%) patients were female. Mean treatment time was 248.61 minutes. 3 patients used a central venous catheter as VA, the remaining an internal VA.

In January 2014, 72\% of patients reached or exceeded the target of spKt/V 1.4 and at the end of the study period this target was achieved in all patients. Mean Kt/V increased from 1.63 to 2.08 and Qb increased from 334.09 to 435.94 mL/min.

Conclusion/Application to practice

We concluded that the nurse plays a major role in the management of dialysis treatments, using several available tools to achieve the best possible Kt/V thus contributing to an effective treatment. Communication between the nursing staff and the healthcare team plays a fundamental role in a dialysis unit contributing to the patient’s well-being and identifying potential for improvement.

Disclosure of Interest

no
Resilience in a regular haemodialysis programme: A systematic literature review

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Background
Regular hemodialysis causes numerous changes in the life of patients with chronic kidney disease. Some people go through these situations and can overcome them and get stronger while others cannot. Resilience is what sets the way people deal with the same problems.

Objectives
To analyse current knowledge about resilience in people with kidney disease on haemodialysis and its associations with their sociodemographic and clinical profile.

Methods
The present systematic review was performed using a set of selection criteria, established by using the PICO (Population, Intervention, Comparator, and Outcome) elements. The selected studies were analysed and the results interpreted and summarised. The review was carried out between November 2017 and January 2018 using the Online Knowledge Library (B-On) and Google Scholar. From a total of 409 articles (published between 2013 and 2018), 11 were selected on the basis of the titles and abstracts and, after full reading, 8 were identified as relevant.

Results
Most studies concluded that patients on haemodialysis have a certain resilience tendency. The most referred determinants of resilience were: gender (male), religious practice, and family support. Some studies also mention a negative correlation with age, HD time, depression, and the use of medication. We found a positive correlation with the educational level and self-esteem.

Conclusion/Application to practice
The resilience of patients receiving haemodialysis is poorly studied by health professionals. Studies are required so that haemodialysis units can implement patient-oriented programmes.

Disclosure of Interest
no
To FLUSH or NOT to FLUSH.. This is the question!!

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Background

▪ The use of central catheters (CVC) is associated with increased all-cause mortality, mainly due to catheter related infections and malfunction.

According to guidelines prevalence of CVC among HD patients should be lower than 10%. However prevalence among HD patient is much higher (14-50%).

▪ Thrombosis and infection are the main problems associated with long-term CVC. Nurses play a key role in preventing these complications. Their practice of handling the CVC affects the CVC function and infectious rates. Therefore, to idealize CVC handling among HD patients, specific guidelines and protocols were developed. However, the practice and technique of handling a CVC varies a lot among the nurses.

Objectives

▪ To shed light on the importance of a correct CVC handling among HD patient and to highlight the crucial points of this process for the nephrology nurses, a literature review was done.

Methods

Google Scholar & Pub-Med were searched for relevant articles where the following key words were used: ESRD, CVC, protocol, flushing, vascular access, handling, technique, Hemodialysis, nurses.

Results

▪ A 20 articles and 4 protocols were found relevant. The following technique are found very important to be highlighted for HD nurses:

1. Flushing the CVC before and after the dialysis session with a volume of 10 ml saline 0.9% syringe is a crucial step, which has a great impact on lowering the incidence of CVC malfunction and contamination (patients receiving TPN or packed cells, 20 ml syringe can also be used).

2. A positive pressure should be maintained in the CVC lumens. That can be achieved either by closing the clamps while flushing or closing the catheter clamps while keeping pressure on the syringe plunger.

3. Pulsatile flushing technique is more effective in fibrin and bacterial colonization removal.

Conclusion/Application to practice

Flushing is crucial to assure CVC patency.

Disclosure of Interest

No
Identification of a dysfunctional dialysis access through a thermodilution surveillance programme

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Background
Given the different types of vascular access (VA) and the various problems that can occur in each, a structured approach should be taken in the pre-procedure evaluation of patients referred for VA intervention. Abnormalities detected on surveillance or monitoring trigger referrals for evaluation and intervention in hopes of preventing thrombosis or inadequate dialysis. Vascular access flow (Qa) determination is considered the “gold standard” in VA surveillance. In our clinic, we evaluate Qa by thermodilution.

Objectives
To assess whether a surveillance programme by thermodilution can predict dysfunctional VA and ensure timely patient referral for corrective intervention.

Methods
We conducted this quantitative, descriptive-correlational, and retrospective study from June 2011 to June 2015. With non-probabilistic sampling we assessed 108 patients at our centre taking part in VA monitoring and surveillance programmes, including vascular access flow determination by thermodilution, who were at least once referred to percutaneous or surgical intervention in the VA, due to suspicion of VA dysfunction or thrombosis.

Results
We observed that percutaneous or surgical interventions in VA were performed after a significant reduction in the Qa value in the period immediately before the intervention. The impact of percutaneous or surgical interventions in VA shows an increase in Qa value after the intervention.
On average, the Qa value increased after angioplasty by 639.05mL/min (σ=427.43), surgical revision by 389.29mL/min (σ=411.96), percutaneous thrombectomy by 385.56mL/min (σ=303.36), and surgical thrombectomy by 70mL/min (σ=340.55).

Conclusion/Application to practice
Our analysis suggests that Qa surveillance by thermodilution is an effective screening method to identify dysfunctional VA. We believe that the implementation of a thermodilution VA surveillance programme helps to improve dialysis management and represents clinically relevant indications of failure before planning an percutaneous or surgical intervention.

Disclosure of Interest
no
E-P 035
Permanent vascular access for haemodialysis - dialysis port
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Background
A permanent hemodialysis catheter is an alternative vascular access for patients in whom construction of AV fistula is not possible or is contraindicated. A hemodialysis port is an alternative to permanent catheters. It is associated with better quality of life and is best suited to young and active patients.

Objectives
We present our experience with port use and the role of the dialysis nurse.

Methods
In our center, we started implanting haemodialysis ports in March 2016. After implantation, we monitored the position of the haemodialysis port chambers and tip of the catheter, implantation and puncture site and flow parameters during every haemodialysis. Venous and arterial pressures during haemodialysis were monitored continuously in relationship to flow volume. Special attention was paid to possible infections of the haemodialysis port system.

Results
We have implanted haemodialysis ports in eleven patients; 6 of them were young and active patients and one patient had dementia and a history of manual permanent catheter displacement. All patients have had a previously implanted permanent tunnelled central venous catheter.

Conclusion/Application to practice
Considering the short learning curve of nurses and physicians who managed haemodialysis ports and some complications at the beginning, we observed stable function of all ports in six months with a very low complication rate. We conclude that the haemodialysis port is not an optimal haemodialysis vascular access, but it can be the best solution for demented patients and many younger patients without AV fistula, offering a better quality of life.

Disclosure of Interest
no
Arteriovenous fistulae thrombus aspiration through the hemodialysis needle with ultrasound guidance – a case report

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Introduction: Thrombosis is an important complication of hemodialysis patients’ vascular access. It can lead to permanent loss of the vascular access. Even if that is not the case, thrombectomy is an unpleasant procedure for the patient and an expensive one for the healthcare system. However, it is possible that a small clot that is being visualized in an ultrasound scanning of the arteriovenous fistulae, can be aspirated through a 15 Gauze hemodialysis needle. The patient can then go on with his hemodialysis session, using the same needle.

Case report: We present the case of K.M., a 63 year old patient undergoing three times a week schedule of hemodialysis since November 2010. The patient’s first vascular access was a temporary Central Venous Catheter (CVC) placed in the right subclavian vein, followed by two unsuccessful PTFE grafts, two temporary CVC’s and a permanent CVC that was removed due to infection of the exit site. The patient had a new arteriovenous fistulae (AVF) constructed in April 2016. In August 2016, during a routine AVF ultrasound scan prior to the hemodialysis session, we noticed a small floating clot in the vein lumen. The clot was spotted at the arterial puncturing site. Measurements showed that the clot could be aspirated through a hemodialysis needle. Using ultrasound guidance we targeted the clot and inserted a 15 Gauze hemodialysis standard needle. After the needle tip approached the clot we implicated negative force by aspirating blood with a 20 ml syringe. The procedure was successful and the clot was removed from the AVF. The patient then was cannulated with another needle and carried on with the hemodialysis session. This procedure includes no stress or risk for the patient and it is cost free as it is carried out with standard dialysis equipment on the patient’s dialysis day.

Disclosure of Interest

no
Prolonged haemostasis: nurse’s role and importance of referral to a vascular access centre

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Background
Haemostasis is a nurse procedure and should be considered an important surveillance aspect and integrated as part of the physical examination.

Prolonged haemostasis is often a stress factor in the dialysis room.

There are many variables that can influence haemostasis. In scientific literature, 8 to 12 minutes are reported as normal haemostasis time. If this time is exceeded, an evaluation of anticoagulation prescription and/or a diagnosis of a potential stenosis on the vascular access (VA) are recommended.

Objectives
To analyse the nurse's role and the importance of the referral to a Vascular Access Centre (VAC) for prolonged haemostasis.

Methods
Retrospective analytical observational study. All haemodialysis patients referred to our VAC during 2017 for prolonged haemostasis were enrolled.

Results
From 542 referrals to our VAC in 2017, 20 (4%) were referred for prolonged haemostasis, of which 80% were patients with arteriovenous fistula and 20% grafts, with an average patency of 4 years and on average 2 previous interventions on the VA. All patients received sodic heparin as anticoagulant. We found stenosis on 19 (95%) and 17 (85%) were treated, 16 by percutaneous transluminal angioplasty and 1 surgically. After the intervention, the blood flow of the VA increased on average in 70% of the treated cases (from an average of 860 to 1,070 mL/min), but the access recirculation rate didn't change expressively (an average of 16% was maintained).

In 82% of the treated patients, the haemostasis time decreased significantly, according to the nursing team's perception. In the remaining patients, the haemostasis time only changed minimally or even not at all.

Conclusion/Application to practice
Referrals to a VAC for prolonged haemostasis were extremely successful (95%) regarding stenosis detection. The chosen interventions were highly efficacious in 82% of the patients.

Prolonged haemostasis can be a strong predictor of stenosis and the nurse’s role in the referral to VAC is therefore fundamental.

Disclosure of Interest
no
E-P 038
Nurse's role in the prevention of central venous catheter – two case studies

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Background
Nurses are responsible for Vascular Access (VA) cannulation and play a central role in timely identification of signs and symptoms of VA complications. With early identification and transmission of information in the multidisciplinary team, adequate actions can be promoted, such as timely creation of native Arteriovenous Fistula (AVF) and preventing Central Venous Catheter (CVC).

Objectives
To demonstrate the importance of VA surveillance and evaluation, to allow timely planning of VA interventions, anticipate VA failure and prevent CVC.

Methods
Case study of two patients with dysfunctional and problematic AVF. Physical examination of AVF, access flow (Qa) measurement by thermodilution and referral to Vascular Access Centre (VAC) lead to a timely creation of a new native AVF, before VA fails avoiding CVC.

Data collection on computer platforms.

Results
Patient-A, age 81, with left radio-ulnar AVF, created in November 2015, presented from June 2016 to February 2017, decreasing Qa (minimum 60mL/min) and severe changes in physical examination, despite a Kt/V>1.4. Referred to a VAC four times, submitted to two percutaneous angioplasties (PTA), without anatomical and functional success. In February 2017, a new AVF was created in the right wrist, presenting nowadays an average Qa of 1100mL/min and average Kt/V>1.4.

Patient-B, age 78 years, with left brachiocephalic AVF, created in April 2016, presented since July 2017 a decrease of Qa (minimum 270mL/min), severe changes in physical examination, and a drastic decrease of Kt/V (maximum 1.1). Referred to a VAC, where six PTAs were performed with slight improvement in Qa. Due to the continuous need for PTA, a new AVF was created on the right forearm in November 2017, presenting nowadays an average Qa of 740 mL/min and an average Kt/V1.7.

Conclusion/Application to practice
Both cases showed that constant monitoring, evaluation and early referral of dysfunctional AVFs to VAC can avoid CVC.

Disclosure of Interest
no
Hepatitis B vaccination of dialysis patients – Nurses’ role in patient education

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Background
Chronic kidney disease (CKD) patients are at increased risk of both incidence and severity of infections because of their impaired immune competence and higher exposure to microbes due to frequent contacts with medical care facilities for CKD diagnosis or treatment, including repeated dialysis sessions. Infections take the second place after cardiovascular diseases among the causes of death in dialysis patients. Hepatitis B vaccination is the best method to avoid acute and chronic consequences of infections and protect the individual and the community. The vaccine response is reduced over time due to the impairment of organ function; therefore patients should be vaccinated as soon as possible in the early stages of their renal disease. Nurses play a key role in preventing and controlling infections by educating patients and families on the feasibility of vaccinations.

Objectives
To promote hepatitis B vaccination to haemodialysis patients treated in a dialysis unit of a large network

Methods
The project started in June 2016 (t0); the target was to increase the percentage of patients vaccinated for hepatitis B. Patients with contraindications for specific comorbidities and non-responders were excluded. Regular monthly updates were performed by the healthcare staff.

Results
85 HD patients of a dialysis unit were enrolled in the project. At t0, 72.7% of all patients were vaccinated. In December 2017, 91.0% (t1) of all patients were vaccinated against hepatitis B virus.

Conclusion/Application to practice
Vaccination in association with periodic screening and patient education by the nurses can help to increase compliance and improve immunisation programmes.

Disclosure of Interest
no
E-P 040
Assessment of care requirements in patients with chronic kidney disease during haemodialysis

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Background
Haemodialysis patients are getting increasingly older and suffer from more comorbidities so that nursing teams have to assess their needs. On the other hand, availability of the resources does not increase likewise. Thus, it is important to determine the needs of these patients to identify the optimum level of care during the haemodialysis sessions.

Objectives
To identify the needs of nursing care during the haemodialysis session.

Methods
Our evaluation was conducted in three phases; the first phase comprised a review of scientific literature about patient care requirements during haemodialysis sessions according to Virginia Henderson Philosophy. In the second we developed a questionnaire validated by Seniors Nurses (more than five years’ experience) and distributed it to nurses with more than six month of training. Nurses answered voluntarily and anonymously. The statistical analysis of data (descriptive statistics) was performed using SPSS and Excel.

Results
Most nurses valued the importance of surveillance of vascular access as the key point of care, as well as treatment-related safety and health education. When asked about the needs that represent a high consumption of time they mentioned the mobilisation of patients, counselling on diet and a safe haemostasis.

Conclusion/Application to practice
Throughout this process, a wide range of care measures chronic kidney disease patients need during haemodialysis sessions were identified. The results identify the care needs that nurses should pay more attention to, namely haemostasis, patient education and vascular access management.

Disclosure of Interest
no
The role of spirituality and religion in haemodialysis patients – the essence of life?

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Background
In recent years, scientific research shows an increasing interest in the role of spirituality and religion in the field of care. For many patients suffering from a chronic disease, it is an important resource of power to better deal with their disease. Patients often report unsatisfied spiritual and existential needs and spiritual support is also associated with a better quality of life.

Objectives
To investigate the effects of spirituality and religion on dialysis patients at the end of their lives, to respect their quality of life and to discover the relevance in nursing care regarding this topic.

Methods
In January 2018, the questionnaire “Spiritual Needs Questionnaire” (SpNQ) was distributed to dialysis patients of a dialysis unit of a large network to investigate this topic.

Results
All 21 patients completed the questionnaire, whereof 7 patients (33.33%) were women. 56.25% felt the need for inner peace; 46.0% for existential needs; 41.42% for religious needs and 37.5% for Christian charity.

Conclusion/Application to practice
Chronic diseases have a significant impact on the patients’ lives and affect their physical, functional, emotional, social, and spiritual well-being. More than half of our patients felt the need for inner peace. Moreover, religious and existential needs are of high relevance. The nurse who takes care of the psychosocial and spiritual needs of the patients contributed to their improvement and recovery. Disregarding the patients’ needs means ignoring their dignity and fundamental rights that are considered ethically essential for the patients’ health.

Disclosure of Interest
no
E-P 042
Influence of vascular access flow on extracorporeal circuit coagulation in patients with an arteriovenous graft
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Background
Proper rinsing back of the extracorporeal circuit (ECC) at the end of the treatment contributes to a standardised treatment. As on average haemodialysis is performed 156 times/year, it has an important impact in terms of waste. Low internal vascular access flow (Qa) leads to low blood rates increasing the risk of ECC coagulation and blood loss.

Objectives
To assess how Qa in grafts influences the final residual blood of ECC.

Methods
Prospective, observational, descriptive study.
Over 18 months (May/16-October/17) we analysed the ECC status after the dialysis session at the patient's bedside.
2 categories were distinguished:
  ▪ Dialyser:
    1. Clean/<10% clotted fibres;
    2. ≥10% clotted fibres;
  ▪ Bloodlines:
    1. Clean;
    2. Clots.
The overall score of the patient was obtained when per each period at least 60% of treatments were classified in the same category.
2 groups were created considering Qa: Group I (Qa<600mL/min.); Group II (Qa≥600mL/min.). Standard heparin dosage cut-off was 66IU/kg.

Results
We performed 720 Qa evaluations: 75.6% in Group II. Mean heparin dose in Group I was 50.88IU/kg and in Group II was 59.89IU/kg. The mean score for visual aspects of the ECC was 1.4 for both groups; this was similar in patients treated with heparin doses below or above the heparin cut off of 66IU/kg.
The correlation between Qa and ECC aspect was very weak, negative but significant r=−0.131, p=0.01.
Both correlations in grafts with Qa<600 (r=−0.20, p=0.787) and Qa≥600 (r=−0.055, p=0.199) were very weak and not significant.

Conclusion/Application to practice
There was no difference in mean ECC status. A very weak correlation was observed between Qa and blood loss underlining the importance of continuous monitoring these parameters by the nursing team. Both groups have mean doses of heparin below the recommended dose apparently without any impact on the appearance of ECC.

Disclosure of Interest
no
Nurse’s role in optimising the extracorporeal anticoagulant regime

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Background
Control of blood loss in the Extracorporeal Circuit (ECC) at the end of treatment should be a permanent concern, for maintaining haemoglobin and haematocrit values in dialysis patients with a consequent impact on quality of life, also leading to a better cost/efficiency treatment.

Objectives
Verify how heparin dose and its administration along the treatment influence the final appearance of the ECC.

Methods
Prospective, observational, descriptive study.
74 patients receiving post-dilution Online Haemodifiltration (OL-HDF) with internal vascular access, heparin as anticoagulant and coagulated ECC visual aspect at the end of treatment were enrolled.
In 58 patients (group I) the total heparin dose was increased.
In 16 patients (group II) we maintained the total heparin dose but decreased the initial bolus.
Data were analyzed 2 weeks before (T-1) and 2 weeks (T+1) after changing the heparin prescription
2 categories were created to score visual aspect:
  - Dialyser:
    1. Clean/<10% clotted fibres;
    2. ≥ 10% clotted fibres;
  - Bloodlines:
    1. Clean;
    2. Clots.

The overall score of the patient was obtained when per each period at least 60% of treatments were classified in the same category. Mean score for both categories was calculated.

Results
In relation to the visual aspect, the overall score decreased from the first to the second period in both groups, meaning that both interventions had a positive impact.
In Group I from T-1(before) to T+1 (after intervention), the overall score decreased from 1.65 to 1.49; in Group II, it decreased from 1.56 to 1.38.

Conclusion/Application to practice
In both groups, we observed a positive impact in the ECC appearance, but especially in Group II. HDF treatments in post-dilution shows a tendency towards haemoconcentration, and it is the nurse’ role to continually monitor ECC characteristics, enabling the multidisciplinary healthcare team - after careful considerations - to influence how the physicians prescribe and manage heparin dosage leading to better outcomes.

Disclosure of Interest
no
Can the nursing team perform effective heparin management?

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**Background**

Currently, anticoagulant management in patients under haemodiafiltration is not evidence-based and individual anticoagulant treatment remains difficult in daily practice. Dialysis units have developed their own standard strategies to avoid both bleeding and clotting, adjusting doses according to extracorporeal circuit (ECC) visual inspection and based on experience.

**Objectives**

To analyse all events related to extracorporeal circuit coagulation, heparin dose and dialyser records.

**Methods**

The nursing team has specific training on heparinization of ECC. In 2015, they started recording the dialysers status, coagulation events and “coagulation time” at the end of treatment. We analyse all records from 2012 to 2017 involving coagulation events (coagulation of extracorporeal blood lines and dialyser) (non-related to vascular access) and individual heparin doses.

**Results**

Our results show that in a total of 134,834 treatments, 207 coagulations of the ECC occurred, i.e. 1.5/1000 treatments. It should be noted that on average we have about 10% anticoagulated patients. We observed that in all evaluated cases of dialysis status, 72% had clean dialysers and up to 10% clotted fibres. The overall mean heparin dosage decreased from an average of 93 IU/kg in 2012 to 67.5 IU/kg in 2017 ($p<0.001$).

**Conclusion/Application to practice**

Our data analysis has showed that the heparin doses prescribed significantly decreased over the analysed time, because of the individualised method applied. We have the perception that two patients with the same weight probably have different heparin doses, but without a pre-defined rationale. We can conclude that more research is needed regarding heparinization on hemodiafiltration.

**Disclosure of Interest**

no
The influence on the subjective perception of nurses on the importance of technological progress

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Background
In recent years, a tendency can be observed towards an increasing use of Information and Communication Technology (ICT) to support activities such as health research, clinical practices, and support for citizens in the health sector.

The development of highly specialised software and high-tech health equipment requires the necessary acceptance in the working routine of these tools by the nursing staff to obtain the best possible outcomes.

Also in the field of dialysis, manufacturers achieved significant progress in haemodialysis machines equipped with a wide range of tools for the staff. These tools have improved monitoring and guaranteed high safety standards, reduced adverse events, and improved clinical outcomes.

Objectives
To evaluate the perception of the nursing staff on the importance of technology in the care of haemodialysis patients.

Methods
In December 2017, we conducted a survey with 94 nurses of 9 dialysis centres, to assess

▪ the nurses’ level of appreciation, interest, and ability to use technology.
▪ the nurses’ perception of the contribution that technology can provide the world of dialysis.

Results
Of the 94 enrolled nurses, 91 (96.8%) completed the questionnaire, 57 (63%) were women, 62 (68%) were aged between 36 and 50 years. Their dialysis experience ranged from 10 to 20 years in 41 (45%) to more than 20 years in 33 (36%) of nurses. 47% believe that patients are interested in new technologies, 20% think they are not interested in it, 80% believe that the use of health technologies increase the nurses work efficacy and patient outcomes.

Conclusion/Application to practice
Dialysis unit are an excellent technology concentrator and a relentless generator of innovation.

This study shows that nurses are aware of the importance of technology in the healthcare and dialysis environment in order to achieve more efficient workflows, provide safe and high quality care and deliver better patient outcomes.

Disclosure of Interest
no
The challenges of opening a new satellite Dialysis Unit

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Background

The provision of satellite dialysis care in the UK is well established. Patients and staff become familiar with the dialysis environment, travel arrangements, expectations, dialysis slot, equipment policies and procedures. Following the tender process, a network of dialysis units were awarded the contract to provide a new purpose built satellite dialysis unit. This resulted in relocating patients and nursing staff from their existing dialysis unit which had been open for some fifteen years to a brand new dialysis unit.

Objectives

Key objectives:

1. Safely move 37 patients to the new satellite dialysis unit
2. Transfer 12 existing staff to the new satellite dialysis unit
3. Train the nursing team on new equipment, policies/procedures

- Safely increase the patient numbers

Methods

Team building, leadership, training, communication with patients and staff were critical methods which were employed in order to reach a smooth transition to the new unit. Recognition of change management principles underpinned the methods used.

Results

This dialysis unit now cares for 56 patients with a team of staff fully trained in all our policies/procedures. The Nephrologist is positive about the effect the change has had on the patient’s care and dialysis outcomes. The unit has been inspected by the Care Quality Commission (CQC) which identified some very positive feedback. It has been included in the International Standard Organisation (ISO) audit process.

Conclusion/Application to practice

Strong leadership, strong links with the referring hospital team, commitment from staff and effective communication is essential when relocating patients and staff in order to maintain safety for all.

Disclosure of Interest

No
Applications towards prevention and treatment of peritonitis in Turkey

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Background
Prevention of infectious complications is important to increase the peritoneal dialysis (PD) patients’ quality of life and decrease the drop-out rates.

Objectives
Aimed to evaluate the applications in Turkey towards prevention and treatment of peritonitis.

Methods
Population and sample of the study consisted of PD centers in Turkey (n=85). "Prevention and Treatment of Peritonitis Question Form", which is prepared according to PD guides, was used for data collection. The study was completed in 54 centers which filled out the form.

Results
Peritonitis was not observed in 7.4% of the centers in 2016. Culture negative peritonitis did not exist in almost half of the centers (44.4%). For the cleaning of the dialysis room, 79.6% of the centers used bleach and cleaning was done once a day in 75.9%. It was detected that 59.3% of the centers suggested that patients should wash their hands with antibacterial soap before dialysis. 64.8 % suggested that dialysis material should be cleaned with 70% alcohol and 96.3% suggested to patients that they should dry their hands with paper towel. Other suggestions of the centers are; 94.4% wearing mask, 98.1% closing the windows during dialysis, 63% control for staphlococcus aureus, 75.9% use of hand sanitizer before dialysis, 92.6% cleaning dialysis material with sanitizer, 75.9% changing the set when patient's hand touched the catheter, 83.3% flushing if stomach ache exists in peritonitis, 50% intraperitoneal heparin application in peritonitis, 96.3% repeating patient education after peritonitis, 100% rinsing the dialysate bag before taking sample for peritonitis diagnosis, 57.4% taking new cultures every 3 days in peritonitis, 63% daily cell count in peritonitis.

Conclusion/Application to practice
Peritonitis is the most important complication for PD patients. These results in our country can be used for the prevention and treatment of peritonitis.

Disclosure of Interest
no
E-P 048
Most frequent events leading to surgical intervention of vascular accesses in a haemodialysis unit
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Background
Patients in haemodialysis are increasingly older and older age is associated with more comorbidities and consequent degradation of their vascular condition. The nurse is the healthcare professional which spends more time with the patients and also cannulates the vascular access (VA) making nurses the most qualified professional to care for them and coordinate a surveillance team in the centres.

Objectives
To identify the main events that resulted in surgical interventions of internal VA.

Methods
Observational, retrospective and descriptive study.
We considered all actions that resulted in surgical interventions from 01/01/2011 to 30/08/2017.

Results
From data analysis we identified 441 interventions: 262 in fistulae and 179 in grafts.
On average, the first intervention on fistulae was at 40.21 months and in the grafts at 29.23 months, respectively.
More expressive interventions in fistulae related to:
- thrombosis: 25.95%;
- wall abscess or exudate at the access site: 7.25% (2012/13 – 8 versus 5 for remaining follow-up);
- aneurysm: 14.50%.

More expressive interventions in the grafts related to:
- thrombosis: 59.8%;
- wall abscess or exudate at cannulation site: 8.38% (2012/13 – 4 versus 3 for remaining follow-up);
- Aneurysm: 5.03%.

The most common surgical intervention was thrombosis for both VA types.

Conclusion/Application to practice
Intervention for infection (abscess of the wall or exudate at cannulation site) is more frequent in grafts. However, we have verified that this event decreased over the years, which may be related to standardisation of nursing care, continuous nursing training and patient education, for example VA washing prior to enter the dialysis room but still requiring the supervision of the nursing team. The percentage of actively growing aneurysm events is lower in grafts than in fistulae, which may be related to the selection of the cannulation sites; in fistulae, this fact may also be related to the comorbidities and 'morphological' factors of the patients.

Disclosure of Interest
no
E-P 049

History of a family with Alport syndrome in dialysis

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Background

There are 3 patients with a close family relationship treated at our hemodialysis unit who have developed end-stage kidney disease (ESRD) due to Alport’s syndrome (AS). Histology was confirmed in one of them by kidney biopsy and the others are presenting typical clinical manifestation.

Objectives

Our objective was to identify other family members who are at risk of inheriting the faulty genes and involve these family members in a screening test to verify or exclude the presence of AS.

Methods

We have interviewed our patients and constructed a family tree. 6 persons were identified in a 4-generation tree with AS, 3 of those are already deceased and 3 others are currently on HD treatment for ESRD. 7 more potentially affected family members were identified and all of them have been contacted via an official letter and nephrology work-up was offered to them.

Results

4 of the 7 persons identified have already completed the work-up with negative results, as signs of renal disease were not found. 3 more work-ups are still pending.

Conclusion/Application to practice

Alport’s syndrome is an inherited disease usually manifesting in male members of the family. Patients who manifest with this disease may develop ESRD in early adult age. Screening of unaffected siblings especially female family members is important as they can carry the faulty genes through to the next generation.

Disclosure of Interest

no
E-P 050

Education for the dietary regimen and use of phosphate binders

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Background
Dialysis patients often have problems with increased blood phosphorus. The patient’s adherence to dietary measures and proper use of phosphate binders is necessary to ensure their successful treatment.

Objectives
Our aim is to achieve optimal blood phosphorus levels and the maximum adherence of the patient to the defined dietary measures as well as the proper use of phosphates.

Methods
New educational techniques that are of more interest to the patients.

Forms of education:
1. Verbal education of patients by the primary nurse within 90 days.
2. Verbal education by the nutrition coordinator.
3. Handing out printed educational materials and links to suitable web pages.
4. A questionnaire focused on the appropriate nutrition of dialysed patients and the appropriate use of phosphate binders.
5. Crossword puzzle focused on the dietary regimen.

Results
Most patients were willing to cooperate and complete the questionnaires and crossword puzzles. The patients were initially given questionnaires related to suitable foods for dialysing patients. At least one error occurred in 90% of these questionnaires. Following additional training through the use of crossword puzzles and group quizzes, the patients were once again given the questionnaires. Errors occurred only at a rate of 25%.

Conclusion/Application to practice
The education of patients through a more entertaining form has proven successful. The used methods not only educated the patients during haemodialysis, but they were also entertained. The patients demonstrated their interest and increased effort in the mass quiz. They demonstrated an interest in expanding the quiz to other areas of education. In the coming years, we plan to monitor the phosphate levels following this entertaining education.

Practical Recommendations: Our recommendation is to attract the patients by means of an entertaining form of education, and to find the time and space for this educational resource.

Disclosure of Interest

no
Identification of training needs, expectations and views of haemodialysis nurses and dialysis technicians

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Background
In-service training provided at the healthcare institutions are important within the development process of healthcare personnel for following and adapting to innovations.

Objectives
The objective is to identify the training needs of working haemodialysis nurses/dialysis technicians and contribute to the new training policies and activities.

Methods
The haemodialysis nurses/dialysis technicians in Turkey, who agreed to participate in the survey, were covered under this study. Data collection, demographical characteristics and a questionnaire were used accordingly. The homogeneous sampling method was applied in this study in a descriptive way. Descriptive statistics of the study were performed.

Results
According to the participants, 97% of them indicated that in-service training is given; 95% of such training is necessary and training periods to be every three months. The participation in the external training is 70%, and the participants noted that such training enhances their motivation and allows them to find a collaborative environment together with their colleagues. Among the participants, who do not want to be a part of external training, 30% of them noted that the same topics are repeated, they can’t find sponsors and can’t allocate a budget for this. 44% of participants preferred to have practice/use of case management. The study reflected the individuals training needs of participants as follows: First-Aid, CPR 32%; Communication Techniques 19%; Vascular Access 16%; Innovations/professional development 13%; Diabetes and Diabetic Foot Care 10%; the others 10%.

Conclusion/Application to practice
This study identified that there is a need for in-service training; the participation is voluntary, and the training should be conducted at specific periods for continuity. However, following the study, the content of training should be in accordance with the training needs of healthcare personnel. There is a financial difficulty for the external training. The training opportunities are a significant element in ensuring the motivation of personnel.

Disclosure of Interest
no
E-P 052
An application for dialysis patients

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Background
A new smartphone application for dialysis patients was developed by a network of dialysis centres. Testing of the application was performed on voluntary basis, free of charge and personalised. Patients can see a selection of data of their dialysis treatment data set (blood pressure, body weight, home medication, dialysis data, laboratory tests). The application offers useful advice on several areas: skin treatment, nutrition, fistula care, etc.

Objectives
1. To involve a large number of patients in using this application
2. To support patients to play an active role in managing their own treatment, leading to less compliance problems

Methods
1. All patients of the clinic were informed about the smartphone application by means of informative materials.
2. The nurses explained the advantages of the application in detail and helped the patients to install the application.
3. They have encouraged patients to use the application regularly between dialysis sessions, by entering the values of arterial pressure and body weight in the self-measurement section. They shared these pieces of information with the medical team. The data regarding home medication was very useful to them.

Results
Out of 270 patients of our centre only 68 had a smartphone (with Android operating system). The application was installed in 62 patients of the 68 who own a smartphone. The application is easy to use by all of our patients.

Conclusion/Application to practice
This application resulted in a better interaction between nurses and patients. Patients can access data of their own treatment data set at any time and from anywhere.

Disclosure of Interest
no
E-P 053
Monitoring training compliance utilising an electronic monitoring tool
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Background
Ensuring all staff meet statutory and mandatory training requirements is pivotal to the maintenance of patient safety and staff personal and professional development. It is also fundamental in meeting statutory and regulatory requirements.

Objectives
The key objectives were to;
- Establish a benchmark of compliance with statutory & mandatory training
- Undertake an initial review of all training across a network of satellite dialysis units across the United Kingdom and Ireland
- Identify training gaps
- Offer guidance on how to reach and maintain compliance

Methods
Triangulation has been used in the collation of evidence to determine training compliance this includes the following:
1. Review of the learning management system certifications of training
2. Review of the Safety Media e-learning platform
3. Review & update of the local electronic monitoring tool which is colour coded “Red, Amber and Green” (RAG)

Results
Triangulation has been used in the collation of evidence to determine training compliance this includes the following:
1. Review of the learning management system certifications of training
2. Review of the Safety Media e-learning platform
3. Review & update of the local electronic monitoring tool which is colour coded “Red, Amber and Green” (RAG)

Conclusion/Application to practice
Due to the volume and variety of statutory training required coupled with staff turnover and internal promotion training requirements remain dynamic. Using a “RAG” rated electronic tool helps to identify training compliance, training which is about to expire and training which has expired. This offers training assurance which has the potential to impact on patient care.

Disclosure of Interest
no
Understanding end of life care and importance of effective communication with patients undergoing dialysis
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Background
945,663 haemodialysis procedures were performed in 2016 in our country for 6,739 patients, the percentage of patients older than 60 exceeded 70%. Overall patient mortality reached 18%. A system of palliative care has been recently implemented for patients in a chronic dialysis programme. The communication between the staff and the patients is of paramount importance to this approach.

Objectives
In our work, we present the outcomes of a questionnaire used for basic orientation among the issues of the last phase of care for patients in a chronic dialysis programme.

Methods
A total of 56 patients responded to the questionnaire, with a mean age of 72.5 years (48-88) and total time in a dialysis program of 4.7 years (3 months - 25 years). We asked the patient for the most disturbing issues when on dialysis, their adherence to the regimen, whether the patient wants to get involved in the decision-making process on how their life with dialysis should proceed, whether the patient has the desire to terminate the dialysis in case of major deterioration in their health condition etc.

Results
The patients are most bothered by the time they have to spend at the dialysis centre (43 patients) and restrictions on fluid intake (34 patients), while only 6 patients would prefer a reduced frequency of dialysis per week risking lower life expectancy. 29 patients would like to participate in decisions related to their treatment and only 9 patients would like to have the dialysis terminated if their current medical condition became significantly worse.

Conclusion/Application to practice
The outcomes of the survey brought a range of important information related to the positions and attitudes of the dialysed patients with respect to the issues of living with dialysis, while posing challenging questions for the patients.

Disclosure of Interest
no
Psychological needs of end-stage renal disease patients during the first three months of haemodialysis

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Background
To identify the psychological needs of end-stage renal disease patients during their first three months on haemodialysis.

Objectives
To establish a service development project with specific interventions to improve the recognition of patients' psychological needs.

Methods
A sample of 20 participants, who met the inclusion criteria of this study (age 18-70 years, able to write, write and speak English) answered a questionnaire that asked them to share their experiences and feelings during the first three months on haemodialysis treatment. Their written answers were collated and analyzed using the Braun and Clark thematic analysis.

Results
Most of the patients expressed feelings and reactions when they commenced haemodialysis treatment that were self-reported and were similar to findings from other studies on dialysis initiation that noted the participants' feelings of shock, depression, anger, loss of sense of self, change of body image, loss of personal freedom, and reframing in family roles.

Conclusion/Application to practice
The description of the experiences, feelings and expectation of the participants clearly suggest a need for recognition and interventions that necessitates their incorporation into the current clinical practice for caring patients on haemodialysis.

Relevance to clinical practice: Launching psychological support or interventions for haemodialysis patients during the first three months on haemodialysis treatment could possibly improve patients' well-being and reduce anxiety related to treatment. As a result of this study, we have developed patient-centred motivational interviewing and a peer support program as a service development project.

Disclosure of Interest
no
E-P 056

Awareness of dialysis patients regarding the provision of social care

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Background
The basic pre-requisite for effective social support for a dialysis patient is mutual collaboration and the provision of relevant information between the nurse and the patient. It is important to determine the patient’s awareness in relation to social support. From practice, we know that the level of a patient’s awareness in this field varies.

Objectives
To determine the extent of the patients’ knowledge in the field of the provision of social care in order to improve the quality of the provision of nursing care regarding satisfying the social requirements of our dialysis patients.

Methods
Respondents from the dialysis centre are interviewed on several areas of the social support system including a global assessment. I focused on determining the experience of patients and their awareness of the system of social assistance and where they get their information from. As part of the quality survey, I used the non-standardized interview technique.

50 respondents, dialysis patients were contacted

Results
The results demonstrate the low level of awareness in the area of social assistance. Better awareness and making more information available to patients will help provide the patients with effective assistance in the area of social care. However, it is necessary to make sure that the patient has understood the information, and to be aware of his/her level of social and medical awareness.

Conclusion/Application to practice
Most interviewed patients had very poor orientation in the field of social care and they were not aware of the term social assistance. The responders could not express their opinion, as they had insufficient information in the area.

Practical Recommendations
Education in the area of social services as part of the comprehensive care provided for dialysis patients with a significant effect on the improvement of the comfort and quality of life.

Disclosure of Interest
no
Alcohol abuse in dialysis patient

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Background
Alcoholism is one of the most common psycho-social disorders, and patients undergoing dialysis can face this kind of problem too. Haemodialysis treatment places great demands on the patient’s mental wellness, and from the patient’s viewpoint, alcohol can be a “crutch” in this difficult period.

Objectives
Definition of the methods for the medical staff to help the patient cope with this addiction. Enable the patient to combine the haemodialysis treatment with an alcohol addiction recovery program.

Methods
Case report: Male, 43 years old, enrolled in the dialysis program in the course of October 2016. Since the age of 18, the patient has gradually used a whole range of psychoactive substances, always in combination with alcohol. However, the patient did not see alcohol abuse as his greatest problem. The patient repeatedly participated in a cessation treatment in a psychiatric institution in 2000 and 2001. Until 20 January 2018, the patient was enrolled in out-patient drug substitution therapy, which he was urged to discontinue upon personal problems with the local staff. He did not get rid of his alcohol dependency; on the contrary, upon his enrollment in the chronic dialysis program and after the completion of the substitution therapy, this addiction was reinforced. The patient states that he drinks about 2 beers and about half a litre of vodka per day on a regular basis. The patient’s addiction not only reduces his adherence to haemodialysis treatment, but also complicates the control of fluid intake, thus jeopardizing the patient’s life.

Conclusion/Application to practice
Our knowledge related to the issues of alcohol addiction in dialyzed patients show us how to better target the individual approach to nursing care for such patients. The cooperation of the entire multi-disciplinary team, including psychological assistance related to the problem of addiction, is an integral part of the treatment

Disclosure of Interest
no
Evaluation of the quality of life in compliant and non-compliant dialysis patients

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Background
Recently, a lot of attention has been paid to the quality of life of dialysis patients. Assessment of the quality of life plays an important role in successful patient’s rehabilitation and survival improvement. Another crucial aspect is patient compliance.

Objectives
To compare the quality of life in compliant and non-compliant haemodialysis patients.

Methods
45 diabetic patients were enrolled in the study: 28 compliant and 17 non-compliant. Non-compliance criteria included: more than 4.5% increase in dry weight, skipping scheduled treatment sessions, and continuous request to decrease treatment time. Assessment was performed using the questionnaire “Kidney Disease and Quality of Life™ Short Form (KDQOL-SF™) the University of Arizona”. The patient’s general conditions, physical and emotional well-being, vascular access status, capability of traveling, sleep quality and satisfaction with medical care, and social adaptation were evaluated.

Results
According to the questionnaire, quality of life was higher in compliant patients. Non-compliant patients had significantly deteriorated general condition and emotional status and lower sleeping and traveling capability. They also performed less daily physical activities. Compliant patients evaluated themselves better regarding day-to-day activities, social and emotional well-being. The compliant group included a higher number of married people; it seems as a motivation to improve their quality of life and social adaptation.

Conclusion/Application to practice
High patient compliance improves the quality of life due to increased treatment efficiency. On the other hand, a higher quality of life may correlate with better treatment outcomes and general health status. Patients with positive treatment results have more confidence in the medical staff and thus become more compliant.
In our daily work we should help our patients to understand how they may influence their quality of life by complying with the treatment.

Disclosure of Interest
no
E-P 059
Personality type and marital satisfaction in long-term hemodialysis patients
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Background
Hemodialysis patients are subjected to multiple psychosocial and physiological stressors and may be threatened with many potential losses and lifestyle changes, including problems in dyadic adjustment. Also, the literature shows that the basic personality factors of neuroticism and extroversion are important predictors of marital satisfaction.

Objectives
This study was conducted to determine marital adjustment between hemodialysis patients on different groups of age and sex, and also to find an association between patients’ personality types and marital satisfaction.

Methods
We prospectively analyzed the marital adjustment and personality type in a total of 60 (28 females, mean age 55.73±14.22 years) stable patients, who were treated with hemodialysis three times weekly from two Romanian dialysis centers. The Dyadic Adjustment Scale (DAS) was used to assess patients’ satisfaction with their marital/partner relationship and to determine the personality type was used Eysenck Personality Questionnaire (EPQ).

Results
The mean overall dyadic adjustment score per total number of patients was 89.96 ± 24.48, in which the group <55 years the mean was 84.22 ± 26.81, and the mean group ≥55 years was 94.31 ± 21.79 (p <0.039). The mean overall dyadic adjustment of male patients was 76.07 ± 18.10, and mean of female patients was 99.29 ± 23.87 (p<0.001).
Higher scores in Extraversion were associated with higher scores in marital satisfaction (r=0.616, p<0.001), while higher scores in Neuroticism were associated with lower scores in marital satisfaction (r= -.463), p<0.001).

Conclusion/Application to practice
A marital adjustment was poorer in men and in younger patients on HD. Extraversion was related to marital satisfaction, while Neuroticism was related to marital dissatisfaction in HD patients.

Disclosure of Interest
no
Assessing the level of health literacy in haemodialysis patients

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Background
Health Literacy (HL) is defined as "the social and cognitive skills that determine the level of motivation and ability of a person to access, understand and use health information in a way that promotes and maintains good health. HL has a significant impact on the individuals health, especially in elderly patients, chronically ill or polymedicated patients. These are characteristics present in the patient on haemodialysis (HD).

Objectives
To assess the level of HL in patients under treatment with haemodialysis.
To compare the level of HL in the population on haemodialysis, with the general population and patients with other chronic pathology.

Methods
A prospective descriptive study of haemodialysis patients, who are older than 18 years and on chronic haemodialysis therapy for more than a month.
The level of HL was assessed using the Health Literacy Survey-European Union (HLS-EU) questionnair.
A descriptive and inferential analysis (ANOVA and Z test) was carried out using the statistical package SPSS v20.0 and EpiDat 4.2.

Results
We studied 37 patients, with an average age of 64.51 ± 16.57 years and 54.1% were male.
The average of the general index of HL was 26.4 ± 7.32 points; 27.66 ± 8.04 points for health care; 26.94 ± 8.6 points for the prevention of diseases and 24.4 ± 7.6 points for health promotion.
More than 83% had an inadequate or problematic level of HL.

Conclusion/Application to practice
The data obtained reflects a problematic or inadequate level of HL, which makes it difficult for patients to correctly understand and interpret the information provided to them. The population in haemodialysis presents lower levels of HL than the general population and other chronic diseases.

Disclosure of Interest
no
Decrease of reported symptoms after switching from conventional high-flux haemodialysis to online haemodiafiltration

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Background
Improvements in patient outcomes after switching from high-flux haemodialysis (HFHD) to haemodiafiltration (HDF) with focus on medical parameters and specific symptoms such as hypotension have already been published. We analysed the number of reported treatment-related symptoms and events after switching from HFHD to online haemodiafiltration (OL-HDF). The majority of the observed patients (90%) were previously treated with HFHD. From September 2017, all patients were treated with OL-HDF. As the reporting procedure for treatment-related symptoms and events was implemented in country clinic network since 2012, treatment variances between HFHD and OL-HDF could be compared over a eight-months period.

Objectives
To compare the reported intra-dialytic symptoms and events associated with treatment.

Methods
The total number of reported events was extracted from the reported symptoms and events for analysis: clotting, cramps, hypotension, dyspnoea, headache, and nausea. Moreover, we analysed the percentage of patients within a predefined target limits for over-hydration during the observation period. Data of nine dialysis clinics of a dialysis network in Bosnia and Herzegovina were collected from May to December 2017. Symptoms and events were documented for 943 patients with a total of 97,241 treatment sessions.

Results
The reported clotting events increased after switching to OL-HDF, but the number of reported symptoms decreased (except for nausea). The percentage of patients in the predefined over-hydration target increased after switching to OL-HDF. Detailed results will be presented.

Conclusion/Application to practice
There is sufficient evidence that OL-HDF is a superior therapy modality as compared to HFHD, including a better over-hydration control. This analysis confirmed that OL-HDF is well tolerated by patients. Fewer symptoms mean that nurses can focus more on monitoring, patient care, and education.

Disclosure of Interest
no
E-P 062
Quality of life in patients treated with haemodialysis depending on vascular access

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Background
The purpose of this study was to examine the quality of life within a group of the end-stage renal disease patients who are being treated by renal replacement therapy by some of the haemodialysis modalities (Haemodialysis / Haemodiafiltration).

Objectives
The aim was to determine whether there are differences in the quality of life of patients depending on the haemodialysis modality and on the type and place of vascular access.

Methods
The study included a total of 91 adult patients who were treated by haemodialysis / haemodiafiltration as a renal replacement therapy for more than six months at the Institute for Nephrology, Dialysis and Renal Transplantation, Clinical Hospital Centre Rijeka. 23 (44%) female and 29 (56%) male patients treated with haemodialysis treatment, while 9 (23%) female and 30 (77%) male patients were treated by haemodiafiltration. As a vascular access 57 (63%) had arteriovenous fistula, 13 (14%) of the tunneled catheter and 21 (23%) patients with non-tunneled central venous catheter. A voluntary, anonymous questionnaire called Kidney Disease and Quality of Life (KDQOL-SF), translated into Croatian, was used as a working method.

Results
Patients treated with haemodiafiltration compared to those on haemodialysis show better quality of life in most of the examined areas as well as overall results. Regarding the vascular access arteriovenous fistula / central venous catheter, the results showed no difference in the general indicators of the quality of life in the group of these subjects. Younger patients are more satisfied with their quality of life, as well as those with a higher level of formal education.

Conclusion/Application to practice
The level of quality of life differs in terms of modalities of haemodialysis, but not regarding the type of vascular access.

Disclosure of Interest
no
Good nursing practice can improve arteriovenous fistula preservation

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Background
In our dialysis centre we have a large percentage of patients with an arteriovenous fistula (AVF). Good nursing practice of the AVF cannulation, painstaking care, nursing and patient education, close cooperation with the patient and maintenance of a normal blood pressure significantly influence on the long-term functionality AVF and reduce complications during treatment. Thorough assessment of the vascular access and a nursing patient review before every treatment session contributes to a realistic assessment of the present condition and preservation of the vascular access

Objectives
To prove that the use of a well-structured nursing practice and proper documentation of monitoring including data analysis can reduce the number of complications and prolong the life of the AVF

Methods
We analysed the number of symptoms and events reported in a clinical database and training sessions for nurses and patients on vascular access care in 2017.

Results
Regular nursing education on vascular access was based on the “Vascular Access Cannulation and Care, Nursing Best Practices on AVF” booklet. Information for patient education was taken from the same booklet. All data on nursing assessment of vascular access, complications and care were documented in a clinical database; monthly reports were used during regular evaluation of treatment outcomes. Based on the evaluation, the topics for re-education and assessment of nursing practice were defined; a vascular surgeon was consulted when needed which continuously improved our nursing practices and treatment outcomes. As a result, the percentage of patients with native AVF in IDC Bijeljina was consistently above 90%

Conclusion/Application to practice
Good nursing practice of AVF cannulation and care, avoidance of hypotension, proper documentation, and data analysis resulted in better AVF survival decreasing the need of a Central Venous Catheter due to AVF failure.

Disclosure of Interest
no
Management of anemia in Chronic Kidney Disease from nutrition status to erythropoietin

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Background
Management of anemia in Chronic Kidney Disease from nutrition status to erythropoietin.

Objectives
The purpose of this study was to record the laboratory results for the assessment of the effect of nutrition status and the use of erythropoietin in the management of anaemia in hemodialysis patients.

Methods
The sample consisted of 194 hemodialysis patients in the Aretaieion Hospital dialysis unit and two other private hemodialysis units in Attica. Over a nine-month period the laboratory results were collected and processed. For the assessment of the effect of the nutritional status, albumin, calcium, phosphorus, parathyroid, the index (kt/v) and for the assessment of anaemia, hematocrit, hemoglobin, iron and ferritin. Erythropoietin preparations have also been recorded to study the effect of the erythropoietin dose on the regulation of anaemia as well as its effect on the relationship between diet and anaemia.

Results
We observed that the majority of the sample consisted of women (62.9%) and the mean age of the sample was 70 years. The most common cause of primary renal disease was unknown. Analyzing the effect of nutrition and hemodialysis on anaemia, statistically significant correlation is observed between albumin and hematocrit. Statistically significant correlation is observed between calcium and the four parameters of the anaemia regulation. A statistically significant correlation is observed between phosphorus and hematocrit. There is no statistically significant correlation between parathyroid hormone and anaemia regulation parameters. Statistically significant correlation is observed between hemodialysis sufficiency and hematocrit. The stratified analysis by erythropoietin (Epoetin alfa, Epoetin zeta, Darbepoetin alfa) showed that erythropoietin dose affects the relationship between albumin and anaemia parameters.

Conclusion/Application to practice
Regarding the erythropoietin dose, increasing the dose of an individual formulation entails an increase in the anaemia parameters. The extent to which anaemia parameters are reduced each time depending on the dose of erythropoietin, depends on the nutritional factor we are considering.

Disclosure of Interest
no
Treatment adherence in patients on maintenance haemodialysis
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Background
Adherence to haemodialysis treatment prescription, medication, and diet is of paramount importance in order to decrease morbidity and improve patient's survival. Non-adherence in this population can be characterized by missed treatment sessions, shortened treatment times, excessive interdialytic weight gain, or laboratory parameters, such as high potassium and phosphate. In addition, self reported adherence can be assessed by disease specific adherence questionnaire.

Objectives
Our aim was to assess the treatment adherence in our chronic haemodialysis patients in a single dialysis unit using treatment related parameters and the Hungarian adaptation of the ESRD adherence questionnaire.

Methods
We retrospectively collected data for hemodialysis patients between 2012 and 2017. Adherence to treatment was assessed as percentage of missed treatments, shortened treatments and interdialytic weight gain greater than 5% of target weight. In another cross-sectional survey, we also assessed patient’s adherence using a hemodialysis adherence questionnaire. Chi-squared test and Kaplan-Meier analysis were used for statistical evaluation.

Results
380 patients were included in the retrospective cohort (age 67.7±16.0 years, female 39%, diabetes 44%). During the median follow-up of 58 months, 39.1% died, 19.8% were transplanted or lost to follow-up. Patients, who had at least 5 minute shorter dialysis session in more than 10% of all sessions had higher mortality compared to other patients (HR:2.89, 95% CI: 2.06-4.04). Missed sessions or excess interdialytic weight gain were not associated with higher mortality. Adherence questionnaire was only filled by 73 patients, so far. Males emerged as risk factor for non-adherence to fluid (p=0.021) and dietary (p=0.029) restrictions, whereas patients with diabetes were more likely to shorten session length (p=0.035).

Conclusion/Application to practice
Improving patient’s adherence is a fundamental duty of haemodialysis nurses. Techniques include patient education, targeted re-education, regular control and counselling. In addition, patient’s adherence may also be improved by regular application of the adherence questionnaire.

Disclosure of Interest
no
Prevention of Central line–associated bloodstream infections in the haemodialysis unit

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Background
Infections are common complications among patients on chronic haemodialysis. Central line-associated bloodstream infections (CLABSIs), exit-site infections, and tunnel infections are common complications related to haemodialysis central venous catheter use and associated with increased morbidity, hospitalization, and death. CLABSIs are the most costly healthcare-associated infections. Registry studies indicated that cardiovascular disease is the leading cause of mortality in dialysis patients. Infection is the leading cause of mortality in our department (52%). 30% of our patients have a central venous catheter. According to this data, we started a project for CLABSIs prevention in collaboration with the hygiene and infection department in our hospital.

Bloodstream infections in patients on hemodialysis were investigated using case-control data conducted between January 2015 and December 2017. CLABSIs data collected and incidence rates of catheter infections are presented as the number of infections per 100 catheter-months. At the beginning of the study, the incidence rate of CLABSIs was 2.4 number of infections per 100 catheter-months. The final objective was determined as 0.8 number of infections per 100 catheter-months (as described in the literature).

In addition to Guidelines for Prevention of Intravascular Catheter-Related Infections of the Centre for Disease Control and Prevention (CDC), observations of connection to dialysis were conducted by the infectious diseases service and by the senior haemodialysis nursing staff. According to observation results, nursing staff received education and training, simulation of connection to haemodialysis, and hand hygiene. Additional intervention included: shortened waiting times for the vascular access operations, replacement of heparin lock to antimicrobial Taurolidine lock and use of Tegaderm CHG dressing.

At the end of the project incidence rates of catheter infections dropped to 0.88 number of infections per 100 catheter-months. Prevention rate of CLABSIs required hard work, using various training techniques, new technologies, and assimilation and preservation of all prevention methods.

Disclosure of Interest
no
Intermittent dialysis and extracorporeal membrane oxygenation

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**Background**
Extracorporeal membrane oxygenation (ECMO) is a technique used in intensive medicine that enables the temporary replacement of the lung and heart function.

**Objectives**
The purpose of the paper is to describe the cooperation between the ARO (Department of Anaesthesiology and Resuscitation), ECMO perfusion specialist and dialysis team. We will point out the specifics and differences between the standard connection of a patient to a dialysis machine and the connection to ECMO.

**Methods**
**Practical procedures and organization of the collaboration:**
- The intensive care department requests the ECMO haemodialysis
- The nephrologist will prescribe the haemodialysis treatment
- The nephrology nurse will prepare the dialysis machine and enter the treatment parameters
- The perfusionist and nephrology nurse together connect and disconnect the patient to/from the dialysis machine
- The intensive care nurse monitors the vital functions and the patient’s ventilation parameters
- The nephrology nurse provides for the monitoring of the haemodialysis parameters
- The perfusionist watches over ECMO

**Results**
**Benefits and drawbacks of this technique:**
Vascular access is provided through ECMO as the patient is no longer burdened by the need for additional vascular access, thus reducing the risk of infection associated with creating another vascular access. The patient remains connected to ECMO under heparin cover and therefore no further heparin is administered, as the risk of bleeding would be too high.

**Conclusion/Application to practice**
We have used this technique in 4 patients. Of these four, two patients were diagnosed with H1N1 (swine flu), 1 patient had cardiogenic shock and 1 patient had acute respiratory distress syndrome (ARDS). This intra-departmental collaboration and communication has proven beneficial as it helps to ensure highly specialized care for the patient. Intermittent haemodialysis in collaboration with specific workplace brings benefits mainly to the patient, but also to the healthcare personnel. Each team follows its own specifics and gains knowledge from other fields.

**Disclosure of Interest**
no
Developing good practices in teaching self-cannulation: scab removal with a blunt needle

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Background
Up to 30% of all dialysis patients in the Northern Savonia Area at Kuopio University Hospital (KUH) have home care dialysis. Over half of the home dialysis patients are undergoing home haemodialysis (HHD) treatment. The prevalence of HHD in KUH is growing, driven partly by improved patient well-being when they are performing self-care haemodialysis at home. Most of our HHD patients do treatments by themselves. Some of them start dialysis with a home district nurse, who places the needles into the patient’s fistula, and the patient does the rest of the treatment by themselves. Since March 2011 HHD has been the treatment of choice for 50 patients. Patients who do HHD believe that HHD offers better lifestyle benefits than home peritoneal dialysis or the traditional in-centre assisted, minimally assisted or self-care haemodialysis.

Objectives
We use the buttonhole technique and cannulate in the exact same spot every time. We have used sharp needles to remove scabs, but we are now changing our practice to using blunt needles.

Methods
Before changing our routines, we read many articles about the benefits of using a blunt needle and asked the opinions all of our haemodialysis patients and nurses.

Results
It is highly recommended that a blunt needle is used because the skin around the scab will stay healthier. An evidence-based approach to treatment and care is crucial for the development of nursing and dialysis practice and is important to ensure the effectiveness, efficiency and quality of care.

Conclusion/Application to practice
Although our practice is now improving, a large variation still exists between dialysis units in other hospitals and countries.

Disclosure of Interest
no
Care management in a dialysis patient with active TB

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Background

Introduction: Risk of tuberculosis among the population with renal failure especially haemodialysis patients is 52 times higher than the normal population due to a poor immune system in the presence of uremia and other multifocal reasons like age, nutritional status and related diseases. (Roujouleh & Mooij, Magdi, 2003; Hamadah et.al., 2016).

Early intervention is an essential part of successful treatment and elimination of disease and its spread. Organization and cooperation of all treating staff in a dialysis patient with TB diagnosis is necessary.

In Rambam haemodialysis unit Tuberculosis was diagnosed in one of the patients several months after starting the HD treatment.

Objectives

Goals:
1. Emphasizing special aspects of the treatment in a haemodialysis patient with TB and his family.
2. Description of an epidemiological investigation in the unit.

Methods

Process:
1. Diagnosing of tuberculosis.
2. A multidisciplinary team including medical, nursing, epidemiological, and hospital management.
   1. Reporting to the Ministry of Health.
4. Treatment instruction distributed to all teams, negative pressure isolation room, safety equipment for staff was assigned.
5. Continuous patient education and compliance monitoring.
6. Acknowledging the patient’s feelings because of his isolation.
7. Detection of all TB exposure circuits: other patients, caregivers, family.
8. Performing a Mantoux and blood test.
9. Monitoring relevant laboratory tests.
10. The decision to return the patient to a general unit.

Conclusion/Application to practice

Conclusions:
1. Tuberculosis is more common in haemodialysis patients.
   1. Great importance to the treatment protocol for the patient with TB.
2. Nursing care includes: medication and providing special attention to the patient’s compliance and feelings during isolation.

Summary: Treatment of a dialysis patient with tuberculosis requires proper organization, which includes the infrastructure to enable dialysis treatment while in isolation. Patient and family education and high level of compliance are crucial for maximum treatment outcomes.

Disclosure of Interest

no
E-P 070
Comorbidities are associated with a reduced use of arteriovenous fistula in our hemodialysis patients

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Background
Primary patency of arteriovenous fistulas (AVF) at 1 year is reported to be 42-60%, while secondary patency is 60-71%. Other conditions, such as haemostatic or ischemic complications often affect the usage of AVF despite a good patency.

Objectives
To identify factors influencing AVF patency and usage.

Methods
During 19 months we included 49 hemodialysis patients with 58 newly created AVF. At the end of time frame, patients were clustered in two groups: AVF in use (n=30) vs. AVF not in use (n=28). Between the groups we compared factors influencing AVF patency: age, Charlson Comorbidity Index (CCI), age adjusted Charlson Comorbidity Index (aaCCI), hemoglobin, treatment with aspirin, statin and acenocoumarol.

Results
The causes for not using AVF included thrombosis (39.29%), maturation failure (21.43%), ongoing maturation (14.29%), superficialization needed (10.71%), patients death (7.14%), difficult haemostasis (3.57%) and closure because of ischemia (3.57%). There was no significantly difference between the 2 groups in terms of age, gender, AVF type, CCI, haemoglobin and treatment with aspirin or statin or acenocoumarol. Patients with AVF not in use had a significantly higher aaCCI (5.84±1.75 vs 4.63±2.25, p=0.027) compared to patients with AVF in use.

Conclusion/Application to practice
Comorbidities, but not age, gender, haemoglobin or treatment with statin, aspirin and acenocoumarol, influence the use of AVF in our hemodialysis patients.

Disclosure of Interest
no
E-P 071
Life threatening upper gastro intestinal discomfort under Sevelamer carbonate in hemodialysis patient
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Background
Hyperphosphatemia is a frequent condition usually observed earlier in the course of chronic kidney disease (CKD) and becomes symptomatic when creatinine clearance falls below 30ml/min/1.73m². A 60 year old man is undergoing regular hemodialysis due to cyclosporine nephrotoxicity. He is known to have two episodes of heart transplantation, sustained ventricular tachycardia, and splenic vein thrombosis leading to portal hypertension induced diabetes mellitus. Patient has been presenting frequent episodes of hematemesis at the dawn of 2015. Due to poor dialysis; he exhibited persisting hyperphosphatemia treated by Sevelamer carbonate. Unfortunately, he stopped taking this agent after upper gastric symptoms. Nine months later, he developed an infected graft treated by antibiotics. Thereafter, he was dialyzed through a single needle with clinical and biological feature of under-dialysis. Sevelamer carbonate was prescribed as before. Unfortunately, patient reports more upper gastro intestinal leading to reemerging a life threatening hematemesis, upper abdominal discomfort and loose motions.

Objectives
Understand how a case report is important to awareness of gastro intestinal discomfort under Sevelamer carbonate

Methods
Descriptive analysis of a clinical case, man, 60 years old in hemodialysis

Results
With progressing chronic renal failure, phosphate binders are useful. At the present, the most widely used calcium based, then the non-absorbable polymers (sevelamer) and lately heavy metal salts dominated by lanthanum carbonate (fosrenol). Sevelamer have been used either as hydrochloride or carbonate. Sevelamer is the sole responsible agent provoking gastro intestinal symptoms requiring its prompt discontinuation. These symptoms results from probable mucosal irritation of his esophageal various veins. The repeatability and reproducibility of such phenomenon is a proof that Sevelamer carbonate is the sole agent responsible. Upper and lower gastro intestinal side effects that develop under Sevelamer carbonate are the most common reason for drug withdrawal as in our case.

Conclusion/Application to practice
Sevelamer carbonate is as effective as Sevelamer hydrochloride in controlling hyperphosphatemia of patients under dialysis. In patient with previous gastro intestinal illness, it should be administrated under strict observation.

Disclosure of Interest
no
Hypoglycemia treatment protocol in the hemodialysis unit

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Background
The American Diabetes Association (ADA) recommends a standardized approach to hypoglycemia management. However, many institutions do not have a standardized hypoglycemia treatment protocol in place specific to critically ill patients. Although most nurses are attuned to the signs and symptoms of hypoglycemia, the choice and amount of treatment is often at the discretion of the nurse. Consequently, the patient may be undertreated or overtraded depending on the judgment of the particular nurse caring for the patient. As a result, the patient can receive inadequate treatment.

A protocol translates research into functional interventions, using a problem solving orientation to create steps grounded in evidence-based principles and practice resulting in positive, patient outcomes in an efficient, cost-effective and continuous manner.

The present study will examine the attitudes of the nursing staff in the hemodialysis unit towards the use of the protocol for the treatment of hypoglycemia compared to the existing method (physician involving).

Methods: The study included 32 nurses from hemodialysis unit at Tel Hashomer hospital. The study was conducted using a questionnaire based on the Likert scale, with the possibility of rating the answer from "agree to a large extent" to "disagree at all". Questionnaires will be distributed before and after use of the protocol.

Results and Conclusion: 100% of all nursing staff who participated in the survey expressed a positive opinion regarding the use of the hypoglycemia treatment protocol. In other words, the results showed that the nursing staff at the hemodialysis unit identified the need to establish the standard for the treatment of hypoglycemia in hemodialysis patients and the construction of a treatment protocol.

Disclosure of Interest

no
Successful treatment and care of a patient with calciphylaxis

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Background
Calciphylaxis is a rare disorder of systemic arteries that results in tissue ischemia and necrosis. Mostly, it is reported in patients with chronic kidney dysfunction. The exact diagnosis can only be established by pathohystological examination.

Objectives
Here we present a case of successful treatment and care of a patient with calciphylaxis.

Methods
We analysed the clinical course, laboratory findings and treatment from patient medical records.

Results
A 40 year old male patient that had a transplanted kidney for 12 years was admitted to our clinic due to worsening of his renal function. Eighteen days after admission he started haemodialysis treatment. His condition worsened as he developed extensive necrotic wounds on both lower legs that gave the clinical impression of calciphylaxis that was later on proven by tissue biopsy. Due to the patient’s severe clinical condition, haemodialysis was intensified to 4 times a week and he received 30 barotherapy treatments. His wounds were treated with silver coating bandages that were replaced 3-4 times a week. On eighty-ninth day he started to receive sodium thiosulphate (i.v.) 3 times a week at the end of haemodialysis. A gradual improvement of wound healing was observed and six months after discharge he can walk on his own and his wounds have completely healed.

Conclusion/Application to practice
Treatment and care of patients with calciphylaxis is demanding. Patients with calciphylaxis have high mortality risk. For these kind of patients a multidisciplinary team that includes nephrologists, surgeons, anesthesiologists, psychologists and nurses is required. Regarding treatment and care of these patients we recommend analgesia, wound showering and application of wound coatings preferably with silver as an antiseptic. Nurses with their expertise and knowledge greatly contribute to the quality of patient treatment and care.

Disclosure of Interest
no
Can we improve the quality of life of people living with dialysis?

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Background

Recently the medical community has been putting an emphasis on the link between health issues and quality of life. Studies show that the interest for understanding the quality of life when it comes to health has also been on the rise, and effort has been made to measure the quality of life in terms of health and health issues (Health Related Quality Of Life- HRQOL). Nurses and other members of medical teams are noticing the changes in the quality of life of their patients. A large percentage of patients on dialysis are mentally healthy people who have been faced with huge stress caused by the lack of function in their kidneys. The fact that patients on dialysis are aware that there is no cure for their disease as well as that the dialysis procedure is merely a means of keeping them alive are the factors which leads to every fourth chronic kidney disease patient developing depression. On top of that, almost all patients deal with maladaptation in the first three months after starting dialysis. Moreover, a lot of patients feel guilt and feel as if their bodies betrayed them. According to studies, people living on dialysis are facing a much lower quality of life than the average healthy population. If we take into account that the chronic kidney disease remains one of the major public health issues in the world, it is extremely important to work on ways in which physicians and medical institutions can improve the quality of life in patients on dialysis, especially now when treatment is largely affected by technological innovations. In this paper different case studies are presented in order to showcase how the quality of life in patients on dialysis can be improved by following examples from everyday practice.

Disclosure of Interest

no
E-P 075
Phosphorus in the diet of dialysis patients
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Background
Due to the impaired kidney function, blood phosphorus levels rise, leading to a number of complications, such as
reduced blood calcium levels, increased calcification, increased parathormone and phosphatonin levels (FGF-23),
and a series of mineral-bone disorders.

Objectives
Increased phosphorus levels in the blood are a consequence of inadequate nutrition. The most difficult task for
dialysis patients is to maintain a normal level of phosphorus in the blood to avoid complications. About 65% of
phosphorus from food is absorbed from the intestine into the blood and under the influence of vitamin D even
more than 80%. The most dangerous phosphates are contained in artificial food additives and preservatives with
100% being absorbed in blood.

Methods
In order to reduce phosphate intake, dialysis patients were advised to:
1. Reduce protein intake
2. Increase intake of foods with reduced phosphate content.
3. Cook or drink food
4. Identify and avoid food preservatives and additives
5. Counseling with a nutritionist
6. Observe the pyramid of diet with reduced intake of phosphates

Results
Case Report
B.H. (56g) Basic disease is diabetic nephropathy with P-1.98mmol/l upon admission. During treatment,
phosphatemia values ranged from 1.71 to 3.01mmol/l. At that time, a non-calcium phosphate binder was
administered and with strict adherence to the pyramid of food recommended. Subsequently, the blood phosphorus
level ranged from 1.71 to 0.99 mmol/l.

Conclusion/Application to practice
The proposed phosphorus pyramid is an original, visual, user-friendly tool for nutritional education. It can support
patients and caregivers in making the right food choices by encouraging adherence to dietary prescriptions.

Disclosure of Interest
no
Shift reports promote improvement of key parameters

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Background
The definition of dialysis adequacy includes a good rehabilitation of patients, acceptable diet restriction, and satisfactory erythrocyte production, maintenance of normal blood pressure and prevention of uremic neuropathy.

Objectives
To control the parameters of the dialysis treatment on an individual patient basis and prevent the occurrence of complications during treatment.

Methods
After every shift, the head nurse regularly controls each patient, i.e. total blood flow, Kt/V by an automatic intradialytic measurements, effective duration of dialysis, average blood flow, and the total infusion volume of online haemodiafiltration. In case of any deviation from the set goals, she talks with the nurse who delivered the treatment to determine the reason for the deviation.

Results
In September 2016, we achieved 84% of the target set for the effective duration of the dialysis treatment. Since the implementation of this daily control in January 2017, we achieved 96% of our target. For the parameter total infusion volume of online haemodiafiltration in September 2016, we achieved 81% with an improvement in January of 88% of the given monthly target. After a follow-up period, we came to the conclusion that with a regular control of treatment adequacy against the set goals we can prevent complications and determine which patients have difficulty in achieving certain parameters for objective reasons. On the other hand, we motivated nurses to pay the maximum attention to every treatment and inform physicians during the treatment of any changes in order to initiate appropriate measures.

Conclusion/Application to practice
The analysis of the report after the completed shift contributed to improving the quality of haemodialysis treatments.

Disclosure of Interest
no
E-P 077
Maintaining optimal hydration status - a constant challenge for haemodialysis patients
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Background
In haemodialysis patients the dialyser eliminates excess water and toxins from the blood by artificial filtration of the blood. Chronic hyperhydration leads to a high blood pressure in the long-term and increase of morbidity due to cardiovascular incidents. Optimal fluids balance is one of the most important challenges in the treatment of haemodialysis patients.

Objectives
To maintain an optimal hydration status in the body by establishing the ideal dry weight in haemodialysis patients. Involving the patient by encouraging his/her compliance to medical, nutritional and fluid consumption recommendations.

Methods
1. Monitoring of the hydration status of dialysed patients by means of bioimpedance spectroscopy (BIS) for the measurement of the body composition.
2. Determining dry weight according to BIS results and clinical examination (regular re-evaluation of dry weight).
3. Adjusting dry weight according to each particular case.
4. Increasing dialysis time in high volume ultrafiltration cases.
5. Intensifying individual discussions on the importance of maintaining interdialytic hydration balance through dietary compliance and limiting fluid consumption.

Results
During January - October 2017 we performed quarterly BIS measurements in 320 patients. Among these, 68 patients (18.8%) required dry weight adjustment.

The proportion of patients reaching the targeted hydration status (relative hyperhydration ≤ 13% for women and ≤ 15% for men) ranged between 62.3% and 72.5% every month from January to October 2017.

Conclusion/Application to practice
Maintaining the interdialytic fluid balance by complying with the physician’s recommended diet helps to avoid hyperhydration, which is responsible for the increase of cardiovascular diseases risk affecting the haemodialysis patients’ quality of life.

Monitoring body composition by BIS is an important method in assessing the hydration status of haemodialysis patients.

Hyperhydration complications can be controlled by the following measures:
- complying with the recommended fluid intake;
- complying with the salt restriction diet;
- frequent re-evaluation of "dry weight";
- increasing dialysis time in high volume ultrafiltration cases.

Disclosure of Interest
no
E-P 078
Correlation of psychological state and clinical evolution in dialysis patients

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Background
Chronic dialysis patients are a heterogeneous patient group with a complex pathology. There is an interdependent relationship between the psychological state and the clinical evolution of these patients. The way patients face their illness, how they assess their chances and adapt their behaviour to the new situation differs from one patient to the other.

Objectives
Increasing the survival rate and quality of life for patients receiving dialysis treatment is a constant concern for the nephrology community. The present study observes the way patients accept or deny the disease and its treatment, as well as the importance of therapy compliance related to haemodialysis efficiency.

Methods
A group of 20 patients were evaluated, aged between 30 and 65 years from both urban and rural areas, with similar socio-economic backgrounds. Laboratory tests (urea, creatinine, phosphorus, calcium, albumin, and Kt/V) were taken into account as well as a questionnaire with a psychological profile of disease self-acceptance.

Results
The average value of laboratory tests was assessed (urea, creatinine, phosphorus, calcium, albumin, and Kt/V) demonstrating haemodialysis efficiency as a result of the patient’s compliance with dialysis treatment. Non-compliant patients had a low conditional acceptance score confirming that the disease and the therapy completely changed their lives, finding it hard to adapt to the new lifestyle (the diet, haemodialysis schedule and the therapy).

Conclusion/Application to practice
The psychological state influences the clinical evolution of the patients, especially in non-compliant patients leading to a decrease in the quality of their life.

Disclosure of Interest
no
Importance of vascular access in haemodialysis patients

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Background
The quality of dialysis is directly linked to the quality of vascular access. In 2014, our unit was enrolled in a study on vascular access. A special module for vascular access monitoring was created - the first module that reflects the work of the nurse. At present, all our dialysis units (35) of a network use this module.

Objectives
To identify, monitor and resolve all problems related to vascular access of dialysed patients and to determine the relationships between the puncture technique and vascular access complications.

Methods
General data of dialysed patients were collected during 2014-2017. Nurses noted for each treatment: puncture technique, needle positioning, needle spacing, needle rotation, arterial puncture needle direction, signs of infection or occlusion, the number of punctures, the difficulty of puncturing, and the name of the nurse making the puncture.

Results
All events and complications related to vascular access were registered in our database: difficult punctures, functioning problems of the vascular access, prescribed blood flow target not reached, Kt/V <1.4, haematoma, prolonged haemostasis. Moreover, we monitored the number of hospitalisation days for complications related to vascular access or death (infections, haematoma, and thrombosis).

According to the data recorded in the system, the results are as follows:

- Positive, associated with a reduced number of complications:
  - antegrade puncture 88,41%
  - bevel up orientation 95%
  - no rotation of the fistula needle 84%
- Negative, associated with a high number of complications:
  - the puncture technique 81,88%
  - 16 G fistula needles used in 75% of the patients
  - actual blood flow <335 ml/min in 47% of the patients

Conclusion/Application to practice
Recording of all vascular access data for haemodialysis patients has helped us in the early identification of vascular access problems. It has allowed us to make corrective measures to resolve complications in a timely manner in order to improve the overall quality of the dialysis treatment.

Disclosure of Interest
no
E-P 080

Improved protection for non-responders to intracutaneous hepatitis B vaccination

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Background
Our dialysis patients who initially did not respond to the whole range of intramuscularly administered hepatitis B vaccines, were categorised as non-responders. These patients were increasingly susceptible to HBV infections, since their protective levels of anti-HBs were < 10 IU/ml.

Objectives
To achieve adequate protection for non-responders by administration of a series of intracutaneous vaccination.

Methods
Because of our relatively high number of non-responders, we proposed following a method used in previous study of intracutaneous vaccinations against hepatitis B virus (HBV). Patients receiving the first series of vaccinations were given a monthly dose of 6 ug of the vaccine for 3 consecutive months, followed by a HBs assay. In the cases of patients requiring a second series of vaccinations, 6 ug each were administered bi-weekly on 4-6 occasions, and then followed by antibody titre measurements.

Results
From 2014 until end of 2017, a total of 55 patients received a series of intracutaneous HBV vaccinations. During this period, 22 patients died, 4 had kidney transplants, and 29 were followed-up.
Initial series of intracutaneous hepatitis B vaccine injections involved 11 patients: 6 of them had detectable levels of antibody and 5 were not responding according to the HB assay, at the end of the series (after three months). The second series included 7 patients with 5 responders, the third 9 patients with 8 responders, and the fourth series only 2 patients, but one responder. 20 of the 29 still have protective levels of antibodies corresponding to a success rate of 68.93%.

Conclusion/Application to practice
Adequate protection can be enhanced by means of intracutaneous hepatitis B vaccination in patients with impaired responsiveness following intramuscular vaccination. In addition, adhering to strict safety and hygiene rules may help prevent the spread of hepatitis B virus infections.

Disclosure of Interest
no
E-P 081
The consequence of the secondary hyperparathyroidism in a case of chronic renal failure
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Background
A 43 year old female patient was treated from 1980 to 2014 because of chronic IgA glomerulonephritis. She received a bolus steroid in 1991. In 2014, haemodialysis treatment commenced.

Objectives
To prevent complications due to high parathyroid hormone levels by adequate dialysis treatment.

Methods
The patient's history included secondary hyperparathyroidism, hypercalcaemia and renal osteodystrophy. In January 2017, her results included parathormone (PTH) 224 pmol/L, osteocalcin 234 ug/L, total calcium 2.92 mmol/L, phosphate 2.04 mmol/L, 25-OH-vitamin D 34 mmol/L. In February 2017, she was diagnosed with osteoporosis and compression of the dorsal vertebrae, and an artificial mitral valve had to be implanted because of calcification. In September, the patient was diagnosed with arthritis in the right wrist, shin ulcer, calcification above the shoulder joint, high PTH, mitral valve and vascular calcification, and critical lower limb ischemia. Haemodialysis treatment was inadequate because of the decreasing of arteriovenous fistula function. Insertion of a central venous catheter became necessary. The patient suffered from overhydration.

Results
In November 2017, the parathyroid gland was surgically removed. In the following month, both lower legs underneath the knees were amputated – which led to mental health disturbance. After the removal of the parathyroid gland, we observed a significant decrease in serum PTH and total calcium levels, and increased vitamin D3 level.

Conclusion/Application to practice
Complications of high parathyroid hormone levels led to multi-organ and psychological problems which significantly impacted on the patient's quality of life.

Disclosure of Interest
no
E-P 082
Patient satisfaction survey in a hungarian dialysis network in 2017
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Background
As health care provider we aim to offer the best possible quality of dialysis treatment to our patients, for this reason their opinion and involvement are extremely important. Therefore we wished to become acquainted with the opinions of haemodialysis (HD) patients treated in our centres.

Objectives
To measure the satisfaction with care level of haemodialysis patients in a Hungarian dialysis network.

Methods
A questionnaire was prepared to be completed on paper or online. It was designed for all HD patients, who were treated by the healthcare provider in Hungary and could be completed anonymously. The online content and evaluation system were exactly the same as the paper version. The survey was structured around three main topics:
1. Patient information: 7 questions,
2. Dialysis centre and clinical staff: 8 questions,
3. Overall rating: 5 questions, e.g. “I would recommend this unit to a friend who needs dialysis”.

Results
Compared to the previous survey in 2014, the satisfaction level increased from 91% to 93% with a participation rate of 78%.
53% of the patients had been on dialysis for more than 5 years, and 75% had an arteriovenous fistula. The gender distribution among patients: men were the majority (54%), and only 7% of the patients were active workers.

Conclusion/Application to practice
The country report includes the basic information of the patients as well as the ranking of the clinics by satisfaction level. The results of each dialysis centre show the detailed subjective opinion of the patients. A survey of patients contributes to improving the quality of patient care and our services.
We can take corrective actions based on the results. As compared to the survey in 2014, we observed a higher level of satisfaction among patients which is a clear indication of the high quality of our work.

Disclosure of Interest
no
E-P 083
Immunoglobulin A deficiency in a haemodialysis patient: myth or reality
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Background
Selective IgA deficiency (SIGAD) is defined as having a serum IgA undetectable or less than 5 mg/dl in human. We describe a case of a patient on dialysis with autosomal dominant polycystic kidney found to have SIGAD.

Objectives

Methods
BKS is a 74 year old north-African man patient with end stage renal failure receiving haemodialysis since 2001. He is known to have autosomal polycystic kidney disease, arterial hypertension, palmar Dupuytren’s disease, chronic prostatitis, descending aorta and abdominal aneurysm and chronic hepatitis C infection (HCV) type ii genotype. He admitted tobacco smoking which added to a history of pulmonary tuberculosis responsible for his chronic obstructive pulmonary disease (COPD). He was found to be positive for remote syphilis and hepatitis B. Plasma protein electrophoresis and protein profile didn’t show any tracing of blood paraproteinemia. Protein profile showed hyper immunoglobulin (Ig) M = 4.5g/l (0.49- 1.38), mildly elevated Ig G= 13.8g/l (6.36-12.31) and hypo IgA = 0.05g/l. A low level of IgA was persistent having a polyclonal aspect on immunofixation. Viral load HCV determined by polymerase chain reaction was 7.2 log copies/ml (threshold 2.1).

Results
SIGAD is the most common humoral deficiency which can be either primary or secondary. Less is known about the incidence of this finding and its clinical significance in a haemodialysis population. In this setting, both cellular and humoral immunity is altered. Our patient had autosomal polycystic kidney disease probably sharing the same mechanism with SIGAD and cyclic neutropenia, all associated with great susceptibility to infection.

Conclusion/Application to practice
The hallmark of IgA deficiency is clinical recurrent infection, autoimmunity, and an allergic reaction to blood products. Their presence in patients known to have polycystic disease should alert physicians to complete laboratory investigation by requesting a protein profile and qualitative and quantitative aspect of immunoglobulin.

Disclosure of Interest
no
Active immunisation and nursing tasks in haemodialysis

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Background
Due to their impaired immunity, dialysed patients are susceptible to infectious diseases such as hepatitis. Depending on the results, active immunization with a series of Hepatitis B vaccine is necessary.

Objectives
To ensure optimal registration and management system for vaccination of all haemodialysis patients at our nephrology centre, in consideration for the large number of patients. This requires a high level of accuracy and attention from the nurse responsible for vaccination system.

Methods
At our nephrology centre, the virus serological test and vaccination were performed in 250 haemodialysed patients and documented in accordance with the regulations of the infection control manual. Beside vaccination, accurate data recording is required in the patients’ database and the patients’ immunization records. Immunization and immunity are important key performance indicators and depend on the efficiency of a balanced scorecard.

In order to induce a quick immune response, the accelerated vaccination includes vaccine injections at month „0“, „1“, „2,“ and “12“ after the first vaccination series and double dose of recombinant vaccine is administered in every case, if the antiHBS titer is < 10 IU/l, an additional series of vaccine injections should be administered.

Results
Now we have 250 chronic and 15-20 acute haemodialysis patients. For the required immunity, a single series of vaccine injections was administered to 103 patients and two series were needed for 93 patients.

Conclusion/Application to practice
Due to the successful immunization of haemodialysis patients observing the strict hygienic rules, we did not observe any nosocomial infections at our clinic during the last decades. By means of accurate data recording in the patients’ database and local documents we achieved good results in the balanced scorecard.

Disclosure of Interest
no
E-P 085
Glycaemic profiles in diabetic patients on haemodialysis on dialysis and dialysis free days

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Background
The adjustment of diabetes is challenging in patients with end stage renal disease, as both uraemia and dialysis can complicate glycaemic control by affecting the secretion, clearance, and peripheral tissue sensitivity of insulin. Re-education of patients is necessary to help them to adapt to the changes.

Objectives
To examine the difference in the glycaemic profiles between dialysis days and dialysis-free days.

Methods
We analysed data of one week recorded in the diabetes diaries of type 2 diabetes (T2DM) patients treated with insulin.

Results
At our centre, we have 236 chronic haemodialysis patients, of which 24 T2DM patients are treated with insulin. From this group, 14 patients participated in the study. Blood glucose levels did not differ significantly between dialysis and dialysis-free days. On dialysis-free days, blood glucose was 6.3-8.1 mmol/l; average: 8.1 mmol/l. On dialysis days it was 6.7-9.1 mmol/l; average 7.9 mmol/l. Review of the dietary habits showed that patients did not change the prescribed 3-5 meals per day. Hypoglycaemia did not occur during and after treatment. Examining their insulin dosage patterns, only three patients changed the dose, but this cannot be related to the dialysis treatments.

Conclusion/Application to practice
The glucose levels of our patients were quite similar on dialysis and dialysis-free days and patients maintained their meal frequencies per day. There were no cases of hypoglycaemia during and after treatments. We could not find any treatment-related need to change insulin dosage on the dialysis days. However, we cannot generalise our results due to the small sample size. A complex and individualised care programme is needed to reduce the progression of diabetes and comorbidities.

Disclosure of Interest
no
Serious Methicillin Resistant Staphylococcus Aureus complications and occurrence in haemodialysis

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Background
Methicillin Resistant Staphylococcus Aureus (MRSA) was first isolated in early 1960’s, but nowadays it has become one of the most common multi-resistant pathogen.

Objectives
To identify MRSA as quickly as possible in order to treat the infection in dialyzed patients and prevent complications on time.

Methods
We would like to present serious complications of MRSA colonization and its detection by describing two cases at our centre.

Results
We started haemodialysis treatment for a 59 years old male patient in 2014. He was admitted to the Intensive Care Unit, MRSA was determined as a cause of his septic condition. After a complex treatment, his condition has improved. Two years later, he presented again with fever and abdominal pain. MRSA was detected again in blood culture. At the same time, the patient complained of right hip and lumbar region pain with immobility. High values of CRP and PCT were detected. Results of MRI showed right postulating sacroileitis and pelvic abscess. Antibiotic was prescribed by infectious diseases specialist. Despite the provided treatment the patient passed away.

A 79 years old male patient, suffering from type II diabetes, started on acute haemodialysis due to an urosepsis-induced kidney failure in 2016. MRSA was detected in the urine. One year later, a drainage area of patient’s arteriovenous fistula (AVF) developed, and MRSA was detected in the wound. AVF was closed and Central Venous Catheter was inserted. Two weeks later, he was admitted to emergency care because of low back pain, next day the patient became immobile. A computer tomography and an isotope assay were done to confirmed inflammation of the III-IV lumbar disc. The patient received the treatment in coordination with the infectious disease. The Patient remained immobile since then, but his general condition has improved.

Conclusion/Application to practice
These cases show how important the patients’ decolonization and frequent screening for MRSA is.

Disclosure of Interest
no
Changes in the foot of dialysis patients

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Background

Any changes in the feet of haemodialysed patients are the consequence of peripheral arterial disease, diabetic neuropathy, fungal skin and nail alterations, inflammatory diseases resulting from injury and articular deformities. Because of the poor general condition of elderly patients (decreased vision, disability, bad social conditions), foot care is often neglected. Patients do not attach importance to initial changes which ultimately often result in the loss of limbs.

Objectives

To analyse the results of regular “foot visits” at our centre.

Methods

In 2013, we introduced the regular “foot visit” which we have been performed regularly every second month since then. We have had 25 chronic haemodialysed patients to the clinic and compare their results of their “foot visit” in the period 2013-2017.

Results

Out of all 25 patients, 17 were diabetic, 8 non-diabetic, 17 smokers, 8 non-smokers. The patients’ average time on dialysis was 8 years (5-16 years). The mean age was 61.8 years (27-83 years). At present, these patients do not have any ulcers on their feet and all nail fungi cases are under treatment. Cracked heels were removed but dry skin remained. The lack of peripheral pulses also increased during 4 years (we experienced arterial dorsalis pedis deficiency in 11 cases in 2013 and in 14 cases in 2017, respectively). No limb had to be amputated over the examined period (4 years). Monofilament test, neurotest and calibrated tune-fork examination showed a slight but consistent deterioration of the results.

Conclusion/Application to practice

We conclude that there was a significant improvement in our patients’ approach to foot care. They show much more interest in care of their feet and now report any changes courageously so that we can intervene in time. In our patients the number of foot disorders increased directly proportional to the length of time spent on dialysis.

Disclosure of Interest

no
E-P 088
Education on nutrition in patients undergoing haemodialysis

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Background
The occurrence of complications in patients under haemodialysis is higher than in the rest of the population. To provide appropriate health education, inform and teach patients on everything related to hygiene measures, diet and self-care is an added value nurses can offer during haemodialysis sessions every day. A correct education and the involvement of patients with their well-being and self-care will improve their health with better haematology results. Patients will have a better quality of life and fewer complications that can be detected earlier.

Objectives
To determine the level of nutritional knowledge of our patients related to food and liquids intake recommended for their illness. A secondary aim was to obtain better analytical results

Methods
We selected patients according to inclusion and exclusion criteria, divided into two groups. The following parameters were evaluated: Ca, P, Na, K, Hb, albumin, Charlton index and inter-dialytic weight gain once a month from January to June 2017; food survey with 15 items before and after the nutritional education programme. One group served as control and the other as study group. The study was conducted as a research observational cross-sectional, correlation, quantitative methodology and convenience with an observation period of 6 months.

Results
Knowledge about nutrition in patients with CKD can improve analytical blood results. The average values were: P 4.08±1.21 and 4.51±0.94 (p = 0.086), Hb 11.04± 1.4 and 11.01±1.44 (p = 0.914) and inter-dialytic body weight gain 1.83±0.67 and 1.79±0.65 (p = 0.793) for the control and study group, respectively. The follow-up results cannot be showed currently as the study period is not completed (January - June 2018).

Conclusion/Application to practice
The results of our study demonstrated and improvement of patient general conditions, and nutritional status. The continuous training of patients on nutrition and self-care are key success factors to improve their health.

Disclosure of Interest
no
Siblings on home haemodialysis using the same machine

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**Background**

Patient Experience

**Objectives**

To present a case report of two siblings on home haemodialysis using the same machine.

**Methods**

We present two siblings on home haemodialysis using the same machine. The first patient is the 26 years old brother who has been diagnosed with chronic kidney disease in 2009 due to vesicouretheral reflux. He has a history of failed kidney transplantation and has been on haemodialysis for four years. He came to our clinic in September 2014 as we have late hour sessions. Later we learned that he has a 28 year old sister who is also on dialysis and that both live at the same house. Because of transportation problems she came to our clinic in April 2016. Her primary kidney disease was unknown and she has been on dialysis since January 2013. We offered them home haemodialysis (HHD) using the same machine. He had percutaneous transluminal angioplasty four times due to stenosis, thrombosed veins, and fistula. Because of thrombosed veins we used dorsal veins in the left arm he could not cannulate by himself. The brother cannulated his sister as she had fear of cannulating herself, but later on she did it. In November 2016, they were transferred to HHD.

**Results**

Our treatment approach gave the brother a high degree of flexibility and extra time for his education. Both made HHD using the same machine on alternating days achieving better phosphorous, biochemical, and hemodynamic values. With this method they are free of oral medications.

**Conclusion/Application to practice**

Both patients learned the method, so it is now safe for them to take care of each other. They also saved money and time as compared to when they came to the clinic by themselves. This is also a more cost effective way for a dialysis clinic than installing two machines in a home.

**Disclosure of Interest**

no
Innovative combination of treatment modalities in the therapy of liver failure

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Background
Due to the high costs, extracorporeal liver support therapies are only used in patients who are on emergency liver transplantation list and only to bridge the time. Therefore, alternative therapeutic options are in the spotlight.

Objectives
To determine an alternative liver support therapy for patient with acute liver failure.

Methods
Application of cytosorb, a new cytokine absorber combined with plasmapheresis in acute liver failure.

Results
In our case, a 23 years old female patient was admitted to the intensive care unit with severe pancreatitis, acidosis, and liver failure. Laboratory markers included markedly elevated liver enzymes (AST: 18351 U/L, ALT: 6775 U/L, LDH: 15,321 U/L, total/conjugated bilirubin: 169.9/139.7), and spontaneously elongated coagulation tests (INR: 3.46, PT: 35 s, aPTT: 58.6 s, TT: 31.7 s). Due to the rapid onset, the severe clinical features and the worsening of hepatic encephalopathy our objective was to treat her with continuous renal replacement therapy using an extracorporeal citrate-calcium (CiCa) anticoagulation system accompanied by Cytosorb absorber. After 72 hours of treatment, the liver enzymes and other laboratory markers dramatically decreased, but due to the altered mental status we continued the treatment with plasmapheresis. Apheresis with 2.5 litres of fresh-frozen plasma was performed. After this combination of treatments, both the laboratory markers and the patient's general status improved significantly. 23 days after the treatment we were able to discharge her home.

Conclusion/Application to practice
Combination of Cytosorb and plasmapheresis could be a possible choice besides the traditional liver support therapies with a broader spectrum of indications.

Disclosure of Interest
no
E-P 091
Cardiovascular diseases in chronic dialysis patients
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Background
Mortality rates and quality of life among dialysis patients are determined by the presence of cardiovascular (CV) diseases.
To ensure high-quality of nursing care, it is essential for dialysis nurses to be aware of the patients CV diseases, by interpreting the following:
- signs, symptoms and complications during haemodialysis
- dietary and fluid intake,
- adequate determination of the dry weight

Objectives
To assess cardiovascular diseases and risk factors among patients on chronic haemodialysis in the Dialysis Centre of Szigetvár in 2017.
We also investigated new onset CV events in 2017.

Methods
In 2017, 102 patients were on chronic haemodialysis at our centre (2 on peritoneal dialysis, 100 on haemodialysis).
- Mean age was 60.9 years,
- female/male ratio was: 47/55,
- mean time spent on dialysis was 56.6 months.
During our retrospective analysis, the prevalence and incidence of coronary artery disease, acute myocardial infarction, heart failure, stroke, peripheral arterial disease and amputation were recorded. In addition to Cardiovascular risk factors, such as hypertension, diabetes mellitus, smoking, dyslipidaemia and hyperparathyroidism.

Results
Prevalence of cardiovascular diseases in our 102 patients
- 36 patients had coronary artery disease (35.29%)
- 16 patients had heart failure (15.68%)
- 14 had stroke (13.72%)
- 27 had peripheral arterial disease (26.47%)
- and amputation in 6 (5.88%)
21.81% of male patients had 2 and 12.72% had 3 cardiovascular complications.
21.27% of female patients had 2 cardiovascular complications, and no female patient had 3 cardiovascular complications.
New onset cardiovascular events occurred in 2.94 % of patients.

Conclusion/Application to practice
According to our results, cardiovascular diseases are very common in patients on chronic dialysis; this is consistent with international registry findings.
The presence of CV diseases can affect and complicate nursing tasks. However, with accurate knowledge and adequate management, dialysis nurses can minimize these complications.

Disclosure of Interest
no
E-P 092
Oral health in patients on haemodialysis

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Background
Patients with Chronic Kidney Disease have an increased risk to develop dental diseases. Chronic infection in the oral cavity may lead to serious complications: septicaemia, infective endocarditis, endarteritis of vessels, etc.

Objectives
To evaluate the state of oral health in dialysis patients.

Methods
30 patients were divided into 3 groups.
Group 1: 10 diabetic patients on dialysis for up to 3 years.
Group 2: 10 non-diabetic patients on dialysis for up to 1 year.
Group 3: 10 non-diabetic patients on dialysis from 10 to 19 years.
The groups were compared in terms of: age, gender, blood glucose level, haemoglobin level, oral cavity status and smoking.

Results
Results did not reveal any influence in terms of age, gender and smoking habit. In all three groups, complaints about dryness in the oral cavity, unpleasant smell and dental plaque were encountered equally often. The presence of removable dentures for 3 people out of 10 in each group is also not a distinctive feature in these groups.
Distinctive features are the fasting blood glucose level: higher values in group 1, haemoglobin level: lower value in group 1. As well as complaints about gum disease: a half of patients in group 1 had some problems, against 1 in 10 patients in groups 2 and 3.
The incidence of gum disease symptoms in the group of diabetic patients confirms the risk of developing gingivitis and periodontitis in this patient population.

Conclusion/Application to practice
Dental care is very important for dialysis patients, especially for diabetics. It is necessary to educate patients about individual oral hygiene, monitor their state of oral health and increase the motivation for preventative dental care.

Disclosure of Interest
no
Start focusing on motivation...and keep going

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Background
With increasing age, it becomes ever more difficult to maintain an optimal body weight even for healthy individuals. This is much more difficult for persons suffering from chronic renal failure. We have created a team consisting of nephrologists, general nurses, nutritional therapists and students. This team attempts to motivate patients who have expressed the desire to reduce their body weight and wish to change their eating habits.

Methods
A group of 10 patients at our dialysis centre expressed an active interest in reducing their body weight. We started to actively cooperate with this group in 2017. Two subjects, one male and one female, wished to reduce their weight in order to satisfy the criteria for enrollment on the transplantation waiting list. They were selected from this group for the purposes of this research.

Results
The body weight and BMI parameters have been systematically monitored in these two patients since their enrollment in the dialysis program. We extended the observed parameters to include body fat, lean muscle mass, visceral fat and cholesterol.

Conclusion/Application to practice
At present we are at the mid-point of our observation. Both subjects, the woman (41) and the man (47), live a similar life – a sedentary job, inter-dialysis increments of more than 3 kg, minimum physical activity, poor eating habits and abdominal obesity. Cooperation is easier with the male patient, as he is highly motivated and he sees a chance to return to his “old life”. The cooperation with the female patient is more difficult, as she is introverted at present and struggles to find the necessary motivation. Therefore, we are progressing slowly with the female patient and we are helping her to find her own sense of motivation.

Disclosure of Interest
no
Dietary assessment in dialysis patients shows energy and protein intake to be too low

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Background
Protein malnutrition is common in dialysis patients and results in bad prognosis and reduced quality of life. Loss of appetite, depression and exercise deprivation are additional factors which influence rehabilitation results in dialysis patients group. Protein malnutrition depends on many factors and is a complex process with bad prognosis. Multidisciplinary approach with dietitians could result in improved nutrition status in dialysis patients.

Objectives
The role of the nurse which also works as clinical dietitian is that he/she recognizes on time dialysis patients with MICS (malnutrition inflammation complex syndrome. This plays the vital role for survival of dialysis patients and begins the process of clinical nutrition interventions.

Methods
30 patients without clinical signs of malnutrition were randomly selected in Dialysis Center of University Clinical Center of Ljubljana. A food propensity questionnaire has been carried out with two unannounced 24-hour dietary recalls per participant through a web-based application “Open platform for clinical nutrition”.

Results
The average results from the patients interviewed are, Caloric (kcal) it is 1177 kcal, protein it is 48,11g, fat it is 42,20g, carbohydrate (CHO) it is 125,79 g, sodium (Na+) it is 1547,25 mmol/l, potassium (K+) it is 1537,29 mmol/l, and phosphorus (P) it is 641,18 mmol/l, intake in 24 hours was monitored. 30 patients were analyzed. Caloric and protein intake values were lower than recommended for dialysis patients. Values of sodium, potassium and phosphorus were surprisingly in normal range.

Conclusion/Application to practice
Dietary assessment is an important tool for nutritional intervention and in prevention of malnutrition in dialysis patients. Protein and energy intake were found to be lower in dialysis patients than recommended. Dietitian and patient relationship is crucial for objective results of diet recall.

Disclosure of Interest
no
E-P 095
Hearing and vision impaired patients – communication and haemodialysis treatment

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Background
Communication is of paramount importance for the quality of the haemodialysis treatment. The interaction between the patient and the personnel is integral to the management of haemodialysis to ensure the best long-term outcomes.

Objectives
To gain a fuller understanding of the role of a specific approach, especially communication to hearing and vision impaired patients enrolled in the regular dialysis program.

Methods

Case report
Female patient MB, year of birth 1966 Combined transplantation of pancreas kidneys in 1997
- Chronic Kidney Disease, stage 5, caused by diabetic nephropathy.
- Retinopathy at the stage of near blindness
- Deafness of post-medication aetiology
- Diabetic foot, history of amputation of the right foot in 2004

Gradual deterioration of the renal function of the graft resulted in return to dialysis program, but the pancreatic graft functions are normal.
The patient does not read Braille.
Remote communication is facilitated by a special telephone service for the hearing-impaired. We can leave a message for the patient at this number. The message is converted into fax format and sent to a specifically adapted PC of the patient, where it is shown on her monitor using a large font that the patient is capable of reading.
Direct communication is possible by writing capital letters with the finger into the patient’s palm, she is quite capable of understanding such text.

Results
The difficulty of communicating varies depending on the patient’s mental and physical condition. It is necessary to take into consideration the time requirements in order to be able to get all commonly required information from the hearing and vision-impaired individual before initiating the dialysis, during the course of the treatment and during regular rounds.

Conclusion/Application to practice
Despite the time requirements, communication with the patient has been quite satisfactory.

Disclosure of Interest
no
E-P 097
Specifics of communication with chronic dialysis patients
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**Background**
Effective and quality communication is one of the key skills for all healthcare staff. Day-to-day nursing practice requires the nurse to be capable of proper communication and proper listening. Social communication with a dialyzed patient is not necessarily simple and requires not only patience, but also a professional attitude and quality training. Communication with dialysis patients is very specific, and due to the chronic illness, the quality of life deteriorates in physical as well as mental aspects. A perfect nurse must therefore be capable of coping not only with the technical aspects of dialysis, but a human attitude is required as well.

**Objectives**
To define the major issues in the communication between a nurse and a patient enrolled in a chronic dialysis programme.

**Methods**
Research of the published literature related to communication between nurses and chronic dialysis patients, using the PubMed electronic database. Medline Complete, Google scholar, using appropriate key words.

**Conclusion/Application to practice**
A dialysis patient has an abnormal life. The patient’s quality of life is often reduced due to the serious illness of the kidney – a very important organ. The kidney function must thereafter be replaced using a machine. Such a patient may require dialysis for months or years. Among other aspects, the adaptation to dialysis therapy also depends on the personality of the nurse and his/her capability for quality and effective communication. In the long run, correct communication may help the patient to better comply with the treatment and improve the patient’s quality of life.

**Disclosure of Interest**
no
Factors affecting job satisfaction of renal nurses in Abu Dhabi

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Background
Job satisfaction is a significant factor in the healthcare setting. Nurses’ job satisfaction possibly impacts not only on their performance in the clinical area but also in delivering quality care to patients. What is known from the staff management study, done within the SEHA health system and SEHA Dialysis Services (SDS), showed the lowest satisfaction scores since the facility started in 2012 (SEHA, 2015). The result of the survey is not clearly defined because of the general nature of the study.

Objectives
The objectives of were to explore the factors affecting job satisfaction of renal nurses in Abu Dhabi. The majority of the nurses are expatriates and exploring what influences the renal nurses’ job satisfaction has not yet been fully studied.

Methods
This study used the exploratory descriptive qualitative approach. A deeper understanding through qualitative research was done to explore the factors that influence the nurses’ job satisfaction. Six renal staff nurses participated in the face-to-face interview using semi-structured interview questions. The data were analyzed using a Braun and Clarke (2006) thematic analysis.

Results
The factors that contributed to job satisfaction of renal staff nurses in SEHA Dialysis Services are characterized by three themes that surfaced from the results of the face-to-face interview: workload, rewards, and lack of support. Renal staff nurses in this study expressed that workload is the topmost contributing factor for them to job satisfaction.

Conclusion/Application to practice
Primarily a service development plan has been proposed and change was identified to address the problem with the workload. If successfully implemented it is expected to positively impact the organization by decreasing additional expenditures, increase job satisfaction among nurses which will positively impact patients outcomes.

Disclosure of Interest
no
E-P 099
Alternative treatment for a patient with resistant Clostridium difficile infection

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Background
We report the case of a dialysis patient with recurrent Clostridium difficile infections, resulting in frequent admissions to the isolation ward. This led to a deterioration of his quality of life associated with psychological stress.

Objectives
To eradicate the recurrent Clostridium difficile infection by faecal transplantation, an uncommon procedure in Hungary.

Methods
Clostridium difficile is known to cause serious complications, especially in dialysis patients. Admission to isolation wards results in psychological stress, which sometimes may lead to depression. Reinfections are frequently observed even after standard antibiotic treatment, thus requiring faecal transplant as a final remedy. The procedure can be performed in an out-patient setting and is pain-free without requiring any special preparation. Following premedication, the FMT (Faecal Microbiota Transplant) graft was introduced by colonoscopy.

Results
The procedure was uneventful. Antibiotic treatment was contraindicated in order to protect the transplant material. The endoscopic procedure can be repeated during follow-up visits.

Conclusion/Application to practice
So far, the patient has not experienced a new infection and his quality of life has improved significantly.

Disclosure of Interest
no
Nursing management in renal units of eastern Macedonia and thrace of Greece

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Background
The current work aims to evaluate and review the strategic management applied in the Haemodialysis and Peritoneal units at the public hospitals of Eastern Macedonia and Thrace region of Greece.

Objectives
The beneficial management and utilization of both human and material resources, in order to offer excellent nursing care for renal patients.

Methods
A structured questionnaire was selected using twelve (12) multiple choice questions and twenty (20) Likert scale questions. The sample included 46 nurses having a position of responsibility and leading a department (deputy chiefs, heads of departments) in Renal Units of twelve (12) public hospitals.

Results
The results of this survey show that in the field of management, the managerial values are moderately determined. 35%, stated strategic and targeting issues are adequately planned and disseminated to the nursing staff. The head of the department applies control to the staff. Subsequently, the head of the department conducts the planning of actions and works together with the nursing team encouraging teamwork. The KMO index is 0.698; x² is 173.9 and the Bartlett’s test of Sphericity is 78.

Conclusion/Application to practice
Most management functions were performed efficiently. In the field of nursing, the most aggravating problem, is inadequate nursing staffing. There is also a lack of incentives for workers, coupled with limited and incomplete funding of public hospitals.

Disclosure of Interest
no
Successful peritoneal dialysis in the treatment of bilateral Willms tumor - Case study

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Background
Nephrology-dialysis pediatric health care involves implementation of invasive diagnostic and therapeutic procedures with the least number of hospitalizations of children. Home peritoneal dialysis (PD), performed by well educated parents if often the first choice of treatment. Through a holistic approach and individual access each child is provided with a good quality of life.

Objectives
In Croatia there are 25 children using PD. We present a case of a boy of 14 years who had been diagnosed with bilateral Willms tumor. After numerous surgeries and complications of treatment including total bilateral nephrectomy he started haemodialysis, first through a temporary dialysis catheter, and later through an AV fistula. Initially PD was contraindicated due to his previous extensive surgery of the abdominal cavity but the team decided they should try. The child lived on an island and going to the HD Centre three times a week was difficult and impacting on his schooling. Also, the weather conditions often interfered with regular checkups. In 2016 a peritoneal catheter was placed. After the education of mother we began a combination of APD and CAPD dialysis methods.

Conclusion/Application to practice
By working together we can achieve great things and make a better quality of life for patient and their family.

Disclosure of Interest
no
Stevens-Johnson syndrome /toxic epidermal necrolysis on patients in the peritoneal dialysis program

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Background
In our dialysis center we have treated 379 patients on the peritoneal dialysis (PD) program since 1978. To the best our knowledge, Stevens-Johnson syndrome was reported only a few cases in patients with CAPD, but there wa only one case of vancomycin-associated exfoliative dermatitis.

Objectives
Case report

Methods
A patient in her seventies, was known to have CKD (hypertonia, rheumatoid arthritis, gout) since 2012, her CAPD treatment started in 2016.

Results
On the 4. of July 2017 peritonitis was diagnosed in our patient and we started 1,5g vancomycin (i.p.) and 2x500mg ciprofloxacin (p.o.). After the result of the blood culture (Staphylococcus epidermidis), ciprofloxacin was stopped, we continued the vancomycin therapy though (1,5g i.p. every 5 days – the last one on 27.07). The next day she developed fever, confusion and sleepiness. On her skin – body and limbs – hyperaemia, papulosus in places, in other places connected, vesicular exanthema spurred out, the mucosa (conjunctiva, lips, pharynx, vulva) also showed signs of inflammation. Based on the symptoms there was a possibility of toxic epidermal necrolysis (TEN), and Stevens-Johnson syndrome (SJS). We thought that the root cause was the antibiotic. We started high dose of corticosteroid therapy, and – due to Candida albicans that cultured from the mucosa – she received antifungal treatment too. The skin changes progressed however and the patient lost consciousness on 10.08, and passed away.

Conclusion/Application to practice
We described a case of TEN/SJS which ended in death – after the treatment of peritonitis of a PD patient. In our opinion the previous antibiotic therapy was responsible for the symptoms – though in the majority of similar cases (15-45%) the root cause remains unknown.

Disclosure of Interest
no
“Hungry bone” syndrome

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Background
Secondary hyperparathyroidism (SHPT) is a common complication of chronic kidney disease. Despite adequate therapy parathyroidectomy (PTX) might be necessary, which can be associated prolonged and severe hypocalcaemia.

Objectives
Case report

Methods
45-year-old woman with Alport syndrome. Renal replacement therapy started in 2010, then one month later was switched to peritoneal dialysis (CAPD). At the beginning of the dialysis the serum PTH was 117pg/ml, the calcium and phosphor levels were normal. Due to the rise of the PTH level we started alfacalcidol treatment, then in 2013 cinacalcet therapy was started as well. Even with increased dosage of these we couldn’t suppress the PTH level (1170pg/ml), phosphor(P):3,08mmol/l, Calcium(Ca):2,23mmol/l, therefore we indicated the PTX. In 2016 total PTX was done – with the autotransplantation of one parathyroid gland since she was with planned renal transplantation. PTH levels intraoperative: at start: 1848pg/ml, at 5 minute: 522pg/ml. Two days after discharges she showed up a tour PD ambulance with a weakness, the SeCa was 0,88mmol/l, the PTH level was: 16,5pg/ml. We recommended the Calcium-supplementation and alphacalcidol, however the patient did not take the medications in her home because she was unemployed. 4 days later she was admitted to the hospital with spasms followed by loss of consciousness (SeCa:0,82mmol/l). Her state continuously improved with adequate therapy and assisted PD. 3 months after the surgery her results: SeCa:2,2mmol/l, SeP:1,5mmol/l, SeMg:0,8mmol/l, PTH:45,2pg/ml. Therapy: 3x1µg alfacalcidol, 4x500mg Calcium.

Conclusion/Application to practice
Hungry bone syndrome may occur following PTX, with increased influx of Ca, P and Mg into the bones due to sudden decrease of PTH. It is important to closely monitor the postoperative serum Ca, P, Mg levels and proper substitutions of these ions. Sometimes temporarily assisted PD therapy might be necessary too.

Disclosure of Interest
no
Modified laparoscopic peritoneal dialysis catheter placement, concomitant hernia repair and risk of catheter malposition

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Background
Good peritoneal catheter function is essential to the success of peritoneal dialysis treatment. Laparoscopic conventional and modified catheter insertion is performed in this unit. Concomitant hernia repair with catheter placement is a common practice and is also performed here.

Objectives
To verify if the modified technique minimizes the risk of catheter migration and if a need for hernia repair affects a decision on the technique of catheter placement.

Methods
42 straight Tenckhoff PD catheters were placed in 39 consecutive patients with ESRD from November 2011 to March 2017. Thirty-three catheters were placed using the modified technique (group 1). The technique consists of laparoscopically-guided intra-abdominal fixation of the catheter tip at one point by using suture passer hernia forceps. Nine catheters were placed without fixation (group 2). In six patients concomitant hernia repair was performed. Information was collected and analyzed including sex, age, co-morbidity with diabetes, duration of catheter use and risk of catheter migration.

Results
The mean follow-up period was 21.7 months in group 1 and 30.3 months in group 2. Five patients in group 1 (15.2%) and one patient in group 2 (11.1%) underwent hernia repair at the time of catheter insertion. There was no significant difference between the groups in terms of age, gender, diabetes, or catheter survival. The risk of catheter tip malposition was greater in group 2, OR 9.663. The need for concomitant hernia repair did not affect the choice of laparoscopic technique: modified vs. conventional (p-value 1).

Conclusion/Application to practice
Modified laparoscopic placement of a peritoneal dialysis catheter with intra-abdominal fixation can prevent catheter malfunction due to tip migration. Hernia repair can be done safely with this procedure and does not negatively affect its possible benefit.

Disclosure of Interest
no
E-P 105
Comparing impact factors of the quality of life in peritoneal dialysis with haemodialysis
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Background
We presented our latest results of 107 patients on chronic haemodialysis in 2017 September at the 46th EDTNA/ERCA Conference.

Objectives
Our aim is to compare the data of the impact factors on the quality of life in our haemodialysis group with measures in our peritoneal dialysed population.

Methods
We asked our 39 patients on peritoneal dialysis about their health, quality of life and the satisfaction with healthcare in March 2017. We used the Illness Intrusiveness Rating Scale and the Kidney Disease and Quality of Life (KDQOL-SFTM) questionnaire. We compared the results with the data of patients on chronic haemodialysis and measured the effect of factors on the quality of life taking sex, age and co-morbidities into consideration.

Results
One third of our peritoneal dialysed patients are diabetic and half of them have got heart disease. All of them have got hypertension. The impact of illness is dominant regarding general health, nutrition and job in every age group like in haemodialysis, however the given scores were lower in the peritoneal dialysed population. In peritoneal dialysis group nutrition is seemed to be important for the men between 40-64 years. Active recreation affects mostly the younger generation. Older than 40 year old male patients on peritoneal dialysis say that end stage kidney disease has had a negative impact on their marriage. The elderly patients prioritise their family and social connections.

Conclusion/Application to practice
The peritoneal dialysis team can be the cornerstone of the patient’s adherence to the treatment so the members of the PD team should be ready to answer their patient’s questions. We still think that the engagement of a well educated dialysis nurse is essential in peritoneal dialysis as well. Our patients require help related to their problems in the healthcare and social network. Probably modality selection can be driven by the recognition of our own PD population’s necessities.

Disclosure of Interest
no
E-P 106
Highlights of last ten years of our automated peritoneal dialysis modality program in Budapest

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Background
Our question was to ask whether we had managed adequately our PD programme over the past ten years given the needs and demands of our patients.

Objectives
We collected data from our last 10 years about the most important social factors and professional decisions that could modify the choice between the two modalities, CAPD (continuous ambulatory peritoneal dialysis) and APD (automated peritoneal dialysis).

Methods
164 patients were involved into our peritoneal dialysis program in Budapest between 2007 and 2017. Data for age, gender, co-morbidities and changes in the peritoneal membrane characteristics using PET (peritoneal equilibration test) were collected. We also studied patient’s complaints about the machine which can influence their adherence to APD.

Results
The mean age of the 164 patients was 67 years. 140 and 24 patients started on CAPD and APD, respectively, and 24 patients were later converted from CAPD to APD. Mean time on CAPD was 8 months and 18 months on APD. The choice of APD in 42 cases was based on clinical or technical background, for example fast transport status or need of assistance. 7 patients in this group had active lifestyle and other social factors, too. 5 decisions were clearly driven by social factors and patient’s preference. 22 patients on APD had complaints about immobilization under the treatment, anxiety caused by the machine, pain, or sleep disturbances. Although there were 23 episodes of peritonitis in 12 patients, we did not observe significant change in their peritoneal transport status. We did not find any association between membrane characteristics and prevalence of peritonitis.

Conclusion/Application to practice
Despite the obvious presence of social factors, the selection of APD was a medical decision rather than the patient’s preference. Patients, and also the PD team need to take into consideration the impact of the APD machine on quality of life.

Disclosure of Interest

no
E-P 107
The occurrence of dermatological diseases among our peritoneal dialysis patients

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Background
Itching is a general uraemic symptom among chronic kidney patients with high waste product levels. Under adequate dialysis treatment this symptom disappears and if it does reoccur again later, we must ask the question: why? In 2017, within the same time period, we had 5 patients in our peritoneal dialysis programme who presented with itching and quite similar skin reactions.

Objectives
We tried to find out if there was a connection between the cases, or if the causes of itching were independent of each other. Our goal is to present the dermatological diseases that occurred by presenting the 5 cases.

Methods
Allergic reaction to a common source was ruled out. Each patient underwent a routine lab test, PD efficiency test, dermatological consultation and, in 2 cases a skin biopsy was performed.

Results
The methods of investigation we used resulted in 4 different diagnoses for the 5 patients with similar skin reactions. Diagnoses were scabies in 2 cases, perforating collagenosis in 1 case, morphea in 1 case and 1 patient simply had hyperphosphatemia.

Conclusion/Application to practice
Skin reaction of the itchy patient can be similar because of the scratch marks. Differential diagnostics is necessary to isolate the different diseases, which need different targeted treatments. All 5 patients have recovered, dermatology symptoms subsided and have continued PD treatment successfully.

Disclosure of Interest
no
Patient data of catheter exit-site treatment and care in Turkey

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Background
In peritoneal dialysis (PD), prevention of infectious complications is very important to increase the patient's quality of life and decrease the drop out rates.

Objectives
The aim of this study is to identify what should be done to prevent the catheter exit-site infection (CESI) in Turkey.

Methods
Population and sample of study are PD centers in Turkey (n=85). Data collected using "PD CES Question Form", that is prepared in compliance with PD guidelines. The study was completed with 54 collaborating centers.

Results
During last year the following was recorded:
- In 42.6% of the units, no CESI was detected
- In 75.9% of the units, tunnel infection was also undetected.
- In 51.9% of the units, flushing was conducted right after catheter insertion,
- In 72.2% of the units, dialysis started 2-3 weeks later
- In 72.2% of the units, the dressing was not changed unless it was wet and was renewed 1 week later
- 77.8% used betadin to clean the exit-site as unit standard care
- 37% left the CES open

Regarding the old CES care, it was detected that:
- 81.5% used betadin to clean the exit site
- 70.4% cleaned CES every other day
- 79.6% covered the exit site with gauze bandage
- 66.7% did not perform trimming when the outer web came off

Conclusion/Application to practice
At our country, these results can be useful for CES care and infection prevention.

Disclosure of Interest
no
Peritoneal dialysis as a therapeutic option in the treatment of heart failure patients

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Background
Kidney disease and heart failure have a significant impact on the patients’ lifestyle and quality of life. Treatment of an underlying heart failure requires a more extensive care.

Objectives
To examine the importance of peritoneal dialysis (PD) as an additional option in treatment of heart failure patients.

Methods
In a retrospective study from 01.01.2013 to 31.12.2015, patients who were intended for PD, were included in the study. It was performed by collecting and analysing data of 30 patients based on available documentation, during months “0”, “1”, and “6” of the PD programme. The focus was on how to insert the PD catheter, how to adjust bodyweight, urine volume, left ventricle ejection fraction (EF), serum albumin (SeAlb) level, and frequency of hospitalisation.

Results
In 2 patients with heart failure, the PD catheter was inserted under local anaesthesia using percutaneous technique and in remaining patients by laparoscopy. Patients had an average bodyweight increase of 0.8 kg by the end of first month, while at end of 6th month they had an average bodyweight increase of 1.8 kg. Two patients were anorectic at the beginning of the PD treatment. At the start of the study, SeAlb levels were below 35.0 g/l in 6 patients, average SeAlb levels 38.5 g/l at baseline, 37.0 g/l at month one, and 36.7 g/l at month 6, respectively. At the start of study, 21 patients had an abnormal cardiac ultrasound, and in 10 patients, a control test was performed. EF results improved in 6 patients, i.e. from 20% to 25% (minimal and maximal degree of improvement was 17% and 25%, respectively) on average. The number of hospital days also decreased, and there was no correlation with heart failure and kidney disease.

Conclusion/Application to practice
In addition to PD treatment, autonomy, physical condition of heart failure patients did not change or improve.

Disclosure of Interest
no
The positive healing role of family support – A young dialysis patient’s calvary

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Background
As all cases are different, families react differently to the fact that a family member becomes seriously ill, or there is a little hope for recovery.

Objectives
To present the positive effects of family care on the healing process of a young male dialysis patient.

Methods
The patient was born in 1982. He suffers from type I diabetes, and first presented to nephrology care in 2009. We started CAPD treatment in 2011. In 2012, due to an unbearable hypervolaemia, he was temporarily treated with haemodialysis therapy, and was transferred to APD.

Results
On March 31st 2014, he was admitted to the Intensive Care Unit due to haemorrhagic abnormalities in his left brain chamber and progressive fading consciousness. Skull CT showed the deterioration of bleeding. His consciousness did not show any improvement and sepsis has developed. MRSA was identified from blood culture and pseudomonas from a liquor sample. He became afebrile due to multiple antibiotic switching and his blood culture results became negative. He was temporarily fed via tube feeding. After the swelling reflex had completely returned, the tube was removed. Minimal movements started in the shoulders and in the hip, and he was mobilized into a wheelchair. Three months later, his family took him home. His mobility improved gradually with a regular physiotherapy and now, he is able to walk with a three-legged stick, and his intellectual functions have been restored.

Conclusion/Application to practice
His family was present during the entire hospital stay and he received full support from his family at home during rehabilitation phase. This level of family support, devotional help of the patient’s relatives and the will to live have a positive impact on the healing process.

Disclosure of Interest
no
Reasons for transferring diabetic patients from peritoneal dialysis to haemodialysis

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Background
For 50% of all diabetic patients, nephropathy leads to chronic kidney disease. Outcomes of the replacement therapy for patients with diabetes are much worse than uraemia of non-diabetic aetiology.

Objectives
To evaluate the risk factors for transferring diabetic patients from peritoneal dialysis (PD) to haemodialysis (HD).

Methods
The results of 234 PD treatments between 2009 and 2016 were analysed. 58 patients had type 1 and 2 diabetes, respectively. More than half of the diabetic patients were transferred to HD after an average 31 months. Less than one third of patients without diabetes was transferred to the HD approximately after 3 years.

Results
The main factor for discontinuing PD treatment was infectious complications and the second a poor filtration function and inadequate PD. Initially, diabetic patients had a slower peritoneal transport. After 2-3 years of PD treatment, about 70% of patients were medium-high or high transporters. Simultaneously, the ultrafiltration was lowered. Diabetic patients demonstrated an annual body weight gain of 5% on average. During the same period, non-diabetic patients did not demonstrate any significant variations. No differences were detected in the duration and number of cases when PD was discontinued because of the surgical pathology, the damage of the peritoneal catheter among diabetic and non-diabetic patients.

Conclusion/Application to practice
The main reasons for transferring diabetic patients from PD to HD were infectious complications and reduced transportation function of the peritoneal membrane. To reduce the risk of termination PD treatment, a proper selection of PD patients, monitoring of the adequacy of treatment, correction of glycaemia and continuous education of patients are essential.

Disclosure of Interest
no
Implementation and benefits of a quality management system in a haemodialysis unit

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Background
The need to provide high quality services during the haemodialysis treatment is a prime concern in renal care. Therefore, the implementation of a Quality Management System in a Haemodialysis Unit is a strategic decision to promote effectiveness, reliability and safety.

Objectives
The description of the implementation and benefits of the ELOT EN ISO 9001:2008 Quality Management System, for the “Provision of Dialysis Services in Patients with Renal Failure”, in a Haemodialysis Unit.

Methods
The Quality Management System required the creation of a Quality Manual which specified directives for all services of the Haemodialysis Unit.
All processes were regulated in general procedures, including the management of records and documents, human resources, supplies, environmental conditions, equipment, the Water Treatment Station, non-conforming incidents, suggestions and complaints. A flow chart demonstrated the relation of all procedures. The haemodialysis process followed specific flow charts which covered the treatment of patients on periodic hemodialysis and the hospitalized patients treated for emergency reasons.
The Haemodialysis Unit is subject to annual audit and review to ensure the continuous compliance with the quality requirements.

Results
The implementation of a Quality Management System led to the improvement of procedures and practices in the Haemodialysis Unit, which increased efficiency and safety. It enabled a more consistent and effective monitoring of processes, a reduction of deviations and unnecessary work repetition, as well as more accurate risk management. Better clinical results were achieved by the systematic follow-up, while additionally, the preventive maintenance of the medical equipment allowed for lower cost.

Conclusion/Application to practice
The implementation of a Quality Management System in a Haemodialysis Unit improves all aspects of the renal care provided, reduces operational costs and adds value of reliability and effectiveness. It leads to a cultural transformation which emphasizes the continuous improvement of the healthcare personnel and further enhances the patients’ trust.

Disclosure of Interest
no
Wiki as a work-aid for economic administrators at dialysis centres and outpatient clinics
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Background
Wiki is a generic term for a website that enables users to add new content or alter and edit the existing text. Thanks to the simple concept of a wiki, there are many implementations possible. In spite of the fact that our workplace has very sophisticated procedures in place as well as software for management, sharing and the control of documents, we have decided to introduce a new project in this area.

Objectives
To create a space with suggestions, instructions, experience and references to be used as a guide for new employees in two countries, acting as a useful assistant for existing employees and training all employees during the implementation of new procedures.

Methods
In the shared intranet space, we established the AIRwiki web page. The acronym stands for Administration, Instructions, Reports. We created a sub-page for all areas of the activities performed by financial officers at dialysis centers. Each sub-page contains instructions, graphic guides and work instructions. After the evaluation of the pilot phase of the project, we quickly identified the benefits and advantages of the wiki concept. New pages can be easily created by simply adding a link to the associated web page. The creation and editing of web pages in the intranet system ensures the uniform appearance of all web pages. The employees are thus able to easily create, assess, edit the web pages and add their own experience. The guides from the web pages can be exported into print formats for those who prefer hardcopy instructions.

Conclusion/Application to practice
AIRwiki is a welcome assistant for new employees and their trainers. When implementing electronic records of prescriptions in our country, the AIRwiki platform is now open to doctors as well. The implementation of AIRwiki or a similar concept will certainly find its place at dialysis centers in other countries as well.

Disclosure of Interest
no
Does a patient satisfaction survey contribute to the quality of care?

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Background
A regular patient satisfaction survey enables nurses to determine the level of the patients’ satisfaction with the quality of care and its' trends at each dialysis centre (DC). At our DC, we carry out the survey once per year by means of a voluntary anonymous questionnaire.

Objectives
Our project aims to continuously improve the quality of care and understand the satisfaction of our patients. Every year, we compare the opinions and priorities of the patients who have been dialyzed for less than one year with long-term dialyzed patients.

Methods
The questionnaire comprises four areas of questions related to the following categories: environment and equipment at the DC, dialysis treatment and medical personnel, quality of the provided services and demographic data.

Results
The average return rate of the questionnaires at our DC since the start of the project in 2014 has been 93.95%. In total, 169 patients responded to the questionnaires, of which 51 patients have been dialyzed for less than 1 year. The results of the survey show, that the patients treated for less than one year greatly appreciate the short waiting time before the start of dialysis treatment and are very happy with the quality of the provided information and education. On the contrary, long-term patients are happier with the overall quality of the treatment. As a challenging problem remains the dissatisfaction with the treatment room temperature, because every individual has different thermo-regulation preferences.

Conclusion/Application to practice
Our experience demonstrates that anonymous patient satisfaction survey significantly helps to evaluate the quality of patient services as well as to improve the quality of care.

Disclosure of Interest
no
E-P 115
Effect of the early diagnosis of kidney disease on the quality of life
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1
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Background
The International Federation of Kidney Foundations (IFKF) and International Society of Nephrology (ISN) declare World Kidney Day on the second Thursday of March each year. On this day, some of the dialysis centers are open to the public and everyone has the opportunity to undergo a preventative check of their kidney function.

Objectives
The objective of the “open day” at our dialysis center is to support the prevention of kidney failure, to raise the awareness of the public and to increase efforts for the early diagnosis of kidney disease, which is essential for the quality of life and life expectancy of patients.

Methods
The examination includes the determination of the body mass index (BMI), blood pressure and glycaemia measurements, determination of risk factors such as diabetes mellitus, hypertension, obesity, age above 50 years, smoking and family history as well as urine examination. As a part of the prevention, we introduced a quick online test “Kidney calculator”, which can be used for kidney disease assessment and recommend further procedures.

Results
Our dialysis centre joined the World Kidney Day in 2014 and we examined 106 individuals so far. Forty-two patients were referred to their general practitioner and 15 patients were referred to the nephrology department.

Conclusion/Application to practice
The aim of the preventive renal examination is to enable the early detection of kidney disease and increase efforts to check and intervene in high-risk individuals. The late diagnosis of kidney disease has usually impact on the quality of life and life expectancy of patients. This is one of the major reasons, why we place such a great emphasis on the early kidney disease detection.

Disclosure of Interest
no
Nursing care coordinators at dialysis centers

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Background
The permanent development of new technologies and changes in the structure of our patients (increasing mean age and increased occurrence of co-morbidities) requires the modification of the approach as well as the adjustment of the nursing care process. Continuously increasing demands in individual nephrology nurse specializations (vascular access, nutrition, social area) requires a comprehensive approach ensuring the implementation of new knowledge and procedures at individual workplaces.

Objectives
Introduce a system ensuring the implementation of new knowledge and procedures in nursing care.

Methods
Introduction of nursing care coordinators at individual dialysis centres. These nurses receive intensive training in the areas of their competencies and the knowledge is transferred to other nurses as well as to patients through on-site mentoring.

Nursing care coordinators:
- Nutrition
- Vascular access
- Hygiene
- Peritoneal dialysis
- Quality
- Social care

Results
After the implementation of the coordinators, we were successful in increasing the quality of nursing care – including the elimination of infections, improvement of the nutritional status of the patients and appropriate set-up of the processes ensuring safe-care for patients.

Conclusion/Application to practice
With the cooperation of the entire multi-disciplinary team, it is possible to achieve satisfactory outcomes and maximum patient adherence. Coordinator nurses help the patients to adapt better to dialysis therapy, and at the same time, they can monitor the quality of the comprehensive dialysis therapy. When the patients are adequately informed, they have a better chance to preserve their existing quality of life. The priorities of each dialysis centre should not only involve the proper adjustment of treatment parameters, but especially to have happy patients.

Practical Recommendations: Introduction of nursing care coordinators at dialysis centres.

Disclosure of Interest
no
E-P 117
Depression in dialysis patients
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Background
The poor cooperation of a dialysis patient with the healthcare staff remains a pressing problem at many dialysis centres. The result is significantly reduced patient adherence to therapy. One of the most common reasons for poor cooperation is the often forgotten depression. The early diagnosis, treatment and identification of the risk and protective factors have a profound effect on the course of the therapy and quality of life of dialysis patients. Life with dialysis is complicated even without depression, and with depression it becomes an unbearable burden for patients. It has been reported that 30% of the dialyzed population suffers from depression. Depression is thus considered a common complication of dialysis therapy.

Objectives
Map the level of depression in dialyzed patients.
Evaluate the degree of depression in the surveyed patients.
Improve the quality of the care provided.

Methods
As part of the effort to identify the degree of depression in dialysis patients, we decided to carry out the research survey in the form of anonymous generic questionnaires. The standard Yesavage depression scale was used for the evaluation. We worked with 80 patients at our dialysis centre.

Results
We mapped the level of depression in the dialysis patients. The analysis helped to demonstrate the higher incidence of depression in dialyzed patients and its prevalence at the researched centre.

Conclusion/Application to practice
In order to improve the quality of healthcare, our suggestion is to introduce early mental status diagnostics for new patients enrolled in the dialysis program. Structured questionnaires should be used as part of the baseline screening. Alternatively a physician - psychologist should be hired by the centre as part of a multi-disciplinary approach.

Disclosure of Interest
no
Therapy-oriented system connects the dialysis world and information technology

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Background
A Romanian private haemodialysis network should adapt to the growing number of patients. The challenge was to find ways to deal with the increasing time pressure and additional tasks for medical staff. The smart solution was found in one of the newest IT and communication systems technology. An integrated patient therapy-oriented system for data management was already successfully implemented in 7 dialysis units and will continue to be implemented in all the other 29 clinics of the Romanian network.

Objectives
To provide the medical staff with the right IT technology to facilitate data input and data processing while simultaneously increasing efficiency.

Methods
The system was connected to scales, dialysis machines, blood pressure monitors, and blood gas analysers. Patient cards play a central role as a form of identification and storage medium for information about prescription and treatment data.

- Automatic recording of the pre- and post-dialysis patient weight
- Automatic treatment documentation
- Integration of peripheral devices

Improved workflow through bed-side exchange monitoring panel

Results
All clinics achieved the following goals:

- Optimisation of resources and therefore more time for patient care
- Increased accuracy of compiled data

Medical data at a glance

Conclusion/Application to practice
The therapy-oriented system proved to be a reliable and flexible solution ensuring an effective and safe support of our day-to-day work in our dialysis clinic. We can obtain maximum accuracy and efficiency in real time if we react fast enough in this amazing world of state-of-the-art technology. This is advantageous for patients, medical staff, shareholders and the wider community alike.

Disclosure of Interest
no
Safety of haemodialysis patients – The risk of falling

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Background
Patients' safety comprises all measures and procedures for identifying, analysing and managing risks or incidents that a health organisation adopts to provide safer services and minimise the risks of affecting patients. The first five patient safety issues in the dialysis centres are:
- falls,
- medication errors,
- access-related events,
- dialysis errors,
- loss of excess blood or prolonged bleeding.

Objectives
To increase the patient's safety by limiting and avoiding incidents through falls.

Methods
We designed a screening questionnaire to determine the degree of patients' falling risk. In these questionnaires, the patients get one point if they had balance problems, lower limb problems, impaired vision, suffered from postural hypotension, needed walking aids, suffered from falling, are confused, disoriented, agitated, anxious, and take special medications. The higher the score it, the more the patient needs to be supervised and accompanied. With the questionnaire, patients were identified and ranked with a score and depending on the score they were followed, supervised and attended.

Results
After the questionnaire was distributed, the following scores were awarded:
Of a total of 89 patients 49.43% of the patients achieved the score of 0 points so they do not have any problems 51% the patients have different scores: 24% had a score of 1; 22% had a score of 2; 16% had a score of 3; 22% had a score of 4; and 16% had a score of 5 and thus a relatively high falling risk.
Analysing the data collected through the questionnaire it was revealed that 21% of patients had balance disorders, 17% had lower limb problems, 12% had an impaired vision and 10% suffered from postural hypotension.

Conclusion/Application to practice
Following the application of the patient's fall risk screening and scoring, patients were monitored, accompanied, tracked in dependence of the score they obtained and finally no incidences were observed related to falls.

Disclosure of Interest
no
Corrective and preventive actions in our network

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Background
In our network, our audit system uses a risk-based approach. In 2017, the first 3 years cycle was completed. Any deviations are documented in a corporate programme. Beside these cases, an electronic Corrective And Preventive Action (CAPA) system was developed locally by our quality management team.

Objectives
- To ensure highly professional suitability for standards
- Obtain outstanding patient care by identifying deviations
- Evaluate processes and requirements
- Set-up corrective and preventive actions to improve efficiency and flow.

Methods
CAPA process:
1. Identification of non-conformity: any requirement (specification, standard, expectation) that is not fulfilled.
2. Immediate action and root cause analysis: analysis of non-conformity, determination of severity level.
3. Corrective and/or preventive actions; solutions that are suitable for eliminating identified root cause, so prevent the occurrence of non-conformity. Appointment of responsible persons and fixing required deadlines.

Results
Initiation and development of all CAPAs through application of a new CAPA system is done electronically with common deadlines of 3 months.
Step 1: Submitting a claim to the quality management representative to launch a new CAPA, providing basic information.
Step 2: Description of non-conformity and immediate actions, attachment of documentation.
Step 4: Investigation of non-conformity, determination of root cause.
Step 7: Development of CAPA plan.
Step 10: Introduction of CAPA, evidences.
After each step is made by CAPA owner, the quality manager (steps 3, 5, 9, 12, 14) with approval by the supervisor (steps 6, 8, 11, 13)
In the final step, the general manager decides about the effectiveness of CAPA.

Conclusion/Application to practice
Using developed application (electronic CAPA system) in the last 3 years, 23 effective CAPA processes have been completed after examination of efficiency at 3 different levels. In all cases, identification and traceability were the main focus.

Disclosure of Interest
no
Quality management in dialysis from the nurse’s point of view

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Background
Our mission is to increase the level of satisfaction of our patients and meet their requirements. During our daily work, errors and mistakes must be prevented by concentrated work in all areas. We improve our performance by:
- Identifying root causes of errors,
- Evaluating risk-based aspects,
- Strengthening team spirit,
- And focusing on patient care.

Objectives
To investigate the quality management in dialysis from the nurse’s point of view.

Methods
In our clinic, there was a change in the position of the head nurse in 2013 and the local tasks were reorganised individually. We reviewed and evaluated our results with our manager’s support. Every area was examined thoroughly modified and corrected according to the ISO (International Organization for Standardization) standards and professional guidelines. Patient perspectives were measured by means of appropriate indexes of balanced scoreboard (BSC) strategy and performance management tool.

Results
In 2013, we observed 19 minor non-conformities (MiNC) (including 5 nursing professionals), 1 medical professional major non-conformity (MNC) and 6 recommendations reported by the audit. Patient satisfaction was 79.8%.
In 2014, we received 1 MNC, 2 MiNC, and although a nursing professional non-conformity was not observed, 1 recommendation was made. Patient satisfaction was 93.77 %.
In 2015, there wasn’t any non-conformity, only 7 recommendations. We received the “best practice” for education and body composition measurement. At this time, patient satisfaction was 100%. All identified problems were eliminated, in all cases by an evidence-supported process.

Conclusion/Application to practice
TEAM coordinated work is required to achieve the results.
The use of ISO system is not always easy and understandable, but in case of a correct application and with necessary help, the quality of care can be improved. Therefore, we have to identify our tasks, striving to solve any problem.

Disclosure of Interest
no
E-P 122
Improving patient outcomes by focussing on staff training and education

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Background
It is widely recommended that dialysis adequacy should be reviewed regularly. Reviews allow adjustment of dialysis therapies and associated treatments with the potential to improve dialysis adequacy and thus achievement of key performance indicators (KPIs). For staff to be able to undertake such reviews they must have the underpinning knowledge and understanding of the KPIs and how data capture influences data accuracy.

Objectives
Key objectives;
1. Target 15 dialysis units where KPIs were not consistently being achieved.
2. Introduce an educational programme which focussed on the importance of accurate data input into the clinical database.
3. Assess if the KPIs improved following the training.

Methods
Experiential learning consisted of delivering new mandatory study days for all new employees. Training was also delivered in the dialysis units one to one with the clinic manager. The data were then reviewed on a monthly basis.

Results
Following a total of seven study days and two virtual classroom training events 91 members of staff received targeted training. 87% (n=13) of the dialysis units saw improvements in the dialysis dose KPI. The remaining 2 initially reported improvements however these were not sustained due to factors not associated with the educational programme.

Conclusion/Application to practice
The improvement in KPIs support the value of a targeted educational programme. In order to maintain this focus on improving data accuracy a further 24 study days and six virtual classroom events are scheduled for 2018. The success of the project has confirmed that education is the key to improving patient outcomes.

Disclosure of Interest
no
Implementation of Lead Nurse monitoring visits to promote continuous quality improvement

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Background
Supporting a network of geographically dispersed satellite dialysis units in order to promote compliance with clinical practice with a focus on continuous quality improvement (CQI) and patient safety is challenging. Therefore in 2018 a targeted supportive approach was introduced by means of Lead Nurse monitoring visits using a purpose built monitoring tool.

Objectives
1. Perform a minimum of four Lead Nurse monitoring visits in all units across the network of dialysis units by the end of 2018
2. Provide dialysis unit specific action plans to promote CQI
3. Recognise/share areas of good practice.

Methods
Application of the purpose built monitoring tool to focus on critical elements of the haemodialysis process for example;

- Haemodialysis clinical practice
- Infection prevention/control
- Patient records
- Medicines management.

Immediate dissemination of the monitoring visit findings and development of local unit specific action plans to drive CQI. Collation of results into a central database to allow analysis of trends, areas of best practice or identification of risk. Use of a risk-based approach as a trigger for further unannounced audits/inspections. Monitoring of action plans to track CQI.

Results
To date 23 monitoring visits demonstrate an average score of 86% (Range 76.35% - 100%). This weighted scoring system produces a visual display of the results “Red, Amber and Green” (RAG). The RAG display of results provides a clear view of good practice and areas for CQI.

Conclusion/Application to practice
Early results have identified several areas for CQI which have had a positive impact on patient care, patient safety and have enhanced compliance with critical elements of the haemodialysis process.

Disclosure of Interest
no
The role of combined critical and nephrology care in acute aluminium phosphide intoxication

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Background
As a dialysis nurse, encountering interesting toxicological cases rarely occurs. This case was especially interesting for us because the poisoning occurred with such a toxic material, about which we couldn't find any relevant data, either in our domestic nor in international medical literature.

Objectives
Aluminium phosphide is a highly toxic industrial fumigant which, upon reacting with water or humidity, will produce the highly toxic gas phosphine. There is no known antidote whatsoever.

Methods
A young adult male ingested in error 1 single tablet of aluminium phosphide (Quickphos) stored in a bottle of over the counter magnesium preparation. Within a few hours, he developed profound metabolic abnormalities and severe circulatory collapse, unresponsive to multiple vasoactive pressor infusions (dobutamine, noradrenaline and adrenaline), and requiring further circulatory support with an intra-aortic balloon pump. He quickly developed full-blown multiple organ failure of the kidney, liver and lung functions and needed mechanical ventilation (MV).

Results
Due to persisting metabolic acidosis with profound lactate accumulation, a temporary jugular hemodialysis (HD) catheter was placed and renal replacement therapy (RRT) was initiated, at first with conventional HD, and later on, converted to slow-efficiency extended HD up to 8-hour session to optimize haemodynamic stability. Altogether, he received three sessions of RRT with subsequent haemodynamic stabilization, and with good recovery from metabolic acidosis and oligo-anuria. MV support was ceased on the 11th hospital day; at the time of Rehabilitation transfer (20th hospital day), he had only mild dysarthria and mild left-sided facial and upper extremity weakness.

Conclusion/Application to practice
Our case documents successful recovery from severe multiple-organ failure and metabolic acidosis due to aluminium phosphide with RRT and the value of close coordination of care between Nephrology and Critical Care. RRT should be strongly considered in suspected cases of phosphide toxicity.

Disclosure of Interest
no
Experience with AVF – from the patient’s perspective

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Background
Pain is an integral part of every human being and as such presents an unavoidable experience for every human being. Because of the complexity of this phenomenon, it is the subject of many multidisciplinary research projects.

Objectives
To measure the degree of pain patients experience during the arteriovenous fistula (AVF) cannulation and to encourage them to talk about their fears and problems in connection with the AVF. To improve healthcare, provide psychological support to patients and create more convenient environment for teamwork.

Methods
A questionnaire was developed to create the true snapshot of the patient’s perception of pain regarding AVF puncture. To be more objective, we used Linkert’s scale and scale of pain.

Results
The survey was completed by 48 patients, 44.5% were females and 55.5% men with an average age of 62 years. 95.84% of patients had an AVF. Two patients used a local anaesthetic. The majority of respondents thought that AVF cannulation is not a very painful feeling and chose the lowest intensity on the scale of pain.

Conclusion/Application to practice
The AVF puncture site should be changed wherever possible to reduce the visibility of aneurysms, which, by results, have a bad influence on the self-confidence of patients. Thanks to the survey, a good communication and an open ear for the patient’s problems we were able to improve cooperation and interpersonal relationships. Any exchange of information between nurses and patients is one step forward in the prevention and reduction of complications.

Disclosure of Interest
no
Experiences of living with end-stage renal disease prior to a kidney transplantation

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Background
Renal transplantation is a well-established treatment for end-stage renal disease. The prevalence of end-stage renal patients in Denmark is increasing. Simultaneously, kidney transplantsations with a living donor increase. However, patients experience challenging existential aspects as well as physical complications concerning kidney transplantation.

Objectives
The aim of this study is to investigate the experiences of patients living with end-stage renal disease prior to a kidney transplantation with a living donor.

Methods
The study has a qualitative approach inspired by Ricoeur. Fifteen individual interviews with patients living with end-stage renal disease are conducted 7-14 days before a planned kidney transplantation with a living donor. Analysis and interpretation are based on Ricoeur’s theory of interpretation.

Results
The preliminary findings show that patients with end-stage renal disease experience living with an invisible condition with no outward signs of their illness and existential contractions. The perception of the body are divided in subjective feelings in accordance with their feelings of illness, but at the same time, the patients are objectifying their body in numbers regarding the function of the kidneys. Receiving a kidney from a living donor are perceived as the greatest gift in life, but the patients are simultaneously worrying about consequences for the donor after the transplantation. Furthermore, the patients are facing the unknown prior to a kidney transplantation. Accordingly, they are taking one day at a time, but still they have hope regarding having their life back.

This study is conducted to increase the knowledge of the experiences of individuals living with end stage renal disease. Hereby, the results articulates the need for support from health professionals prior to a kidney transplantation. The interviews will be repeated with the same patients approximately ½ year after the kidney transplantation to explore the needs of rehabilitation after a kidney transplant.

Disclosure of Interest
no
Patient care course: Pre-dialysis introduction and personalized training

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Background
Against the background of health democracy and improvements in quality of care we reconsidered the reception of patients at our institution. Today, patients want to be informed in order to better understand their illness and treatment procedures.

Objectives
To create a multidisciplinary welcome package for new patients and enable them:

▪ to actively participate in their care and make an informed treatment choice.
▪ to receive information and learn skills for greater autonomy.

Methods
• We established a regional caregiver-patient working group which developed benchmarks (10), liaison and traceability documents (4), interview guides (2) and comprehension tools (21)
• We established 2 consultations (announcement, pre-dialysis consultation) + 1 training.

Results
Patients involved in the project development (n=14):
▪ felt involved in clinical procedures
Patients who completed the patient care course:
▪ are informed about their support and treatment possibilities and can make a free and informed choice
▪ know the environment and staff before their first dialysis session
▪ are accompanied and informed about their treatment
Caregivers involved in the development of consultation tools (n=16):
▪ accompany the project and make it known
Counseling nurses (n=5):
▪ trained in therapeutic education
▪ make use of their patient coaching skills
▪ The users and staff were satisfied with the multidisciplinary welcome approach including a patient care course for new patients and nursing consultations

2015, No consultation
2016, 15 consultations: 11 announcements of dialysis start, 4 pre-dialysis
2017, 73 consultations: 52 announcements of dialysis start, 21 pre-dialysis + 7 programme ATENA (=training)

Conclusion/Application to practice
The earlier a patient is taken care of, the better they may be prepared for dialysis and accept education and training.

Disclosure of Interest
no
Assessment of dialysis patients satisfaction needs in relation to clearance and impacts on care

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Background
Chronic Kidney Failure is a serious chronic disease that has a negative impact on the quality of life of patients. Dialysis and peritoneal dialysis are alternative rehabilitation therapies with which partial rehabilitation of renal function is achieved.

Objectives
The investigation of biological, psychological, social, spiritual needs, and the effects of lack of satisfaction in the quality of life of patients with chronic renal insufficiency at the end stage.

Methods
For the collection of data, qualitative research was carried out. Using semi-structured personal interviews, patients’ needs and their satisfaction from the care provided were evaluated. In the study, 25 patients were enrolled, of whom 20 received Chronic Periodic Dialysis and 5 Peritoneal Dialysis, at the General Hospital of Limassol, Cyprus.

Results
Major needs from peritoneal dialysis patients are: From the biological aspect: the need to prevent peritonitis. From the psychological aspect, fear of peritonitis. From the social aspect, the need for family support and the need for support from the personnel of the peritoneal dialysis department. From the spiritual aspect, the need of hope. For the long-term haemodialysis patients: From the biological aspect: the need to comply with nutritional constraints. From the psychological aspect: the need to reduce stress and anxiety / stress of the machine. From the social aspect: the need for a supportive family environment. From the spiritual aspect: the need for faith in God. They also express their satisfaction of the support of their families and their friends. Most patients in both groups consider their treatment to be effective, and their relationship with medical and nursing staff are very good to excellent.

Conclusion/Application to practice
The results of the study showed that end-stage chronic renal impairment seems to affect patients at a holistic level undergoing renal replacement therapy and consequently affects their quality of life and their families.

Disclosure of Interest
no
E-P 129

Awarding smileys leads to positive phosphate control scores in chronic haemodialysis patients

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Background

Effective serum phosphate control has been associated with improved cardiovascular outcomes. However, this is limited by medication compliance issues given the fact that patients have to take an average of 8-9 pills. Another limiting factor seems to be the motivation of patients.

Objectives

To evaluate the effect of awarding patients on a monthly basis with a smiling emoji for their serum phosphate control in a dialysis centre of a network in Turkey.

Methods

All chronic patients (n=146) receiving maintenance haemodialysis in the unit were given a smiley sticker if they were able to maintain their phosphate control levels between 2.5-5.5 mg/dl throughout 2017. Serum phosphate levels were read to the patients by the consultant every month and the smiling emoji put on the front cover of their file if they reached the target. The dialysis practitioner, head nurse and all nurses were also aware of the programme and gave the patient positive and negative feedback if they achieved a positive outcome. Positive feedback was enthusiastic and negative feedback advisory.

Results

37 of 146 patients received a smiley for all 12 months (25.3%). This result was very positive for the researchers. As a reflection of the effective phosphate control, clinic’s phosphate control parameter in the Balanced ScoreCard increased from 67.6% to an annual average of 75.9% (12.2% increase).

Conclusion/Application to practice

Various positive motivation methods to increase the patient medication compliance may lead to improved serum phosphate control. Awarding a simple smiley emoji may be part of the serum phosphate control strategy.

Disclosure of Interest

no
E-P 130
Attitude toward organ donation related to the age structure in Montenegro
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Background
One of the most important segments of the transplantation program is raising and disseminating knowledge about the importance of transplantation in professional and non-professional public.

Objectives
To determine whether the age of the respondents has an impact on the views on organ transplants and organ donations.

Methods
The research was conducted in Montenegro. Data collection was carried out using a questionnaire with the method of personal contact. The research was designed as a cross-sectional study. The sample was formed by random selection, and it consisted of 400 adult citizens, of which 200 participants are health workers and 200 participants are from the general population.

Results
Respondents older than 56 were the less informed about the term "organ donation", with the smallest percentage (71.7%). The difference with those of other age groups is statistically significant (p = 0.000). Although they are least informed about the term "organ donation", persons over 56 years of age have stated in the largest percentage that regardless of their circumstances they would donate their organs (21.1%), which contrasted with the percentage of respondents aged between 46 and 55 years (5.2%). According to this parameter, there is a statistically significant difference in subjects in different age categories (p = 0.015).

Conclusion/Application to practice
There is no significant difference in attitude toward organ donation regardless of circumstances, between health professionals and the general population. Concerning the attitude toward organ donation related to the age structure of the respondents, those older people would prefer to donate their organs, regardless of circumstances, in a higher percentage.

Disclosure of Interest
no
Kidney transplantation in patient with DiGeorge syndrome

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Background
DiGeorge syndrome is a syndrome caused by the deletion of a small segment of chromosome 22. While the symptoms can be variable they often include congenital heart problems, frequent infections, developmental delay. The associated condition includes kidney problems, hearing loss, and autoimmune disorders such as rheumatoid arthritis or Graves disease. Congenital kidney and urinary tract anomalies are present in approximately 30% of the patients with the DiGeorge syndrome.

Methods
Case report study.

Results
Male patient, diagnosed with DiGeorge syndrome and 22q11.2 deletion in early childhood, manifested with seizures due to hypocalcemia in the first year of life. Diagnostic investigations of hypocalcemia revealed hypoparathyroidism, an absence of thymus and partial T cells immunodeficiency. In the next period, he had frequent infections of respiratory and GI tract and the severe hypacusia. He was treated with analogs of vitamin D and calcium preparations. At the age of 23 elevated levels of serum creatinine and urea were first noticed. In the next few years, he developed CKD (chronic kidney disease) and arterial hypertension. At the age of 33, he developed ESRD (end-stage renal disease). He was treated with renal transplantation from living related donor at the age of 33, without complications. We used basiliximab in induction therapy and standard protocol with tacrolimus, mycophenolate mofetil, and steroids. Although many years of CKD, due to hypoparathyroidism in DiGeorge syndrome, he did not develop CKD MBD or its complications. In perioperative, postoperative period and afterward, he was treated with calcium preparations and vitamin D supplements. In a year of follow up, until now, his graft function was stable, without rejection or immunosuppression complications.

Conclusion/Application to practice
22q11.2 microdeletion syndrome (DiGeorge) is a common cause of renal tract malformations, CKD and ESRD and all patients should be monitored for renal function. They could be also successfully treated with kidney transplantation with adequate follow up.

Disclosure of Interest
no
Renal transplants’ deficit in Europe. Crisis or a chance to reconsider our actions?

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**Background**
Renal transplantation is a great medical success. Unfortunately, this success is overshadowed by the continuing deficit of transplants. Attempts to resolve this problem in the European countries did not lead to the expected outcome.

**Objectives**
The aim of this presentation is to identify the reasons responsible for transplants’ deficit and all affecting variables.

**Methods**
An extensive literature review was conducted. European legislation, strategies, and successful transplantation models were studied.

**Results**
Transplantation strategies vary broadly in European countries. Different outcomes and common difficulties exist. Culture, education level, place of residence, gender and religious beliefs alter the perception of the donation idea. Lack of knowledge on brain death diagnosis, insecurities on the transparency of medical practices, organ trafficking, and numerous law variations - even among the countries of the European Union - creates fear and controversy. Research also has shown that prevention and risk factors modification seem to be the new path ahead, but before we successfully reach those two goals, efforts should mainly focus in increasing donation focusing on post-mortem donors; updating and improving the existing transplant programs; and consolidating control mechanisms and legislation covering all aspects of transplantation.

**Conclusion/Application to practice**
Understanding what the population of each European country knows, believes, expects and wants regarding organ donation and transplantation, is the base on which the future transplantation models will be built upon. Systematic efforts, long-term strategies and common front focusing on ethics, safety and equality is the key to stop fear and doubts. The two-way knowledge seems to be the key to this long-lasting crisis.

**Disclosure of Interest**
no
E-P 133
The fate of transplanted patients who returned to the dialysis program 1976-2017

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Background
From our nephrological medical area (Vas county, 250 thousand citizens) the first patient to get a kidney transplant (Tx) was in 1976. Since then with a total of 219 patients, 248 Tx were carried out.

Objectives
The fate of patients who returned to dialysis program after a previous Tx.

Methods
During the past 42 years 54 patients (25% of those who got transplants) returned to the dialysis program: 31 men and 23 women. The used statistical methods were Excel + SD.

Results
Of the 54 patients returning to dialysis. 26 people died in the 2nd or 3rd dialysis program. 22 were still living at the end of 2017, after 2 successful Tx, with working grafts. 6 patients are still in the dialysis program currently.

The average survival of the 54 patients with kidney transplants (till their death or at the end of 2017) was 16,4±5,9 years. From this the patients lived 8,1±6,3 years with transplanted grafts, and 8,3±4,5 years in dialysis altogether.

The time spent in the first dialysis period was shorter (3,2±2,8 years), than the second period (5,0±3,9 years).

It was surprising, that only half of the patients (27 people) under transplant care started back on the dialysis program in a planned way (27 people with temporary cannula).

Conclusion/Application to practice
A quarter of the transplanted patients returned to the dialysis program in the past 42 years. The nephrological and transplant treatments lengthened their lives by 16 years on average. 28 of them are still living, and from the 6 recently dialyzed patients 5 are on waiting list again. We changed our immunsupressive regime in the early 80s (from azathioprime to calcineurine inhibitors). We use Mycophenolat mofetil and m-TOR inhibitors from the end of 90s.

Disclosure of Interest
no
Correction of refractory hypokalemic hypomagnesemia by initiating haemodialysis

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Background
Magnesium is the second most abundant intracellular cation and the fourth most abundant cation in the body. Hypomagnesaemia is associated with various clinical conditions, refractory electrolyte deficiency and hormonal imbalance. Our case illustrates the importance of correcting hypomagnesaemia.

Methods
A 50-year-old man is a known case of nephronophthisis who has been transplanted three times. His interrogatory is significant for chronic renal rejection, rapamycin-induced bronchiectasis, and destabilizing polyneuropathy. His medication includes cyclosporine, prednisolone, furosemide 60 mg, atorvastatin, trimethoprim/sulfamethoxazole, mycophenolate mofetil, 3 grams of potassium chloride, pantoprazole, calcium carbonate and high dose pregabalin. Laboratory data show a decline in his creatinine clearance and anaemia. There is a dramatic fall of magnesium at 0.12 mmol/l (0.7–1) and erythrocyte magnesium level at 2.10 mmol/l (2.21-3.51) with normal TSH and intact PTH. Patient convinced to start twice-weekly haemodialysis under high-level magnesium dialysate 0.75 mmol/l. Magnesium level regains its normal level after stopping cyclosporine and having haemodialysis twice-weekly for six months. Erythrocyte content of magnesium shows gradual increment faster than the normalization of blood level. After one year, magnesium level was at 0.5 mmol/l for erythrocyte of normal value at 2.72 mmol/l. Moreover, serum magnesium level normalized by the second year of haemodialysis.

Results
Severe hypomagnesaemia is well known to be associated with clinical neuromuscular disorders, electrocardiographic abnormalities and resistant electrolyte homoeostasis. He was having persisting hypokalaemia. Cyclosporine treated transplanted patients usually exhibit hypomagnesaemia requiring magnesium supplementation. Initiation of haemodialysis and the discontinuation of cyclosporine provide a prompt improvement of serum level magnesium while other drugs were maintained. This event was probably avoided in the presence of residual renal function and combined cholecalciferol/calcium intake.

Conclusion/Application to practice
Correction of hypomagnesaemia by hemodialysis allows better control of recurrent hypokalaemia.

Disclosure of Interest
no
Challenges in treatment and preparation for preemptive kidney transplantation in people with special needs
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Background
In this paper we will present a case study of a patient with psychomotor retardation who was treated and prepared for kidney transplantation in the department's outpatient clinic.

Objectives
Psychomotor retardation is a limitation of intellectual ability and reduced capacity in daily functioning. Causes are unclear in 30-50% of cases. Symptoms of psychomotor retardation are mainly behavioral. Its treatment is not universal but there are four basic strategies as well as a combination of pharmacotherapy.

Methods
Psychomotor retardation is a relative contraindication for kidney transplantation. Until recently, it was wrongly believed that people with mental disabilities were absolutely contraindicated for kidney transplantation.

Conclusion/Application to practice
Clinical trials and the case study from our department show that graft survival and life expectancy in patients with psychomotor retardation are similar to those in the control group.

Disclosure of Interest
no
One kidney transplantation might not be enough, a girl after two living-donor transplantations

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Background
A 15 year old girl was admitted with acute kidney injury. Due to hyperkalaemia and severe azotaemia, haemodialysis was initiated immediately.

Objectives
To find out whether the parents are suitable for living donation.

Methods
Biopsy revealed tubulo-interstitial nephritis with extensive fibrosis. Both parents are a possible donor, but due to her father’s physical work her mother was chosen.

Results
After successful preconditioning the mother’s left kidney was taken out and was implanted into the young girl without any problems, although the kidney had a dual arterial branch which was resolved before the implantation. After 2 days, the patient’s renal function had almost normalised and she was getting better, when macroscopic haematuria occurred with abdominal pain. After a while she developed a haemorrhagic shock requiring revision surgery. A leakage was identified due to necrosis of both the iliac and renal arterial wall. Primary re-implantation of the transplanted kidney was impossible and a venous patch was required to cure the deficiency. The recovery after the graftectomy was normal, and she returned to chronic dialysis care. Two months after the transplantation, she was operated again with abdominal pain and signs of retroperitoneal bleeding. This was attributed to an iliac artery pseudo-aneurysm and a patch graft was required. After the second life-threatening bleeding she recovered again and visited the dialysis centre three times a week. Everyone could see that this was not a life that a typical teenager needs. Her father took up a new job to be the second donor. After detailed examination, the second living-donor transplantation was performed successfully.

Conclusion/Application to practice
1 year after the successful surgery, the patient and her parents are doing well and the patient has a renal function classified as chronic kidney disease stage II. Neither she nor her parents need renal replacement therapy.

Disclosure of Interest
no
Intraabdominal lymphnode tuberculosis as an important differential diagnosis of protracted febrility in transplanted patients

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Background
While the incidence of tuberculosis is steadily decreasing, tuberculosis still presents a complex and important diagnostic problem, especially in an immunocompromised population and when presenting in extrapulmonary locations.

Objectives
We present a case report of a renal transplanted patient presenting with febrility due to intraabdominal tuberculosis.

Methods
The patient was a 71-year old woman who had undergone cadaveric renal transplantation in 2007, probably due to diabetes, and was currently on maintenance immunosuppression. The patient presented in another hospital with high-grade fever and lower back pain. She was diagnosed with necrotic lymph nodes in the abdomen between the aorta and inferior vena cava with dimensions 26x37x70 mm. Serology revealed positive IgG and IgM toxoplasmosis antibodies and therapy with pirimethamin and sulphadiazine was initiated, but with no clinical response.

Results
The patient was referred to our institution and an explorative laparotomy carried out with subsequent lymph node punctation and drainage which revealed acid resistant bacteria finally identified in cultures as mycobacterium tuberculosis. Maintenance immunosuppression was de-escalated and therapy with 4 antituberculotics (pyrazinamide, rifampicin, isoniazid, etambuthol) and other empiric antibiotics was immediately initiated with good initial response.

Conclusion/Application to practice
Intraabdominal lymph node tuberculosis is an important differential diagnosis of protracted high-grade fever with lower back or abdominal pain in transplanted patients on immunosuppressive medication especially in older population and must be taken into account due to highly-specific treatment regime.

Disclosure of Interest
no
Experiences with a tunneled permanent central venous catheter in our haemodialysis patients (2007–2017)

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Background
In the United States 60-82% of incident HD patients start with a catheter. Up to 33% of patients in Canada are dialysing with tunneled catheters. Because of the difficulties of fistula creation, in elderly patients with arteriosclerosis we were forced to implant a permanent central venous catheter (PC).

Objectives
To follow up the fate of haemodialysis patients supplied with a PC.

Methods
Between 2007 and 2017, we performed 387 PC implantations in 275 patients in our Centre. In 64 patients the PC was the primary access, while in 211 cases the patient had already received treatment in a peritoneal dialysis (PD) or haemodialysis (HD) program [through an arteriovenous fistula (AVF)]. The used statistical methods were Excel mean + SD.

Results
The patient’s mean age at the beginning of HD was 68.4±12.9 years, while the average time spent in the dialysis program was 4.0±3.8 years. The technical survival time of the PCs was 33.4 (1–181) months in average. In the 10-year period of study, 166 patients (60%) did not have a cannula infection, while in 109 patients infection was observed on a total of 299 occasions (0.032 case/1 patient month). Exit site infection occurred in 163 cases (0.017 case/1 patient month), tunnel infection in 46 cases (0.0049 case/1 patient month), while bacteraemia was observed in 90 cases (0.009 case/1 patient month). We lost 21 patients because of PC-induced septicaemia.

Conclusion/Application to practice
The use of a PC is a ‘makeshift solution’ in haemodialysis (the creation of an AVF is the primary option). If the treatment of patients cannot be continued by PD or via an AVF by HD, with the help of an implanted PC we managed to double the survival of patients. The proposition of patients with tunneled catheters is also high (39.3%) in our dialysis center.

Disclosure of Interest
no
Fistula at first dialysis confers significant health and financial benefits during first dialysis year

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Background
The concept of fistula first (FF) is well established as the gold standard although recently some reports have suggested that it comes at a financial burden to the health economy. FF was commenced in Abu Dhabi in 2014. In 2012 and 2013 only 2.1% and 2.6% respectively of patients had a fistula prior to beginning treatment.

Objectives
To assess morbidity, mortality and health costs during the first year of dialysis.

Methods
A retrospective study - lasting one year - of all patients commencing dialysis in the government health system of Abu Dhabi during 2015. To examine sepsis, hospitalisation, interventional radiology and all-cause mortality.

Results
In 2015 296 patients commenced haemodialysis (192 male, age 53.6 years, 175 diabetic). Emiratis were older than expatriates (57.7 v 51.9 yrs P<0.006) as were diabetics (61.0 v 42.9 yrs, P<0.001). FF was possible in 49 patients (16.5%) who were older than the non FF patients (59.9 v 52.4 yrs, P<0.006). FF was more likely in diabetics 35 of 175 (20.0%) than in non-diabetics 14 of 121 (11.6%). In the FF group there was 1 death in the first 12 months compared to 9 in the non FF group. An additional 23 patients had a fistula created which was not used. Of these 6 went on to have a second AVF created, of the remaining 17 the mean time to AVF use was 138 days. The FF patients had a mean of 8.9±3.7 inpatient days (all cause), 1.1±0.5 day (access related) and 0.5±0.4 (suspected sepsis) compared to 11.0±1.1, 1.8±0.2 and 2.0±0.4 (P<0.001) respectively for NFF. 10% of FF patients had an interventional radiology procedure compared to 34% of NFF (P<0.001).

Conclusion/Application to practice
This data confirms the benefits of FF in terms of morbidity, mortality and health economics.

Disclosure of Interest
no
Using permanent dialysis catheters – single centre experience

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Background
Hemodialysis is the most common therapy for treating patients with kidney failure. Its primary goal is establishing volume homeostasis and electrolyte balance which accompany chronic renal failure, and its long-term goal is to improve patient’s general condition and to normalize arterial blood pressure, to prevent uremia and other complications that can occur during treatment.

Objectives
Approximately 160 patients are treated with hemodialysis in our centre. For hemodialysis it is necessary to have an adequately functioning vascular access which can either be an arteriovenous fistula, usually created by a surgeon, or a temporary/permanent central venous catheter.

Methods
In this paper we will demonstrate our results with the placement of permanent central venous catheters for hemodialysis procedure.

Results
During 2015 we have placed 49 permanent catheters (Tesio catheters), 25 in 2016 and 29 in 2017. We have identified the important role of a nurse in preparing the patient and all the necessary materials for the procedure, identified nurses tasks during and after the procedure, including the importance of early recognition of possible complications.

Conclusion/Application to practice
In order to minimize complications, it is important to inform and explain the procedure to the patients and ensure a good cooperation between nurses and technicians with doctors, radiologists and radiology technicians during the whole process.

Disclosure of Interest
no
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Unilateral Raynaud’s phenomenon in a hemodialysis patient

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Background
Raynaud’s phenomenon is a peripheral vascular disease characterized by a triphasic vasospastic discoloration of the skin. We report a case of unilateral Raynaud’s phenomenon occurring twenty years later after creating an arterio-venous fistula with an end to side anastomosis.

Methods
64 year old patient with extreme nephropathy evolving to end stage renal failure undergoing hemodialysis since 1982. Twenty years ago she developed a unilateral Raynaud’s phenomenon which seems to be related to combined factors including vascular, osteo-articular and drug induced. She started complaining of a painful Raynaud’s phenomenon of the right side upper extremity leading to the closure of the access after the maturation of a new left-side native arterio-venous fistula. The first anastomosis was end-to-side which is opposite to the new fistula which was side to side.

She was having chronic hepatitis C treated with two different guidelines including iPeg interferon. The course of therapy was marked by the development of dialysis amyloidosis confirmed by histology study of the piece of tissue following carpal tunnel operation.

Results
Raynaud’s phenomenon has been described associating it with medical, surgical, environmental and drug induced causes. The hallmark of this phenomenon is ischemia of the digits in response to cold which produce characteristic triphasic color pattern as well as numbness. Our patient developed such symptoms after twenty years of dialysis. Moreover, the closure of the access was not accompanied by any improvement of such phenomenon.

She did not have any bone lesions other than dialysis related secondary amyloidosis which has been described as causing Raynauds. Interferon induced Raynaud’s phenomenon has also been described, but her symptoms were reported before the prescription of this drug for her HCV infection.

Conclusion/Application to practice
Late occurrence of Raynaud’s phenomenon in long term hemodialysis patient could arise either from vasospatic capillaries or related to chronic osteoarticular diseases or both.

Disclosure of Interest
no
Arterio-arterial brachial loop graft as an alternative vascular access for haemodialysis

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Background
The adequate functioning of a vascular access (VA) is of key importance for the successful completion of each haemodialysis treatment. Unfortunately, the failure of the arteriovenous fistula is very common among the population of dialysis patients, and resolving the issues surrounding vascular access is a pressing topic for nephrology teams. For many patients, the extension of the portfolio of alternative vascular access techniques for haemodialysis represents an opportunity to improve the quality and adequacy of dialysis treatment.

Objectives
To present an alternative VA for dialysis using the arterio-arterial brachial loop graft type in a complicated, socially disadvantaged patient. We also focused on the treatment with a vascular access and complications from the nurse's viewpoint, as well as the benefits and drawbacks of this type of vascular access.

Methods
We present a case report of a 46-year-old socially disadvantaged patient, enrolled in chronic dialysis program since 2005. Thus far, the patient has had 2 arteriovenous fistulas (AVF) and 8 x central venous catheter implantations, partly due to the problematic hygienic status of the patient. Because of the patient’s non-compliance with the dietary and hydration regimen and non-compliance with the use of medication at home and in caring for the vascular access, the AVF was gradually obliterated and there were recurrent complicated infections of the central venous catheter.

Conclusion/Application to practice
Through improved collaboration with the vascular surgeon and regular monitoring, we were able to extend the range of vascular access techniques for haemodialysis. However, the Achilles heel remains the responsible attitude of the patient. The patient does not understand the serious nature of his medical condition, continuously rejecting everything that could help. Often the patient is verbally abusive, demanding early disconnection. Our experience has shown that this type of VA is a possible solution, however, only in disciplined patients.

Disclosure of Interest
no
Background
A vascular surgery team implemented an innovative technique: the creation of a percutaneous arteriovenous fistula (AVF) without incision. The patient must fulfil several anatomical criteria to be suitable for this procedure.

Objectives
- Non-invasive procedure without incision of the vessels
- Immediate dilatation of the anastomosis: better maturation and faster use- Easy postoperative follow-up: no scar, no care and no infection
- Special observation and vigilance by nurses during puncture
- Preserved aesthetics: better acceptance of the patient's self-esteem- Fewer complications in the short and medium term, such as aneurysm, stenosis, black spot.

Methods
- Percutaneously, guided by ultrasonography, with a thermofusion device – Better flow and thus acceleration of re-opening and earlier usability
- Diagrams and skin markings made by the vascular surgeon to guide the puncture
- Closer examination by nurses before puncture

Results
- 53 percutaneous AVF created in 9 months
- no scar, no painful movements after surgery because of complications
- Faster use of fistula to optimise care avoiding or limiting the use of a central venous catheter
- No high blood flow complications
- No aneurysm, especially if the buttonhole puncture is applied
- No recurrent stenosis and thus prevention of multiple dilatations
- Stimulation of the nurses’ interest and vigilance

Reduced hospitalisation and care costs

Conclusion/Application to practice
Creation of a percutaneous proximal radial AVF ensures a functional vascular access, which can be used faster and is scar-free. This technique has a low risk of complications and better preservation of vascular access in the short and long term. Moreover, it increases the motivation of medical and nursing teams because it facilitates AVF puncture and their survival.

Disclosure of Interest
no
Thrombophilia and recurrent thrombosis of AV fistulas in patient with Alport syndrome

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Background
The maintenance of adequate vascular access is crucial to patient survival on haemodialysis. Complications related to vascular access account for 20 to 25% of all hospitalizations in dialysis patients. Thrombosis is the leading cause of arteriovenous fistula and graft failure. Thrombophilias are inherited or acquired predispositions to thrombosis and have been suggested as a possible cause of dialysis access thrombosis. There are few cases of Alport syndrome as underlying CKD (chronic kidney disease) with diagnosed genetic thrombophilia described in literature.

Methods
Case report study.

Results
Male patient, 25 years old, presented with haematuria and non-nephrotic proteinuria in childhood, age of two years. Kidney biopsy was performed and Alport syndrome was diagnosed. Six years ago the progression of CKD was noticed. He developed the end stage chronic renal failure at the age of 24 years old, when treated with RRT with haemodialysis. Patient had multiple recurrent thrombosis of all AV fistulas created in the next period of three years, and with recurrent thrombosis of central venous dialysis catheters use as vascular accesses while creating and growing AV fistulas. By the time he developed thrombosis of all vascular accesses and the treatment with CAPD was started in the age of 25. A haematological evaluation was performed and the antiphospholipid syndrome was established. Genetical analyses on inherited thromophilias showed that the presence of homozygous C667T polymorphism and heterozygous in A1298C polymorphism in MTHFR gene. Mutation in PAI-1 4G/5G gene in homozygous status was also proven. He was switched to peritoneal dialysis because of accesses failure.

Conclusion/Application to practice
In patients with Alport syndrome inherited thrombophilias disorders should be diagnosed in every case from first vascular access thrombosis and earlier than in other groups of CKD patients in order to prevent the thrombosis of next haemodialysis vascular accesses with proper anticoagulant therapy.

Disclosure of Interest
no
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Evaluating the safety of the buttonhole technique
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Background
The appropriate cannulation technique is highly important for arteriovenous fistula survival. Buttonhole technique (BH) is reported to have better outcomes in patients with a limited cannulation area, cannulation problems and in patients with a low pain threshold and performing self-cannulation.

Objectives
To evaluate the safety of BH in our clinics retrospectively.

Methods
Data of 900 patients on BH was collected from 13 clinics from data base entries and a questionnaire developed and sent to the clinic head nurses to evaluate the safety of this technique.

Results
59% of the patients were male. Decision and preference to start BH technique was based on physician and nurse preference in 88% and on patients’ preference in 12% of the cases. Among all patients, 21% choose to start BH due to “cannulation problems”. Blunt needle was used in 57% of the patients.
AVF site included 28.5% wrist, 51.5% fore arm and 20% upper arm.
26,477 treatment sessions were performed with BH in the 3 study months. During this period, only 26 sessions were complicated by pain, 31 by bleeding, 10 by infection, 22 by thrombosis, 7 by stenosis, 9 with fistula dysfunction, and 69 with aneurysm. Thrombosis, bleeding and pain were the reasons for BH discontinuation. All patients were educated on hygiene and how to wash their arms. This was reflected in the questionnaire by 88% of the patients washing their arms before cannulation. Scabs were removed easily in 99% of the patients.

Conclusion/Application to practice
We conclude that the buttonhole technique is a safe method with manageable complications. However, appropriate patient profile is needed to maintain safety.

Disclosure of Interest
no
Steal syndrome complicated by subclavian stenosis in a home haemodialysis patient

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Background
Patient Experience

Objectives
To present a case report of a patient with steal syndrome complicated by subclavian stenosis in home haemodialysis

Methods
A 29 year old male patient with chronic kidney disease due to urethral stenosis, two failed kidney transplantations, and peritoneal dialysis history was included in the home haemodialysis programme. The patient had 3 failed fistulae and a history of multiple dialysis catheters in both subclavian veins and a femoral vein. The patient returned to haemodialysis in June 2016 and his fourth fistula was opened to left brachiocephalic site in July 2016. The patient was admitted to our clinic in October 2017. He reported pain and paling of the left hand especially during haemodialysis. Because of the pain, the blood flow rates were kept below 280 ml/min in the previous dialysis unit. At our clinic, we first tried to increase blood flow rates up to 400 ml/min. Because of pain in his hand, we saw that the patient pressing his fistula to relieve the pain. We thought of grade 2 steal syndrome and blood flow rates were decreased to 300 ml/min. He was referred to interventional radiology. Subclavian stenosis and vascular steal syndrome were diagnosed at the left arm. Percutaneous transluminal coronary angioplasty was performed to relieve the subclavian stenosis. After the intervention, the pain decreased and no additional procedures were required in association with his steal syndrome.

Results
We maintained favourable blood rates of 350-380 ml/min without any pain in the hand during the training period at our clinic. In December 2017, the patient started home haemodialysis over 8 hours and we kept blood flow rates below 300 ml/min without any pain or sign of the steal syndrome.

Conclusion/Application to practice
Thinking of the venous steal syndrome other reasons of vascular problems should also be considered.

Disclosure of Interest
no
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