43rd EDTNA/ERCA International Conference

September 6–9, 2014
The Conference and Event Centre
Radisson Blu Hotel Latvija, Riga, Latvia

Conference Theme:
Patient-centred Renal Care – A Multidisciplinary Approach to Holistic Health

Abstract Book

Acknowledgements

We would like to acknowledge the valuable contribution of Dr. Helen Noble (Scientific Programme Committee Chair) and Martina Srncová (EDTNA/ERCA Conference Department) in preparing the Abstract Book.

We are grateful to Baxter-Gambro for sponsoring the production of the Abstract Book in USB format for Conference participants.

Sponsors

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Foreword

As Scientific Programme Chair I am delighted to present to you the **43rd EDTNA/ERCA International Conference Abstract Book**. The annual EDTNA/ERCA International Conference offers an event that brings together members of the renal healthcare team to share experiences and knowledge who ultimately strive to improve the care offered to people with renal disease and their carers. It is a place where rich learning occurs and collaborations are made.

In response to our call for abstracts to address the theme of our conference: Patient-centred Renal Care – A Multidisciplinary Approach to Holistic Health" we accepted a significant 188 abstracts, which includes 116 poster presentations and 62 oral presentations. The conference agenda includes 24 guest speakers invited by EDTNA/ERCA from 10 different countries worldwide. Other activities include Workshops, Masterclasses and Lunchtimes sessions.

Service users continue to be invoved in our conference. This year Ugnė Šakūnienė will speak on 'The experience of patients with kidney disease in Lithuania' and Peter Carstedt will discuss 'Presenting results and experiences from work to improve the transplant situation in Sweden'. Brian Gracey, Linda Gracey and Fiona Loud will, with Dr Nicola Thomas run a Masterclass on 'How patient involvement can improve quality of care'.

Eminent guest speakers also include Raymond Vahholder (Belgium), Frantisek Lopot (Czech Republic), D.G. Struijk (The Netherlands), Phil Kalra (UK), Jan Malik (Czech Republic), Aine Burns (UK), Mike Kelly (UK), Bruno Gianoglio (Italy), Lucien Engelen (The Netherlands), Francesco Garzotto (Italy), Nicola Thomas (UK) and Martina Susenj (Spain) all with expertise and a passion to share with you at Conference.

Workshops focus on topics including acute kidney injury, transplantation, dementia in kidney disease and enhancing your team's performance through effective leadership practice. The programme also includes Masterclasses concerned with user Involvement and shared decision making; patient experience in relation to psychological care and cultural diversity and vascular access and the heart and hemodynamic and clinical relationships. Lunchtime sessions include: The Dialysis Outcomes and Practice Patterns Study (DOPPS) Programme, Complex Case Management, Renal Education Accreditation and what's involved in this process and a National Presidents' workshop. The conference is varied and will be of interest to all those with an interest in providing the best renal care.

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.

Thank you to all the authors and Association volunteers for their time and effort in making the Conference a success; to Industry partners for supporting education sessions and the exhibition, and the skilled Conference Department who make the whole organisation run so smoothly.

Dr Helen Noble
Scientific Programme Committee Chair

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Haemodialysis B	Anna Marti i Monros
Haemodialysis C (AKI / Acute and Chronic)	Berislav Poje
Vascular Access	Michel Roden
Peritoneal Dialysis	Aase Riemann
Transplantation	Maria Cruz Casal
CKD prevention and delay of dialysis	Sonja Pecolar
Paediatric	Ilaria de Barbieri
Education of Staff /patient	Maria Saraiva
Service management, quality and audit	Berislav Poje
Technical	André Stragier
Green Innovations	Jitka Pancirova
Conservative Mgt/Palliative Care	Helen Noble
Acute Kidney Injury	Ilaria de Barbieri
Open Forum	Helen Noble

Speakers ( )

Guest speaker for the Opening Ceremony	
Raymond Vahholder (Belgium)	S 02

Guest speakers (in alphabetical order)	
Lesley Bennett (UK)	S 24
Aine Burns (UK)	S 16, S 24
Peter Carstedt (Sweden)	S 07
Lucien Engelen (The Netherlands)	S 23
Francesco Garzotto (Italy)	S 28
Loreto Gesualdo (Italy)	S 31
Bruno Gianoglio (Italy)	S 21, S 25
Brian Gracey (UK)	S 17
Linda Gracey (UK)	S 17
Tai Mooi Ho Wong (Spain)	S 29
Karen Jenkins (UK)	S 24
Theodora Kafkia (Greece)	S 11
Philip Kalra (UK)	S 08, S 15
Mike Kelly (Ireland)	S 19, S 29
Frantisek Lopot (Czech Republic)	S 04, S 14
Fiona Loud (UK)	S 17
Jan Malik (Czech Republic)	S 13, S 32
Karen Pugh Clarke (UK)	S 11
Ugnė Šakūnienė (Lithuania)	S 35
John Sedgewick (Saudi Arabia)	S 26, S 33
D.G. Struijk (The Netherlands)	S 05
Martina Susenj (Spain)	S 34
Nicola Thomas (UK)	S 17, S 36

Corporate Education Session speakers (in alphabetical order)	
Darren J. Cawley (Ireland)	S 22
Anetta Cekala (Poland)	S 12
Jan Cowperthwaite (UK)	S 12
Tony Goovaerts (Belgium)	S 06
Maria José Guerra (Portugal)	S 12
Dr Robert Guiberteau (France)	S 20
Angela Henson (Australia)	S 06
Peter Hill (UK)	S 20
Hedi Lueckerath (Germany)	S 22
Johanna McWilliams (Ireland)	S 06
Cristina Miriunis (Germany)	S 03
Philippe Nicoud (France)	S 22
Eva-Lena Nilsson (Sweden)	S 06
Maria Teresa Parisotto (Germany)	S 03
Israel Silva (Portugal)	S 12
Stefano Stuard (Germany)	S 03
Frédérique Quinio (France)	S 20

Scientific Programme

Corporate Education Sessions

S 03 **CES Fresenius Medical Care – NephroCare**
We measure, we manage, we care: The Science of Nursing Excellence
Omega 1, Sunday, 7th September 2014, 9:00

S 06 **CES Baxter – Gambro**
Patient-centred care – A multidisciplinary approach to holistic health
Omega 1, Sunday, 7th September 2014, 11:00

S 12 **CES Diaverum**
"Water is life" – Putting dialysis water at the centre of patient care
Omega 1, Sunday, 7th September 2014, 14:00

S 20 **CES Sanofi**
Calcium myths and realities
Omega 2, Monday, 8th September 2014, 9:00

S 22 **CES B. Braun Avitum**
Dialysis treatment: Status and factors to improve quality of care
Omega 1, Monday, 8th September 2014, 11:00

Corporate Education Sessions held in the room Omega 1 are interpreted from English into French, German and Spanish.
In addition S 03 FMC CES is interpreted into Czech.

S01 Industry Plenary Session

Omega, Saturday, 6th September, 2014, 16:15

A Guide to Implementing Renal Best Practice in Haemodialysis
EDTNA/ERCA project kindly supported by **Gambro**
Management of Secondary Hyperparathyroidism: Results of a European Survey on the Attitudes and Needs of Nurses
Joint EDTNA/ERCA and **Amgen** project
Vascular Access Cannulation and Care – A Nursing Best Practice Guide for Arteriovenous Fistula
Joint EDTNA/ERCA & **Fresenius Medical Care** project
Phosphorus Mission Educational Tool and e-Health in Nephrology Handbook
Partnership of EDTNA/ERCA and **Sanofi**
Multilingual Patient Education Project
Joint EDTNA/ERCA and **B. Braun Avitum** project

Amgen Hospitality Suite – room Ksi
SHPT nurse training
Understanding secondary hyperparathyroidism in CKD: approaches to optimise management of the disease

Training Programme
Module 1: Sunday 7th September 2014
12:30–13:00 **Lunch**
13:00–14:00 **Pathophysiology and diagnosis of SHPT and its complications in patients on dialysis**
Andrey Gurevich MD, European Development Medical Director, Nephrology, Amgen
Identifying SHPT in your patients
Alice Bogaarts, Nurse Practitioner Nephrology, ZGT Almelo, The Netherlands

Module 2: Monday 8th September 2014
12:30–13:00 **Lunch**
13:00–14:00 **Evaluating the benefits of treatment for SHPT**
Andrey Gurevich MD, European Development Medical Director, Nephrology, Amgen
The challenge of treating to target: a multidisciplinary approach
Alice Bogaarts, Nurse Practitioner Nephrology, ZGT Almelo, The Netherlands

B. Braun Avitum Hospitality Suite – room Epsilon
Lunch mini sessions
Sunday + Monday lunch break
13:00–13:40 Clinical relevance of patient's UV light curves and their practical interpretation
Reinhard Peters, Nurse Practitioner Nephrology, Erftstadt, Germany
13:40–14:00 Looking after your malnutritioned patients: Balanced treatment approach between toxin removal and albumin retention
Petr Hartl, Chief Nephrologist, Prague, Czech Republic

Lunchtime Sessions

S 09 **The Dialysis Outcomes and Practice Patterns Study (DOPPS) Programme: In-Center Hemodialysis and Beyond**
Omega 1, Sunday, 7th September 2014, 12:30

Introduction: Extending the scope and reach of the DOPPS projects
J. Albert (USA)
Vascular access: global trends, associated practices, and outcomes use
A. Marti (Spain)
Have recent policy changes in Europe impacted clinical practice in dialysis?
J. King (UK)
Improving patient-centered outcomes in hemodialysis: What are the next steps?
L. Gesualdo (Italy)

S 25 **Complex Case Management**
Atypical haemolytic uremic syndrome: from diagnosis to new therapies in end stage renal disease
Case study – Bruno Gianoglio (Italy)
Omega 1, Monday, 8th September 2014, 12:30

S 26 **EDTNA/ERCA Renal Education Accreditation – What's Involved**
John Sedgewick (Saudi Arabia)
Omega 2, Monday, 8th September 2014, 12:30

S 27 **Workshop of EDTNA/ERCA and National Presidents**
Beta, Monday, 8th September 2014, 12:30

Workshops

S 07 **Transplantation – Presenting results and experiences from work to improve transplant programme situation in Sweden**
Peter Carstedt (Sweden)
Omega 2, Sunday, 7th September 2014, 11:00

S 10 **Greek Workshop**
Acute kidney injury (AKI) – Renal Replacement Therapy – Medical and nursing approach
John Stefanidis, Professor of Pathology – Nephrology Director of Nephrology Clinical, University General Hospital of Larissa (Greece)
Omega 2, Sunday, 7th September 2014, 12:45

S 24 **Dementia and End of Life Care**
Aine Burns with Karen Jenkins and Lesley Bennett (UK)
Beta, Monday, 8th September 2014, 11:00

S 33 **Enhancing your team's performance through effective leadership practice**
John Sedgewick (Saudi Arabia)
Beta, Monday, 8th September 2014, 16:00

Masterclasses

S 17 User involvement
Brian Gracey, Linda Gracey, Fiona Loud and Nicola Thomas (UK)
How patient involvement can improve quality of care
Beta, Sunday, 7th September 2014, 16:00

S 29 The patient experience
Mike Kelly (Ireland) and Tai Mooi Ho Wong (Spain)
Psychological care and culture diversity; what we should be aware of
Omega 2, Monday, 8th September 2014, 14:00

S 32 Vascular access
Jan Malik (Czech Republic)
Vascular access and the heart: haemodynamic and clinical relationships
Omega 2, Monday, 8th September 2014, 16:00

Programme at a glance

Saturday, 6th September 2014	
	OMEGA
16:15–17:45	**S 01 Industry Plenary Session** Chairs: Jitka Pancirova (Czech Republic), Anki Davidson (Sweden)
	A Guide to Implementing Renal Best Practice in Haemodialysis EDTNA/ERCA project kindly supported by Gambro **GS: Angela Henson (Australia)**
	Management of secondary hyperparathyroidism: results of a European survey on the attitudes and needs of nurses Joint EDTNA/ERCA and Amgen project **GS: Andrey Gurevich (Switzerland)**
	Vascular Access Cannulation and Care – A Nursing Best Practice Guide for Arteriovenous Fistula Joint EDTNA/ERCA & Fresenius Medical Care project **GS: Maria Teresa Parisotto (Germany)**
	Phosphorus Mission Educational Tool and e-Health in Nephrology Handbook Partnership of EDTNA/ERCA and Sanofi **GS: Salah Mahyaoui (France)**
	Multilingual Patient Education Project Joint EDTNA/ERCA and B. Braun Avitum project **GS: Simone Klein (Germany)**
17:45–18:00	**Coffee Break**
18:00–19:30	**S 02 OPENING CEREMONY**
19:30	Welcome Cocktail

Sunday, 7th September 2014

	OMEGA 1	OMEGA 2	BETA
09:00–10:30	**S 03 Corporate Education Session Fresenius Medical Care – NephroCare** Chair: Theodora Kafkia (Greece)	**S 04 Parallel session** Chairs: Marissa Dainton (UK), Roberta Mereu (Italy)	**S 05 Parallel session** Chairs: Aase Riemann (The Netherlands), Alois Gorke (Germany)
	We measure, we manage, we care: The Science of Nursing Excellence Introduction Cristina Miriunis (Germany) Anemia management: is there anything new on the horizon? Stefano Stuard (Germany) The strength of excellent nursing practice: Every drop of blood count! Maria Teresa Parisotto (Germany)	**Title: Dialysis** **GS: František Lopot (Czech Republic)** **Extended approach to haemodialysis treatment adequacy**	**Title: Peritoneal Dialysis** **GS: D.G. Struijk (The Netherlands)** **Peritoneal dialysis – State of the art**
		O 01 Long nocturnal dialysis – A better quality of life? Carina Goncalves (Portugal)	**O 05** Better results with peritoneal catheter insertion by nephrology team Nurit Cohen (Israel)
		O 02 A measurement tool for nursing workload in haemodialysis units Erik Onsia (Belgium)	**O 06** Peritoneal dialysis for patients with urgent need for renal replacement therapy (RRT) Dana Hrubá (Czech Republic)
		O 03 Direct patient care in the haemodialysis out-patient unit Alison Wood (UK)	**O 07** Evidence and best practice-based educational program for peritoneal dialysis nurses Christiane Schaepe (Germany)
		O 04 Complications in paediatric peritoneal dialysis before and after the introduction of a training programme for parents: a retrospective study Ilaria de Barbieri (Italy)	**O 08** A practical manual of peritoneal dialysis for nurses – Project based preparation Gábor Fekésházi (Hungary)
10:30-11:00	**Coffee Break**		
	OMEGA 1	**OMEGA 2**	**BETA**
11:00-12:30	**S 06 Corporate Education Session Baxter – Gambro** Chair: Angela Henson (Australia)	**S 07 Workshop** Chairs: Anastasia Liossatou (Greece), John M Sedgewick (Saudi Arabia)	**S 08 Parallel session** Chairs: Nicola Thomas (UK), Helen Noble (UK)
	Patient-centred care – a multidisciplinary approach to holistic health Choosing dialysis modality Tony Goovaerts (Belgium) Approaches to improve in centre HD care Angela Henson (Australia) Improving patient outcomes with High Dose HD Johanna McWilliams (Ireland) Supporting the CKD patient – the nurses role Eva-Lena Nilsson (Sweden)	**Title: Transplantation** **GS: Peter Carstedt (Sweden)** **Transplantation – Presenting results and experiences from work to improve transplant programme situation in Sweden**	**Title: Education** **GS: Philip Kalra (UK)** **Diabetes and chronic kidney disease – educating staff and patients**
		O 09 Tandem haemodialysis–immunoadsorption: nursing experience at Toulouse University Hospital, the French leader in immunoadsorption Sébastien Maggioni (France)	**O 13** Implementation of Motivational Interviewing in practice Mette Pejstrup Berg, Line Louise Rasmussen (Denmark)
		O 10 Responding to the growth of renal transplantation in Saudi Arabia John Sedgewick (Saudi Arabia)	**O 14** Research and patient centred care – the SoLID trial experience Tess Ostapowicz (New Zealand)
		O 11 Living donors in renal transplantation. Considerations and Dilemmas Xanthi Dimitriou-Sarantzi (Greece)	**O 15** Development of a training and education strategy focussing on "education for today and tomorrow" Cathy Poole (UK)
		O 12 Becoming a living kidney donor; considerations and decision-making Hanne Agerskov (Denmark)	**O 16** Haemodialysis patients improved life skills after using the Guided Self Determination Method Jeanette Finderup (Denmark)

	OMEGA 1	OMEGA 2	BETA
12:30-14:00	Lunch		
	S 09 Lunch symposium 12:30–14:00	**S 10 Lunch symposium 12:30–14:00**	**S 11 Lunch symposium 12:30–14:00**
	The Dialysis Outcomes and Practice Patterns Study (DOPPS) Program: In-Center Hemodialysis and Beyond **Chairs: A. Marti (Spain), F. Tentori (USA)**	**GREEK WORKSHOP** **Chairs: Marianna Eleftheroudi, EDTNA/ERCA EC member** **Panagiota Tsougia, President of HENNA; Vasiliki Lagazali, Secretariat of HENNA**	**Title: Multimorbidity and Kidney Disease** **Chairs: Maria Cruz Casal García (Spain)** **GS: Karen Pugh Clark (UK)** Book Launch Care of the kidney patient with multimorbidity: a guide to clinical practice
	Introduction Extending the scope and reach of the DOPPS projects J. Albert (USA) Vascular access: global trends, associated practices, and outcomes use A. Marti (Spain) Have recent policy changes in Europe impacted clinical practice in dialysis? J. King (UK) Improving patient-centered outcomes in hemodialysis: What are the next steps? L. Gesualdo (Italy)	Acute kidney injury (AKI) – Renal Replacement Therapy – Medical and nursing approach John Stefanidis, Professor of Pathology – Nephrology Director of Nephrology Clinical, University General Hospital of Larissa	**GS: Theodora Kafkia (Greece)** It's not just my kidneys!' – caring holistically for the patient with chronic kidney disease and multimorbidity **O 17** Prevalence of PAIN in Spanish dialysis units David Hernán Gascueña (Spain)
	OMEGA 1	**OMEGA 2**	**BETA**
14:00-15:30	**S 12 Corporate Education Session Diaverum** Chairs: Jan Cowperthwaite (UK) Frank Kelly (Ireland)	**S 13 Parallel session** Chairs: Sophie Halldin (Sweden), Angela Henson (Australia)	**S 14 Parallel session** Chairs: Marjelka Trkulja (Croatia), Berislav Poje (Croatia)
	"Water is life" **Putting dialysis water at the centre of patient care** The importance of dialysis water Jan Cowperthwaite (UK) Ensuring chemical safety Israel Silva (Portugal) Promoting microbiological quality Maria José Guerra (Portugal) Introduction of a Dialysis Education Programme Experience from Poland Anetta Cekala (Poland)	**Title: Vascular Access** **GS: Jan Malik (Czech Republic)** **Duplex Doppler ultrasonography of vascular access: diagnosis of complications and its role in surveillance**	**Title: Risk management** **GS: František Lopot (Czech Republic)** **Technology-related clinical risks and problems in haemodialysis**
		O 18 A nurse led clinical pathway for dialysis vascular access dramatically improves outcomes Thandiwe Ncobo (United Arab Emirates)	**O 22** Impact of dialysis solution(DS) bicarbonate(HCO3-) and calcium(Ca2+) concentration on patient plasma ionized calcium(Ca2+) concentration Jan Havlin (Czech Republic)
		O 19 Is home haemodialysis associated with reduced vascular access complications? Nagehan Calıskan (Turkey)	**O 23** Intensive patient bedside education as a path towards better compliance in protein supplements intake Berislav Poje (Croatia)
		O 20 Teaching self-cannulation – A way to autonomy Marisa Agostinho (Portugal)	**O 24** Analysis of the nutritional status of patients with renal disease during hospitalization Carlota Hidalgo (Spain)
		O 21 Prevention and delaying progression of chronic kidney disease Imad Ahmed Amer (United Arab Emirates)	**O 25** Long nocturnal dialysis – Better outcomes? Filipa Leandro (Portugal)

15:30-16:00	**Coffee break**		
	OMEGA 1	**OMEGA 2**	**BETA**
16:00-17:30	**S 15 Parallel session** 🎧 Chair: Maria Saraiva (Portugal), Karen Jenkins (UK)	**S 16 Parallel session** Chairs: Mike Kelly (Ireland), Lesley Bennett (UK)	**S 17 Masterclass** Chairs: Helen Noble (UK), Anastasia Liossatou (Greece)
	Title: Predialysis – prevention **GS: Philip Kalra (UK)** **Optimising the care of the pre-dialysis patient**	**Title: End of life care** **GS: Aine Burns (UK)** **End of life care**	**Title: User involvement** **GSs: Brian Gracey, Linda Gracey, Fiona Loud and Nicola Thomas (UK)** **How patient involvement can improve quality of care**
	O 26 Preparing patients to choose a renal replacement therapy: experiences and practical suggestions Tony Goovaerts (Belgium)	**O 30** A multidisciplinary approach to improving conservative management Geraldine Hyslop, Frank Sciuto, Susan Kennedy (UK)	
	O 27 Healing by design – developing partnership with architects in dialysis unit design Samuel M. Sedgewick (UK)	**O 31** When patients decide not to dialyse: The PACKS study Helen Noble (UK)	
	O 28 Assessing the impact of educational intervention in hypertensive patients Tai Mooi Ho (Spain)	**O 32** Relationship between conflict behaviour and conflict resolution Ana Cunha (Portugal)	
	O 29 The impact of exercise on haemodialysis patients' quality of life – A systematic review Pedro Martins (Portugal)	**O 33** Support groups for Haemodialysis patients and family members during Dialysis treatment Iris Romach (Israel)	
17:30-17:45	**Break**		
	OMEGA 1		
17:45-19:15	**S 18 Annual General Meeting 2014** **Chair: Maria Saraiva (Portugal)** **Agenda:** • Welcome by the President • Association activities & progress report • Approval of 2013 Financial report • Association objectives 2014/2015 • EC election results • Motions • Volunteers acknowledgement • Lifetime Member • EDTNA/ERCA Manuscript and Scholarship Award • Future Conference • Any other business • Date and venue for next AGM • Close of the meeting		

Monday, 8th September 2014

	OMEGA 1	OMEGA 2	BETA
09:00-10:30	**S 19 Parallel session** 🎧 Chair: Nicola Thomas (UK), Karen Pugh-Clarke (UK)	**S 20 Corporate Education Session Sanofi** Chair: Helen Noble (UK)	**S 21 Parallel session** Chairs: Ilaria de Barbieri (Italy), Anastasia Liossatou (Greece)
	Title: Psychosocial care **GS: Mike Kelly (Ireland)** **Patient centred renal care – perceptions from the patient perspective**	**Calcium myths and realities** CKD-MBD in the calcium free era Peter Hill (UK) Calcium consumption: yes with moderation Robert Guiberteau (France) Phosphorus Mission Frédérique Quinio (France)	**Title: Care of the child with end stage renal disease** **GS: Bruno Gianoglio (Italy)** **Dietetic approach in children undergoing chronic dialysis towards kidney transplantation**
	O 34 Assessment of depression and anxiety in patients with chronic kidney disease on dialysis Ana Gomez (Portugal)		**O 38** CARPEDIEM as promising machine to treat neonatal and paediatric patients with acute renal failure Martine Dick (Belgium)
	O 35 Spiritual well-being of dialysed people with end stage renal disease Filipa Loureiro (Portugal)		**O 39** Haemodialysis ultrafiltration rate: impact for the multidisciplinary team of focused communication on patient-centred care Hanne M. Hermansen (Denmark)
	O 36 Association between home haemodialysis and cognitive function, quality of life, anxiety, and depression Filiz Calisir (Turkey)		**O 40** Patient's experience of kidney biopsies obtained by interviews. Nursing aspects Yvonne Andersson (Sweden)
	O 37 Family support and family burnout in haemodialysis patients Aysen Kutan Fenercioglu (Turkey)		**O 41** Treatment on time Helder Araujo (Portugal)
10:30-11:00	**Coffee Break**		
	OMEGA 1	**OMEGA 2**	**BETA**
11:00-12:30	**S 22 Corporate Education Session B. Braun Avitum** 🎧 Chair: Frantisek Lopot (Czech Republic)	**S 23 Parallel session** Chairs: Aase Riemann (The Netherlands), Berislav Poje (Croatia)	**S 24 Workshop** Chairs: Karen Pugh-Clarke (UK), Karen Jenkins (UK)
	Dialysis treatment: Status and factors to improve quality of care **What makes a good dialysis:** The physician's perspective Philippe Nicoud (France) The nurse's perspective Hedi Lueckerath (Germany) The patient's perspective Darren J. Cawley (Ireland)	**Title: e-Health** **GS: Lucien Engelen (The Netherlands)** **New colleagues in Healthcare: Patients & Google**	**Title: Dementia and End of Life Care** **GS: Aine Burns with Karen Jenkins and Lesley Bennett (UK)** **Communication and advance care planning**
		O 42 Model of electronic nursing care records for patients with vascular access malfunction Cvetka Krel (Slovenia)	
		O 43 Adherence to an e-learning system by a team of specialized nurses Virginia Barroso (Portugal)	
		O 44 Emergency first aid on dialysis patients – adapting ABCD to haemodialysis and its evaluation Roman Karstens (Germany)	

	OMEGA 1	OMEGA 2	BETA
12:30-14:00	Lunch		
	S 25 Lunch session	**S 26 Lunch session**	**S 27 Lunch session**
	Complex Case Management **GS: Bruno Gianoglio (Italy)** **Case study: Atypical haemolytic uremic syndrome: from diagnosis to new therapies in end stage renal disease**	**Symposium EDTNA/ERCA Renal Education Accreditation – What's Involved** **GS: John Sedgewick (Saudi Arabia)**	**Workshop of EDTNA/ERCA and National Presidents**
14:00-15:30	**S 28 Parallel session** 🎧 Chairs: Roberta Mereu (Italy), Angela Henson (Australia)	**S 29 Masterclass** Chairs: Karen Jenkins (UK), Anastasia Liossatou (Greece)	**S 30 Short orals** Chairs: Michel Roden (Belgium), Karen Pugh-Clarke (UK)
	Title: Technical **GS: Francesco Garzotto (Italy)** **New technology for: CRRT, Plasma Exchange and Blood Exchange in Infants**	**Title: The patient experience** **GS: Mike Kelly (Ireland) and Tai Mooi Ho Wong (Spain)** **Psychological care and cultural diversity; what we should be aware of**	**Title: Short orals**
	O 45 Manual of standards for management of dialysis water Giuliano Pacor (Italy)		**O 49** Peritoneal dialysis patients with sensory system impairment Tünde Szabó Vargáné (Hungary)
	O 46 Neuromuscular electrostimulation in haemodialysis patients: a novel method to improve physical condition Anna Junqué (Spain)		**O 50** Primary vascular access type and survival in chronic haemodialysis programme Judit Szemecsko Makula (Hungary)
	O 47 Evaluation of the effects of nocturnal home haemodialysis on dialysis adequacy Yesim Ozdemir (Turkey)		**O 51** The Balanced ScoreCard – A tool for performance management in dialysis care settings Corina Popescu (Romania)
	O 48 Who can do home haemodialysis? Gokce Kaya Akay (Turkey)		**O 52** Haemodialysis catheter related blood stream infection Imad Ahmed Amer (United Arab Emirates)
			O 53 Application of Lean philosophy for the creation of a connection/ disconnection cart for Haemodialysis Asunción Martinez Miralles (Spain)
			O 54 How to improve quality of life? -Identification of malnutrition in kidney patients Tiina Leminen, Anu Niinisalo (Finland)
			O 55 Targeting dry weight-body volume and nutritional status in haemodialysis patients Ayla Ozerkaya (Turkey)
			O 56 Pain assessment in haemodialysis patients Monica Brazalez Tejerina (Spain)
			O 57 'From clipboard to tablet' refining the approach to unannounced infection control audits Natalie Beddows (UK)
15:30-16:00	Coffee Break		

	OMEGA 1	OMEGA 2	BETA
16:00-17:30	**S 31 Parallel Session** Chairs: Marjelka Trkulja (Croatia), Sophie Halldin (Sweden)	**S 32 Masterclass** Chair: Angela Henson (Australia), Marissa Dainton (UK)	**S 33 Workshop** Chairs: Anna Marti i Monros (Spain), Edita Noruisiene (Lithuania)
	Title: The acutely unwell patient **GS: Loreto Gesualdo (Italy)** **Cardiovascular Risk in patients with end stage renal disease**	**Title: Vascular access** **GS: Jan Malik (Czech Republic)** **Vascular access and the heart: haemodynamic and clinical relationships**	**Title: Enhancing your team's performance through effective leadership practice** **GS: John Sedgewick (Saudi Arabia)**
	O 58 Dialysis commencement and survival Eva Nagy (Hungary)	**O 62** Reinventing fistula cannulation – Initial results of a centre experience Rui Sousa (Portugal)	
	O 59 Chlorhexidine gluconate containing transparent dressing and needle-free valve port for catheter patients on haemodialysis Rabia Papila (Turkey)	**O 63** Comparison of two puncture techniques: Buttonhole vs. Rope Ladder Marcia Galvao (Portugal)	
	O 60 Evaluation of daily activities and mobility in haemodialysis patients Emine Unal (Turkey)		
	O 61 Comparison of infection frequency between haemodialysis and peritoneal dialysis among geriatric patients Sevginar Senturk (Turkey)		

Tuesday, 9th September 2014	
	OMEGA 1
08:30-10:00	**S 34 Plenary session** Chairs: Ilaria de Barbieri (Italy), Aase Riemann (The Netherlands)
	Title: Nutrition **GS: Martina Susenj (Spain)** **The spectrum of malnutrition in ESRD**
	O 64 Evaluation of the Nutritional Status of Haemodialysis Patients Birsen Yurugen (Turkey)
	O 65 Relationship between body mass change and survival of dialyzed patients Erzsebet Molnar (Hungary)
	O 66 A nurse-led multifactorial intervention to improve phosphate binder adherence: a one-year clinical trial Yoleen Van Camp (Belgium)
10:00-10:15	**Coffee Break**
	OMEGA 1
10:15-11:45	**S 35 Plenary session** Chair: Marissa Dainton (UK), Marianna Eleftheroudi (Greece)
	Title: Quality management **GS: Ugnė Šakūnienė (Lithuania)** **The experience of patients with kidney disease in Lithuania**
	O 67 Using multidisciplinary teams (MDTs) to improve quality outcomes Marie Richards (United Arab Emirates)
	O 68 The importance of art therapy in determining the quality of life in dialysis patients Aysen Kutan Fenercioglu (Turkey)
	O 69 Foot problems in dialysis patients Róza Mogyorósi (Hungary)
	O 70 Development of an integrated competency framework Cathy Poole (UK)
11:45-12:00	**Coffee Break**
	OMEGA 1
12:00-13:00	**S 36 CLOSING CEREMONY** Chair: Maria Saraiva (Portugal)
	GS: Nicola Thomas (UK) Shared Decision making in kidney care
	Presentation of Poster scholarships

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The organiser reserves the right to alter the programme if and as is deemed necessary.

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ORAL PRESENTATIONS

Saturday, 6th September 2014

S 01 Industry Plenary Session
Omega, 16:15–17:45

A Guide to Implementing Renal Best Practice in Haemodialysis
EDTNA/ERCA project kindly supported by Gambro
GS: Angela Henson (Australia)

Management of secondary hyperparathyroidism: results of a European survey on the attitudes and needs of nurses
Joint EDTNA/ERCA and Amgen project
GS: Andrey Gurevich (Switzerland)

Vascular Access Cannulation and Care – A Nursing Best Practice Guide for Arteriovenous Fistula
Joint EDTNA/ERCA & Fresenius Medical Care project
GS: Maria Teresa Parisotto (Germany)

Phosphorus Mission Educational Tool and e-Health in Nephrology Handbook
Partnership of EDTNA/ERCA and Sanofi
GS: Salah Mahyaoui (France)

Multilingual Patient Education Project
Joint EDTNA/ERCA and B. Braun Avitum project
GS: Simone Klein (Germany)

S 02 – Opening Ceremony
Omega, 18:00–19:30

Welcome Words
Welcome by EDTNA/ERCA President Maria Saraiva
Welcome by City representative

Guest Lecture
Patient-centered renal care? A multidisciplinary approach
Professor Raymond Vahholder (Belgium), Immediate Past President of ERA-EDTA, EKHA Chair Elect

Entertainment
Skandinieki

Sunday, 7th September 2014

S 03 CES Fresenius Medical Care – NephroCare
We measure, we manage, we care: The Science of Nursing Excellence
Omega 1, 9:00–10:30

Overview
Anemia is a common complication of Chronic Kidney Disease and haemodialysis.
One of the fundamental aspects of anaemia management is to have the correct prescription (medication and treatment modality).
From a clinical viewpoint, anaemia management in dialysis patients is influenced by:

- removal of toxins and correction of uremia
- correction of over-hydration status
- correction of iron storage deficiency
- ESA therapy

If the haemoglobin level persist below the target range, with ESA therapy, it is appropriate to consider comorbidities, blood loss, vitamins deficiencies etc.

The haemodialysis procedure itself leads to the reduction in haemoglobin level due to blood retention by the extracorporeal circuit (needles, bloodlines, filter).
Anaemia management includes strategies to avoid inappropriate blood loss and proactively treat anaemia. It should be based on the patient's symptoms, lab-test values, and "clinical" assessment. Treatment of anemia should encompass a patient-centered approach, with the aim of promoting patient safety and minimising the risk from exposure to blood loss.

The success of this approach can only be successful with an appropriate planning from the Multi-disciplinary team (the correct medical prescription and the correct nursing treatment plan) based on teamwork.

Dialysis patients always require special care and attention during both their regular treatment session and for their overall general health status. But the two sides of the dialysis patient care are strongly influencing each other. Each action, practice technique, advice or education carried out during the treatment session has an impact on patient's life style and outcome.
High quality care for patients is the aim and is only possible with high quality education and training for all staff involved in the dialysis services of our network.

Session content
Cristina Miriunis
Introduction

Stefano Stuard
Anemia management: is there anything new on the horizon?

Maria Teresa Parisotto
The strength of excellent nursing practice: Every drop of blood count!

S 04 Dialysis
Omega 2, 9:00–10:30

GUEST SPEAKER

Extended approach to haemodialysis treatment adequacy

F. Lopot[1]
[1]General University Hospital and Charles University Medical School, Prague, Czech Republic

The traditional concept of haemodialysis (HD) adequacy – the relative dialysis dose Kt/V – reflects merely HD efficacy in removal of small molecular weight catabolites. Over the long years of its use, its minimal value below which the treatment outcome deteriorates as well as its upper limit above which no further improvement is seen have been established. During the last decade, the same Kt/V for all patients became questioned and it is likely that the original concept based on total body water (V) as a factorizing parameter will have to be modified.
Inability of conventional diffusion-based low-flux HD to prevent long-term complications in HD patients lead to remarkable progress in development and use of high flux membranes and convective techniques. However, while the convective volume appears a good marker to assess excretion of larger molecules, we still do not have its well defined target range as it is with the Kt/V for the small molecules . The current approach "as high as possible" may have some not yet identified flaws and pitfalls and should therefore be applied with caution until sufficiently large studies become available.
With strikingly high percentage of mortality caused in dialysis population by cardiovascular problems clearly show the third aspect of adequate HD treatment – control of fluid balance. The mere amount of excess fluid must be assessed separately from that fluid removal rate. While the former has mainly long-term consequences, the latter has a dominant role intradialytically. Moreover, tolerable fluid removal rate is a highly individual parameter, depending on pre-HD fluid status as well as on patient general health condition and also ultrafiltration strategy.
Critical appraisal of all three principal components of HD adequacy should help to decide which way to go ahead in dialysis, both in the treatment schedule evolution and in desirable technological development.

O 01

Long nocturnal dialysis – A better quality of life?

C. Gonçalves[1], F. Leandro[1], B. Pinto[1], F. Gomes[1], D. Navarro[1], J. Fazendeiro Matos[2], M.T. Parisotto[3]
[1]NephroCare Dialysis Centren VFXira, Fresenius Medical Care, VFXira, Portugal; [2]NephroCare Nursing Care Management, Fresenius Medical Care, Porto, Portugal; [3]NephroCare Coordination, Fresenius Medical Care, Bad Homburg, Germany

Background
The Long Nocturnal Dialysis programme (LND) launched in April 2013 was developed to meet the requirements of a well-tolerated, effective, and affordable treatment, reduce morbidity and mortality of patients thus increasing their quality of life (QOL).

Objectives
To compare QOL aspects before and after initiation of LND.

Methods
We evaluated 12 patients (three female, mean age 41.55 ± 6.93 years) with a mean time on HD of 63 ± 37.2 months. Patients were surveyed before and after LND implementation with the following self-administered questionnaire: KDQOL-SF version 1.3 adapted to our objectives and validated by a pre-test.

Results
From the results we highlighted the ones with statistical significance ($p < 0.05$). Comparing mean scores of QoL aspects before LND vs. after LND implementation revealed:

- Perception of their health improved from 2.5 (±1.17) to 3.4 (±1.16) on average
- Perception of breathlessness decreased from 2.42 (±2.42) to 1.42 (±0.79) on average
- Anorexia, decreased from 2.01 (±1.38) to 1.33 (±0.65) on average
- Perception of fatigue decreased from 3.5 (±1.01) to 2.33 (±1.30) on average
- Perception of satisfaction with the amount of time spent with family and friends, increased from 2.92 (±1.08) to 3.83 (±1.19) on average

Conclusion/Application to practice
Of 20 parameters analysed only five had statistical significance although improvements were observed in all of them. We can thus conclude that there was indeed an improvement in the patients' QOL.

Disclosure: No conflict of interest declared

O 02

A measurement tool for nursing workload in haemodialysis units

E. Onsia[1]
[1]Nephrology – Dialysis Unit, University Hospital Antwerp, Edegem, Belgium

Background
Nursing workload in a haemodialysis units is difficult to compare with other nursing wards because of its specificity. For management and budget purposes it is nowadays important to be able to measure the workload. In the setting of haemodialysis this is not obvious and the nurse/patient ratio is not sufficient for this purpose.

Objectives
The collaboration between the Flemish branch of ORPADT (the Belgian Dialysis and Transplant Nurses Association) and the University of Antwerp (Division Nursing Sciences) led to the development of a measurement tool for workload and nursing care on a haemodialysis unit, which has already been tested.

Methods
From the Belgian NMDS (Nursing Minimum Data Set) only the relevant items were selected (excretion, mobility, feeding, respiratory care, risk management) to assess the basic nursing care profile. Based on the Workload Indicator for Nursing (WiN), these items were transformed into time estimations. Nursing workload items that were relevant on a haemodialysis unit had been selected based on time measurements such as medication, management of vascular access, technical complications. General non-patient-related tasks were also taken into account. A simple, short questionnaire had been developed. It was extensively tested and validated in 10 dialysis centres in Flanders (Belgium).

Results
The questionnaire was trialled in five haemodialysis units not previously involved, and proved to be fast, convenient and user friendly. The measurement tool could clearly distinguish between different dialysis units and out-patient dialysis units.

Conclusion/Application to practice
Objective measurement of nursing care and workload within haemodialysis units gives new opportunities for efficient management and budgeting.

Disclosure: No conflict of interest declared

O 03

Direct patient care in the haemodialysis out-patient unit

A.F. Wood[1]
[1]Nursing Studies, The University of Edinburgh, Edinburgh, United Kingdom

Background
Within NHS Scotland a focus has been placed upon increasing the amount of time nurses and support workers have to spend with patients and provide direct care. Whilst being able to spend more time with patients is viewed as important, it is not clear how patients would like this time spent within the haemodialysis out-patient setting. This is an ethnographic study which acknowledges the culture and context of the unit while aiming to gain an understanding of what constitutes direct patient care in this area from patients and nursing staff.

Objectives
To establish what the patients want and value as direct patient care in the haemodialysis unit
To explore patient perceptions of quality 'direct patient care' and interactions.
To establish what trained nursing and clinical support workers view as direct caring activities for haemodialysis patients

Methods
Participant observations, field notes and photographs have been used to collect data on what direct care practices occur in the haemodialyis setting. Staff and patients were observed in one area of the unit to understand what caring practices occur and how these happened. Semi-structured interviews will then focus on direct care and patient and staff views and experiences on quality direct care.

Results
Preliminary results focus on the caring practices witnessed between nurses/support workers and patients whilst they receive haemodialysis.

Conclusion/Application to practice
A deeper understanding of the current caring practices and activities which occur in this setting, alongside an understanding of what constitutes direct patient care from patient perspectives, could lead to an increase the quality of service provided.

Disclosure: No conflict of interest declared

O 04

Complications in paediatric peritoneal dialysis before and after the introduction of a training programme for parents: a retrospective study

E. Biasin[1], I. de Barbieri[2], E. Vianello[3]

[1]BSN, Paediatric Nurse, Padua University Hospital, Italy; [2]RN, BSN, MSN, Nurse Pediatric Department Padua University Hospital and Lecturer Bachelor in Pediatric Nursing, Padua University, Italy; [3]RN, BSN, Head Nurse Paediatric Nephrology Unit, Padua University Hospital, Italy

Background

The role of infections during renal replacement therapy (RRT) is well known to be one of the causes of treatment failure, so the prevention of infections during peritoneal dialysis (PD) for RRT represents a challenging aspect of nursing management in patients with end-stage renal disease.

With the aim to evaluate both incidence and etiology of peritoneal infections from 2000 to 2010 and to assess if the introduction of a specific caregivers training programme can lead a reduction of it, we describe our Institutional experience before and after the introduction of this specific training program.

Methods

A retrospective analysis was conducted on 67 patients from the Italian Registry of Paediatric Chronic Peritoneal Dialysis who ended the first cycle of dialysis between 2000 and 2010 in the Paediatric Nephrology Unit of a third-level university Hospital in Northern Italy. Two periods (2000-2005: 40 patients and 2006-2010: 27 patients, before and after the introduction of the program respectively) were compared.

Results

In the period 2000-2005 30 cases of peritonitis (73.1%, 60% of which under the age of 2) occurred during 564.1 months of PD (range 1-18.8 months). Pathogens were 30% Gram-negative bacteria, 30% Gram-positive and 3.3% fungal. 20% of the patients had the first episode of peritonitis within the first six months of RRT. In the period 2006-2010 11 episodes of peritonitis occurred during 549.8 months of PD (range 1-50 months). Pathogens responsible for peritonitis were 27.3% Gram-negative bacteria, 18.2% Gram-positive, 9% fungal, in 36.4% of cases bacteria coltures were negative and 9% were not performed. 18,5% of patients had the first episode of peritonitis within the first six months from the beginning of PD.

Conclusion

The number of peritonitis is lower in the period 2006-2010 in comparison with the previous period. A greater frequency of peritonitis appeared in subjects who were younger than two years and an increase of Gram-negative bacteria. The number of peritonitis increased in those subjects with residual diuresis in comparison with oligoanuric patients. In the second period, when the training programme for care givers was implemented, a lower number of complications occurred.

S 05 Peritoneal Dialysis
Beta, 9:00–10:30

GUEST SPEAKER

Peritoneal Dialysis – State of the art

D. Struijk[1]
[1]Dialysis, Dianet, location AMC, Amsterdam, Netherlands

Background
Within a few years, peritoneal dialysis in its current continuous treatment modes will be 40 years old. During that period many secrets have been unraveled about the way the peritoneal membrane works. Simultaneously many improvements have been made to the treatment, so that the survival of peritoneal dialysis patients nowadays more than equals the outcome of hemodialysis. Some of these important improvements are the reduction of peritonitis, the acknowledgement of the value of residual renal function and the focus on fluid status within the subject of dialysis adequacy.

Objectives
This lecture will start with an overview on the current position of peritoneal dialysis in the world. Than the most recent findings in the field will be discussed. The focus of the presentation will be on the impact of our current knowledge on the best clinical practices in peritoneal dialysis and its effects on clinical outcomes.

O 05

Better results with peritoneal catheter insertion by nephrology team

R. Morgenstern[1], M. Voroviov[1], N. Cohen[1], L. Shwarz[1]
[1]Nephrology, Soroka University Medical Center, Beer-Sheva, Israel

Background
Peritoneal dialysis (PD) as a modality for CKD treatment decreased during last decade. In past years our department was leading in PD area in our country. One of the reasons for decreasing numbers was catheter insertion technical problems. There was no dedicated surgeon for this procedure; therefore each patient underwent different techniques, which caused variation of post-operative complications such as: malposition, leaks, exit-site infection, haemorrhage, obstruction of catheter, catheter tip migration, malfunction, etc. This led to drop – out of patients from PD.

Objectives
Decreasing post-operative complications and technique failure by catheter insertion by nephrologists.

Methods
Since 2007 we started the implementation of peritoneal catheter insertion by nephrologists. The PD team learned the procedure from other medical centres that already succeeded. Both doctors and nurses beome acquainted with the patient: from evaluation for PD, than as a surgical team, and follow him at PD treatment. Exclusion criteria: previous abdominal surgery; infectious disease carriers; patients who needed general anesthesia.

Results
82 catheters were inserted during 7 last years, 51 (62%) by nephrologist and 31 (38%) by surgeons. Retrospective analysis was performed of 35 available charts- 24 by nephrologist(N) and 11 by surgeons (S), other charts will be evaluated in the next step. Average age: N= 63.2, S=55.2 years. Postoperative complications: leak N=1(4%), S=9(81%); exit-site infection N=4(16%), S=3(27%); bloody fluid N=1(4%), S=6(54%).

Conclusion/Application to practice
Our experience showed that catheter insertion by nephrologists is better for the patient: less post-operative complications, local anesthesia, short recovery after operation, and more physically and mentally friendly for the patient.

Disclosure: No conflict of interest declared

O 06

Peritoneal dialysis for patients with urgent need for renal replacement therapy (RRT)

D. Hruba[1], R. Knirova[1], P. Gajdosova[1]
[1]Dialysis Center Sokolov, Fresenius Medical Care, Sokolov, Czech Republic

Background
Advantages have been reported for PD as preferred treatment rather than HD: Longer preservation of residual renal function, earlier onset of graft function after transplantation, and elimination of central venous cannulation risks in cases where dialysis is required immediately.

Objectives
To present our initial experience with urgent initiation of PD immediately after catheter insertion.

Methods
From May 2011 to December 2013 we used the combination of puncture and laparoscopic technique for PD catheter placement in 46 cases of PD patients. Seven patients required urgent initiation of renal replacement therapy.

Results
We performed acute automated peritoneal dialysis (APD) in seven patients in a special PD room in our dialysis centre for 6 to 9 hours a day. Every patient was constantly monitored by an experienced PD nurse.

Advantages:
1. Safe practices (using small volumes and APD in supine position): we did not observe any leakage or other catheter associated complications.
2. We did not observe any unpleasant symptoms associated with acute haemodialysis (dysbalance).
3. Better levels of compliance in new patients (all seven decided to continue PD).

Disadvantages:
1. This method is time-consuming for the dialysis team.
2. A suitable room must be provided for this treatment.

Conclusion/Application to practice
The advantages of peritoneal dialysis include longer preservation of residual renal function and no need for venous access.
Our experience shows that initiation of peritoneal dialysis immediately after catheter insertion is possible and safe. We believe it might be an alternative to acute haemodialysis generally used in patients with an urgent need of RRT.

Disclosure: No conflict of interest declared

O 07

Evidence and best practice-based educational program for peritoneal dialysis nurses

M. Bergjan[1], C. Schaepe[1], N. Dubisz[2]
[1]Institute of Health and Nursing Science, Charité – Universitätsmedizin, Berlin, Germany; [2]Baxter Germany GmbH, Unterschleißheim, Germany

Background
Peritoneal dialysis (PD) requires patients to take an active role in therapy as they have to manage more than 90% of their care by themselves. Because PD therapy encompasses various educational challenges, nurses need to possess special pedagogical skills in order to enable patients to self-care. However, not all PD nurses have a pedagogical background and educational programs in Germany are mainly experience-based and not evidence- based.

Objectives
To develop an evidence and best practice educational program for PD nurses who train staff and patients.

Methods
Firstly, systematic literature reviews on nursing interventions (n=21) and educational interventions (n=18) in PD therapy were conducted to gain an overview of the current state of research. Secondly, a qualitative structural content analysis using deductive category and inductive subcategory application of five group interviews (n=20) with PD nurses was used to explore their experiences, strategies, challenges, and further needs in both patient and PD nurse education.

Results
The literature reviews show, for example, that PD nurses should foster patients' self-management skills and counsel them to a greater extent on diet and physical activity. Empirical data show that patient education has to be highly individualised which requires specific assessment skills. PD nurses, who train both patients and staff, need to employ various teaching strategies and know how to adapt them to the needs of each individual patient.

Conclusion/Application to practice
The results of both steps were synthesized and form the foundation for a continuing nurse education program in renal care, which will be integrated in the PD-nurse training program by Baxter Germany.

Disclosure: This evidence-based and best –practice educational program is developed for Baxter Germany, which funded this project. However, Baxter Germany played no role in study design, data collection, and analysis of data.

O 08

A practical manual of peritoneal dialysis for nurses – Project based preparation

G. Fekésházi[1], E. Ladányi[1]
[1]Fresenius Medical Care, Budapest, Hungary

Background
The nurses in our network have fifteen years of professional experience in peritoneal dialysis (PD). However, PD practice varies among clinics depending on local conditions. Thus, the idea was born to prepare a standardised practical guideline including the most important theoretical knowledge defining
- education standards for nurses and patients
- competence levels
- validated procedures during treatment
- an indicator system of professional nursing audits.

Objectives
To introduce the project "Practical Manual of Peritoneal Dialysis for Nurses", prepare and implement the manual and evaluate the impacts of its implementation.

Methods
The project was launched in April 2012. Authors were four highly skilled and experienced PD nurses and two national head nurses. The authors' consensus on the individually prepared chapters was followed by approval by medical professionals.

Results
The first edition of the final document was published in July 2013. From September 2013, regional audits were performed on the basis of this manual after evaluation of the professional nursing status.

Conclusion/Application to practice
The project based preparation of the "Practical Manual of Peritoneal Dialysis for Nurses" had largely simplified the work process. The document laid the foundations of the professional education, based on a standardised practice. It provided the opportunity of process monitoring, feedback management, implementation of improvements and standardisation of our processes.

Disclosure: No conflict of interest declared

S 06 CES Baxter – Gambro
Patient-centred care – a multidisciplinary approach to holistic health
Omega 1, 11:00–12:30

Patients living with CKD can be faced with difficult challenges as they commence renal replacement therapy – many patients will move between dialysis modalities as well as kidney transplantation. It is important that nurses strive to improve patient care and clinical outcomes along this patient journey.
This symposium will focus on the nurses role in delivering patient centred care and review clinical evidence as well as give practical guidance on how to achieve better outcomes. The patient journey commences with decision making around the choice of dialysis modality and patient centred approaches will be explored alongside quality standards for dialysis option educational programmes. Many patients choose haemodialysis and aspects of the EDTNA/ERCA Best Practice Guide for HD will be presented to demonstrate how in centre HD care can be improved. There is increasing evidence that more frequent and longer sessions delivering high dose HD can improve patient outcomes. The nursing aspects of delivering high dose HD at home will be described alongside the potential benefits with a novel HD machine. Finally, the importance of the nurses role in supporting the CKD patient along their patient journey will be described. Patient centred care is critical for all patients, individualizing their therapy to maximize their clinical outcomes and quality of life.

Session content:
Tony Goovaerts (Belgium)
Choosing dialysis modality

Angela Henson (Australia)
Approaches to improve in centre HD care

Johanna McWilliams (Ireland)
Improving patient outcomes with High Dose HD

Eva-Lena Nilsson (Sweden)
Supporting the CKD patient – the nurses role

S 07 Transplantation
Omega 2, 11:00–12:30

GUEST SPEAKER

Transplantation – Presenting results and experiences from work to improve transplant programme situation in Sweden

P. Carstedt
Sweden

Abstract is not available.

O 09

Tandem haemodialysis–immunoadsorption: nursing experience at Toulouse University Hospital, the French leader in immunoadsorption

S. Maggioni[1], M. Hermelin[1], E. Faubel[1], A. Allal[1], L. Rostaing[1]
[1]Department of Nephrology and Organ Transplantation, Toulouse University Hospital, Toulouse, France

Background
The University Hospital of Toulouse (France) chose to concentrate expertise into a single location, creating high-quality collaboration between medical and paramedical personnel.

Objectives
Because of the lack of deceased-kidney donors we have developed a living-kidney transplant program, which permits pre-emptive kidney transplantation which i) is cost-effective as compared to haemodialysis, and ii) improves patient quality of life. In the setting of living-kidney transplantation we often face ABO incompatibility or HLA incompatibility. To overcome these barriers we have implemented specific as well as non-specific immunoadsorption (IA) in our unit from scratch. Our aim is to enable transplants from living-kidney donors to be given to renal candidates who either have an ABO-incompatible donor or HLA-incompatible donor. Historically, IA sessions have been performed either just before an haemodialysis session or on the previous day. This was very tedious for haemodialysis patients. Moreover, the net body-weight gain during a non-specific IA session is ~1 kg, which can have adverse effects on patient's health.

Methods
We decided in October 2012 to couple haemodialysis (HD) sessions with IA sessions, i.e., tandem IA–HD. From that decision, the nursing team has committed to achieving this goal. Today, tandem IA/HD has become the method of choice at the Toulouse Hospital.

Results
The tandem method not only saves time, thereby reducing costs, but also improves the quality-of-life of patients. We have performed more than 100 tandem IA–HD sessions. This method allows us to treat up to two patients per day.

Conclusion/Application to practice
The tandem method has now become the routine method in the University's Hospital of Toulouse.

Disclosure: No conflict of interest declared

O 10

Responding to the growth of renal transplantation in Saudi Arabia

S. Alkhomry[1], M. Abrahams[1], S. McAllister[1], J. Sedgewick[1], W. Habhab[1]
[1]Nursing Affairs, King Faisal Specialist Hospital & Research Center, Jeddah, Saudi Arabia

Background
Renal transplantation in Saudi Arabia has been available since 1979. As the CKD patient population expands, renal transplantation becomes a viable treatment option. Currently, the hospital has the second largest transplant programme in Saudi Arabia. Optimum renal transplantation requires integrated services that ensure quality patient care from admission through to discharge.

Objectives
A pilot service improvement project was initiated with the development of a post-renal transplant coordinator position to enhance the care of patients, whilst simultaneously responding to the strategic goal of increasing renal transplantation.

Methods
Evaluating patient flow patterns through the outpatient clinic was undertaken. A re-engineering of the 'whole management' of the patient experience post-transplant was implemented. Providing a native Saudi post-transplant coordinator to improve the patient experience was central to the project.

Results
The post-renal transplant coordinator has enhanced the patient experience and coordination of post-transplant care. Improved efficiency of service and freeing up physician clinic appointments for new patients has allowed renal transplant capacity to increase. In 2011, 53 patients were transplanted increasing to 112 in 2013; graft survival remains at 100%. The post-renal transplant coordinator has significantly enhanced patient education, where cultural beliefs influence how patients manage post-transplant recovery & rehabilitation.

Conclusion/Application to practice
As the renal transplant programme expands, there remains an important need to ensure that patients and families receive optimum care. Providing a native Saudi post-renal transplant coordinator enhances culturally congruent care. The post-transplant coordinator is a vital part of this service.

Disclosure: No conflict of interest declared

O 11

Living donors in renal transplantation: Considerations and Dilemmas

X. Dimitriou-Sarantzi[1]
[1]Renal Transplantation, General Hospital of Athens „Laiko", Athens, Greece

Background
When Joseph Murray performed the first successful living donor renal transplant in 1954, it would be difficult to imagine the percentage of living donors reaching approximately 50% and 20.6% in the USA and Europe respectively.

Objectives
Hence there have been a number of moral questions posed: Is inflicting considerable physical harm to a healthy person in the benefit of a sick person acceptable and moral? However, donors believe that the decision is theirs to make and research confirms that decision making is clearly personal.

Results
Strict rules for choosing suitable future donors exist, but over time these are replaced depending on current needs. Research findings support that 90-95% of donors would undergo donorship if placed in the same situation, and 72% feel well within themselves by donating. On the other hand, a number of studies report negative results: 24% of donors report significant psychological burden, 12% report a worse health status, and 23% report financial difficulties. In a very interesting study titled "Assessing elements of informed consent among living donors" that took place in Minnesota (USA), 40% of donors reported feeling some pressure to donate and only 69% understood the psychological risks of donation, 52% the long-term medical and 32% the financial risks.

Conclusion/Application to practice
Despite the fact that donorship decision making is governed by strict criteria and donors receive all the necessary information, it is obvious that the decision making presents with significant gaps. Further study is necessary to determine the extent donors understand consent, so information giving techniques can be evaluated and improved.

Disclosure: No conflict of interest declared

O 12

Becoming a living kidney donor; considerations and decision-making

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Background
When possible, renal transplantation is the treatment of choice for patients with end-stage renal disease. Technological developments in immunology have made it possible to perform kidney transplants between donors and recipients despite antibodies against the donor organ. This allows for a wider range of relationships between recipient and donor.

Objectives
The aim was to investigate the early experiences of, and reflections on, kidney donation among genetic and non-genetic living donors before first consultation at the transplant centre.

Methods
The study was conducted within a phenomenological-hermeneutic theoretical framework. Data were generated through semi-structured interviews with 18 potential donors and participant with observation of consultation between potential donors, recipients, doctors and nurses. Data was interpreted and discussed in accordance with Ricoeur´s interpretation theory on the three levels of: naïve reading, structural analysis, and critical interpretation and discussion.

Results
The decision to donate a kidney involved considerations and reflections in relation to personal and family situation, dilemmas regarding the donation process and concern for and identification with, the recipient's illness situation and everyday life. The desire to help was prominent, and the potential benefits to both donor and recipient were significant in the decision-making process.

Conclusion/Application to practice
Involving donors narrative in reflections about and modifications to clinical nursing practice can help in planning and providing individual nursing care and support to donors. This support might have an impact on the entire donation process

Disclosure: No conflict of interest declared

S 08 Education
Beta, 11:00–12:30

GUEST SPEAKER
Diabetes and chronic kidney dinase – educating staff and patients
P. Kalra
UK

Abstract is not available.

O 13

Implementation of Motivational Interviewing in practice

M. Berg[1], L. Rasmussen[1], B. Baek[1]
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Background
In 2012, research of patients admitted to the Nephrology ward showed that patients did not experience acknowledgement on admission, although nurses are educated in ‚Motivational Interviewing' (MI). Two nurses saw an opportunity to make their colleagues competent in MI skills.

Objectives
To develop skills in MI, the nurse must identify the patient's resources and mutual expectations for admission. To tackle the issues that feel relevant or are difficult for the patient.

Methods
Breakthrough series method and Plan Do Study Act circles.
Conduct a literature search.
Two Nurses advised, trained and facilitated their colleagues in the process.
Prepare the organization for the change by introducing role-play and feedback.
Four colleagues were selected to train intensively in MI.
Pre -focus group interviews, IN – exercise at the ward, AFTER – focus group interviews.
Competency Maps for documenting training and retaining MI.

Results
The four selected colleagues aroused curiosity and motivation and the two nurses gained great knowledge from their colleagues' prerequisites.
The nurses experiencing the interaction with the patient became more dynamic and meaningful, and that their preconception of the patient perspective is put into play. Data collection on admission will be qualified and the nursing process will be launched on relevant issues.
The patients express that they are seen, heard, met and feel more informed.

Conclusion/Application to practice
There will be a follow-up focus group interviewing with the four colleagues.
The nurses' skills in MI can be transferred to other aspects of nursing such as basic needs and the conversation when the patient is discharged.

Disclosure: No conflict of interest declared

O 14

Research and patient centred care – the SoLID trial experience

T. Ostapowicz[1]
[1]Renal Medicine, Wellington Hospital, Wellington, New Zealand

Background
New Zealand has one of the highest home-based dialysis patient populations in the world. Regardless of culture and beliefs, all home dialysis patients value their independence and dialysis is tailored specifically for each individual.

Coordinating the Sodium Lowering In Dialysate (SoLID) trial has highlighted the importance of maintaining a holistic balance to accommodate these diverse patients on home haemodialysis. This trial has many assessments which are time consuming and affects a treatment that these highly motivated patients have adapted to fit their lives.

The SOLID study is a research trial implemented in New Zealand to address the high rate of cardiac death in our home dialysis patients. The risk of sudden cardiac death is greater when there is an increase in left ventricular (LV) mass. Risk factors associated with LV hypertrophy are consistent with elevated BP and fluid overload. Frequent/ nocturnal dialysis has been previously shown to improve BP and extracellular fluid volumes, with reduction of LV mass. However, not all patients can manage such a treatment regime at home.

SOLID is a randomised, controlled trial aiming to recruit 118 New Zealand home haemodialysis patients. It compares LV mass index and outcomes of 12 months on low sodium (135mmol/L) versus conventional sodium (140mmol/L) dialysate.

Making this trial work has required much flexibility, negotiation and trust. The patient profiles we will describe illustrate the colourful diversity of each individual situation.

Disclosure: No conflict of interest declared

O 15

Development of a training and education strategy focussing on "education for today and tomorrow"

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[1]NephroCare Head Office, Fresenius Medical care, Birmingham, United Kingdom

Background
The need for the development of exemplary renal knowledge and skills for the renal workforce is synonymous with the need to promote staff education and training which in turn has the capacity to have a positive impact and outcome for renal patients.

Objectives
The main objective was to survey employees in order to review the current training provision with the aim of improving training support and developing a new training and education strategy.

Methods
A training questionnaire was distributed to all staff employed in satellite dialysis units for electronic completion using Keysurvey. The questionnaire consisted of 43 questions which varied in design from true/false style, likert style and free text responses. Demographic questions were also included in order to gain an insight into the survey population.

Results
The results were completed online using Keysurvey this allowed timely review of the results, ease of analysis and generation of themed results.
The results were collated and used to develop "6 E's of Education" – **E**ducation, **E**nergise, **E**xpertise, **E**xcellence, **E**nlighten, **E**nlist.

Conclusion/Application to practice
In conclusion the safe assessment, planning, delivery and evaluation of high quality holistic dialysis care is paramount and forms the foundations of our training and education strategy – the 6 E's.

Disclosure: No conflict of interest declared

O 16

Haemodialysis patients improved life skills after using the Guidet Self Determination Method

J. Finderup[1], T. Bjerre[2], A. Nielsen[3], M. Nielsen[4], V. Zoffmann[5, 6]

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Background

Studies in diabetes have shown that the Guided Self Determination (GSD) method effectively improved patients' glycemic control and life skills with their chronic condition. As a pilot study in 2011 showed promising results of using parts of GSD adjusted to haemodialysis patients, we decided to test a fullscale GSD in haemodialysis patients.

Objectives

To investigate how GSD influenced haemodialysis patients' life skills including their self-management of their condition.

Methods

After GSD was fully adjusted to haemodialysis patients, 20 nurses from five different dialysis units in Denmark went through a certification process each delivering GSD-intervention for two patients. 40 patients thus went through a GSD-intervention lasting four months and comprising six GSD-sessions.

A mixed methods evaluation was conducted analysing semi-structed interviews with 13 patients and clinical data from all participants.

Results

Qualiatively most patients improved their life skills after the GSD-intervention. A patient said: „I have become able to do more than just lying ill" and another patient put it: „I have got other goals and more happiness into my life". Some patients became more involved in their dialysis treatment changing to home-haemodialysis and some obtained better control of their phosfate, potassium, malnutrition and fluid overload.

Conclusion/Application to practice

Some patients recommended that GSD should be delivered to patients as soon as possible after starting dialysis. The results indicate that the GSD method increased life skills in haemodialysis patients and can be recommended in earlier stages of kidney disease. A randomised controlled trail is needed.

Disclosure: No conflict of interest declared

S 09 The Dialysis Outcomes and Practice Patterns Study (DOPPS) Program: In-Center Hemodialysis and Beyond
Omega 1, 12:30–14:00

1. Introduction: Extending the scope and reach of the DOPPS projects
2. Vascular access: global trends, associated practices, and outcomes use
3. Have recent policy changes in Europe impacted clinical practice in dialysis?
4. Improving patient-centered outcomes in hemodialysis: What are the next steps?

This Symposium will focus on new findings provided by the DOPPS regarding modifiable hemodialysis practices. The program will highlight evidence-based opportunities for improving clinical management of hemodialysis patients. The international panel of speakers will present several clinically relevant practice areas, with emphasis given to the international perspectives of DOPPS. Dialogue between the panelists and audience is encouraged during the Panel Discussion in the closing minutes of the program.

S 10 Greek Workshop
Omega 2, 12:30–14:00

Acute kidney injury (AKI) – Renal Replacement Therapy – Medical and nursing approach
N. Oustampasidou, I. Stefanidis

Acute kidney injury (AKI) is an abrupt decline in kidney function. It is frequently accompanied by oligoanuria and always results in an elevation of serum urea and creatinine. Several AKI consensus meetings took place since 2004 in order to provide a uniform definition, which better represents the full spectrum of acute kidney dysfunction.
The full blown syndrome is a life-threatening condition and potential complications are volume overload, hyperkalemia, acidosis, and uremia. Treatment for these complications is renal replacement treatment by hemodialysis and its variants (intermittent or continuous) depending on the patients' hemodynamic status.
In patients who are volume depleted fluid should be given to restore intravascular volume. The amount of fluid administered should be targeted to defined endpoints, such as arterial blood pressure or central venous (atrial) pressure. In volume overload loop diuretics should be used to relieve signs and symptoms but not for prolonged therapy in place of dialysis.
The treatment of hyperkalemia by dialysis is determined by severity (K>6 mmol/l) and by the presence of any associated symptoms or electrocardiographic signs. In severe acidosis (pH <7.1) with volume overload dialysis is preferred to the administration of bicarbonate. Bicarbonate therapy is also not recommended in less severe metabolic acidosis (pH ≥7.1).
Further optimising therapy of AKI will probably improve the bad prognosis of this severe condition.

S 11 Multimorbidity and Kidney Disease
Beta, 12:30–14:00

GUEST SPEAKER

Care of the renal patient with multimorbidity: a guide to clinical practice

K. Pugh-Clarke[1]
[1]Kidney Unit, University Hospital of North Staffordshire NHS Trust, Stoke-on-Trent, United Kingdom

Background

One of the greatest challenges in nephrology nursing is providing optimal care for kidney patients with multiple chronic conditions, or 'multimorbidity'. The prevalence of multimorbidity (the simultaneous presence of two or more chronic conditions) has risen substantially in recent decades, and, as a consequence of the obesity epidemic and an aging population, will continue to rise in the future.

Multimorbidity, within the context of kidney patients, is associated with many adverse outcomes, including acceleration of the underlying renal disease process, impaired quality of life, functional incapacity, and mortality. Furthermore, multimorbidity also has significant financial implications in terms of health care provision and utilisation.

It is therefore timely that I introduce this latest EDTNA handbook, the aim of which is to provide nurses with the knowledge and skills required to care for kidney patients with complex chronic illnesses. The opening chapters of this handbook will explore the concept of multimorbidity, in terms of predisposing factors and prevalence in kidney patient populations. A case studies approach will then be employed to examine the nursing and pharmacological management of kidney patients with specific multimorbidities. The notion of evidence-based practice with be emphasised throughout this handbook, in addition to promoting holistic patient assessment and facilitating self-care.

GUEST SPEAKER

"It's not just my kidneys!" Caring holistically for the patient with CKD & multimorbidity

T. Kafkia[1]
[1]Department of Nursing, Alexander Technological Educational Institute, Thessaloniki, Greece

Background

In CKD population clinical outcome is affected by multimorbidity. Diabetic Nephropathy (DN), leading cause of End-Stage Renal Disease, has genetic predisposition, different rates of hypertension, obesity, and other socioeconomic factors affecting early diagnosis and treatment. Worldwide, hypertension is present in 20% of all CKD and >80% of DN patients. Lifestyle modifications and antihypertensive therapy can contribute in its management. Furthermore, chronic volume overload and mineral metabolism abnormalities attribute to arteriosclerosis which exacerbates left ventricular hypertrophy causing restrictive or dilated cardiomyopathy and myocardial ischaemia. Cardiovascular Disease (CVD) affects almost 63% of patients with advanced CKD, compared to 6% in non-CKD adults, and is accounting for 45% of deaths in dialysis population. Hypertension and risk factors management improve quality of life and is believed to reduce CKD progression. In addition, renal anaemia is associated, not only, with poor quality of life, but also with increased hospital admissions, CVD and mortality. The clinical outcome is even inferior in the presence of Renal Osteodystrophy (RO). Anaemia management focuses on optimization of Hb and iron status with of ESAs and iron supplements. Administration of phosphate binders, vitamin D supplements and dietary intake is thought to contribute in RO management. Finally, research has shown that depression is negatively affecting social and professional life, as well as physical health and functional status. The estimated prevalence is depending on the stage of CKD varying from 23% to 40%.

Conclusion/Application to practice

It is the multiprofessional team cooperation that can attribute to holistic assessment and management of renal patient.

O 17

Prevalence of PAIN in Spanish dialysis units

D. Hernán[1], **R. Martin**[2], **C. Pereira**[1], **S. Muñoz**[1], **J. Guerrero**[1], **L. Sanchez**[1], **N. Mouriño**[1], **M. Pereira**[1], **J. Cabrejos**[1], **C. Ledesma**[1]
[1]Nursing, Fundación Renal **Íñigo** Álvarez de Toledo, Madrid, Spain; [2]Nephrologist, Fundación Renal Íñigo Álvarez de Toledo, Madrid, Spain

Background
Pain is present in healthy older people, so we can assume that in dialysis patients, with an average age between 65-70 years, prevalence of pain will be higher. But we don´t know how much higher. The main objective of the study is to assess the degree of pain that dialysis patients suffer and to develop strategies for early detection by nursing personnel in order to effectively manage it and improving the quality of life for renal patients.

Objectives
1 – To determine prevalence of pain, type, severity and restraints
2 – To determine impact of pain on quality of life, and daily activities. Management strategies
3 – On a second stage, to recommend ways to effectively manage pain, as well as to provide education and training to nurses and nephrologists about pain management in dialysis patients

Methods
Sample: 250 dialysis patients from 18 dialysis clinics and hospital units.
Methods: nurses have evaluated pain using the following surveys: Mc Gill pain questionnaire, SF -36, Wisconsin Brief Pain Questionnaire and anxiety questionnaire
Statistical analysis: Logistic regression and multiple linear regressions. Sampling stratified by center and sex.

Results
Based on a preliminary study of the data collected, at least, 40% of patients present some degree of pain (we are still analyzing the questionnaires collected).

Conclusion/Application to practice
Prevalence of pain among dialysis patients is high. Pain isn´t effectively managed in dialysis units. Measures like training and educating nurses and nephrologists in the use of analgesics or engaging patients in activities during dialysis sessions are the next step on our study.

Disclosure: No conflict of interest declared

S 12 CES Diaverum
'Water is life'
Putting dialysis water at the centre of patient care
Omega 1, 14:00–15:30

Background
Water is usually not considered as part of the haemodialysis prescription; however it is a fundamental part of the haemodialysis treatment. Due to the nature of their illness and the dialysis treatment patients are vulnerable to suffer ill effects from poor quality dialysis water. With an average weekly exposure to water of around 360 litres and the potential for diffusion of a range of substances into the patient's blood, the content and quality of the dialysis fluid and therefore dialysis water becomes extremely important!
Despite ever tighter guidelines for dialysis water and dialysis fluid both chemical and biological contaminants still presents a high risk to patients. The effects on patients from contaminants in dialysis water can: occur rapidly and many incidents have resulted in patient deaths. It is therefore important that **all** staff, nurses as well as technicians with a responsibility for any aspect of the water treatment system has the knowledge to identify hazards which may create a risk to the patient's health and safety and take appropriate corrective actions

Objectives
The objective of this Corporate Education Session is to discuss the important aspects of dialysis water treatment and how patient safety can be promoted using a combined and structured approach to the management of dialysis water.
The session aims to discuss the aspects of dialysis water that affect patient safety and how these can be managed in order to minimise the potential risks to our patients.

Method/discussion
The potential risk to patients from dialysis water and fluid can be decreased by understanding both the microbiological and chemical hazards that can be present in dialysis water. To protect patients from potential contaminants requires: appropriate water treatment system design, proper monitoring, appropriate disinfection, sensitive microbiological analysis, compliance to current water treatment standards, education of staff and a coordinated team approach. Within our dialysis clinic network we have introduced several initiatives to ensure that these aspects are imbedded into our working philosophy:

Policy and procedure: help to define the required components of the system, how these should be measured, monitored and maintained.
Water Advisory Group: to support clinics when new systems are to be installed and to give advice when problems are encountered.
Water Education Programme: to ensure that all staff with responsibility for any aspect of the water treatment system have the necessary knowledge and skills to undertake the required tasks.
Audit: to ensure that maintenance and monitoring, system design and functioning and staff education are appropriately implemented in every clinic to minimise the potential risk.

Conclusion
Ultimately success depends on excellent technology, procedures, and policies that are appropriately tailored to the circumstances of individual water treatment systems. This requires absolute compliance with required procedures and testing. It also mandates that personnel in dialysis units be trained to keep watchful eyes on all aspects of the operation. Ultimately, safety rests in the hands of the people in charge. Education and knowledge are vital.

Session content
The importance of dialysis water
Jan Cowperthwaite

Ensuring chemical safety
Israel Silva

Promoting microbiological quality
Maria José Guerra

Introduction of a Dialysis Education Programme
Experience from Poland
Anetta Cekala

S 13 Vascular Access
Omega 2, 14:00–15:30

GUEST SPEAKER

Duplex Doppler ultrasonography of vascular access: diagnosis of complications and its role in surveillance

Jan Malik
Czech Republic

Abstract is not available.

O 18

A nurse led clinical pathway for dialysis vascular access dramatically improves outcomes.

T. Ngcobo[1], D. Marquez[1], B. Al Kaddah[1], E. Suleiman[1], A. Delgado[1], M. Baguneid[2], M. Al Shehhi[2], M. Richards[1]
[1]Nursing, SEHA Dialysis Services, Abu Dhabi, United Arab Emirates; [2]Vascular Surgery, Al Mafraq Hospital, Al Mafraq, United Arab Emirates

Background
The gold standard for haemodialysis vascular access is an arteriovenous fistula (AVF). The use of indwelling dialysis catheters is associated with excess morbidity and mortality, and resulting central venous stenosis may preclude a successful AVF. In 2013 an AVF was present in 50% of dialysis patients within Abu Dhabi.

Methods
Following the appointment of a vascular surgery team, we established a multidisciplinary team (MDT) with a nurse leader. Analysis of the patient pathway identified numerous blocks to successful and timely access. A clinical pathway was developed to cover the entire Emirate which addressed these blocks through provision of clinics within the dialysis units, direct nurse referral to clinics, an appropriate needling strategy and timely removal of dialysis catheters.

Results
Six months following initiation of the pathway catheter use had fallen by 30%, the proportion of patients with AVF had increased by 22% to 70% overall and the catheter associated blood stream infection rate had fallen by 60%. Simultaneously mean dialysis blood flow rates increased from 324 to 360 ml/min and the % of patients achieving a spKt/V ≥ 1.4 increased from 73% to 87% (although some of this improvement may be related to changes in dialysis time). The annual cost saving associated with catheter locking solutions alone was 750,000 AED.

Conclusion/Application to practice
These data demonstrate that a nurse led MDT approach with a unified clinical pathway and appropriate resources can dramatically improve the provision of AVF for dialysis vascular access with long term clinical benefit to patients and financial benefit to the health economy.

Disclosure: No conflict of interest declared

O 19

Is home haemodialysis associated with reduced vascular access complications?

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Background
In-centre haemodialysis, vascular access management is a cardinal issue in home haemodialysis (HHD) patients.

Objectives
To determine the distribution of vascular access (VA) types and fistula cannulation techniques and the association between socio-demographical characteristics and VA complications.

Methods
Between April 2010 and June 2013 we evaluated demographic and VA data from 153 patients from 30 centres on HHD (most of them three times / week).

Results
Mean age was 42.5±12.5 years, 30.7% were female, 13.7% were diabetics and mean follow-up was 13.8 months. 56.2% finished primary school and 43.4% graduated from middle/high school or university. 85.6% received treatment via arteriovenous (AV) fistula, 3.3% via AV graft and 11.1% via catheter. The buttonhole technique was used in 57.4% of the fistulas; rope-ladder in 33.8%, and area technique in 8.8%. During the follow-up, we observed 25 events (loss of fistula or graft or revision) in 23 of a total of 136 patients (15.9 events/100 patient years). Suriet al. recently reported higher VA event rates: in 3 times/week in-centre HD (23/100 patient years) and nocturnal HHD 6 times/week (58/100 patient years).
Diabetic patients showed a tendency for increased vascular access problems (p=0.12). There was no apparent correlation between VA complications, socio-demographical parameters, and cannulation technique.

Conclusion/Application to practice
HHD patients had less AV fistula/graft revisions and loss as compared to patients receiving conventional dialysis or by frequent HHD, recently reported in literature. However, the high events rates reported for frequent HHD may partly be due to a higher frequency of vascular access connections.

Disclosure: No conflict of interest declared

O 20

Teaching self-cannulation – A way to autonomy

M. Agostinho[1], R. Pinto[1], A. Seabra[1], J. Fazendeiro Matos[2], M.T. Parisotto[3]
[1]NephroCare Dialysis Centre Coimbra, Fresenius Medical Care, Coimbra, Portugal; [2]NephroCare Nursing Care Management, Fresenius Medical Care, Porto, Portugal; [3]NephroCare Coordination , Fresenius Medical Care, Bad Homburg, Germany

Background
Introduction of the needle is very stressful for dialysis patients, due to lac of control and association with pain. Needle fear does not mean that the patient is weak. Self-cannulating patients learn to overcome these fears and become actively involved in their care. The NKF-DOQI 2000 recommends: "Patients who are capable and whose access is suitably positioned should be encouraged to self-cannulate. The preferred cannulation technique is the buttonhole."

Objectives
To develop a programme for patient self-cannulation.

Methods
The teaching program was based on:
1. Pre-cannulation education to help patients overcome their needle fear.
2. Tandem-hand cannulation, i.e. guided help in learning how to cannulate.
3. Touch cannulation, i.e. a method of holding cannulation tubing for better control.

Results
We started the study with a pilot phase with one patient. The selected patient was a 32 year-old women who ahd undergone 8 months of cannulation using the buttonhole technique.
One month after the beginning of the programme, the patient had achieved the minimum requirements to perform the technique of self-cannulation.
After the first autonomous cannulations, the patient reported less pain on puncture and – most importantly – less fear of the needle insertion.

Conclusion/Application to practice
By self-cannulation patients don´t have to rely on their nurses, but take responsibility of their care and control of their lives. After introduction of autonomous cannulation our patient reported less pain and fear and more self-confidence. Considering the results reported in literature and our first observations, we would like to further explore and spread this method.

Disclosure: No conflict of interest declared

O 21

Prevention and delaying progression of chronic kidney disease

I. Amer[1]
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Background

Estimated prevalence of chronic kidney disease in the world is about 380 million in 2013. The most recent report of the United States Renal Data System estimates that nearly one-half million patients in the United States were treated for End Stage Renal Disease in the year 2004, and by 2013 this figure increased by approximately 40%. People on renal replacement therapy will reach about 2.5 million by 2013. More than 80% of patients live in the developed world, because in developing countries it is largely unaffordable. Moreover there are a lack of facilities for early detection, prevention and treatment of chronic kidney disease.

Objectives

Objectives are to:

- Describe the incidence and state of chronic kidney disease.
- Highlight the related patient, family and staff educational program.
- Describe the plan for prevention and slowing the progression of the disease.
- Identify ways that community can help to reduce chronic kidney disease.

Methods

Individualized and group, patient and family education programs through a multidisciplinary team approach.

Results

1. Patients awareness about the disease process has been enhanced.
2. Quality and continuity of care **enhanced.**
3. Knowledge and skills for self-care enhanced.
4. Better lifestyle.
5. Psychosocial conditions improved.

Conclusion/Application to practice

Chronic kidney disease is very common and expensive. Knowledge is power for the healthcare professionals and customers. The highest form of preventive measures is by educating patients, relatives, care givers and the community to make lifestyle changes to improve their health and quality of life. Knowledge empowers patients awareness to slow disease progression, and to feel more safe and relaxed during anxiety producing situations as their disease progresses.

Disclosure: No conflict of interest declared

S 14 Risk management
Beta, 14:00–15:30

GUEST SPEAKER

Technology-related clinical risks and problems in haemodialysis

F. Lopot[1]
General University Hospital and Charles University Medical School, Prague, Czech Republic

Extracorporeal blood cleansing procedures are on one side life-saving, but on the other side they bear significant risks and hazards when that technology is not applied with appropriate knowledge and caution. "Technolgically-conditioned" are different adverse events associated with blood loss in the extracorporal circuit (clotting as a consequence of improper priming procedure, failure to adequately anticoagulate the circuit etc or haemolysis from mechanical or chemical reasons) or loss of blood into environment (membrane rupture, needle dislodgement, disconnection of the extracorporeal circuit). Potentially fatal is air embolism caused by failure of the respective detector(s) or erroneous reaction of the staff to alarm situations. Also risk of transmission of infectious diseases between patients are associated with the extracorporeal blood circuit rather than by the hydraulic pathway of the dialysis machine. Typical clinical problems attributable to dysfunctional dialysate circuit or its improper handling include sodium dysbalance which may bet manifested both intradiaalytically (crapms) or during the interdialytic period (increased interdialytic weight gains) and positive thermal balance which may induce or contribute to intradialytic hypotension onset. Quite hazardous is high or too fast alkalisation of the patient which may even result in sudden cardiac arrest. One has to be aware that intradialytic changes in plasma pH are related not only to bicarbonate content in dialysis solution but also to the content of bicarbonate precursors in it used as its acidifying agents (both acetate and and today also increasingly used citrate). Specific risks usually not considered at all by dialysis staff are given electric currents leaking from faulty machine via the patient to ground. This is especially an issue in patients dialysed via central venous catheters.

O 22

Impact of dialysis solution (DS) bicarbonate(HCO3-) and calcium(Ca2+) concentration on patient plasma ionized calcium(Ca2+) concentration

S. Vankova[1], M. Halaszova[1], J. Havlin[1]
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Background
Haemodialysis with low-calcium DS(Ca^{2+}1.25 mmol) increases sudden death risk, and QTc dispersion. Nothing is known about intradialytic changes in plasma Ca^{2+} with respect to concentration of $HCO3^-$ in DS. Moreover, low Ca^{2+}in DS is recommended as extraosseal calcifications prevention.

Objectives
We assume that content of Ca^{2+} and $HCO3^-$ are important factors having an impact on resulting Ca^{2+}plasma concentration.

Methods
We examined 11 patients with sinus rhythm, uncomplicated dialyses proceeded. Shunt function was 350 ml/min, recirculation under 4%. Each patient underwent 4 treatments with the following parameters: HD 4.5hours, QB 350ml/min, QD 600ml/min, dialyser polysulfone, low flux 1.5m^2. Concentrations of Ca^{2+} and $HCO3^-$ were changed gradually: A/ $HCO3^-$26, Ca^{2+}1.25 B/ $HCO3^-$32, Ca^{2+}1.25 C/ $HCO3^-$26, Ca^{2+}1.5 D/ $HCO3^-$32, Ca^{2+}1.5. Before/after HD we monitored: Ca, Ca^{2+}, $HCO3^-$, ECG. For statistic we used ANOVA-test.

Results
ECG recorded neither any arrhythmia nor any QTc interval changes.Intradialytic Ca^{2+}changes were 0,03mmol/l for DS1,25/26, -0,02mmol/l for for DS1,25/32, 0,14mmol/l for for DS1,5/26 and 0,18mmol/l for forDS 1,5/32. Ca^{2+} changes were significant for different Ca-concentrations and for combination of different HCO3 and Ca-concentrations.

Conclusion/Application to practice
Post-dialysis plasma Ca^{2+}concentration is affected significantly not only by DS-Ca^{2+}concentration but also by combination of $HCO3^-$ and Ca^{2+}. Intradialytic alkalinisation may be risk factor for reduction of biologically active plasma calcium. We failed to prove any ECG changes.

Disclosure: No conflict of interest declared

O 23

Intensive patient bedside education as a path towards better compliance in protein supplements intake

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Background
Malnutrition is common in dialysis patients. It predicts morbidity and mortality both in hemodialysis and peritoneal dialysis. Hence, nutritional supplements are routinely suggested to such patients to maintain their nutritional status. However non-compliance is common among this group. To standardize therapy and improve the clinical outcome for our chronic hemodialysis (HD) patients, we evaluated compliance between the oral protein supplements prescribed and what the patients are really taking.

Methods
All patients (135) on hemodialysis were eligible for the study. We analyzed the initial compliance evaluation before our intense bedside education and repeated the evaluation three months later. At the first evaluation we analyzed data from 105 patients who were given protein supplement. From that number only 50 (47%) patients took their supplement regularly. 65 (58%) gave indigestion as the main reason for not complying. 52 (80%) and 13 (20%) of patients gave no reason for not complying. In the follow up evaluation three months later we had 112 prescribed supplements. 100 (89%) patients fully complied and only 12 (10%) patients failed to comply. Of those who failed to comply 8 (66%) gave indigestion as the main reason and 4 (34%) gave no particular reason.

Conclusion/Application to practice
Our study showed significant reduction in non compliance after the intensive bedside education provided by our nurses.

Disclosure: No conflict of interest declared

O 24

Analysis of the nutritional status of patients with renal disease during hospitalization

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Background
Prevalence of malnutrition in our population is very high, 57.6% of our patients had an albumin <3.5 at the time of discharge. Is an important common problem and a risk factor for mortality, there is no consensus for evaluation.
The use of bioimpedance (BIA) has been extended recently, is an objective method, safe and low cost to assess body composition and hydration status, can obtain nutritional parameters.

Objectives
Assess the nutritional impact of hospitalization. Record and analyze the percentage of daily dietary intake during admission. Assess if BIA is related to other nutritional parameters.

Methods
Prospective observational study of patients admitted to our nephrology ward for 6 months. Analytical analysis and anthropometric parameters: albumin, Subjective Global Assessment (SGA), Simplified Nutritional Appetite Questionnaire (SNAQ) and BIA at admission and at discharge. We made a record of the daily intake of the sample.
Statistical analysis SPSS 20.

Results
92 patients were included with a mean age of 61.4±20.5 years, a BMI of 28.6±7.3 kg/m2 and a mean hospital stay of 11.79±7.78 days.
Intakes were assessed, missed meals by fasting for additional tests were recorded.
Breaking down the SNAQ questions at discharge we found the level of appetite and how does the food tastes to our patients.
Patients with an albumin <3.5 had a >FTI and those with an albumin >3.5 a <LTI percentage.

Conclusion/Application to practice
Hospitalized patients lose between 10% -17% of the meals; we have started raising interventions to reduce that amount. Many meals are lost by fasting and often are not recovered.

Disclosure: No conflict of interest declared

O 25

Long nocturnal dialysis – A better quality of life?

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Background
The Long Nocturnal Dialysis programme (LND) launched in April 2013 was developed to meet the requirements of a well-tolerated, effective, and affordable treatment, reduce morbidity and mortality of patients thus increasing their quality of life (QOL).

Objectives
To compare QOL aspects before and after initiation of LND.

Methods
We evaluated 12 patients (three female, mean age 41.55 ± 6.93 years) with a mean time on HD of 63 ± 37.2 months. Patients were surveyed before and after LND implementation with the following self-administered questionnaire: KDQOL-SF version 1.3 adapted to our objectives and validated by a pre-test.

Results
From the results we highlighted the ones with statistical significance ($p < 0.05$). Comparing mean scores of QoL aspects before LND vs. after LND implementation revealed:

- Perception of their health improved from 2.5 (±1.17) to 3.4 (±1.16) on average
- Perception of breathlessness decreased from 2.42 (±2.42) to 1.42 (±0.79) on average
- Anorexia, decreased from 2.01 (±1.38) to 1.33 (±0.65) on average
- Perception of fatigue decreased from 3.5 (±1.01) to 2.33 (±1.30) on average
- Perception of satisfaction with the amount of time spent with family and friends, increased from 2.92 (±1.08) to 3.83 (±1.19) on average

Conclusion/Application to practice
Of 20 parameters analysed only five had statistical significance although improvements were observed in all of them. We can thus conclude that there was indeed an improvement in the patients' QOL.

Disclosure: No conflict of interest declared

S 15 Predialysis – prevention
Omega 1, 16:00–17:30

GUEST SPEAKER

Optimising the care of the pre-dialysis patient

P. Kalra
UK

Abstract is not available.

O 26

Preparing patients to choose a renal replacement therapy: experiences and practical suggestions

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Background

Different treatment modalities are available for patients with progressive chronic kidney disease. The choice of modality may have a significant impact on patient satisfaction with care, compliance with therapy and ultimately treatment outcomes. Therefore, active patient involvement in the choice of treatment is crucial to maintain his/her engagement in the therapy.
To help patients make an informed choice, guidelines recommend a programme of Renal Replacement Therapy Option Education (RRTOE), but with little guidance on its content, delivery and assessment. Nurses are key players in organising, delivering and assessing RRTOE.

Methods

A panel of ten European experts was gathered to share their experience and build a consensus on quality standards and practical advice to support nurses in providing effective, unbiased and individualised RRTOE.

Results

The following were identified as indicators of good RRTOE programmes: (i) a multidisciplinary team, with a nurse and a nephrologist as core members; (ii) an experienced nurse, ideally in all treatment modalities, with communication skills that maximise the patient's learning and avoid bias; (iii) an individualised approach, that consists in engaging with the patient and adapting RRTOE to his/her needs in terms of session types (one-to-one vs. group sessions, visits to dialysis units, meetings with expert patients), material selection (booklets, videos) and content structure (appropriate timing); (iv) a continuous improvement feedback loop, including a series of quality assessment criteria in line with the RRTOE objectives.
A field survey will be performed in the coming months to evaluate the extent to which dialysis clinics already comply with these indicators.

Disclosure:
All authors have served as consultants to Baxter Healthcare Corporation. M.P.-V. has advised, consulted or received speaker honoraria from Baxter, Fresenius, Gambro, Abbvie, Shire, and Sanofi Renal. A.M. is on the speaker list for Sanofi, BMS, MSD, Shire, Amgen and Pfizer. T.G. has served as a consultant to Gambro AB, Fresenius, and Amgen.

O 27

Healing by design – developing partnership with architects in dialysis unit design

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Background
Healing by design considers how architecture promotes healing and how research evidence and best practice guides innovative design solutions. The philosophy of healing by design is well documented although its application to dialysis unit design has been limited.

Objectives
This study, part of a Master's degree in Architecture, investigated architectural design of dialysis units and its environmental impact upon patient and staff.

Methods
Using mixed methods design, data collection included observational field visits to dialysis units within Europe, focus group with representatives of patient association and an electronic survey of EDTNA/ERCA members concerning dialysis unit design. Global opinion leaders within the fields of nephrology & architecture also contributed to the data collected.

Results
Patients felt strongly that dialysis unit design increased their feelings of being institutionalised and detached from the outside world which worsened their feelings of depression. From the 13 environmental factors examined within the survey, EDTNA/ERCA respondents were least satisfied with dialysis unit levels of privacy, views from windows, unit temperature & unit odour. Improved 'patient privacy' was believed to be the single most important factor with representatives from the patients association suggesting improved privacy would have the biggest impact on patient well-being.

Conclusion/Application to practice
Collaboration between patients, renal healthcare professionals, patients and architects in implementing thoughtful architecture on dialysis unit design is vital in acknowledging how light, colour, space and design effects patient and staff well-being, patient privacy, dignity, and quality of life. The findings from this study have been used to guide the design and development of a prototype renal unit.

Disclosure: No conflict of interest declared

O 28

Assessing the impact of educational intervention in hypertensive patients

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Background
It is accepted that patient education can be beneficial in the treatment of chronic diseases. We conducted an educational intervention (**EI**) in hypertensive patients seen at Primary Care centres (**PCC**) and specialised Hypertension Units (**SHU**).

Objectives
To assess patient's knowledge of hypertension and to verify the impact of this educational initiative.

Methods
A multicentre quasi-experimental study with the participation of 120 hypertensive patients. **EI** consisted of oral and written information which included the definition of hypertension, causes, cardiovascular risk factors and means of control. A self-administered questionnaire was used to assess patient's knowledge before and after **EI**.

Results
62 (52%) patients were from **PCC** and 58 (48%) from **SHU** (mean age: 61 ±13.3 years, 59% were women). There were no differences in baseline characteristics between patients attended at **PCC** and **SHU**. The definition of hypertension (blood pressure ≥140mmHg and/or ≥90mmHg) was known by 48% and 99% of the participants before and after **EI**, respectively ($p < 0.001$). Poor baseline knowledge about the risks of hypertension was related to kidneys (54%) and eyes (58%). After **EI** this knowledge increased to 100% ($p < 0.001$ and $p < 0.001$, respectively). A significant improvement in knowledge about medication was observed (51% before and 87% after **EI**; $p=0.004$).

Conclusion/Application to practice
This study shows positive impact of **EI** to improve patients' knowledge about hypertension. However, further studies are needed to assess if **EI** produces behaviour changes in the long term, as this may enhance optimal blood pressure control to prevent kidney disease or dalay its progression.

Disclosure: No conflict of interest declared

O 29

The impact of exercise on haemodialysis patients' quality of life – A systematic review

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Background
Literature shows that the incorporation of moderate physical activity is particularly beneficial for people with chronic kidney disease (CKD). However, the positive impact of intradialytic exercise on patients' quality of life (QoL) has not been established yet.

Objectives
To assess whether literature provides scientific evidence that exercise for haemodialysis patients is effective in improving their quality of life

Methods
A systematic review was performed to answer the question: "Is exercise in haemodialysis patients a way to improve their quality of life?" We searched on EBSCOhost and Google Scholar. The criteria excluded were: Paediatric population, peritoneal dialysis, and studies older than 2005.

Results
We found six studies and one systematic review: Four about intradialytic exercise, one about prior dialysis exercise and one about exercise on non-dialysis days. The systematic review included two studies of intradialytic exercise, one about prior and during dialysis exercise and one with home independent exercise and intradialytic exercise.

Conclusion/Application to practice
All analysed studies, except for one, suggested a positive correlation between exercise intervention and the QoL of patients with CKD. The implementation of a training programme showed significant improvements in physical, social, and mental health dimensions.
More studies are required to determine the best exercise programmes to improve quality of life. According to the results in literature we will develop a randomized controlled trial. This study will assess the effects of an intradialytic exercise programme during the first two hours of treatment on quality of life, physical functioning, and dialysis efficacy of patients.

Disclosure: No conflict of interest declared

S 16 End of life care
Omega 2, 16:00–17:30

GUEST SPEAKER
End of life care
A. Burns
UK

The increasing numbers of elderly and highly co-morbid patients presenting to nephrology services present many challenges both for these patients, their families and healthcare providers. Recent evidence suggests that dialysis may not alway afford the best option for many of these patients but how do we identify who would benefit from more invasive treatment and who should follow a more conservative pathway.

These many challenges will be discussed and the experiences of a multi-cultural unit with a ten year history of researching this area.

O 30

A multidisciplinary approach to improving conservative management

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Background

The importance of End Of life Care for those with advanced chronic kidnery disease (CKD) is acknowledged in the National Service Framework (NSF) Part 2 2005 and „The End of Life Care in Advanced Kidney disease-A Framework for Implementation" June 2009. Our CM programme was set up in 2004 with 11 patients (10% of annual referrals) and has increased to 23%.
A recent service review highlighted transport to and from the hospital a major cause for concern with patients. Appointments (OPA-Outpatient appontiment) are far from home, parking at the hospital is not only difficult but expensive. Public transport in Cornwall is poor

Objectives

Improve the service by reducing the number of OPA in secondary care but continue to provide support and supervision by setting up a Telephone Consultation Clinic between opatients with members of the MDT-CKD Nurse. Renal Dietician and Specialist Practitioner

Methods

Patients and GPS wrre sent letters introducing the service
Collaborative working with community nurses was developed to ensure that routine bloods tests, weight and blood pressure are taken and a list of the patients' medications maintained.
Patients are contacted by phone and their results are discussed with them .A follow up letter is sent to the GP.

Conclusion/Application to practice

The Telephone Consultation Clinic provides good quality care with a high dregree of patient satisfaction
Reducing the number of OPA has cut transport costs and inconvenience for patients, whilst developing excellent relationships with primary care.

Disclosure: No conflict of interest declared

O 31

When patients decide not to dialyse: the PACKS study

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Background
As more people with advanced kidney disease make the decision not to embark on dialysis there is a need to understand the patient and carer trajectory and the impact on quality of life whilst receiving a conservative care approach. Conservative kidney management includes ongoing medical input and support from a multidisciplinary team. There is limited evidence concerning patient and carer experience of this choice. The study was funded by the National Institute of Health Research commencing December 2013 and the study protocol is presented.

Methods
The design is a mixed methods longitudinal study. Patients, who have made the decision not to embark on dialysis, will be recruited from seven sites in the UK by renal research nurses from Renal Clinical Networks. Carers will be asked to 'opt-in' with consent from patients. The approach includes longitudinal quantitative survey of quality of life, symptoms, decision making and costs and quality of life and costs in carers, with questionnaires administered 3-monthly over 12 months. In addition the decision making process will be explored via qualitative interviews with renal physicians/Clinical Nurse Specialists.

Discussion
The study is designed to capture patient and carer profiles when patients with advanced chronic kidney disease forgo dialysis, understand trajectories of care receiving and care-giving and optimise palliative care for this population. It will explore the interactions that lead to clinical care decisions and the impact of these decisions on informal carers. Ultimately the aim is to improve clinical outcomes for patients and the care giver experience.

O 32

Relationship between conflict behaviour and conflict resolution

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Background
Conflicts between healthcare professionals and haemodialysis patients can arise. They can be resolved with a careful analysis of the conflict situations.

Objectives
To observe and analyse conflict situations.

Methods
We evaluated indicators of conflicts, conflict resolutions, personal feelings, and behaviours over 6 months.

Results
We analysed conflict situations of 228 patients (59.65% male) and 59 professionals (49.15% nurses, 22.03% medical assistants, 25.42% physicians).

- 100-130 dialysis treatments/day were performed. In the first 90 days of the study, 33% of conflict situations and in the last 90 days 67% were observed.
- Most conflicts were experienced on Wednesdays (42%), Thursdays (38%), during late (44.5%) and night shift (38.9%), and at the start (42.2%) and end (50%) Total study period check by conflicts 4.9 /1000 treatments, day.
- Conflicts arose more frequently between nurses and patients. The most prevalent indicators of conflicts were the time of entry into the dialysis room 1.27/1000 treatments, day, and the time during haemostasis 1.72/1000 treatments, day.
- In both actors we evaluated:

Raising the voice was an immediate conflict resolution in 94.5% of cases. The main feelings in conflict situations were anger (77.7%) and frustration (36.7%).

Conclusion/Application to practice
We noticed conflicts especially upon entering the dialysis room and during haemostasis. When patients enter the dialysis room, a communication gap may exist: Patients expect that this time is their arrival time, whereas nurses have to manage the daily work. Different expectations may have triggered the conflicts; as expectations remained different, this may have caused further conflicts during haemostasis.

Disclosure: No conflict of interest declared

O 33

Support groups for Haemodialysis patients and family members during Dialysis treatment

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Background
For patients with CKD stages 4-5 the preparation for dialysis therapy and the beginning phase of the actual treatment is a very stressful situation. This new treatment poses several challenges for both the patient and his/her family, including body image perception, sexual function impairment, and physical limitations and psychological stress (Cloues, 2003). The main psychological reactions of the primary caregiver include depression, fear, insecurity, hostility, anger, sorrow, blame, overprotection etc. (Green, 2004). During this stressful stage, the patients tend to forget the information they received from the multidisciplinary team in the pre-dialysis clinic.

Objectives
a. Ease the entrance of new patients to hemodialysis treatment. b. empower the old patients.

Methods
We initiated 4 sessions of meetings with 5 patients and their family members (newcomers and older ones) in the dialysis room, during hemodialysis treatment. Each of these meetings lasted 1.5 hours, and included each time two facilitators, a nurse and a social worker. The themes of the meetings were: 1) open conversation with the physician in charge of the dialysis unit regarding ESRD and its medical implications; 2) Diet, with a nephrologic dietitian; 3) Nursing issues and 4) social rights.

Results
1) The older patients' experiences had a significant postive influence on the new patients' acceptance of their new status as hemodialysis patients. 2) The rating of their satisfaction questionnaire was higher following the sessions.

Conclusion/Application to practice
Active theme-oriented meetings with patients and their family members increases patients' satisfaction and ability to cope with the CKD illness.

Disclosure: No conflict of interest declared

S 17 Masterclass – User involvement
Beta, 16:00–17:30

Workshop facilitated by Brian Gracey, Linda Gracey, Fiona Loud and Nicola Thomas
Patient involvement can be described as 'approaches which engage individual patients in the management of their health and health care, and in the decisions that are made in the course of it' (National Voices 2012).

This session is an interactive workshop facilitated by patients and carers of those with kidney disease. The aim of the workshop is to explore this definition of involvement and to reflect on the 'Ladder of Participation' and its application to renal care. Examples of patient and carer involvement in renal clinical practice, nursing education and quality improvement/research projects will be presented to highlight the progress made in this area to date.

Monday, 8th September 2014

S 19 Psychosocial care
Omega 1, 9:00–10:30

GUEST SPEAKER

Patient centred renal care – perceptions from the patient perspective

M. Kelly[1]
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Background

With the development of the dialysis machine the possibility of life saving treatment became a reality. Yet from the very beginning, while the physical needs of patients could be met through dialysis, there was a growing recognition that dialysis treatment brought with it psychological trauma. This psychological trauma finds expression in many different ways, for example, aggression and anger, depression, fear, non-adherence to diet and medication. It is often the nurse or allied health professional who has to contain the psychological trauma their patients experience. This they do in a variety of ways, sensitivity to patient needs, listening and understanding and giving time. Yet are there other areas that are overlooked, not because we miss them but perhaps because they are too obvious. In this presentation some of these areas will be illustrated and explored enabling a deeper understanding of the significant impact they have on our patients and on their accommodation to treatment regimes. The hope is that this will lead to a deeper understanding and awareness of what our patients experience leading to a more holistic approach to their care.

O 34

Assessment of depression and anxiety in patients with chronic kidney disease on dialysis

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Background
In Europe, Portugal ranks first in terms of the percentage of its population suffering from mental illnesses. Chronic kidney disease is an irreversible health condition involving an increased risk for the onset of depression and/or anxiety due to its effects on patients' well-being and their social role.

Objectives
- To assess depression and anxiety in patients of a Portuguese dialysis clinic
- To describe different relationships among depression, anxiety, medication, clinical, and socio-demographic variables

Methods
We conducted a descriptive, exploratory quantitative study. The Hospital Anxiety and Depression Scale was applied to 60 patients on dialysis for more than one year and able to answer verbally.

Results
In more than half of the patients depression and anxiety were not observed. About 27% exhibited depression or were at risk, and 36.7% exhibited or were at risk of developing anxiety. We found statistically significant positive correlations between anxiety and depression. About 50% of the patients reported taking anxiolytics while antidepressants were only used in rare cases. Female gender, age, time on haemodialysis and co-morbidities were positively related to anxiety and depression. Higher levels of anxiety were related to intradialytic events. Living alone or in foster care was determined as risk factors for anxious or depressive states. In contrast, family support and satisfaction with the health care team seemed to be protective elements.

Conclusion/Application to practice
About one third of our chronic kidney disease patients exhibited depression and/or anxiety or were at risk for these conditions. Systematic and periodic assessment of anxiety and depression levels allows us to identify patients concerned.

Disclosure: No conflict of interest declared

O 35

Spiritual well-being of dialysed people with end stage renal disease

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Background
The consequences of ESRD may result in suffering, anxiety and depression for the patient. Spiritual well-being of people with chronic illness helps them to see a sense in the suffering caused by the disease and to maintain hope and optimism.

Objectives
To analyse patients' spirituality, anxiety and depression, medication, clinical and socio-demographic variables and to describe relationships among these factors.

Methods
In 60 patients on dialysis for more than 1 year, we applied the evaluation scale of spirituality in health contexts with two subscales – beliefs and hope/optimism – and the hospital anxiety and depression scale. We collected socio-demographic and clinical data.

Results
Patients with a higher spirituality were mostly female, reported less anxiety and depression, higher education, better economic situation and took less anxiolytic and antidepressant medication. Patients who had been on dialysis for a longer period suffering from progressive kidney disease were those with the lowest level of spirituality, with less hope and optimism for the future. Patients without any co-morbidity and those who claimed that the treatment sessions went well had higher levels of spirituality. There was a statistically significant relationship between age and the scale of beliefs, support of family and friends and hope/optimism.

Conclusion/Application to practice
Patients' spirituality was associated with better wellbeing, lower levels of anxiety and depression and lower consumption of drugs. Spirituality might have been developed by the patients as a coping mechanism and may improve patients´ quality of life.

Disclosure: No conflict of interest declared

O 36

Association between home haemodialysis and cognitive function, quality of life, anxiety, and depression

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Background
Despite technical progress in dialysis, haemodialysis patients still have restrictions in their quality of life (QoL) and life expectancy. This may be improved by means of flexibility in choosing treatment time and by prolonged treatment times.

Objectives
To evaluate cognitive function, QoL, anxiety, and depression in nocturnal home haemodialysis (HHD) patients (3 times / week, 7-8 hours in comparison to conventional in-centre haemodialysis three times / week).

Methods
From 30 centres the following patients were randomly chosen: 136 patients with a mean time on home-HD of 13±4 months and 199 conventional haemodialysis patients with a similar age, gender, time on haemodialysis, and diabetes frequency as controls. We applied the SF-36 QoL test, standardized "mini mental test" to assess cognitive function and the Hospital Anxiety and Depression Scale. Comparison of data was performed using the t-test.

Results
The following significant results were observed:
- All mental health and QoL parameters were better in home haemodialysis patients, e.g. QOL scores were 77.0±25.9 vs. 66.6±27.7 for physical functions, 80.7±23.2 vs. 74.7±27.0 for social functions, and 64.2±22.8 vs. 52.1±25.9 for general health perception when comparing HHD treated patients with patients treated at the centre.
- Home haemodialysis patients had lower anxiety and depression scores.

Conclusion/Application to practice
In our study prolonged HHD was associated with better QoL, physical and social performance, cognitive and emotional status as compared to conventional in-centre HD, although a causal relationship cannot be claimed because the study was not randomized.

Disclosure: No conflict of interest declared

O 37

Family support and family burnout in haemodialysis patients

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Background

In our study, we aimed to demonstrate the level of family support in patients with Chronic Renal Failure (CRF) and the status of family burnout. We also aimed to show whether there is a correlation between these two issues.

Methods

Fifty five CRF patients with one or more of identified criteria of psychosocial non-compliance (eating disorders, sleep disorders, drug abuse or unnecessary drug use, alcohol abuse, chronic pain, depression, hearing and visual impairment, refusal of treatment) were included in this study. After consent of the patients and their families was undertaken, Perceived Family Support Scale questionnaires were distributed to the patients; and Maslach Burnout Inventory questionnaires were distributed to family members living with these patients. The statistical analyses in this study was performed by NCSS (Number Cruncher Statistical System) 2007 Statistical Software (Utah, USA) program. Evaluation of the data was attended by descriptive statistical methods (mean, standard deviation, median, interquartile range); one-way variance analysis to analyse the differences between group means; independent t-test for comparison of two groups of variables with a normal distribution, and Pearson correlation test to determine the relation of variables. P value <0.05 was accepted as statistically significant.

Results

A statistically significant relationship was observed in the negative direction between Perceived Family Support Scale scores and age of dialysis (r = -0.322, p = 0.016). Families of dialysis patients at a younger age provide more support. The emotional burnout score of the economic stress group was significantly higher than the score of the non-economic stress group (p=0,034). The mental burnout score of the economic stress group didn't reflect any statistical difference than the score of the non-economic stress group (p=0,686). The physical burnout score of the economic stress group was significantly higher than the score of the non-economic stress group (p=0,015).

Conclusion/Application to practice

No evident correlation was identifiable between patients' family support and their family burnout. But, there was a statistically significant negative correlation between Perceived Family Support Scale scores and patients' dialysis ages. We detected that patients on dialysis at a younger age have more family support. The emotional burnout and the physical burnout were seen more often in economic stress group compared to non-economic stress group.

Disclosure: No conflict of interest declared

S 20 CES Sanofi
Calcium myths and realities
Omega 2, 9:00–10:30

CKD-MBD in the calcium free era

P. Hill

Chronic kidney disease (CKD), also known as chronic renal disease (CRD), is a progressive loss in renal function over time. The three most common causes of CKD are diabetes mellitus, hypertension, and glomerulonephritis. The presence of chronic kidney disease confers a markedly increased risk of cardiovascular disease, and people with CKD often have other risk factors for heart disease. Treatments for CKD can help relieve symptoms, slow or prevent progression of the disease and reduce the risk of developing related problems. In this talk, the role of calcium and phosphate and metabolic bone disease associated with chronic kidney disease is discussed.

Calcium consumption: yes with moderation

R. Guiberteau

Calcium is an essential nutrient that plays a vital role in for example neuromuscular function, many enzyme-mediated processes, and blood clotting. Calcium is a mineral that builds and strengthens bones and is essentially found in milk and dairy products but also in many other foods at a lesser extent. The total body calcium content of an adult represents approximately 1kg Ca, of which over 99 per cent is within the bone, in form of hydroxyapatite crystals. In the blood, the circulating calcium levels are tightly regulated despite large variations in calcium intake and bone release. The parathyroid gland is the principal regulator, monitoring closely serum calcium levels and secreting parathyroid hormone when serum calcium falls. Serum calcium levels do not inform reliably about calcium needs. Calcium balances, that result of the amount of calcium ingested and absorbed minus the amount excreted provide such information and indicate whether the individuals are in neutral, positive or negative calcium balances. An important driver of the balance is the urinary calcium excretion. However, the capacity of the kidneys to adjust the excretion according to the absorption in order to maintain calcium homeostasis is lost prematurely when people reach Chronic Kidney Disease stage 3. At this stage and beyond, calcium supplements tend to induce a positive calcium balance that does not protect bone and do not reduce fracture risks but is associated with a dramatic increased risk of cardio vascular events. Therefore, by no doubt calcium is a key element of human physiology, but has to be consumed with moderation. More is not necessary better. Calcium supplements should be regarded as therapeutic agents especially in CKD and, as in all other such therapies, should require a careful analysis of risks and benefits before being prescribed.

Phosphorus Mission

F. Quinio

CKD is a complex condition at the cross roads of metabolic, bone and cardiovascular disorders which puts an important burden on dialysis patients and their caregivers who strive to help them live a normal life. Despite availability of cutting edge technologies and pharmacological treatments, many dialysis patients continue to suffer from uncontrolled biological and mineral parameters that have an impact on their lives, thus making therapeutic education and behavioural changes instrumental to achieve goals. Because of its widespread occurrence in many foods and not significantly removed during dialysis, excess phosphorus often poses important challenges to CKD patients. Phosphorus Mission is an interactive, application for mobile, tablets or notebooks which can be used by nurses during patient workshops to help them better understand their condition, the importance of healthy dietary choices and compliance to their prescribed treatments. The fun user interface and quiz format encourages patient engagement which facilitates greater understanding and subsequent learning about healthy dietary habits in relation to their CKD condition. The Phosphorus Mission app can be used on a daily basis by both nurses and patients for making informative healthy dietary choices without the time consuming need for referencing tables or nutritional calculations. The patient can also use Phosphorus Mission at home, sharing their experiences and knowledge with other family members and care givers. Based on gaming engagement, Phosphorus Mission is fun and simple to use by patients and people comfortable with technology.

S 21 Care of the child with end stage renal disease
Beta, 9:00–10:30

GUEST SPEAKER

Dietetic approach in children undergoing chronic dialysis towards kidney transplantation

B. Gianoglio[1]
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Children treated by chronic dialysis are particularly vulnerable to the consequences of malnutrition. A delayed growth started in early childhood, can be scarcely recovered even in later life.

Often the protein-energy malnutrition manifests itself not only with growth retardation but it can hinder the inclusion in a program of renal transplantation that remains the most effective therapy

Different actors play a role in the complex mechanism of growth retardation: severe anorexia, vomiting, gastro-oesophageal reflux, metabolic acidosis, renal sodium dispersants, altered gastrointestinal motility, state of psycho-social deprivation.

In children with chronic kidney disease, the delay in growth and the worsening of general condition are the main signs to start enteral nutrition as suggested by pediatric nutritional guidelines. The intensive nutritional approach should always be established early and technically can benefit both the use of the nasogastric tube that gastrostomy.

It's known as the height-weight growth recognize in the caloric intake the driver almost unique in the first two years of life while in later years a secondary role is played by hormonal stimulation. However, the early nutritional intervention is important for all ages, having a significant impact not only on the linear growth but also on indicators of long-term survival as the serum level of albumin.

Finally, it is very important to consider that also the period following to a well-functioning kidney transplantation needs again great effort to optimize the food intake

O 38

CARPEDIEM as promising machine to treat neonatal and pediatric patients with acute renal failure

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Background

Among neonatal and pediatric patients admitted on intensive care unit, 8-20% develop renal failure. With the current hemodialysis machines, non-accurate weight loss and large extracorporeal blood volumes imply important risks. Recently, CARPEDIEM™ (Bellco, Italy) has become available for Slow Continuous Ultrafiltration (SCUF) or Continuous Veno Venous Hemofiltration (CVVH) pre or postdilution, in neonatal and pediatric patients from 2.5 to 10kg.

Methods

Three roller pumps guarantee accurate flows (1mL increments) for blood (2-50mL/min), infusion (0-1000mL/h), and ultrafiltration (0-1000mL/h). Fluid balance is controlled by infusion and effluent scales (accuracy 1g). At present, 3 kits are available: HCD0075/015/025 with a polysulfone dialyser of 0.075/0.15/0.25m² and 27/33/41mL priming volume, and a maximum ultrafiltration of 2.5/4/17mL/min.

Results

In our hospital, we successfully treated 2 patients of whom we discuss here one in detail: male child of 14 weeks, 5.2kg with multiple organ failure and cytomegalovirus infection. A right jugular 6.5Fr double lumen catheter (Gambro, Sweden) was inserted. With an estimated total blood volume of 80mL/kg body weight, and keeping extracorporeal volume below 10% of this, the HCD025 kit was used. The kit was primed with albumin (SOPP 4%). A bolus of heparin (150IU) was given at start and continuously during the session (75IU/h). Predilution hemofiltration (total infusion 6.5L) was performed during 10h with blood flow of 20-30mL/min, and ultrafiltration of 280mL.

Conclusion/Application to practice

In conclusion, CARPEDIEM™ is a promising machine to treat pediatric and even neonatal patients with renal failure.

Disclosure: No conflict of interest declared

O 39

Haemodialysis ultrafiltration rate: impact for the multidisciplinary team of focused communication on patient-centered care

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Background
Empirical evidence suggests that rapid fluid removal influences patient outcome negatively. Since most haemodialysis units do not have on-site nephrologists, nurses initiate, monitor, and complete the dialysis treatment as well as manage any adverse events. Thus, patient outcome may be considerably influenced by the quality of nursing care. The ultrafiltration rate could be used to estimate quality of nephrology nursing; the rate should not exceed 10 ml/h/Kg. Results from a Scandinavian haemodialysis centre indicates that particular attention should be addressed to the younger haemodialysis population as well as patients with low body weight as they tend to be predisposed to excess ultrafiltration rates during haemodialysis. However, patients may be reluctant to adhere to longer dialyses sessions.

Objectives
How focused communication about recommended ultrafiltration rates contributes to patient-centered haemodialysis care.

Methods
Results from the Scandinavian haemodialysis study will be outlined. Secondly, examples will be used to discuss challenges for the multidisciplinary team when they introduce longer dialysis sessions.

Conclusion/Application to practice
The ultrafiltration rate is a global process indicator in renal nursing, and we will use the conference to initiate a debate regarding implications for haemodialysis nursing practice when adhering to current ultrafiltration rate recommendations.

Disclosure: No conflict of interest declared

O 40

Patient's experience of kidney biopsies obtained by interviews: Nursing aspects

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Background
Project "Clinical complications and risk factors in native and transplant kidney biopsies in Sweden" was started in 2006. If the patient is well informed, maybe the risk of complications decreases. The aim of this study was to clarify how patients experience the process of kidney biopsies.

Methods
New documents were designed and patients received a written information letter two weeks before, describing the biopsy process. Oral information by physician and nurse was given at admission. A protocol for registration of various factors and complications associated with biopsies was used. Seven patients were telephone interviewed two weeks after biopsy.

Results
Six of seven patients expressed that they were „well informed", received the information letter in time and felt it was easy to read and understand. The patients were informed again by nurses and physicians on ward and at x-ray department. All seven patients felt they were „well informed" by all. About the feeling of pain during and after biopsy, five patients had „no pain", and two „mild pain". Six of seven patients rated that they were "very well" taken care of, one rated it as „good". Two patients experienced that the noise of biopsy gun was unexpectedly loud.

Conclusion/Application to practice
In the biopsy process different specialties and personal categories are involved. Lack of routines and follow up can lead to an increased risk for the patient in this potentially dangerous procedure. With our new documents and routines we hope to reduce the frequency of complications. A change in the routine was made based on outcome.

Disclosure: No conflict of interest declared

O 41
Treatment on time

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Background
Planning of resources and needs in healthcare provides a strategic framework, taking into account the particularities of the individual patient in a centralized model.

Objectives
- To increase patients' satisfaction with regard to treatment schedules.
- To increase efficiency of care provided to haemodialysis patients.

Methods
The implementation of this project began with a characterization of all patients in the unit, their places of origin and their means of transport. To ensure success and adequacy of scheduling, patients were questioned individually about their needs and preferences. After that, pros and cons were assessed from patient and nurses perspectives.

Results
We evaluated the impact of our intervention in three dimensions: Patient and nurse satisfaction and efficiency in resource management.
Patients: 95% reported that they were satisfied with the new treatment schedule and that they would recommend it to other dialysis units due to the following reasons: Less waiting time before and after treatment, less confusion at the entrance into the treatment room.
Nurses: Positive: Better organization of their work, less conflicts between patients and with patients and increased efficiency of care. Negative: Lower influence of nurses on dynamic controls and workflows.
Efficiency in resource management: Overall gain of time at the end of the treatment day was an average of 13 minutes (22:56 vs. 22:43). Compliance with the scheduled connection time, 82.5%, treatments were started in the target time interval.

Conclusion/Application to practice
The implementation of a connection schedule enhances patient and nurse satisfaction as well as treatment efficiency.

Disclosure: No conflict of interest declared

S 22 CES B. Braun Avitum
Dialysis treatment: Status and factors to improve quality of care
Omega 1, 11:00–12:30

Objectives
The objective of this Corporate Educational Session (CES) is to give an overview about state of the art hemodialysis therapy. Since renal care is a multidisciplinary approach, the aim is to give a holistic view involving the patient, the nurse and the physician from their individual angle.
How can all aspects be integrated to a collaborative shared approach in daily practice to improve care?

Methods/Discussion
"The physician's perspective":
This part will present a summary of scientific medical knowledge on hemodialysis therapy.
Finding the optimal therapy concept for each individual patient should be the goal for the physician involved in renal care. We will discuss how to achieve this aim by using technology and best practice medicine and treatment quality indicators.

"The nurse's perspective":
This part will focus on the organizational aspects of care: Quality management and safety.
Optimal caring for the patient while optimizing your workflow – this important topic will be covered in this session. It will be discussed, how tools like e.g. implementation of a good quality policy can help to improve the quality of renal care.

"The patient's perspective":
This part will highlight the patient's perception and unmet needs.
The patient's perspective and understanding of a good therapy can be different to the perspective of nurses and doctors. This talk will give insights to the needs of hemodialysis patients.

Optimizing treatment processes as well as communication between these three groups can be a way to improve care. Therefore, this session will give a full circle overview to initiate the exchange and find a common understanding about renal care.

Session content:
What makes a good dialysis:
The physician's perspective
Dr. Philippe Nicoud (France)

The nurse's perspective
Hedi Lueckerath (Germany)

The patient's perspective
Darren J. Cawley (Ireland)

S 23 e-Health
Omega 2, 11:00–12:30

GUEST SPEAKER

New colleagues in Healthcare: Patients & Google

L. Engelen[1,2]
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Never before in history healthcare faced more challenges then nowadays. Not only budget cuts, shortage of skilled personnel and doubling demand are at hitting the branches but also two other autonomous developments leverage this even more: exponential technology and the empowered patient.

With the increase of technological possibilities that i.e. thrive e-health (empowered in my definition) possibilities hit health (care) with almost lightning speed and nearly everything is possible at costs that drop swiftly to fractions of "traditional" diagnostics, monitoring and treatment.

The internet for one has brought knowledge and options to patient who are looking for it in high numbers, almost 65% visits Dr. Google before the step into the doctors office, and almost 50% of them afterwards. People expect understandable information that is findable at the moment THEY need it. Just like travel and music industry has seen, reviewing the doctors will take a high paced route into driving choices by patients with their feet, leaving non empowering doctors and institutions in despair.

All of this also brings great opportunities like the rise of crowdsourcing for health (C4H) where the public and health professionals gather online or in real life to collect data, experiences options or even money to improve their health (care).
It is at the intersection of data and narration that new changes are to be found for coping with the challenges we are facing: let's start listening to each other!

From all professions in healthcare most likely nursing and General Practitioners will be impacted the most by the ongoing change. Are we ready for this, are we willing to change the curriculum swiftly or will we be bypassed by robots and other technology?

O 42

Model of electronic nursing care records for patients with vascular access malfunction

C. Krel[1]
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Background
Electronic documentation of nursing care data requires unified documentation, data standards, adequately accessible information technology and existing legislation. The aim of the study was to determine the role of electronic nursing care records in the evaluation of patients with vascular access malfunction.

Methods
Ten hospitalized patients with end-stage renal disease were enrolled in our study. Five nurses evaluated patients' problems with vascular access using the model of electronic nursing care records for nursing diagnosis of vascular access malfunction. The model has been tested using a mobile device – tablet computer. Following evaluation of the patient's condition, interviews with nurses about functionality of the model of electronic nursing care records was performed. The answers were analysed using SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis.

Results
Our study showed that electronic nursing care records ensure an efficient evaluation of a patient for a single nursing diagnosis in all process phases of nursing care. Using electronic records, nurses systematically collect and manually enter data into a mobile device next to a patient's bed and therefore increase accuracy of nursing care records as such. The electronic record sufficiently includes all data about venous accesses and vital signs at a single access point. The screen of a mobile device enables quick access to information about patients' medical data and therefore quicker nurse's response.

Conclusion/Application to practice
The results of our study encourage us to further develop electronic nursing care records for other nursing diagnoses in the field of nephrology and to implement e-documentation into daily clinical practice.

Disclosure: No conflict of interest declared

O 43
Adherence to an e-learning system by a team of specialized nurses

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Background
Electronic learning system has become a major tool to ensure continuous specialized training. There is clear evidence for the efficiency and acceptance of e-learning within the clinical environment. This system was developed to ensure highly-qualified nursing care of CKD patients by well-qualified dialysis experts.

Objectives
1. To assess nurses' e-learning activities in 3 clinics of a Portuguese dialysis network.
2. To assess if an e-learning management system can be a predictor of caregivers' achievement.

Methods
Data of achieved learning targets was analysed quantitatively from the learning perspective and qualitatively from the professional perspective. Moreover, the level of adherence by the nurses was evaluated. This research applies a quantitative and highly-objective approach to investigate the usage of the e-learning system to ensure high-quality haemodialysis care. We furthermore analysed the level of utilization of the e-learning as a predictor for caregivers achievement by a statistic distribution of target-variables (level, typology of e-course and the relative frequency of observations) indicated for significant frequency values corresponding to a range of degree of expertize of the sample analysed.

Results
A relative high value of adherence in the e-learning courses was evaluated within Portuguese dialysis clinics. Furthermore, high scores of outcomes were found in the team of all specialized nurses. The level of utilization predicted a productive environment that combined knowledge, expertise and previous experiences among a cohesive nurses taskforce.

Conclusion/Application to practice
Fostering communication and implementation of training programs like an e-learning platform for nurses are considered valid tools to improve safety and quality in life of our patients.

Disclosure: No conflict of interest declared

O 44

Emergency first aid to dialysis patients – adapting ABCD to hemodialysis and its evaluation

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Background
The ABCD algorithm founded by American Heart Association became accepted in emergency rescue services and emergency rooms worldwide. This algorithm makes optimal crisis management and emergency first aid possible. Nursing staff and paramedics using the ABCD are able to render standardized, structured and logical first aid. Besides general CPR guidelines there is no similar algorithm for hemodialysis in Germany.

Objectives
In this project the ABCD algorithm is adapted and extended to hemodialysis units. The object is to test and evaluate its use in haemodialysis. The aim is enable renal nurses develop their skills in providing emergency first aid. Another aim is to reduce stress among nurses by offering this step-by-step guidance.

Methods
This project used a quantitative research method based on empirically and analytically collected data.
Firstly, deductive and interdisciplinary reasoning created an ABCD algorithm suitable to hemodialysis. Secondly, in May and June 2013 all emergency cases were recorded without using the new ABCD algorithm. From July to August all emergency cases were recorded using the ABCD algorithim. Thirdly, a questionnaire was given to all nurses working with the new algorithm. Lastly, the recorded data from both periods was statistically evaluated and the results from the questionnaires interpreted.

Results
By using the new ABCD algorithm the provision of emergency first aid is standardised. This in turn led to a lowering of stress levels among nurses and emergency treatment of dialyzed patients is optimized.

Disclosure: No conflict of interest declared

S 24 Dementia and End of Life Care
Beta, 11:00–12:30

Facilitators: Karen Jenkins (CKD Consultant), Lesley Bennett (Anaemia Consultant), Aine Burns (Guest Consultant Nephrologist)

With the ever increasing age of the dialysis population and older people being diagnosed with advanced kidney disease, there is inevitably going to be an increase in the number of people we see who have or are developing dementia. Many of us are unfamiliar with the signs and stages of dementia and have limited knowledge of managing this condition. As a renal community we need to increase our knowledge and develop skills to support this group of patients and their carers.
This interactive workshop aims to give an overview of the stages of dementia; how to recognise it in practice, how to get the right help at the right time, how to address decision making in those who do not have capacity and touch on advanced care planning in particular for end of life care.
A mixture of short presentations, group work with case studies and a look at available guidance will enable those who attend to gain knowledge and skills to help them care for people living with dementia, their relatives, carers and friends.

S 25 Complex Case Management
Omega 1, 12:30–14:00

Atypical hemolityc uremic syndrome (HUS): from diagnosis to new therapies till end-stage renal failure

B. Gianoglio[1]
[1]Nephrology, Dialysis and Kidney Transplant Dept, Azienda Ospedaliera Citta' della Salute e della Scienza, Torino, Italy

Background
Family History
Both parents and 2 older twin brothers in good health.
The child's aunt (mother's sister) at age 26, developed increase in creatinine, hypertension, severe anaemia. A Hemolityc Uremic Syndrome was diagnosed. She was treated by several plasma exchanges but she developed end-stage renal failure and started chronic emodialysis. At that time (about 15 years ago) no genetic mutations were detected and she wasn't included in kidney transplant list

Results
Case History AD, male, born in 2006.
At the age of 6 months he presented gross haematuria and paleness. The clinical and laboratory investigation showed a of atypical Hemolityc Uremic Syndrome. We started therapy with plasma exchanges.
Genetic analysis showed a complement factor H mutation was found in the child, his mother, his aunt and his grand-mother
From the age of 2 years chronic peritoneal dialysis with 2 more HUS relapses treated by plasma exchanges. For repeated peritoneal catheter infections at age 3 he was switched to chronic haemodialysis (no more relapses of HUS, no signs of haemolisis but repeated CVC infection).
At age 5, before kidney transplant he was treated with Eculizumab (humanized monoclonal antibody to inhibit terminal complement activity in children and adults) repeated on post-transplant day 1 and 7 and every other week thereafter.
His renal function promptly recovered to normal range and in the following 2 years the child was treated by Eculizumab every other week

S 26 Symposium EDTNA/ERCA Renal Education Accreditation – What's Involved
Omega 2, 12:30–14:00

GUEST SPEAKER

EDTNA/ERCA Renal Education Accreditation – What's Involved

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Background

The provision of renal education across Europe is diverse and reflects the unique social, economic and political challenges in each respective country. EDTNA/ERCA is committed to supporting the expansion and recognition of varied approached to renal education. For approximately 15 years, EDTNA/ERCA has been accrediting a variety of renal education programs from across Europe and most recently from other global renal education providers.

EDTNA/ERCA is committed to working with those who deliver renal education programs including nursing schools/ colleges & universities as well as partners in renal industry. A number of national and international organisations are established to assess educational opportunities. However, only a very few organisations formally accredit educational opportunities/ courses offered within the renal speciality across Europe. In seeking to accredit renal education providers, Hounsell's evaluation cycle (2001) is used to provide the basis of the EDTNA/ERCA accreditation scheme. The cycle includes:

1. Clarifying the context and focus of education offered
2. Review data submitted by course leader and assess according to accreditation criteria.
3. Review supporting evidence of educational activity submitted.
4. Undertaking an analysis of data & evidence according to accreditation assessment categories.
5. Establishing agreement on classification of accreditation to be awarded
6. Providing feedback to course leaders according to award and identify suggestions for continuing course development.

The benefit of having renal education activities accredited by EDTNA/ERCA is a sign of 'quality' in education services and an organisations commitment to renal education for professionals in their employment, so, promoting internal education and recruitment. Successful applicants are allowed to use the EDTNA/ERCA logo on all documentation related to the accredited educational activity; this is seen as a stamp of recognition that the activity meets the quality criteria set down EDTNA/ERCA.

Objectives

Aims of workshop

1. Provide an overview on the purpose, mission and vision of the EDTNA/ERCA Accreditation project.
2. Outline the key stages in preparing an application for assessment.
3. Enable applicants to make use of 'personalised support' provided as application is prepared for submission.
4. Listen to the feedback from applicants who have received successful accreditation on their accreditation journey.

S 27 Workshop of EDTNA/ERCA and National Presidents
Beta, 12:30–14:00

Abstract is not available.

S 28 Technical
Omega 1, 14:00–15:30

GUEST SPEAKER

New technology for: CRRT, Plasma Exchange and Blood Exchange in Infants

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Nephrology, St. Bortolo Hospital, Vicenza, Italy

Background
CRRT is becoming the treatment of choice to support critical pediatric patients with AKI and fluid overload(FO).This therapy is usually performed with machines designed for adults thus necessarily with an over-dimensioned catheter. This is a case of a newborn with severe FO who received CRRT primarly to remove fluid excess

Methods
Patient 3.165 Kg was a 39 gestational week female,born with dystocic delivery and Apgard score 2-5-5(1-5-10m).Patient was immediately intubated and transferred to the pICU with hemorrhagic shock and MOFS due to subgaleal hemorrhage.A total of 18 transfusions of blood product was done during the first 48h.Oligoanuric despite continuous diuretic infusion and the need of fluid intake to preserve the hemodynamic,result in a 63%FO

Results
CVVH was performed, PRISM2=32, using a double lumen 4FR(2in) catheter placed in the femoral vein.A total of 401 hours of CRRT was done.Mean Blood flow was 11±2ml/m and Net UF 20.2± 5.6ml/h.Infusion was setting to maintain the Filtration Fraction<20%. Hyperbilirubinemia due to hematoma adsorption,suggests the need of SPAD.We also perform,4 plasma exchange PE and 1 exchange transfusion ET done successfully with our development of these new tecniques on the CARPEDIEM machines.

Conclusion/Application to practice
For the first time we were able to use a small and adequate double lumen catheter to perform CRRT in newborn with excellent circuit survival 18.1±3.7.Tab1 shows arterial and venous pressures at different blood flows,during the first phases of the 37 treatments performed

O 45

Manual of standards for management of dialysis water

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Objectives

Many countries have published guidelines regarding purification for water destined to be used for haemodialysis. In Italy guidelines were last published in 2005. More recently an update has been written covering an overview of dialysis water treatment including a literature review and personal practical experience which developed over the course of managing water treatment plants. The title of the work is: "Manuale degli Standard per la gestione degli impianti di trattamento dell'acqua per la dialisi" (Wichtig Editore, 2014). The book includes a theoretical and practical description of all existing types of water purification for dialysis and includes 30 updated recommendations for water management based on standard technical parameters. The text is divided in 6 chapters, contains 27 tables, 5 checklists, 15 figures and 2 glossaries of technical terminology. This text does not substitute the single manufacture's manual provided with water treatment plants, but can be used as a supplemental guide by dialysis technicians to facilitate the management and improve the quality of water flowing to the patients. The text is especially useful as a reference for developing a plan for monitoring the technical function of the water treatment plant and for controlling the efficacy of maintenance and disinfection protocols, as well as maintaining chemical and microbiologic standards.

Disclosure: No conflict of interest declared

O 46

Neuromuscular electrostimulation in haemodialysis patients: a novel method to improve physical condition

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Background
Haemodialysis (HD) patients experience muscle wastage and decreased physical function.Few studies about neuromuscular electrostimulation (EMS) in HD patients have been published.

Objectives
To analize the effect of an intradialysis quadriceps EMS training program in muscular strength, functional capacity and quality of life in our HD patients.

Methods
A 12 weeks single-center prospective study.HD patients were assigned into EMS program (EMS) or control group (C).EMS program was performed using the Compex® Theta 500i device in both quadriceps in HD session.C group received standard care. Analized data:1.-Muscular data:Maximum Length Quadriceps Strength(MLQS) and Hand-grip dominant arm(HG).2.-Functional capacity tests:"Sit to stand to sit"(STS10) and "six-minutes walking test"(6MWT).3.-Health questionnaire:EuroQol-5D(EQ-5D).4.-Satisfaction degree:Visual analogic scale (VAS), subjective rating scale (SRS) and EMS questionnaire (SEQ) were completed.

Results
38 patients participated in the study. 54% were men.23 were on EMS,15 on C group.In contrast with C group, EMS group significatly (*p<0,05) improved in MLQS*(10.2±6.7 vs 13.1±8.1 kg), STS10* (41±18.7 vs 32.8±14.1 sec) , 6MWT* (12%, 280.5vs312.4m)and EQ-5D score *(52.5 vs 65.7%) at the end of the study.However, lower leg SEQ score*(8.5vs5.8 sympt/pac) in EMS group was observed, mainly due to relevant muscular pain, cramps, pins and needles and numbness.In EMS group, 44% and 72% acknowledged better sensation and physical condition in the SRS, respectly. EMS group VAS score was 7.8 points.

Conclusion/Application to practice
1.-Intradialytic neuromuscular electrostimulation of both quadriceps improved muscular strength, functional capacity and quality of life in our HD patients.2.-Neuromuscular electrostimulation was safe and well tolerated.3.-However, neuromuscular electrostimulation could be an effective alternative helping to improve the physical condition and quality of life of these patients.

Disclosure: No conflict of interest declared

O 47

Evaluation of the effects of nocturnal home haemodialysis on dialysis adequacy

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Background
Nocturnal home haemodialysis (NHHD) provides increased flexibility to patients and the possibility of prolonged treatment time, which may result in improved dialysis adequacy, quality of life and reduced morbidity and mortality.

Objectives
To compare dialysis adequacy parameters of NHHD vs. conventional haemodialysis.

Methods
Between April 2010 and June 2013, 93 patients who completed their first year on the NHHD program (out of a total of 186 patients) were included in the study. All patients were on NHHD 3 times/week >7 hours/session. Mean age was 44.3±11.3 years, 33% were female and mean time on NHHD was 19±10 months. The following parameters were evaluated at baseline (while they were on conventional haemodialysis) and at one year after initiation of NHHD: Systolic and diastolic blood pressure, eKt/V, processed blood volume, pre-dialysis creatinine, dry weight, normalized protein catabolic rate (nPCR), phosphate, haemoglobin, phosphate-binder and antihypertensive drug use.

Results
After changing to NHHD, the following significant increases of mean values were observed: eKt/V from 1.4±0.3 to 2.1±0.7, processed blood volume from 86.3±9.0 to 114.9±15.2 L/session, dry weight from 70.9±12.9 kg to 72.3±13.4 kg and nPCR (g/kg/day) from 1.0±0.1 to 1.2±0.1. Pre-dialysis creatinine levels and phosphate levels decreased significantly, haemoglobin and blood pressure remained stable, but phosphate-binder, erythropoietin, and antihypertensive use decreased.

Conclusion/Application to practice
NHHD three times a week for 7-8 hours has led to an improvement in dialysis adequacy and most parameters of nutritional status which might be caused by longer treatment times. Blood pressure and haemoglobin levels remained stable, while phosphate levels decreased despite the reduction of phosphate binders.

Disclosure: No conflict of interest declared

O 48

Who can do home haemodialysis?

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Background
Home haemodialysis provides various advantages such as increased patient flexibility. However, suitability for home haemodialysis is still not clear.

Objectives
Home haemodialysis provides various advantages such as increased patient flexibility. However, suitability for home haemodialysis is still not clear.

Methods
295 patients from 36 haemodialysis centres were enrolled in a home haemodialysis training programme between April 2010 and July 2013. 85.1% of patients successfully completed the educational programme and started home haemodialysis or were waiting for machine/water treatment system installation to start home HD. Remaining 44 patients (14.9%) left or were asked to leave the home haemodialysis training programme. Demographical and socio-cultural data of these patients were evaluated and data of patients who continued the programme or those who could not complete the educational programme were compared.

Results
There was no apparent correlation between being able to do home haemodialysis and age, gender, educational status. Willingness and participation of the family members in the educational programme had a positive effect on patients. 14.9% could not complete the educational programme, mainly due to unwillingness and lack of support of their families. Other causes were the spatial conditions of their homes and their psychological status (fear of needles, feeling unsafe at home, and anxiety).
2% of patients could not complete the programme due to difficulty or inability to learn.

Conclusion/Application to practice
In our study patient's and family members' willingness was the main requirement for home haemodialysis. Age, gender, educational status and vascular access type did not seem to have an effect.

Disclosure: No conflict of interest declared

S 29 Masterclass – The patient experience
Omega 2, 14:00–15:30

GUEST SPEAKER

Psychological care and cultural diversity: what should we be aware of?

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Background

A diagnosis of chronic kidney disease (CKD) with the subsequent need for renal replacement therapy can be an overwhelming experience for those diagnosed and their family. It is well documented that CKD, its treatment and related demands has an enormous psychological impact on the patient's emotional wellbeing and intrudes into every aspect of life.

We live in a multi-cultural, multi-racial and multi-ethnic world. Our patients and their families come to us from a variety of backgrounds, cultures and languages.

This masterclass well address two interrelated aspects; psychological care for our patients and their families within diverse cultural backgrounds and languages. The masterclass will examine issues such as; psychological responses to illness and how this might express itself within a cultural context; emotional needs and how they may or may not be verbalised depending on cultural norms; effective communication and how this can be inhibited by language barriers or different communication styles. A related issue is interpretation: who interprets? If it is a family member, is their interpretation influenced by cultural and family norms? How do we check that what we say has been interpreted correctly? Involving patients in decision making, what does this mean within their cultural context?

The masterclass will be interactive in nature. Included in the discussion are the issues ou bring from your experience. The goal of the masterclass is to acknowledge the complexity of caring for patients from diverse cultural backgrounds and to raise awareness, leading to better care for those patients and their families.

S 30 Short orals
Beta, 14:00–15:30

O 49 / P 057

Peritoneal dialysis patients with sensory system impairment

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Background
The human sensory system is responsible for the acquisition of information enabling us to interact with the outside world. Its impairment could limit an individual's chance to play an equal role in society.

Objectives
To introduce a special training programme that provides equal opportunities for patients with disabilities to participate in the peritoneal dialysis (PD) programme.

Methods
Five sensory impaired patients (three visually, two hearing impaired) participated in a training which started in February 2011. Training sessions included the following components: visualisation, dexterity, communication.
In visually impaired patients training was not based on visual teaching aids, but verbal communication (constant repetition, questioning).
In patients with hearing loss, visualisation and dexterity were emphasized. Speech impediment, a frequent comorbidity of hearing loss, made communication more difficult. Therefore, training was built on writing, articulation, and sign language.

Results
Acquiring the theoretical and technical basics of PD treatment, our patients were able to safely do an exchange on their own. Once self-care treatment was initiated their nursing care was continued on an individual basis.
Since then, two visually impaired patients do their exchanges independently and the third patient was transferred to HD (time spent in PD: 21 months).
Both hearing impaired patients left the programme, one of them due to transplantation (time spent in PD: 29 months) and the other one was transferred to haemodialysis (time spent in PD: 15 months).

Conclusion/Application to practice
Self-care treatment of PD patients with sensory impairment requires patience, adequate training, and aftercare. However, our experience shows that it does not necessarily increase the rate of complications.

Disclosure: No conflict of interest declared

O 50 / P 056

Primary vascular access type and survival in a chronic haemodialysis programme

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Background
In recent years the relationship between vascular access and haemodialysed (HD) patients' survival rate has been investigated in our centre. Observation is ongoing.

Objectives
to justify the significance of the first vascular access in survival of HD patients.

Methods
In our dialysis centre 343 patients were treated with HD from 01.01.2010 to 31.12.2013.
312 had HD primarily and 31 switched to HD from the peritoneal programme (PD). Survival was examined retrospectively until the end of period or until drop-out.

Results
161 out of 312 (51.6%) primary HD patients' treatment was initiated via arteriovenosus fistula (AVF), 26 (8.3%) patients had permanent canulae (PC), and 125 (40.1%) had temporary canulae (TC), in 85 of these patients an AVF was formed later. Survival of patients treated via AVF from the beginning was 5.1±2.8 years, while in patients converted from TC to AVF it was only 3.0±1.7 years. The shortest survival was observed in the group of patients who switched from TC to PC (2.4±1.6 years).
Simultaneously survival of patients treated via PC from the beginning was 4.8±2.7 years, of those converted from AVF to PC was 6.8 ±3.3 years respectively.

Conclusion/Application to practice
In accordance with our earlier studies our present results verify that if HD treatment is initiated via TC the prognosis is significantly worse than in case of other primary vascular access. The better solution is to commence with PD, but even administration of primary PC is superior comparing to TC.

Disclosure: No conflict of interest declared

O 51 / P 118

The Balanced ScoreCard – A tool for performance management in dialysis care settings

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Background
In 2008, the Balanced ScoreCard was introduced in a private dialysis network as a tool to improve operational and economic effectiveness. Key Performance Indicators (KPIs) of the Balanced ScoreCard set the objectives for our activities.

Objectives
- To increase the percentage of patients on the transplant waiting list.
- To reduce the consumption of resources.

Methods
New KPI's were implemented:
- Amount of contaminated waste produced per treatment.
- Water and electricity consumption per treatment.
- Percentage of patients on the transplant waiting list.

Results
Employees were trained on the new KPIs and have continuously been monitoring the objectives. Any target deviations were analysed and targeted preventive and corrective measures applied resulting in:
- Alignment of most clinics to the same consumption pattern.
- Cost reductions:
  - Up to 30% for contaminated waste – determined by comparing the costs at clinic start-up vs. after correct application and implementation of corrective measures
  - Up to 50% for water and 10% for electricity consumption – by using eco-friendly products and procedures. Some units met the target KPI without applying corrective measures.
- Percentage of patients on the transplant waiting list improved significantly: from 13.7% in January 2013 to 49.2% in December 2013.

Conclusion/Application to practice
The Balanced ScoreCard substantiated the improvement and strategy management of our network. The costs for consumed resources decreased and performance of each individual clinic can now be accurately measured.

Disclosure: No conflict of interest declared

O 52 / P 086

Haemodialysis catheter related blood stream infection

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Background
Intravascular haemodialysis catheters are essential in the management of critically and chronically ill patients suffering from acute injury and chronic renal failure. However, the haemodialysis catheter is often complicated by catheter related-blood stream infections which are associated with increased morbidity, duration of hospitalisation, and additional medical costs.

Objectives
Objectives are to:
- Identify the causes of vascular catheter infections
- Assess the effectiveness of infection control practice within the dialysis unit
- Develop a standardized surveillance system for monitoring haemodialysis vascular access infections
- Compare infection rates with international rates as identified by the central disease control
- Educate and enhance staff awareness about prevention and control of catheter related infections
- Reduce patient morbidity and mortality rates

Methods
FOCUS PDCA quality improvement methodology.

Results
As per the new changes implemented in Dubai Hospital Renal Unit, improvement has been achieved related to the haemodialysis catheter related blood stream infection. Quality and continuity of patient care, as well as patient's skills and knowledge for self-care were enhanced. Positive influence on patient/family attitudes was evident, as well as more co-ordination between multidisciplinary teams. Enhanced patients and staff satisfaction was evident and reduced haemodialysis catheter related blood stream infections, below the international rate as identified by central disease control, were noted.

Conclusion/Application to practice
Many catheter related blood stream infections are preventable, and need to be approached systematically at a multidisciplinary level, that emphasize the patient safety and quality of care. Therefore, all the staff involved in the management of the haemodialysis vascular catheter must base their practice on evidence based guidelines and recommendations, as an effective strategy in reducing the risks of catheter related blood stream infections.

Disclosure: No conflict of interest declared

O 53 / P 102

Application of Lean philosophy for the creation of a connection/ disconnection cart for Haemodialysis

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Background
In order to facilitate the work of staff, avoid continuous movement through the treatment room, eliminate carts in rooms already full of consumables susceptible of contamination and to ensure safety for patients and staff, the idea was born to create a specific and individual cart (one for each shift nurse) to perform haemodialysis processes safely and efficiently.

Objectives
To assess the number of time nurses interrupt their activity to move to where a general cart is located to store material.

Methods
Movement of each nurse in the treatment room while performing her/his daily work was monitored for a one-week period. A room diagram was drawn and marked with the different paths of travel that nurses made, primarily in the two main processes: connection and disconnection. A Spaghetti diagram was drawn, and the monitoring was repeated for the 5 nurses on the shift. The diagrams were analyzed from the perspective of Lean philosophy, identifying all the movements and routes that should be eliminated in order to streamline the process.

Results
We could demonstrate the feasibility of eliminating, from our processes, many activities that do not add value; enabling us to devote optimized time to activities that truly add value to patient care.

Conclusion/Application to practice
The creation of a tool such as the Connection & Disconnection cart has led to a clear improvement in the optimization of time in the field of dialysis. The time saved could be spent in other productive activities while simultaneously increasing the safety of our patients and employees.

Disclosure: No conflict of interest declared

O 54 / P 042

How to improve quality of life? -Identification of malnutrition in kidney patients

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Background

Efficient and right-timed care of kidney patients' nutrition is essential in order to provide a better quality of life, maintaining a good nutrition state, preventing or reducing metabolic disorders and slowing the progression of a kidney disease. Each patient's diet should be individually planned and carried out. A good nutrition state has been proved to decrease patient hospitalisation. By identifying individual risks in time, it is possible to prevent the development of malnutrition in kidney patients.
Planned and multi-professional screening of malnutrition has been part of daily care in Tampere University Hospital's kidney ward since 2008. Identification of malnutrition is done using The Nutrition Risk Screening 2002 – form (NRS2002). The identification of patients at risk of malnutrition is done by **the nurses and doctors working in the ward.**

Methods

An evidence based operational model was designed in the ward in 2011. The model includes a patient's interview and NRS done by a nurse. The dietician interviews every patient who gets at least 3 points in NRS 2002 Based on the individual results, the patient's diet can be redesigned and nutritional supplements can be added to the daily diet. Follow-up is planned individually.

Conclusion/Application to practice

Multi -professional teamwork is essential in order to carry out the process. Preventing malnutrition in treating kidney patients is a great challenge, and the started work must continue. In the future it would be interesting to improve the prevention model with our patients.

Disclosure: No conflict of interest declared

O 55 / P 103

Targeting dry weight-body volume and nutritional status in haemodialysis patients

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Objectives

Achieving an appropriate dry weight in haemodialysis patients remains challenging. Body composition can be measured with a whole-body bioimpedance spectroscopy (BIS) device which provides data on body volume and the nutritional status.

Methods

133 patients were included in this study (67 female and 66 male). Dry weight (by classical methods), nutritional status (by biochemical parameters) were determined and bioimpedance spectroscopy analysis performed every 6 weeks between September 2012 and August 2013. A total of 979 measurements were performed.

Results

Body Mass Index (BMI) measurements revealed that 84 of 979 were less than 20 (underweight), 318 of 979 between 20-24.9 (normal weight), 295 of 979 between 25-29.9 (overweight), 193 of 979 between 30-34.9 (obese class 1), 85 of 979 between 35-44.9 (obese class 2) and 4 of 979 over 45 (obese class 3). Nutritional recommendations were given to patients according to their BMI status, changes and rapid weight losses were evaluated aetiologically. We found out that patients needed a dry weight increase in 604 of 979 measurements (a total of 917.8 l, average 1.52 kg), dry weight decrease in 350 of 979 measurements (a total of 408.5 l, average 1.17 kg) and no dry weight change in 25 of 979 measurements.

Conclusion/Application to practice

The determination of dry weight and follow-up of nutritional status of haemodialysis patients using bioimpedance spectroscopy analysis was very useful. Blood pressure normalization and body composition changes due to nutritional factors could be determined by regular body composition analysis.

Disclosure: No conflict of interest declared

O 56 / P 108

Pain assessment in hemodialysis patients.

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Background
Pain is a frequent and multidimensional symptom found in hemodialysis units (HD), with difficult assessment by nursing staff due to its subjectivity.

Objectives
Evaluate the chronic pain suffered by the patients of our units, both during the HD session and beyond.

Methods
Prospective descriptive study with 23 patients of two HD units, with an average age of 63.22 years. Most common diseases of the sample were: diabetes mellitus and ischemic heart disease. The average time on HD treatment was 4.51 years, being the average duration 3:30-4 hours per session.
Parameters under study: intensity, location and influence of pain on activities of daily living. Two validated scales (Visual Analogue Scale and Brief Pain Inventory) and a sociodemographic survey were conducted during the last hour of HD.

Results
Patients surveyed: 91.30% had a mild to moderate pain at the time of the surveys. 82.61% had pain during the last 24 hours. 39.13% had no analgesic treatment prescribed. The majority realized postural changes or distractions for relief. Among those with a scheduled analgesia, paracetamol was the most widely used drug to relieve the symptoms.
Pain was found to be frequently osteoarticular, being located mainly in the sacro-coccygeal region and in both upper and lower limbs. It did not influence significantly on activities of daily living.
82.61% of patients felt that nurses adequately assessed their pain during hemodialysis sessions.

Conclusion/Application to practice
Although the study was initially motivated by verbal complaints of our patients, it shows a lower prevalence of pain than the initially expected.

Disclosure: No conflict of interest declared

O 57 / P 119

'From clipboard to tablet' refining the approach to unannounced infection control audits

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Background
With an estimated annual cost to the National Health Service of £1 billion and the potential to adversely affect quality of life, the prevention of healthcare-associated infections remains a priority. The Health and Social Care Act (2008) Code of Practice on the prevention and control of infections gives emphasis to the effective application and management of audit to ensure quality improvement.

Objectives
To replace a paper-based infection control audit tool with an electronic system which is ergonomic and has the capacity to provide timely, quantitative measurable data for comparative analysis at local and national level.

Methods
During 2013 the reliability of a secure external audit database was approved and utilised within a number of satellite haemodialysis units across the UK to provide integration of the audit tool into a web-based system.

Results
2013 saw annual audits extended from < 20% to >90% of clinics, of which a direct influence is the ease of data capture. Audit results were captured by desktop or tablet device and produced immediate results allowing for the development of local corrective actions.

Conclusion/Application to practice
The electronic audit process provides measurable evidence and assurance to both internal and external sources that an effective process of monitoring infection control standards is executed and therefore has strong relevance to quality of care and application to practice.

Disclosure: No conflict of interest declared

S 31 The acutely unwell patient
Omega 1, 16:00–17:30

GUEST SPEAKER

Cardiovascular risk in patients with end stage renal disease

L. Gesualdo[1]
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Chronic kidney disease (CKD) is a worldwide public health problem, with an increased incidence in the last years. CKD is strictly associated with the incidence of cardiovascular disease (CVD); in this setting, multiple risk factors, such as diabetes, hypertension, obesity, dyslipidemia, inflammation, oxidative stress and malnutrition, contribute to kidney disease progression.

Recent studies showed a fundamental role of nutritional management in CKD. After all, it is well established that some dietary patterns, like the Mediterranean Diet, play a protective role by controlling cardiovascular risk factors.
In this context, an active involvement of gut microbiota in the onset and/or in the progression of kidney disease is conceivable. As evidenced in other gastrointestinal and systemic diseases, also in CKD a gut microbiota dysbiosis is present. For instance, Vaziri ND et al. showed that certain families in the Bacteroidetes and Firmicutes were less prevalent in the uremic rats, especially in Lactobacillaceae and Prevotellaceae species.
On the other hand, it has been demonstrated that in CKD patients a compensatory mechanism occurs, as a consequence of nephrons failure. This mechanism, aimed at the elimination of waste products and the preservation of electrolytes, involves the colon as a replacement excretion system. A massive urea discharge and uric acid and oxalate epithelial secretion occurs, altering colonic microenvironment and subsequently affecting the gut microbial population.
In addition to microbiota modelling in CKD, other studies have reported that hemodialysis patients, as compared with control subjects, have a significantly minor dietary fibres intake, an important source of fermentable carbohydrates in the colon. Moreover, in these patients, an altered protein assimilation in the small intestine, with the consequent increase in abundance of dietary protein bio-availability in the colon has been observed. This leads to a decreased amount of available carbohydrate in the large intestine, favouring a switch from a saccharolytic to a proteolytic catabolism. In this context, bacteria hydrolyze urea, carrying to high ammonia concentration and alkaline pH, which in turn favours proteolytic species proliferation.
Protein fermentation leads to the generation of different waste metabolites, such as phenols and indoles, mainly represented by p-cresol and indoxyl sulphate, which are known as the main uremic toxins found in CKD patients and promoting disease progression. In fact, the administration of indoxyl sulphate in uremic rats induced the renal expression of genes related to tubulointerstitial fibrosis, such as TGF-beta 1, tissue inhibitor of metalloproteinase, and pro-alpha 1 collagen.
Besides being involved in merely metabolic processes in health and disease, microbiota could also explain inflammatory and oxidative co-morbidities found in CKD. Uremia per se alters the intestinal barrier integrity, inducing an increase in intestinal permeability, probably by colonic epithelial tight-junction disruption. The increased intestinal permeability allows bacterial translocation, which is responsible for endotoxemia. In detail, endotoxin is a potent immune system activator which induces the inflammatory cascade and leads to systemic, low-grade inflammation in CKD patients.

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O 58

Dialysis commencement and survival

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Background
The ratio of patients entering a planned dialysis (HD) programme is decreasing year on year.

Objectives
To investigate the 91-day versus the 1-year survival between patients entering either the planned or the emergency haemodialysis (HD) programme.

Methods
During the past 6 years (2008-2013) a total of 524 CKD stage 5 patients entered the chronic dialysis programme in our dialysis centre (439 HD, 85 PD).

Results
Dialysis was initiated as a planned procedure in only 216 patients (85 to PD, 131 received HD). In 308 patients (70%) – HD was started as an emergency treatment using temporary venous access. Only 61.5% of all patients survived up to day 91 (85.2% of those starting electively and only 44.8% of those starting as an emergency).
The difference was essentially attributable to the HD programme where 82.4% of patients starting via planned dialysis, and only 41.2% of those starting via the emergency route, reached 3-months survival.
The 1-year survival rate of patients starting a planned programme only slightly changed (82.9%), while among the patients starting their dialysis in a non-planned way only 27.6% reached 1-year survival.

Conclusion/Application to practice
The survival of patients requiring dialysis treatment is influenced by numerous factors. Whether CKD patients start a dialysis programme in an elective or an emergency manner has critical importance in their survival. The fate of patients is mostly decided in the first 3-months. The 1-year survival data shows a further pronounced decrease for patients who start dialysis treatment in a non-planned manner.

Disclosure: No conflict of interest declared

O 59

Chlorhexidine gluconate containing transparent dressing and needle-free valve port for catheter patients on haemodialysis

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Background
Use of an aseptic technique for catheter exit site care is very important for infection control and has been shown to contribute to improved patient survival in haemodialysis patients with catheters. However, this technique is costly and causes additional work.

Objectives
To evaluate the effects of transparent dressing with chlorhexidine gluconate (i.e. conventional) and needle-free valve port application (i.e. modified dressing regimen-MDR) on catheter-related bacteraemia and nursing workload in haemodialysis patients.

Methods
56 haemodialysis patients with a permanent central catheter from 5 dialysis centres were included in this prospective observational study. 22 patients (average age: 62.2 ± 11.3 years) received MDR and 34 patients (average age: 61.9 ± 11.8 years)the conventional method. The distribution of diabetics and gender was similar in both groups. Nurses and patients were surveyed by means of questionnaires about the dressing regimen (at baseline and at 4 weeks).

Results
Evaluation of the questionnaires revealed the following effects for MDR vs. the conventional regimen:
- No difference in the occurrence of bacteraemia
- A trend (without statistical significance) for less redness, leakage, pain around catheter entry site and itching
- The mean time for haemodialysis connection was 3.47 ± 1.03 vs. 7.68 ± 0.81 min and disconnection 4.14 ± 0.71 vs. 7.44 ± 2.17 min. These statistically significant reductions in connection and disconnection times have been associated with an increased patient and nurse satisfaction.

Conclusion/Application to practice
While both methods provided similar bacteraemia control, modified regimen was associated with significantly less extra work load and with increased nurse and patient satisfaction.

Disclosure: No conflict of interest declared

O 60

Evaluation of daily activities and mobility in haemodialysis patients

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Background
Dependency profiles of Turkish haemodialysis patients are unknown. It can only be hypothesized that identifying dependency profiles of haemodialysis patients in a unit/organization and developing a strategic plan on the basis of the results may not only improve the quality of care but also efficiency of nursing care.

Objectives
To identify the dependency profile of a large group of haemodialysis patients to customize patient care accordingly.

Methods
We evaluate the patients' level of dependency using the Modified Barthel Index (a validated method to evaluate 10 items, e.g. personal hygiene, bathing, feeding, toilet use, climbing stairs, dressing, bowel and bladder control, ambulation or wheelchair, chair/bed transfer). It measures patients' activities of daily living and mobility. In this study, the responsible head-nurse applied the Barthel Index to 4,046 haemodialysis patients from 34 dialysis units.

Results
Mean dependency score was 90.1±19.7: 2.6% had total dependency (n=105), 4.8% severe (n=194), 7.4% moderate (n=301), 9.2% mild (n=372), and 12.8% minimal dependency (n=519). 63.1% were fully independent (n=2,555). This corresponded to 14.8% of the haemodialysis patients having a level of dependency above moderate. In adjusted models, age, haemodialysis duration, serum albumin, and creatinine levels, diabetic status, vascular access type, interdialytic weight gain, URR, effective blood flow rate were associated with the level of dependency.

Conclusion/Application to practice
By adding dependency data to absolute patient numbers, the workload of the staff can be adjusted to the patients' individual needs, clinical care improved, and the work pressure of the staff reduced.

Disclosure: No conflict of interest declared

O 61

Comparison of infection frequency between hemodialysis and peritoneal dialysis among geriatric patients

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Background
With the increase in the elderly population the numbers of elderly people requiring RRT has increased. The preferred modality for this group is haemodialysis. Mortality in this group is due to infection. In the literature, data about infection rates between HD and PD patients of this group is limited. In elderly patients the possibility of infections related to PD does not preclude them from choosing PD as a dialysis option.In this study, our aim was to determine infection frequency and related risk factors between HD and PD in this population group over a 1-year peroid.

Methods
This study, across a number of renal centres, focused on geriatric patients, who were on PD and HD from January 2012 to December 2013. Information, both demographic and medical was recorded using a standard form in each center. All data was transferred to IBM SPSS 20.0 software(SPSS, Chicago,Illinois USA) and chi-square and student t-test were performed.A p-value<0.05 was considered as significant.

Results
148 patients participated in this study. The mean age was 72.41±5.41years.Diabetes mellitus was the primary cause of kidney disease (in62 patients,41.9).There were no any additional co-morbidity in 41patients (27.7%).The numbers on HD and PD was equal. Infection frequency in PD and HD over a one year period was; 30 patients(40.5%) and in 29 patients (39.2%) (p=0.028),respectively. Peritonitis was the leading cause of infection(in12 patients,16.2%) in PD. In HD catheter related infection was the most common cause (in10patients,13.6%).There was no difference determined in laboratory features of patients.

Conclusion/Application to practice
In our study,our results showed there was little difference between PD and HD in geriatric patients.Decisions about which type of RRT should be made by the clinican in consultation with the patient and caregiver/family member.

Disclosure: No conflict of interest declared

S 32 Masterclass – Vascular access
Omega 2, 16:00–17:30

GUEST SPEAKER

Vascular access and the heart: haemodynamic and clinical relationships

J. Malik
Czech Republic

Abstract is not available.

O 62

Reinventing fistula cannulation – Initial results of a centre experience

P. Sousa[1], P. Goncalves[1], M. Costa[1], S. Marinho[1], A. Marques[1], M. Marques[1], R. Peralta[2], J. Fazendeiro Matos[2]
[1]NephroCare Dialysis Centre Viseu , Fresenius Medical Care, Viseu, Portugal; [2]NephroCare Nursing Care Management, Fresenius Medical Care, Porto, Portugal

Background
Arteriovenous fistula (AVF) is the preferred vascular access for haemodialysis due to its low complication rate. To avoid potential complications, an optimal cannulation technique should be used. Area puncture and rope-ladder are the most common techniques. Moreover, the buttonhole technique can be used but are there other possibilities?

Objectives
To implement a new cannulation technique: Multi Single Puncture Technique (MSPT).

Methods
MSPT is a combination of the rope-ladder and buttonhole techniques. Ideally there are three arterial and three venous puncture sites, with rotation assigned to a specific treatment day.
The entire nursing staff was trained and in March 2013, MSPT was implemented for selected AVF. Complications were documented.

Results
Until December 2013, 20 AVFs were cannulated using MSPT for about 1,400 sessions.
Findings: Scrab in cannulation sites occurred in 30 to 70%; the most common complication was difficulty in cannulation (5.6/1,000 AVF days) leading to a change in puncture site in two cases; bruises were observed in few cases (2.8/1000 AVF days); haemostasis complications were observed in 14.2/1000 AVF days; bleeding in canulation sites 5/1,000 AVF days; least common complication was inflammation at cannulation site (0.5/1000 AVF days) without the need for medication; no aneurysms were observed.

Conclusion/Application to practice
Observing a large number of cannulations the most serious complications often associated with AVF puncturing seems to be avoided with MSTP. In 1,000 treatments we only observed 2 episodes of minor inflammatory signs and less serious complications. Therefore, MSPT has the potential to become a new puncturing technique which needs to be confirmed by future studies.

Disclosure: No conflict of interest declared

O 63

Comparison of two puncture techniques: Buttonhole vs. Rope Ladder

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Background
The ideal Vascular Access (VA) for dialysis is the arteriovenous fistula (AVF) due to a higher greater durability and lower risk of infection and thrombosis. Studies show that the puncture technique is a variable that interferes with the mentioned aspects.

Objectives
To compare some VA related parameters when using buttonhole versus rope ladder technique.

Methods
21 patients with AVF were followed in two different periods of six months each:
T1 – June to November 2012 (buttonhole)
T2 – March to August 2013 (rope ladder)

Results
Five of the 21 patients were female (average age 69 years). When comparing period T1 (buttonhole) vs. T2 (rope ladder) we observed aneurysms in 47.8% of patients vs. 76.2%. Mean VA flow was 1,027 vs. 1,161 ml/min. Bruising was observed in 7 vs. 34% and cannulation difficulties in 60 vs. 42% of cannulations.
During T2, inflammatory signs occurred in 8% and stenosis and thrombosis in 4% of AVF, whereas these events were not observed in T1. 33% of buttonhole cannulations and 8% of rope ladder cannulations were associated with extracorporeal circuit clotting. In T1, cannulation sites had to be changed in 3 cases.

Conclusion/Application to practice
Cannulation difficulties were higher in T1 which might be due to the use of buttonhole needles. Moreover, extracorporeal clotting occurred more often in this period. However, we observed less bruising, stenosis and thrombosis episodes, translated into less aneurysms formation. We can conclude from the results that better outcomes were achieved with the buttonhole technique.

Disclosure: No conflict of interest declared

S 33 Enhancing your team's performance through effective leadership practice
Beta, 16:00–17:30

GUEST SPEAKER

Enhancing your teams' performance through effective leadership practice

J.M. Sedgewick[1]
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Background

Having the skills and abilities to lead high performing teams is an important feature of organisations seen as 'high performing. Building and leading high performing teams is an important leadership competency. Individuals within teams need to be supported to fulfil various roles both at departmental level as well as across the organisation; collaborative working is a key feature of such teams. The psychologist Tuckman, identified the stages of growth which teams go through including the stages of Forming, Storming, Norming and Performing. Understanding team behaviors and managing the various stages of team performance is an important leadership skill. Team effectiveness is largely a feature of how the team understands its shared goals and importantly what each individual team member brings to the team.

Team members need to understand their roles within teams and how their individual performance impacts upon team effectiveness. Having a clear appreciation of the 'bigger picture' strengthens collaboration and commitment as a team works towards a common shared vision & purpose. Leading successful teams requires managing various challenges e.g. team conflicts, maximizing results from virtual teams and managing diverse teams. Maintaining teamwork mentality, whilst making the most of the diversity of talents, skills, knowledge and personalities within the team are important attributes of successful leaders.

Objectives

1. Explore the relationship between leadership style and how this impacts upon team performance.
2. Identify the key critical attributes of highly successful teams
3. Examine personal leadership attributes (through self-appraisal) and how these form the foundation for excellence in leadership practice.
4. Apply principles of leadership effectiveness in responding to a range of practice based challenging situations.

Tuesday, 9th September 2014

S 34 Nutrition
Omega, 8:30–10:00

GUEST SPEAKER

The Spectrum of Malnutrition in End Stage Renal Disease

M. Susenj[1]
[1]Diaverum, Barcelona, Spain

Objectives

This presentation considers the assessment and treatment of malnutrition status of patients with End Stage Renal Disease (ESRD). According to recent studies this is a relatively common condition with a prevalence between 18 and 75% depending on dialysis modality, nutritional assessment tool, origin of patient population and other demographics. Malnutrition in ESRD patients cannot be just attributed to inadequate food intake, as the concept ambiguously implies. Malnutrition in ESRD patients has been found to have overlapping etiological factors with chronic inflammation that may result in arteriosclerosis (i.e., malnutrition inflammation arteriosclerosis syndrome). Research studies also suggest the importance of underlying metabolic and endocrine alterations as the driving force of malnutrition, identifying the following risk factors: hyperparathyroidism, metabolic acidosis, systemic inflammation, and catabolism associated with dialysis treatment and underlying comorbid conditions. Due to its etiologic complexity, those studies suggest the need of combining different nutritional assessment tools to predict their nutritional status, such as dietary anamnesis, body composition measurements, various scoring systems, and laboratory indicators. In addition, once diagnosed, the most effective way to address malnutrition in ESRD patients consists of implementing nutritional therapies such as nutrient supplementation (e.g., protein, calories, micronutrients), anabolic strategies (e.g., use of recombinant human growth hormone, anabolic steroids), appetite stimulants (e.g., ghrelin, megestrol acetate) and anti-inflammatory intervention (e.g., omega 3). The ultimate goal of these interventions is the preservation of lean body mass, which low levels are associated to increased risk of morbidity and mortality.

O 64

Evaluation of the Nutritional Status of Hemodialysis Patients

Mukadder Mollaoglu[1], Mansur Kayataş[1], Ferhan Candan[1], Birsen Yürügen[2]
[1]Cumhuriyet University, Sivas, Turkey; [2]Okan University, Istanbul, Turkey

Background
Uremic malnutrition is a common phenomenon in maintenance hemodialysis patients and a risk factor for poor clinical outcomes including reduced quality of life and increased hospitalization.

Objectives
The purpose of the this study was to determine the frequency and severity of malnutrition in dialysis patients.

Methods
In a cross sectional, descriptive study, 218 hemodialysis patients were assessed for malnutrition. Data was collected by using a personal information form, Mini Nutritional Assessment (MNA). We analyzed MNA scores, biochemical nutritional markers and anthropometric composition in 218 patients (120 male, age 53.4±13.2). Monthly assessed biochemical parameters including albumin, CRP, lipid profile and creatinin of the last 6 months were respectively collected.

Results
Patients were grouped according to MNA scores; well-nourished (n:56, score≥24), moderate PEW or risk group (n:116, score 17-23.5) and PEW group (n:46, score<17). Biochemical findings of these groups were compared. A correlation analysis revealed that MNA scores were correlated with hemoglobin, albumin, Tricep Skinfold Thickness (TSF), Mid-Arm Muscle Circumference (MAMC)] and BMI .

Conclusion/Application to practice
The results indicate that the prevalence of malnutrition is high in these hemodialysis patients. Regular assessment of nutritional status of patients undergoing maintenance hemodialysis, to identify patients at risk of malnutrition, and allow for early nutritional intervention. A consistent nutritional assessment protocol is warranted and should be implemented to decrease malnutrition in Turkish hemodialysis patients.

Disclosure: No conflict of interest declared

O 65

Relationship between body mass change and survival of dialyzed patients

E. Molnar[1,2], I. Szakacs[1], I. Kulcsar[1,3]
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Background
The appearance of observations in favour of (reverse epidemiology) and against the higher survival rate of overweight dialysis patients has long been an exciting issue in nephrology.

Objectives
To analyse the correlation between body mass and survival as well as between body mass change and survival.

Methods
Data for 238 patients included in a chronic haemodialysis (HD) programme was collected and followed up retrospectively. The average body mass values of patients at the commencement of HD, on day 91, at the end of the period of observation and the body mass change values per unit of time were compared. The correlation of these values with survival was analysed (Cox-models, Kaplan-Meier and endpoint analysis).

Results
The follow-up period was 5.5 years on average. The body mass reduction was 2.3 ±3.2 kg for women and 1.6 ±3.1 kg for men/year. It was more pronounced in patients over 65 years of age and for those with diabetes.

We did not find a significant correlation between body mass measured at the commencement of HD and survival.

Patients were divided into 3 groups depending on the change of their body mass. The analyses clearly showed that the highest survival rate occurred in the patient group where body weight loss per unit of time was the lowest.

Conclusion/Application to practice
Although these observations were made on a small number of patients, the follow-up period was long. We hope that our observations will help resolve the still existing controversies of the issue studied.

Disclosure: No conflict of interest declared

O 66

A nurse-led multifactorial intervention to improve phosphate binder adherence: a one-year clinical trial

Y. Van Camp[1], B. Van Rompaey[1], B. Vrijens[2,3], P. Arnouts[4], M. Elseviers[1]
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Background
Despite the development of effective phosphate binders, phosphatemia control has not improved significantly. **Phosphate binder nonadherence** – not taking phosphate binders as prescribed – is an important contributing factor.
Objectives
We aimed to **test a one-year nurse-led multifactorial intervention to enhance phosphate binder adherence**.

Methods
In a **quasi-experimental clinical trial**, phosphate binder adherence was measured electronically in 135 hemodialysis patients for one year and phosphatemia measured monthly. For all patients, months 1-2 were baseline (no interventions).
Intervention patients received 1 „preparatory" intervention aimed at „prerequisites" for adherence (knowledge/education), social support and skills(e.g. cue-dose training). Then they received 8 "maintenance" individualized management sessions, based on the adherence data and phosphatemia:
- Good adherence and phosphatemia: positive feedback.
- Poor adherence or uncontrolled phosphatemia: encouragement to idenfity causes and to propose solutions. A special intervention tool, listing the most prevalent problems and according solutions was used to guide the management sessions.

Control patients received standard care.

Results
Mean adherence in month 1 was 6% lower in intervention patients (76 vs. 82% in control patients). Over 12 months, **mean adherence had a significantly rising trend in intervention patients** (slope +0.08 (95%CI +0.17;+1.54)), which was non-significantly decreasing in control patients (slope –0.05 (95%CI –1.50;+0.46)). The more sessions received, the better adherence. Poor adherence was mostly unintentional (forgetfulness) (72%), rather than intentional (28%).
Mean phosphatemia decreased –0,5mg/dL (p=0.01) **in intervention patients** and increased +0,3mg/dL (p=0.50) in control patients after 12 months.

Conclusion/Application to practice
The **interventions** enhanced adherence and phosphatemia control and **should be adopted into daily, clinical practice**.

Disclosure: No conflict of interest declared

S 35 Quality management
Omega, 10:15 – 11:45

GUEST SPEAKER

The experience of patients with kidney disease in Lithuania

U. Šakūnienė[1]
[1]Lietuvos asociacija GYVASTIS, Vilnius, Lithuania

Background

I was diagnosed the terminal kidney function failure after the influenza when in 1979. After some years I had to treat by hemodialysis. My mother was my first kidney donor on 1984. My father was my second kidney donor on 1990. I am still living with his kidney and I'm the leader of the association GYVASTIS.

Gyvastis represents the interests of the Lithuanian people who are living after kidney, heart, liver or lung transplantation operations, people who are waiting for transplantation or are on dialysis treatment.

One of the main Gyvastis objectives is to represent its patients and seek for them the best medical support and social security, to raise public awareness of organ donation, to educate patients and give them psychological support.

There are about 2200 kidney patients in Lithuania. 1400 of them are HD patients, 60 – PD and 700 – kidney transplant patients. 120 patients are waiting for kidney transplantation. One of our organization purposes is to reach that kidney transplantation would be officially recognized as a best treatment for kidney patients and the most economical for the government. The first step is to create register of HD, PD and kidney transplant patients. The important solution is raising awareness of life kidney donation for relatives.

O 67

Using multidisciplinary teams (MDTs) to improve quality outcomes

M. Richards[1], D. Marquez[1], A. Rezqallah[1], F. Sharif[1], A. Nundlall[1], R. Britten[1], J. Noble[1], E. Suleiman[1], L. Garcia[1], B. Al Kaddah[1]
[1]Nursing, SEHA Dialysis Services, Abu Dhabi, United Arab Emirates

Background
The best patient outcomes are achieved when professionals work, learn, engage in clinical audit and innovate together. Multiple interventions are more effective than single interventions which often fail. The distribution of guidelines or educational material rarely changes behaviour unless combined with audit, feedback and protocols. There a numerous problems with MDTs relating to gender, cultural differences, perceived status differentials, multiple reporting lines, lack of "buy-in" and supporting organisational structures and resources. These must be addressed for success.

Objectives
To improve performance against agreed key performance indicators (KPIs) across Abu Dhabi.

Methods
KPIs covering vascular access, dialysis frequency, time and dose, haemoglobin, phosphate and albumin, were developed. Monthly MDTs were implemented in quarter 1 of 2013. The teams were led/organised by the senior nursing staff and involved physicians, dieticians, social workers and clinical pharmacists.

Results
In quarter 1 no KPIs were met and there had been no change in performance in the previous year. By the end of Q4 2013 there had been dramatic improvement against all targets with achievement of 5 of 7 KPIs, additionally the performance exceeded international benchmarks (DOPPS Practice Monitor) in 5 areas. The average improvement was an increase of 13% of patients achieving target. Patients prescribed 4 hours of dialysis increased from 73 to 96%.

Conclusion/Application to practice
The introduction of MDTs was successful as they had clear objectives, the right support and "buy-in" from all concerned. Additionally they were combined with a programme of patient and clinician education. The improvement seen was gradual and continues.

Disclosure: No conflict of interest declared

O 68

The importance of art therapy in determining the quality of life in dialysis patients

H. Demirbilek[1], E. Parmaksiz[2], G. Gokcan[2], A. Kutan Fenercioglu[3], O. Cigerli[3], S.Y. Kokturk[1], F.N. Ozdemir Acar[2]

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Background

Dialysis may cause psycho-social problems and reduce quality of life in Chronic Renal Failure (CRF) patients. In this study, we aimed to ameliorate life quality of CRF patients by providing patients the opportunity to participate in artistic activities.

Material and method

Ten CRF patients with eating disorders, sleep disorders, drug abuse or unnecessary drug use, alcohol abuse, chronic pain, depression, hearing and visual impairment, refusal of treatment and one or more of the criteria of psychosocial non-compliance were included in this study**.** Two of them were receiving peritoneal dialysis and eight of them were receiving hemodialysis treatment. Five male and five female CRF patients who participated in a theater (skit) activity at their own request were included into the study group. The control group included 4 female and 4 male healthy volunteers who also participated in the same theater (skit) activity at their own request. STAI continuous, STAI-state tests and Social Phobia (SPT) tests were applied to the participants before and 5 months after the art therapy. (Ed. Please describe these tests as the audience will be unclear what they mean). **Statistical analyses were made with the package program NCSS (Number Cruncher Statistical System) 2007 Statistical Software (Utah, USA). Evaluation of the data was made with descriptive statistical methods (mean, standard deviation), Mann-Whitney U test for comparison of two groups of variables with variant distribution, chi-square test for comparison of qualitative data and Wilcoxon test for the comparison of STAI and SPT tests differences at the beginning and 5th month of the therapy. P value <0.05 was accepted as statistically significant.**

Results

The study group's SPT scores at 5th month after therapy were significantly lower than the results before therapy (p=0.028). The study group's SPT scores at 5th month after therapy were significantly lower compared to the scores of the control group (p=0.001). The difference in SPT scores from the beginning to 5th month after therapy was significantly higher in study group than in control group (p=0.009). The difference in STAI-state scores from the beginning to 5th month after therapy was significantly lower in study group than in control group (p=0.002). The study group's STAI-state scores at 5th month after therapy were significantly higher compared to the results of the control group (p=0.003).The study group's STAI-state scores at 5th month after therapy were significantly higher than the results before therapy (p=0.012).

Conclusion

The significant reduction in SPT results of the study group from the beginning to 5th month of the therapy indicates positive changes in social life. The increase in STAI-state scores of the study group from the beginning to 5th month of the therapy shows the instant concern for the success of the artistic activity. The STAI- continuous score did not show any change because of the continuity of the anxiety before and after the artistic activity.

Key words

Chronic Renal Failure, dialysis, anxiety, stress, art therapy

Disclosure: No conflict of interest declared

O69

Foot problems in dialysis patients

J. Terényi[1], M. Majszterovics[1], M. Molnár[1], R. Mogyorósi[2]
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Background
In light of an increased morbidity and mortality in dialysis patients, regular examination of the patient's feet is crucial. Dialysis nurses play an important role in the recognition of these abnormalities.

Objectives
To identify foot problems during regular "foot visits" in our clinic.

Methods
68 haemodialysis patients and 1 peritoneal dialysis patient (mean age: 62.7 years, diabetics: 31%, smokers: 30%) were examined and any foot abnormalities (dry skin, calluses, fissures, abrasion, ulcers, joint deformities, fungal infection, etc.) documented. Moreover, peripheral pulses were examined and calibrated tune-fork, monofilament tests and neurotests performed.

Results
Intact, well-groomed feet were found only in 16% of patients. Nail fungi were identified in 22%, dry skin and fissures in 24%, abrasion and ulcers in 6% of patients. 40% of neurotest and monofilament tests, 60% of tune-fork tests were positive. In 57% of patients no peripheral pulses were palpable. Patients were educated on proper foot care and referred to specialists.

Conclusion/Application to practice
Foot problems – often in an advanced state – were identified in numerous patients. Regular "foot visits" should become a routine for dialysis patients. Early treatment may prevent the loss of extremities. Peripheral arterial disease and neuropathy are very common in our patients. The examination of neuropathy with simple methods can predict foot abnormalities and high-risk patients can be diagnosed at an early stage and receive adequate treatment in time.

Disclosure: No conflict of interest declared

O 70
Development of an integrated competency framework
C. Poole[1]
[1]NephroCare Head Office, Fresenius Medical Care, Birmingham, United Kingdom

Background
Clinical competence is the cornerstone on which quality care is delivered. Competence is a complex multidimensional phenomenon which has internally been agreed as "The combination of skill, knowledge and attitudes, values and technical abilities that underpin safe and effective satellite dialysis care and interventions"

Objectives
The overarching objective was to undertake a full review of 19 current competency documents and to assess how these could be merged/amalgamated/refined/redesigned and possibly removed in their entirety from use whilst maintaining the credibility of a final "integrated competency assessment tool".

Methods
19 competency documents were reviewed and assessed in terms of their relevance to registered/unregistered healthcare professionals, contemporaneous content, link to internal policies, procedures and best practice.

Results
The critical review led to the development of a "Chronic Haemodialysis Integrated Competency Framework" for registered and non-registered healthcare professionals containing four domains of competence and three annual re-assessment of competence documents for use as a precursor to individual annual staff appraisal.

Conclusion/Application to practice
One of the greatest challenges is ensuring competent nursing workforces who are fit to deliver high quality care to patients within this environment. It is envisaged that the development and application of this integrated competency framework will form the bedrock for assessment of competence from the point of induction for new employees whilst affording the opportunity for reassessment and thus the identification of further training needs.

Disclosure: No conflict of interest declared

S 36 Closing Ceremony
Omega 1, 12:00–13:00

GUEST SPEAKER
Shared Decision making in kidney care
Nicola Thomas
UK

Abstract is not available

Presentation of Poster scholarships

LIST OF POSTERS

Poster Session A – Monday 8th September 2014, 09:00-10:30

Haemodialysis **P 001–P 014**

P 001

Balancing hair loss induced by anti-hepatitis C therapy in a haemodialysis patient

P. Demarchi[1]
[1]Nephrology, CH Louis Jaillon, Saint Claude, France

Background
Hair loss affecting the scalp is very common in patients undergoing renal replacement therapy.

Methods
A 58 year old patient undergoing haemodialysis was receiving Peginterferon alfa 2b and Ribavirin. Three weeks later, she started complaining of hair loss of her scalp. A third renal transplantation work up required reintroduction of the same drugs reinforced by the adjunction of télaprévir in the first three months. The patient noticed hair loss as described previously. The substitution of standard heparinisation by a low molecular heparin gave a neutral effect. She never received hormone replacement therapy and her nutritional status was correct and plasmatic protein electrophoresis was normal . She never experienced hepatic dysfunction and serum cryglobulin was negative. Strict replacement of deficiency, and monthly administration of colecalciferol allowed a prompt and better control of her scalp hair loss.

Results
Under physiological conditions hair follicle growth cycling passes through anagen, catagen and telogen respectively. Our patient has never experienced hair loss until she started receiving anti hepatitis C therapy. She developed this adverse drug reaction to the combined agents including Interferon and Ribavirin. Hair loss has been observed after introducing these drugs separately. Solely, the level of vitamin D2 and D3 needed a monthly colecalciferol replacement which attenuated hair loss of the scalp. The mechanism by which vitamin D2 D3 improved hair follicle growth cycling and pigmentation remains to be elucidated.

Conclusion/Application to practice
Anti-hepatitis C therapy including peginteferon and ribavirin might induce hair loss in patient under renal replacement therapy.

Disclosure: No conflict of interest declared

P 002

Diabetic imbalance under tramadol therapy in a patient with end stage renal failure

P. Demarchi[1]
[1]Nephrology, CH Louis Jaillon, Saint Claude, France

Background
Tramadol belongs to a synthetic analgesic class which accumulates in the presence of renal failure. Herein, we describe a case of patient receiving haemodialysis who developed diabetic imbalance whilst receiving tramadol.

Methods
This 45 year old male patient was admitted to haemodialysis due to evolution of multifactorial kidney diseases and chronic rejection associated nephropathy. He was experiencing difficulties with poor therapeutic adherence. He experienced pain relief under opoid therapy prescribed for post costal zonal pain, which was substituted for tramadol/paracetamol thrice daily. With the progressive deterioration of his kidney function, he started presenting alternating symptomatic hypoglycaemia and hyperglycaemia. Biochemical findings showed severe anaemia, creatinine clearance less than 5 ml/min with metabolic acidosis and mild hyperkalaemia. Further parameters were unremarkable including normal liver function test. Tendency to hypoglycaemia became more frequent with progressing chronic kidney disease and during the haemodialysis period. By discontinuation tramadol, his blood sugar profile tended to hyperglycaemia needing escalating dose of Lantus to stabilize at 20 IU/daily.

Results
Tramadol belongs to a synthetic analgesics class, having an opoid –like activity. Hypoglycaemia has been described in diabetic and non-diabetic patients using dextropropoxyphene and tramadol. Our patient was relatively young, for around 30 year's evolution of his diabetes with many complications and under insulin therapy only. In some circumstances haemodialysed patients will be weaned from their anti-diabetic agents. Herein this was not the case as the need for insulin showed increased requirements after discontinuing tramadol.

Conclusion/Application to practice
Monitoring of blood glucose levels is mandatory in patients receiving haemodialysis, and those prescribed tramadol to avoid the occurrence of hypoglycaemia.

Disclosure: No conflict of interest declared

P 003

Charles Bonnet syndrome in haemodialysis

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Background
Visual hallucinations of Charles Bonnet Syndrome occur spontaneously in people with intact cerebral function, psychological state and impaired visual pathway. Herein, we report such condition in four patients over 20 years of observation.

Methods
Four patients developed typical features of Charles Bonnet Syndrome over 20 years observation. Three-quarters were described as having type II diabetic mellitus and multiple comorbidities. Blindness is the most distressing symptoms for our diabetic patients. Mini mental scale examination was satisfactory, despite poorly controlled diabetes. The psychological profile of our patients evokes an obsessive character. None were manifesting other sensory hallucinations, taking alcohol or using illicit drugs. All were married and living with their respective spouse. All patients had correct biochemical profile. Cerebral scan and magnetic resonance imaging were non-significant. Three-quarters of them responded well to gabapentin therapy.

Results
The diagnostic criteria for Charles Bonnet syndrome is controversial. Our patients fulfil these criteria, having advanced age and some degree of blindness. Opposite to previous publication, visual hallucination did occur in the absence of erythropoietin therapy. A striking and dominant characteristic is the presence of diabetes mellitus amongst clinical condition, with a negative impact on their eye faculty. It seems, without conclusion that Charles Bonnet syndrome did occur at the frontier of recovery and re-emerging vision that needs confirmation. Our patients stated that visual hallucination was a distressing symptom, becoming non-harmful after reassurance and introduction of gabapentin therapy.

Conclusion/Application to practice
Recognition of Charles Bonnet syndrome is of value to avoid misdiagnosis and costly investigations.

Disclosure: No conflict of interest declared

P 004

The difficulties of haemodialysis for malignant tumour patients; the role of the family

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Background
The number of haemodialysis patients with malignant tumours has been increasing. The surveillance of patients including their psychological counselling, management of pain, the negative impact on other patients and fulfilling the therapy entails extra work.

Objectives
The cooperation of the family is essential in addressing the special requirements posed by cancer patients.

Methods
In January 2014 the Tatabánya Dialysis Centre had 97 patients (35 females and 62 males).
Age distribution: under 30y: 1, 31-40yrs: 5, 41-50yrs: 8, 51-60y: 19, 61-70yrs: 26, 71-80yrs: 29, 81-88yrs: 9 patients. 65 patients live with family while 32 are single. Eight patients have malignant tumours with organ location as follows: prostate cancer in three patients, bladder cancer three, renal cancer one, bone and bone-marrow cancer one and rectal cancer one.
Case study: A 73 year old male patient with a prostate tumour diagnosed in 2008, developed bone metastases in 2012, and commenced haemodialysis. In December 2012 a stent was inserted then a graft implanted. On 23 December he developed a brain haemorrhage and in April 2013 his haemodialysis treatment was suspended because of the deterioration of his physical state.

Results
His family transported the dependent patient while cooperating with the staff regarding other therapies. The patient deceased in dignity surrounded by his family in his home.
The understanding of the family helped both the patient and the staff cope with the psychological and ethical challenges.

Conclusion/Application to practice
The increasing number of cancer patents requires the staff to prepare for their special needs.

Disclosure: No conflict of interest declared

P 005

The expanding role of dialysis nurses: dietary counselling and mortality; single centre experience

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Background
The increase of serum phosphorus corresponds to higher mortality in the End-Stage Renal Disease Population.

Objectives
To compare the effects of nurses dietary counselling on the cardiovascular mortality in two different three years intervals in dialysis population.

Methods
109 dialysed subjects: male 59%, mean age 61,5 years, mean dialysis vintage 87 months, were evaluated in the interval 2008-2010 (years without counselling) and in 2011-2013 (years with dietary nurses counselling); the nurses operated bi-monthly with the dietary table and interview. All subjects dialysed with Bic-Hd, calcium dialysate 1,5 mmol/l, Kt/v>1.4, and treated with paricalcitol until serum calcium>2,3 mmol/l, cinacalcet if PTH>50pmol/l, carbonate sevelamer until phosphorus <1,4 mmol/l. Serum phosphorus and calcium were measured monthly, and PTH measured quarterly. The data summarized as mean ± 1ds and analysed with t-student test; the different mortality incidence analysed with X^2 test; significant $p<0.05$.

Results
We observe reduction of serum phosphorus from 5,52± 1,04 to 4,87±0,7 mg%($p<0.02$), serum calcium from 9,2±0,6 to 8,9±0,5 mg%($p<0,02$), the mean PTH values are unchanged ($p<0,42$) and furthermore we observe correlated reduction of cardiovascular causes of death from 56% to 25% ($p=0,06$) in the all mortality events between the three years periods.

Conclusion/Application to practice
The strategy of nurses dietary counselling is effective, cost sparing and not cumbersome; the nurses professionalism facilitated patient centred care with an advantage on cardiovascular mortality.

Disclosure: No conflict of interest declared

P 006

The prevalence and characteristics of pain and other dialysis related symptoms in haemodialysis patients

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Background

End Stage Renal Disease (ESRD) treated with haemodialysis affects more than 453,000 patients in the USA, predominantly the elderly. The number of patients receiving dialysis in Israel was 5524 in 2010. Patients on haemodialysis can suffer from pain and other physical and mental symptoms, which can account for impairment observed in health-related quality of life (HRQL) studies. HRQL is a critical issue in the treatment of ESRD and is used to assess the effectiveness of healthcare interventions. Patient-reported HRQL is becoming as important as morbidity and mortality in evaluating outcomes in patients with ESRD.
Little is known about the burden of pain and other physical and mental symptoms in haemodialysis patients.

Objectives

The purpose of the study was to evaluate the prevalence and characteristics of pain and other dialysis related symptoms, quality of life, daily function, and health services use in haemodialysis patients in Israel.

Methods

A cross-sectional study including 300 ESRD patients receiving chronic haemodialysis in seven hospitals of Clalit Health Services in Israel was attended. Patients meeting the inclusion criteria were interviewed by a structured questionnaire. Medical staff team members completed a structured form regarding the patient's health status. Data regarding health services utilization during 12 months was retrieved from the computerized databases of CHS.

Conclusion/Application to practice

The research work may shine a light on the subject of the burdening symptoms in dialysis patients, and the need for more effective treatment responses and more effective use of medical services. The answer may be in the field of palliative care.

Disclosure: No conflict of interest declared

P 007

Impact of the use of dialysis solution with citric acid on anticoagulants

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Background
Application of dialysis solution with citric acid provides patients with the following benefits:
Significant increase in the dialysis dose
Possibility of a reduction in the heparin dose
Proven improvement in biocompatibility of the dialysis procedure
Reduction of post-dialysis bleeding
Use for special applications (patients with HIT, contraindication to heparin, trauma).

Objectives
To determine the impact of dialysis solution with a citrate compound on the quantity of heparin needed for patients included in the long-term dialysis programme.

Methods
A group of 27 patients – anticoagulation with heparin
Application of the Citrasate solution
The same dialyzer, the same treatment period before and after application of the citrate solution
Primarily, a flat reduction in the quantity of heparin by 25%
Monitoring of ACT, evaluation of coagulation in the sets and in the dialyzer
Titration of the dose

Results
27 patients
24 reductions in the dose (range 0.9 % – 42.1%) (23% average)
3 increases (5 % – 14 %) (12.4 % average)

Conclusion/Application to practice
In 89% of the patients, a reduction in the heparin dose could be implemented.
The dose of the heparin-based anticoagulation has been reduced significantly. The benefit for the patients is a reduction of the risk of post-dialysis bleeding and of the risk of complications resulting from higher doses of anticoagulants.
Reduction of the Heparin cost is also of significant economic benefit.

Disclosure: No conflict of interest declared

P 008

Relationship of monocyte count with cardiovascular risk factors in haemodialysis patients

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Background
According to recent literature reviews, screening for cardiovascular disease correlates to chronic renal failure. In this population, stroke and sudden cardiac death are of the utmost importance. The well-known correlation between WBC count and cardiovascular diseases highligths the role of monocytes in atherosclerosis.

Objectives
To investigate the relationship between the number of monocytes and cardiovascular risk factors as part of a general condition survey in our patients receiving haemodialysis.

Methods
Diabetic (n= 56: male/female 32/24; age 66.8 ±11.2 years) and non-diabetic (n= 91: male/female 43/48; age 67 ±16.4 years) groups were analyzed separately. Registered laboratory parameters included: monocyte count; serum CRP; albumin; total cholesterol; triglyceride; uric acid; blood sugar; calcium; phosphorus. We also assessed the ankle-brachial index (ABI) and MIS score (malnutrition-inflammation score). The Spearman rank test was used for statistical evaluation.

Results
In the non-diabetic group there was significant correlation (r=0.25 p=0.017) between monocyte count and random blood glucose values – this relationship was not observed in the diabetic population. Based on the MIS test our dialysis patients' typical co-morbidity was level 2 (they were mainly in their fourth year on dialysis). Their functional capacity was in a mild strain. Their albumin levels ranged from 35 to 39 g /L. Most of them had gastrointestinal symptoms.

Conclusion/Application to practice
The initial phase of plaque development appears as endothelial dysfunction which is often accompanied by a slight rise in blood sugar levels and monocyte count. The nurse who detects these alarming laboratory results can offer atherosclerosis screening tests to confirm vascular pathology.

Disclosure: No conflict of interest declared

P 009

Disabled patients at the dialysis station

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Background
Permanent disability is a status or a trait which involves a significant decrease of a person's sensory, musculoskeletal, cognitive or communication skills that impairs participation in social life. A chronic hemodialysis patient's multimorbidity is well-known. In many cases this is associated with disability which poses special tasks for nurses.

Objectives
To assess the disability of our patients treated at the dialysis station in order to determine the extra care they need.

Methods
The current chronic hemodialysis patients (n = 129, male/female 71/58, age 64.6 ± 13.8 years) were examined and included those with amputations with consequential disability, incidence of visual impairment and hearing loss, patients requiring the use of a wheelchair, and claims relating to duties of patients with limited ability to speak.

Results
Among patients in post amputation state (n = 18) only 10 patients had their own wheelchair; only seven patients were dialysed in bed where special attention has been applied during the dressing and weight measurements. A total of 5 patients were blind, and an additional seven patients were visually impaired. Solutions for their inside transport can be difficult. We registered 17 cases of hearing loss – usually it was part of general mental decline. (Ed – this is not a result as such – Special communication needs include the use of simple terms, and actual removal of face masks).

Conclusion/Application to practice
Rates of disabilities among treated dialysis patients are unexpectedly high. Patients in everyday nursing practice with advanced communication needs and who are socially disadvantaged require spiritual leadership. Nurses in dialysis units should be able to give this special care.

Disclosure: No conflict of interest declared

P 010

Glucose containing acid concentrate – A must in haemodiafiltration with high substitution volumes?

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Background
Studies show high volume haemodiafiltration is beneficial for patient survival. Our clinic implemented this treatment modality using the same glucose-free acid concentrate for non-diabetic patients as previously for haemodialysis.

Objectives
To determine whether the use of glucose-free acid concentrate in high volume haemodiafiltration leads to a non-physiological decrease of blood glucose during treatment.

Methods
In 10 patients, glycaemia was determined (using advanced laboratory equipment) at each treatment connection and disconnection over a period of 2 weeks. During week 1, patients received haemodiafiltration with high substitution volumes. During week 2, they received standard haemodialysis. The same dialyzers and glucose-free acid concentrate were used. The only food intake during treatment was a snack (containing 50g carbohydrates).

Results
No significantly different glycaemic levels were measured at the end of each treatment session using both treatment modalities: One value of blood glucose level <70mg/dl was observed with high volume haemodiafiltration vs. 2 values <70mg/dl with haemodialysis. In one patient, two values <70mg/dl were observed. The low glycaemic levels were measured in patients who ate only parts of the snack or did not eat it at all.

Conclusion/Application to practice
Hypoglycaemia was not a major problem in patients treated with high volume haemodiafiltration vs. haemodialysis using glucose-free acid concentrate provided that the patient had an intradialytic snack. Results will be further evaluated to demonstrate that a different type of concentrate is not required and an additional workload for the staff and logistic changes can thus be avoided.

Disclosure: No conflict of interest declared

P 011

Extracorporeal blood circuit clotting: can it be prevented?

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Background
Extracorporeal blood circuit (EBC) clotting during haemodialysis may require treatment interruption and have serious impacts on the patient's quality of life. The blood flow through the EBC, especially through the dialyzer, triggers blood clotting. Clotting can also be caused by high ultrafiltration rate, central venous catheter (CVC) occlusion or insufficient flow or recirculation of the vascular access.

Objectives
To prevent complications related to EBC clotting.

Methods
A procedure for anticoagulant preparation has been established. Nurses were trained on a monthly basis to recognise the first signs of EBC clotting and take the appropriate emergency procedures. Different causes of EBC clotting were evaluated.

Results
EBC clotting events were measured from June to November 2012 and compared with the same period in 2013. In 2013, EBC clotting events were decreased by 5%, respectively, in 50 of 20,000 treatments, clotting determined the EBC replacement.
The main causes of EBC clotting were: Dysfunctional vascular access with insufficient flow (25), treatment interruption (visits to the toilet) (5), high ultrafiltration (8) and anticoagulant-free treatment prescription (planned surgical interventions: generating AVF, CVC insertion, ocular and dental interventions) (12).
Moreover, in 10 cases treatment was terminated 20 minutes earlier due to clotting, but with recovery of the EBC.

Conclusion/Application to practice
Continuous training of the clinical staff and active participation of patient, nurse and physician have an important impact on the prevention of EBC clotting. Trained employees reacted correctly when the first signs of clotting appear.

Disclosure: No conflict of interest declared

P 012

Influence of dietary education on the correction of hyperphosphataemia in haemodialysis patients

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Background
Haemodialysis patients often suffer from hyperphosphataemia, having a decisive role in bone disease evolution. Diet plays an important role to maintain an adequate phosphate balance.

Objectives
To evaluate a potential impact of dietary education on hyperphosphataemia in haemodialysed patients.

Methods
88 patients were treated with haemodiafiltration (55%) and haemodialysis. Patients were aged 35-85 years (mean age 58), 59% were male. Dialysis treatment time was 250 minutes per session in 84% of patients and 270 minutes in the remaining population, respectively.
Over the period of one year, nutritional information was collected by means of nutritional anamnesis, dietary and nutritional diary and nutritional interviews. Dietary education was provided by means of flyers, recipes, and daily menu suggestions. Patients were monitored at monthly intervals. The aim was to achieve a phosphate value of 2.5 to 5.5 mg/dl for a period of at least three months. Dietary education still continues, as change of eating habits take their time.

Results
At baseline, phosphate values of ≥ 6.5 mg/dl were observed in 66% and 5.5 to 6.5 mg/dl in the remaining 34% of patients, respectively. After the study, 17% of patients had phosphate values of ≥ 6.5 mg/dl, 49% between 5.5 and 6.5 mg/dl and 34% between 2.5 and 5.5 mg/dl, respectively.

Conclusion/Application to practice
Individual dietary education of haemodialysed patients showed an encouraging percentage (34%) of patients achieving targeted phosphate values. Patients receive continuous education on the importance of a good nutrition and correct intake of phosphate binders according to medical prescription.

Disclosure: No conflict of interest declared

P 013

Association between illness perception of haemodialysis patients and survival

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Background

Despite various improvements in the treatment of patients with chronic kidney disease stage 5, mortality remains high in this population. Besides clinical factors, psychological factors may have an important impact on the patient's survival. For example, health-related quality of life (QoL) in haemodialysis (HD) patients has been reported as a significant predictor of mortality and hospitalisation. Another way to study psychological factors is the evaluation of a potential correlation between illness perception and mortality rates.

Objectives

To evaluate the relation between patient's illness perception and survival.

Methods

We assessed 101 haemodialysis patients with an average age of 47.9±12.1 years and mean dialysis history of 140.2±59.7 months. We surveyed the patients with the revised illness perception questionnaire. Study survival was 84.9±35 months. Cox proportional hazard models were used to estimate whether subsequent all-cause mortality could be attributed to illness perception dimensions.

Results

Mortality rates were higher among patients who perceived their disease as having serious consequences upon their life. This effect did not remain stable after adjustment for socio-demographic and clinical variables.

Conclusion/Application to practice

Considering the risk factors affecting mortality, we rather rely more on clinical parameters than on patients' perceptions of their illness. Nevertheless, results from the current study suggest that addressing patients' perception of the consequences of the disease upon their life is a powerful tool for predicting survival.

Disclosure: No conflict of interest declared

P 014

Skipping haemodialysis sessions is associated with worse patient outcomes

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Background
Haemodialysis treatment is a life sustaining procedure for patients with end stage kidney disease. Although 3 times 4 hours weekly dialysis equals less than 10% of normal renal clearance, it has proved to be sufficient to keep patients free from serious uraemic complications and provide a reasonable quality of life. Still there are several patients who tend to skip dialysis sessions on a regular basis.

Objectives
In a single dialysis centre study we were lookoing at patients who skipped at least 1 HD session per month on a regular basis (skippers) and compared them to the rest of the dialysis patients.

Methods
We have identified 15 of our 183 chronic haemodialysis patients during 2013 as skippers and collected data on treatment quality indicators, demographics and morbidity/mortality.

Results
We found that treatment quality indicators were significantly worse in the skipper group than in the rest of the dialysis population. The average value of Kt/V in the skipper group was 1.18 vs 1.43 in the non-skippers. Average Hb was 9.6 g/dl in the skipper and 11 g/dl in the non-skipper group, and serum phosphorus level was 2.07 in the skippers while 1.5 in the non-skippers. Mortality was also higher in the skipper group as 5/15 died during 2013 while overall mortality was only 15.5%. Demographic data revealed a lower level of education for the skippers.

Conclusion/Application to practice
We concluded, that regularly skipping dialysis sessions results in significantly worse outcomes and skipper patients should be approached with extended education on dialysis and health issues to improve their compliance with their treatment.

Disclosure: No conflict of interest declared

Poster Session B – Monday
8th September 2014. 09:00-10:30

Haemodialysis **P 015–P 028**

P 015

Nonadherence with Diet – Fluid Restrictions and Disability in Patients with Chronic Renal Failure

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Background
Disability has significant adverse effects on patient adherence in patients with chronic renal failure (PWCRF). It also demands more in terms of healthcare resources. Nurses have an important role to play in supporting patients, in helping identify areas of difficulty, and implementing strategies to help patients understand the importance of adherence.

Objectives
The purpose of the study was to evaluate nonadherence to diet and fluid restrictions and their level of disability in PWCRF.

Methods
The data of this descriptive study were obtained from 186 PWCRF in Turkey. Descriptive statistics, reliability analysis, correlations, and regression analysis were conducted. Data was collected by using a personal information form, the Dialysis Diet and Fluid and Brief Disability Questionnaire.

Results
Most of the PWCRF experienced disability . A great majority of hemodialysis patients showed nonadherence with diet and fluid restrictions. Findings indicate that nonadherence with diet and fluid restriction was related to disability status. The results of this study showed that nonadherence was more common among older, female, lower educated patients, and those with higher levels of disability

Conclusion/Application to practice
Every dialysis patient needs to be educated in the importance of nutritional and fluid restrictions resulting in an individualized plan of care developed before or at the time of commencement of dialysis threatment. Nurses should be aware of factors that contribute to nonadherence; patients who are female, low educated, and those with higher levels of disability. Longitudinal studies with larger samples from different cultural groups could be designed to measure changes in patients' perceptions of social support and behavioral adherence.

Disclosure: No conflict of interest declared

P 016

Nursing rearrangement: a project regarding the intensive care in a dialysis unit

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Background
This work project was formerly outlined by Pitacco and Silvestro in 2003

Objectives
To analyse the complexity of cure and implement the best quality care according to the degree of staff skills.

Methods
The project had three-stages:

- Care complication. It is possible to identify the patient complexity by addressing their clinical signs, using a score from 1 to 4, providing the right standard of cure.
- Nursing ability/skills. Different aspects must be taken into consideration in order to test, for example, the seniority of nurses in our diayisis unit or the qualifications gained. Then, each nurse will be graded as follows: Senior expert nurse, Specialist, Expert nurse, Dialysis nurse, Beginner.
- Computerized management. Our hospital unit employed a digital platform to match patients' critical level with nurses' ability/skills. We developed specific software to collect key data. This was available on a digital board. It gave an overall view of the unit situation, including dialysis rooms, planned or non planned patients and nursing staff on duty, as the software also indicates the nursing roster. It supervises dialysis treatments according to the data received, giving relevant information to the head nurse and nurse managers.

Conclusion/Application to practice
This software creates a link between patient and nurse thereby proving the benefit of technology in terms of better renal care

Disclosure: No conflict of interest declared

P 017

Recording of hydration status in dialysis patients by the method of multi-frequency bioimpedance

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Background
The daily determination of the dry weight in dialysis patients is based on clinical criteria. The method of multiple-frequency bioimpedance provides a reliable estimate of body composition and hydration condition of patients.

Objectives
Recording the hydration status of our Haemodialysis Unit's patients by the method of bioimpedance and then comparing the results with the clinically defined dry weight.

Methods
55 patients were measured in stable clinical condition, aged 67 ± 11 years, for 70 ± 55 months on regular haemodialysis. The measurement was performed immediately before their weekly session. Patients were divided into groups according to age (<65, ≥ 65 years), gender, whether they were diabetic or not and body mass index (BMI1 <25, ≥ 25, and BMI2 <30, ≥ 30). Redefining the dry weight considered necessary when the overhydration after the session (OHpost) was greater than -1,1 L – +1,1 L. The statistical analysis of results was performed with SPSS v.20.

Results
Variation on assessment of dry weight (mainly underestimation) was found in 32 patients (58.2% of the total, 21 were male, 21 with age≥65, 12 diabetics, 23 with BMI1≥25 and 13 with BMI2≥30). The above variation has a statistically significant negative correlation with body mass index (p <0,034 for BMI1 and p<0,026 for BMI2). Particularly, there was a strong trend of underestimation of dry weight in overweight patients with even greater tendency for dehydration in obese patients.

Conclusion/Application to practice
The method of bioimpedance provides a substantial aid in identifying dialysis patients' ideal body weight and particularly in patients with increased body mass index.

Disclosure: No conflict of interest declared

P 018

Burnout Sydrome and Effecting Factors of Dialysis Nurses

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Background

Burnout has been defined as chronic job stress and is very common especially among health care providers.It is an important issue for health care providers as it can have a negative impact on job satisfaction, performance and patient care.The aim of this study is to compare the levels of burnout between hemodialysis and peritoneal dialysis nurses'. Also to determine the demographic and characteristics of burnout in those working in various institutions in our country.

Methods

This study was consisted of 171 nurses(89 HD,32 PD,50 HD&PD) working in public and university hospitals. Socio-Demographic Information Form and the Maslach Burnout Inventory was used to collect data. Student's T-test, Mann-Whitney U, Kruse Wallis and Oneway ANOVA tests were performed and also Spearman's correlation coefficient were used.

Results

There wasn't any significant difference between emotional exhaustion, depersonalization and personal accomplishment(p>0,05). Positive correlation between emotional exhaustion and depersonalization (p <0.01), negative correlation between depersonalization and personal accomplishment (p <0.01) and negative correlation between personal accomplishment and emotional exhaustion (p <0.01) were found.Emotional exhaustion more common among shift workers, those workers who feel dissatisfied and who were limited in their participatation in social activities and in ongoing training programmes. Additionally, younger nurses, male nurses, and those a short time in the profession were risk factors for high depersonalization scores. Personel achievement scores were lower in the following groups; younger people, nurses who felt dissatified, those who had difficulty working with colleagues, those who felt they required further training and those who felt personally inadequate.

Conclusion/Application to practice

Burnout levels between HD and PD nurses were simillar. A programme of structural empowerment within the work environment plus psychological care could be an effective combination to deal with burnout.

Disclosure: No conflict of interest declared

P 019

Gender differences in food habits of chronic haemodialysis patients

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Background
Chronic haemodialysis patients often suffer from malnutrition.

Objectives
To compare general food habits, socio-economic background, nutritional parameters of male vs. female patients on haemodialysis.

Methods
65 patients on haemodialysis for >3 months (average 45 months), were surveyed by means of a self-designed questionnaire on food habits, socio-economic status, and nutritional parameters. 33% of the patients were female (average age 74 years) and 67% male (average age 67 years). 50% of female patients and 47% of male patients had diabeties.

Results
The average protein intake (g/kg BW/day) was 1.04 in men and 0.93 in women.65% of men and 42% of women had a preference for pork; men ate meat more frequently and had an average daily protein intake of 12.6 g from meat vs. 10 g in women. More women suffered from taste quality disorders. About one-third had a limited meat intake for financial reasons. 45% female patients and 24% male patients were single. Mean BMI (kg/m^2) was 26.8 in men vs. 29.2 in women. Mean serum-albumin was 36 g/l without significant gender differences.

Conclusion/Application to practice
We observed a higher consumption of meat in men with a preference for pork. Relating protein intake according to body weight (BW), the differences were not that significant. More women were single due perhaps to widowhood and/or old age. Overall serum-albumin values were lower than recommended without significant gender-related differences, which may partially confirm that both males and females had a similar and slightly low protein intake related to BW.

Disclosure: No conflict of interest declared

P 020

Which dialyzer performs best? A retrospective membrane comparison.

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Background
The dialyzer is essential in haemodialysis and it attempts to replicate glomerular ultrafiltration. As dialysis yields only 10% to 15% of normal purification residual renal function must continue. Dialysis membranes are capable of removing small-molecules; however blood levels of middle-molecules are 20 to 50 times higher than normal which is thought to have adverse effects.

Objectives
Measure and compare clearance of beta2-microglobulin and myoglobin levels in 15 patients on highflux haemodialysis.

Methods
Each patient was treated with different high-flux membranes: Phylther 2.2m^2 (Polyphenylene Bellco), APS 21H 2.1m^2 (Polysulfone Asahi Kasei), FX 1000 2.3m^2 (Polysulfone Fresenius), Rexeed 21A 2.1m^2 (Polysulfone Asahi Kasei), Elisio 21H 2.1m^2 (Polysulfone Nipro). Pre- and post- blood sampling was performed to determine levels and clearance. The sampling, the monitor-settings and anticoagulation were identical. We adjusted the anticoagulation based on active clotting time earlier. Fresenius 5008 machines were used.

Results
Reduction of Beta2-microglobulin shows no significant differences between dialyzers. The Phylther 2.2m^2 and FX 1000 reduced respectively 71.2% and 71.9%. APS 21H 70.1%, Elisio 2.1m^2 and Rexeed 21A 69.8%. The Phylther 2.2m^2 performed significantly better in myoglobin reduction with 38,7% compared with Rexeed 21A 31.6%, FX 1000 31.9%, APS 21H 27.3%, Eliso 21H 26.2%.

Conclusion/Application to practice
Studies show synthetic high-flux membrane are beneficial. Along with these measured performance parameters, it remains challenging to find the optimal dialyzer for classic haemodialysis. Multi factors play a role in the choice of the ideal membrane: biocompatibility, albumin loss, absorption capacities, priming possibilities and prefilled dialyzers.
We predict improved selection in dialyzer choice in the future.

Disclosure: No conflict of interest declared

P 021

Quantitative ultrasound at hand phalanges in patient in dialysis treatment: fracture risk.

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Background
Chronic renal insufficiency causes progressive changes in mineral metabolism, parathyroid hormone and bone tissue with severe osteopenia and the whole spectrum of structural bone changes ending in fracture. Quantitative bone ultrasonography (QUS) allows to quantify the mineral bone density, the elastic property and architecture of bone tissue and by analysis of speed changes and ultrasonic wave shape gives us an estimate of fracture risk secondary to low trauma.

Objectives
The aim of this cross-sectional study was to assess, in regular dialysis treatment (RDT) patients, the prevalence of low bone mass and bone status by QUS of phalanges related to metabolism of calcium and phosphate, intact parathyroid hormone (iPTH), age, dialysis vintage and the prevalence of fractures following low trauma.

Methods
The study involved 67 patients (M/F= 42/25) in RDT thrice a week since 68.05±60.08 months and mean age of 64.85±12.73 years. The end-stage renal disease was caused by different etiology. Before midweek dialysis blood tests for iPTH and mineral metabolism parameters were drawn. Skeletal status in the interdialytic day was assessed by QUS measurement at the hand without fistula. The amplitude dependent speed of sound (AD-SoS), ultrasound bone profile index (UBPI), bone transmission time (BTT) are the main parameters measured. Data are presented as mean values with SD for continuous variables. Bivariate association between variables were assessed by Pearson product-moment correlation test and comparisons between variables were performed using Student's t-test. A p value < 0.05 was considered statistically significant.

Results
QUS values were respectively: T–score -3,09±1,76 DS; Z-score-1,76±1,35 DS, AD-SoS 1907,63±114,52 m/s, UBPI 0,41±0,21, BTT 1,28±0,39 μs; blood tests were: serum calcium 9,27±0,86 mg/dl, serum posphate 4,68±1,12 mg/dl, parathyroid hormone 499,67 ±510,52 pg/ml. We find a significant relation between age and dialytic age vs T–score (r = -0,32 and –0,51; p< 0.05 and < 0.01), AD-SoS (r = -0,32 and –0,51; p < 0.05 and < 0.01) and UBPI (r= -0,41 e –0.56; p < 0.01) and between dialytic age and Z-score (r = -0,51; p < 0.01). The iPTH level was negatively associated with T-score (r= -0,33; p< 0.01), Z-score (r = -0,43; p< 0.01), AS-SoS (r = -0,33; p < 0.01), UBPI (r = -0,31; p < 0.05) and BTT (r = -0,50; p < 0.01). In 11 patients we found clinical fractures with a prevalence of 16.67 %. UBPI and BTT were lower (p< 0.02 and 0.03) in fractured patient group.

Conclusion/Application to practice
In conclusion quantitative ultrasound at hand phalanges can be a useful tool in whole evaluation of skeleton and in predicting fragility fracture risk in the patient in regular dialysis treatment.

Disclosure: No conflict of interest declared

P 022

Treatment of the hyperglycaemia patient on haemodialysis

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Background
Diabetes mellitus is a challenging condition to manage in patients with established kidney disease due to the impact uraemia and dialysis have on glycaemic control. Hyperglycaemic patients are not generally checked for evidence of ketones due to limited protocols that either omit the condition of hyperglycaemia, or fail to provide a helpful guide as to what action to take when this clinical situation arises.

Objectives
To highlight important nursing considerations when dealing with diabetic patients who present to the dialysis unit in a hyperglycaemic state.

Methods
A literature search was conducted using the University of Sheffield's Library Catalogue, StarPlus and Google Scholar to identify the research base using the following key words, hyperglycaemia, diabetres mellitus, haemodialysis, ketoacidosis, and glucose monitoring and nursing interventions.

Results
Review of the literature enabled the author to devise a care pathway that provides nursing staff with helpful instruction when caring for diabetes patients on haemodialysis.

Conclusion/Application to practice
1. Dialysis nurses must become educated and empowered with the knowledge/skills necessary to safely assess and manage patients with diabetes which has the potential of reducing costly hospitalisations.
2. Dialysis nurses must be mindful of their educational role in the management of these patients.
3. Renal and diabetes specialist teams must manage diabetes and dialysis as one entity.
4. Further research is necessary to encourage greater dissemination of information across disciplines.

Disclosure: No conflict of interest declared

P 023

Relationship between interdialytic weight gain and thirst distress among Japanese haemodialysis patients

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Objectives
To examine the relationship between interdialytic weight gain and thirst distress among Japanese haemodialysis patients.

Methods
Study Participants: One hundred seventy three haemodialysis patients from three hospitals in Japan participated.

Study items:
1) The structured interview method was applied by using the questionnaire which is the Thirst Distress Scale developed by Welch (2002).
2) The interdialytic weight gain of the past 4 weeks was obtained from medical records from the hospitals.

Grouping:
Participants who adhere to the maximum allowable interdialytic weight gain were assigned to the well managed group (WMG), while participates who did not maintain the maximum allowable interdialytic weight gain at least once were assigned to the unmanaged group (UMG).

Data Analysis:
The scores of 6 items of the Thirst Distress Scale were used to compare the two groups (WMG and UMG). The chi-square test was applied and significance threshold was put at 0.05.

Results
All six items did not show a significant difference between the WMG and UMG.

Conclusion/Application to practice
This study revealed that thirst distress might not be different, depending on how much they manage their self-control of water intake. Further, it is suggested that Japanese haemodialysis patients were represented by another expression of their thirst feeling.

Disclosure: No conflict of interest declared

P 024

Discounting of delayed hypothetical money and interdialytic weight gain among Japanese haemodialysis patients

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Objectives
To examine discounting of delayed hypothetical money and the self control of water intake among Japanese haemodialysis patients

Methods
Study Participants: One hundred and sixty nine haemodialysis patients from three hospitals in Japan participated.
Study items:
1) The structured interview method was applied by using the hypothetical discounting money questionnaire.
2) The interdialytic weight gain of the past 4 weeks was obtained from medical records from the hospitals.
Grouping: Participants who adhere to the maximum allowable interdialytic weight gain were assigned to the well managed group (WMG), while participates who did not maintain the maximum allowable interdialytic weight gain at least once were assigned to the unmanaged group (UMG).
Data Analysis: $V=A/(1+bX)$, where V is the subjective, discounted value of the delayed or probabilistic reward; A is the actual amount of the reward; X is the delay until, or adds against, receipt of the reward; and b is the parameter that describes the rate of discounting.
The scores of V were used to compare the two groups (WMG and UMG). A Mann-Whitney U test was applied and the significance threshold was put at 0.05.

Results
The score of V in the WMG was 0.2129, while that in the UMG was 0.0894. A significant difference was not shown between the WMG and UMG.

Conclusion/Application to practice
This study revealed that discounting of delayed hypothetical money might not have an effect on interdialytic weight gain among Japanese haemodialysis patients.

Disclosure: No conflict of interest declared

P 025

Survival of chronic hemodialysis patients that are over 80 years of age

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Background
The number of elderly patients with chronic kidney disease (CKD) stage 5 management with hemodialysis (HD) is steadily increasing. Therefore we analyzed the number of new CKD patients which are ≥80 years of age managed with HD and their survival through study period.

Objectives
It is a retrospective cohort study during the period from January 1987 to September 2012. The study consists of 78 very old patients in which regular hemodialysis was initiated.

Methods
Survival was defined as the time from start of dialysis treatment to death.

Results
In the period from 1987 to 2002 the number of patient's that are ≥80 years of age were only sporadically treated with hemodialysis, while since 2003 the number of new patients is steadily increasing. The mean survival for our group of patients was 25.1±22.4 months. Furthermore, 30.8% patients survived < 12 months, 29.5% patients survived 12-24 months, 30.8% patients survived between 24 and 60 months and 9% patients survived > 60 months on HD treatment.

Conclusion/Application to practice
Patients that are ≥80 years of age who are starting with HD treatment and who receive pre-dialysis nephrology care follow a planned management pathway and those who have a good nutritional status and arteriovenous fistula for HD as vascular access at the time of dialysis initiation had a better survival.

Disclosure: No conflict of interest declared

P 026

Optimal treatment of anemia in chronic kidney disease

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Background
The prevalence of Cronic Kidney disease (CKD) has been increased in last decade with more patient requiring Renal Replacement Therapy. Anemia is a well known consequence of CKD.

Objectives
The objective of the study was to measure the time spent on the preparation, distribution, application and administration both short-acting and long-acting LSE.

Methods
The study included nurse/technicians who perform the preparation, distribution, application and administration of the LSE in all patients treated with hemodialysis in a period of 01.July 2012 to 30 June 2013. The research has been performed using the questionnaires previously used in other studies.

Results
The data were processed using Microsoft Excel and displayed with tables and graphics. Multiplying the results on monthly and annual basis, the total time spent for hospitalization was 14 hours and 33 min per month and 173 hours and 31 min per year.

Conclusion/Application to practice
The treatment of renal anaemia with short-acting LSE requires more time because of the frequent use of LSE. Long-acting LSE resulted in significant time saving in preparation, application and management of administrative work. The remaining nursing time could be spent for other activities to improve the quality of health care. Providing health care in hospitals and good organization is always based on a well-educated and competent nursing staff which can significantly affect the performance of the overall treatment with professional and financial effects.

Disclosure: No conflict of interest declared

P 027

Arterial blood pressure stabilization, body temperature control during haemodialysis

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Background

During haemodialysis different factors can lead to an accumulation of thermal energy which increases patient´s body temperature. This is associated with the risk of decreased arterial blood pressure. Many studies confirm that avoiding heat accumulation during haemodialysis by using cool dialysates improves the patient's haemodynamic stability. Besides using cool dialysate, automatic modulation of dialysate temperature is an alternative. Blood temperature in the arterial and venous lines of the extra-corporeal circuit is continuously measured with a non-invasive device. Dialysate temperature is modulated by controlling the total energy balance (thermoneutral dialysis) or maintaining constant body temperature at the patient´s individual baseline level (isothermic dialysis).

Objectives

To stabilize arterial blood pressure during dialysis by keeping body temperature constant.

Methods

8 patients out of a total of 120 undergoing haemodialysis treatment in our dialysis centre had unstable haemodynamic condition during 2013. Decreased arterial blood pressure and headache were observed during treatment. We therefore decided to use an automatic blood temperature measurement and body temperature control device and isothermic dialysis.

Results

In 8 patients body temperature remained constant during treatment due to isothermic dialysis. In 6 of these patients we observed the following improvements:

- stabilisation of arterial blood pressure
- no more headache (which were common before the intervention)

Conclusion/Application to practice

Controlling a constant body temperature during dialysis with an adequate and continuous adaptation of dialysate temperature provides an opportunity to select an individual dialysis regime for every patient which may improve the patient's haemodynamic stability and quality of life.

Disclosure: No conflict of interest declared

P 028

Influence of needle size on haemodialysis adequacy parameter

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Background
Blood flow rate is one of the major aspects in the achievement of targets of dialysis adequacy indicators.

Objectives
To improve haemodialysis adequacy parameters by increasing the diameter of fistula needles without changing dialysis regimen.

Methods
51 dialysis patients were observed for a period of 6 months after increasing the size of the needles.
Initially, 16G fistula needles were chosen for 16 patients with an avarage blood flow rate of 330 ml/min); for 35 patients with an blood flow rate of 375 ml/min) 15G fistula needles were chosen. We replaced the 16G needles used in the 16 patients with 15G needles and the 15G needles used in the 35 patients with 14 G needles. Other dialysis characteristics, such as dialysate flow rate, treatment time and distance between needles remained the same. We compared compression duration after needle removal, venous and arterial pressure, Kt/V, and urea reduction ratio (URR) before and after the increase of needle diameter.

Results
The larger needle diameters (1G) enabled us to reduce the arterial pressure by 41 mmHg and increase blood flow rate by 27 ml/min, on average. Venous pressure decreased by of 29 mm Hg and Kt/V increased by 0.18 on average. We did not observe any difference in compression duration after needle removal before and after the change in needle size.

Conclusion/Application to practice
Our study shows that increasing the size of the fistula needle is a safe and effective way to optimize blood flow rate and improve dialysis adequacy while maintaining the same treatment time.

Disclosure: No conflict of interest declared

Poster Session C – Monday
8th September 2014, 11:00-12:30

P 029

Comparison of pressure-controlled vs. volume-controlled mode in postdilutional on-line haemodiafiltration

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Background
The volume-controlled post-dilutional HDF (with prescribed substitution volume (VS), accounting only for safety limit of substitution (QS) vs. blood flow (QB) ratio) may not fully utilise filtration capacity of the dialyzer and may lead to high transmembrane pressures (TMP), negatively affecting HDF efficiency.

Objectives
The aim of this study was to compare VS achievable with automatic TMP-controlled mode against that in volume-controlled mode.

Methods
Twenty patients were transferred from volume-controlled HDF to the automated TMP-controlled one (AK200S Ultra, Gambro, UltraControl®). The high-flux dialyzers used were FX80 Fresenius, Diacap-HiPS B.Braun, Polyflux-170H Gambro, and Rexeed-13AX Asahi. Values of the VS/VB ratio (VB- processed blood volume) achieved in this mode were checked against those obtained in volume-controlled mode with fixed QS/QB=0,2-0,25 and also against VS/VB values obtained with the Fresenius 5008 Autosub® system (similar to the Gambro UltraControl®). Dialyzer appearance after rinse-back was visually assessed using 5 grades (1–clean to 5–clotted).

Results
The UltraControl® mode resulted in significant VS/VB increase (0,325±0,018) against 0,2-0,25 prescribed in volume-controlled HDF. It compares well with the Fresenius Autosub® values (0,354±0,079). However, frequent haemoconcentration risk attention alarms requiring manual decrease of the TMP value were noted with the UltraControl® system. Worsened visual assessment score (1,71±0,66) with the UltraControl® mode compared to the score 1,18±0,35 with the fixed VS/VB=0,2-0,25 indicates possible need for a small increase in heparin dose.

Conclusion/Application to practice
Significantly higher VS can be achieved with a quite small interdialytic TMP increase in the TMP-controlled HDF compared to the conventional volume-controlled (QS/QB=0,2-0,25) HDF.

Disclosure: No conflict of interest declared

P 030

Can exercise programmes enhance dialysis efficiency? A systematic review

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Background
In recent years there is a growing interest in exercise among haemodialysis patients. However, the impact on dialysis efficiency has not been established yet.

Objectives
To assess scientific evidence that exercise is an adjunctive therapy to enhance dialysis efficiency.

Methods
We performed a systematic review on the topic "Can an exercise programme improve dialysis efficiency in haemodialysis patients"? For this purpose, we conducted a search on EBSCOhost, Scielo, and Google Scholar with the exclusion criteria: Paediatric population and peritoneal dialysis and inclusion criteria: Quantitative investigations that use Kt/V and/or Urea Reduction Rate (URR).

Results
We found 8 studies: 6 on intradialytic and 2 on extradialytic exercise programmes. Of the 8 studies, 3 didn´t establish any statistical significance in the improvement of efficiency. From these, one includes only 9 dialysis sessions; as compared to statistical significant studies, this exercise program is shorter and does not involve any active patient movements. Another statistically insignificant study differs from most statistically significant studies insofar as it doesn´t apply intradialytic exercises. The third statistically insignificant study includes 15 minutes of exercise during the first 3 hours of treatment. However, due to hypotension, 33% of the exercise sessions in the third hour had to be cancelled. This could promote a potential bias of the results. 5 studies established a statistical significance.

Conclusion/Application to practice
Some studies confirmed that exercise programmes improve dialysis efficiency. We conclude from the literature that an intradialytic exercise programme that includes active movements, during the first 2 hours, is preferable. More studies, especially randomized controlled trials are required..

Disclosure: No conflict of interest declared

P 031

Dialysis anxiety in haemodialysis patients: can it be reduced during dialysis sessions?

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Background

In this study, we aimed to identify Chronic Renal Failure (CRF) patients' concerns that may occur during dialysis sessions and increase their quality of life by reducing their dialysis anxiety with various rehabilitative activities.

Methods

We performed 24 sessions for 14 haemodialysis patients every week during September 2012-February 2013, in four separate halls of our haemodialysis unit. The rehabilitative sessions consisted of various activities including: general health information, relaxation techniques, exercises, award-winning competitions, riddles, proverbs completion, biography, general culture and sketch. In this study, statistical analysis was undertaken with the package program NCSS (Number Cruncher Statistical System) 2007 Statistical Software (Utah, USA). Evaluation of the data was made with descriptive statistical methods (mean, standard deviation, median, interquartile range), independent t-test for comparison of two groups of variables with a normal distribution, Mann-Whitney U test for comparison of two groups of variables with variant distribution, and chi-square test for comparison of qualitative data. P value <0.05 was accepted as statistically significant.

Results

The mean STAI scores of the study group after treatment was statistically significantly lower than mean scores of the control groups (p = 0.042). STAI I scores of the study group after treatment was statistically significantly lower than their STAI II scores before treatment (p=0,003). After the treatment, the mean scores of the study group's STAI II scores were significantly lower than their STAI II scores before treatment (p = 0.0001). After the treatment, the mean Perceived Stress Scale scores of the study group were significantly lower than their Perceived Stress Scale scores before treatment (p = 0.0001). The percentage change of STAI status before and after treatment in the study group was statistically high compared to the percentage change in the control group (p=0,011). The percentage change of STAI continuous scores before and after treatment in the study group was significantly high compared to the percentage change of STAI continuous scores before and after treatment in the control group (p=0,0001). The percentage change of Perceived Stress Scale scores before and after treatment in the study group was statistically significantly high compared to the percentage change of STAI continuous scores before and after treatment in the control group (p=0,009).

Conclusion/Application to practice

The mean STAI scores and the percentage change of STAI status before and after treatment in the study group were statistically different compared to the results of the control group. We can conclude that rehabilitative sessions are very useful in decreasing dialysis anxiety and stress of CRF patients.

Disclosure: No conflict of interest declared

P 032

The effect of pre-dialysis education in the selection of renal replacement therapy beyond haemodialysis

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Background
The need for dialysis therapy for survival in patients reaching End Stage Renal Disease (ESRD) is a major challenge in their lives. Previous studies show the importance of pre-dialysis education to help patients understand treatment options and facilitate choices. No research has investigated pre-dialysis education in Saudi Arabia (SA). This study replicated Mehrotra et al's (2005) study.

Objectives
- To investigate the pre-dialysis education that new dialysis patients received about dialysis modalities.
- To investigate any relationship between pre-dialysis education and patient choice of treatment modality.
- To develop recommendations for clinicians to optimise pre-dialysis education.

Methods
The questionnaire in Mehrotra et al's (2005) study in the USA, was employed for: ESRD patients who were≥ 18 years; receiving either Haemodialysis (HD) or Peritoneal Dialysis (PD) as the first option from three months to one year. They were recruited from four hospitals in SA, during a 4 month period from 2012/2013.

Results
92 patients completed the questionnaire with most patients placed on HD (61.9%) or PD (38%). 19.6% of patients were not presented with any treatment options, and 58.6% of patients were given delayed options. PD was not offered to 48.9% of patients. 73.2% of patients reported the medical team took the lead in the decision of treatment modality. There was significant association between rating pre-dialysis education as poor, and treatment type received (p=0.000).

Conclusion/Application to practice
These findings highlight the need for: early presentation; improved education on treatment options to patients with ESRD especially those receiving HD; reducing medical bias toward HD; and potentially ensuring PD is available as a treatment option to more patients.

Disclosure: No conflict of interest declared

P 033

Administration of a phosphate binder with food and drink: practical observations

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Background/Objectives:
CKD Stage 5D patients frequently need daily oral phosphate binders to control high phosphate levels. The pill burden is often problematic, especially in children. This study was undertaken to assess the practicality of administering the phosphate binder, Colestilan, in the form of granules with various foods/liquids.

Methods
Granules (480, 1800 and 3600 mg) were mixed with water, orange juice, milk, apple juice, yoghurt, custard, thick soup, apple puree, honey, rice, mashed potatoes and observed and photographed during a 4 h period.

Results
Granules were easily incorporated into water and orange juice with minimal impact on appearance and viscosity. The granules dispersed well into warm milk resulting in a homogenous solution. Dispersal took much longer in cool, semi-skimmed milk, but little impact was noted in appearance. Apple juice was initially evaluated but found to change colour to a brown liquid.
Granules mixed easily into yoghurt, custard and thick soup, with only slight changes in appearance and viscosity at both ambient and refrigerated storage temperatures, but did not mix well with apple puree – a brown colour was observed. When granules were added to products with very low water content (honey, rice, mashed potato) granules remained whole throughout the 4h evaluation period.

Conclusion/Application to practice
This demonstration has shown that phosphate binder Colestilan granules are successfully incorporated into beverages and food products at 3 dosages (480 mg, 1800 mg and 3600 mg). The higher the water content and food temperature, the more readily the granules were dispersed.

Disclosure:
All authors were directly or indirectly employed by Mitsubishi Pharma Europe Ltd who funded these studies.

P 034

Protien-Energy Wasting (PEW) in haemodialysis patients

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Background
Protein-Energy Wasting (PEW) is a state of decreased body stores of protein and fat masses which arises from inadequate nutrient intake and increased catabolism. It is one of the main non-traditional risk factors associated with poor prognosis and treatment outcomes in chronic kidney disease patients. PEW still remains greatly neglected and often unrecognized.

Objectives
Nutritional markers such as hypoalbuminaemia, low serum pre-albumin and transferrin levels, and malnutrition-inflammation score (MIS) ≥ 5, also correlate with mortality. The aim of this study was to evaluate relationship between BMI and serum albumin in the haemodialysis population, and to investigate the role of dialysis vintage in development PEW.

Methods
135 patients with age ranging from 20 to 91 years were enrolled in the study. The median time spent on treatment was 34 months (ranges from 2-413). Laboratory and clinical data were obtained from the medical records and charts. The anthropometric measurements were performed after the dialysis session. MIS was individually taken. PEW was present in patients across all Body – Mass Index groups.

Results
Our results demonstrated that PEW cannot be exclusively linked to malnourished patients. PEW was more common in patients with longer dialysis vintage. Complex analysis like is MIS should be used to estimate malnutrition instead of the single parameter like is albumin or BMI.

Conclusion/Application to practice
Further efforts are needed to clearly define and precisely establish diagnosis guidelines for this important condition. Nutritional assessment is an integral part of the nursing role and nurses have a professional duty to develop their knowledge and skills in this area.

Disclosure: No conflict of interest declared

P 035

Understanding the patient – a prerequisite to developing a communication and education strategy

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Background
Patient adherence to medical advice is important in the field of dialysis. Failure to adhere leads to excess morbidity and mortality. Patients must understand their condition and the rationale for the advice given. Patient communication and education is vital. Historically education programmes were designed from the perspective of care givers.

Objectives
The study set out to understand patient demographics, knowledge and capacity in terms of language and literacy to ensure that communication/educational programmes are tailored to our patients.

Methods
A questionnaire was developed (Survey Monkey™), administered face to face by nurses who recorded, but did not prompt, the answers covering: demographics, literacy, language, knowledge, information received and interaction with clinical staff.

Results
The response rate was 67%. Nationality Emirati or other Arab was 77%. Commonest languages were Arabic and English but neither of these in 27%. Literacy rate was 85%. Information was received adequately in 75% of cases, mostly understood 65%, and by verbal delivery 83%. Patients were aware of the underlying diagnosis in 85%, the doctor had explained the cause 76%, all treatment options were explained 50%, however patients were unaware of the dialysis modality 17% of cases.

Conclusion/Application to practice
This study provides invaluable data when formulating patient information and communication programmes. Using only Arabic or English will exclude a significant proportion of patients. There is too high a reliance on verbal communication. Patient knowledge is good and there is good concordance between knowledge and adherence. Difficulties in understanding may be related to: the quantity, quality, language or the medium of communication. This provides strong evidence to support a multilingual, multimedia approach to a patient education and communication strategies.

Disclosure: No conflict of interest declared

P 036

Why patients fail to attend for dialysis and how to address it?

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Background
Patient adherence to clinical advice is critically important in dialysis. Failure to attend for dialysis (DNS) at least once monthly appeared to be endemic across our dialysis service. The size of this problem and the underlying reasons were unknown (although it appeared to have been exacerbated by the drive) which produced challenges in ensuring thrice weekly dialysis prescriptions in > 95% of patients.

Methods
All DNS in one month were recorded, along with patient demographics, insurance status, employment, mode of travel, travel time and the reason given for DNS. Following this study a patient education programme (Bite Size) was instituted. This was a programme designed to be delivered by the patient's nurse in 20 minutes consisting of simple cards with 3-4 clear messages.

Results
There were 198 DNSs from 64 patients, 75% were for the mid-week dialysis. Both types of health insurance were equally represented. Mean travel time was 30 minutes (range 5-60). The commonest reasons for non-attendance were patient choice (39%) and work (25%) with other causes being travel or sickness. Of 64 patients 34% were transported by family, 33% by themselves, and 35% did not work. At the peak 3.5% of treatments were DNS. Over the 18 months following the introduction of Bite Size the DNS rate fell by 58%.

Conclusion/Application to practice
DNS was related to choice, though lack of knowledge and understanding of the implications and the demands of work were evident. The DNS rate fell with a simple bed side education programme and rescheduling to take account of work commitments.

Disclosure: No conflict of interest declared

P 037

Continuity of care – guidelines for managing hospitalized haemodialysis patients

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Background
Haemodialysis patients often have various co-morbidities and they are prone to develop infections, therefore they tend to be hospitalized often. It is necessary that nurses working on the medical and surgical wards are aware of special features of haemodialysis patient care in order to maintain the quality of care delivered. These special features include for instance, fluid and dietary restrictions, caring for vascular access and medication management.

Objectives
The purpose of this project was to improve continuity of haemodialysis patient care by increasing ward nurses' knowledge of special features in haemodialysis patient care. Additionally, the aim was to increase multi-disciplinary cooperation between Dialysis Unit and ward.

Methods
During this project e-guidelines were made about special features in the haemodialysis patient care. E-guidelines include specific information for managing hospitalised haemodialysis patients. This material is accessible via the hospital intranet at any time and to all nurses working at Tampere University Hospital. Additionally, a Power Point presentation was prepared based on this material.

Conclusion/Application to practice
A peer education meeting was arranged which took place at the Infections Unit at Tampere University Hospital. According to the participants the content of the presentation was relevant and informative. Nurses are looking forward to having these e-guidelines to support them in their work with hospitalised haemodialysis patients. Additional meetings will take place in the near future. Further to this, it may be possible to develop these e-guidelines to apply nationwide.

Disclosure: No conflict of interest declared

P 038

Multidisciplinary approach for patient and family education in the dialysis unit

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Background

The high prevalence of chronic kidney disease in Emirate is due to diabetes, hypertension and obesity. At Dubai Hospital about 250 patients are on regular haemodialysis and about 40 patients on peritoneal dialysis. Every year an increase by 10–15 % in numbers occurs.

Since chronic kidney disease has many complications, a collaborative multidisciplinary educational approach is considered essential, so that complications can be prevented or delayed.

Objectives

Objective are to:

- Provide an effective educational program.
- Enhance patient awareness.
- Reduce the need for acute dialysis and acute catheter insertion.
- Promote healthy lifestyle.
- Encourage participation of patients in care.
- Increase adherence to treatment regimens.
- Slow the progression of the disease.
- Minimize disease complications.
- Reduce the cost.
- Enhance patient's satisfaction.

Methods

FOCUS PDCA quality improvement methodology

Results

- Patients are more informed about their disease.
- Quality and continuity of care **is enhanced.**
- Development of patient's skills and knowledge for self-care is evident.
- Patients are more willing to undergo renal replacement therapy.
- Patients have more precise dietary information and were able to better plan their lifestyle.
- Patient's psychological conditions has improved.
- Patients are more willing for dialysis access preparation.

Conclusion/Application to practice

According to the identified issues and the change implemented, improvement was achieved in patient's quality of care and self-awareness. Staff satisfaction was sustained and guaranteed, which has a positive impact reflecting on patient care. It creates an avenue for research as to the effectiveness of the intervention applied to the recognized problem, opens doors for improvement that will set standards for the formulation of evidence based guidelines.

Disclosure: No conflict of interest declared

P 039

Influence of education upon the choice of treatment method in pre-dialysis patients

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Background
On a global scale, the ratio of PD-treated patients amounts to approximately 10%. In our centre, the figure was maximum 2% prior to 2010.

Objectives
To achieve a comparable percentage of PD-treated patients.

Methods
IN 2011 our centre developed the educational programme "Meeting" to use with patients undergoing pre-dialysis treatment ir order to help them choose the appropriate method of CKD treatment.
These patients are offered meetings with a team of experienced professionals combined with meetings with our patients who are being treated by one of the methods of renal function substitution. In the course of the meetings we inform the patients of the advantages as well as disadvantages of the methods concerned. We provide demonstrations. We facilitate discussion and experience sharing between the PD-treated patients and the patients who are treated in our centre.

Results
Classification of new patients based on the chosen method of treatment.

year	HD	PD
2008	12	0
2009	20	0
2010	14	1
2011	19	2
2012	16	4
2013	10	8

Conclusion/Application to practice
This controlled education programme has an impact on the choice of dialysis method selected. It allows patients to make a qualified choice of the treatment method which corresponds best with their lifestyle and conditions, based on the maximum quantity of available information as well as practical demonstrations.
During the educational meetings with patients undergoing pre-dialysis treatment, we lay foundations for our future cooperation with the patients and their families during dialysis treatment.

Disclosure: No conflict of interest declared

P 040

Prevention of malnutrition in patients receiving haemodialysis: role of the nursing team

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Background
In patients with CKD on haemodialysis, malnutrition is one of the factors responsible for their high mortality. Proper control of the nutritional status of the patient allows the dialysate to implement interventions that can prevent the onset of malnutrition.

Objectives
To assess the nutritional status of the patient with CRF. To ensure early recognition of an altered nutritional status.

Methods
The most common method is a structured, thorough investigation in order to ensure the power of the patient in a short time period (3-5 days) and possibly repeating it in time. This method is based on the indexes easily detectable and repeatable : anthropometric indices – biochemical -clinical . Evaluation Board SGA which includes symptoms reported by patients (recent history of weight loss, anorexia, vomiting) and some of the opinions expressed by the subjective evaluation of the physician.

Results
The work began in March 2013 and is continuing. 120 cards were distributed using SGA. Biochemical tests are being studied. Anthropometric indices were initiated and completed by the end of April 2014.

Conclusion/Application to practice
The ultimate goal for this educational plan is targeted nutritional education to initiate a process that seeks to eliminate or reduce risk factors for patients undergoing dialysis. The dialysis nurse has the task of being able to prevent, in collaboration with the nephrology team and service dietetics, malnutrition or improper diet.

Disclosure: No conflict of interest declared

P 041

Education of the patient in the neprology outpatients department prior to commencement of dialysis

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Background
The patient suffering from chronic renal failure comes for regular check-ups at the Nephrology Outpatients Department where the main task of the attending staff is to slow down the progression of the disease, to prevent possible complications and to improve the quality of the patient's/client's life. Correct education is very important in making the patient/client change their lifestyle and believe the information and advice provided.

Objectives
To improve the quality of the educational process for the patient preparing for dialysis treatment by the use of all available information sources based on results of the survey implemented. To prepare an educational manual for the nurse and an information booklet for the patient.

Methods
For acquisition of data, we used non-standardized questionnaires which we have developed. The questionnaires were intended for patients with renal failure preparing themselves for dialysis treatment.

Results
Results of the survey executed among patients:
- Source of information: printed material: 78%
- Information availability: yes: 56%
- Educational session: individual: 65%
- Topics: possibilities of dialysis treatment: 43% dietary and hydration regimen: 35%

Conclusion/Application to practice
During the survey based on the questionnaire we discovered that patients prefer individual education; printed material and communication with the educating person are more available to the patient/client. The Manual for Nurses has been prepared together with the Information Booklet for patients, which contributed to the simplification of the educational process on the part of the patient prior to commencement of dialysis treatment.

Disclosure: No conflict of interest declared

P 042 / O 54

How to improve quality of life? -Identification of malnutrition in kidney patients

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Background

Efficient and right-timed care of kidney patients' nutrition is essential in order to provide a better quality of life, maintaining a good nutrition state, preventing or reducing metabolic disorders and slowing the progression of a kidney disease. Each patient's diet should be individually planned and carried out. A good nutrition state has been proved to decrease patient hospitalisation. By identifying individual risks in time, it is possible to prevent the development of malnutrition in kidney patients.
Planned and multi-professional screening of malnutrition has been part of daily care in Tampere University Hospital's kidney ward since 2008. Identification of malnutrition is done using The Nutrition Risk Screening 2002 – form (NRS2002).The identification of patients at risk of malnutrition is done by the nurses and doctors working in the ward.

Methods

An evidence based operational model was designed in the ward in 2011. The model includes a patient's interview and NRS done by a nurse. The dietician interviews every patient who gets at least 3 points in NRS 2002 Based on the individual results, the patient's diet can be redesigned and nutritional supplements can be added to the daily diet. Follow-up is planned individually.

Conclusion/Application to practice

Multi -professional teamwork is essential in order to carry out the process. Preventing malnutrition in treating kidney patients is a great challenge, and the started work must continue. In the future it would be interesting to improve the prevention model with our patients.

Disclosure: No conflict of interest declared

Poster Session D – Monday
8th September 2014, 11:00–12:30

P 043

Innovative education programme forces Evidence-Based Nursing

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Background
Four Nephrology Wards in the Region of Southern Denmark required an education programme for experienced nurses. The programme was to train nurses to implement Evidence-Based Nursing.
In order to establish an educational opportunity across the Nephrology Wards, the experienced based nurses must provide inspiration for the nephrology nursing in practice on issues related to both the patient and the caregiver's perspective.

Objectives
By the end of the course, nurses are enabled to apply new knowledge in a chosen topic, conduct a literature review and disseminate it.

Methods
Nurses with 5-8 years experience in nephrology.
Teams working from four hospitals planned a 6-day education programme over two months in different hospitals.
Teaching includes dissemination of knowledge and experience. In the morning the students are on study visits and in the afternoon it is Problem Based Learning on the basis of participants' practice cases.
The presentations are organized in the individual hospitals of expert nurses and are free of charge.
Education is based on dialogue, active participation and knowledge sharing.

Results
In 2014 the education has been held for three years. Nurses evaluated the course very positively and the leaders have offered inspirational education to their employees at minimal cost.
The nurses are now aware of the patient and family perspective and ‚The concept of evidence'. They have gained experience of conducting literature searches related to a case from practice.

Conclusion/Application to practice
The education concept is continuously evaluated and as a concept can be transferred to other specialists across hospitals. Teachers develop their skills by communicating to others and building networks across organizations.

Disclosure: No conflict of interest declared

P 044

New experience gained in predialysis patient education

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Background
Since 2008, our Dialysis Centre has been using individually tailored predialysis patient education to prepare patients for renal replacement therapy.

Objectives
To assess the effects of education on improvement in the take-on rate of elective dialysis treatment.

Methods
From 2008 to the end of 2013, a total of 331 patients, approaching or reaching chronic kidney disease (CKD) stage 4, received special education. Their average age at the time of education was between 72.6 -74.0 years in different years, respectively. The education was provided by highly qualified specialised nurses.

Results
The average GFR values decreased year by year at the educational time (by 1,7mL/min per year on average). Of the 331 patients, 183 (55.3%) are in a stable condition with predialysis care. A total of 105 patients (31.7%) were included in the dialysis programme. Active dialysis was planned for 85 patients (80.9%). Of the patients included in the dialysis programme, 33 patients (31.4%) chose PD while 72 (68.6%) opted for HD.
During the study period 48 patients (14.5%) disappeared or died.

Conclusion/Application to practice
As a result of predialysis patient education, more than half of the patients are in a stable condition under conservative management. Four fifths of the patients receiving dialysis treatment are drawn into the programme in an elective manner, and nearly one third of them chose PD. Our results are remarkable because currently about 70–75% of patients suffering from end-stage renal failure are drawn into a renal replacement programme in a non-planned manner in Hungary.

Disclosure: No conflict of interest declared

P 045

Education through innovation

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Background
Dialysis nursing involves continuos re-educating and reinforcing of information. Dialysis patients can become frustrated due to the limits of the disease. Rather than conventional methods, a less structured and more informal approach is desirable to achieve positive outcomes through staff and patient participation.

Objectives
Our aim is to examine how to promote participation in education in the dialysis setting among both staff and patient groups. The goal is to present information and education in a new, interactive and positive way that encourages involvement of all groups and facilitates communication. Rather than conventional methods, focus was placed on incorporating a new learning style to suit the Unit's schedule. A vital element of this process was to enable patients to retain somewhat complex information.

Methods
Initially, the focus was on single topics with an aim to expand as knowledge and confidence grew. An interactive board was trialled with staff with positive results, then expanded into patient education. A simple approach enabled participation and understanding from all patient groups.

Results
This resulted in utilising evidence-based practice and promoting up-to-date research. Awareness of topics important to this area of care was highlighted. Topics were presented in a more appealing, easier to retain fashion and promoted active participation from staff and patients. This enhanced motivation and encouraged communication on desired topics.

Conclusion/Application to practice
Presentation of educational materials in an innovative approach led to very positive feedback from staff and patients. It promoted participation from both groups. Patients retained information and discussed relevant topics in a relaxed and friendly manner.

Disclosure: No conflict of interest declared

P 046

Effect of Rational Drug Use and Dietary Education on Biochemical Markers in PD Patients

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Background
Education is a very essential issue in the treatment of peritoneal dialysis (PD) patients. This is especially important for the commonly observed drug inadherence problem that is mostly due to high pill burden and diet.

Objectives
To evalaute the effects of rational drug use and diet education on biochemical parameters.

Methods
24 patients from a PD unit of the Division of Nephrology, Cumhuriyet University were enrolled. Demographic characteristics were recorded from patients' charts. Average biochemical parameters of the previous and forthcoming 3 months after education were used for analysis. Patients were informed for 3 months about rational drug use (drug dose, indication for use and when to be used) and diet after every control. This education was supported by phone calls. Wilcoxon and Chi-sqaure tests were used for analysis.

Results
Mean age was 47.45 ± 14.04 years, 41.7% male and dialysis duration 66.8 ± 33.3 months. Our results showed that dietary education and rational drug use education was associated with:

- Significant improvements in serum phoshorus, potassium, parathyroid hormone, haemoglobin, iron binding capacity and Kt/v control ($p<0,05$).
- Improvements in drug adherence.
- A better peritoneal dialysis treatment policy.

Conclusion/Application to practice
Intensified education on diet and rational drug use is an important tool for better peritonal dialysis treatment.

Disclosure: No conflict of interest declared

P 047

Sexuality in haemodialysis patients

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Background
The requirement of human beings for love is a basic need. The need for physical touch and intimacy accompany us throughout our lives and is expressed in different forms in different age groups.
In our western culture love is thought to belong to the young and healthy. Mythical phrases such as „The elderly are too weak to have sex" or „sex will weaken me" or „It's forbidden for me to have sex as I'm ill" or „I won't be able to enjoy sex because of my illness" are all too common in our culture.

Objectives
To encourage haemodialysis patients to express their views and opinions concerning sexuality, to answer their questions, relate to their problems and help them improve their quality of life in a trusting and comfortable atmosphere.

Methods
The patients were divided into small groups compatible with their dialysis time and their ability to relate to each other. There were a total of 8 sessions. Each session lasted 1-1½ hours and consisted of an introduction to the topic of the session, discussion and teaching. The topics were: the effect of chronic illness on daily life; sex, sexuality and intimacy; body and self image; myths.

Results
The patients were very interested in the subject. The small size of the groups helped create an intimate and supportive atmosphere, which allowed them to ask questions, express emotions and talk openly about their problems. They also expressed an interest in new methods and treatments for enhancing their sexuality.

Disclosure: No conflict of interest declared

P 048

Education of hospital nursing staff regarding dialysis issues

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Background
The number of patients diagnosed with chronic kidney disease is continously growing. As they come to end stage renal disease, the different renal replacement therapies such as haemodialysis, peritoneal dialysis or transplantation provide longer survival and better quality of life. Patients with ESRD often have several comorbid conditions that may need occasional hospitalisation.

Objectives
In some hospitals dialysis patients are admitted to general medicine wards where nurses have less knowledge regarding the special issues in the care of renal patients.

Methods
We have reviewed the inpatient charts for our dialysed patients for the past 5 years. During this period there were 621 patients dialysed in our centre and there were 231 hospital admissions all together.

Results
In 30% of the cases the hospital stay was prolonged for issues that could have been avoided if the nursing team had better knowledge of the special problems that are related to ESRD and the dialysis treatment. Typical types of problems were identified such as dietary issues, overhydration, volume depletion, preservation of the vascular access, prevention of CVC infection and dosing of medications.

Conclusion/Application to practice
Based ont the results of this review we have organised an in-house course for the hospital nurses focusing on these issues. The aim of this educational programme is to improve the nursing knowledge on dialysis related problems and optimise the inpatient care of our dialysis patients. This could be an effective way to reduce prolonged hospital stays and to avoid further complications.

Disclosure: No conflict of interest declared

P 049

Patients who are blind on dialyses

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Background

In our DC up to 10 % of our clients are completely blind. 12 % of them are seriously visually handicapped.
Humans receive 80-90% of their information about the ambient environment through sight. People who are blind cannot use their vision fully to recognize their surrounding environment.

Objectives

- Determine basic knowledge concerning specifics relating to the attitude towards and communication with visually handicapped patients relevent to our work.
- Provide information on the most acceptable and effective methods of education for this group of clients and to outline the most frequent problems that a blind client may meet during their visit to our medical facility.

Methods

In our DC care for this group is focused on their safety. We do this by providing a barrier free environment with immediate and constant access to staff when necessary
As the education material is in written form only, we educate our visually handicapped dialysis patients through verbal repetition and dialogue.

Results

98% of our visually impaired patients said they felt safe in our DC.

Conclusion/Application to practice

Provision of comprehensive information, both for visually handicapped patients and staff which include recommendations and practical advice aimed at solving potential problems which may arise from communication with this patient group

Disclosure: No conflict of interest declared

P 050

Collaboration in clinical practice: the benefit of recognising and using in-house experience and expertise

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Background
UK nursing practice is underpinned by core requirements of the Nursing and Midwifery Council to deliver care based on best available evidence. Change in nursing theory and practice is common necessitating adoption of change management concepts and in particular the need to involve those who would be affected by change is paramount.

Objectives
To acknowledge and effectively utilise senior nursing experience within dialysis clinics to enhance quality, patient and staff satisfaction and minimise resistance to change through active involvement in process development.

Methods
A business proposal presented to the senior management team was approved which foresaw benefits to the organisation of a 'Nursing Practice Group' utilising the expertise of six highly experienced clinic managers.

Results
Enthusiastic acceptance from all invited managers saw the inaugural meeting in November 2012. Chaired by the Chief Nurse and supported by the Nurse Specialist, renal experience within the group averaged >17 years. The groups' expertise has seen effective review and implementation of process and practice, in addition to patient education materials.

Conclusion/Application to practice
The opportunity to draw on vast experience across its clinics network coupled with active promotion of clinic managers as a body of experts with current 'shop-floor' experience has enabled effective, coordinated strategies to address clinical practice. Communication, empowerment and involvement are considered key factors for group success.

Disclosure: No conflict of interest declared

P 051

Patient engagement programme

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Background
A project was proposed where a new Patient Introduction Guide would be utilised to assist in the patient engagement process. Previously the clinic had a welcome information pack which was given to all new patients on their first visit to the clinic. This pack was developed with feedback from the patient representatives.

Objectives
A PowrPoint presentation was shown to each new patient, as an introduction to the clinic. The subjects included are health and safety, infection control, patient opinions, and emergency information. Each patient would have the opportunity and time to review the presentation, ask questions and give feedback on the process.

Methods
New patients were introduced to their first dialysis by staff. Each patient was invited to participate in the project which would require approximately 30 minutes of their time, in a private area. During the presentation staff would answer patients's questions and afterwards they would receive a personalised printed copy of the presentation.

Results
The presentation was well received but it was apparent that each patient had very different experiences and knowledge in relation to their care. In order to engage the patient it was recognised that an individualised educational pathway was required.

Conclusion/Application to practice
An educational pack and timeline was created to assist the named nurse in maintaining the educational drive to empower patients to make informed choices about their treatment and care.

Disclosure: No conflict of interest declared

P 052

Diabetes conversation map – a workshop for hemodialysis patients

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Background
Diabetes Melitus is spreading widely in the population.Almost 40% of dialysis patients are diabetic.

Objectives
To promote awareness and adherence of our dialysis patients to strict diabetic control, to prevent or postpone the onset of further complications.

Methods
Diabetes „conversation-map workshop" was arranged. Four group meetings of 1.5 hour were held around the table, with a colorful map spread on it. 5-6 patients participated each meeting, guided by external diabetes experts with participation of dialysis nurses and dietitian.

Results
10 patients filled up questionnaires of knowledge before and after the meetings. Four theme-maps were discussed: **„Experiencing Life with Diabetes", „Diabetes and Healthy Lifestyle**", **„Diabetes Complications", „Diabetic Foot**". The maps and cards were with big pictures and letters. Each participant chose a card with statement or question, discussed by the group, promoting mutual learning from own experience. By the end of the round an expert nurse or dietitian commented and summarized. Special attention was given for nutrition of dialysis diabetic patients, which is quite different from other diabetes counseling.

Conclusion/Application to practice
The original target population for such meetings is usually new diabetic patients. While our patients suffered from diabetes for years, even trivial topics such as insulin were not clear and understandable. Wrong habits and beliefs make difficult for dramatic changes to happen; yet, discussion may force to re-estimate it. Dynamics within the group encourage dealing with daily coping of the illness. As one patient said:"...until now I could blame the diabetes, but now I will be more responsible".

Disclosure: No conflict of interest declared

P 053

The choice of treatment at end stage renal disease

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Background
Introduction: Patients on dialysis are increasing significantly each year. This brings workload to Dialysis Units because the number of haemodialysis patients prevail those on Peritoneal Dialysis. This raises questions for patients and families. Is the one type better than the other? Also what is the possibility for transplantation?

Objectives
Objectives: To answer the following question:

- What is the optimal therapy for improving morbidity, mortality and preservation of quality of life in each individual patient?

Methods
Literature Review: Via electronic databases (PubMed, CINAHL, Renalinfo, Biomed, Renalpro, Nephrology Now, Fresenius Kidney Options etc.) , without time restrictions.
Select Research: Focused quality of life studies, morbidity and mortality among dialysis patients. No specific studies were found for patients views on treatment option.
Rejection surveys: Those not related to quality of life, morbidity and mortality of patients on dialysis compared with Peritoneal Dialysis and Transplantation.

Conclusion/Application to practice
Conclusions: Morbidity and mortality of dialysis patients, remains high despite progress in both techniques in recent years. The differences in results, between them, are not clear enough. Peritoneal dialysis is considered the optimal first choice of renal replacement until kidney transplant will be possible. However, patients have the right to choose the type of dialysis which is best for them and their life style. Patients must be well informed. The result is better treatment outcomes for patients and their families and also for health professionals.

Disclosure: No conflict of interest declared

P 054

Croatian experience in LDL apheresis in low weight patients: a case report

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Background

Low density lipoprotein cholesterol apheresis (LDL) is a safe and effective treatment where the LDL is removed from the whole blood of the patient. Treatment allows patients with homozygote familial hypercholesterolemia (FH) a much better prognosis, especialy if started before the age of seven because even small children are at risk of developing premature atherosclerosis and coronary disease. LDL apheresis in children is technically similar to adult procedure, but it has its own peculiarities and complications. Paediatric patients are rarely treated with apheresis especialy if their weight is less than 40 kg.

The first LDL apheresis was conducted in the Republic of Croatia in June 2007 in our centre and we are the only centre that provides this procedure for low weight patients. When we started LDL apheresis the child was six years old, weighing 23.5 kg. Start values of LDL- C before conducting treatment were 14.1 – 26 mmol/L. By December 2013 we had conducted 230 LDL apheresis using the Fresenius DALI system. From the beginning we used peripheral veins for vascular access. Today this boy is thirteen years old, he weighs 55 kg and has no more xantoma. His LDL-C values are 6.2- 16.3 mmol/L. The most common complications during treatments were related to vascular access and hypotension.
The aim of this paper is to share our experience with LDL apheresis in small children and to show the challenging role of the therapeutic apheresis nurse.

Disclosure: No conflict of interest declared

P 055

Planning and development of the first pediatric treatment with new monitor carpediem

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Background
Peritoneal dialysis is currently the treatment of choice for the purification of blood in neonates with AKI. Seriously ill children, however, are treated with Continuous Renal Replacement Therapy (CRRT) using machines for adults adapted for pediatric patients. The Carpediem is a new machine designed specifically for children under 10 kg of body weight. We study describes the methods used -organizational, educational and managerial – to introduce the Carpediem in our center where Pediatric CRRT was never performed before.

Objectives
Run the first pediatric treatment with Carpediem ensuring effective CRRT, minimizing the risk of complications and other problems.

Methods
Establish a POOL of experienced nurses in CRRT, trained to conduct pediatric treatment. Identification of the optimal mode to manage critical aspects: functionalities of the vascular access and the circuit, identify specific parameters and flows (e.g. infusion and eparine). Build a collaborative and multidisciplinary to implement objective.

Results
More than 400 hours of treatment were carried out, with a good survival of circuits (max 24 h), prolonged vascular access functionality (max 24 h) and no complications for the newborn.

Conclusion/Application to practice
The multidisciplinary approach and the establishment of a pool of nurses with a high level of expertise proved to be an effective model for the provision of treatment.

Disclosure: No conflict of interest declared

P 056 / O 50

Primary vascular access type and survival in a chronic haemodialysis programme

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Background
In recent years the relationship between vascular access and haemodialysed (HD) patients' survival rate has been investigated in our centre. Observation is ongoing.

Objectives
to justify the significance of the first vascular access in survival of HD patients.

Methods
In our dialysis centre 343 patients were treated with HD from 01.01.2010 to 31.12.2013.
312 had HD primarily and 31 switched to HD from the peritoneal programme (PD). Survival was examined retrospectively until the end of period or until drop-out.

Results
161 out of 312 (51.6%) primary HD patients' treatment was initiated via arteriovenosus fistula (AVF), 26 (8.3%) patients had permanent canulae (PC), and 125 (40.1%) had temporary canulae (TC), in 85 of these patients an AVF was formed later. Survival of patients treated via AVF from the beginning was 5.1±2.8 years, while in patients converted from TC to AVF it was only 3.0±1.7 years. The shortest survival was observed in the group of patients who switched from TC to PC (2.4±1.6 years).
Simultaneously survival of patients treated via PC from the beginning was 4.8±2.7 years, of those converted from AVF to PC was 6.8 ±3.3 years respectively.

Conclusion/Application to practice
In accordance with our earlier studies our present results verify that if HD treatment is initiated via TC the prognosis is significantly worse than in case of other primary vascular access. The better solution is to commence with PD, but even administration of primary PC is superior comparing to TC.

Disclosure: No conflict of interest declared

P 057 / O 49

Peritoneal dialysis patients with sensory system impairment

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Background
The human sensory system is responsible for the acquisition of information enabling us to interact with the outside world. Its impairment could limit an individual's chance to play an equal role in society.

Objectives
To introduce a special training programme that provides equal opportunities for patients with disabilities to participate in the peritoneal dialysis (PD) programme.

Methods
Five sensory impaired patients (three visually, two hearing impaired) participated in a training which started in February 2011. Training sessions included the following components: visualisation, dexterity, communication.
In visually impaired patients training was not based on visual teaching aids, but verbal communication (constant repetition, questioning).
In patients with hearing loss, visualisation and dexterity were emphasized. Speech impediment, a frequent comorbidity of hearing loss, made communication more difficult. Therefore, training was built on writing, articulation, and sign language.

Results
Acquiring the theoretical and technical basics of PD treatment, our patients were able to safely do an exchange on their own. Once self-care treatment was initiated their nursing care was continued on an individual basis.
Since then, two visually impaired patients do their exchanges independently and the third patient was transferred to HD (time spent in PD: 21 months).
Both hearing impaired patients left the programme, one of them due to transplantation (time spent in PD: 29 months) and the other one was transferred to haemodialysis (time spent in PD: 15 months).

Conclusion/Application to practice
Self-care treatment of PD patients with sensory impairment requires patience, adequate training, and aftercare. However, our experience shows that it does not necessarily increase the rate of complications.

Disclosure: No conflict of interest declared

Poster Session E – Monday
8th September 2014, 14:00–15:30

Vascular access **P 058–P 070**

P 058

Acquired swollen upper arm without proximal stenosis

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Background
Vascular access is the lifeline of a haemodialysis patient. Herein, we describe the occurrence of oedema and a swollen fistula in one patient receiving perdialytic nutrition and another recieving gancyclovir.

Methods
Patient 1: A 62 year old transplanted patient treated with gancyclovir for acquired cytomegalovirus. After two weeks of infusion, we noticed a swollen arm without any proximal stenosis. Patient 2: An 85 year old man receiving haemodialysis and doing well until he started complaining of exudative enteropathy. Endoscopic screening completed by anatomic histology confirmed the diagnosis of Crohn's Disease. After three weeks fortification with an emulsion having an osmolarity of 760 mosm/l, he developed a unilateral swollen arm including his vascular access. His fistula was well functioning and the thrill was unchanged. Blood chemistry was showing gradual improvement of inflammation and severe hypoalbuminemia. He has never had central catheterization and duplex ultrasound study failed to elucidate proximal stenosis. However, the fistula output was at 1200 ml/min.
In both cases the condition disappeared after discontinuing the offending agent respectively. Physical examination failed to show any neurological deficiency and there was conserved articular movement.

Results
Vascular access is the lifeline of a haemodialysis patient. Herein our patients presented with oedema of the upper unilateral arm, including the vascular access. The sole predisposing factors were gancyclovir in the former case and hyperosmolar perdialytic nutrition in the later case.

Conclusion/Application to practice
In the absence of pain and other signs of inflammation, swollen arterio-venous fistula is not synonym of infection. Hyper osmolarity of infused agent through the access might contribute to its development.

Disclosure: No conflict of interest declared

P 059

The relationship between thrombophilia factors and the occlusion of tunneled permanent catheters in patients receiving haemodialysis

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Background
If the creation of an arteriovenous fistula (AVF) is unsuccessful, a tunneled permanent catheter (TPC) should be used. The partial or complete occlusion of these catheters endangers the care of patients.

Objectives
To determine whether thrombophilia factors are related to catheter occlusions.

Methods
We analyzed data of 49 patients treating through TPC in a chronic haemodialysis (HD) programme. The familial and individual history of thromboembolism (TE), as well as the primary (protein C, protein S, AT III, APC resistance, Leiden mutation, lupus anticoagulant, antiphospholipid antibody, factor VIII) and secondary thrombophilia factors were studied. Twenty of the patients received oral anticoagulant (OAC) therapy (coumarin).

Results
The average age of patients was 69.8 ±12.9 years. 20 patients were diabetic and 6 had some malignancies. The individual history of TE was positive in 20 patients – all of them received coumarin therapy. In 21 patients, the laboratory tests results were indicative of thrombophilia but occlusion of the catheter occurred in only 6 patients – in cases of 14 (all of these received OAC therapy). At the same time, catheter occlusion was observed in a total of 13 cases in 8 thrombophilia-negative patients.

Conclusion/Application to practice
The low number of patients did not permit statistical calculations. In our experience the incidence of catheter occlusion was not higher among patients with thrombophilia than those without it. The care of the catheter (they were consistently filled with citrate) and the experience of the catheter insertion team are likely to have a more important role in the prevention of thromboses.

Disclosure: No conflict of interest declared

P 060

Improvement of dialysis efficiency by means of Doppler sonography

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Background
Functional vascular access is crucial to ensure efficient dialysis treatment. Therefore, one of our main focuses in dialysis care is to prevent vascular access complications and apply appropriate measures if they occur.

Objectives
To identify and treat vascular access complications and to monitor dialysis efficiency.

Methods
1. Select patients for ultrasound examination.
2. Plan echography examination according to the level of medical emergency.
3. Take appropriate measures according to the echography result.
4. Determine dialysis efficiency after intervention (spKt/V)

Results
Over 9 months, 221 vascular access echography examinations were performed on 141 haemodialysis and 1 peritoneal dialysis patients from a total of 345 patients treated in our unit. The following corrective measures were applied:
- 39.5% received surgical interventions leading to increased dialysis efficiency, 21.42% achieved the spKt/V target.
- 22.5% were referred for surgical interventions to create a new vascular access (arterio-venous fistula or graft, tunnelled central venous catheter), 81.25% achieved the spKt/V target.
- 16.9% received adequate medical treatment for vascular access complications.
- In 21.1%, the current vascular access was improved by increasing the blood flow and using fistulae with a bigger lumen, 86.66% achieved the spKt/V target.

Conclusion/Application to practice
In our dialysis unit, ultrasound examination played a major role in the early identification of vascular access complications and application of appropriate actions. Before the ultrasound examination, 141 patients did not reach the spKt/V target. After application of the corrective actions, 64 patients (43.39%) achieved the spKt/V target.

Disclosure: No conflict of interest declared

P 061

Taking care of the vascular access in haemodialysis patients: A permanent responsibility

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Background
Taking care of all types of haemodialysis vascular access is a real challenge for both medical staff and patients. A functional vascular access (VA) is an essential factor for the survival and quality of life of the patient.

Objectives
To prevent infections and reduce potential complications of the VA by active involvement of medical staff and patients.

Methods
Patients were trained and encouraged to take active part in VA care. Learning objectives included:
- to be able to perform good hygiene procedures and
- to recognize first signs of infection or thrombosis.

Flyers, posters, videos, and safety cards served as training material.
Nurses participated in regular training on dialysis care guidelines, vascular access care, and hand hygiene. Physicians performed regular ultrasound examination of the VA.

Results
In 2013, the number of hospitalization days due to infections and complications of the vascular access has dropped significantly (approximately 10%) vs. 2012, i.e. from 130 to 112 hospitalization days. Therefore, treatment costs and hospitalization days have also decreased. The number of patients remained the same (n=340).
Prompt surgical intervention for AVF dysfunction was performed successfully in 10 patients with AVF complications that were recognized early. Patients contacted the physician immediately after they had observed the first complications of VA and were thus aware of their major responsibility.

Conclusion/Application to practice
Permanent training of each nurse and active involvement of patients in VA care are crucial to prevent VA complications. These factors may enhance treatment efficiency and patient´s life quality.

Disclosure: No conflict of interest declared

P 062

Influence of antegrade vs. retrograde arterial needle placement on dialysis efficiency

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Background
An arteriovenous fistula (AVF) is the most efficient haemodialysis vascular access. Nurses caring for the AVF look for risk reduction and safe needle placement technique. The direction of arterial needle placement is differently practiced. Does this impact the fistula recirculation and the dialysis efficiency?

Objectives
Evaluate the effect of antegrade versus retrograde arterial needle placement on recirculation and dialysis efficiency.

Methods
Ten patients receiving haemodialysis or haemodiafiltration were included in this study. Inclusion criteria were: Brachio- or radio-cephalic AVF age >1 year; antegrade and retrograde needle placement possible. Each patient underwent three treatments with antegrade and retrograde needle placement each. AVF recirculation (measured using the thermodilution method) and Kt/V were evaluated for each treatment.

Results
In five patients, the recirculation value was 9.62% with antegrade vs. 7.5% with retrograde. In three patients, the recirculation value was 10.5% irrespective the technique and in two patients 5.5% with antegrade vs. 8.6% with retrograde. All patients achieved the Kt/v target (1.4) with an average value of 1.7 with antegrade vs. 1.55 with retrograde. The total blood volume values showed no significant variation: 91.65L with antegrade vs. 90.42Lwith retrograde, with an effective average blood flow of 350ml/min.

Conclusion/Application to practice
The direction of arterial needle placement did not have significant effects on recirculation or dialysis efficiency measured by Kt/V. Patients with higher recirculation values after retrograde placement will be further investigated.
Antegrade placement is easier and safer for the nurses and for the patients; keeping an adequate vascular access is essential for efficient haemodialysis treatment.

Disclosure: No conflict of interest declared

P 063

Haemodialysis access blood flow measurement. An important factor in the surveillance of arteriovenous fistulae

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Background
The best choice of vascular access for haemodialysis patients is the native arteriovenous fistula (AVF) because of better expectations with regard to survival and quality of life. Therefore, monitoring and surveillance of vascular access has a high priority.

Objectives
To evaluate the AVF surveillance protocol of our dialysis clinic.

Methods
We began AVF monitoring and surveillance in our dialysis clinic in February 2003. Until May 2013, we evaluated the data of 258 patients. Besides the regular physical investigation of fistulae, we measured the vascular access flow (Qa) by means of thermodilution. In cases of suspected stenosis (Qa <500ml/min or in case of clinical symptoms) we performed Colour Doppler Ultrasonography (CDU) and/or fistulography.

Results
Stenosis was confirmed in 275 cases in 111 patients (CDU showed 157 stenoses in 503 cases vs. 138 stenoses in 166 cases with fistulography). Percutaneous transluminal angioplasty was performed in 194 cases in 87 patients. Creation of a new fistula was necessary only in 24 cases in 21 patients. Within the last three years, the percentage of patients treated with AVF increased from 75 to 84%.

Conclusion/Application to practice
Regular monitoring and surveillance of vascular access and timely correction of complications can reduce fistula thrombosis and thus the need for central venous catheters. This may be one reason for the increased percentage of patients treated with AVF in our dialysis unit.

Disclosure: No conflict of interest declared

P 064

Incidence of haemodialysis catheter exit site infections: chlorhexidine vs ciprofloxacin

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Background
All Scientific Nephrology Societies recommend the use of Chlorhexidine solution as an antiseptic solution in the care of hemodialysis catheter exit site (HCES) and to avoid antibiotic solutions. However, the Guidelines for the Prevention of Intravascular Catheter-Related Infections of the Centre for Disease Control and Prevention recommends, as an exception, the use of antibiotic ointment at the HCES after catheter insertion and at the end of each dialysis session.

Objectives
To compare the incidence of HCES infection using ciprofloxacin solution versus chlorhexidine.

Methods
Quasi-experimental study: over 6 months 1 mg ciprofloxacin solution was used and over the following 6 months we used aqueous chlorhexidine gluconate (2%) antiseptic solution for HCES care, under the same conditions (weekly care or when the dressing becomes damp, loosened, or visibly soiled; using sterile gauze dressing and appling aseptic technique). HCES signs of infection were assessed during dressing changes. Infection rate of IS was defined as the number of HCES infection episodes/ total days of catheter inserted x 1000.

Results
During ciprofloxacin period, 27 patients were studied; resulting in 2 HCES infections (rate 0.12/ 1000 catheter-days). While using chlorhexidine, 30 patients were studied, eight HCES infections appeared (rate 0.38/ 1000 catheter-days) (p=0.001). The most frequent microorganism during the chlorhexidine period was the coagulase-negative Staphylococcus (5 infections). Haematic scab was the most common sign of infection (26%), erythema (18%), serous (13%) and purulent drainage (13%).

Conclusion/Application to practice
Our results with ciprofloxacin solution care show lower incidence of HCES infection than aqueous chlorhexidine gluconate (2%) antiseptic solution.

Disclosure: No conflict of interest declared

P 065

Daily supervision of nursing care of hospitalized patients with central venous dialysis catheters

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Background
In our dialysis center we currently have 198 chronic patients dialyzed. We are covering the needs for dialysis treatment for acute patients in clinical department and intensive units. These patients are treated with femoral one or two-lumen and also jugular one-lumen dialysis catheters. Patients with dialysis catheters are considered as high risk group. In January 2013 we introduced the daily supervision over the conditions of exit site medical care and the functions of dialysis catheters.

Objectives
The aim of our report is to analyze the characteristics of the implementation of the supervision and medical care of the dialysis catheters and the hospitalized patients in clinical department and intensive units.

Methods
Methods:
The data for the analysis was gathered with a descriptive method of obtaining the data from the patients care documentation of dialysis catheters. We checked the data for the period from January 2013 to January 2014. The data about the condition of the dialysis catheters are verifiable.

Results
Daily a nurse checked the condition of the exit site of the dialysis catheter at an average of 22,5 patients. The area of the supervision took place in 20 medical departments, also at the pediatric intensive unit. The age of the patients varied for 1 to 85 years.
The reasons for daily medical care of the catheters were: bloody exit site, suspicion of exit site inflammation, redness of the skin, intravenous therapy of the dialysis catheter, loosen patch and daily dialysis. We regularly extracted the dialysis catheters, when they got blocked, failed to function or there was no need for the catheter any more. With daily check of the patency of dialysis catheters, we reduced the chance of thrombosis development.
For performed medical care by using aseptic methods of work: a sterile set for the care of dialysis catheter, sterile gloves and personal protective equipment for the patient and the nurses. The disinfecting solution we used was 2% Klorhexidinum in 70 % ethanol. Dialysis catheter was covered with a sterile gauze and classic binder made out of non-woven fabric and fixed with sterile patches.

Conclusion/Application to practice
Daily supervision of hospitalized patients with dialysis catheters proved out to be a very good strategy, which lowered the number of infections and other complications with the patients. The smaller group of the same nurses, performing the medical care of the dialysis catheters had a better control over the performance and the conditions of the catheters.

Disclosure: No conflict of interest declared

P 066

Analysis of dialysis adequacy in patients with different permanent vascular access

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Background
A crucial prerequisite for adequate dialysis is a good vascular access (VA). The most common and optimal permanent VA is a native arteriovenous (AV) fistula. If this is not possible, an AV graft or, in some cases, central venous catheter (CVC) is placed.

Objectives
To analyse parameters of haemodialysis adequacy in patients (pts) with different VA types.

Methods
We performed a retrospective analysis of dialysis treatment data of 237 patients collected in a clinical database during 2013.

Results
Total blood flow, reinfusion volume, Kt/V, URR, and clinical aspects of pts (nutritional status, blood pressure, anaemia) were analysed. We paid particular attention to the care and maintenance of VA to keep its functionality and thus achieve high-quality dialysis. AVF for VA (group 1) in 217 pts (91.6%), AV graft (group 2) 13 pts (5.5%), and CVC (group 3) 7 pts (3%). Comparing group 1 with group 2 and group 3 revealed for single pool Kt/V the following mean values: 1.64 vs. 1.81 vs. 1.56, respectively. The average values for equilibrated Kt/V were: 1.44 vs.1.59 vs. 1.37, and for URR: 74% vs. 77% vs. 71%.

Conclusion/Application to practice
The majority (91.6%) of our pts were dialysed with an AVF, which is in accordance with the recommendation to use this VA type as first option. Comparing the results of pts with different VA, we observed that slightly higher values for all dialysis adequacy parameters were observed in group 2, but very similar results related to efficiency suggest that with all used AV types adequate treatment parameters can be achieved.

Disclosure: No conflict of interest declared

P 067

Nursing practice and incidence of central venous catheter-related infection

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Background
Central venous catheter (CVC)-related infections have been associated with a high morbidity, mortality, and increased costs. CVCs implicate a high risk for bloodstream infections. Incidence rates of catheter-associated blood stream infection of 1/1,000 CVC days and higher have been reported.

Objectives
To identify the following in patients with CVC:
- Incidence of infections (in relation to nursing practices)
- Number of hospital admissions and death related to infection

Methods
38% of haemodialysed patients (n=54 with 57.4% females) in our clinic had tunnelled CVC for more than 15 days. Over a period of 23 months data of these patients were collected according to an observation scheme.
Our nursing practices include continuous education of nurses, blood cultures protocols, as well as hygienic procedures and material for CVC care. CVC infections were classified as exit-site infection, tunnel infection and according to CDC definitions: Bloodstream infection; probable bloodstream infection and potential bloodstream infection.

Results
On average patients were 69 years old and had spent 1,823.3 days on dialysis. The mean duration of CVC per patient was 433 days. 6 patients experienced a CVC infection, i.e. 4 bloodstream infections, 1 infection at the exit site and 1 potential bloodstream infection. 2 infections resulted in hospitalisation for three and eight days.

Conclusion/Application to practice
Adherence to the best practices in nursing care in the treatment of patients with CVC contributed to a low infection incidence of only 0.26 episodes per 1,000 CVC days. Compared to the incidence rates reported in literature, this is quite low and is thus an encouraging result.

Disclosure: No conflict of interest declared

P 068

Vascular access flow and dialysis efficiency as criteria for referral to endovascular intervention

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Background
Nurses play a major rolein vascular access (VA) monitoring. Drops in VA flow (Qa) or Kt/V are common criteria for endovascular intervention referral.

Objectives
To assess the role of Qa or Kt/V drops as indicator for endovascular intervention referral.

Methods
We recorded endovascular intervention referrals based on a drop in Qa or Kt/V over 1 year.

Results
1,532 patients were referred, 50.5% with a native arteriovenous fistula (AVF), 49.5% with PTFE grafts with a mean age of 69.1 years, and 38.2% were diabetics.
44% were referred due to a Qa decrease of which 61.6% had a graft. In 8.3% of those referred with AVF there was no intervention indication. Median post-angioplasty values increased in patients with AVF for Qa by 375.42 ml/min and for Kt/V by 0.32 vs. 416.41 ml/min and 0.12 in patients with grafts.
8.5% of all patients were referred due to a Kt/V drop. 69.2% of patients referred due to Kt/V drop had an AVF graft. 14.1% of those did not require an intervention. Median post-angioplasty values increased in patients with AVF for Qa by 283.48ml/min and for Kt/V by 0.38 vs. 351.85 ml/min and 0.14 in patients with grafts.
12.3% of all patients were referred due to thrombosis, in the previous month, with relatively high Qa values pre- and post-thrombolysis.

Conclusion/Application to practice
Drops in Qa and Kt/V for endovascular referral intervention were effective in AVF but more effective in grafts. None of these indicators could predict AV thrombosis.

Disclosure: No conflict of interest declared

P 069

First permanent vascular access for haemodialysis: Factors affecting type and location

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Background
Type and location of the first definitive vascular access (VA) is important for haemodialysed patients' quality of life (QoL) and may depend on age, gender and comorbidities, like diabetes.

Objectives
To analyse the type and location of the first VA in haemodialysis patients and find out whether these results are related to age, gender or diabetes.

Methods
We collected socio-demographic data as well as data on diabetes, type and location of the first VA in 2,314 dialysis patients between 2009 and 2013.

Results
Patients' mean age was 66.14(+/-14.71) years. 62.6% were male and 36.5% diabetics. 87.1% had an AVF and 12.9% a PTFE graft. 41.4% of patients had a distal and 58.1% a proximal VA location.
42.9% of patients were aged ≤65 years and 88.2% of them had an AVF and 54.3% a proximal VA. 57.1% were >65 years and 86.3% of them had and AVF and 60.9% a proximal VA.
84.6% of diabetics and 88.6% of non-diabetics had an AVF. VAs were proximal in 60.9% of the diabetic patients and in 56.4% of the non-diabetic patients.
90.5% of male patients had an AVF as compared to 81.5% female patients. 53.3% males and 66.1% females had a proximal VA.

Conclusion/Application to practice
In the first VA, the location tends to be more proximal in patients >65 years, in diabetics and female patients. The rate of PTFE graft usage as first VA was higher in females, but no differences was found between diabetics and non-diabetics or the different age groups. Thus, other factors may determine their option.

Disclosure: No conflict of interest declared

P 070

Deficient maturation of Arteriovenous Fistula – Vascular Access Centre experience

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Background

The significance of vascular access (VA) for haemodialysis patients is undisputed. Patients are aware of the direct relationship between the quality of the VA and the quality of their treatment. An unfavorable or poor venous anatomy sometimes makes cannulation difficult or impossible. An immature AVF is mainly detected through the physical examination of the VA. Clinical signs of immaturity should be promptly followed up and confirmed by Doppler ultrasound looking for inadequate flow due to inflow stenosis or deep arterialized vein requiring surgical superficialization. Anastomotic stenosis can be revised surgically or dilated using angiography.

Results

In 2013, the Vascular Access Centre Coimbra performed 168 endovascular procedures. In 9% of the patients it was related to AVF; 66% of patients were diabetics and had an average age of 75,5 years, 53% radio cephalic AVF, 40% brachial cephalic AVF and 7% AVF with a graft interposition.

47% had a juxta-anastomotic stenosis and were referred to balloon angioplasty, and 53% AVF without indication for endovascular resolution. From this group of AVF, 63% were treated with surgical revision, a new anastomosis created a few centimetres above the stenosis and previous anastomosis.

Conclusion/Application to practice

The number of patients referred with immature AVF was reduced. They were either treated with endovascular or surgical therapy. Conducting Doppler ultrasound seems to be useful for diagnostics representing a key element in the decision of the most appropriate procedure to solve the problem, and avoiding the need for invasive and painful procedures for the patient, indirectly minimizing patient waiting time for AVF maturation.

Disclosure: No conflict of interest declared

Poster Session F – Monday
8th September 2014, 14:00–15:30

P 071
ICU protocol for the treatment of acute kidney injury

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Background
Acute kidney injury (AKI) is a clinical syndrome characterised by an abrupt decline in glomerular filtration rate (GFR). AKI or multi-organ dysfunction/failure in an intensive care unit (ICU) setting are associated with significant morbidity and mortality in selected patients.

Methods
Our dialysis unit operates a comprehensive ICU programme for AKI patients in 4 ICUs: 2 general hospitals, 1 invasive cardiology and 1 cardiac surgery unit. The cardiac surgery unit performs all adult heart transplants in Hungary.
We included all patients who were treated at least once with extracorporeal detoxification in these ICUs after renal consultation. The physicians of the dialysis unit made the renal consultation and prescribed the treatment after daily consultation with the ICU team.
We used continuous veno-venous haemodiafiltration CVVHDF and bicarbonate based haemofiltration solution. Treatment was normally performed daily with an average solution quantity of 30 l/day with a treatment time ranging from 6 to 12 hours.

Results
In 2013, we treated 123 new patiens and the following results were observed: 53 patients died, 45 recovered renal function. Due to their improved condition, 25 patients were transferred to a lower dependency ICU although still suffering from AKI.
Nephrology consultation revealed the need for histological verification in some cases and the consulting physician also performed renal biopsy.

Conclusion/Application to practice
A multidisciplinary approach is very important to provide optimal medical and nursing care for critically ill patients. Ongoing renal ICU consultation helps to define the optimal treatment approach.

Disclosure: No conflict of interest declared

P 072

Combined haemoperfusion and haemodiafiltration technique in a child with acute methotrexate toxicity

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Background
Cancer is relatively rare in children, with acute lymphoblastic leukaemia being the most common type. Treatment may include the use of Methotrexate, a drug that is eliminated via the kidneys. Any changes in the treatment may cause slower elimination and be life-threatening. The nephrotoxicity induced should be treated.There were a number of options in this case.
The first pediatric haemoperfusion performed in our hospital was a challenge for several reasons: coordination of specialities, complexity of the technique, the patient's age and the reason for the haemoperfusion.

Objectives
Describe a case of acute renal failure following acute methotrexate toxicity in a child with acute leukaemia, treated successfully with a combination of pharmacological therapy, and haemodiafiltration and haemoperfusion using activated charcoal.

Methods
CLINICAL CASE
A 13 year old male child, who responded positively in the induction phase, started the second phase of treatment in accordance with hospital protocol. The patient developed symptoms of acute renal failure secondary to the administration of metrotrexate on the second day of therapy. Symptoms of toxicity appeared on the third day and extrarenal purification (CVVHDF) was initiated.
Haemoperfusion using activated charcoal was planned on the fifth day, following awareness of the need for support to eliminate cytostatic drugs. Adverse effects included physical discomfort, vomiting and diarrhoea. Principle nursing diagnoses: fear, pain and risk of infection.

Conclusion/Application to practice
DISCUSSION
Subsequent follow-up demonstrated that haemoperfusion is effective and lowered plasma MTX concentration quickly and permanently. Multidisciplinary work improved the results significantly by enabling the team to act quickly in establishing corrective measures.

Disclosure: No conflict of interest declared

P 073

Change of estimated GFR and residual urine volume in chronic peritoneal dialysis programme

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Background
Peritoneal dialysis (PD) is recommended for patients with residual renal function.

Objectives
To observe the change in GFR and daily diuresis in the PD programme.

Methods
94 patients entered the PD programme during the past 5 years in our dialysis centre. Changes in diuresis and in GFR was analyzed in groups based on dialysis technical survival time.

Results
The average age of patients at the start of PD was 61.7 years. The average time spent in PD was 645 days. At the end of the study, 57 patients were still receiving PD (average time 747 days). 44 patients dropped out (after 590 days in average) due to: improved renal function (5); transplantation (8); exitus (Ed, do you mean exit site infection?) 16 patients were lost; 15 patients switched to haemodialysis (HD). The average eGFR was 13.4 mL/min at the beginning of PD. At the end of the study it was 12.0 mL/min. 56% of patients had reduced value, 44% of them had stable or increased value.
Pre-study the average daily diuresis was 2080 mL. At the end of the period it was 1820 mL. Average diuresis decreased in 54% of patients. GFR level decreased by 0.8 mL/min annually. Diuresis decreased by 150 mL/year. The most marked reduction in residual function was observed in patients transferring to the HD programme (GFR:-3.6 mL/min/year; diuresis:-240mL/year).

Conclusion/Application to practice
The GFR and residual diuresis of patients included in the peritoneal dialysis programme decreased only moderately during this short observation period.

Disclosure: No conflict of interest declared

P 074

How to improve adherence of our patients on peritoneal dialysis?

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Background
As with the management of chronic diseases in general, in the case of dialysis patients, proper cooperation is important. The patient interacts with the nurse during education sessions whilst being taught peritoneal dialysis techniques and it is suggested that this partnership connection may influence long-term life expectancy and quality of life. According to international surveys only 20-50% of patients comply with instructions, therefore adherence by the use of a patient-centered approach may improve the results.

Objectives
To assess, by conducting a questionnaire, the cultural, socio-economic, medical and cognitive factors affecting adherence in order to search for controllable elements.

Methods
Our currently treated PD patients (n = 31, male / female 19/12, age 62.5 ± 11.7 years) completed a questionnaire specifically designed for adherence screening in this patient population. The questions included topics such as: accompanying information received from the person ordering the medication; drug taking habits; knowledge of the effects of drugs; characteristics of medication errors.

Results
Our results showed that patients do not receive adequate information on ordering new medication. They often gather information from other sources (n = 14). The supporter background within the family (n = 9) is important, difficult to evaluate the role of financial factors. In many cases, due to forgetfulness, travel disruption or failure of timely drug replacement (n = 17) the causes are reversible. We found several patients thought that it is not always necessary to take the medicine (n = 5).

Conclusion/Application to practice
In spite of stronger patient-nurse-physician relationships in PD there is a considerable lack of adherence. Nursing education must establish a genuine internal motivation for adherence.

Disclosure: No conflict of interest declared

P 075

Survival of patients transferred from peritoneal dialysis to haemodialysis

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Background
Patients treated in peritoneal dialysis (PD) can be transferred to haemodialysis for several reasons.

Objectives
to examine the survival of patients switching from PD to HD.

Methods
Over the last 14 years 196 PD patients were treated in our centre, 62 (32%) switched to the HD program. Our observation was made at the end of the study or at drop-out (transplantation, treatment cessation, death).

Results
At dialysis initiation the average age of patients was 64.2±12.1 years. 22 patients are treated currently. They are younger (60.5±10.9 years) than the patients who dropped out (66.2±13.1 years). Average time spent in HD was 2.6±1.6 years that of in PD 1.7± 1.3 years, respectively.
Survival of currently treated patients is 5.1±2.4 years, dropped out patients' is 3.9±2.1 years, respectively.
42 patients switched to HD electively: via arteriovenous fistula (AVF) 31, with tunnelled permanent catheter (TPC) 11, and 20 urgently, via temporary catheter (TC). Patients with AVF made electively had no better chance for survival, because of the high drop out rate (16/27) they spent only 1.7±1.2 years in HD programme.
Better results (2.3±1.7 years) were seen even if HD was made via TC after PD.

Conclusion/Application to practice
The time our patients spent on HD after PD was too short, because some of them had a serious condition at the time of the transition and this fact affected their survival. Because of the small number of patients the results are not statistically significant. Further study is planned to improve our knowledge of the optimal circumstances of PD-HD switching.

Disclosure: No conflict of interest declared

P 076

Course of illness of patients with or without diabetes in peritoneal dialysis programme

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Background
Glucose absorbed by patients from peritoneal dialysis (PD) fluid makes it difficult to treat patients with diabetes.

Objectives
To evaluate the course of illness of diabetic or non-diabetic patients treated with PD.

Methods
From 2000 to 2013 75 patients (38%) had diabetes out of 196 patients treated with PD. In both groups drop out rate was examined. PD techniques and patients survival rate were also observed.

Results
The average age of diabetic (D) and non-diabetic (ND) patients was not different at the beginning of PD. In the examined period 77% of D patients and 70% of ND patients dropped out from program. The cause of drop out was different. From PD to transplantation 2 patients were transferred from D group while from ND group 23 patients were transplanted. 37%-of D patients got into the HD programme, while 30% of ND patients got into the HD programme. Death rate was 31% in D patients while in ND group it was only 17 %. The survival rate of technique was not different in the two groups (2.2±1.7 vs. 2.2±1.9 years). The survival was better in ND group (4.4±3.4 years vs. 3.6±2.5 years).

Conclusion/Application to practice
PD technique gives the same life expectancy for diabetic patients as for non-diabetic ones. The essential difference is that many more patients were transplanted from ND group which gives them a better chance for survival. Another significant difference was observed in mortality rate: it was almost double in D group comparing to ND group.

Disclosure: No conflict of interest declared

P 077

The challenges of delivering peritoneal dialysis in Saudi Arabia

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Background
Saudi Arabia has a high prevalence and incidence of ESRD due to rapid changes in lifestyle, population growth, increased life expectancy and massive urbanisation. Lack of early detection and management of CKD within primary care results in patients presenting with late stage CKD with little opportunity to prepare for PD. Initiating PD is greatly influenced by social factors in Saudi Arabia, where Saudi families play a major part in determining which therapy should be offered to patients.

Methods
Using patient case studies & data from the Saudi Centre for Organ Transplantation (SCOT) the challenges of providing PD within Saudi Arabia is identified.

Results
In 2012, 12,633 ESRD patients were receiving dialysis as their main form of treatment with 1327 of these patients receiving peritoneal dialysis (PD). PD patient numbers have increased from 132 in 1995 to 1327 in 2012 due to the increasing incidence of ESRD.

Conclusion/Application to practice
For the continued development of PD in Saudi Arabia, work remains to develop the necessary infrastructures to provide integrated renal services. There is a need to promote the role of renal nursing as a specialty within Saudi Arabia with creation of the Saudi Society of Nephrology Nursing to offer new opportunities to advance the profession of nephrology nursing. Despite the increasing number of PD patients, the challenge remains to change the image of PD & the perceptions of PD within patients, families and the community at large.

Disclosure: No conflict of interest declared

P 078

Low peritonitis rate and the role of peritoneal dialysis training nurse

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Background
Peritonitis is one of the principal complications of peritoneal dialysis (PD), the main cause of hospitalization, technique failure, and even mortality in PD patients. Adequate training and ongoing support by PD nurses is extremely important for patients on PD.

Objectives
The aim of our study was (1) to analyze the rate of peritonitis in our PD patients over a period of 3 years and (2) to determine the role of the PD nurse in the prevention of peritonitis using an effective education program for PD patients.

Methods
In a retrospective single-center cohort study, we evaluated the peritonitis rate in all PD patients who started on PD between August 2000 and December 2013. All patients were trained for 2 weeks at the initiation of PD by nurses with advanced PD experience.

Results
In our cohort, 35 patients (21 male, 14 female) started dialysis with PD catheter. The mean age of the patients was 42.3 years, the mean PD treatment was 44.9 months. During 1574 patient-months of follow-up, 14 episodes of peritonitis were observed with 8 episodes being attributed to gram-positive organisms, one to gram-negative organisms, one to Mycobacterium avium, one to Candida albicans and 3 episodes of peritonitis were sterile with no growth. Peritonitis rate was one episode per 112.4 patients-months or 0.1 episodes per patient per year.

Conclusion/Application to practice
Our hypothesis is that PD nurses' experience and knowledge in the education and training programme contributes to the low rate of peritonitis among PD patients.

Disclosure: No conflict of interest declared

P 079

Survival of peritoneal dialysis technique and patients

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Background
Peritoneal dialysis (PD) is an optimal renal replacement therapy for patients with residual kidney function.

Objectives
To study survival of PD technique and patients treated initially with PD as a renal replacement therapy.

Methods
From 2000 to 2013, 196 patients were on PD. Course of illness (improved renal function, kidney transplantation, conversion to haemodialysis, death) time spent in PD and survival in different patient groups were examined.

Results
At the end of the study 57 (29%) patients continued on PD. 139 patients dropped out: 9 patients had improved kidney function; 25 were transplanted; 62 patients transferred to HD; 43 died.
Survival on PD is 2,1 ±1,7 years in case of patients currently on PD. Of those who dropped out survival is 2,2±1,9 years. The longest survival (2,6±2,1 year) was observed in those who changed to HD. The best result was in those transplanted (6,8±3,4 years) followed by the group PD→HD→Tx group (5,6±2,1 years).
In patients treated initially with PD and currently on HD the average survival is 4,4±3,2 years. In those how died the survival rate is (2,1±1,8 years).

Conclusion/Application to practice
Survival on PD was 0,2-9,5 (average 1,3-2,7) years in different patient groups. When renal function improved (1,3±0,9 years) and in the case of transplantation, PD was relatively short.
Patients survival was 1,2-11,7 (average 2,1-6,8) years depending on the course of illness.

Disclosure: No conflict of interest declared

P 080

Prevention of acute enteric infections in peritoneal dialysis patients

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Background
Enteric infections are still one of the most serious healthcare issues. During peritoneal dialysis patient training, nurses should pay special attention to prevent enteric infections. This is one pillar of peritonitis prophylaxis.

Objectives
To apply prophylactic measures to avoid acute enteric infections.

Results
There are several penetration paths for microorganisms into the abdomen.
- through the peritoneal catheter lumen;
- pericatheter penetration path for infection depends on the remaining gap between the catheter and surrounding tissues;
- through the intestinal wall; in case of the enteropathy, the microbial flora enters the abdominal space causing peritoneal inflammation.

In most cases, PD-associated peritonitis is caused by gram-positive cocci like staphylococcus epidermis or staphylococcus aureus. However, the most severe peritonitis, which can be even fatal, caused by gram-negative or enterococci entering the abdominal space (transmural). The resulting peritonitis requires discontinuation of treatment.
World Health Organization (WHO) experts developed ten «golden» rules to prevent enteric infections. These are as follows:
- Choose foods processed for safety.
- Cook food thoroughly.
- Eat cooked foods immediately.
- Store cooked foods carefully.
- Reheat cooked foods thoroughly.
- Avoid contact between raw food and cooked food.
- Wash hands repeatedly.
- Keep all kitchen surfaces meticulously clean.
- Protect food from insects, rodents and other animals.
- Use safe water.

Conclusion/Application to practice
Observation of these simple rules will help avoid many health problems, protect oneself from acute enteric infections and as a consequence from the dialysis-associated peritonitis.

Disclosure: No conflict of interest declared

P 081

Outcome of renal transplantation in patients with mental retardation

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Background
Kidney transplantation requires compliance with a prescribed immunosuppressive protocol. For this reason, mental retardation has been considered a relative contraindication for transplantation. We investigated prevalence of patients with mental retardation, post-transplant complications and outcomes.

Methods
Prospective follow-up of all renal transplant recipients from January 2007 to December 2013 was undertaken to identify patients with mental retardation who received a renal allograft.

Results
797 patients received kidney allograft at our institution. 12 (five were female) were diagnosed as having mental retardation. Post-transplant complications included eight cases of viral infections, one pneumonia, two hypertensive hydrocephalus, one spontaneous rupture of the Achilles' tendon, two acute cellular rejection, one leucopenia, two lymphocela, and one severe gingival hypertrophy. One and five-year patient and graft survival were 100%. During the mean follow-up of 4.1 years (range 1 to 6 years) only one patient lost his graft six years after transplantation. All patients were compliant with the prescribed immunosuppressive protocol. Weight gain was a huge problem while five patients gained more than 50% of their initial weight after transplantation. Two patients remained almost cachectic with poor appetite.
Nurses should be involved in all steps during the educational process, as well as in follow-up of patients. They should provide permanent support to patients and to family members or care-providers.

Conclusion/Application to practice
Kidney transplantation improves quality of life not only of the recipients, but also of all family members or persons providing support to the mentally retarded patient. Support from nurses is required to obtain optimal results of treatment.

Disclosure: No conflict of interest declared

P 082

Experiences of recipients and living donors during the first three days after kidney transplantation

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Background
Few studies have described experiences of recipients and donors in the immediate post-operative period. Existing studies have different aims and data was collected between one week and 12 months after living kidney transplantation.

Objectives
To investigate experiences of recipients and donors during the first three post-operative days.

Methods
- A qualitative, phenomenological hermeneutic study
- Seven kidney transplanted recipients and seven living donors hospitalised at a DanishHospital were included between May 2013 and November 2013
- Individual semi-structured interviews on the third post-operative day were conducted
- Interviews were analysed using Malterud's principles of systematic text condensation.

Results
Both recipients and donors experienced post-operative discomfort, though not similar; their caring needs are thus not the same. Despite this all recipients and donors experienced a benefit from each other during hospitalisation. They saw each other as a support and they all preferred to be hospitalised in the same room. In this way, the transplantation became a common experience and gave them peace of mind to recover. All recipients saw receiving a kidney as a huge gift; the donation gave the donors a feeling of satisfaction.

Conclusion/Application to practice
The first three post-operative days were characterised by differences in post-operative discomfort and caring needs in both recipients and donors. It is thus important that health care professionals distinguish between and consider both the needs of recipients and donors.

Disclosure: No conflict of interest declared

P 083

Renal replacement therapy (RRT) in HIV-positive patient completed by a successful transplantation case report

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Background
Implementation of HAART has improved survival of HIV+ patients. Today we meet complications relating to both HIV infection and HAART. All types of RRT including transplantation shuould be considerd. Transplantation offers the best outcomes. The short-term results of HIV+ patients transplanted show evidence of a higher rate of rejections and infectious complications. Grafts and patients survival was similar to patients older than 65 years. We present the first case of kidney transplantation of HIV+ patient in Czech Republic.

Methods
35 years old HIV+ patient on peritoneal dialysis(PD). Only 3 infectious episodes occured over the treatment period. Disposal of the PD waste was a technical problem. Considering HIVvirus sensitivity to oxidizing agents, we opted for chloramine application. The patient fulfilled the criteria for renal transplantation and was put on waiting list. 34 months later he received a transplant from a deceased donor. Immunosuppression consisted of basiliximab, tacrolimus, mycophenolate mofetil, steroids During the post-transplantation period toxic tacrolimus levels were observed repeatedly, due to concomitant HAART. After 2 weeks patient was discharged for ambulatory monitoring. Two years after transpant th patient lives with a fully functional graft, (creatinine 100 µmol/l) and without HIV virus replication.

Conclusion/Application to practice
Based on our experience, there is no difference in approach to PD in HIV+ patients apart from a more strict sanitary routine. Transplantation is the best treatment option, it is necessary to consider HAART-treated patients with a negative viral replication as candidates for transplantation.

Disclosure: No conflict of interest declared

P 084

Renal transplantation in a patient with epidermolysis bullosa, a challenge to the multidisciplinary team

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Background
Epidermolysis bullosa (EB) is a hereditary disease with prevalence of around 6 cases per million of the population in Spain. It is characterized by blistering and / or skin and mucous vesicles after minor trauma, with variable involvement of other organs. A literature review showed there was little data regarding the relationship of this disease with renal disease.

Objectives
Transmit and describe the experience of a patient with EB who undergwent a renal transplantat. This is the only reported case worldwide.

Results
25 year old male diagnosed with autosomal recessive dystrophic EB at birth and diagnosed of IgA nephropathy at 15, glomerulonephritis type II extracapillary accelerated the progression to end stage renal disease. Decision made to perform a live donor renal transplant as the best form of renal replacement therapy.
The patient was admitted in our ward prior to the transplant. At admission his care needs were evaluated using the Gordon standard.
The standard clinical pathway for transplantation was individualized. Several different hospital departments (nephrology, dermatology, urology, anesthesia) participated in this process.
The risks were assessed: problems in intubation, wound infections, no wound healing, difficulty eating (food and drug), difficulty in canalization of venous catheters, etc.

Conclusion/Application to practice
Although the patient spent longer in hospital than normal followng a transplant, graft complications were overcome. We carried out a successful kidney transplant, demonstrating that the multidisciplinary approach in this case made it possible.

Disclosure: No conflict of interest declared

P 085

Body-building and living-donor transplantation (case study)

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Background
Living-donor transplantation means a preferential way comparing to cadaver transplantation: decreased post-surgical complication, long-term sequelaes, risks, improved mortality index. Planning opportunity causes less mental stress for the recipient.

Objectives
End-stage renal disease due to anabolic steroids and dietary supplements was diagnosed at a 38 years old body-builder champion. In the former years living-donor transplantation increase in a dynamic way. Patient was suggested this possibility as treatment of renal failure. Successful donation was assessed after examining of mother's (59) eligible status.

Methods
We had an outstanding case to investigate the advantages of living-donor transplantation regarding extreme sport activity and continuing body-building after procedure. We compared detailed workout schedule, protein intake, body weight, medicine requirement (before, after). We studied the infection susceptibility in accordance with competition activity.

Results
Patient returned to the workout 4 weeks after the procedure. Number of workouts was decreased only by 1 per week (4 times per week.) Protein intake was 3 g/bwkg/day (+/-25%). A quarter came from dietary supplements. Addtional magnesium intake was needed due to hypomagnesaemia caused by tacrolimus. We measured changes in body weight. Highest body weight was 167 kg.

Conclusion/Application to practice
Living-donor transplantaion is a preferred method for renal replacement even in extreme sport activity. Short recovery without complication and same power comparing cadaver way may be acheived. It gives opportunity to continue extreme diet and unvaried workout. (Maximum 30% increase happened.) For the future we learn to follow-up patient's carrier especially to reach the orogonal power before transplantaion.

Disclosure: No conflict of interest declared

Poster Session G – Monday
8th September 2014, 16:00–17:30

P 086 / O 52
Haemodialysis catheter related blood stream infection

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Background
Intravascular haemodialysis catheters are essential in the management of critically and chronically ill patients suffering from acute injury and chronic renal failure. However, the haemodialysis catheter is often complicated by catheter related-blood stream infections which are associated with increased morbidity, duration of hospitalisation, and additional medical costs.

Objectives
Objectives are to:
- Identify the causes of vascular catheter infections
- Assess the effectiveness of infection control practice within the dialysis unit
- Develop a standardized surveillance system for monitoring haemodialysis vascular access infections
- Compare infection rates with international rates as identified by the central disease control
- Educate and enhance staff awareness about prevention and control of catheter related infections
- Reduce patient morbidity and mortality rates

Methods
FOCUS PDCA quality improvement methodology.

Results
As per the new changes implemented in Dubai Hospital Renal Unit, improvement has been achieved related to the haemodialysis catheter related blood stream infection. Quality and continuity of patient care, as well as patient's skills and knowledge for self-care were enhanced. Positive influence on patient/family attitudes was evident, as well as more co-ordination between multidisciplinary teams. Enhanced patients and staff satisfaction was evident and reduced haemodialysis catheter related blood stream infections, below the international rate as identified by central disease control, were noted.

Conclusion/Application to practice
Many catheter related blood stream infections are preventable, and need to be approached systematically at a multidisciplinary level, that emphasize the patient safety and quality of care. Therefore, all the staff involved in the management of the haemodialysis vascular catheter must base their practice on evidence based guidelines and recommendations, as an effective strategy in reducing the risks of catheter related blood stream infections.

Disclosure: No conflict of interest declared

P 087

The first home hemodialysis programme in Turkey: a general evaluation

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Background

The first home haemodialysis (HHD) programme in Turkey was initiated in 2010 and the idea has spread to 41 clinics and 185 patients until June 2013.

Objectives

To evaluate outcomes of patients enrolled in this programme.

Methods

Patient data of a clinical database were analysed.

Results

Demographic and socio-cultural data revealed an age range of 13-75 years (mean age: 44.2±12.4 years), 34.6% were females and 70% were married. 22% had a university degree, 55% led an active lifestyle (working or studying). Primary cause of renal failure was diabetes in 13%, hypertension in 27% 23% and glomerulonephritis in 18% of patients. 11% had a previous peritoneal dialysis and 17% a renal transplantation history. The mean time on HHD was 13±4 months and the mean time on HD 85±67 months. High-flux dialyser and ultrapure dialysate were preferred in all patients. 88.1% of patients had arteriovenous (AV) fistula, 3.2% AV graft, and 8.6% permanent catheter for vascular access. 57% used the buttonhole technique, 34% rope-ladder, and 9% area technique for vascular access cannulation.

In June, another 81 patients started a HHD educational programme as they intend to start HHD. 10 more dialysis centres are expected to start this HHD programme.

Conclusion/Application to practice

It has been more than 3 years since the first HHD programme started in Turkey and is already used in more than 40 clinics. Almost 200 patients have been enrolled and we expect that the programme will continue to spread.

Disclosure: No conflict of interest declared

P 088

Intradialytic complications in extended home haemodialysis

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Background
Besides advances in renal replacement therapies, intradialytic hypotension, and seizure episodes continue to be a problem in patients on in-centre haemodialysis three times / week. Intradialytic hypotension is a well-known risk factor for cardiovascular events.

Objectives
To evaluate the effects of long home haemodialysis on intradialytic complications.

Methods
59 patients on long home haemodialysis (3 times / week for 8 hours) were included in the study and observed over 13,112 sessions (222 per patient). For each patient we assigned two age-, gender-, diabetes- and dialysis duration-matched in-centre haemodialysis patients as controls (118 patients, total 31,805 sessions, 269 sessions / patient). The following episodes were documented: intradialytic hypotension, seizures, coagulation of the extracorporeal circuit, and neurological symptoms. Intradialytic hypotension was defined as decrease in blood pressure requiring saline infusion in addition to hypotensive symptoms.

Results
Home haemodialysis patients had 87.7% less hypotensive episodes as compared to in-centre haemodialysis patients (5.7/1,000 vs. 46.5/1,000 patient sessions). In addition, they had 86.1% less seizure episodes (4.5/1,000 vs. 32.4/1,000 patient sessions). Rates of extracorporeal circuit coagulation were similar in both patient groups. No major complications were observed in home haemodialysis.

Conclusion/Application to practice
In the present study, home haemodialysis 3 times / week for 8 hours has led to less intradialytic complications as compared to conventional HD. This might be caused by lower ultrafiltration and blood flow rates at a longer session time.

Disclosure: No conflict of interest declared

P 089

The nurse's role in the prevention and screening of chronic kidney disease risk factors

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Background
Within the framework of economic restrictions, the implementation of prevention initiatives for chronic diseases and associated complications is certainly one of the most efficient strategies and participation of all healthcare workers is required for cost containment in healthcare. Involvement of nurses in the education of people about the risk factors and potential complications of Chronic Kidney Disease (CKD) is certainly a good way to reach a population in seemingly good health

Objectives
To inform people about the cardiovascular disease (CVD) risk factors of CKD and perform a bioelectrical impedance test in order to confirm the presence of overhydration. The initiative was supported by a nursing team.

Methods
During „Naples Prevention Race 2013" in October 2013, a team of nurses from a large network, offered blood pressure measurement, weight, height, waist circumference measurement and a bioimpedenziometric test to assess the participants' state of hydration and nutrition providing information about the CVD risk factors associated with CKD.

Results
191 patients were included (72 male, 119 female, mean age 52.55 ± 13.9 years, mean BPmax 128.62 ± 19.8 and BPmin 77.57 ± 11.8). Screening showed the following results: 67 overhydrated, BMI<20=6, BMI 20-24=69, BMI 25-29=80 and BMI>30=36; mean waist circumference was 93.77 ± 19.6 cm; 7 diabetics, 17 hypertensive and 6 CKD.

Conclusion/Application to practice
Useful information events and appropriate screening of CVD risk factors are essential in the prevention of CKD and reduction of morbidity and mortality. Screening for CVD risk factors in an apparently „healthy" population can definitely reduce health care costs.

Disclosure: No conflict of interest declared

P 090

Acupuncture during dialysis – an ancient approach in the new world

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Background

In recent years, Chinese medicine occupies a prominent place in western medicine as a supportive therapy. Acupuncture is a procedure involving penetration of the skin with needles to stimulate certain points of the body. According to Chinese medicine, stimulating specific acupuncture points corrects imbalances in the flow of qi **through channels known as** meridians.
This method was chosen to support hemodialysis (HD) patients who constantly live with physiological and emotional difficulties.
In our case study, a patient aged 50 years, receiving HD, suffers with osteoarthritis, atherosclerosis and PVD with ulcerated extremities. During the past year both legs, left arm and right hand fingers were all amputated.
His main complaints include: phantom pain, constipation, helplessness, despair and unresponsive to conventional treatment.
For the last year the patient has been receiving acupuncture treatment twice a week, for 25 minutes each dialysis session. After sequential treatments, the patient reported significant decreases in phantom pain and a significant improvement in bowel movements. Mentally, he had a more positive and optimistic view of life. The patient continues with acupuncture treatments that are adjusted to patient's needs.
As a consequence of this profound success, we have expanded this treatment to include an additional 24 dialysis patients.
More research is advisable. We will investigate long-term results of using acupuncture for different medical problems. We will offer acupuncture for all dialysis patients in the unit, following the responsiveness of patients already treated. We will analyse the beliefs of the staff as to the effectiveness of acupuncture as a supportive care method on dialysis.

Disclosure: No conflict of interest declared

P 091

Plasmapheresis and rapidly progressive renal vasculitis

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Background
There are many studies about renal glomerulonephritis and its therapy.

Objectives
To assess the efficacy of plasmapheresis when used in addition to low-dose conventional immunosuppression.

Methods
The study group consisted of twelve patients, five male and seven female with biopsy proven necrotizing crescentic glomerulonephritis. At diagnosis no patients were dialysis dependent. All patients were treated with plasmapheresis, cyclophosphamide and low dose methylprednisolone. The mean number of plasmapheresis sessions was eight. The patients' blood results were studied at three time periods: at the presentation at the hospital, after plasmapheresis and six months after. For the analysis SPSS14 the statistic programme was used.

Results
After two months, five patients remained on haemodialysis. Median creatinine clearance showed significant improvement, which was sustained until the end of follow up in seven patients. ANCA and anti-GBM titres are significantly reduced after treatment.

Conclusion/Application to practice
Plasmapheresis is effective in the treatment of rapidly progressive glomerulonephritis with a favourable long term outcome in renal function.

Disclosure: No conflict of interest declared

P 092

Journey of life through words; writing as a learning tool and treatment

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Background

A Case Report

Dialysis treatment affects a patient's quality of life. The patient is exposed to many sources of stress that affect their reactions and process of adaptation to the disease and treatment.

Our case study follows an 88 year old female patient who has been receiving hemodialysis for the past 4 years. She used to work as the chief anesthesiologist in our hospital.

Over the years, the patient put in words her life journey. She wrote her first book, „Ericas' Diary „, when she was 17, while hiding from the Nazis during World War II.

During HD treatment, she wrote her second book which documents various periods of her life, beginning with her career as a physician and ending with her role as a HD patient, in the same institute she used to work in.

„I owe it to myself, this book aloud the thoughts that came to mind..." **(Ericas' dairy). Writing is an intimate act between a person and himself, which encourages the processing of experience of emotional and physical pain, through which the writer can connect to his inner resources of coping.**

As a nurse and a clinical guide, I use writing techniques as an educational tool for both patients and myself. Our aim is to examine whether, writing can help patients and their families in dealing with dialysis treatments any better. Can writing be a unique way of the patients expressing themselves and will the medical staff be able to understand each patient as an individual, by reading their documentation.

Disclosure: No conflict of interest declared

P 093

"Twins' Story" – Together forever and never apart – A Case Report

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Background

Dilated cardiomyopathy (DCM) is a progressive disease, expressed by weakening and enlargement of the heart. It is the most common cause of heart failure and reason for heart transplantation.
Renal cell carcinoma (RCC) is the most common type of kidney cancer in adults, whilst size and penetration determines the prognosis. Initial treatment is a radical **or** partial nephrectomy. Both diseases have a genetic basis.

In our study, identical twins aged 49 years, suffering from these diseases, chose to cope differently. They both developed bilateral RCC post heart transplantation. One sibling went through radical nephrectomy and haemodialysis. The other sibling refused it. He lives with Chronic Kidney Disease without regular medical monitoring. Their mother died while waiting for a heart transplant due to DCM. Their father is on haemodialysis for unknown reason.

As a supporting team, we are exposed to ethical dilemmas:

- The patient's right / decision /freedom of choice to refuse treatment
- The sanctity of life
- Quality versus expectancy of life
- Empirical knowledge versus beliefs, values & personal experience

There is no right or wrong. It is a heart rending story of a family that supports their dear ones' decisions. Each of them looks at each other, trying to find the right answer. We continue to investigate ethical dilemmas in the workplace. Is the unique relationship between twins a source of support or a factor in decision making? We attempt to identify the families' strengths, with the help of a multidisciplinary team, in order to cope with the disease.
„For those who understand, no explanation is necessary, for those who don't, nothing will do". (Ed, please give the reference for this quote)

Disclosure: No conflict of interest declared

P 094

Comparing burn-out level among nurses working in dialysis and on a medical ward

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Background
Burn-out syndrome is a complex entity of physical, mental and emotional fatigue caused by continous stress and a high level of emotional involvement. Despite nursing as a profession and helping others in their illness being a possible source of positive feelings, the psychologic stress and the negative outcomes produce a continous psychical burden. This may be more prominent in the care of chronic illness such as end stage renal disease.

Objectives
In this study we were aiming to compare the burn-out level of dialysis nurses caring for chronic patients and nurses working on an active medical ward.

Methods
We were using the Maslach Burnout Inventory questionaire expanded with tests for depression and psychologic strain. 100 nurses were questioned altogether, 43 of them were dialysis nurses.

Results
Our results show that 46% of the dialysis nurses suffer from burnout, while this ratio on the ward is 54%. Physical distress was present in 56% on the ward while only 43% in dialysis. 60% of the nurses on the ward felt psychic stress, while only 40% in dialysis. There were more opportunities for training in dialysis while 50% of the ward nurses hardly ever participated in training. Nurses switching workplace 4-5 times showed significantly less sign of burnout than others.

Conclusion/Application to practice
Interestingly burn-out was less prominent in dialysis. Without dealing with the problem of burnout institutions may lose many of their well trained work force through quitting the system, or for the decline in the efficiency of their everyday work due to the mental strain.

Disclosure: No conflict of interest declared

P 095

Nurses and patients feedback on a new methodology of patient assessment

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Background
There is an increasing need to improve quality in healthcare. Innovation in daily nursing care activities is directly linked to patients' feedback and satisfaction. A new methodology of patient assessment was introduced and nurses' and patients' opinion evaluated before and after the pilot phase.

Objectives
To gain feedback from nurses and patients about the use of the new assessment tool.

Methods
We conducted two surveys (before and after the pilot phase) asking nurses and patients about the time spent for the assessment interview, assessment content, and benefits of the new tool. Surveys were conducted in Bosnia & Herzegovina, Turkey and, Italy with a total of 640 patients and 65 nurses.

Results
Analysis of the survey showed that patients appreciated the new assessment tool, both patients and nurses did not consider it a loss of time, but useful to improve their care. Nurses agreed that the new assessment methodology, including direct patient interview and physical assessment, is important to individualize patient care during the dialysis session.

Conclusion/Application to practice
Conducting patient and nurse satisfaction surveys when introducing nursing care innovation has led to an improved quality of care. Organisational initiatives to improve employee commitment and satisfaction can result in measureable improvements in patient satisfaction, which can, in turn result in positive patient outcomes.

Disclosure: No conflict of interest declared

P 096

The use of an electrolyte analyser in dialysis centres

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Background

For optimal treatment decisions it is important a timely measurement of physiological parameters in dialysis patients is important. The electrolyte analyser is a medical device for the measurement of sodium, potassium, ionised calcium, haemoglobin, haematocrit and conductivity in whole blood, serum, plasma, dialysis fluid, urine, and aqueous solutions.

Methods

Medical staff should be trained to operate the electrolyte analyser. After automatic calibration of the device via a calibration solution, analysis of the blood sample is performed very fast (within 3 minutes, including a printed result). At least once a month, patients' whole blood samples were checked for electrolyte values and above mentioned parameters. Depending on the patient's health condition and potential symptoms, additional measurements were performed before or during the haemodialysis treatment.

Results

An average of 100 analyses was performed per month with the electrolyte analyser. Our experiences showed:

- Rapid availability of measurement results of the electrolyte analyser enables medical staff to react quickly.
- The device eliminates the need for moving materials back and forth between co-operating laboratories and potential delays of medical therapy for patients.
- Our dialysis centre became more independent in terms of laboratory-based analyses.
- Routine measurements for quality control with electrolyte analyser offer the user confidence, reliability, and safety of the results.
- Optimization of price/performance ratio.

Conclusion/Application to practice

The availability of devices for the measurement of physiological parameters in dialysis centres is a key factor for an adequate and timely treatment of dialysis patients. With the use of the electrolyte analyser, the time necessary to obtain results is minimized.

Disclosure: No conflict of interest declared

P 097

Does needle design influence the parameters of dialysis efficiency?

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Background
The choice of the puncture needle determines dialysis efficiency depending on the needle gauge, but also on the internal needle diameter. Moreover, it might also depend on other factors like the needle design.

Objectives
To compare treatment parameters of patients punctured with needles with the same size but with a different back eye design.

Methods
Retrospective analysis of treatment parameters of 168 patients (57.1% were male). Patients were punctured with needles X (Group A) from 1 February to 18 July 2013 and with needles Y (Group B) from 19 July to 31 December 2013. Both needles have the same gauge, but back eye in needles Y have a larger diameter.

Results
70.2% of patients had arteriovenous (AV) fistulae and 29.8% AV grafts for vascular access. Comparing the average treatment parameters of Group A versus B revealed the following results:
Dialysed blood volume was 98.83 (±7.64)L vs. 103.27(±6.77)L (p=0.000);
Kt /V was 1.96(±0.441) vs. 2(±0.432) (p=0.000);
Replacement volume was 22.39(±3.8)L vs. 23.37(±3.40)L (p=0.000);
Blood flow was 410.30(±26.49)ml/min vs. 427.08(±30.86)ml/min (p=0.000);
Arterial pressure was -213.53(±16.99)mmHg vs. -204.78 (±21.36)mmHg (p=0.000);
Venous pressure was 203.98(±25.87)mmHg vs. 208.43(±24.28)mmHg (p=0.000);
Vascular access flow (Qa) was 1,152.8(±436.40)ml/min vs. 1,135.9(±425.24)ml/min (p=0.613).

Conclusion/Application to practice
No statistical difference was established on the average vascular access flow in both periods. However, we observed a significant increase on quality parameters and dialysis efficiency in group B as compared to group A. In order to promote better treatment outcomes, some aspects should be taken into account in the selection of needles, particularly needle size and design.

Disclosure: No conflict of interest declared

P 098

Nursing evaluation of patient general condition

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Background
Nursing makes up a significant proportion of care provided to haemodialysis patients. For this reason, the patients´demand must be evaluated to ensure appropriate provision of resources in accordance with their individual requirements.

Objectives
To create a multidimensional tool considering the patient's general condition, level of dependence, as well as consideration of other clinical factors to adapt nursing care on an individual basis, thus enhancing the overall quality and safety of care.

Methods
The nursing classification tool for haemodialysis patients includes a patient assessment interview at each treatment; the assessment of patients' level of dependence taking into account additional information recorded in the clinical file.

Results
The results show that patients, on average, achieved a daily nursing evaluation score of 97.4 (SD±3.72).
By weighting the patient assessment score at each treatment, together with a mobility assessment and clinical conditions, we obtained an average patient general condition score of 2.3 (from 1 "low complexity" to 5 "high complexity").

Conclusion/Application to practice
Stratifying patients by risk level, and general condition, allowed patients to be provided with an appropriate level of care. The use of accurate indicators related to nursing care for every patient, allowed us to obtain objective information required for decision-making within the scope of clinical and organizational management.

Disclosure: No conflict of interest declared

P 099

Impact of economic insufficiency on the nutritional status of haemodialysis patients

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Background
There is a correlation between chronic kidney disease comorbidities and the patient´s nutritional status. Nutritional balance is predominant in determining the success or failure of haemodialysis treatment. The analyses of laboratory values, such as albumin, potassium, and phosphorus may help to better understand patients' nutritional status.

Objectives
To relate the economic situation of the patient to his/her nutritional imbalance.

Methods
The authors designed a descriptive study using a quantitative approach. It was applied to 173 patients at two distinct dates, i.e. December 2012 and December 2013.
Data collection was performed following two different areas of knowledge: Social service and biomedical study.

Results
In December 2012, 47% of the studied population (173 patients) suffered from economic insufficiency. In December 2013, this percentage increased to 62% with increasing food shortages. In December 2013, 11 patients (6.4%) were supported by humanitarian aid organizations with the provision of food.
The laboratory results seem to follow the social trend with nutritional imbalances peaking from 2012 to 2013 as a result of food shortages in two areas: Food deprivation (as shown by an increase from 6 to 15% of patients with albumin values ≤3.5 g/dl, and from 46% to 54% of patients with phosphorus imbalance –≥ 5.5 mg/dl and ≤3.5 mg/dl) and/or inadequate nutrition.

Conclusion/Application to practice
Hunger and poverty lead to nutritional imbalances demonstrated by starvation or consumption of food which is not appropriate for patients on regular haemodialysis.

Disclosure: No conflict of interest declared

P 100

Non-adherence to therapeutic regimens in patients under online-haemodiafiltration

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Background

Non-adherence to therapeutic regimens is a known problem among dialysis patients wasting the opportunity to achieve the maximum treatment effect and potentially increasing morbidity and mortality.

Objectives

To establish a potential association between medication adherence and demographic/psychosocial and clinical factors in online-haemodiafiltration (OL-HDF) patients.

Methods

In this transversal study, 122 Portuguese patients under OL-HDF (50% male patients) with a mean age of 66.9+/-13.9 years were surveyed. Self-reported medication adherence was assessed by the Measure Treatment Adherence (MTS) scale (adapted for Portugal). Social support was evaluated by the Portuguese abbreviated Lubben Social Network Scale (LSNS-6) and depression status evaluated by the Geriatric Depression Scale (GDS). Socio-demographic, nutritional and clinical data were also documented.

Results

10.7% of the patients admitted their non-adherence to medication. Comparing non-adherent vs. adherent patients revealed significantly high levels of triglycerides [171.0 (116.5-239.5 mg/dL) vs. 109.0 (75.0-173.3 mg/dL), $p<0.05$] and high systolic (144.7+/-15.9 vs- 135.4+/-17.7 mmHg, $p<0.05$) and diastolic (69.2+/-14.3 vs. 62.5+/-13.0 mmHg, $p<0.05$) blood pressure in non-adherent patients. Significant correlations were found between MTS score and diastolic pressure ($r=-0.286$; $p=0.001$) and age ($r=0.319$; $p<0.001$) and GDS score ($r=-0.260$; $p=0.004$). Multiple regression analysis revealed age (beta=0.314; $p=0.001$) and GDS (beta=0.185, $p=0.037$) as independent variables highly associated with MTS score.

Conclusion/Application to practice

Our results showed that non-adherence to therapeutic regimens was associated with higher levels of triglycerides and higher blood pressure in our patients with ESRD and may therefore implicate a higher cardiovascular risk. Moreover, we observed that ageing and depression status are important variables in the non-adherence to therapeutic regimens.

Disclosure: No conflict of interest declared

P 101

Nursing consultation for the dialysis patient – A holistic perspective of care

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Background
Patients on haemodialysis treatment require qualified and specialised assistance provided by a multidisciplinary team with social, scientific and technical skills adapted to their individual needs. This is a challenge for all people involved, particularly for nurses. To monitor our patients and ensure excellent patient-oriented care, we wanted to develop and implement a nursing consultation within our dialysis centre as a Portuguese pilot.

Objectives
To develop and implement a nursing consultation by a reference nurse and a multidisciplinary team.

Methods
With this project we want to achieve the following goals: Assign a reference nurse to each patient, standardize information, identify patients' needs, improve patients' awareness for their health, improve patients' adherence to treatment and assess the compliance to therapy, enhance patients' satisfaction degree and quality of life (QoL). This approach is often accomplished with the assistance of the patients' caregiver in the centre or at home, respectively, focussing on the patient. For this purpose, a multidisciplinary team are involved, i.e. reference nurses, social worker, nephrologist, pharmacist, nutritionist, and access coordinator nurse.
To keep the patients' information up-to-date among the multidisciplinary team, a newsletter will be prepared on a quarterly basis with vascular access related topics.

Conclusion/Application to practice
Nursing consultation aims at continuous monitoring of the patient. Each patient is assigned to a reference nurse. This nurse and the multidisciplinary team facilitate patient-centred care. All aspects of the nursing consultation may contribute to an improvement of each patient´s QoL and strengthen the patient´s trust and relationship to the reference nurse within a holistic approach.

Disclosure: No conflict of interest declared

P 102 / O 53

Application of Lean philosophy for the creation of a connection/ disconnection cart for Haemodialysis

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Background
In order to facilitate the work of staff, avoid continuous movement through the treatment room, eliminate carts in rooms already full of consumables susceptible of contamination and to ensure safety for patients and staff, the idea was born to create a specific and individual cart (one for each shift nurse) to perform haemodialysis processes safely and efficiently.

Objectives
To assess the number of time nurses interrupt their activity to move to where a general cart is located to store material.

Methods
Movement of each nurse in the treatment room while performing her/his daily work was monitored for a one-week period. A room diagram was drawn and marked with the different paths of travel that nurses made, primarily in the two main processes: connection and disconnection. A Spaghetti diagram was drawn, and the monitoring was repeated for the 5 nurses on the shift. The diagrams were analyzed from the perspective of Lean philosophy, identifying all the movements and routes that should be eliminated in order to streamline the process.

Results
We could demonstrate the feasibility of eliminating, from our processes, many activities that do not add value; enabling us to devote optimized time to activities that truly add value to patient care.

Conclusion/Application to practice
The creation of a tool such as the Connection & Disconnection cart has led to a clear improvement in the optimization of time in the field of dialysis. The time saved could be spent in other productive activities while simultaneously increasing the safety of our patients and employees.

Disclosure: No conflict of interest declared

Poster Session H – Monday
8th September 2014, 16:00–17:30

P 103 / O 55

Targeting dry weight-body volume and nutritional status in haemodialysis patients

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Objectives
Achieving an appropriate dry weight in haemodialysis patients remains challenging. Body composition can be measured with a whole-body bioimpedance spectroscopy (BIS) device which provides data on body volume and the nutritional status.

Methods
133 patients were included in this study (67 female and 66 male). Dry weight (by classical methods), nutritional status (by biochemical parameters) were determined and bioimpedance spectroscopy analysis performed every 6 weeks between September 2012 and August 2013. A total of 979 measurements were performed.

Results
Body Mass Index (BMI) measurements revealed that 84 of 979 were less than 20 (underweight), 318 of 979 between 20-24.9 (normal weight), 295 of 979 between 25-29.9 (overweight), 193 of 979 between 30-34.9 (obese class 1), 85 of 979 between 35-44.9 (obese class 2) and 4 of 979 over 45 (obese class 3). Nutritional recommendations were given to patients according to their BMI status, changes and rapid weight losses were evaluated aetiologically. We found out that patients needed a dry weight increase in 604 of 979 measurements (a total of 917.8 l, average 1.52 kg), dry weight decrease in 350 of 979 measurements (a total of 408.5 l, average 1.17 kg) and no dry weight change in 25 of 979 measurements.

Conclusion/Application to practice
The determination of dry weight and follow-up of nutritional status of haemodialysis patients using bioimpedance spectroscopy analysis was very useful. Blood pressure normalization and body composition changes due to nutritional factors could be determined by regular body composition analysis.

Disclosure: No conflict of interest declared

P 104

Interdialytic weight gain and the efficiency of patient education

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Background
The interdialytic weight gain (IDWG) between two haemodialysis sessions normally does not exceed 3-4% of dry weight (it is about 2-2.5 kg). Excessive IDWG is usually related to an overload of sodium and water, and is the most important factor of hypertension; furthermore, it increases cardiovascular risk.

Objectives
We studied the risk factors of higher IDWG in 76 dialysed patients in our dialysis unit.

Methods
Patients were divided into 2 groups based on their average IDWG. In group 1 IDWG was < or = 2.5kg, while in group 2 IDWG was >2.5kg. We evaluated the distribution of residual renal function (RRF), age, gender, social condition, and relationship in two patient groups.

Results
We found in Group 1.: Higher average RRF, higher age (by 13.9 years), more patients lived in villages than in towns, income level of these patients was better compared with patients in Group 2. Among patients in Group 2. there were more male than female, more of them living on their own, more with lower skilled jobs (42%), and a lower level of education compared with the other group.

Conclusion/Application to practice
Consequently, in the interest of optimising patients' IDWG, more care must be taken to preserve RRF. We also have to put more effort into the education of single, lower educated and low income patients during the early weeks of haemodialysis in order to improve their compliance.

Disclosure: No conflict of interest declared

P 105

Assessment of dry weight in chronic dialysis patients

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Background
Haemodialysis plays an important role in the maintenance of an optimal fluid balance and dry weight in dialysis patients.

Objectives
To compare two dry weight assessment methods in a cross-sectional study.

Methods
We estimated the dry weight of 65 chronic dialysis patients by means of
- measuring body composition via whole body bioimpedance;
- clinical assessment (screening for peripheral oedema, measurement of blood pressure before dialysis, chest x-ray).

Results
The comparison of dry weight results of both methods revealed the following differences (biompedance vs. clinical assessment) and allowed us to distinguish between three groups:
In 32% of patients (group I) the difference in the evaluated dry weight was < ±0.5 kg (i.e. 67.64 vs. 67.76 kg; p>0.05).
In groups II and III, the difference of estimated results with both methods exceeded 0.5 kg. In 29 % of patients it was lower (group II: 73.17 vs. 75.92 kg; p>0.05) and in 39 % of patients it was higher (group III: 84.73 vs. 82.64 kg; p>0.05).
Patients in group III had a significant higher dry weight (as determined by bioimpedance) as compared to patients in group I (p=0.0008).

Conclusion/Application to practice
In 68% of patients, the estimated dry weight as determined by bioimpedance vs. clinical assessment differed by more than 0.5 kg. Although, the differences between the two methods used were not statistically significant, we recommend using both methods, especially in patients with increased body weight.

Disclosure: No conflict of interest declared

P 106

Compliance of dialysis patients in Hungary; experience from three centres

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Background
In the 1990's surgical procedures followed certain medical protocols in healthcare. Today, bilateral responsibility is gaining more and more importance and the cooperation and involvement of patients are greatly appreciated. Successful treatment does not only depend on the performance of the medical staff and on innovation, it also requires active participation and taking responsibility for patients. The lack of patient cooperation makes successful treatment impossible and also leads to a waste of public funds.

Methods
We performed a survey on patient compliance in three dialysis centres. 197 of a total of 242 patients completed the questionnaire.

Results
Half of the patients were ≥60 years and most of them only had high-school or vocational diplomas and were retired. 82% of the patients stated that they took advice provided by the medical and nursing team and were satisfied with the information provided. 10% of the patients regularly skip or miss dialysis sessions and said they were not aware of the fact that this can be harmful to them. Half of the patients were not aware of the need for dietary restrictions and their own medication.

Conclusion/Application to practice
We observed a lack of knowledge in our patients about their disease and treatment. To ensure that patients can actively participate in their own treatment and assume responsibility we have to invest more time and energy on patients' information and education.

Disclosure: No conflict of interest declared

P 107

Satellite dialysis: The golden mean between home treatment and hospital dialysis

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Background
In 1997, a multidisciplinary satellite haemodialysis unit was introduced for the cooperation of medical staff and patients of a dialysis centre and a University Medical School. In the satellite unit, hepatitis B and C virus negative, clinically stable patients without chronic infections were treated with established vascular access.

Objectives
To compare dialysis main centre and satellite unit with regard to material and medication use based on 2013 data.
To consider patients' perceptions on active participation in their treatment.

Methods
We compared material and medication used between 1 January and 31 July 2013.
In the satellite unit. 40 patients completed a survey about their personal involvement in the treatment (set-up and removal of extracorporeal bloodline, fistula puncture, documentation, etc.).

Results
Compared to the dialysis centre, the following results were achieved in the satellite unit:
- 15% less material and medication/patient were used.
- Fewer nurses (113 treatments/nurse/month in the satellite unit vs. 85 treatments/nurse/month in the centre) and physicians (2/dialysis days in the satellite unit vs. 3/dialysis days in the centre) were needed.
In the satellite unit, 75% of patients were willing to take active part in their treatment; 40% in self-cannulation. 73% of patients did not require constant supervision by a physician, provided that the nurses are well trained and the physician remains on call.

Conclusion/Application to practice
A satellite unit provides an intermediate solution between home and hospital dialysis. It promotes an inexpensive increase in the dialysis capacity and ensures good rehabilitation. 75% of surveyed patients wanted to take an active role in their dialysis.

Disclosure: No conflict of interest declared

P 108 / O 56

Pain assessment in hemodialysis patients

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Background
Pain is a frequent and multidimensional symptom found in hemodialysis units (HD), with difficult assessment by nursing staff due to its subjectivity.

Objectives
Evaluate the chronic pain suffered by the patients of our units, both during the HD session and beyond.

Methods
Prospective descriptive study with 23 patients of two HD units, with an average age of 63.22 years. Most common diseases of the sample were: diabetes mellitus and ischemic heart disease. The average time on HD treatment was 4.51 years, being the average duration 3:30-4 hours per session.
Parameters under study: intensity, location and influence of pain on activities of daily living. Two validated scales (Visual Analogue Scale and Brief Pain Inventory) and a sociodemographic survey were conducted during the last hour of HD.

Results
Patients surveyed: 91.30% had a mild to moderate pain at the time of the surveys. 82.61% had pain during the last 24 hours. 39.13% had no analgesic treatment prescribed. The majority realized postural changes or distractions for relief. Among those with a scheduled analgesia, paracetamol was the most widely used drug to relieve the symptoms.
Pain was found to be frequently osteoarticular, being located mainly in the sacro-coccygeal region and in both upper and lower limbs. It did not influence significantly on activities of daily living.
82.61% of patients felt that nurses adequately assessed their pain during hemodialysis sessions.

Conclusion/Application to practice
Although the study was initially motivated by verbal complaints of our patients, it shows a lower prevalence of pain than the initially expected.

Disclosure: No conflict of interest declared

P 109

The project aiming at replacing PET bottled drinks with tap water

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Background
Consumption of PET bottled water is rapidly increasing all over the world. This fact represents a serious environmental problem. The Czech Republic ranks among those countries which have been relatively successful in solving this problem.
In the Czech Republic, approximately 100,000 plastic bottled drinks are sold every year. 60,000 to 65,000 tonnes of them are sorted annually. This is still only a little bit more than one half of the purchased bottles. The purpose of our activity is to contribute to an increase in this figure and in general to an improvement in the protection of our environment.

Objectives
To replace PET bottled drinks in dialysis centres with filtered tap water in order to reduce the environmental burden of plastic waste.

Methods
Installation of drinking water filters in all BBA Centres.
Education of patients and employees of the dialysis centres accentuating the benefits of filtered water.
Monitoring consumption of PET bottled drinks prior to, and after installation of the filters – the monitoring interval of 6 months.
Monitoring the quality of filtered water by means of microbiological analysis.

Results
During the six-month term we reduced the environmental burden by 0.8 tonnes of plastic waste. During the one-year term by 1.6 tonnes.

Conclusion/Application to practice
The economic saving: a multiple reduction of the price per litre.
Microbiological analysis: a reduction of CFU well below the standard level in the Czech Republic.
An unambiguous benefit both in the area of the environmental protection, and in the area of economic saving.

Disclosure: No conflict of interest declared

P 110

Effect of a quality management system on key performance indicators in a dialysis unit.

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Objectives

Does acquisition and implementation of a QMS(ISO 9001:2008) for 2 years, result in an improvement of key performance indicators (KPI) such as: hemodialysis adequacy (Kt/V), absence through illness and patient and co-workers satisfaction?

Methods

Observational analysis of KPI in the balanced score card (dashboard). The satisfaction enquiry was based on standardized and validated questionnaires: CQ-Index (Consumer Quality Index) for patients and a combination of JCQ (Job Content Questionnaire) and COPSOQ (Copenhagen Psychosocial Questionnaire) for co-workers.

Results

Table 1 shows the change in KPI. More AV fistulas were present at start of dialysis due to follow up in a multidisciplinary predialysis clinic and a vascular access team, resulting in better adequacy. Systematic appraisal of co-workers resulted in a decrease of absence through illness. Stimulation of patient participation and empowerment can explain the improved patient satisfaction. The co-worker questionnaire revealed that 'too much ISO', change and information overload, high work load and inadequate communication and feedback were responsible for the decrease in co-worker satisfaction. Job typology showed that 46% evaluated their work as a high risk job (passive job 25%, high strain job 21%)

KPI	2011	2013	change
Kt/V (% pat > 1,2)	80	90	+ 10%
Absence through illness (%)	5,34	3,39	-37%
Patient satisfaction (%)	87	90	+3%
Co-worker satisfaction (%)	77	68	-12%

Table 1: Change in KPI

Conclusion/Application to practice

Acquisition and implementation of a QMS (ISO 9001:2008) resulted, after 2 years, in an improvement of hemodialysis adequacy, a decrease in absence through illness, an amelioration of patient satisfaction, but a decrease in co-worker satisfaction.

Disclosure: No conflict of interest declared

P 111

New approach to the internal audit to improve quality of waste separation.

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Background
Our focus is on hazardous waste (group 18, established by the local waste catalogue, see further Commission decision 2000/532/EC2). Hazardous waste is the subject of benchmarking among all our DCs at the Czech/Slovak Republic. Significant impacts on the environment and waste disposal are the most technologically demanding and therefore for DCs costly. The key performance indicator (KPI) states: "The amount of the hazardous waste (waste catalogue #180103) measured in Kg/per HD/HD treatment".

Objectives
To decrease the environmental burden of DC/s while maintaining compliance within the legal requirements and achieving respective cost reduction resulting from better waste separation. With the help of „fun interactive training" to improve practice of waste separation.

Methods
The introduction of focused internal audits to verify compliance with established procedures for waste separation by personnel at the DCs. We use for the ongoing education of staff visual materials and instructional videos e.g. how to separate waste effectively.

Results
Focus is put on consistency of waste separation within the rules of the waste management code, the possibility of reducing the waste liquidation related costs at each individual centre is in the hands of the staff. Our KPI value dropped from an initial 1.8Kg/HD treatment in 2009 to 1.3 kg/HD treatment in 2013, which represents an undisputed economy DCs impact & cost reduction by 27.350€.

Conclusion/Application to practice
The introduction of educational practices with advanced training tools, including the introduction of focused audits of the quality of sorting waste contributes to the improvement of service management, environmental protection and simultaneously generates operational savings.

Disclosure: No conflict of interest declared

P 112

Service management of an outsourced laboratory service relating to transportation of water samples

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Background
Terms for transporting water samples to a laboratory specified in EDTNA/ERCA Guidelines Section 3 (Technical) – 3.1. Quality assurance for dialysis-quality water and dialysis fluid – 3.1.1.5.3. Sampling location, timing, techniques. It is recommended here storing samples at a temperature below 10C and the examination of samples in the laboratory up to six hours of their removal from the DC.

Objectives
To minimize the risks associated with the interpretation of the results of water for dialysis, which were obtained on the basis of degraded water samples following improper transportation from the DC to the laboratory.

Methods
The introduction of quality control for the logistics of water samples by installing a temperature measuring tool in the shipping box in a form of temperature measuring stripes, or on-line data-loggers. Determine the parameters of transport boxes, to specify the conditions for submission time registration of samples for transport and delivery times for examination in the contract.

Results
Records from the measuring tool become a part of the report with the results of the examined water samples. In the case of excessive temperatures above the set limit the sample test is repeated at the expense of the laboratory. Degraded water samples by e.g. high temperatures are subject to a high probability of misleading analysis results of water for dialysis and may ultimately jeopardise the health of dialysis patients.

Conclusion/Application to practice
Better control over the quality of the laboratory logistics, arranging to install temperature measuring tools, record time of sample logistics. Perform systematic and random checks on compliance with agreed conditions.

Disclosure: No conflict of interest declared

P 113

Quality and ethical aspects of serving refreshments to the patients during dialysis treatment

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Background
Serving of refreshments to patients during dialysis treatment belongs to a certain extent above regular standards. Our survey carried out between private and public centres at the Czech / Slovak Republic confirms that each centre has it´s own approach.

Objectives
To highlight the importance of quality of refreshments and service during the treatment in terms of:
A.: Educating patients to proper eating habits, especially to consume adequately large, nutrient-and energy-balanced diet portions, which correspond to their dietary restriction.
B: Preparing patients a „common lunch or dinner," and thus evoking the atmosphere of peace and quiet, as they know it from a family and friends. It also achieves other „social – ethical dimensions".

Methods
The refreshment menu is prepared by the nutrition specialists at our DCs at the Czech / Slovak Republic. If possible the menu should respect the wishes of patients and taste reflect significant events such as Christmas, etc. Service is always accompanied by smiling staff and wishes of "bon appetit". During the refreshment time mute the television or radio in the room.

Results
The patients' catering service was positively welcomed, which was confirmed via „patients' opinion surveys". Food can thus become literally „a bright spot during a visit to the dialysis centre".

Conclusion/Application to practice
Feel free to start serving the resfreshments within the dialysis treatment. We set a price limit 1 € / snack / patient. Serve snacks in „a la restaurant" way. Patients tend to reward the staff with a smile.

Disclosure: No conflict of interest declared

P 114

Quality assurance of treatment of dialysis patients by means of project trustees

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Background
Dialysis patients are complex and very dependent upon the quality of treatment. A structured and unified nursing plan would secure safe treatment and better adjustment both of patient and family to the treatment process.

Objectives
The aim of the project was to examine treatment quality and improve efficiency.

Methods
One year ago, we started a project by identifying twenty necessary treatment areas: anaemia, bone disease, diabetic foot, catheter infection, vascular access problems, Kt/V, serum albumin, risk management, instruction of new patients and more. For each area, we appointed a project trustee, reinstated procedures, improved staff skills, built assessment forms and monthly quantitative summary forms. The project trustee of each area monitored the treatment of mainly non stable patients. The twenty project trustees screened all of the ninety patients in our unit on a monthly basis.

Results
The quarterly data showed a rise in the number of stable patients in some of the treatment areas: patients received 7.6% less blood transfusions, hypocalcemia rate decreased by 5%, hyperphosphatemia rate decreased by 11%, number of P.D. patients increased 175%, catheter infection rate decreased from 3 cases to 1 case. In addition, all of the patients now receive 4 instruction meetings instead of random instruction. Twenty of the twenty three nurses in our staff are project trustees. They have all improved and developed their knowledge in the area of their responsibility, while some even go to special courses, leading to further empowerment of staff and an increase in staff motivation.

Conclusion/Application to practice
This organisational policy improved the quality of patient treatment.

Disclosure: No conflict of interest declared

P 115

Comparsion of satisfaction between "angry" and "not angry" hemodialysis patients

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Background

Chronic hemodialysis patients occasionally show anger, aggression and violent behavior towards staff. The literature indicates that dissatisfaction is one of the reasons for violent behavior. In our department we have not encountered patients' violent behavior, although incidents of anger did occur. Our method of nursing care is: case management. The environment for patients is spacious and includes a personal TV.

The present study examined the level of satisfaction of hemodialysis patients with nursing staff and their environment, and a comparison between patients who expressed anger and those who do not. The study included 45 hemodialysis patients, age 61.6 ± 11.8 years; 12 women (26.7 %) and 33 men (73.3 %). The subjects were divided into two groups: „angry" – 25 (55.6 %) and „not angry" – 20 (44.4 %). Data was collected using a valid and reliable questionnaire that examined patient's satisfaction with the case manager, staff nurses, the quality of patient education, physical conditions, departmental atmosphere and environmental factors, such as noise levels.

We found that the „angry" patients were less satisfied with the nursing staff and their environment than „not angry" ($p < .05$); patients. They were more satisfied with nursing staff and their environment ($p < .01$). Environmental satisfaction was lower among women ($p < .05$), married patients ($p < .05$) and those patients on hemodialysis for longer periods ($p < .05$). To increase the level of satisfaction and reduce incidents of anger among hemodialysis patients, holistic therapy should be considered, for example, meditation during the treatment or a laughter workshop.

Disclosure: No conflict of interest declared

P 116

Computers and technology, an efficient and effective method of capturing our patient's views

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Background
Assessment of patient satisfaction is important for healthcare providers as a means of identifying areas where improvements to care and service could be made.

Objectives
The objective of this project was to review the use of an electronic handheld device for patients' to complete a satsifaction survey during their haemodialysis with the view to replace the traditional paper-based method currently in use.

Methods
The project involved handing the device to the patients' and providing assistance as required, either in the form of positioning the tablet or increasing font size. Over a two day period the survey was completed by patients' and the results were immediately accessible.

Results
The use of technology gave immediate access to patients' views and opinions regarding the service provided. Previous paper surveys resulted in delayed feedback due to the manual work involved. Action plans were therefore quickly published alongside a letter for patients' highlighting issues which could be changed as a result of their feedback.

Conclusion/Application to practice
With staff and patient feedback being positive it is our intention to adopt this electronic patient satisfaction survey as the method of choice. In summary it provides fast, efficient and effective results which turn into fast, efficient and effective responses for patients.

Disclosure: No conflict of interest declared

P 117

Effective review of clinical patient data to foster achievement of key performance indicators

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Background
It is universally recognised that delivered dialysis dose is closely related to morbidity and mortality and therefore contributes to overall long-term survival. Monitoring of key performance indicators through audit of clinical patient data was utilised as a method of monitoring the effectiveness of dialysis.

Objectives
The main objective was to audit individual patient clinical data matched against achievement of current key performance indicators in order to identify where clinical improvements could be made through staff education and empowerment.

Methods
A triangulation of methods was adopted; Audit of individual patient clinical data, staff education by clinical data specialists and the development of local clinic improvement plans. This approach ensured a systematic methodology with parity of focus across the satellite haemodialysis units in the United Kingdom.

Results
During 2013 achievement of key performance indicators increased by 13.4% highlighting the impact that local focus and education can have on achievement of key performance indicator's and therefore the potential to have an impact on the quality outcome for patients.

Conclusion/Application to practice
Ongoing reviews of individual patient clinical data are required to maintain these improvements and to remain vigilant for opportunities to further enhance patient outcomes. Staff education remains a priority in this dynamic environment and therefore has robust application to practice.

Disclosure: No conflict of interest declared

P 118 / O 51

The Balanced ScoreCard – A tool for performance management in dialysis care settings

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Background
In 2008, the Balanced ScoreCard was introduced in a private dialysis network as a tool to improve operational and economic effectiveness. Key Performance Indicators (KPIs) of the Balanced ScoreCard set the objectives for our activities.

Objectives
- To increase the percentage of patients on the transplant waiting list.
- To reduce the consumption of resources.

Methods
New KPI's were implemented:
- Amount of contaminated waste produced per treatment.
- Water and electricity consumption per treatment.
- Percentage of patients on the transplant waiting list.

Results
Employees were trained on the new KPIs and have continuously been monitoring the objectives. Any target deviations were analysed and targeted preventive and corrective measures applied resulting in:
- Alignment of most clinics to the same consumption pattern.
- Cost reductions:
  - Up to 30% for contaminated waste – determined by comparing the costs at clinic start-up vs. after correct application and implementation of corrective measures
  - Up to 50% for water and 10% for electricity consumption – by using eco-friendly products and procedures. Some units met the target KPI without applying corrective measures.
- Percentage of patients on the transplant waiting list improved significantly: from 13.7% in January 2013 to 49.2% in December 2013.

Conclusion/Application to practice
The Balanced ScoreCard substantiated the improvement and strategy management of our network. The costs for consumed resources decreased and performance of each individual clinic can now be accurately measured.

Disclosure: No conflict of interest declared

P 119 / O 57

'From clipboard to tablet' refining the approach to unannounced infection control audits

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Background
With an estimated annual cost to the National Health Service of £1 billion and the potential to adversely affect quality of life, the prevention of healthcare-associated infections remains a priority. The Health and Social Care Act (2008) Code of Practice on the prevention and control of infections gives emphasis to the effective application and management of audit to ensure quality improvement.

Objectives
To replace a paper-based infection control audit tool with an electronic system which is ergonomic and has the capacity to provide timely, quantitative measurable data for comparative analysis at local and national level.

Methods
During 2013 the reliability of a secure external audit database was approved and utilised within a number of satellite haemodialysis units across the UK to provide integration of the audit tool into a web-based system.

Results
2013 saw annual audits extended from < 20% to >90% of clinics, of which a direct influence is the ease of data capture. Audit results were captured by desktop or tablet device and produced immediate results allowing for the development of local corrective actions.

Conclusion/Application to practice
The electronic audit process provides measurable evidence and assurance to both internal and external sources that an effective process of monitoring infection control standards is executed and therefore has strong relevance to quality of care and application to practice.

Disclosure: No conflict of interest declared

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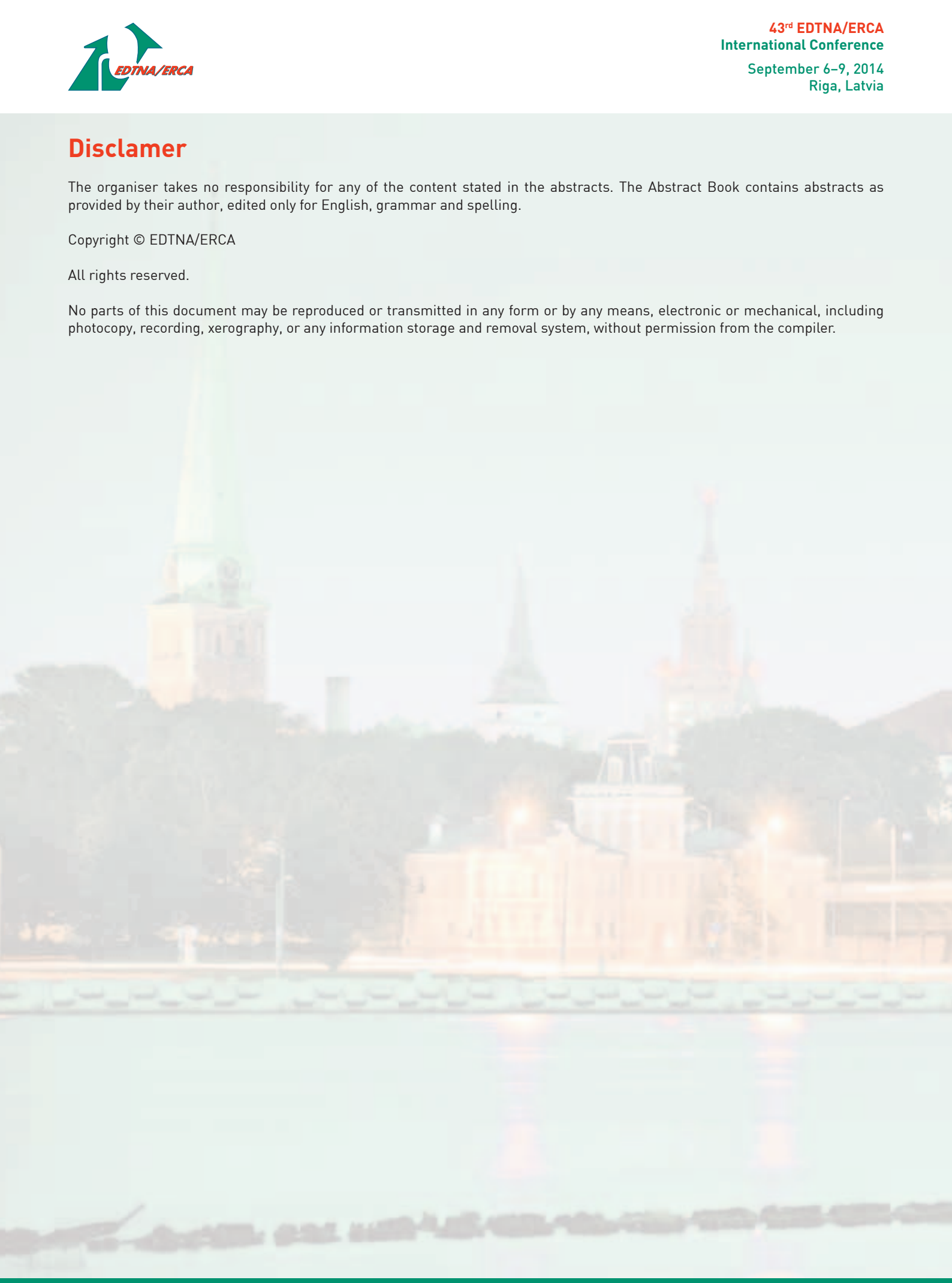

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