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Celebrating our Culture  
and Diversity in Renal Care

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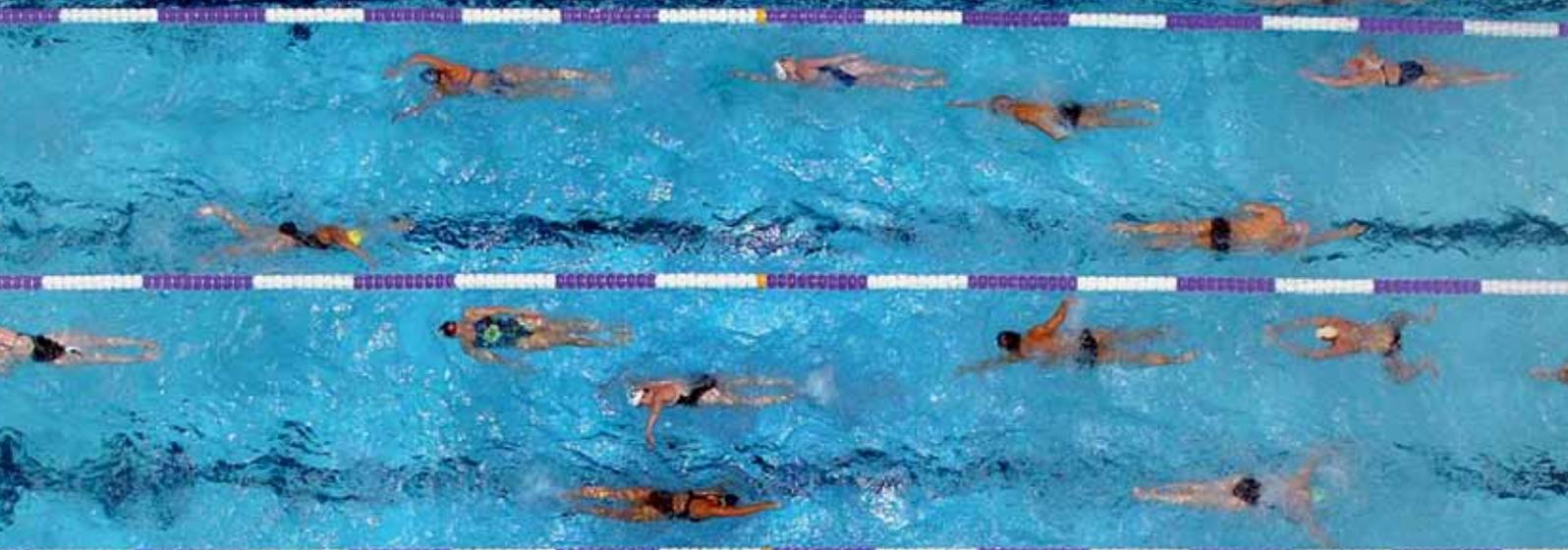
## The Renal Society of Australasia Conference

Volume 8 / Supplement 1 / June 2012

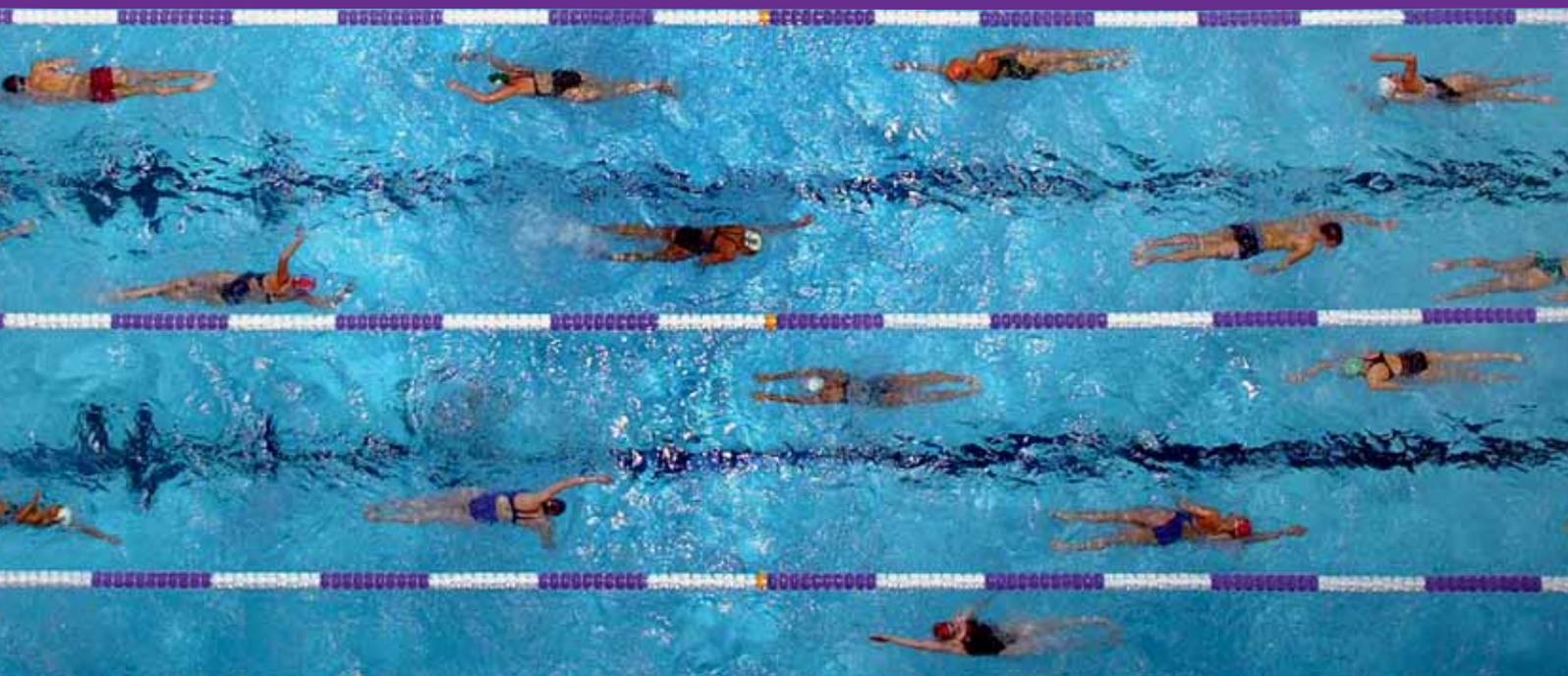
Abstracts

Renal Society of Australasia 40th Annual Conference





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Reference: 1. How P *et al.* *Hemodial Int* 2010; article in press doi:10.111/j.1542-4758.2010.00509.x. 2. How P *et al.* *Clin Nephrol* 2010; 73(5):370-737. 3. FOSRENOL® Approved Product Information. FOSRENOL® is Registered Trademark. Shire Australia PTY Ltd, Lvl 3, 78 Waterloo Road, NSW 2113 AUSTRALIA Tel: 1800 012 612. ABN 29 128 941 819. AUS/IN/FOS/11/0006. SH10007R. 06/11. GHG.



# The Renal Society of Australasia Journal

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## Aim and scope

The *Renal Society of Australasia Journal*: Journal of the Renal Society of Australasia is the peak scholarly journal for nephrology nurses and associated professionals to share their ideas and research to promote evidence-based, high-quality care for persons living with renal disease. The journal provides a national and international forum for the exchange of ideas, practice and research. It is a vehicle for ongoing education.

Articles are peer-reviewed by experts in the field of the submitted work. The *Renal Society of Australasia Journal* (RSAJ) is a refereed journal and subject to blind review.

Articles contained in this journal are the opinions of the authors and not necessarily those of the Editor, Editorial Board or the Renal Society of Australasia (RSA).

The Editor welcomes the submission of articles, research papers, case reports, reviews and letters.

## Subscription

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# Abstracts from the Renal Society of Australasia 2012 Conference

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INVITED SPEAKER

## **Double The Trouble: Diabetes and CKD**

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Merlin Thomas  
Baker IDI Heart and Diabetes Institute  
Victoria

In individuals with diabetes, the presence and severity of kidney disease adversely affects their well-being, significantly contributes to burden of morbidity and increases their risk of a premature death. Indeed, excess mortality associated with diabetes is almost entirely confined to those with chronic kidney disease. Similarly, myocardial infarction and stroke are over 2-10 times more common in diabetic patients with kidney disease than in those without normal renal function. The efficiency of current management strategies for the treatment of diabetic nephropathy, even in optimal combination, is partial, at best. Although substantial progress has been made towards understanding the pathogenesis of diabetic nephropathy, at present there are no new drugs that provide the solutions we want for our patients. Even when used in combination with standard medical care, current data indicate that renal complications are at best only modestly reduced, at the expense of additional pill burden and exposure to off-target effects. Given the ever-growing burden of diabetic kidney disease, there is a substantial opportunity for better and more targeted (smarter) therapeutic interventions. This presentation will discuss some of challenges and opportunities for improving the management of patients with diabetes and CKD.

INVITED SPEAKER

## **EMAP: CKD VIC**

### **Electronic Mapping and Assistance to Primary Care in CKD Detection and Management in Victoria – A Pilot project**

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Craig Nelson  
Western Health  
Victoria

Project Summary:

Early detection of chronic kidney disease (CKD) and appropriate clinical management of detected cases is the only practical means available to reduce the burden of CKD in the foreseeable future. The asymptomatic nature of early CKD and the gap in best practice management that exists in general practice indicate that a combined detection/recognition and education program may be effective in improving outcomes and ultimately reducing the burden of CKD. This project aims to assess the efficacy and practicality of this approach. Mechanisms to encourage opportunistic screening in general practice using electronic prompts and an electronic audit tool of GP databases will be explored along with education workshops to implement the new KHA CKD Guidelines in the Primary Care setting.

## **Achieving harmonious culture and diversity in the context of health care delivery is a very complex undertaking**

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Lesley Salem  
Black Swan Theory Pty Ltd  
New South Wales

What needs to happen?

The framework for this to occur includes recognition of the visible and unapparent cultures of the patient population and staff first. All individuals including nurses have a rich cultural history. By embracing traditional Aboriginal teaching through storytelling, we can learn the unapparent yet important cultural issues relevant to individuals (staff and patient).

To acknowledge and value cultural diversity, a diverse complementary workforce is one of the steps necessary. Although legislation exists to assist the foundation of a culturally diverse workplace and workforce, without belief in the value of such a workplace it will not truly be achieved.

Providing a safe and secure culturally diverse workplace requires mutual respect and dignity, decisions made sincerely based on equity and fairness and all discrimination must be eliminated. This requires each of us to recognise who we are as individuals, what are the dominant influences on the way we deliver health care as an individual and a group and what are the perceptions of those we treat.

## **Raising awareness of organ donation**

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Nicola Stitt  
Monash Medical Centre  
Victoria

Introduction: In 2008, the Australian Government announced a new National Reform Agenda, "A World's Best Practice Approach to Organ and Tissue Donation for Transplantation.<sup>1</sup> The Government committed funding over four years to establish a nationally coordinated approach to the organ and tissue donation processes. The Organ and Tissue Authority, (OTA) The Authority was established on 1 January 2009. Their main responsibility was to implement a national reform package comprising of nine measures. In the two years from 2009 to 2011, Australia has achieved a 36% increase in the number of organ donors and a 25% increase in the number of Australians receiving transplants.<sup>2</sup> More specifically in 2011, 337 organ donors saved and improved the lives of 1,001 Australians; this is the highest number of donors and transplant recipients since national records began.

Discussion: In 2011, the Parliamentary Secretary commissioned the Organ and Tissue Authority (OTA) to undertake a Mid-Point Implementation Review of the Australian Government's national reform agenda. It found that overall there has been significant success, although the process in the implementation of the nine measures has varied across jurisdictions.<sup>2</sup> Notably the most successful measures to be implemented were measure one and two. Measure one was the establishment of the OTA and measure two was employing specialist hospital based staff dedicated to organ donation in our hospitals. These specialist medical and nursing staff are responsible for raising awareness of and providing education to hospital staff. Initiatives have included; implementation of the GIVE Clinical Trigger, staff education and the engagement of key stakeholders from across the hospitals.

Conclusion: By continuing to raise awareness about organ & tissue donation in our hospitals we will ensure that all potential organ donors are identified and that the option of organ donation is discussed with family.

Lynda Ball  
Northwest Renal Network  
Seattle, WA  
USA

Quality Improvement (QI), simply put, examines processes in order to improve them. The main assumption is that most errors result from problems with procedures and work processes rather than bad or incompetent people. This is accomplished by constantly searching for opportunities to improve all processes. Deming, the innovative creator of quality improvement, recognized the importance of people directly involved in the process, as they are the likely ones to come up with solutions that can have the biggest impact.

So, why do we want to implement quality improvement? What is the impetus to make changes? After all, no one likes change therefore fear of change needs to be removed prior to successful implementation. First, we want to make change that will lead to better patient outcomes – increase patient satisfaction; improve quality of life; and, enhance patient safety. Second, we want to make change to better professional development – optimize clinical performance guidelines; reduce variability in practice; and, avoid errors. And finally, we want to make changes that will result in better system performance - reduce costs to the organization.

We will walk through the QI process, identify tools to conduct a root cause analysis, determine the best way to collect the data, and develop a plan to implement change. This presentation should enable you to design a QI process in your own facility.

*"Quality is not an act. It is a habit." - Aristotle*

John Agar  
Renal Services, Geelong Hospital  
Barwon Health, Geelong, Australia  
Faculty of Medicine  
University of Melbourne  
Deakin University School of Medicine  
Victoria

While clinical services and their personnel have been trained to diagnose, treat and care for those in ill-health, they have not traditionally been trained to think about the environmental 'fall-out' of their treatment practices. Commonly, little thought is given to the holistic carbon footprint(s) we leave behind.

Of all healthcare endeavours, dialysis is unequalled in the recurrent per-patient emission footprint it creates. We have recently quantitated the carbon emission foot-print of an Australian dialysis service (abstracts submitted to ANZSN and ASN, 2012) – with disturbing results. At the RSA (Adelaide 2011), I set out a concept pathway towards more environmentally sustainable dialysis (published Hemodialysis International, January 2012).

In brief, this 'pathway' comprises an integrated vision for: water conservation with re-use and re-cycling of reverse osmosis reject water; the implementation of alternative power options – in particular, the use of solar power – to 'drive' haemodialysis-related equipment (published CJASN, January 2012); the potential for on-site processing via 'autoclave + shred' of the >2kg plastic and other waste generated by each dialysis to render the 'shreddate' sterile and potentially suitable for on-sale for re-use; and a more enlightened architectural vision for sustainable building design and building use.

This return visit (1) will reiterate these concepts for those not in Adelaide (2) will add to that vision in areas where we have made subsequent progress (3) will point to opportunities for all Australian dialysis services in better eco-management and (4) will exhort to a greater awareness/involvement of dialysis nurses in the environmental milieu of their services.

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## **A brief, and selective, history of Hemodialysis in Australia and New Zealand**

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Mr Bill Adam  
University of Melbourne  
Victoria

A key period in the development of successful hemodialysis programs for patients with chronic renal failure, in Australia and New Zealand, was from 1965 – 1980. The success of programs during this period was dependant on; key individuals with enough concern for patient welfare and self belief to take risks; a health system less interested than now in methodical evaluation of, at times improvised, new technology; treatment success, initially of high profile individual patients; organizational skills of patient support groups; advances in technology driven by commercial competition; and the willingness of individual hospital administrators, the Lions Clubs of Australia, and then Government to allocate resources for the introduction, and enhancement, of the programs.

A key debate in dialysis programs has been the role of home versus centre dialysis. This debate engaged issues of: Practitioner and patient comfort with the real, and perceived, relative safety of the location of dialysis; the potential impact of (type of) home dialysis on duration and adequacy of dialysis; the benefits of different technologies and techniques to support home dialysis, and their costs; the impact of (changing) patient demographics, and their social and medical circumstance on access to dialysis; the relative costs of home and centre dialysis.

On reflection the introduction of successful hemodialysis programs has been fortuitously assisted by historical quirks, eg. the development of successful A/V shunt technology, prior to the serendipitous introduction of the A/V fistula, for the necessary prolonged vascular access; and a low unemployment rate when Governments were initially approached for funding.

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## **PD in our multicultural society**

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Fiona Brown  
Department of Nephrology  
Monash Medical Centre - Renal Unit  
Victoria

Australia is a multicultural society and the Peritoneal Dialysis population reflects this cultural diversity. This talk will outline the differences in PD complication rates between races, in particular PD peritonitis, and the significant variation in patient outcomes in PD technique and patient survival. The Asian PD population in Australia has lower peritonitis rates and better long term outcomes, and this has also been seen internationally. In contrast the indigenous PD population have higher peritonitis rates, shorter technique survival times and increased mortality, with the greatest risk being in those from more remote regions. And given that 79% of indigenous patients commence PD within remote locations compared to 12% of non-indigenous patients this further exacerbates the higher complication rate in indigenous PD patients. Similarly, indigenous haemodialysis patients have a 70% greater risk of mortality compared to non-indigenous HD patients, which is not explained by comorbidities or age. Potential reasons why this is the case will be discussed and may help us choose more appropriate patients for PD and help in their management.

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## Food For Thought – Cultural considerations in a renal diet

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Karen Manley  
Departments of Nutrition and Dietetics  
Austin Health  
Victoria

Good nutrition is the key to good health for everyone and is especially important for people with chronic kidney disease. Renal patients need to balance nutrient and fluid intake to optimise their health. Everyone is different. Medical nutrition therapy, nutrition education, and counselling are essential components for effective management of end-stage kidney disease. Patients with CKD have to alter their diets and to implement new eating behaviours, sometimes irrespective of ethnic and cultural food preferences because of their high content of specific nutrients. Ethnic and cultural factors influence dietary adherence. Therefore, assessing cultural issues surrounding food and food preferences may help improve dietary adherence. A large percentage of the ESKD population in Australia were either born overseas or parents are from other nationalities and practice a very wide variety of culture practices. In addition aboriginal and Islander groups also have their own specific dietary preferences, With many cultural food preferences that are particularly high in potassium, phosphate, sodium and fluid content, it is important to recognise and guide patients toward the most suitable choices or safe quantities of these valuable ethnic foods.

## A successful home dialysis program for morbidly obese people with end stage kidney disease (ESKD): 1

Ms Kerry Linton<sup>2</sup>, Ms Jeni Batt<sup>1</sup>,  
Dr Paul Bennett<sup>3</sup>, Ms Maryanne Quinn<sup>4</sup>

<sup>1</sup>Clinical Nurse Consultant  
Home Haemodialysis, Southern Health  
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Southern Health

<sup>3</sup>Assoc. Prof. School of Nursing and  
Midwifery, Deakin University

<sup>4</sup>Clinical Nurse Specialist, Home  
Haemodialysis, Southern Health  
(retired)  
Victoria

**Context** Developing countries are experiencing an increasing prevalence of obesity, reflected in the chronic/end stage kidney disease population. The added risk factor of obesity increases cardiovascular risk, inflammation, insulin resistance, hypertension, dyslipidaemia and subsequent all cause mortality. The obese or morbidly obese ESKD population group may never be eligible for transplantation, and face the prospect of lifelong dialysis.

**Objectives** The aim of this paper is to report on a program that has successfully educated 23 obese (BMI >30, n=12) or morbidly obese (BMI>40, n=11) patients for home haemodialysis between 2001 and 2009. Patient weight range 94.0-215kg and BMI range 34.9-71 at start of home dialysis education.

**Key messages** Strategies to overcome the physical challenges of obesity in self care were adopted and home dialysis education tailored to meet individual patient need. Dialysis efficiency was maximised including increased time and frequency of treatment. The case of a 215 kg man, dialysing at home for more than eight years, will be used to illustrate the important considerations and clinical support that these people require for successful home dialysis treatment.

**Implications for clinical practice:** Home haemodialysis has been suggested as the ideal treatment for the obese or morbidly obese patient as it allows longer, more frequent dialysis, with improved haemodynamic stability, electrolyte balance, nutritional status and quality of life, and reduced morbidity. For obese patients, home haemodialysis has shown to be cost effective and result in greater treatment efficacy. It can provide an improved quality of life in those unsuitable for transplantation

## Acute Kidney Injury due to Chelonitoxism and the Ethical Dilemma of Caring for Foreign Nationals: 2

Ms Bronwyn Hayes<sup>1</sup>  
<sup>1</sup>Cairns Base Hospital  
Queensland

**Context** Mr K, a 30 year old citizen of Papua New Guinea (PNG) became acutely unwell following the ingestion of uncooked turtle meat while stranded on an island off the PNG coast. After making his way to a Torres Strait Island nursing post with oliguria and uremic symptoms, he was transferred to mainland Australia with acute kidney injury (AKI) due to presumed chelonitoxism. Chelonitoxism is an uncommon type of food poisoning caused by eating the flesh of marine turtles leading to organ failure and high rates of mortality. After failing to improve, a renal biopsy was performed which showed underlying chronic kidney disease (CKD). Due to his PNG nationality and CKD Mr K was denied ongoing life sustaining dialysis in Australia and died awaiting his return to PNG.

**Objective** This paper will firstly describe chelonitoxism, its clinical course and effect on renal function. It will examine the ethical dilemma for renal nursing staff who provide care to foreign nationals who are ineligible for CKD treatment in Australia and who have no access to ongoing dialysis in their home country.

**Key Message** Chelonitoxism is a rare cause of AKI and can be superimposed on existing CKD. For PNG nationals this can lead to mortality due to lack of dialysis facilities.

**Conclusion** The difference between life saving treatment and death for PNG citizens with renal failure is dependent the cause and irreversible nature of the underlying disease. Nurses are often drawn into the ethical dilemma of access to on-going dialysis for non-nationals.



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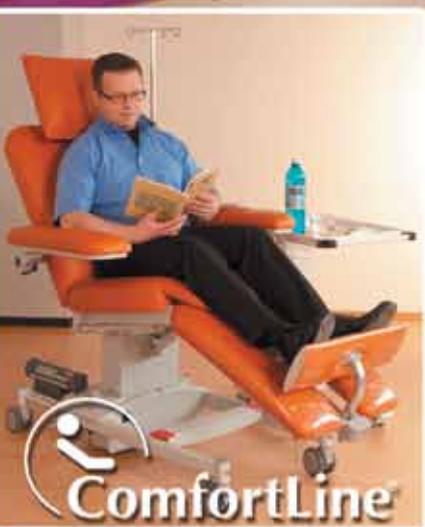
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## Potential Risks of High Cut Off Haemodialysis: 3

Ms Siew Eng Foo<sup>1</sup>  
Ms Xuhong Qian<sup>1</sup>  
<sup>1</sup>Southern Health  
Victoria

Context: High Cut Off dialysis is the gold standard treatment for patients with early diagnosis of multiple myeloma to remove the free light chain proteins which can prevent this group of patients from requiring long term renal replacement therapy. Timely initiation of high cut off dialysis is paramount to their survival of this condition.

Objectives: To highlight the volatile biochemistry results at each treatment for the twelve sessions, the potential risks that can occur and the benefits of using higher electrolytes in the dialysate.

Key messages: The prescription for the high cut off dialysis comprises of a very large pore membrane filter, extended dialysis time of eight hours, high blood and dialysate flow rates to ensure effective removal of the free light chain proteins, kappa and Lambda. Severe electrolyte imbalance can occur during this treatment resulting in serious complications, therefore careful monitoring and adjustments of electrolytes is important to prevent these complications. The current protocol is to provide a total of twelve treatments, five consecutive treatments followed by alternate day treatments. Biochemistry and Free Light Chain proteins are monitored throughout the treatment. Dialysate concentrate is adjusted accordingly with the patient's biochemistry results.

Implications for clinical practice: Several potential risks and complications had been identified when patients were receiving this treatment. The delay in processing of patients' biochemistry has resulted in the inability to make appropriate dialysate adjustments during treatment and the recommended concentrate prescription may be inappropriate for such intensive haemodialysis.

## Improving services and minimising costs for home dialysis patients: 4

A/Prof Josephine Chow<sup>1,2,3</sup>,  
A/Prof Josette Eris<sup>2,4</sup>,  
A/Prof Michael Suranyi<sup>5,6,7</sup>,  
<sup>1</sup>South Western Sydney  
Local Health District  
<sup>2</sup>University of Sydney  
<sup>3</sup>University of Tasmania  
<sup>4</sup>Royal Prince Alfred Hospital  
<sup>5</sup>Liverpool Hospital  
<sup>6</sup>University of New South Wales  
<sup>7</sup>University of Western Sydney  
New South Wales

Context: A study by NSW Health found that patients on home dialysis can be out of pocket on average \$2,110 a year because of the extra water, extra waste disposal and electricity costs associated with the treatment. This is in addition to the initial set up costs of up to \$3,000.

Objectives: Our Renal Units have used different strategies to obtain support and improve incentives for patients moving to home-based dialysis:

1. Government support for senior nursing positions to provide services for patients in the home
2. Companies tendering for home-based dialysis services to include set up costs in the home
3. Rebates from Electricity companies, Sydney Water and local councils pay for excess usages and services
4. Funding for equipment, e.g. weight scale

Key messages: The strategies have been achieved through negotiations undertaken by the Senior Management Team. Now every home dialysis patient in our Renal Units is covered by some form of this support package. Some of the strategies have been adopted by other Renal Units. We are very keen to promote the negotiations that can be done to support patients financially and with services because home dialysis is so efficient and much cheaper for the health system.

Implications to clinical practices: The initiatives had been very well received by patients and the home dialysis numbers were increasing to meet the requirement of NSW Health of target of 50% home dialysis therapies intake. The team plans to track the clinical outcomes of this initiative.

## The big red kidney bus - dialysis on tour in Victoria: 5

Mrs Bernardette Lewindon<sup>1,2</sup>,  
Ms Suzi Peckpn, Mrs Jo Fairbairn<sup>3,1</sup>,  
Miss Renee Symons<sup>1</sup>

<sup>1</sup>Renal Society of Australasia

<sup>2</sup>Royal College of Nursing, Australia

<sup>3</sup>Kidney Health Australia  
Victoria

Dialysis is lifesaving treatment for Australians with End Stage Kidney Failure. In centre, satellite or home, haemodialysis treatment can range from four hours three times a week to every second night to sustain life. Having a break away from home as a family or individual is something many people take for granted. For majority of people on haemodialysis this is not possible, mainly due to shortage of dialysis facilities at suitable holiday destinations.

This lack of dialysis availability has inspired a group of haemodialysis consumers at a regional dialysis service to initiate an innovative project providing mobile haemodialysis within Victoria. Aptly named "Big Red Kidney Bus", this project is consumer driven in partnership with a national peak kidney health organisation. This important project highlights the need for diversity in treatment provision for quality of life and basic human rights.

Attracting the interest and support of a major health service provider has been essential to the project. Fundraising and donations in kind are vital to get the Big Red Kidney Bus on the road and are progressing well. Financial assistance via fundraising is planned to help relieve the burden of holiday costs for needy renal consumers and their families holidaying away from home and hospital.

Consumer consultation is important in all aspects of strategic planning within the health system. Here, regional consumer leadership together with a health organisation partnership is paving the way for a truly innovative renal health initiative. Is the current system ready to support such innovation?

## Modified Intradialytic ZUMBA GOLD: Activity and Exercise on Dialysis: 6

A/Prof Paul Bennett<sup>1</sup>  
Ms Ann Marie Corradini<sup>2</sup>  
Ms Cherene Ockerby<sup>1</sup>  
Ms Tania Cossich<sup>1</sup>

<sup>1</sup>Deakin University-Southern Health  
Nursing Research Centre

<sup>2</sup>Moorabbin Satellite Dialysis Centre  
Southern Health, Melbourne  
Victoria

Background: People on dialysis have a lower exercise capacity than the non-dialysis population. Exercise can be integrated as standard practice within haemodialysis units during the dialysis therapy. A popular program designed for people with physical limitations and inactive older patients is ZUMBA GOLD®. It is specifically designed to take the Latin and international dance rhythms created in the original ZUMBA® program and bring them to the older or physically limited adult.

Aim: To evaluate the feasibility of intradialytic ZUMBA GOLD.

Methods: A ZUMBA GOLD® program was developed by a registered ZUMBA GOLD instructor and dialysis nurses. The program was specifically modified to take into account the seating position and vascular access limitations. Each ZUMBA GOLD session lasted 25 minutes that broken up into 3 to 4 musical exercise sessions. This feasibility study was held over a two week period in one dialysis unit initially involving four patients. Ethics approval was received by the institution's human research ethics committee.

Results: Initial results found the program to be feasible and highly popular. All four participants enjoyed the program, would recommend continuing the program and found the exercises easy to do within their usual dialysis treatment. Other patients and staff joined in the sessions.

Clinical Implications: ZUMBA GOLD® program of exercise modified for dialysis is a feasible option for low intensity, aerobic intradialytic exercise. Further research is planned to determine

## Clinical Outcomes of a Nocturnal In-Centre Haemodialysis Pilot: 7

Ms Melissa Stanley<sup>1</sup>  
Associate Professor Robyn Langham<sup>1</sup>  
Ms Nuala Barker<sup>1</sup>  
<sup>1</sup>St Vincent's Hospital  
New South Wales

**Background:** There is growing evidence of improved clinical outcomes for patients haemodialysing longer than conventional 4-5 hours thrice weekly (CHD). A pilot of nocturnal in-centre haemodialysis (NIHD) at a Melbourne satellite unit where dialysis is performed for 8 hours three nights a week, has resulted in improvements in BP, less cramping, dry weight achievement, decrease in medication and improved quality of life for three patients in this program.

**Aims:** Patients on NIHD will be more likely to achieve their clinical goals with less medication and improvement in self-perceived quality of life when compared to CHD.

**Methods:** Patients were studied for 6 months on CHD prior, then compared to 6 months on NIHD. Indices included demographics, biochemistry and haematology, pre and post dialysis BP, patient medications, incidence of cramping, hypotension or finishing dialysis early and quality of life survey.

**Results:** All patients had improvements in BP pre and post dialysis, requiring less antihypertensives. They were more likely to reach their ideal weight and had less cramping and hypotension. They had improvements in calcium-phosphate balance requiring less binders and lower potassium, urea and creatinine when on NIHD compared to conventional haemodialysis. They had a slight improvement in their quality of life.

**Implications for clinical practice:** Given the positive clinical and psychological outcomes of this small study, the NIHD program continues to run aiming to expand numbers this year. NIHD does result in improved BP control and symptom management, requiring less medications to do so.

## The Development of the Renal Link Nurse (RLN): 8

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<sup>1</sup>Fraser Coast Renal Service  
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**Context:** The RLN project was initiated in response to a Severity assessment Code 2 event occurring on the medical ward. A peritoneal dialysis (PD) patient developed peritonitis whilst receiving in patient care. As part of the clinical incident management process it was identified that nurses throughout the District needed up-skilling in the care and management of the nephrology patient. A strategy to enable this was the development of Renal Link Nurses (RLN).

**Objectives:** An action plan was developed identifying key areas of focus.

- Nurses recruited from identified areas to perform the role of RLN.
- Procedures/workplace instructions reviewed and where necessary rewritten or developed.
- Practical sessions for renal staff incorporating PD exchanges.
- In-service delivered regarding PD catheter pre and post insertion management.
- Quarterly study days for RLN.
- Home Therapies placement incorporated into new staff orientation

**Implications for clinical practice**

- Identifying nurses willing to assume the RLN role was challenging– in some instances units did not perceive the benefits of the initiative to them.
- Procedures/Workplace Instructions - unable to locate majority of documents necessitating their development.
- Clinical Facilitator and Home Therapies Nurses collaborate in the ongoing management of the RLN program and up- skilling of the renal staff.

**Conclusion:** As the prevalence of patients receiving peritoneal dialysis increases it is probable that the number of patients presenting to medical facilities will also increase supporting the need for increased awareness among nursing staff throughout the District.

## A single-centre nursing experience of performing plasmapheresis using Spectra Optia Apheresis system compared to using Fresenius Plasmaflux Psu filter on a conventional Fresenius haemodialysis machine: 9

Ms Joanne Kok<sup>1</sup>  
Ms Siew Eng Foo<sup>1</sup>  
<sup>1</sup>Southern Health  
Victoria

A single-centre nursing experience of performing plasmapheresis using Spectra Optia<sup>®</sup> Apheresis system compared to plasmapheresis with Fresenius Plasmaflux Psu filter on a conventional Fresenius haemodialysis machine

Background: Plasmapheresis is a common treatment for transplant rejections, various diseases and immune disorders such as Goodpasture's syndrome and thrombotic thrombocytopenic purpura. This treatment is frequently performed at an acute haemodialysis unit in a major metropolitan hospital in the south eastern region of Melbourne. At this unit, plasmapheresis is performed with the Fresenius PlasmaFlux Psu filter using a conventional Fresenius haemodialysis machine until a Spectra Optia<sup>®</sup> Apheresis machine was purchased recently.

Aims: To find out if the Spectra Optia<sup>®</sup> Apheresis system is preferred method compared to the Fresenius Plasmaflux Psu filter method from a nursing perspective.

Methods: Feedback from nurses who have performed plasmapheresis using both methods was collected in a brainstorming session.

Results: The Spectra Optia<sup>®</sup> Apheresis system was new to all the nurses. A handful of nurses were trained by the product representative. Others learned from those trained. Some found it easier than others to learn the skills required to operate the machine. Time saving benefits, safety of the patients, the ability to use the machine at any bedside without the use of water and the ergonomic structure of the device were the main advantages identified. In other cases, the Fresenius Plasmaflux method was more time effective.

Conclusion: The Spectra Optia<sup>®</sup> Apheresis system was the preferred choice for the nurses.

## E-Health, The Way Forward: 10

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Mr John Harkness<sup>5</sup>  
Ms Rosemary Richman<sup>1,4</sup>  
Ms Dawn Purde<sup>5</sup>  
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<sup>5</sup>Liverpool Hospital  
New South Wales

Background: The Renal Electronic Medical Record (eMR) was successfully implemented at two dialysis units (pilot site) at a Major Teaching Hospital in December 2011. User satisfaction with the eMR plays a decisive role in its implementation and subsequent use.

Aim: To examine the impact of the Renal eMR implementation at the pilot site.

Method: The following methodologies were used:

- (1) A pre and post online questionnaire administered to the medical, nursing, administrative and allied health staff working at the pilot site.
- (2) An audit to cross-examine the completion rate for national data registration, dialysis flow sheet and the patient progress notes.
- (3) Qualitative data via observation of two patient stations, reviewing the time and issues regarding data entry.

Results: There were over 70% respondents to the survey pre-implementation. Most respondents were highly dissatisfied with the current paper based system. The responses indicated the belief in which the eMR will decrease the time to develop a synopsis of the patient and improved communication efficiency. The preliminary results demonstrated acceptance of the eMR at the pilot site.

Implication of Clinical Practice: Clinicians who use electronic health records believe such systems improve the quality of care and are generally satisfied with the systems.

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## The Use of a Therapy Data Management System Compared to Manual Entry A Retrospective Look: 11

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 Queensland

Appropriate documentation plays a key role in process management in nursing care. It includes holistic data management based on patient's data along the clinical path with regard to nursing care. Traditionally one type of form of renal dialysis data that is collected and documented is in a flow sheet type format which contains pre dialysis and post dialysis data (weight, BP, Arterial and Venous pressures etc...).

Does the resulting ongoing documentation process provide adequate data collection at the expense of the ongoing need to maintain medical records – resulting in an excess of paper documentation. Furthermore does the accuracy of manual recording and the ongoing need for compliance and accuracy meet state health requirements?

In November 2011 a Therapy data Management System was integrated into use at a regional unit in Queensland for the first time. This unit's aim is to move to a "paperless" dialysis documentation system.

We wish to propose a model that can be used for the reengineering of classical documentation into e-documentation. With a suitable Therapy data Management System it is thereby possible to achieve a higher level of quality, especially in regard to integral treatment of the patient. The active computer model itself supports the work of the nurse and also reduces the possibility of mistakes.

This poster aims to look at record keeping 6 months prior to the installation from the nursing flow chart and the following 5 months following installation.

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## How many tunnelled catheter days are too many?: 12

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Ms Amanda McOrmond<sup>1</sup>  
<sup>1</sup>Western Health Renal Service  
 Victoria

Blood stream infections (BSI's) have always been a risk associated with tunnelled central venous catheters. Increasing numbers of patients with tunnelled catheters and the length of time some of these catheters remained in place was of growing concern within our metropolitan renal service. This led to a quality improvement project being undertaken to minimise exposure to tunnelled catheter days and therefore reduce the risk of infection and other complications.

This paper will discuss the quality initiatives that have seen the BSI rate within this service drop by 60% as well as cumulative catheter days decrease by 50% since December 2010.

Some of those initiatives include the implementation of a monthly tunnelled catheter meeting, development of a communication tool for dialysis nurses to ensure a clear plan is in place for all tunnelled catheter patients. Review of the management of our Chronic Kidney Disease patients led to the development of a formal referral tool as well as an update form to improve communication with Physicians. The Renal Psychologist has an important role in facilitating decision making in patients who may be in denial of their renal disease so that they can proceed with timely access formation.

Whilst the results so far are encouraging there will always be room for improvement. It is very much a team effort if tunnelled catheter days are to be kept to a minimum.

We can't afford to become complacent when the wellbeing of our patients is at stake.

## Mind the gap or find the gap? The use of stents in arterio-venous haemodialysis access: 13

Ms Lucy Spencer<sup>1</sup>  
 1Royal North Shore Hospital  
 New South Wales

Context: Increased surveillance to maintain usable arterio-venous (A-V) access leads to increased intervention. Reduced blood flow from narrowed lumens secondary to stenosis or intimal hyperplasia may be successfully restored by vessel dilatation. However, some refractory lesions require further intervention. Problems such as aneurysm and false aneurysm development and loss of polytetrafluorethylene (PTFE) graft wall integrity have historically required surgical intervention.

Objective: Vascular stents have been used in dialysis patients for access inflow and outflow problems due to intimal hyperplasia and central stenosis. At a Sydney metropolitan renal unit, a small group of patients have had stents deployed for reasons other than as described. Degradation and disintegration of PTFE graft wall has been noted in a number of patients. In an attempt to maintain access usability, the lumens of these grafts have been re-lined using metal stents. The position and length of the stents is such that successful dialysis requires cannulation through the stent.

Key Messages: Infections have been described in AV access where dialysis cannulae have been inserted through stents. Additionally, there have been reports of cannulation causing damage to the stent itself, resulting in a broken metal strut requiring surgical removal.

Implications for Clinical Practice: Our experience to date has not resulted in either of these complications. Access salvage procedures of this type are occurring more frequently. It is vital that dialysis nursing staff develop a thorough understanding of stents, their effects on the vessel itself and the implications of inserting a cannula through the device structure.

## Managing Myelodysplastic Syndrome on Haemodialysis: 14

Mrs Judy Brade<sup>1</sup>  
 1Mildura Base Hospital  
 Victoria

A case study

Myelodysplastic Syndrome is a medical condition involving the ineffective production of the Myeloid class of red blood cells.

Background

Mr X, a 69 year old male whose medical history includes:-

- Type 2 Diabetes Mellitus
- Crohns Disease, requiring large and small bowel resection
- Cholecystectomy,
- Non Hodgkins Lymphoma
- Myelodysplastic Syndrome
- Septicaemia
- End Stage Renal Disease
- Prostate Cancer

2008/2009 – Chemotherapy for Non Hodgkins Lymphoma

- Haematology results revealed abnormal red blood cells and anaemia
- Bone marrow biopsy concluded Myelodysplastic Syndrome

November 2010 Mr X commenced haemodialysis

Aim: Management of anaemia and iron overload in the context of End Stage Renal Disease and haemodialysis

Objectives:

- To maintain Hb within 110-120
- To reduce Ferritin levels
- To minimise risk of bruising

Treatment:

- 2-3 weekly blood transfusions
- Exjade 500mg orally daily
- Mircera 360mcg IV monthly

Conclusion:

- Improvement in maintaining target Hb
- Improvement in reduction of Ferritin levels
- Improvement in quality of life as stated by Mr X

## Implication of AV Graft Disintegration: 15

Mrs Debbie Knagge<sup>1</sup> Dr Roy Cherian<sup>1</sup>  
 Dr Bruce Cooper<sup>1</sup>, Dr Stella McGinn<sup>1</sup>  
 Dr Charles Fisher<sup>1</sup>  
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Arteriovenous (AV) fistula is the preferred mode of access for haemodialysis. However ANZDATA reports prevalent AV graft usage in 10% patients in 2010. Complications associated with the use of AV grafts include infection and thrombosis as well as graft disintegration. Reviews of aetiological factors are limited and assumed to be solely due to cannulation techniques.

Aims: The aims in investigating graft disintegration are  
 Review complications associated with grafts.

Understand risks associated with the age of grafts, the type of grafts and cannulation techniques.

Methods; A retrospective review of ultrasound data was performed of all in-centre and satellite dialysis patients at a Sydney Metropolitan Hospital since April 2008. All patients with AV graft disintegration underwent medical history review including previous AV access, type of AV graft, site of graft, coexistent stenosis, cannulation techniques and AV access morbidity.

Results: The results obtained show

- Above recommended percentage use of grafts.
- A concerning number of patients with AV graft disintegration identified on ultrasound in both females and males of ages from 41-86.
- A higher rate of AV graft disintegration in arm grafts when compared to leg grafts.
- 4 patients developed bleeding from the graft post dialysis.

Implications for clinical practice: The risk of incidents associated with graft disintegration has led to implementation of an algorithmic procedure for management associated with prolonged bleeding from AV access.

Nurses are central in relation to rotation of cannulation sites, surveillance of normal and abnormal parameters and implementing appropriate management strategies when risk factors are identified.

## Calciphylaxis: Is it becoming an epidemic in the dialysis population?: 16

Mrs Annette Rose<sup>1</sup>  
 Dr Catherine Brumby<sup>1</sup>  
<sup>1</sup>RMH Kidney Care  
 Victoria

Background: Our major kidney care service has seen an increase in patients diagnosed with the rare, highly morbid condition Calciphylaxis. Since August 2010 there have been 11 cases, 7 within four months from April 2011. Calciphylaxis is characterised by systemic soft tissue and arteriolar calcification, and the formation of extremely painful plaques under the skin. These can develop into necrotic, non healing ulcers. Risk factors include uraemia, female gender, diabetes, secondary hyperthyroidism, serum calcium and phosphate disruption with high Ca/PO<sub>4</sub> product. Therapy with Calcium, vitamin D, Warfarin and iron therapy also play a part. Current treatments have limited efficacy. Mortality in patients with proximal ulcers is higher than those with distal or non-ulcerated lesions.

Aim: A retrospective study was undertaken to compare risk factors and treatment of our patients with what was found in the literature.

Results: Our patients had most or all of the risk factors described. All had very painful necrotic lesions necessitating judicious wound care and antibiotics. Painful breast lumps featured in 42% of our female population not previously enunciated in published data. Of the eleven patients, 6 (55%) died which concurs with published literature. Our patients had a combination of all of the available treatments including sodium thiosulphate, hyperbaric oxygen therapy, parathyroidectomy, tight Ca/PO<sub>4</sub> control and ceasing of Warfarin.

Conclusion: We still do not understand why some people develop Calciphylaxis and not others. Our more careful monitoring of patients at risk may make it seem more prevalent, but the earlier the diagnosis the better the prognosis.

## The Changing Landscape of Chronic Kidney Disease (CKD) Detection and Management: Important Updates in 2012: 17

Ms Ainslie Bolton<sup>1</sup>, Dr Marie Ludlow<sup>1</sup>  
<sup>1</sup>Kidney Health Australia  
 South Australia

Chronic Kidney Disease (CKD) affects millions of Australians every year and is often asymptomatic with individuals typically losing up to 90% of their kidney function before experiencing any symptoms. 2012 will see the introduction of several new recommendations regarding testing and managing patients with CKD.

This presentation discusses how the guidelines for detecting and managing CKD are changing and will deliver important information that will impact the clinical practice of those working with people with CKD.

**Key Messages:** The changing landscape of CKD in 2012 will have significant implications for the management of people with CKD.

Consistent use and implementation of the new recommendations across the kidney sector and primary care will lead to improved patient outcomes

The revised recommendations outline who should be tested for CKD and how often.

Previously, it was recommended that a Kidney Health Check involving a urinalysis using a protein dipstick should be performed. The new recommendations are that a spot urine sample should be collected and a urine Albumin Creatinine Ratio test ordered from a pathology service, as dipstick sensitivity and specificity is not optimal. Also changing is the staging for CKD that will now be based on the eGFR as well as the level of albuminuria.

These changes along with several others will significantly change the way CKD is detected and managed. It will be paramount for renal nurses working with CKD patients to be aware of the changes as they will lead to changes in clinical practice.

## Chronic Kidney Disease: where are we now? A research perspective from Queensland: 18

Ms Anne Salisbury<sup>1 & 2</sup>, Prof Wendy Hoy<sup>1</sup>  
 Prof Rob Fassett<sup>2</sup>  
 Dr Sree Krishna Venuthurupalli<sup>3</sup>  
 Dr Helen Healy<sup>2</sup>  
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 Queensland

This century has seen an explosion in focus of chronic kidney disease (CKD) and its affiliated co-morbidities. Endeavors to better understand its incidence, course and management have helped define impacts on health care resources, and informed management leaders on new and innovative models of care.

This presentation will overview current CKD research platforms on the International stage, review national endeavors, and inform on the outcomes of our State initiative, a CKD Registry and Research platform based in Queensland, which incorporates all public health renal practices in the State.

Our program is a multi-disciplinary research collaborative incorporating University and Government agencies. Now in its third year, it is a robust operating entity. It has three main CKD research platforms: the CKD Patient Registry, Health Service Delivery and Special Projects. Through the Registry function we will characterise all consented CKD patients seen in Queensland public renal practices, their distribution and their longitudinal course, including, but not restricted to development of renal failure and institution of renal replacement therapies (RRT). This is the first surveillance and reporting system of person-based, rather than episode-based, CKD, and the first across the continuum of outpatient services, RRT and death in Australia.

In January 2012 the Registry achieved its first milestone of 1000 CKD patients, with enrolment from the Gold Coast to Cairns. Results from this analysis point, including description of State CKD Models of Care and patient demographics, will be presented at this Conference.

## Pre-disposing CKD Patients Towards Home Dialysis: 19

Ms Wendy Purcell<sup>1</sup>  
 Ms Denise Fracchia<sup>1</sup>  
 Ms Mandy McOrmond<sup>1</sup>  
<sup>1</sup>Western Health  
 Victoria

**Context:** The purpose of patient education is to enable patients to make decisions regarding managing their disease in a well-founded manner. For most patients who are able, the best decision regarding treatment for end stage chronic kidney disease (CKD) is to choose home dialysis.

**Objectives:** Pre-disposing CKD patients towards home dialysis involves both promoting the health benefits, and enhancing the patient's confidence to self-manage. With this in mind, we have recently undertaken a review of our pre-dialysis education materials.

**Key Messages:** If patients are to fully appreciate the importance of choosing home dialysis then the long term health benefits must be fully described. Our educational materials presented life-style advantages, e.g. can choose treatment days or take holidays, but shied away from mentioning mortality and morbidity.

Our materials also ensured patients were well informed about complications such as peritonitis. However, over-emphasis on complications risks decreasing patient confidence regarding safely managing at home. Pre-dialysis patients need to believe that their efforts to undertake home dialysis will be successful.

Too much information can interfere with knowledge acquisition and increase the burden of learning. For example, we had included technical information about how dialysis worked, but this type of information has little influence on patients' choice of dialysis modality.

**Conclusion:** Promoting home dialysis needs to be strong enough to offset barriers such as inconvenience, home disruption, and patient fears. We will present our new patient education materials that better pre-dispose and enable patients toward undertaking home dialysis.

## What sources of information are used by people with ESKD?: 20

Prof Ann Bonner<sup>1</sup>, Dr Annemaree Lloyd<sup>2</sup>  
 Mr Tony Blinkhorn<sup>3</sup>  
 A/Prof Carol Dawson-Rose<sup>4</sup>  
 Queensland University of Technology &  
 Royal Brisbane and Women's  
 Hospital Queensland  
 Charles Sturt University  
 New South Wales  
 University of California San Francisco  
 USA

**Background:** Information practice is an emerging area of research that seeks to reveal how people learn to connect with the complex multimodal information landscapes that informs their ability to make decisions. Previous research has identified that people with end stage kidney disease (ESKD) tend to adopt a 'received' or 'engaged' view of information but little is known about what constitutes the characteristics of each.

**Aims:** This project sought to identify the: i) characteristics of 'receivers' and 'engagers'; ii) sources of information; and iii) how information is used.

**Methods:** Using a constructivist methodology, ten people with ESKD were purposively selected and interviewed. Data was subject to thematic analysis by researchers from nursing and information science. Saturation of themes was achieved.

**Results:** Participants were between 38 and 72 years, had been receiving kidney replacement therapy from 2 weeks to 31 years, and 8 reported having access to the internet. Both 'receivers' and 'engagers' primarily relied on and highly trusted verbal information from renal medical or nursing staff; general practitioners and the internet were not a useful source of information. 'Engagers' tended to use information to better understand and cope with their treatment; however this was not seen in 'receivers'.

**Relevance to Clinical Practice:** The information practice research approach will enable the underlying relationship between information, knowledge and experience to be better understood. For renal nurses being able to recognise the way people use information will assist in making patient teaching individualised and to make it more meaningful.

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## Regional Home Therapy Training - Patient and Nursing Perspectives: 21

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Mrs Jenny Galea<sup>1</sup>, Mrs Judy Parry<sup>1</sup>  
Mrs Jo-Anne Moodie<sup>1</sup>  
<sup>1</sup>The Royal Melbourne Hospital  
Victoria

Context: Home Dialysis (HD) is seen as superior to satellite haemodialysis for many patients, with improved quality of life, mortality and morbidity (Marshall et al 2012). Australian dialysis units are therefore striving to secure ways to increase the uptake of home therapies. However, implementing home therapies in regional and rural settings poses a number of problems including the need to relocate to metropolitan centres for training and a lack of nursing expertise and support in rural areas for home therapies.

Objectives: Our major metropolitan dialysis service established a HD Link Nurse service in 2008 supported by regional hospitals and nephrologists. In 2011, Department of Health Vic pilot funding enabled the role's expansion to include local training for home therapies utilising established infrastructure. The expanded service was advertised at patient education days and patient recruitment took place.

Key Messages: Interviews with the 5 regionally trained patients have identified many benefits. Travel and associated costs are minimised and local training enables more time for family needs. Continuity of care is enhanced through Link Nurse involvement in all aspects of the patient's journey, from pre-assessment to successful establishment on dialysis at home. Further feedback will foster tailoring of training and support to individual patient needs.

Conclusion: Expansion of the Link Nurse position offering local training for patients has both benefitted and enhanced the care and support provided to our HD patients. This presentation discusses the expansion of the role, the processes for setting up regional training sites and the successes achieved to date.

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## Redesigning Handover: 22

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Victoria

Context: Handover in our metropolitan haemodialysis services involved staff gathering at the nurses' station after all treatments had commenced to review each patient's plan of care. Information shared varied, but was generally brief e.g. UF goal and cannulation issues. Clinical supervision of inexperienced nurses' decisions was limited by the brief handover and was not apparent to patients. Patients did not participate although from their chairs they could observe the discussions.

Objectives: To re-structure handover to increase patient safety, patient participation, and opportunities for clinical supervision and role modelling by experienced staff.

Key messages: Our hospital was undertaking a re-design of inpatient ward nursing handover. We requested to be included. The project officers were invited to observe our current practice and to facilitate implementing a new handover.

Handover has changed to a chair-side clinical round. Each nurse is required to present their allocated patients to the round. The structure includes patient assessment, review of notes, and discussion with the patient about their well-being and treatment plan.

Some staff found this initially intimidating and required mentoring regarding how to present their patients. Staff also expressed discomfort about discussing the patient in their presence which was resolved by guidelines about what was appropriate to discuss in this forum.

Conclusion: The chair-side clinical round has improved our nursing care with increased staff accountability, better patient assessment, errors caught early, and signs of clinical deterioration acted on. It has increased patients' participation in their care, and improved their confidence when being attended by inexperienced staff.

## The 5 Step Phosphate Challenge: 23

Mrs Lynette Yeoman<sup>1</sup>  
Mrs Robyn Pollock<sup>1</sup>  
Ms Mandy McDonald<sup>1</sup>  
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Queensland

Context: Haemodialysis patients were noted to have increasingly high phosphate levels with 51% outside target range, despite dietitian reviews and increased phosphate binders. Speaking with our patients, there was a varying knowledge of when to take their binders and why. This encouraged us to delve further and attempt to empower our patients into taking an interest in their health and to improve phosphate levels and ultimately improve their quality of life.

Objectives: The aim of the 5 step phosphate challenge was:

- to improve our patients' knowledge of phosphate
- which foods are high in phosphate
- and when and how to take their binders.

We conducted a survey, which showed very limited knowledge about phosphate and phosphate binders. Some patients were not taking their binders at all.

Key messages: Following the results of the survey, the 5 step phosphate challenge evolved. We found people are more likely to respond to a challenge than to be told what to do and the challenge is individual to each patient.

Implications for clinical practice: The results of the challenge have been evident in patients' monthly blood results with a trending decrease in phosphate levels. This education process has continued over the past 18 months and our patients have improved their phosphate levels to the extent that only 40% are outside the target range. Our patients have been empowered in their own care, resulting in improved outcomes.

## Caring for the 'Tin Man': How Two Technologies Designed by the Same Man Combined to Care for a Patient: 24

Ms Kirsty Musgrave<sup>1</sup>  
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New South Wales

Caring for the 'Tin Man': How Two Technologies Designed by the Same Man Combined to Care for a Patient

Dr Willem Kolff was widely described as the "father" of artificial organs he invented the dialysis machine and was part of the team that developed the artificial heart. The total artificial heart is used as a bridge to transplant and is used in patients with end stage heart failure when a donor heart is unavailable.

In 2010 the heart transplant unit at a metropolitan hospital in Sydney performed the first total artificial heart transplant in the Southern Hemisphere where a patient had his own heart removed and the total artificial heart was implanted. In 2011 a metropolitan haemodialysis unit in Sydney gained a new patient Mr. A, who after receiving his total artificial heart developed end stage renal failure.

The management of Mr. A provided a multitude of challenges for the haemodialysis staff. This included troubleshooting the alarms, interpreting the readings on the monitor and managing emergencies including loss of power. Secondly we needed to provide haemodialysis for Mr. A with all the complexities associated with a chronic dialysis patient including fluid restrictions, ideal body weight assessment and blood pressure management and finally, how to manage the complexities when the two technologies collide.

We aim to detail the pathway taken in the management of Mr. A, highlighting the challenges associated with his care, how the staff have expanded their clinical skills and how two technologies developed by one man have combined to care for Mr. A

## Working Together for Change: Renal and GP Practice: 25

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 Hawkes Bay District Health Board  
 New Zealand

Context: The number of patients requiring renal replacement therapy continues to escalate with the increase in diabetes, hypertension and obesity. Renal services alone can not reduce the number of patients who are at highest risk of end stage renal failure. "Working together for change" gives an overview of the Chronic Kidney Disease (CKD) Pilot currently operating in a small renal unit in New Zealand.

This pilot involves renal and general practice services working together. The aim of which is to reduce albuminuria in these patients by managing blood pressure, diabetes and lifestyle factors in "high risk" patients. This is a nurse-led initiative which also involves up-skilling primary care, in particular practice nurses with CKD screening, management and prevention.

Objectives: This paper will discuss the CKD Pilot and the outcomes to date.

Key Messages:

1. Collaboration between renal and general practice is essential to effectively screen patients with or at risk of CKD.
2. Specialist renal nurses working in CKD are an effective resource to do this.
3. Intensive management with patients is effective in reducing risk factors for progression of CKD.

Conclusion: CKD management is effective in general practice, with the aid of specialist renal nurses working together in educating and up-skilling practice nurses and GP's. Intensive management of patients reduces the risk factors for progression of CKD and encourages effective self-management.

## The Low Clearance Clinic (LCC) : An Innovated Approach to Predialysis Care: 26

Mrs Jennifer Best<sup>1</sup>  
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 Queensland

People with advanced kidney disease face many changes in their health and lifestyle. Optimal management of these people is challenging necessitating a multi-disciplinary team approach incorporating medical, social and psychological input. It is clearly documented comprehensive predialysis care can assist in delaying the onset of End-Stage Kidney Disease, aid symptom management and increase the uptake of home dialysis or pre-emptive transplantation.

Historically, the process for people attending Nephrology Outpatients was that they were under the care of a Nephrologist but seen by a number of different doctors. Whilst care was delivered professionally, the treatment plan often changed from doctor to doctor causing a lack of clarity for the person in regards to their management plan. Additionally, people were not always choosing the most suitable treatment modality or having access created at an appropriate time.

Therefore, the LCC was commenced approximately six months ago with the aim of streamlining the person's transition to dialysis or transplantation, increasing the uptake of home dialysis and ensuring timely access creation. People with a kidney function of 15% or below are referred to the LCC. In this clinic, they are seen by their Nephrologist (or a nominated doctor) and accompanied by the predialysis nurse to devise a coordinated treatment plan. Additionally, multi-disciplinary support is arranged as needed.

To date, the LCC has been successful in establishing a definite treatment plan for dialysis or transplantation and a viable access for the majority of people. A patient satisfaction survey conducted in 2012 will evaluate the service.

## Handover: Old idea, new practices: 27

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Payneham Dialysis Centre  
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Background: In non-acute haemodialysis clinics the patients and their regimes infrequently change. In some clinics this scenario has created the culture that formalised handover is not necessary. Staff know the patients and what they need. Yet incidents related to poor communication still occur.

The Commonwealth Government recognised the gaps in communication and that this affected a large number of patients. This has resulted in Clinical Handover being included as one of the ten standards in the National Safety and Quality Health Service Standards.

Aim: To ensure a standardized handover occurs in our Haemodialysis clinics

To improve the content and relevance of information communicated during handover.

To assist culture change and acceptance of new quality improvement initiatives including patient safety, medication safety and infection control issues.

Method:

1. Reviewed the current handover process or its non-existence in the haemodialysis clinics
2. Developed a standardised handover form
3. Handover time and location was fixed and included in the daily routine
4. Designated a team leader to conduct each handover
5. Audited the completed handover agenda forms
6. Conducted a staff survey to review feedback on the new handover process and make improvements.
7. Conducted a pilot study at one clinic before extending the program to other clinics.

Results:

1. Handover became an expected part of the daily routine
2. Handover content and relevancy improved
3. Quality initiatives became embedded in the culture.

Implications for clinical practice:

1. Improved staff communication resulting in improved patient care
2. Improved nursing practices.

## Does the Flinders Program of Chronic Condition Self-Management improve the health and wellbeing of haemodialysis patients? A pilot study: 28

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Victoria

Background: The Flinders Program of Chronic Condition Self-Management (Flinders Program) is a structured program providing a consistent, reproducible approach to assess self-management behaviours, identify problems, set goals and develop care plans. This is the first study of the implementation of the Flinders Program among haemodialysis patients.

Aims: To assess the efficacy of the Flinders Program on the patients' health, wellbeing and self-management behaviour.

Methods: A 24-week longitudinal study was conducted with 13 long-term haemodialysis patients attending a regional dialysis unit in Victoria. Six-weekly reviews were conducted to monitor participants' progress and motivate them to improve self-management skills during the implementation of Flinders Program. Self-management skills, quality of life and dialysis clinical outcomes were measured at the beginning, during and at the completion of 24-weeks.

Results: Access to allied health services was significantly increased. Improvements in clinical measurements (increased urea clearance, improved systolic blood pressure, reduction in fluid retention), quality of life (as shown by increased Kidney Disease and Quality of Life Short-Form (KDQOL™-SF) scores), and some aspect of self-management skills (as shown by increased scores in some aspects of Partners in Health Scale) were reported. Although few changes reported were statistically significant, every participant made a clinically important improvement in at least one measure.

Implications for clinical practice: Clinically important improvements for individual participants were identified. Further study is needed to determine the sustainability of the Flinders Program in haemodialysis patients. A randomized controlled trial with a large sample size and long-term follow-up is recommended.

## Supportive Care: What does “the patient “ want?: 29

Mrs Jacqui Moustakas<sup>1</sup>

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**Background:** Research into the symptom management and outcomes for people with advanced chronic kidney disease who decide not to have renal replacement therapy is increasing. However, there is limited qualitative research on the needs of patients, carers or families to assist or guide them in their decision making.

**Aims:**

1. To determine the educational needs of patients, carers and their families who choose supportive care
2. To understand decision-making of patients, carers and their families who choose supportive care

**Methods:** A qualitative case study approach was used for this research, conducted within two Australian tertiary metropolitan hospitals, with no formal renal supportive care programs. All participants had an eGFR <15, were >65yo, were able to speak and understand English and had made an informed decision not to have renal replacement therapy. The six participants were interviewed and their medical case notes were analysed. This study had hospital and university human ethics committee approval.

**Results:** Themes relating to the participants education and decision-making were developed from the interviews and case note analysis. Initial themes include “the importance of carers and family”, “knowledge that they will die” and “avoiding discussions of death”.

**Implications for clinical practice:** Knowledge gained from these results, will assist in caring for patients, carers and their families and highlighting the educational needs of those who choose supportive care. It will also identify future areas for research.

## Factors Associated with Quality of Life of ESRD Patients: 30

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Vietnam

Queensland University of Technology

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**Background:** The prevalence rate of end stage renal disease (ESRD) patients is increasing in Vietnam; however the impact of ESRD and its treatment on a person's quality of life is not well understood.

**Objective:** This research sought to examine the association between monthly income, co-morbidity, length of time on dialysis, social support and health related quality of life (HRQOL) among Vietnamese ESRD patients.

**Method:** Using a descriptive correlation design, 95 patients who were receiving hemodialysis and peritoneal dialysis from one hospital in Hanoi, were conveniently sampled.

**Results:** ESRD patients reporting having a moderate HRQOL level. Factors associated with their quality of life were social support ( $r = .268, <.05$ ), co-morbid health conditions ( $r = -.185, <.05$ ), and length of time on dialysis ( $r = .182, <.05$ ). However, monthly income was not significantly related to HRQOL ( $p > .05$ ).

**Implications for Clinical Practice:** The results seem to indicate that ESRD patients have a high level of support from family members, friends, and significant others. There was also a negative and significant association between the impacts of other co-morbid conditions has on quality of life. While there was no relationship between monthly income and total HRQOL, many ESRD patients did reveal their exact monthly income. Based on the results of this study, nurses ought to develop nursing interventions which will lead to a better quality of life for patients, and that further research into the quality of life for ESRD patients in Vietnam is warranted.

## Patient Anger and Aggression in Satellite Units a 3 Year Follow Up: 31

Mr David McCallum  
RMH Kidney Care - Melbourne Health  
Victoria

Background: In 2002 our service developed a clinical Anger and Aggression Management programme. Reporting via an online risk reporting program documented the age and sex of instigator, site of incident, whether it was verbal or physical abuse and reason for expression of anger.

Aim: A 100% increase in reports of anger and aggression in 2008 suggested that we needed to re-evaluate our policy and management.

Methods: The service, together with human resource and social welfare departments, reviewed the educational tools and as a result a greater focus was placed on responses to patients via a presentation to all staff called "Behaviours at work". In addition the patient roles and responsibility brochure was reviewed and an increased use made of individual discussions with patients.

Results: The effectiveness of this review was measured through ongoing monitoring. From January 2009 there has been a decline in reported incidents of anger and aggression to historical low levels – a 37% reduction by December 2011. Males predominate as instigators, the majority aged between 51-60 years. Trigger points for expressions of anger continue to be varied

Conclusion: The level of anger and aggression towards staff and patients has decreased since the introduction of the reviewed staff presentation and subsequent reviews of the events have shown an increase by staff in effective use of skills in dealing with these events. Regular review and ongoing commitment to Anger Management education tools for both patients and staff is needed to ensuring that all aggressive behaviour is actively discouraged.

## RENEW - The Renal Redesign Project: The use of diagnostics and solution design strategies to facilitate successful change implementation: 32

Mr John Harkness<sup>1</sup>, Ms Kim Jobburn<sup>1</sup>  
Professor Michael Suranyi<sup>1</sup>  
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Context: The ageing population and geographical population growth are increasing demand for renal replacement therapies. Facility based haemodialysis units are struggling to cope with the associated physical and cost demands. Home based dialysis therapies are known to be more cost effective with excellent social and survival outcomes.

Objectives: RENEW – The Renal Redesign Project examined the pre dialysis health care experience of renal patients under the care of a large Sydney Renal Network with a view to finding opportunity to improve patient care outcomes and identify strategies to increase the uptake of home based dialysis therapies. This presentation will detail two crucial parts of this methodological approach to change management:

- Diagnostics – an inclusive, client focused, multidisciplinary approach to identify issues relating to the pre-dialysis journey. Appropriate data, tools and strategies are used to facilitate the identification and prioritisation of issues.
- Solution Design – a problem solving approach with appropriate tools and strategies to identify and marry solutions to the issues identified in the diagnostic project phase.

Key Messages: To facilitate the implementation of sustainable, organisational change all stakeholders (including patients and carers) must be engaged in issues identification (Diagnostics) and problem solving (Solution Design).

A number of tools and strategies will assist in the successful engagement of stakeholders whilst limiting the risk of resistance to change and ineffective change implementation.

Implications for Clinical Practice: Change management and the methodology behind the successful implementation of change are vital components of developing clinical practice and achieving both clinical and organisational goals.

## Developing an intergrated incident management system specific to haemodialysis: 33

Ms Samantha Tan<sup>1</sup>  
<sup>1</sup>Malvern Dialysis Unit  
 Victoria

Background: Incident reporting is an important component of clinical practice. Often the process of incident reporting is well defined, however how that incident is feedback and used to improve practice can remain far removed from the nurse providing patient care. The Australian Council on Healthcare Standards (ACHS) promote an integrated incident management system that includes; identification, notification, prioritization, investigation, classification, analysis and feedback

Aims: To develop an integrated incident management system that accurately captures incidents specific to haemodialysis and facilitates clinical practice and benchmarking between clinics.

Methods:

1. Introduction of an electronic incident management system
2. Classifications of incidents with input from all Dialysis Unit Managers specifically designed for haemodialysis
3. Provide an avenue to discuss incidents, monthly during quality meetings with other Dialysis Unit Managers.
4. During 2011 provided a quarterly report to all clinic staff, executive management and medical officers, the report provides individual clinic results

Results: Using an electronic web based system allows for real time reporting and review of incidents by management. The system enables the user to extract reports and highlight 'trends' or clusters of incidents, to then implement the appropriate policy or procedural changes

Implications for clinical practice: The introduction of an electronic incident management system has enabled the organization to accurately assess trends, prioritise quality projects taking into account risk in addition to frequency and benchmark results between clinics, assisting the organisation in providing safe and effective care to patients.

## Haemolytic Uraemic Syndrome in Children: Typical and Atypical: 34

Mrs Yogarani Jeyakumar<sup>1</sup>  
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 Southern Health  
 Victoria

Context: Haemolytic Uraemic Syndrome (HUS) is one of the main causes of acute renal failure in children. It is a multifaceted disease, characterised by microangiopathic haemolytic anaemia and thrombocytopenia. It can often affect multiple organ systems including the central nervous system. Depending on the clinical presentation, HUS can be classified as Typical or Atypical.

Objectives: Two case studies will be presented that will highlight the differences between typical and atypical HUS. Discussion in this paper will include the management of two cases of HUS in children admitted to a paediatric renal unit. An eight year old girl presented with typical HUS and a five year old boy presented with Atypical HUS. These complex case studies will demonstrate the strategic medical, nursing and allied health management of these children.

Key messages: The importance of identifying the differences in presentation and management of typical and atypical HUS. Typical HUS, which is the most common form, is associated with a prodromal episode of diarrhoea that is often bloody and associated with Escherichia Coli. Atypical HUS is a heterogeneous disorder where there is an absence of the diarrhoeal prodrome. Treatment and prognosis is dependent on the type of HUS. Typical HUS starts with severe symptoms but the Atypical form has long term consequences

Implications for clinical practice: It is important to ascertain the correct diagnosis early and initiate appropriate therapy accordingly. HUS is a syndrome that has seen several important advances in relation to therapeutic approaches.

## Challenges in Caring For Infants on Peritoneal Dialysis: 35

Mrs Yogarani Jeyakumar<sup>1</sup>  
<sup>1</sup>Monash Children's Hospital,  
 Southern Health  
 Victoria

Context: Peritoneal dialysis (PD) in the automated form is the most common home based dialysis modality for children with Chronic Kidney Disease (CKD) stage 5. Caring for young infants on PD is unique and presents many challenges to the multidisciplinary team of the paediatric renal unit. Meticulous attention to nutrition, dialysis prescription, medications and support to families is paramount for a successful outcome for infants.

Objectives: This presentation will focus on the journey of two infants aged 12 months and 15 months, commencing PD initially on Continuous Ambulatory Peritoneal Dialysis (CAPD), then on to Automated Peritoneal Dialysis (APD) and the hurdles encountered to reach the ultimate goal of a successful renal transplant.

Key messages: Technological and clinical advances over the last four decades have resulted in successful outcomes for the older children, but continue to challenge the treatment of young infants with infinite problems. Parents with infants dependent on PD at home follow a complex treatment regimen which involves strict adherence to medications and nutritional supplements via an enteral feeding tube. Dialysis prescriptions are always tailored according to the infant's age, body surface area and nutritional requirements. The advantages of a home based therapy come with a personal cost for parents caring for their infants. Thus, emotional support is critical for parents to prevent fatigue and burn-out.

Conclusion: The members of the multidisciplinary team played a pivotal role in achieving a positive outcome for both infants and parents.

## Peritoneal Dialysis Related Peritonitis: Time from Presentation to First Antibiotic Treatment: 36

Mr Michael Garrett<sup>1</sup>  
 Ms Sarah Malcolm<sup>1</sup>  
<sup>1</sup>Bendigo Health  
 Victoria

Background / Method: Following anecdotal feedback regarding delays in the timely treatment of peritonitis, we implemented a retrospective audit of all episodes of peritoneal dialysis (PD) related peritonitis.

Aim: Data from 27 presentations over a two year period were analysed with the purpose of identifying the time between patient presentation and

- a) the notification of renal staff, and
- b) administration of the first dose of antibiotics.

Results: A total of 34 patients had been on PD during the study period, of which 16 (47%) experienced peritonitis. Four patients had multiple episodes of peritonitis which accounted for 51% of all presentations. A peritonitis rate of 1 episode every 19.8 patient months was noted.

Results showed that the average time taken to notify renal staff of a patient presentation was 90 minutes, ranging up to 426 minutes.

Time to the administration of the first dose of antibiotics ranged from 30 to 631 minutes, with an average of 214 minutes.

Implications for clinical practice

Opportunities identified that may help streamline the process include;

- a) encouraging patients to prompt the presenting unit to contact renal staff
- b) educate patients to bring a PD sample with them on presentation
- c) capacity building of emergency nursing staff to assist with PD procedures
- d) revision of policies and procedures to ensure clarity of the process.

## Caring for a Patient with Epidermyolosis Bullosa on Peritoneal Dialysis: 37

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 Ms Tracey Blow<sup>1</sup>, Ms Fiona Robinson<sup>1</sup>  
 Prof George Mangos<sup>1,2</sup>  
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<sup>2</sup>University of New South Wales  
 New South Wales

**Context:** Epidermyolosis Bullosa (EB) is a rare genetic disease of the connective tissue, characterised by extremely fragile skin/mucosal membrane and recurrent blister formation, resulting from minor mechanical friction or trauma. A 24-year-old lady with EB was recently referred for peritoneal dialysis (PD). Her child-like frame and frail physical condition presented challenging clinical situations for the PD unit.

**Objectives:** This paper's aim is to give insight on how the PD unit, in collaboration with the surgical and medical teams, provided appropriate care and dialysis to a patient with EB by modifying clinical practices to suit the patient's clinical needs.

**Key messages:** Special considerations in the PD treatment of a patient with EB are:

1. PD-catheter (PDC) placement- a pre-sternal PDC was inserted to reduce exit-site infection risks as she continues her daily bathing and wound dressing routine.
2. PDC exit site care and protection- several dressing regimens were trialed until the PDC exit site was healed. A special dressing regimen is developed for her ongoing exit site care.
3. PD therapy- several low-fill mode therapies were tailored based on frequent fill volume adjustments.
4. Homecare- her progress on PD is monitored through ongoing electronic and phone communications between the nephrologist, PD nurse, patient and parents.
5. PD clinic appointments scheduled on as needed basis. The PD unit ensured the emergency trolley is equipped with paediatric-sized devices.

**Implications for clinical practice:** Individualised care and tailored PD therapy is inevitable for every PD patient, more so as we encounter patients with special conditions/needs.

## Hernia Repair and Peritoneal Dialysis: Mutually Exclusive?: 38

Mr Michael Garrett<sup>1</sup>  
 Ms Sarah Malcolm<sup>1</sup>  
<sup>1</sup>Bendigo Health  
 Victoria

**Context:** The occurrence of abdominal herniae in the Peritoneal Dialysis (PD) population poses some interesting dilemmas for management in the post operative period. Many staff are of the opinion that patients should transfer to haemodialysis following hernia repair. For patients living in regional or remote areas, even a temporary transfer to haemodialysis can have a significant impact on their lifestyle.

We describe the experience of "Barry", a 74 year patient using Automated Peritoneal Dialysis (APD) who required surgical repair of an epigastric hernia. Barry lives with his wife "Beryl", in a small Mallee town in north-western Victoria, with a population of 23. They are 250 kilometres from the main provider of PD care and almost 400 kilometres from the "hub" hospital. Barry commenced APD almost three years prior to his admission for surgery.

**Objective:** Barry's preference and the goal of care staff, was to maintain APD following his hernia repair. Such an approach would allow Barry to return home earlier and avoid many hundreds of kilometres of travel for haemodialysis in the post operative period.

**Key Message:** Utilising low volume, frequent APD cycles increasing at regular intervals, we were able to maintain a successful and appropriate therapy, without significant impact on biochemical indicators, or complications with the surgical repair.

**Implications for Clinical Practice:** Our experience has shown that with appropriate planning and support, maintaining PD in the post surgical period can be a viable option.

## Vancomycin Resistant Enterococci (VRE) Self Directed Learning Package - an educational resource for nephrology nursing practice: 39

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 Queensland

Within the context of the renal population and nephrology units, Vancomycin Resistant Enterococci (VRE) colonisation and infection is an increasingly significant issue both globally and within Queensland, Australia. Associated with the increasing incidence of VRE are the morbidity and mortality implications and increased healthcare expenditure that occurs when treating VRE colonised and/or infected renal patients. The results of a current literature review revealed nurses' knowledge deficiencies in multi resistant organisms (MROs) infection control practices, which have provided the rationale for the development of an educational tool. Therefore, in order to improve knowledge a VRE self-directed learning package was developed and piloted with nephrology nurses at a Queensland Metropolitan Teaching Hospital (QMTH).

In evaluating the completed packages the majority of nurses (n = 33) demonstrated overall increased knowledge (75.7 %) specifically in relation to the specific VRE questions (15.8%). The qualitative feedback provided by the nurses in the evaluation tool supported the benefit of increased knowledge. These results reinforce the need for the VRE SDLP to be part of the mandatory training for nephrology nurses at the QMTH. The learning package is now available via the Renal Intranet to all nephrology nurses at the QMTH. Additionally, the package has been disseminated through the Queensland Nephrology Nursing Network and the Southern Queensland Renal Clinical Network as an educational resource that will increase knowledge and therefore improve nephrology nursing practice.

## Renal vascular access education in Australia: A three year review: 40

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<sup>2</sup>Barwon Health  
 Victoria

Context: There is increased awareness regarding the benefits of ultrasound for vascular access surveillance and guided cannulation in haemodialysis. However, finding time to train staff whilst working within the clinical setting is challenging.

Objectives: In 2009 a workshop was introduced in Victoria to provide a platform for nursing staff to learn advanced skills in surveillance and cannulation in a safe, supportive environment.

Key Messages: The workshop covered topics such as; assessment and cannulation, surgical perspectives in vascular access, radiological perspectives in vascular access, surveillance and monitoring, cannulation competency package, antegrade/antegrade cannulation and introduction to ultrasound plus five hours of practical sessions. Feedback from the workshop over the past three years has been positive, and staff have benefited from the both the theoretical and clinical components of the workshop.

Implications for Clinical Practice: Long term possible outcomes would be that less patients would be sent for unnecessary radiological scans in the future, and that there would be an overall reduction in miscannulations in dialysis units.

The success of this workshop highlights the demand for continuing vascular access education within the renal workforce.

## Introducing a Haemodialysis Competency Package to create an effective and transparent workforce: 41

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 New South Wales

Background: There is no streamline haemodialysis competency in Australia that provides recognition of dialysis nurses' level of skills and knowledge. This causes frustration for the educator or preceptor when training new staff members who have previous dialysis experience. It may also impact negatively on retention and motivation of Nephrology nurses and patient safety.

Existing competencies are for broad spectrum nursing, and are lacking in framework to guide specialist staff from novice to expert.

Aims: The aim of the Haemodialysis Competency Package is to provide guidance for the dialysis nurse on expected knowledge and skill. This ensures each staff member is performing at a level within their scope of practice and delivers safe care for the dialysis patient.

Methods: The Haemodialysis Competency Package has been separated into 4 different levels: Level 1 - Novice; Level 2 - Beginner; Level 3 - Intermediate and Level 4 - Advanced.

Results: The competency package combines existing hospital guidelines and procedures. It also directs staff to current literature to ensure evidenced-based practice. The competency package has been used as a framework for training for all new employees since Jan 2011 and presently 80% of existing staff have been assessed against the competency and given a level of achievement.

Implications for clinical practice: Staff - Recognition of current dialysis skills and knowledge. Self awareness of knowledge/skill limitation and learning needs

Managers - Record of each staff's knowledge/skill enabling appropriate skill mix.

Patients - Allocation of appropriately skilled staff to patient requirements.

## Fostering education opportunities for enrolled nurses in dialysis: 42

Ms Marie McIntosh  
<sup>1</sup>Western Health  
 Victoria

A recent complement to an already challenged dialysis workforce was the addition of enrolled nurses; this presentation aims to discuss the next phase of the journey for enrolled nurses by enabling them to undertake a nationally recognized training package developed locally: 'HLT07 Renal Care Skill Set.'

In our health service only Registered Nurses (RNs) have access to renal specific further learning opportunities (Graduate Certificate of Nephrology introduced 2010 in partnership with other network hospitals and a local university). The addition of the Renal Care Skill set via the Registered Training Organization (RTO) scope affords the nephrology department the opportunity to create a skilled pathway for enrolled nurses with a skill mix in line with that of the current Enterprise Bargaining Agreement.

On site is an educator responsible for delivering a proportion of the content and 'content specialists' will be invited to present from within the organization.

Units to be offered:

HLTRNL601B Support the client with chronic kidney disease.

HLTRNL602B Provide support and management of the client undergoing peritoneal dialysis therapy.

HLTRNL603B Provide care and support to client in renal replacement therapy in community setting.

HLTRNL604B Provide support and management of the client undergoing haemodialysis therapy.

Currently a pilot version is underway and results are expected within the next six months.

Anticipated Benefits:

Enhanced scope of practice and career pathway for the enrolled nurse

Increased Renal nursing EFT in line with increasing demand

Increase the potential pool of staff wishing to pursue a career in dialysis and renal nursing.

## VRE: The Day our world changed: 43

Mrs Maxine Liles<sup>1</sup>  
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 Queensland

Context: Overnight our regional haemodialysis unit went from zero VRE positive patients to 8. In an in-patient population of 40 patients this was a significant event; one that would have far reaching implications for all staff and patients, not just those diagnosed as VRE positive.

Objectives: This presentation outlines the events that occurred on Friday 11.11.11 within our unit, our immediate response, the impact that it had, and our ongoing management of the situation.

Key messages: Remain calm!

Throughout the day a large volume of phone calls were placed as key people were brought together to answer questions and plan strategies for management of this unique situation. Whilst communication failures were questioned – such as why we hadn't been informed; the key focus was on management of the situation. Excellent communication skills were required to coordinate the services and people impacted by this development.

Implications for clinical practice: The outbreak had a huge effect on the emotional wellbeing of all involved. Our fun filled unit took on a somber feel as pictures were removed from the walls, massage therapists were stopped from coming and many of the other monthly activities ceased.

On-going management included increased surveillance, intensive staff education and a dedicated shift for VRE positive patients.

We now have 12 VRE patients. Is this an indication that we have failed in our precautions, or is it a reflection that our practices have at least stemmed the flow?

Reflection: Could we have prevented this???

## Interruptions in a Home Dialysis Training Facility: the impact on patient education and nursing work practices: 44

Ms Samantha Beck<sup>1</sup>  
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 New South Wales

Background: This study evolved from the observation of the normal working environment within the home dialysis training unit. This informal observation identified many interruptions to the normal working day for the nursing staff responsible for the education of patients to prepare them for home dialysis.

Aim: The purpose of this study is to identify those unplanned activities which impacted on the routine work practices of the home dialysis training facility.

Methods: Data was collected over a four-week period. Data collected included all unplanned activities which presented to the home dialysis training facility.

Results: Findings demonstrated that there was a significant amount of time dedicated to unplanned activities during the data collection period. The unplanned activities ranged from those requiring immediate nursing assistance such as technological issues, to those requiring non immediate nursing assistance such as medication prescriptions and monthly blood test forms.

Conclusions and Recommendations: The unplanned activities took a substantial amount of nursing staff time and there are a range of potential changes to work practices that may assist in minimising unplanned activity to reduce the impact on the normal work of the home dialysis unit. Reduction of time devoted to unplanned activities will enable staff to focus on training patients for home dialysis and reduce the training time taken to ensure safe home dialysis.

## Clinical Waste Reduction in Satellite Dialysis Units: 45

Mr David McCallum<sup>1</sup>, Ms Kim Kotas  
<sup>1</sup>RMH Kidney Care - Melbourne Health  
 Victoria

**Background:** It is estimated that 260 million kilograms of solid waste is produced by Australian hospitals per annum. Clinical waste removal from our satellite dialysis units contributes to this as a costly but necessary burden.

**Aims:** The Waste Minimisation in Healthcare project promotes and encourages waste minimisation and resource efficiency in Victorian healthcare facilities. With demand for dialysis services increasing, we have a social responsibility to provide an efficient and financially prudent means of waste reduction and removal. Each dialysis session generates somewhere between 2.5 and 3kg of clinical waste. By reducing this clinical waste through waste segregation, associated environmental and financial impacts can be reduced.

**Methods:** Clinical waste was targeted by our quality and safety group as an effective way of achieving corporate and social responsibilities with additional potential for cost savings. A working party was organised to identify priority areas of clinical waste reduction.

In our process, clinical waste audits were completed and staff were re-educated regarding appropriate separation of clinical, recyclable and general waste, resulting in the provision of additional disposal units for recyclable waste.

**Results:** From July 2010 to December 2011 there was a 16.8% reduction in clinical waste removal from our satellite dialysis units. The reduction in waste has resulted in the average clinical weight per treatment decreasing from 2.5 kg to 2.08 kg.

**Conclusion:** The benefits, when there is a focus on waste reduction, include the service achieving cost savings in reduced clinical waste removal in addition to contributing to lessening our environmental footprint.

## Enriching the Mix - Day Medical Procedures Incorporated Into a Haemodialysis Unit: 46

Mr Isidro Baliton<sup>1</sup>  
<sup>1</sup>Western Health  
 Victoria

**Context:** Our haemodialysis unit is on the metropolitan fringe of Melbourne and employs Registered (RNs) and Enrolled Nurses (ENs). Last year we skilled our work force to also deliver a limited range of chemotherapy and day medical procedures. RNs underwent chemotherapy training and credentialing for intravenous cannulation. Staff had supernumerary time in day chemotherapy and medical day procedure units. Our initial chemotherapy treatments were attended by an experienced chemotherapy nurse to provide clinical supervision.

Consultation was undertaken with our health service's other day medical unit, day chemotherapy, pharmacy, and Oncology and Haematology physicians.

**Objective:** To develop our capacity to safely care for patients undergoing chemotherapy and day medical procedures in our haemodialysis unit.

**Key messages:** All staffs were excited about the addition of this new clinical load. It provided opportunity to acquire new expertise. Many haemodialysis skills are useful in caring for day medical patients. For example: establishing nurse-patient relationships, cannulation, blood result review, and consulting with off-site physicians.

Obstacles included slow building of activity which protracted the development of staff expertise. ENs' limited participation due to a differing scope of practice. Balancing workload harmoniously between all staff has been challenging.

**Conclusion:** The initial review showed that combining haemodialysis and day medical has increased nursing job satisfaction due to work variety and opportunity to expand expertise. Patients have been cared for safely and have expressed positive feedback regarding their quality of care and being treated closer to home.

## The Girl with the Butterfly Rash - Exciting New Therapies: 47

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 Prince of Wales Hospital  
 New South Wales

Treatment of Systemic Lupus Erythematosus (SLE) has expanded from the conventional steroid based therapies and anti-malarial drugs to include drugs more commonly associated with transplantation. They have recently been used in the induction of remission in Systemic Lupus Erythematosus in combination with the conventional therapies.

Systemic Lupus Erythematosus is a systemic autoimmune disease which predominantly affects young women. The cause is unclear. Treatment is aimed at inducing remission. SLE can present with many symptoms depending on the organ(s) involved. Lupus nephritis occurs in 60% of patients diagnosed with SLE, it can progress to end stage kidney disease.

The implications for clinical practice for renal nurses are based on preventing flare-ups and educating the patients on how to maintain a state of remission; this will be explored in detail. We will present a case study which begins with a girl's diagnosis at age 14 and follows her disease process over the next 13 years, incorporating SLE pathogenesis and kidney involvement. The case study will also include the medications used over that time and the effect and consequences of SLE on her quality of life. This presentation aims to briefly revise the conventional therapies used, then to discuss the exciting new therapies used in the treatment of SLE.

## Erythropoietin stimulating agents in chronic kidney disease: A longitudinal study of the effect on health related quality of life, fatigue and activity levels: 48

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 Queensland

Background: Chronic kidney disease (CKD) is a complex chronic illness with a high symptom burden. Feeling fatigued contributes to the symptom burden and severely impacts on an individual's health related quality of life (HRQoL).

Aims; This study sought to determine the relationship of HRQoL, fatigue and activity levels of people with CKD following the introduction of an erythropoietin stimulating agent (ESA).

Methods: Using a longitudinal repeated measure design, people with CKD stage 4 (n=28) and stage 5 (n=1) completed the SF-36, human activity profile and fatigue severity scale at the commencement of an ESA, and then at 3, 6 and 12 months later.

Results: Surprisingly, younger people did not have better HRQoL, activity levels or lower fatigue than older people. Over a 12 month period, regardless of age, people reported a significant improvement in relation to physical role, vitality, mental health/emotional well-being and overall mental health components associated with HRQoL. There were no improvements with other physical, emotional and social function aspects of the SF-36 or activity levels during that time. The level of fatigue was highest at baseline and had significantly declined by six months.

Implications for Clinical Practice: Nurses working in CKD clinics are ideally placed to assess and monitor for changes in HRQoL, fatigue and activity levels in people with CKD. In particular early detection of a person's inability to engage in routine activities due to fatigue is necessary. Early detection would enable timely nursing interventions to optimise HRQoL and independent exercise.

## Improving outcomes for patients with end stage renal disease: one tertiary hospitals experience: 49

Ms Charlotta Ekstrom<sup>1</sup>  
 Dr Gursharan Dogra<sup>2</sup>  
 Dr Harry Moody<sup>2</sup>, Ms Mary Russell<sup>4</sup>  
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<sup>1</sup>A/Clinical Nurse Specialist  
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<sup>4</sup>Clinical Nurse Specialist  
 Western Australia

**Background:** In 2009 it was estimated that this tertiary hospital tracked over 600 patients with progressive CKD using an electronic database. Patient education and dialysis access was managed by a CKD nurse working 0.5FTE and an access nurse working 0.6FTE. About 90 patients/year commenced dialysis within this tertiary hospitals dialysis centre. Less than half had functioning permanent vascular access for dialysis, and required a central venous catheter. Up to one fifth of new patients were late referrals, indicating that they commenced dialysis within 3 months of being referred to a nephrologist. It is unlikely that these patients commenced dialysis with their chosen modality.

**Aim:** By targeting stage 3-5 CKD with better resources, patient outcomes will improve by increased incidence of permanent dialysis access, self-management (home therapies) and therefore improved patient outcomes.

**Method:** An introduction of a 12 month trial of a multidisciplinary renal CKD clinic where nursing FTE was increased from 0.5FTE to 1FTE.

**Result:** Incidence of permanent dialysis access was improved. There was also a clear correlation of increased uptake of the home dialysis option where patient choice of modality was matched by eventual treatment modality.

**Implications for clinical practice:** In this setting increased nursing resources showed an improvement in patient outcomes in improved access incidence as well as an increase in uptake/choice of a home therapy type dialysis. This encourages patient involvement and self-management which is proven to have a greater patient outcome as well as being cost effective of managing chronic kidney disease.

## Renal Supportive Care: Holistic care for end stage kidney disease patients and their families: 50

Ms Elizabeth Josland<sup>1</sup>  
 Ms Gemma Collett<sup>1</sup>  
 Ms Celine Foote<sup>2</sup>  
 Dr Shelley Tranter<sup>1</sup>  
 Dr Frank Brennan<sup>1 & 3</sup>  
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 International Health  
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 New South Wales

**Background:** With an aging population, there is a societal expectation that elderly patients with end stage kidney disease (ESKD) have renal replacement treatments based on quality of life and survival benefits. Improved supports for those who are managed on a conservative pathway (non dialysis) are an important adjunct to their usual renal care.

**Aims:** To develop and test a unique Australian collaboration between the Renal and Palliative Care departments to provide holistic care and symptom control for patients with ESKD, particularly those following a conservative pathway.

**Methods:** In March 2009 a weekly Renal Supportive Care (RSC) Clinic was established. It is the first such clinic in NSW, comprising a Renal Supportive Care Nurse, Palliative Care Physician, a Nephrology Trainee and a Renal Research Officer. Clinic outcomes are measured using regular symptom inventories and quality of life measurements.

**Results:** The outcomes are : 1) One new patient every week enrolled in this service, 2) measured improvement in symptom burden, 3) high patient satisfaction, and 3) strong adherence to a conservative management pathway.

**Implications for clinical practice:** The service embraces holistic care with a focus on expert symptom control and provides education and academic research into a largely unstudied field.

All patients managed conservatively and those on active dialysis with poor symptom control have clinical care with this service (both outpatients and an inpatient consultative service) as well as by their usual nephrologist. The benefit to the community is tangible through the holistic care the patients and family receive.

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## Managing Diversity in a Haemodialysis Unit: A Manager's Perspective: 51

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<sup>1</sup>Haemodialysis unit  
 Princess Alexandra Hospital  
 Queensland

Background: The role of a Unit Manager for any service in a tertiary hospital is a challenge in itself. A haemodialysis service adds additional challenges which includes the workforce training and skill acquisition required, the management and resourcing of multiple assets, the technological advancement in the equipment, the chronic nature of the patient group, the change in community expectations and the continual expansion of the service.

Objectives: The objective of this presentation is to look back at the multiplicity of changes and challenges Unit Managers of tertiary haemodialysis services have dealt with over the past 15 years and to provide advice on what strategies have worked well and what hasn't worked so well over time.

Workforce challenges for recruitment and retention include cultural diversity and the difference between the generational cohorts. An expectation of the medical team to introduce more complex treatments and participate in research requires regular review of model of care. The advancement in technology has been gradual but continuous and has resulted in a change in focus for some nurses. The basics and personal touch of nursing care can be neglected while too much emphasis is placed on technology. A change in our patient cohort has also occurred including community expectations

and attitudes. The expectation of the unit manager to advocate for, justify and contribute to service expansion and to remain open to change and new ideas has allowed managers to personally develop and cope with most challenges.

Application to practice: An extensive literature search has identified a limited availability of resources to support managers cope with these diversities. The sharing of experiences may provide some support to the next generation of managers to allow them remain focused on the primary aim of our role – *quality care for our patients*.

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## Palliative care for sick kidneys - a Northern Territory renal palliative care initiative, our journey so far.. : 53

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Mrs Samantha Harrington<sup>1</sup>  
 Mrs Suzanne Stewart<sup>1</sup>  
<sup>1</sup>Territory Palliative Care Network  
 Northern Territory

In 2008-2010 the Australian Government funded the Northern Territory Government Palliative Care for Renal Clients Living in Remote Settings Project. A significant outcome of this project was the development of a culturally appropriate model of renal palliative care provision and a renal palliative care pathway. Further funding has now been obtained to embed this pathway into renal and other chronic disease services.

Embedment of Renal Palliative Pathway into NT Renal Services is seen as a priority for service improvement which will ensure continuity of care to clients across the continuum of renal service provision. The implementation of this pathway requires that relationships between services and remote communities are developed to ensure smooth transition for the patient on their palliative care journey. It also requires the development and consistent utilisation of advanced care planning processes.

Two Renal Palliative Care Coordinator positions in the Northern Territory have been developed to utilise existing resources and educate and support family/carers to utilise the renal palliative care pathway. In collaboration with Palliative Care Case Managers, they are developing culturally appropriate advanced care plans for use in the in-patient and remote setting. Education and support of remote clinic staff to manage CRF/ESRF palliative care renal clients in the community will be provided through the use of telehealth technology and participation in regular remote area clinics with renal services.

Evaluation of the effectiveness of this project will be crucial to ensuring ongoing funding is provided for renal palliative care and key performance indicators have been developed to facilitate this process.

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## Improving health literacy - the whys and wherefores: 54

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Queensland

Context: An underpinning principle of chronic disease management is health literacy - the ability to interpret and understand health information whether provided in spoken, electronic or written form. The focus has primarily been on those people who have underlying motivation, therefore those with less education are at a disadvantage. As health professionals (HP), we often see how the impact of a person's motivation to actively participate in care enhances independence, approach to life and quality of life. Being health literate can motivate people to actively participate in their well being. Conversely, those who are less motivated are also more dependent, saying 'I'll do whatever the doctor says I should'.

Objectives: Provide HP with information about health literacy

- Offer strategies to improve health literacy for people at all stages of chronic kidney disease.

Key Messages: Increasingly, health consumers have access to electronic health information, however for those who are socio-economically disadvantaged, the opportunities are fewer. It is important that HP promote health literacy especially for those at a disadvantage, in order to optimise independence and to maintain health. Mutual collaboration and cooperation between consumers and health professionals is essential to meet this common goal.

Conclusion: HP need to define health literacy within the health care environment. It is incumbent on HP to develop a combination of written, visual and verbal aids to promote health literacy. Through reflecting on our own practices, we can develop skills and knowledge which facilitate informed choice and self determination.

## Ultrasound guided cannulation of arteriovenous fistula and grafts in the hemodialysis setting: P1

Ms Tara Csuka<sup>1</sup>, Lesley Salem<sup>1</sup>  
 Patrice Dobbs, Karen Cairney<sup>1</sup>  
<sup>1</sup>Hunter New England Health Service  
 New South Wales

Background: Cannulation of an arteriovenous fistula/graft is the fundamental requirement to perform haemodialysis in the end stage renal disease patient with such vascular access. Real time visualisation of the vascular anatomy can be achieved with portable handheld ultrasound devices which anecdotally are thought to be advantageous to guide cannulation however there is no data to support this.

Aim: The aim of our project was to validate the efficacy of portable hand held ultrasound devices in the hemodialysis vascular access cannulation process.

Method: This single centre quasi-experimental pilot study utilized quantitative and qualitative data collection generated from patient and staff groups over a nine month period. There were no changes to the existing haemodialysis treatment,

Results: Data analysis was conducted using analysis of variance (ANOVA), t-tests and Fishers Exact Test to identify differences between the patients groups and the pre and post results for each of the data categories using SPSS software.

One statistically significant result was the reduction in the amount of time taken to perform fistula/graft screening and mapping. Time taken to conduct the screening and mapping decreased by approximately half.

Implications for clinical practice: There is a propensity for hemodialysis units to purchase handheld ultrasound devices. Real time handheld ultrasound is a valuable tool to assist nursing staff visualise the vascular structure and accurately perform cannulation of the hemodialysis access thus reducing potential physical (pain) and psychological (stress, anxiety) cannulation adverse events.

## “Read All About It”: P2

Ms Lee Douglas<sup>1</sup>  
<sup>1</sup>RMH Kidney Care  
 Victoria

Ongoing patient communication and engagement is essential to successful delivery of health care. It is particularly important in dialysis services where patients often feel isolated. Our service has for 10 years provided a quarterly patient newsletter. As part of our commitment to continuous improvement, we reviewed the content of the newsletters we have provided and surveyed our patients to ascertain their interest and needs.

Since 2002 we have published 39 newsletters. These have contained 70 personal stories our patients have provided. The information content covered holidays (12 articles), medical (26), studies and trials (6), government (6), dialysis units (33), renal transplantation (4) and 8 wellbeing articles from our social worker. The general dialysis education content amounted to 28 articles and dietary education 13. There was 8 fun or entertaining items included.

Eight hundred surveys were distributed to current and future dialysis patients of our service of which 126 were returned. Over 98% of these patients found the newsletter interesting and useful. They overwhelmingly nominated personal stories as best liked content. Other highly rated items were information, humour and health advice. Most requested items to be included were dietary, travel advice, information on depression in CKD, weight loss, and transplantation

Our survey shows that a newsletter is a useful part of our patient education and means of providing information. We have provided to them many shared patient experiences which they have found particularly valuable. We will look to focus on more of what they have suggested in future newsletters.

## Doers or Thinkers? - Engendering an Expectation of Learning: P3

Ms Kris Dailey<sup>1</sup>, Mr Daniel Davison<sup>1</sup>  
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 New South Wales

The nursing profession has previously acknowledged the need to steer away from its primary focus on practical skill attainment. This is evidenced by the move to tertiary based training, however, it remains a significant issue in the clinical environment with nurses being seen as 'doers' rather than 'thinkers'. The occurrence of a theory/practice gap is the inevitable outcome. The high degree of specialty based practical skill required within nephrology nursing, with theory being secondary, potentially widens this gap.

Acquisition of theory based knowledge became primarily needs based, and has not allowed for these gaps to be formally identified and addressed. A notable impact of this gap is implicit assumption of knowledge and the subsequent effect on patient care. There was an obvious need to rethink this approach.

Therefore a set of Clinical Knowledge Base Assessments (CKBAs) have been developed to be used, and assessed, in conjunction with skill based competencies. The key performance indicators within the CKBAs allow staff to gain structured knowledge as practical skills are learned. Staff are expected to demonstrate problem solving and rationale care provision when implementing into practice. Flexibility and adaptability of the CKBAs is inherent, as research and knowledge evolves.

The introduction of the CKBAs assisted staff to identify their own knowledge gaps, engendered an expectation of learning, and empowered them to question practice; enhancing collaboration within the multi-disciplinary team. Overall there has been a recognisable progression of critical thought based upon improved knowledge leading to a higher level of care provision, and ultimately the promotion of patient safety.

## Seasonal changes in the pathology markers of haemodialysis patients: is potassium an example?: P4

Mr Jamie Rutherford<sup>1</sup>  
<sup>1</sup>RMH Kidney Care  
 Victoria

Literature describes seasonal changes in the blood pressure, biochemistry and haematology of haemodialysis and peritoneal dialysis patients, yet the aetiology of these variations, which impact on clinical evaluation, treatment and outcomes, are poorly understood. This study explores seasonal potassium changes in a cohort of haemodialysis patients and purports a potential contributing factor to peak results.

Anecdotal reports suggest that, during the months of the year when potassium rich foods are plentiful, Mediterranean born patients demonstrate higher serum potassium levels than their Australian born counterparts. To determine the accuracy and extent of this assumption, we examined the average monthly serum potassium levels in our Greek (n=22) and Italian (n=31) born haemodialysis patients over 18 months (Jan 2010- June 2011). All patients had pre-dialysis biochemistry at least monthly. The average monthly level was calculated from all measurements taken.

Results were compared to a similar group of Australian born dialysis patients (n=86). In both groups, serum potassium levels rose during summer months. However, Mediterranean born patients' levels were both higher throughout the year and rose more during summer. Serum potassium in this group peaked during March 2010 and February 2011. Indeed, during February 2011, 10% of Mediterranean patients had average serum potassium levels > 6 mmol/l.

In conclusion, our longitudinal analysis confirms that serum potassium levels show seasonal variations. There are ethnic variations in these fluctuations which, in the case of Greek and Italian patients, can reach very high levels. Further studies will be needed to elucidate potential and modifiable causative factors.

## Hepatitis Protocols: Opening up a can of worms: P5

Ms Elizabeth Josland<sup>1</sup>, Dr Ivor Katz<sup>1</sup>  
Prof Mark Brown<sup>1 & 2</sup>

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**Context:** A review of Hepatitis B (HBV) and Hepatitis C (HCV) guidelines from around the world revealed conflicting evidence regarding HBV and HCV screening, and isolation practices in renal units.

**Objectives:** To review available scholarly literature and develop an up to date protocol that will provide evidence based guidance in the monitoring, vaccinating and isolating of haemodialysis patients.

**Key messages:** A national consensus is required to provide a clear universally acceptable guide for dialysis units to monitor patients and prevent transmission of hepatitis between patients. Development of a protocol has proved to be a minefield. Input is required from gastroenterology, virology, microbiology, serology, public health units, sexual health clinics, pharmacists, infectious diseases units, immunization centres and other local haemodialysis units.

**Implications for clinical practice:** All doctors and nurses within haemodialysis units should be aware of the local HBV and HCV screening and isolation policies of their local area health service to protect the renal dialysis patients who are already immunosuppressed and therefore more vulnerable to blood borne diseases such as HBV and HCV. Isolation needs to take into account the practicalities of the dialysis physical environment (chair placement, single room availability) and occupational health and safety issues of staff who may be required to move isolation machines in and out of spots to accommodate isolated and non isolated patients.

## Intradermal hepatitis B booster vaccination: one unit's experience: P6

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A/Professor David Mudge<sup>2</sup>  
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Princess Alexandra Hospital  
Queensland

**Background:** Patients with chronic kidney disease on dialysis are known to have sub-optimal response to vaccination for hepatitis B virus. Some studies have shown improved seroconversion with intradermal compared to intramuscular vaccination particularly in patients who fail to seroconvert after intramuscular vaccination. We present the results of a single centre experience with intradermal booster vaccination for hepatitis B vaccine responders whose titres had fallen below 10.

**Aims:** The aim of this quality improvement activity was to assess patient response to intradermal hepatitis B booster vaccination.

**Methods:** All prevalent and incident haemodialysis patients were included and assessed for hepatitis B immunity by measurement of hepatitis B surface antibody (HbSAb). All patients with titres less than 10 who had previously demonstrated immune response were offered intradermal booster vaccination. 10 micrograms of recombinant DNA hepatitis B vaccine was given, as 2 injections of 0.25 ml, into the volar surface of the forearm. Response (as measured by HbSAb titre) was assessed 4 weeks post vaccination.

**Results:** 13 patients were vaccinated. Seroconversion occurred in 85% of patients (n=11) 4 weeks post vaccination.

**Implications for clinical practice:** Intradermal hepatitis B vaccine boosters are effective in patients with chronic kidney disease on dialysis in terms of HbSAb titre. It remains unknown whether maintaining a positive HbSAb titre affords greater protection against hepatitis B infection?

## An interactive poster to demonstrate the use of e-learning in CKD education: P7

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 New South Wales

E-learning involves the transfer of skills and knowledge via technology. As the internet has developed, proprietary technologies including internet browsers and animation plugins have come to prominence. However, the advancement in mobile phone and tablet devices has rendered some of these technologies obsolete. Consequently the next iteration of e-learning will go back to the future and use mature versions of core technologies that have always been at the heart of the web.

Health care educationalists need to maintain currency with the rapid advancement in core web technologies so that learners are able to access relevant and engaging learning stimulus material without restriction. This interactive poster will demonstrate a peer reviewed, e-learning Chronic Kidney Disease (CKD) scenario that was developed using core web programming language that facilitates question and assessment authoring, delivery and reporting. The viewer will be able to experience the scenario in the poster using tablet technology.

The scenario presents an unfolding real world simulation where the learner meets Cyril and explores his health history and outcomes while also learning about key CKD messages. Each screen presents a range of interactive resources and questions including selected readings, audio files and animations. Feedback is tailored for each question to facilitate learning and the progression through the scenario.

The use of open, core web technologies ensures that learning content is accessible to all audiences, anywhere and anytime. From traditional desktops and laptops to current tablets and smart phones, all a learner will need is a browser and internet access.

## A Robust and Objective Process for Dialysis Chair Replacement: P8

Ms Christina Vendiloa<sup>1</sup>  
 Ms Jenny Soding<sup>1</sup>, Mr James Gerrish<sup>1</sup>  
 Ms Athea White<sup>1</sup>  
<sup>1</sup>RMH Kidney Care, Melbourne Health  
 Victoria

**Background:** In acknowledgment that our service needs to replace a large percentage of our ageing chair fleet in the short to medium term and in recognition that we had not explored suitable purchase options for over a decade, we undertook to develop a robust and objective process that would confidently lead to best outcomes for patient care and staff well-being within financial obligations.

**Aims:** The aims of this project were to (i) review operational status of current chair fleet according to best practice, (ii) develop a sound chair replacement schedule, (iii) undertake a comprehensive market analysis of chairs suited to the dialysis setting, (iv) ensure broad stakeholder input into the evaluation process and (v) achieve a responsible purchasing methodology.

**Method:** The process was developed by clinical and business staff with guidance from purchasing and contracts. An existing fleet analysis was accompanied by a literature search and an exploration of the BME approach to equipment replacement criteria. A set of essential criteria served as the basis to select chairs for in-centre and satellite trial, enabling comparison and scoring of key stakeholder assessments. A structured expression of interest was distributed with an invitation to respond.

**Results:** This comprehensive approach resulted in our service satisfying the needs of all stakeholders and has streamlined our journey through the purchase approval process. The duration of the project was 12 months but our experience suggests that this was a worthwhile investment.

**Conclusion:** A robust and objective process supports best outcomes and greater stakeholder confidence and satisfaction.

## Most Cases of Chronic Haemodialysis Commencement with a Catheter Were Not Preventable: Results of a Four Year Prospective Single Centre Audit: P9

Mrs Maree Ross-Smith<sup>1</sup>  
Mrs Marie Cook<sup>1</sup>, Dr Peter Mount<sup>1</sup>  
<sup>1</sup>Austin Health, Heidelberg  
Victoria,

Background: Commencement of haemodialysis with a catheter is associated with increased mortality and risk of blood stream infection. The incidence of patients commencing haemodialysis with a functioning permanent vascular access has been proposed to be an important key performance indicator.

Aim: To determine reasons why a significant proportion of incident chronic haemodialysis patients commence haemodialysis with a dialysis catheter.

Methods: A prospective audit of all patients commencing chronic haemodialysis was performed from July 2006 until June 2010. When patients commenced dialysis with a catheter the case was reviewed to determine the reason.

Results: Of 306 incident patients commencing haemodialysis, 179 (58%) had established permanent access (AV fistula or graft) and 127 (42%) required a dialysis catheter. In the catheter group the reasons for catheter use were: acute on chronic renal failure 38 (29.9%), later presentation 26 (20.5%), known CKD 4 with immature or unusable access 21 (16.5%), known CKD 4 with no access 19 (15%), known CKD with patient denial 10 (0.8%). It was assessed that only 31 patients (24.4%) who commenced chronic haemodialysis with a catheter were probably preventable.

Implications for clinical practice: There is a significant group of patients for whom commencement of haemodialysis with a catheter is unlikely to be preventable. Improving outcomes for these patients will require strategies to minimise the risk of catheter associated complications, and to reduce the time the catheter is required.

## A Simple Strategy to Improve Adherence to Haemodialysis amongst Satellite Unit Patients: P10

Mrs Nicola Parker<sup>1</sup>  
<sup>1</sup>Queensland Health  
Queensland

Context: Non adherence to dialysis regimens leads to increased mortality and morbidity. At a satellite haemodialysis unit, nursing staff identified patients were becoming increasingly non adherent to treatment, and were unaware of the detrimental consequences of this to their long term health.

Objectives: A nurse-led quality initiative project was commenced in October 2011. A simple patient progress card was implemented. It documented monthly blood results (potassium, urea, albumin, calcium, phosphate & haemoglobin) and average fluid gains, with relevant dietary tips to improve or maintain these results.

Key Message: Each month the primary nurse recorded; blood results and average inter dialytic fluid gains (highlighting the applicable column 'high' / 'low' or 'just right'); dry weight; fluid restriction; and appointment or medication changes. The completed card was provided to the patient by nursing staff, with a brief verbal explanation of results and any supporting educational literature.

Conclusion: Since its introduction, there has been a decrease in referrals to the dietician, due to improved adherence to dietary and fluid regimens. Staff also reported that this simple strategy supported patients to: more effectively monitor their own progress with achieving particular targets, make informed choices with regards to their health and take an active role in their disease and its treatment processes. An evaluation of the adherence strategy will be completed in April 2012 with the purpose of obtaining patient satisfaction with; and feedback on, the progress card: these results will be presented.

## Our units experience in the elimination of a lower dialysate potassium concentrate: P11

Mr Kristoffer Abeleda<sup>1</sup>  
<sup>1</sup>Southern Health  
 Victoria

Context: Potassium (K) is the main intracellular cation. Because of its crucial role in heart function, the use of higher dialysate potassium concentration is beneficial to hemodialysis patients. This is due to the patient's sensitivity to rapid serum potassium change during hemodialysis (HD).

Key messages and results: Recent study has shown that there is no beneficial evidence on the use of lower dialysis potassium concentration (K of less than 2 meq/l). The question is, will the use of a higher potassium concentration give harm to our patients? Our dialysis unit has moved forward in eliminating all K1 (1 meq/L) dialysate. This was done in late October 2011. To the 65 patients that was monitored, 10 (15%) had a potassium of more than 5.5 meq/L before the change to K2 (2 meq/L). 2 weeks after the change, the number had increased to 13 patients (20%). There is however a drop in the number at week 6 which is 9 patients or 14%. And at 10 weeks post change, the number is about the same as the baseline, that is 10 or 16%. The increase in serum potassium from one month to the next is due to the changes in dietary practice as potassium is mainly taken from the diet.

Implications for clinical practice: With this experience, patients can benefit from the use of higher potassium concentration. The patient's dietary practices should always be taken into major consideration. If the patient's vascular access is working well and dietary potassium intake is controlled, there shouldn't be any problem with the potassium balance. With the patient's good understanding on potassium restriction and the health care professional's continuing patient education, we can strive for the best quality care without compromising our patients.

## The Challenges of Managing Vancomycin Resistant Enterococci: One Units Experience: P12

Mrs Jo-Ann Achilles<sup>1</sup>  
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 Queensland

Since mid 2008 there has been a marked increase in the number of patients returning a positive result for Vancomycin Resistant Enterococci, of which most are colonised but there are a number of infections. This increase has also been noted in other healthcare facilities across south east Queensland.

The Toowoomba Hospital renal unit which is not a purpose built dialysis unit has 3 dedicated isolation stations. In early 2008 the renal unit provided maintenance haemodialysis to 2 patients colonised with VRE. In January 2010 a 7<sup>th</sup> patient was found to be positive and posed a scheduling challenge, largely due to the staffing requirement. Approval was granted to staff the isolation afternoon shift, but by August the number of patients requiring isolation due to VRE was 15. Creativity was required to provide safe patient care within available resources. Wide consultation and planning lead to the utilisation of the main haemodialysis area 3 days a week to provide maintenance treatments to patients who were VRE positive. Multiple measures were implemented to meet isolation standards including appropriate environmental cleaning and staff education.

During the period March to November 2011 the Renal unit had zero VRE acquisitions and due to natural attrition and modality changes, 10 patients continue to receive their treatment in the main dialysis area under isolation precautions. As in all units, ongoing management of safe patient care is challenging within finite resources and limited physical environments. VRE management in Toowoomba will continue to require review and adjustment of renal unit practice.

## Interdialytic fluid gain in patients receiving thrice weekly haemodialysis- Do ethnic and cultural factors play a role? : P13

Ms Deborah Angel<sup>1</sup>  
<sup>1</sup>RMH Kidney Care, Melbourne Health  
 Victoria

**Background:** Staff remember the occasion when a haemodialysis patient has 10kg to lose but do we really know how a patient is managing their fluid restrictions and does ethnicity play a part? Traditionally optimal fluid intake for haemodialysis patients is limited to 0.5 L per day plus equivalent previous days urine output.

**Aim and Methods:** To determine if our patients achieve this target, we monitored interdialytic weight gain in 156 metropolitan satellite haemodialysis patients over 6-months. This included patients from 34 different countries, with over 50% from culturally and linguistically diverse (CALD) backgrounds.

**Results:** In this population, over 90% of patients gained more than 0.5kg per day. To determine if ethnicity plays a role in interdialytic fluid gain, results were compared to country of birth and primary language spoken. Average weight gain in CALD patients was equivalent to that in patients from an English speaking background (0.940±0.04 kg/day vs 0.935±0.03 kg/day respectively). Likewise, weight gain was not associated significantly with country of birth, geographical region of birth nor English language comprehension as defined by the need for an interpreter.

**Conclusion:** Our results indicate that excess interdialytic weight gain is a universal problem and that ethnicity and English language comprehension do not influence fluid intake. To try and increase patients' awareness of their fluid intake, we have implemented a change in clinical practice where quarterly data is collected on every patient's interdialytic weight gain. This data is graphed and presented to each patient to increase their awareness of their fluid intake.

## Do Dual Dialysers vs Standard Haemodialysis Improve Clearance rates for obese patients with end stage renal disease? : P14

Miss Laura Austin<sup>1</sup>, Mrs Carol Reid  
<sup>1</sup>Queensland Health  
 Queensland

**Background:** The Caring for Australians with Renal Impairment (CARI) guidelines recommend that people with End Stage Kidney Disease (ESKD) undergoing haemodialysis, should achieve a minimum dialysis adequacy standard, single pool Kt/V of 1.2. A small number of obese, male patients in a large metropolitan haemodialysis unit consistently do not achieve this standard despite exhausting all known treatment methods to accomplish this goal.

**Aims:** To determine if the use of the dual dialyser method is an effective way of improving dialysis adequacy in terms of Kt/V, urea reduction ratio and phosphate clearance for under dialysed, obese haemodialysis patients.

**Methods:** A literature review was conducted of randomised controlled trials (RCTs) investigating the dual dialyser method (intervention) versus standard haemodialysis practice (single dialyser) for obese patients with ESKD undergoing haemodialysis.

**Results:** Three RCTs were found. Fritz et al (2003) found that the dual dialyser method significantly improved urea clearance. Wang et al (2008) found the intervention group significantly improved Kt/V but there was no difference in quality of life in either treatment group. Tonelli et al (2009) showed that the intervention group showed improved phosphate clearance but not phosphate removal.

**Implications for Clinical Practice:** The evidence from these RCTs shows that the use of the dual dialyser method improves dialysis adequacy. The clearance rates of phosphate have also been shown to improve. These studies support the use of the dual dialyser method for obese patients with ESKD undergoing haemodialysis.

## Unplanned Pregnancy in CKD: Our Journey: P15

Mrs Leanne Avis<sup>1</sup>, Mrs Suzanne Burns  
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 New South Wales

Essentially there are two main concerns for women with Chronic Kidney Disease (CKD) who fall pregnant. The effect that pregnancy has on renal function and in turn the effect that reduced renal function has on pregnancy.

This presentation will address the numerous aspects to be considered in the care and management of a young, newly married female with CKD, epilepsy and a recent diagnosis of melanoma.

The management involved a patient centred approach to care, engaging the cooperation from a multidisciplinary team. The areas of consideration with planning care addressed the potential medical, social, psychological and spiritual needs related to pregnancy, CKD and post partum care.

Historically pregnancy in CKD has been relatively rare, understanding the prognosis and general principles in management are important as the incidence of CKD increases in the general population. The Renal Team need to be able to educate women with CKD of the significant maternal and fetal risks so appropriate decisions can be made regarding their reproductive and renal health.

## Romancing the Bone: Using an Algorithm to Treat CKD – MBD: P16

Mrs Jen Bakker<sup>1</sup>  
<sup>1</sup>Austin Health  
 Victoria

The management of mineral and bone disorders in chronic kidney disease (CKD-MBD) has never been an exact science, and continues to challenge renal health professionals. The abundance of national and international guidelines, coupled with a plethora of professional opinion, can contribute to inconsistency when interpreting serum calcium, phosphate and parathyroid hormone (PTH) levels.

Could the introduction of a mineral bone disorder algorithm to a renal unit assist in addressing some of these issues?

Minalgo is a web based algorithm developed in the UK, that analyses blood results and bone drug data, and suggests recommendations for the adjustment of pharmaceutical treatment, patient education and dietetic input.

During the year of 2010 the renal unit at Austin Health introduced Minalgo in two of its dialysis satellite units.

Validated data from the RAM database, provided by Janssen–Cilag, was extracted on haemodialysis patients for the year after the commencement of Minalgo in these two units. We found that serum PTH, calcium and phosphate control had improved during this time.

As a result of this the Minalgo algorithm, courtesy of Amgen Australia, will be rolled out to other metropolitan haemodialysis units within our health practice.

## National and International Nephrology Conferences - Multidisciplinary Meetings with a role for Dialysis Nurses and Technicians: P17

Ms Jenny Beavis<sup>1</sup>, Ms Lesley Salem<sup>2</sup>

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Melbourne Health, Victoria

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New South Wales

Context: Major medical conferences reflect recent discoveries and advances in clinical practice, and are an important opportunity to share information. In nephrology these include annual meetings of the Australian and New Zealand Society of Nephrology (ANZSN), European Dialysis and Transplant Association (EDTA), American Society of Nephrology (ASN) and the World Conference of Nephrology. However, despite attracting up to 10,000 participants, many are perceived to be pitched at a higher level than nurses and technicians require.

In April 2011, we attended the International Society of Nephrology (ISN) World Congress of Nephrology (WCN) conference held in Vancouver, Canada. The symposia had eight parallel sessions covering a wide variety of clinical topics in renal research and clinical applications. Twenty five percent of the poster categories related to dialysis and transplantation. We found the presentation level at this conference to be appropriate for nurses and technicians and delivered at a similar level to the RSA conference.

Objectives: To share information on world issues in renal research and discuss support given to emerging countries to attend the WCN in Vancouver.

Key messages: The research presented was important for:

Improving our research

Benchmarking our practice compared to international standards and practice

Understanding our current practice

Highlighting the difficulties faced by many developing nephrology communities in emerging countries

Implications for clinical practice:

Nurses in Australia can participate at an equal level to the clinical knowledge presented at these events. We are keeping pace and contributing to new knowledge that helps both the Australian nephrology community, and through the ISN Global Outreach programs, developing communities.

## Floods, Cyclones, The Brown Snake Bite and Acute Renal Failure: P18

Ms Gillian Loughrey<sup>1</sup>

<sup>1</sup>Princess Alexandra Hospital  
Queensland

With the floods and rain comes increased sighting and bites from venomous snakes.

The brown snake bite usually results in the administration of Antivenom, a stay in the Intensive Care Unit (ICU), haemorrhaging, bruising, Acute Renal Failure and approximately 3 weeks of Haemodialysis before the kidneys turn back on, if they are going to turn back on at all. If the kidneys fail to turn back on the patient is restricted to a life time of dialysis unless they receive a kidney transplant.

The patient is transferred to the renal ward post ICU. The patient presents to the ward looking a little worse for wear, covered with horrendous bruising to the legs, body and internal organs. Platelet depletion causing prolonged clotting times and coagulopathies is one of the after effects of the brown snake's venom.

We are then left with the Acute Renal Failure to manage which is directly caused by the brown snake's venom or the administration of the antivenom. The goal is to see if we can "turn" the patient's kidneys back on with the help of haemodialysis, fluid challenges, keeping up with the fluids during the oliguric phase until the patient's renal figures improve and they require intermittent haemodialysis as per their renal figures and eventually no further haemodialysis.

Best case scenario post the brown snake bite is full recovery of renal function and the patient can resume their normal daily lives.

## Initiation of Peritoneal Dialysis Immediately Post Insertion of Tenckhoff Catheter: P19

Ms Christine Bond<sup>1</sup>  
<sup>1</sup>Princess Alexandra Hospital  
 Queensland

Ideally we would wait 6 weeks for healing to occur around the Tenckhoff site and laparoscopic port holes but in today's climate with limited haemodialysis machines and haemodialysis spaces available we are more often required to use the Tenckhoff catheter immediately as per Doctors orders because the patient's renal figures are so poor.

The Tenckhoff catheter inserted in theatre is usually flushed twice with 1.5% 1L Dialysate until the effluent return is clear. If the effluent continues to appear rose in colour it is important to continue flushing the catheter regularly until the return is clear preventing catheter blockage.

Cycler regimes developed to assist with flushing such as the 1L or less fill, 18hr run, 18 cycles and nil dwell time delivers continuous flushing. A low fill dialysis regime has been developed for hernia repairs, repositioning of Tenckhoffs and scrotal leaks.

Upon commencing peritoneal dialysis lie patient flat, have low volume fills and ensure their bowel motions are soft and moving regularly. Laying the patient flat and lowering their fill volume reduces intra-abdominal pressure exerted on the Tenckhoff site and laparoscopic incisions. This helps prevent leaking from these sites which reduces the risk of peritonitis and exit site infections.

Constipation is the major cause for poor clearances and ultrafiltration. Constipation can cause the catheter tip to flip in the pelvic cavity which can be seen on an abdominal x-ray. This renders the catheter useless until the constipation is resolved and the tip flips back pointing downwards in the pelvic cavity.

## Peritoneal Dialysis rates soaring!: P20

Ms Christine Bond<sup>1</sup>  
<sup>1</sup>Princess Alexandra Hospital  
 Queensland

With the renal patient population continuing to grow at an alarming rate and with limited haemodialysis machines and spaces available, peritoneal dialysis patient numbers soar.

Our Surgical Renal Access rates such as Insertion of Tenckhoff Catheters and Creation of Fistulas have almost tripled in the last year demonstrating the increasing need for knowledge and education regarding peritoneal dialysis for staff and patients.

Peritoneal dialysis is proving to be a popular therapy choice because it can be performed at home or on holidays independently by the patient or care giver at their convenience. The patient is not locked into a regime of rigid appointments and therapies often 4-5 hour sessions, 3 to 4 times per week.

Continuous Ambulatory Peritoneal Dialysis (CAPD) is where a 2-3L bag of dialysate is exchanged 4-5 times per day following which the patient can resume their normal activities.

With the introduction of the cycler machine, Automated Peritoneal Dialysis (APD) has never been so appealing for those that are employed and the young. The patient can hook themselves up and dialyse by night and live a normal life during the day.

Consider when faced with a life or death decision, that is you can live by performing peritoneal dialysis at home or you can die because there are no haemodialysis machines available, most take the peritoneal dialysis option. Peritoneal dialysis is here to stay and it is becoming a more popular choice of therapy every day.

## 'All About You'- Chronic Kidney Disease and High Blood Pressure: P22

Mrs Rachael Brown<sup>1</sup>  
<sup>1</sup>Kidney Support Network  
 Queensland

Context: Nurse Practitioners identified a gap in resources that engaged patients but addressed health issues, so four brochures were developed promoting healthy living and raising awareness of chronic kidney disease (CKD) and high blood pressure (HBP). The poster will present an evaluation of these brochures and their effectiveness in assisting patients accessing information that supports their health journey.

Target audience are those 'at risk' of HBP and not taking it seriously or in the early stages of CKD. To ensure the validity and effectiveness of the resources, project partners were engaged and consultation took place with a wide number of Renal Nurse Practitioners, GP's, health specialists, as well as a network of Aboriginal and Torres Strait Island Elders and a survey of the general community.

Objective: To encourage patients to take charge of their health through increased knowledge, whilst providing the motivation and framework to assist them develop steps for a successful self management plan. Brochures developed are highly graphic, modern, relevant and forward thinking using empowering messages to encourage self reliance. Resources were intentionally multicultural, two brochures focus on communicating to Aboriginal and Torres Strait Islander communities and have specific artwork and key messages with cultural sensitivity and appropriateness.

Key Messages: • Understand and monitor illness • Risk factors • Medications/side effects • Healthy diet • Importance of exercise

Implications for clinical practice: These resources are already being displayed for patients and the general public in clinical practices throughout QLD

## Intra-operative Haemodialysis during Liver Transplantation: a tertiary hospital's 16 year experience: P23

Mrs Sally Carpenter<sup>1</sup>  
Mrs Angela Henson<sup>1</sup>  
Mrs Veronica Oliver<sup>1</sup>  
<sup>1</sup>Haemodialysis Unit, Princess  
Alexandra Hospital  
Queensland

Background: Haemodialysis has traditionally been the mainstay for the management of patients with Chronic Kidney Disease and to stabilise acute medical conditions. One of the most challenging situations is during liver transplantation where intra-operative dialysis is thought to provide superior and simpler intraoperative acid-base balance, potassium regulation and volume control in a critically unwell group of patients.

The first liver transplant in Australia was performed in 1985, and there have been a total of 101 intra-operative dialysis procedures over the last 16 years; with the Haemodialysis Unit currently attending an average of 1 treatment per month.

Objectives: For dialysis nurses this extended role requires increased knowledge, advanced skills, a maintained level of competence, and a high level of communication with unfamiliar team members in an alien environment. Numerous strategies have been employed to assist in planning for and managing dialysis variances which has enabled the unit to provide an ongoing and reliable service.

Results: Education and training involves developing confidence of the staff to independently adapt to the theatre environment, being familiar with theatre practices and "etiquette" and being able to independently assess and identify complications without having other dialysis nurses in the immediate vicinity. Documentation and communication strategies in a tense unfamiliar environment are discussed and developed.

Application to practice: Supporting associated areas in delivering complex care is an exciting and rewarding opportunity for dialysis nurses and an essential part of working in a large tertiary hospital. With appropriate procedures and a supportive environment delivering such a service is feasible.

## Localising renal services with Nurse Practitioner lead CVC removal: P24

Mrs Julie Chimyong<sup>1</sup>  
<sup>1</sup>Peninsula Health Renal Services  
Victoria

Context: Traditionally patients have a permanent vascular access created but still require the removal of a temporary tunneled CVC have required to return to their Parent Hospital in order to have this access removed. This proves to both timely and stressful to the patient and family with additional appointments at Parent Hospital. With expanding services and the implementation of the Nephrology Nurse Practitioner role, we have been able to extend this nursing scope of practice to include CVC removal at our regional hospital.

Objectives: Facilitate the removal of temporary tunneled CVC devices at a regional hospital by extending the Nephrology Nurse Practitioner scope of practice to include removal of tunneled CVC.

Minimize patient stress and anxiety levels by eliminating travel to Metropolitan Hospital  
Reduce patient waiting list at Metropolitan Hospital by localizing service

Key messages: Nephrology Nurse Practitioner located in regional facilities, once proven to be competent in the task of CVC removal, can perform this procedure for patient convenience.

Implications for clinical practice: Minimizes risk of infection to the patient with timely removal of temporary tunneled CVC lines.

Free up Nephrology consultants and Advanced Renal Registra to focus on other key elements of patient management care.

## Lets get back to basics LOOK, LISTEN AND FEEL - The key to fistula success: P25

Mrs Julie Chimyong<sup>1</sup>  
<sup>1</sup>Peninsula Health Renal Services  
Victoria

Context: The implementation of a Physical assessment or surveillance tool of all the clients vascular accesses will result in early detection of access problems such as stenosis, steal syndrome poor maturation or infection to the patient access. This will improve patient outcomes for access longevity with early detection and intervention of vascular access

Objectives: Assess client group's vascular access monthly and document changes to access. Provide timely referral for early intervention to eliminate the loss of a vascular access

Key messages: Simple implementation of a vascular audit tool will result in the early detection of access deterioration. This will result in early referral for intervention. Also result in maturation of new access and improve the longevity of all client vascular accesses in the unit

Implications for clinical practice: Allows for early detection of vascular access problems and intervention with monthly audit of vascular access.

Ensure vascular records are reviewed and updated with monthly audit tool

## The Development of an Electronic Medical Record (eMR) for Renal Service: P26

A/Prof Josephine Chow<sup>1,2,3</sup>,  
A/Prof Josette Eris<sup>2,4</sup>,  
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<sup>6</sup>University of New South Wales  
<sup>7</sup>University of Western Sydney  
New South Wales

Background Electronic health records have the potential to improve the delivery of health care services.

Aims: To develop an Electronic Medical Record (eMR) for Renal Services so as to provide access to centralised patient data for numerous practitioners across a number of facilities over a wide geographical area.

Methods: In early 2011, a Service Level Agreement was signed between the Renal Services and the Information Technology (IT) Team to set out the framework of the collaborative partners in relation to the development of a Renal eMR and to facilitate appropriate timeframe, resources and leadership. It also defined the broad scope of services, governance structure and project deliverables.

Results: A Steering Committee was established to provide strategic direction in relation to all aspects relevant to the project including business, implementation, evaluation, technical, policy and legislative matters. Three Working Groups were set up to review on the prototype design for their specialist area for endorsement by the Steering Committee. A number of Business Liaison Officers were appointed to act as the specialty experts to gather information about eMR requirements from their colleagues and to meet with IT staff on a regular basis to facilitate the development of the prototype. In December 2011, the Dialysis Module transitioned to successfully "Go Live" in a pilot site. Further development will refine the current module and evaluate its impact and effectiveness.

Implications for clinical practice: Implementation of a Renal eMR developed by clinical and IM&TD staff allowed decentralized clinical data to be captured electronically and reported.

## Where in the World: A Satellite Units Perspective of Cultural Diversity Amongst Patients and Staff: P27

Mrs Lorna Coburn<sup>1</sup>  
<sup>1</sup>Southern Health  
 Victoria

**Context:** Australia is renowned for its multicultural diversity which is essentially the foundation of our society. According to immigration statistics our current population is around 22 million people, 25% of these being migrants. In order to provide holistic nursing care it is essential to recognise and appreciate cultural differences amongst patients and staff.

**Objectives:** This poster is primarily a visual representation of the demographic statistics collated from the patients and staff of a Melbourne suburban satellite haemodialysis unit.

**Key message:** The values and beliefs instilled in us from an early age by family and society inevitably shape our opinions as adults. These have a bearing on our life choice decisions and determinants of health and well-being. Appreciating that others come from different ethnic backgrounds helps us understand that whatever health care decisions patients make stems from their cultural belief system – which may be different to ours.

**Conclusion:** Despite differences in origin of birth place and cultural background a standardised health service (dialysis) can be delivered with appreciation for and maintenance of individual identity.

## Haemoglobin Management - Using Key Performance Indicator's (KPI's) to Improve Clinical Outcomes: P28

Mrs Jennifer Connor<sup>1</sup>  
<sup>1</sup>Western Health  
 Victoria

**Context:** In February 2011 a new suburban dialysis unit opened in Melbourne. It has had a steady increase in patient numbers from 9 initially to 27 currently. Over the last 8 months the haemoglobin levels of the patients being cared for by our health service at this unit, have met our KPI's for all but 2 months. No more than 10% of patients on an Erythropoiesis stimulating agent (ESA) have a haemoglobin <100g/l and no patients on an ESA have a haemoglobin > 130g/l

**Objectives:** This paper will review haemoglobin levels from our new dialysis unit patients and compare them with those from patients at our existing 2 satellite units. It will examine the process of anaemia management across all 3 units

**Key messages:** Our new satellite unit has daily access to medical staff and a dedicated onsite pharmacist.

Our older satellite units have medical staff that visit once a fortnight and one unit does not have an allocated pharmacist.

A multidisciplinary team approach in conjunction with regular blood tests, timely review of results and appropriate ESA availability are all essential for coordinated anaemia management

**Conclusion:** With a coordinated team approach we have demonstrated a steady improvement in the haemoglobin management at our new satellite dialysis unit. By examining anaemia management practices at this unit and our existing satellite units we aim to replicate this improvement for all dialysis patients across our health service.

## Patient empowerment in a busy in-centre haemodialysis (HD) unit we accepted the challenge. Can you?: P29

Ms Evelyn Coral<sup>1</sup>, Ms Kelly Avery<sup>1</sup>  
<sup>1</sup>Sir Charles Gairdner Hospital  
 Western Australia

**Context:** In-Centre HD units are reserved for patients that require intensive nursing and medical support and are not the usual setting for training patients to complete their own dialysis treatment. A young woman recommenced HD in our unit after many years on Peritoneal Dialysis and two failed transplants. She faced many challenges on returning to us including loss of independence and loss of ownership over her own health regimen. Her struggle to adapt led to a difficult relationship with nursing staff, many of whom considered her a 'challenging' patient. The question we needed to answer was how could we improve our relationship and ease the burden for both patient and staff?

**Objective:** Our initial aim was to foster independence by referring her for Home HD training. After her application was declined and transfer to satellite dialysis unsuccessful, we decided to try to initiate our own training program thus empowering her to self-manage her own treatment. A positive spin-off for the unit would be to alleviate the burden on staff time, a valuable and expensive resource.

**Key Messages:** Self-management contributes to better health outcomes. The patient's defining message in consenting to this poster was, "If I can change one nurse or one dialysis unit's attitude to teaching and help another patient to feel as good as I do that would be amazing".

**Conclusion:** Finding the time to empower the patient in our busy unit involved overcoming many obstacles. This was certainly a challenge for both staff and patient but we succeeded! She has now returned to university and is virtually self-caring.

## CVDC bacteraemias: Nursing staff making a difference: P30

Miss Sarah Crawford<sup>1</sup>  
 Mrs Lisa Mulhearn  
<sup>1</sup>John Hunter Hospital  
 New South Wales

**Background:** This project was undertaken within our nephrology department in response to the increased number of bacteraemias in patients dialysing via central venous dialysis catheters (CVDCs).

**Aims:**

- Streamline the CVDC care within all dialysis units in the department to minimise differences in technique throughout the haemodialysis units.
- Reduce bloodstream infection rates by 50% compared to the pre-project data
- Educate both staff and patients as to the importance of excellent CVDC care.

**Methods:** A working party was established to implement change, standardise practice and decrease bacteraemia rates throughout the renal stream. The group sought to achieve these goals through:

Educating staff within the individual haemodialysis units and via webinar

The creation of a poster providing tips for safe and effective catheter care

Revision of the current CVDC clinical guideline

Redesigning the CVDC care plan to increase useability.

**Results:** To date the project has resulted in a marked decrease in bacteraemia rates throughout the renal stream. The result of unit observation has shown a significant improvement in nursing practice of CVDC access. Data was analysed by using Chi-Square test with reported P value of <0.0001. Overall, an increased awareness of the importance of asepsis in CVDC access has been noted in both patients and nurses.

**Conclusions:** Through the initiation of this project, the necessity for superlative CVDC care was highlighted within the nephrology department. The standardization of evidence based clinical guidelines has improved care and patient confidence throughout the dialysis units.

## Primary Health Care Guidelines for Chronic Kidney Disease: P31

Mrs Sandra Crofts<sup>1</sup>  
Associate Professor John Field<sup>1</sup>  
Dr Michelle Woods<sup>1</sup>  
<sup>1</sup>School of Nursing & Midwifery  
University of Tasmania  
Tasmania

**Context:** The project entitled "Decision Making for People with Chronic Kidney Disease (CKD)" is being undertaken as part of a Ph D candidature. The purpose of the poster is to provide background information for the project.

**Objectives:** This poster outlines the current primary healthcare guidelines for people with CKD in the pre-renal replacement therapy stages. The poster will detail the stages of CKD; risk factors; current therapeutic pharmacological and dietary guidelines; information needs for renal replacement therapy options and health promotion activities such as quit smoking. Finally, the important role of the CKD nurse, within the multidisciplinary team, in the implementation of these guidelines is outlined.

**Key messages:** The poster provides background information on current primary healthcare pre-dialysis kidney health guidelines. These guidelines assist the researcher in the identification of information participants with pre-renal replacement therapy CKD are provided with, by their kidney health professional, in the preservation of their personal kidney health.

**Implications for clinical practice:** This poster synthesises current pre-renal replacement therapy kidney health guidelines for the benefit of nephrology nurses who may be unfamiliar with the current guidelines.

## 20 Years of Diabetics and Dialysis: P32

Ms Lee Douglas<sup>1</sup>  
<sup>1</sup>RMH Kidney Care  
Victoria

We commenced an outpatient clinic for Chronic Kidney Disease (CKD) diabetic patients in September, 1990. The last 20 years has seen an exponential increase in diabetics on dialysis.

ANZDATA report 30<sup>th</sup> September, 1991, identified 256 dialysis patients with 35 diabetic. In November, 1991, we had 42 diabetic CKD patients, 7 pre dialysis and 35 on dialysis (14%). Fifty nine was the average age of the diabetic patient.

Peritoneal dialysis (PD) was the preferred modality for diabetics with 20 patients (57%) - it was thought to offer better blood pressure control, more stable cardio vascular status and with the use of intra peritoneal insulin, more physiologic blood glucose regulation. Satellite haemodialysis (SHD) accounted for 7 of the 35 (20%). Seven diabetic dialysis patients were on the waiting list National Organ Matching System for transplantation (NOMS list) (20%).

By November, 2011, we had 587 dialysis patients, 230 of whom were diabetic (39%) with an average age of 65 years. PD was the modality of 24 diabetic patients (10%) and SHD accounted for 182 (79%). There were 38 diabetic patients on NOMS list which is 17% of our diabetic dialysis patients.

There has been an increased prevalence of diabetic dialysis patients and, on average, they are 6 years older. Transplantation is less likely for the diabetic dialysis patient at our service. There has been a substantial growth in diabetic SHD patients and only a few are on PD.

Is SHD now the preferred modality for diabetics, or just more available?

## Diabetes Education in a Nurse-Led, Multidisciplinary Chronic Kidney Disease (CKD) Clinic: P33

Mrs Susanne Ehram<sup>1</sup>  
 Mrs Linda Zanette<sup>1</sup>  
 Mrs Bettina Douglas<sup>1,2</sup>  
<sup>1</sup>Princess Alexandra Hoospital  
<sup>2</sup>University of Queensland  
 Queensland

In September 2011 1,055,819 people (5.3% of the Australian population) were registered with the National Diabetes Services Scheme. 85.3% of these have Type 2 diabetes and at high risk of CKD. Therapeutic lifestyle change (TLC) is recommended for people with CKD. This presents challenges for patients with diabetes as increased activity and altered eating habits change blood glucose control. During implementation of a lifestyle program including a structured exercise program (EP) we identified several safety issues in diabetes self-management.

The model of care was adjusted to ensure comprehensive assessment by credentialed diabetes educator (CDE) prior to commencing EP. Knowledge and self care deficits are addressed to ensure safety during exercise as well as general diabetes care. Individualised follow up is provided by clinic visits, phone calls and group education.

This paper will highlight the commonly identified self-management deficits when assessing patients with diabetes and CKD particularly before starting an EP.

TLC is important for patients with diabetes. It can be done safely. Prior to starting exercise they need review of self care practices including blood glucose monitoring, hypo management and footwear.

Including a CDE in the multidisciplinary clinic has improved patient safety by proactively addressing deficits in diabetes self-management.

Other members of the team benefit through exposure to contemporary diabetes practices.

A CDE makes an important contribution to improved outcomes for CKD patients. Given the proportion of CKD and kidney replacement therapy patients with diabetes there is scope to further develop this role within renal services.

## Winning over the pre-dialysis patient: strategies to increase uptake of home dialysis: P35

Mrs Beverley Griffin<sup>1</sup>  
<sup>1</sup>Western Health  
 Victoria

Background: In 2011 we undertook a review of our pre-dialysis education strategies. At this time our Melbourne-based renal service was achieving home dialysis rates of 19.5% (34/176).

Prior to June 2011 our pre-dialysis program incorporated one-on-one education sessions with our pre-dialysis coordinator, and twice yearly group education seminars. Only pre-dialysis patients expressing a desire for home dialysis visited the Home Therapies unit for further education and assessment. These patients generally visited Home Therapies once, despite sometimes being many months to years from starting dialysis.

Objective: To increase the proportion of pre-dialysis patients willing to undertake Home Dialysis..

Key messages: The bulk of pre-dialysis one-on-one education is now performed by Home Dialysis staff in the Home Therapies Unit, regardless of whether the patient has expressed a desire for Home dialysis or not. The aim is for the pre-dialysis patient to form a strong relationship with the Home Therapies unit. To reinforce this, any pre-dialysis patient who has been identified as likely to take up home dialysis is seen regularly in Home Therapies prior to commencing dialysis.

Since June 2011, 63 pre-dialysis education sessions have been attended at our Home Therapies Unit. Our home dialysis rates remain unchanged: 20.3% (38/187). However from June 2011 to Jan 2012, the percentage of stage 5 CKD pre-dialysis patients preferring a Home dialysis modality has increased from 24% (8/31) to 39% (18/46).

Conclusion: Greater exposure to Home Therapies in the pre-dialysis phase can increase the number of patients willing to undertake Home dialysis. We will present a 12 month assessment of the strategy.

## The Creation of an Inpatient Dialysis Service in a Hospital Without an In-centre Facility: P37

Ms Amanda Hill<sup>1</sup>  
Ms Kristen Schuck<sup>1</sup>  
<sup>1</sup>RMH Kidney Care  
Victoria

**Context:** The Victorian Health Priorities Framework 2012-2022 prioritises the provision of timely and accessible health care services. To meet the needs of one of the strongest metropolitan growth corridors, a new satellite dialysis centre was negotiated in partnership with a local health service and established in a demountable at the main hospital. While this addressed the maintenance dialysis needs of the local community, in the absence of on-site inpatient dialysis facilities, patients requiring lengthy hospitalisation required multiple transport episodes or relocation to a tertiary hospital.

**Objectives:** In 2007, the collaborating health services established an on-site inpatient service with a view to enhance the gradual development of renal capacity in this growth region. Initially dialysis was provided in a general medical ward, Monday - Friday, 9am - 5pm. Prior to implementation, extensive planning and staff education occurred as this was a new area of care for the hospital. Key areas included policies, protocols, finance, equipment storage, expectations, appropriate staffing and patient transfers.

**Key Messages:** The service has progressively evolved to provide dialysis for acute and monitored patients and for new patients requiring medical stabilisation before transfer to their renal hub.

**Implications for Clinical Practice:** Between September 2007 and December 2011, 984 dialysis treatments have occurred, negating the need for patients to be transferred. Monthly treatment numbers average 19 with a range of 2-39, hence changing and variable needs have been challenging. Strong communication between all stakeholders has been essential in overcoming difficulties and maintaining an expanding service.

## Non Compliance Is Not Always Negligence But Can Be One's Way of Living: P38

Ms Sibiya Jacob<sup>1</sup>  
<sup>1</sup>Monash Medical Centre  
Victoria

Australia is host to one of the world's most diverse multicultural populations. Not including the many dialects spoken by Australia's indigenous population, over 230 different languages are spoken.

Culture can be defined as the non -biological or social aspect of human life or 'a blue print for living'. The term diversity means different demographic variables. In an increasingly multicultural and diverse environment cultural awareness and sensitivity are expected to be among the essential skills possessed by health care personnel. These skills will guide them to culturally appropriate and competent care.

Food or nutrition can be an important cultural factor affecting health and health care. Chronic kidney disease patients are often asked to make major changes to their diet and food preferences. These restrictions and modifications can be extremely difficult for certain cultures as they have very limited food choices. In this poster we see a culture friendly food pyramid and instructions for modifying traditional cooking styles, which can be used in dialysis units and renal clinics.

Changes in culture takes place with either acculturation or assimilation. The former modifies and preserves one culture whereas the later completely replaces one culture with another. In our unit we like the changes to be accomplished by means of acculturation as we value our culture and diversity. Our patients believe that this is one of the things that makes Australia a great place to live.

## Cultural Considerations for Islamic People with End Stage Kidney Disease in Australia: A Case Study: P39

Mrs Getsy Jayaseelan<sup>1</sup>  
<sup>1</sup>Southern Health  
 Victoria

Mr A was a refugee from Iran with a Moslem faith who was seeking asylum in Australia. On arrival to Australia in (2011), he was found to have the end stage kidney disease (ESKD) secondary to diabetes and hypertension requiring renal replacement therapy (RRT).

He commenced haemodialysis in (March 2011) and is currently receiving haemodialysis in a satellite dialysis unit. He refused a transplant from his wife and is currently active on the cadaveric transplant list.

This presentation explores how social, economic and cultural differences have impacted his health and well being. It will explore how renal specialist nurses managed to explore and review culturally sensitive nursing care consistent with Mr A's Moslem faith. For example, Mr A's care required to respect his Moslem prayer, five times a day, prior or post haemodialysis and the need to fast and pray for forty days during Ramadan Month. Furthermore, an understanding of his faith-related decision to refuse his wife's kidney was required.

The clinical implications of this case relates to the imperative for nurses to be aware of various religious and cultural issues that impact the nursing care of people with ESKD. Nurses need to understand our own culture, and then our patient's culture, to provide culturally sensitive and safe nursing care.

## The optimal ferritin level and its influence on the management of anaemia in the haemodialysis population: P41

Ms Loreen Evans<sup>1</sup>  
 Ms Suzanne Johnson<sup>1</sup>  
 Dr Shafiqul Chowdhury<sup>1</sup>  
<sup>1</sup>Wollongong Hospital  
 New South Wales

Background: The haemodialysis population in the South Eastern Sydney - Illawarra Renal Services was noted to have a history of high level of serum ferritin and therefore not receiving Intravenous iron (IV Fe) according to the existing protocol. This prompted a change to the existing nurse initiated Iron Replacement policy in the haemodialysis population in September 2011. The previous Intravenous iron(IV Fe) supplementation policy was determined by the serum Ferritin level and Transferrin saturation (T'Sat). Contrary to current guidelines, although based on existing literature the new regime increases the upper limit of Ferritin from 650ug/L to 1200ug/L.

Aims: To assess whether the new IV Fe regime achieved target ranges for anaemia management parameters and reduce dosage of Erythropoiesis Stimulating Agents(ESAs) in the haemodialysis population.

Methods: The following parameters were examined including Hb, Ferritin, T'SAT, ESA at August 2011 and January 2012 (before and after IV Fe protocol change) in two satellite haemodialysis units.

Results: 66 patents were included in the study from 2 Haemodialysis units. A basic statistical package using Excel determined that center one comprising of 30 patients the average Hb levels increased (P value <0.5) and ESA dosing decreased. In Centre 2 comprising of 36 patients there was no significant statistical change.

Implications for clinical practice: The increased upper limit of ferritin to the Iron Replacement policy had significant change to the anaemia management parameters in one unit although the other remained unchanged. The small cohort and the short duration of follow-up are limiting factors. Further research needs to continue.

## Traditional Food and Cultural Beliefs versus Renal Dietary Requirements: P43

Mrs Afsana Khan<sup>1,2</sup>

<sup>1</sup>Bobbee Terrill

<sup>2</sup>Cranbourne Intergrated Care Centre  
Haemodialysis  
Victoria

Background: Multiculturalism has developed our awareness and taught us to value and support diversity within our society. A Pacific Islander culture displays strong cultural values and traditions. One of the challenges face by these patients is traditional food and the renal diet requirement.

Aim:

1. To improve the nutrition and physical health literacy of Pacific Islander Chronic Kidney Disease (CKD) patients.
2. To develop nurses understanding of Pacific Islander culture and nutrition practices.

Method: The challenges faced by Pacific Islander CKD patients when attempting to incorporate traditional foods into standard renal diet were explored by accessing educational resource materials. Assessment, observation and interviews were also conducted with patients in the unit.

Results: Pacific Islander people identified themselves as generally reserved, shy, and ashamed to seek assistance from services and this was one of the primary factors in communication barriers. Traditional diet of Pacific Islander people featured a variety of root crops and a preference for large portion size. CKD affects personal habits, alters life style and develops substantial amount of psychological stress. Many times healthcare workers were needed to ask patients to work around their customs.

Conclusion: In order to effectively function in a health care environment that is becoming more culturally diverse it is important to understand select cultures and their nutrition practices. When it comes to caring for CKD patients with multicultural backgrounds the most effective outcome for a health care worker is to be culturally competent at the organizational level and at an individual level as well.

## Hope and Resilience: Key Psychosocial Concepts for Building a Model of Care: P44

Ms Trish Kinrade<sup>1</sup>, Prof Alun Jackson<sup>2</sup>

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Context: It is well established in the research literature that dialysis treatment is extremely stressful for patients and families as it intrudes into all aspects of their daily activities. Such intrusions can affect work, finances, family and personal relationships, and health related domains.

Objective: Hope and family resilience are important concepts that influence a patient/families journey through ESRD. It is important to understand how they can best be promoted in clinical practice to assist with the process of adjustment to ESRD.

Key Messages: Hope and resilience are key psychosocial concepts that will assist patients and families in coping with and adjusting to the diagnosis of ESRD and the subsequent dialysis process.

Hope: 'Hope' is often defined as a confident, yet uncertain expectation of achieving a future goal which, to the individual is realistically possible and personally significant. Hope is an important function in adjusting to the challenges of ESRD.

Resilience: 'Resilience' is the ability of an individual or family to withstand and rebound from disruptive life challenges. It is a dynamic process that fosters positive adjustment within the context of significant adversity.

Clinical Implications for Practice: By discussing the concepts of hope and resilience and incorporating them into models of care, the multi-disciplinary team can further assist to counteract the negative effects of dialysis treatment regimes and provide strategies to decrease disruption to daily lives. These concepts can assist with adjusting to the demands of dialysis therapy and subsequently improve quality of life for all involved.

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## Australia meets south east asia: a potpourri of cultural diversity: P45

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Ms Joanne Kok<sup>1</sup>  
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Australia is a multicultural society where overseas born residents migrate and bring diversity of food, cultural practices, beliefs and languages and integrate into a new country. Migrants from the 8 south east asian countries make up about 3.4% of the population, which is second largest group after the European countries. Health care professionals experience caring of migrant patients everyday or some time in their course of work. This is also true in the renal failure population. This poster presentation will share some differences between the south east asian population and common Australian people. This will help those caring for patients from the south east asian origin understand more about their dietary differences, health care beliefs, caring for the sick and end of life views.

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## Cultivating New Haemodialysis Nurses: P46

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Queensland

Context: The provision of specialised nurses to address the problems of emergent sick leave and other staff movements is extremely difficult in a satellite haemodialysis unit. Requesting existing staff to work extra shifts or overtime to cover staffing deficits results in nursing staff fatigue and budgetary overruns.

Objectives: The ability to provide specialised nursing staff to cover leave in the haemodialysis unit has been addressed by recruiting nursing staff to work part-time between the Haemodialysis unit and the in-patient Medical Unit. Nursing staff deficits in the Haemodialysis unit can be covered by deployment of the haemodialysis trained nurse from the Medical unit and replaced by casual or nursing pool staff if required, to cover corresponding deficits in the medical ward environment.

Key Messages: Three permanent part-time positions were created with a super-numerary training position of four days a week under supervision of the Renal Clinical Facilitator and Preceptor. Once the training period finished and the staff member assessed as competent in performing haemodialysis, the position reverted to two days per week in both the Haemodialysis and the Medical Unit.

Implications for Clinical Practice: Specialised staff are available to backfill emergent leave in the Haemodialysis Unit, providing safe care delivery to haemodialysis patients.

## ABO Incompatible Kidney Transplant: Celebrating The Diversity of Treatment Options for Chronic Renal Failure Patients: P47

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 Victoria

ABO Incompatible Kidney Transplant: Celebrating The Diversity Of Treatment Options For Chronic Renal Failure Patients

Background: Due to the shortage of organ donors, the average wait for a compatible cadaveric kidney transplant within Australia is five years. On average 30-35% of potential living donors are excluded due to an ABO blood group mismatch, also called ABO incompatible (ABOi) donors. To overcome ABOi barriers in kidney transplants and expand the donor pool there has been an increased interest in developing a protocol for ABOi kidney transplants.

Aim: This poster will present the ABOi kidney transplant protocol that has been successfully developed over several years in this centre.

Methods: The multi-prong approach used in ABOi kidney transplants includes plasma exchange with immunoglobulin infusion or plasmapheresis using the Glycosorb column to lower recipient's antibody titre to the required pre-transplant threshold of <1: 8 (set by Australia ABOi transplant working group) before the transplant can take place. The combination of immunosuppressant medication used includes Mycophenolate mofetil, Tacrolimus, Prednisolone and Anti-CD20 antibody (rituximab). Recipients' antibody levels are monitored carefully pre and post kidney transplant.

Result: With the development of this new protocol, 80 percent of the patients who have ABOi antibodies in their blood can now have a living donor kidney transplant.

Conclusion: With improved methods of overcoming barriers to ABOi transplants, the donor pool is increased, waiting time for a transplant is reduced and more patients have been accepted as potential recipients. They can now enjoy a better quality of life with added benefit that kidney transplant is also cost effective when compared to maintenance dialysis therapy.

## Improving Pathology Testing Rates; P49

Miss Sarah Malcolm<sup>1</sup>  
 Mr Michael Garrett<sup>1</sup>  
<sup>1</sup>Bendigo Health  
 Victoria

Background: Routine assessment of biochemical and haematological parameters are an essential component in the ongoing management of peritoneal dialysis (PD) patients. A review of data over a six month period in 2010 data showed that approximately 60% of routine monthly pathologies had been completed their. Patients were receiving pathology requests from a combination private nephrologists, public out-patient clinics, general practitioners, or either hub or regional PD services.

Aim: The aim of the project was to increase the rates of monthly pathology testing across the PD population in a regional hospital and to ensure the availability of results for appointments with the renal team.

Methods: A schedule of routine pathology testing was developed in conjunction with the patients "hub" hospital, local nephrologists and regional PD staff. Regional staff coordinated the delivery of pathology requests from a single source, removing an element of confusion for some patients.

Pathology requests were sent out four times per year, with three months worth of requests in each delivery. Results were then followed up by regional PD nurses.

Results: In the six months following the changes in pathology coordination, the rate of completion of monthly pathology testing increased to over 90%.

Implications for clinical practice

The implications for clinical practice are three-fold:

Care staff have current data for analysis when planning care delivery

Pathology results are reviewed monthly as a matter of course

Potential problems can be identified earlier, with alteration made to treatment regimes where appropriate.

## Monitoring Outcomes of Tenckhoff Catheter Insertion: P50

Miss Sarah Malcolm<sup>1</sup>  
Mr Michael Garrett<sup>1</sup>  
<sup>1</sup>Bendigo Health  
Victoria

**Background:** This study was undertaken in a regional hospital with a peritoneal dialysis (PD) service that includes Tenckhoff insertion. This service has been operating since 2008.

**Aim:** To determine the rates of complications associated with Tenckhoff catheter insertion, by comparing our results to targets recommended by the International Society for Peritoneal Dialysis (ISPD).

**Method:** All patients who had a Tenckhoff catheter inserted from November 2008 to November 2011 were included in real time data collection and monitoring by PD staff.

**Results:** Twenty-four patients had Tenckhoff catheters inserted during the data collection period. ISPD guidelines suggest that:

The incidence of bowel perforation and significant haemorrhage should be less than 1%; these have not occurred in our centre;

Exit site infection and peritonitis within two weeks of insertion should be less than 5%; there were two episodes of peritonitis, giving a rate of 8.3%. Exit site infection has not occurred;

One catheter required replacement giving a rate of 4.1%, which is well below the ISPD recommendation of less than 20%;

Of the catheters inserted 92% have remained patent at one year which is in excess of the ISPD guideline target of 80%.

**Implications for Clinical Practice:** The clinical targets recommended by the ISPD provide a useful and validated tool to evaluate the success rate of PD access, as well as identify potential areas for improvement.

## Challenges of Implementing a Service for Physician-Inserted Peritoneal Dialysis Catheter Placement: P51

Ms Peta McLean<sup>1</sup>, Ms Libby Tiewes<sup>1</sup>  
Ms Annabel Ryan<sup>1</sup>, Ms Suzanne Berry<sup>1</sup>  
<sup>1</sup>Box Hill Hospital, Eastern Health  
Victoria

**Background:** Local Anaesthetic-inserted Peritoneal Catheter placement (LAPD) potentially provides additional capacity for many patients, including late presenters, to commence PD with minimal discomfort, delay and reduced cost. We outline the steps involved in introducing a new procedure in a Melbourne renal hub.

**Aims:**

- provide timely PD catheter insertion
- avoid unnecessary hospitalization
- minimize theatre usage
- maximize bed capacity
- give patients more opportunity to commence home therapies
- reduce HD catheter usage
- reduce costs

**Methods:**

- Develop business case
- Apply through the New Procedures Committee
- Obtain opinions and agreements from stakeholders (including patients)
- Develop standard operating procedures across several departments.
- Educate local staff
- Commence insertion (once-weekly regimen)
- Audit results and patient experience

**Results:**

1. From inception to commencement of insertion was 7 months. The first insertion took place on Friday, 21 October 2011 and 9 catheters have been successfully placed since
2. There have been no failed procedures, although patients were screened and 'complex' abdomens were not listed.
3. Improvements to date include:
  - a. a significant reduction in the waiting list
  - b. a reduction in waiting time
  - c. increased PD usage as a percentage of RRTx
  - d. very positive patient feedback
4. Prospective collection of data is proceeding

**Conclusions:**

We have shown a reduction in waiting time from the decision for PD to catheter insertion, and reduced PD theatre usage along with an increase in home therapy uptake. Data collection to evaluate cost savings, tunneled haemodialysis catheter insertion rates, exit-site infections, peritonitis rates and patient experiences (including pain score) is underway.

## Use of Regional Citrate Anticoagulation for Haemodialysis - A Unit's Experience: P52

Mrs Maria (Chari) Mercado<sup>1</sup>  
 Mr Zivai Maburuse<sup>1</sup>  
 Dr Richard Singer<sup>1</sup>  
<sup>1</sup>Canberra Hospital  
 Australian Capital Territory

Standard haemodialysis (HD) is performed using heparin as a systemic anticoagulant. All anticoagulants increase the risk of bleeding, and are therefore unsafe for patients that are either actively bleeding, or at increased risk for bleeding. Lepirudin is the standard treatment for patients allergic to heparin; however this therapy is expensive and irreversible. Consequently there is an increased risk of haemorrhagic complications.

Anticoagulant free dialysis is complicated by clotting of the dialysis circuit, which, when mild can reduce dialysis efficiency, and when severe can result in complete loss of the dialysis circuit. It also requires frequent nursing intervention and an increased use of consumables thus increasing the cost of therapy. There is some evidence to the use of citrate as an anticoagulant that can improve dialysis efficiency by preventing clotting of the dialysis circuit.

Citrate is an effective anticoagulant that works by chelating calcium. Because citrate dialysis involves significant removal of calcium during dialysis, maintenance of the patient's plasma calcium (Ca) level with intravenous Ca infusions is necessary to prevent hypocalcaemia. With all of these in mind, the unit has followed a regional citrate dialysis treatment protocol.

The quality improvement activity aims to assess the safety and effectiveness of the use of regional citrate anticoagulation for haemodialysis patients who are actively bleeding, or at increased risk of bleeding.

Preliminary results show that regional citrate dialysis is safe and effective as long as the protocol is followed correctly.

## Switching Patients from one Epoetin to Mircera: P53

Mrs Louisa Moloney<sup>1</sup>  
 Mrs Leanne Glancy<sup>1</sup>  
<sup>1</sup>Greenslopes Private Hospital  
 Queensland

Maintaining stable hemoglobin level is of high importance in the management of anemia in dialysis patients. Poor management can lead to increased hospitalization and death for these patients. It was observed that hemoglobin stability was not occurring with Erythropoiesis stimulating agents (ESA's) currently prescribed in one Brisbane haemodialysis unit. With consultation from a Nephrologist, it was decided to trial a switch from a specific ESA to MIRCERA while maintaining hemoglobin stability in the patient. Target range for hemoglobin was established as 10.5-12.0 g/dL. Each patient was switched from their existing ESA to Micera according to the product information conversion chart. Over a six month period we monitored the number of dose changes occurring to achieve target range and maintain stability. We also looked at which patients met targets without any additional dose changes. Our overall aim was twofold: firstly to determine if the current product information conversion chart provides a simple changeover without multiple dose change and secondly, can patients safely be switched.

## Abdominal aortic calcification in chronic kidney disease stage 5: Findings from one dialysis unit: P54

Miss Lynda Moynahan<sup>1</sup>  
Mrs Jane Wyatt, Dr Simon Fleming  
<sup>1</sup>Wesley Hospital  
New South Wales

**Background:** Vascular calcification has been associated with cardiovascular mortality in patients with chronic kidney disease (CKD). The specific anatomical distribution and severity of abdominal aortic calcification in contrast to coronary calcification is less well documented.

**Aim:** The purpose of this study was to identify the extent of calcification in stable haemodialysis patients in our unit.

**Methods:** Using a convenience sample, patients underwent a one lateral lumbar radiography of the abdominal aorta. The severity of calcific deposits at lumbar vertebral segments L1-L4 was measured using standard radiographic equipment. The scores were summarized using two methods: (a) the composite score for anterior-posterior severity and (b) the affected segments score as the total number of aortic segments showing calcification. Each patient received an overall abdominal calcification score that ranged from 0 (no calcification) to 24 (maximum level of calcification).

**Results:** Thirty patients (males = 15, females = 15) participated in the study. Ages ranged from 30 to 82 years. Calcification scores varied from 0 to 24 with a mean of 13. 10% of patients (n =3) had no identifiable calcification in the abdominal aorta on x-ray but all other patients exhibited some degree of calcification. Of the remaining patients 13% (n=4) had a calcification score of 24 with the remaining number of patients scoring between 4 and 23.

**Conclusion:** Lumbar radiograph can be used to detect abdominal aortic calcification in patients with CKD stage 5. It is non invasive, simple and less expensive than other methods used to detect cardiovascular calcification. This method could be used as part of a pre-transplant workup or to proactively identify cardiovascular risk in haemodialysis patient.

## Rule Number 1: Taking Care of Your Staff: P55

Mrs Pauline Nicholas<sup>1</sup>  
<sup>1</sup>Royal Brisbane And Womens Hospital  
Queensland

Today's Nurse Unit Managers will lead and manage staff that is culturally, gender, and generationally diverse. This requires significant flexibility of leadership style to ensure that the tools provided to the nursing staff will lead to best patient care, but also to engage with the nursing staff so that they feel valued and appreciated.

They are 'human beings' not 'human doings'.

This presentation will outline some tips learned along the way on getting the best from, and for, your staff, through engaging with them and treating them as individuals. It is not just about communication but about developing a dialogue with staff, being visible and genuinely interested in them, what they do and where they are. It is not about giving them what they want, but being flexible enough to include your staff in the 'big picture' and empowering them to make decisions.

The implications for any unit has been demonstrated through research and any performance motivational speaker will tell you, that when you engage your staff, retention is maintained, sick leave is reduced, better patient outcomes are achieved and people are happy to come to work.

**Making Dialysis Invisible: P57**

Mrs Barbara Rehlicki<sup>1</sup>  
<sup>1</sup>Diaverum  
 Victoria

**Background:** In May of 2011, an in-centre nocturnal dialysis (NHDx) program commenced in a private dialysis facility in Melbourne. NHDx has been shown to improve several health outcomes; however the effects on quality of life are less clear.

**Aim:** The aim of this seven month study looked at sixteen aspects of quality of life to determine if they had improved.

**Method:** Six patients were enrolled in the in center NHDx program. The patients completed questionnaires at the beginning of the program and at three month intervals.

**Results:** One patient had withdrawn due to medical reasons; there were no deaths or transplants.

Of the 16 aspects questioned, three aspects which significantly improved was overall energy, quality of the day and patients happy about decreasing medication consumption.

All patients reported an increase in appetite. Four out of five patients increased their body weight during this period.

Two patients were able to return to full-time work, with a promotion following soon after for one of these patients.

Another patient commented that the in-centre nocturnal program had "made dialysis invisible" for her, as it removed the burden of chronic dialysis from her life as much as possible. For this patient, dialysis no longer impacted on her life.

**Conclusion:** A weakness of this study is the small number of patients. Larger studies would have to be conducted to determine the overall quality of life.

Our NHDx program has been a huge success with patients reporting an overall increase in quality of life. It is believed that there are significant lifestyle benefits dialysing nocturnally in center.

**Providing kidney care services - does one size fit all?: P58**

Mrs Elaine Sanders<sup>1</sup>, Ms Sally O'Dea<sup>1</sup>  
<sup>1</sup>Royal Melbourne Hospital  
 Kidney Care Service  
 Victoria

Our kidney care service operates a hub and spoke model and provides dialysis services to both metropolitan and regional Victoria. Our aim is to provide equivalent treatment and service to all patients. However, in recognition that the needs of these two groups may be quite different, we compared demographics and patient characteristics in urban centres and regional satellites. We also want to determine if the education programmes that we offer patients compliment the needs of both groups of patients.

**Method:** This project examined the demographics of the satellite units in metropolitan Melbourne, four of the larger regional satellite units and the smaller rural satellite units, i.e. those with less than 6 chairs, in our kidney care service. We have reviewed data from our service's patient records. Factors which have been compared include age, eGFR at registration, attendance for education before the commencement of dialysis and some other demographic data

**Results:** Average age of patients and profile of co-morbidities in regional and urban centres was similar. eGFR at presentation was less in the regional patients and the percentage of patients that had received formal pre-dialysis education was marginally less in regional than urban units. Consistent with greater ethnic diversity, English as a first language was less common in metropolitan centres.

**Conclusion:** Analysis of results suggests that, while there is not an evident disparity in care provision, patient requirements may differ between centres. Clearly service delivery needs to be customised accordingly.

## The Phosphate Challenge at a Haemodialysis Unit in Melbourne: P59

Mrs Kimberly Sandlin  
 Ms. Ann-Marie Corradini<sup>1</sup>  
 Mr. Paul Bennett<sup>2</sup>  
 Ms. Cherene Ockerby<sup>2</sup>  
<sup>1</sup>Nurse Unit Manager  
<sup>2</sup>Research  
 Victoria

Patient compliance with phosphate binders is an ongoing challenge in haemodialysis patients. The recent changes in phosphate binder prescribing from mineral based binders to sevelamer and lanthanum may have increased confusion and non-compliance.

We aimed to conduct a 12 week phosphate challenge provided by Genzyme. Through the challenge we educated patients regarding phosphate binders and measured the program's success through phosphate binder adherence.

A patient questionnaire was designed and given to participants at commencement and at completion of the challenge. This questionnaire was used to determine patient's level of perceived knowledge regarding phosphate and phosphate binders. Monthly bloods were used to monitor phosphate levels. Education was provided by nursing staff which was tailored and centred to the patient, the binder(s) to which they had been prescribed, their dietary habits, and their level of independence. The challenge was conducted for 12 weeks according to Genzyme's recommendations.

The results of the 12 week phosphate challenge are yet to be fully completed; however some preliminary results are available. We had 7 patients who showed a clear and outstanding improvement in phosphate levels. Through the phosphate challenge, nursing staff were able to identify the barriers to compliance and work with the patient to assist them in taking their binders according to their needs. These barriers were shown to be widely varied and highly dependent to the participant. Feedback from participants has been positive in that nursing staff and patients both learned from the experience.

## The Developing Role of the Renal Technician: P61

Mrs Leigh-Ann Thompson<sup>1</sup>  
<sup>1</sup>Fraser Coast Health Service  
 Queensland

Context: The renal technician (RT) role was initially introduced into a haemodialysis (HD) unit to assist with the management of the three shift HD model.

The primary role of the RT was to assist with machine set up and cleaning; facilitating a rapid changeover process. A secondary role was in centre water management.

Congruently, Queensland Health announced a target benchmark of 50% undertaking out of hospital dialysis modality. Financial penalties would be incurred should this target not be met. Technical support for out of hospital modalities were previously provided by an external metropolitan provider.

Objectives: In order to accommodate the needs of the developing renal service the RT role was redesigned to incorporate the following:

Succession planning

Competency based training packages for all staff

Formalising written workplace instructions for the role

Uniformed worksheets/reporting measures

Role clarification

Develop environmental time-lines and assessment sheet for home dialysis patients

Coordination of HHD water sampling

Key messages

No formalised training was training available for staff

Lack of consistency of RT role across districts

Technician and ENAP roles

Development of sustainable practice in maintenance and management of water quality

Implications for clinical practice

Improved role clarification for holistic water movement for In Centre and HHD

Developed evidence based training records

Nephrology nurses were able to concentrate on clinical issues

Consistent information provided to all renal staff

Unit self sufficient for water and plant maintenance

## The Advantages of Fluoroplastic in the Cannulation and Use of the Vascular Access for Haemodialysis: The Bay Experience: P62

Mr Teodulo Rey Tuando  
<sup>1</sup>Fraser Coast Health Service  
 Queensland

Cannulation of the fistula and graft has traditionally been with steel cannulae. Problems with the steel cannulae are dealt with conventionally. Examples are re-cannulation above blown sites, and difficulty advancing the cannula in deep or tortuous veins. With emerging trend of ultrasound-assisted cannulation, there are reports of increased success in cannulation but this does not address all the challenges faced with the use and care of the vascular access. In our unit's initial use of the fluoroplastic catheters, immediate and clear benefits were observed. We aimed to improve patient comfort during dialysis and contribute to reduction in vascular injury and complications which may occur along the course of cannulation down to removal of the cannula post dialysis. Improved patient comfort was immediately reported due to freedom of movement and no risk of blowing the cannula site. Pain at insertion was the main complain although this was common on new puncture sites. Repositioning the cannula is difficult although rarely required. There's clear advantage on tortuous veins and there was significant reduction of arterial and venous pressures. An improvement in bleeding post cannula removal was observed on one patient. We concluded that the fluoroplastic catheter has more advantages than disadvantages. A good study to do next would be comparing trauma to RBC especially on high Qb. We postulate that a steel needle with sharp tip and a back-eye will incur damage than a non-steel cannula. Staff training and support are essential to ensure competency and confidence on its use.

## "Hand Hygiene Champions" Preventing Cross Infection in a Regional Satellite Unit: P63

Mrs Meredith Vandersee<sup>1</sup>  
 Ms Mavis Bindley<sup>1</sup>, Mrs Judy Bell<sup>1</sup>  
 Mrs Stephanie Mengel<sup>1</sup>  
<sup>1</sup>Renal Society of Australasia  
 Victoria

Background: A critical incident occurred in our unit in late 2009. This, in addition to an ever increasing number of MRO positive patients prompted us to review our Hand Hygiene practices. It was vital to embed good practices in all staff. Hospital policy requires isolation of MRO positive patients. With only 3 isolation rooms and a unit at capacity, it was becoming difficult to prevent cross infection. Our diligence with Hand Hygiene has prevented cross contamination within the unit. Increasing numbers of patients with MRO's prompted Infection Prevention to clear a number of Low Risk (Category 1) patients.

### Aims:

- o Prevent Cross Infection within our Unit
- o Hardwire good Hand Hygiene practices

### Methods:

- o Swab and isolate patients on discharge from hospital and new patients
- o Regular hand washing audits by Infection Prevention
- o Partitions to separate further Category 1 isolation spaces within general ward area
- o Staff input/ discussions
- o Category 2 patients in isolation but no dedicated nurse
- o Five Moments of Hand Hygiene
- o Innovative fun ideas to prompt staff

### Results:

- o "Hand Hygiene" Champions hospital wide
- o No MRO Cross Infection since Unit opened in 2002

### Implications for Clinical Practice:

- o Prevent transmission of MRO's among our patients
- o Clearing less susceptible patients allows greater flexibility in accepting new patients.
- o Managing financial implications of antibiotic use
- o Reduced morbidity and mortality
- o Decreased risk of infection and associated co-morbidities

## Establishing a Six Month Trial of In-Centre Nocturnal Haemodialysis: One Unit's Experience: P64

Ms Angela Wignall<sup>1</sup>  
<sup>1</sup>St George Hospital  
 New South Wales

**Background:** The incidence of end stage kidney disease (ESKD) is on the increase. With this comes an increasing need to develop innovative models of care that are both clinically and cost effective.

**Aims:** As a strategy to grow our existing dialysis service it was recommended to executive that the organization endorse a six month trial of thrice weekly In-Centre Nocturnal Haemodialysis (ICNH). This recommendation was aligned with the organization's mission and its strategic intent to *Aspire, Achieve and Innovate*.

**Methods:** In establishing the service a detailed financial analysis of the recommendation indicated that ICNH could be offered cost effectively to three hub patients who were unable to undertake dialysis at home. Following this an expression of interest to work night duty was sought from trained staff. After successfully recruiting staff the trial commenced in July 2011 with one registered nurse caring for three patients. The shift would incur a crib allowance as the nurse would not be able to be relieved for a break. This extra costing was incorporated into the staffing costs.

**Operational challenges** faced included, day staff feeling threatened that they may have to work night duty, sick leave coverage, difficulty sourcing a combined chair/bed able to accommodate both day and nocturnal patients and finally reorganization of the dialysis units cleaning schedule.

**Results:** The trial has proved to be very successful and has received positive feedback from both patients and staff.

**Conclusion:** We are now considering expanding the service in the near future and will be trialing a new chair/ bed in 2012.

## Improving the management of renal anaemia: A review of appropriate transfusion practice in in-centre haemodialysis patients eligible for anaemia supportive therapies: P65

Mrs Jane York<sup>1</sup>, Mrs Linda Campbell<sup>1</sup>  
<sup>1</sup>Royal Perth Hospital  
 Western Australia

The treatment of renal anaemia with iron therapy and erythropoiesis-stimulating agents (ESA) improves well being and reduces the need for transfusion. We audited the use of transfusion over a 2 month interval in an in-centre haemodialysis unit. We examined the factors and clinicians responsible for triggering transfusion and their adherence to national guidelines for blood transfusions and evaluated whether other means of anaemia management were more appropriate. We performed a retrospective chart review and ascertained whether the indication for transfusion was recorded and extracted relevant biochemistry and haematological parameters along with use of ESA's and iron. Audit criteria included determining the renal experience of the transfusion-prescribing clinicians. Twenty-four patients received 38 transfusions over the audit period. However 21 (55%) transfusions were considered inappropriate and did not meet criteria as determined by Australian and New Zealand Society of Blood Transfusion (ANZSBT) transfusion guidelines, or the accepted management of anaemia in End Stage Kidney Disease (ESKD). The indication for transfusion was recorded in 39% of requests and only one requesting doctor was recorded as having more than three months renal experience. Optimising the anaemia of ESKD patients with supportive therapies requires specialist knowledge; however most request for blood transfusion emanate from junior often inexperienced medical or nursing staff unfamiliar with additional options of ESA, IV iron and the treatment of hypo-responsiveness to therapy. Recommendations include that staff new to the nephrology area must receive education on supportive therapies available for the treatment of anaemia in ESKD patients.

## Simultaneous Pancreas-kidney Transplantation the bioethics: An Overview of history, culture, Complications, and Outcomes: P66

Miss Qing Zhang<sup>1</sup>  
<sup>1</sup>Southern Health  
Victoria

Simultaneous pancreas-kidney transplantation (SPK) has become an accepted therapy for the treatment of patients with insulin-dependent diabetes mellitus and renal failure from diabetic nephropathy. The procedure has evolved over the last twenty years, and refinements in technique, better organ preservation solutions, and more potent immunosuppressive therapies have improved one-year graft-survival rates to 81% for the pancreas and 88% for the kidney. SPK aims to correct the uraemic state, to normalize glucose homeostasis, and to ameliorate diabetic complications. Careful donor-recipient selection and meticulous intra-operative and postoperative care will substantially impact recipient morbidity. An understanding of the technical aspects of the surgical procedure and its metabolic and immunological consequences is necessary to successfully manage a pancreas-kidney transplant recipient. A successful outcome is predicated on early recognition of technical complications and aggressive management of rejection. Although there is significant associated morbidity unique to the pancreas transplant, this is usually manageable without influencing the outcome. With the improvement in quality of life and the potential for arresting diabetic complications, SPK is a procedure that should be seriously considered for many Type I diabetic patients with advanced nephropathy.

Transplantation is one of the most progressive areas of medicine. Following its rapid development, organ transplantation has become part of the globalisation process, and is now available in many parts of the world in different social and cultural environments. This poster will discuss the overview of simultaneous pancreas-kidney transplantation, the indications, complications, and outcomes.

## Acute bilateral basal ganglion disorder- what do nurses need to know?: P67

Ms Deanne Zyla<sup>1</sup>  
<sup>1</sup>Nephrocare  
New South Wales

Acute bilateral basal ganglion disorder (ABBGD) is a rare condition that presents as a movement disorder including bradykinetic (parkinsonian) syndrome. This poster will describe symptoms and diagnosis of this disorder and raise awareness of this condition. The disorder has been reported in dialysis patients with diabetes who receive parenteral iron. Degeneration of the basal ganglia has been associated with genetic disorders of iron overload in the non-dialysis population.

Nurses should be aware of this disorder as a large percentage of dialysis patients have diabetes, hypertension and receive iron infusions. The use of parenteral iron has increased which could be a potential risk for basal ganglia dysfunction in the chronic kidney disease population. Other risk factors will be discussed. The treatment of this disorder will be discussed. Having knowledge of dialysis patient co-morbidities such as ABBGD is the responsibility of all dialysis nurses.

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**PBS Information:** Authority required (STREAMLINED). Refer to PBS Schedule for full authority information.



Please review full Product Information before prescribing. Full Product Information is available from Sanofi.

**Minimum Product Information. RENAGEL® (Sevelamer Hydrochloride). Indication(s):** the management of hyperphosphataemia in adult patients with stage 4 and 5 chronic kidney disease. **Contraindication(s):** hypophosphataemia or bowel obstruction and known hypersensitivity to sevelamer hydrochloride or any of the other components of the tablet. **Precautions:** in patients with dysphagia, swallowing disorders, severe gastrointestinal (GI) motility disorders, severe constipation or major GI tract surgery. Patients with renal insufficiency may develop hypocalcaemia or hypercalcaemia. Patients with chronic kidney disease are predisposed to metabolic acidosis. **Adverse Events:** headache, infection, pain, hypotension, hypertension, thrombosis, diarrhoea, dyspepsia, vomiting, cough increased, nausea, dyspepsia, constipation, nasopharyngitis, bronchitis, upper respiratory tract infection, pain in limb, arthralgia, back pain, pruritus, dyspnoea, cough, hypertension, mechanical complications of implant, pyrexia, flatulence, rash and abdominal pain. In very rare cases, intestinal obstruction and ileus/subileus. **Interactions:** RENAGEL should not be taken simultaneously with ciprofloxacin, very rare cases of increased TSH levels have been reported in patients co-administered RENAGEL and levothyroxine, special precautions should be taken when prescribing RENAGEL to patients also taking anti-arrhythmic and anti-seizure medications. **Dosage:** RENAGEL (sevelamer hydrochloride) 800 mg tablets. The recommended starting dose for patients not taking a phosphate binder is 800 to 1600 mg, which can be administered as one to two RENAGEL tablets with each meal based on serum phosphate level. When patients are converting from a calcium based phosphate binder, RENAGEL should be given in equivalent doses on a (mg to mg) weight basis compared to the patient's previous calcium based phosphate binder. The dosage should be gradually adjusted based on the serum phosphate concentration with a goal of lowering serum phosphate. The dose may be increased or decreased by one tablet per meal at two week intervals as necessary. Patients should be advised not to chew the tablets as sevelamer hydrochloride swells on contact with moisture. Patients should swallow the tablets whole with water. PBS dispensed prices: \$357.73. Renagel® (Sevelamer hydrochloride) TGA Approved Product Information 13<sup>th</sup> October 2008. Renagel® is a registered trademark of Genzyme Corporation USA. sanofi-aventis australia pty ltd trading as Sanofi ABN 31 008 558 807, Talavera Corporate Centre, Building D, 12-24 Talavera Road, Macquarie Park, NSW 2113. AU.SEV.11.12.003.





# RSA tasmania



5-8 June 2013 Hotel Grand Chancellor, Hobart

## KEY DATES

Call for Abstracts Open  
3 September 2012

Registration Opens  
5 December 2012

Call for Abstract Close  
4 February 2013

Author Notification  
27 March 2013

Author Acceptance  
Deadline  
12 April 2013

Early Bird  
Registration Deadline  
12 April 2013



On behalf of the Tasmanian Organising Committee I would like to invite you to join us for the 41st Renal Society of Australasia Annual Conference, from June 5-8, 2013. Our organising committee members are proud and excited to be given the opportunity to host another RSA Conference in the picturesque, historic city of Hobart.

Hobart is Australia's second oldest city and today promises its visitors excellent sightseeing, food, wine, coffee, history, art, architecture, culture and shopping. Situated directly across the road from Hobart's magnificent harbour port, the Hotel Grand Chancellor, will accommodate our conference. Located centrally, you will easily access fine restaurants, cafes, parks, shops and ferry services.

The theme of the 2013 conference is "Inspiration, Motivation and Collaboration". The program will offer content for all health professionals dedicated to advancing the care of people with kidney disease. Be inspired, motivated and join us in collaboration. Share your inspirations, express your motivation and submit your abstract!

We look forward to seeing you in Hobart in 2013.

Jo Wilkinson  
Convener RSA 2013



## WHO SHOULD ATTEND?

- Nurses
- Transplant coordinators
- Pharmacists
- Dieticians
- Social Workers
- Educators
- Technicians
- Researchers
- Healthcare professionals working with people who have kidney disease



JAMES D.

Age: 56

Time on dialysis: 6 mo.

Lateral abdominal

2009 KDIGO guidelines<sup>1</sup> for CKD-MBD<sup>†</sup> state:

The presence and severity of cardiovascular calcification strongly predict cardiovascular morbidity and mortality in patients with CKD.



In CKD Stage 3-5D\* KDIGO suggests restricting calcium dose in the presence of<sup>1</sup>:

Persistent/  
recurrent  
hypercalcaemia

Arterial  
calcification

Persistently  
low PTH levels

Adynamic  
bone disease

\*Renagel is indicated for hyperphosphataemia in adult patients with stage 4 and 5 CKD

64% of new dialysis patients<sup>2</sup> and 83% of prevalent dialysis patients<sup>3</sup> have been shown to have calcification.

Renagel effectively controls serum phosphate levels<sup>4-7</sup> and attenuates the progression of vascular calcification.<sup>7,8</sup>

Please review Product Information and PBS information in the primary advertisement of this publication.

<sup>†</sup>Chronic Kidney Disease-Mineral and Bone Disorder

**References:** **1.** Kidney Disease: Improving Global Outcomes (KDIGO) CKD-MBD Work Group. *Kidney Int.* 2009;76 (suppl 113):S1-S130. **2.** Spiegel DM, Raggi P, Mehta R, et al. *Hemodialysis Int.* 2004;8:265-272. **3.** Chertow G, Burke S, Raggi P. *Kidney Int.* 2002;62: 245-252. **4.** Chertow GM et al, *Am J Kidney Dis*, 1997. **5.** Fan S et al, *Nephrol Dial Transplantation*, 2009. **6.** Chertow GM et al, *Am J Nephrol*, 2003. **7.** Block GA et al, *Kidney Int.* 2005. **8.** Kakuta T et al, *Am J Kidney Dis*, 2011.