Session 1: Opening Ceremony

‘All that lives must die’ – supportive and palliative care for people with end stage kidney disease.

Dr Helen Noble¹
Queens University, Belfast¹

‘Chronic kidney disease impacts heavily on quality of life and mortality is high. In order to address the difficulties faced by patients with incurable kidney disease, a number of strategies can be utilised by health care practitioners. These include attention to psychological and social demands of the kidney illness; alleviation of symptom burden and its effect on daily living; the importance and relevance of existential issues and priorities; and the impact on family. Each of these topics will be addressed and discussed and gaps in knowledge and need for future research development uncovered.'
72. Supportive care is about more than kidneys!

Kerry Linton¹
Monash Health, Victoria¹

**Background:** There has been a rise in recognition of renal supportive care as a branch of nephrology care as well as recognition that patients requiring supportive care for other chronic illnesses may have similar needs. Siloed care by disease specialty may not always meet the needs of patients with more than one chronic condition.

**Aim:** To evaluate the care of people with end stage kidney disease who have opted for supportive care, provided as part of a multidisciplinary, multispecialty supportive care clinic.

**Methods:** A clinic has been developed for people with end stage chronic disease, including renal, heart or respiratory failure as well as multiple other comorbid conditions. The service combines nephrology, chronic heart failure, general medicine and palliative care practitioners, nurse practitioners, social workers and community agencies. Continuity of care for renal patients throughout the full trajectory of their illness is of primary concern. Several different patient and carer reported outcome measures, including bereavement support, will be used to evaluate the service.

**Results:** It is anticipated that results will improve knowledge of timely identification and referral to community support services. Early identification of functional decline, symptom burden, carer burden will support proactive interventions that are effective and sustainable.

**Conclusion:** A combined supportive service will bring together the expertise of palliative care and chronic disease streams while providing a streamlined experience for patients with life limiting conditions and support for their carers.
73. Tracking symptom experience and physical functioning in the last 12 months of life in advanced chronic kidney disease

Prof. Ann Bonner¹, Dr Shirley Chambers¹, Dr Helen Healy², Prof. Wendy, E. Hoy³, Prof. Geoff Mitchell³, Dr Adrian Kark², Dr Sharad Ratanjee², Prof. Patsy Yates¹
Queensland University of Technology, Queensland¹, Kidney Health Service, Queensland², University of Queensland, Queensland³

Background: Patients with advanced chronic kidney disease (CKD) often experience impaired physical functioning and high symptom burden. Specialist palliative care input alongside usual clinical renal care may enhance patients’ end-of-life journey.

Aim: To measure advanced CKD patients’ symptom prevalence and frequency, and physical functioning over their last year of life.

Method: An observational, prospective design was used to follow 19 patients with advanced CKD for 12 months. Inclusion criteria: prognosis <12 months (surprise question), aged ≥18 years, English-speaking, and cognitively sound. Instruments included the Modified Dialysis Symptom Index, the Australian Karnofsky Performance Scale (AKPS) and the Resource Utilisation Group - Activities of Daily Living (RUG-ADL). Data were collected face-to-face at baseline and then 3 monthly to the patients’ death or study end.

Results: Participants were mostly male (63%) with a median age of 78 years (range 42-90 years), 9 were not on dialysis, and 12 were alive one year later. The most prevalent symptoms over time were fatigue, dry skin, dry mouth and bone or joint pain. Whereas sleep problems, fatigue, numb and tingling feet, and muscle soreness were the most frequent symptoms. While patients’ median AKPS scores did not change over time, the range fluctuated widely (30-70). Similarly median RUG-ADL scores remained stable overtime.

Conclusion: In the last (anticipated) year of life a substantial symptom burden was sustained over time while functional performance remained stable, indicating the insidious decline in patients. Meticulous supportive care assessment integrated into usual renal clinical care, together with timely symptom-targeted interventions may alleviate suffering.
96. A randomised controlled trail evaluating a decision support intervention for the older person with advanced kidney disease.

Dr Leanne Brown1, Prof. Glenn Gardner2, Prof. Ann Bonner2
Fraser Coast Renal Unit, Queensland1, Queensland University of Technology, Queensland2

A randomised controlled trial evaluating a decision support intervention for the older person with advanced kidney disease.

**Background:** Patient decision support interventions are simple, structured aids to facilitate shared decision making with health teams about the benefits and risks of difficult treatment choices. These aids present information in a balanced way although few have been robustly developed and tested for renal patients.

**Aims:** To determine the effectiveness of a decision support intervention (DSI) to assist older patients with making a choice between dialysis or non-dialysis treatment.

**Methods:** A pragmatic randomised controlled trial was conducted comparing those receiving the DSI with standard care in improving patient knowledge and quality of life (QOL). Inclusion criteria: age ≥ 70 years, eGFR < 20mL/min/m² and cognitively intact. The DSI (OPTIONS) was developed according to the Ottawa Decision Support Framework and a systematic review; it was reviewed by patients and clinicians prior to the study. The intervention group received OPTIONS during routine renal outpatient appointments. Study outcomes were knowledge (measured 1 month) and health-related quality of life (SF36; measured at 1 and 3 months).

**Results:** Forty-one participants were randomised for this study; mean age was 78 years. There was a significant improvement in the intervention group’s knowledge of risks, benefits and symptoms of dialysis (60.39% versus standard group 27.51%, p=0.001). There was no difference between groups for QOL physical or mental health component summary scores at both time-points.

**Conclusion:** The use of OPTIONS to improve patients’ knowledge of the risks, benefits and symptoms of dialysis indicating that OPTIONS may better support patient decision-making in this population group although further research is needed.
63. POS-S Renal Illustrates High Symptom Burden In ESKD

Kerry Linton¹
Monash Health, Victoria¹

**Background:** Renal supportive care, the provision of care to people with end stage kidney disease (ESKD) who do not opt for renal replacement therapy (RRT) is developing in Australia as one of the three pathways of renal service delivery. Patients with ESKD have high mortality, significant symptom burden and poor quality of life. Symptom burden is not well documented although recent studies have shown that patients seek holistic care and improved quality of life rather than extended length of life. The Palliative care Outcome Score (POS) was developed in 1999 by Professor Irene Higginson, with a later variation, POS-S Renal introduced to evaluate the symptom burden in renal disease. The use of POS-S Renal, a patient reported outcome measure, is consistent with the principles of patient-centred care.

**Aim:** POS-S Renal has been introduced in a large ESKD clinic to investigate the symptom burden of the patient population, highlight care priorities and inform resource allocation.

**Methods:** The POS-S Renal has now been completed on more than 1000 occasions by patients with CKD4/5. The results are reviewed during individual consultation and items of concern addressed. Results are tabulated and analysed to inform the care needs of the population.

**Results:** Patient reported symptoms confirm that ESKD patients continue to have a significant symptom burden, with pain, movement disorders and poor mobility previously under-reported.

**Conclusion:** The POS-S Renal is encouraging patients to voice issues of concern. The findings highlight the need for multidisciplinary teams in ESKD care.
80. Baseline characteristics of patients in a single-site kidney supportive care program

Dr Louise Purtell¹, Prof. Ann Bonner¹, Dr Helen Healy², Ilse Berquier², Dr Carol Douglas², Prof. Wendy E. Hoy³
Queensland University of Technology, Queensland¹, Metro North Hospital and Health Service, Queensland², University of Queensland, Queensland³

Background: For many people with end-stage kidney disease, dialysis has no survival benefit while negatively affecting quality of life. The introduction of kidney supportive care (KSC) (fully integrating specialist renal and palliative care teams) as a treatment option may be effective in addressing emotional and symptom distress in patients who are on a conservative care pathway or on dialysis and approaching end of kidney life.

Aims: To assess baseline symptom burden and quality of life (QOL) of patients referred to an innovative KSC program (KSCp).

Methods: The multidisciplinary KSCp team is led by a clinical nurse consultant. Patients are referred to the KSCp by their treating team. Symptom burden and QOL data were collected using the IPOS-Renal and the 36-Item Short Form Health Survey questionnaires, respectively.

Results: In its first year of operation, 129 patients were referred to the KSCp (mean age 71.6 years [range 27 - 91], 52% men, 46.5% not started dialysis). The mean number of appointments per patient was 2.1, and mean time between appointments was 8.2 weeks. Patients reported having, on average, 8.8 symptoms; pain, weakness and poor mobility were the most prevalent and also the most severe symptoms. Mean QOL scores were 31.2 and 43.7 in the physical and mental domains, respectively (population means = 50).

Discussion: Those referred to the KSCp have a high symptom burden and low QOL, indicating the need for an integrated team approach in this vulnerable patient group. Future studies will assess changes in these outcomes over a 12-month monitoring period.
39. Chronic kidney disease - transforming a community

Angela Jackson¹
Counties Manukau Health, New Zealand¹

Context: Our catchment represents a culturally diverse, youthful and ageing population which delivers healthcare to the most socially economically deprived areas within New Zealand. There is a significantly increased incidence of End Stage Renal Disease within this community when compared with the rest of New Zealand; 227 pmp vs 127pmp (NRAB Report, 2014). Developing Renal Nurse Practitioner (NP) roles enabled development and expansion of services to meet gaps in provision. Within this review there was a notable lack of CKD management through primary care engagement. Studies such as MASTERPLAN and DEFEND have demonstrated the effectiveness of nurse-led interventions in managing CKD patient outcomes. These principles formed the basis of our Renal NP Titration service.

Objectives:

- Bridging the gaps between Primary and Secondary Care in managing CKD patients
- Increase accessibility
- Reduce progression of kidney disease
- Reduce inequalities/disparities
- Reduce CVD risk
- Lifestyle modification
- Adjustment of medication doses to levels appropriate for kidney function
- Management of CKD complications
- Avoidance of nephrotoxic medications or volume depletion
- Consultation/Support Primary Health workers
- Review current model of care/process for managing CKD in the Community
- CME sessions and Education to PHOs

Key Messages:

- The impact of this service on CKD outcomes
- Clinical examples of patient care
- The role of advanced nursing practice within Renal Care Management
- Developing self-management skills of CKD patients and their families

Conclusion: Renal NP Titration clinic has demonstrated an improvement in achieving clinical targets for CKD management, through enhanced health literacy/self - management and co-ordination of care.
Session 2B: Clinical Challenges

45. Kidney for a big hearted patient - a case study

Angela Jackson¹
Counties Manukau Health, New Zealand¹

Context: Left ventricular dysfunction is a predictor of reduced survival for patients with end stage renal failure. As one of the main cause of mortality, careful evaluation is mandatory to detect and treat cardiac abnormalities, particularly in those being considered for kidney transplant.

The case study follows the clinical journey of a Home Haemodialysis patient not eligible for transplantation due to dilated cardiomyopathy and her subsequent management and re-evaluation for relisting on the Deceased Donor transplant waiting list.

Objective: To report a case study detailing the care alterations put in place to improve the patient’s ejection fraction (EF) from 15% at the time of delisting.

Key Message: Home HD patients have infrequent clinical review which can result in target weight inaccuracies as patients may not always be symptomatic of overload. Strategies to optimise her dialysis regimen and improve her health literacy were put in place. Haemodialysis frequency and intensity was increased to alternate days and extended hours to deliver sustained fluid control. Involvement within the wider multidisciplinary team was inclusive of health psychology and dietitian for support. The case study will illustrate the impact these measures had on her interdialytic weight gain and laboratory measures. It will also demonstrate how dialysis dose can influence improvement of ejection fraction.

Conclusion: Focused HD regimen and ensuring euvoalaemia at time of echocardiogram resulted in reversibility of cardiomyopathy to EF of 60%. Through intensive management this patient is now eligible for relisting for renal transplantation.
111. A dialysis cruise with an air/ sea rescue for a kidney transplant – one nurses experience

Jane Crossett¹
Monash Health, Victoria¹

Context: While volunteering as a haemodialysis nurse, as part of the medical team on a cruise in January 2017 a first time event occurred. A haemodialysis patient named Kathy on board received a phone call for a kidney transplant while cruising in Bass Straight off the coast of Victoria. A non for profit organization arranges and co-ordinates these holiday experiences for patients with Kidney Failure, by setting up mobile haemodialysis units on-board commercial Cruise Ships.

Objective: A Case Study presentation of Kathy’s story of what occurred during her dream holiday of back to back ocean cruises. Kathy’s journey from receiving the phone call that a transplant was available to arriving at the required hospital, along with the logistics that occurred during the air/sea rescue.

Key Messages: The restrictive regime for dialysis patients can result in a physical and psychological burden that can reduce the Quality of Life experienced by the patient and their carer’s. Renal Nurses can provide education to patients regarding the holiday opportunities available as well as supporting the organizations who enable them to occur.

Conclusion: Dialysis holiday organizations enable Renal Failure patients to continue to receive necessary dialysis treatment whilst enjoying all the benefits of holidaying.
12. “It’s hard to ask”

Merryn Jones¹, Dr Jon Cornwall²
Hawkes Bay DHB, New Zealand¹, Victoria University of Wellington, New Zealand²

Examining the factors influencing decision-making amongst End-Stage Renal Disease patients considering asking family and friends for a kidney.

**Background:** Living kidney donation is the gold standard for transplant, often leading to an improved patient quality of life and decreased healthcare costs. Patients can approach someone to donate a kidney, however it is frequently mentioned that it is hard to ask for one. Understanding the factors influencing the act of patients’ asking for a kidney may facilitate improved outcomes to requests for kidney donation.

**Aim:** To better understand the factors influencing patients’ asking, or not asking, for a kidney.

**Method:** Twenty-five end-stage renal disease patients were invited to participate in interviews to examine the challenges surrounding asking for a kidney. Questions included; Who did the patient ask, and why? Who did they exclude, and why? What strategies for asking may be useful? Interviews were transcribed, and a qualitative descriptive approach employed to thematically analyse interviews.

**Results:** Fifteen patients were interviewed. Main themes included processes surrounding asking (direct and indirect recruitment), not asking (accepting or not accepting offers), and barriers to asking (identifying a suitable donor, health literacy, poor understanding of the transplant process). Advice on kidney acquisition included greater media awareness and patients’ having knowledge of different strategies for asking.

**Conclusions:** Findings indicate multiple barriers exist for patients considering asking for a kidney, and that educational resources are required to assist patients’ understanding of transplant processes. Alternative methods of communicating the need for kidney donation (e.g. social media) could also be explored. Data also suggests psychological support should be considered for this patient group.
29. Left ventricular access devices and the challenges of intermittent haemodialysis; one units’ experience

Liz Tomlinson¹
St Vincents Health Network, New South Wales¹

Background: Technological advances for the treatment of advanced heart failure continue to evolve placing significant challenges to nursing staff in the delivery of renal replacement therapies within dialysis units. In August 2012, the first Left Ventricular Access Device (LVAD) patient was successfully dialysed within the Renal Ambulatory Care (RAC) Unit. Since then 14 patients with LVAD’s have received intermittent haemodialysis within this setting.

Objectives: To provide safe and effective haemodialysis treatments to patients with LVAD’s within the setting of the Renal Ambulatory Care Unit.

Key messages: Patients with an LVAD require specific advanced nursing management. Accreditation of clinical and technical skills have been required of all nursing staff within the Renal Ambulatory Care Unit. These skills include cardiac rhythm interruption, blood pressure measurement via Doppler and controller mechanics. This has been achieved through working closely with the Heart Failure medical team, Heat Failure Clinical Nurse Consultant and Renal Clinical Nurse Consultant. Patients with an LVAD also experience many complications which affect the haemodialysis treatment. These include fluid volume management, cardiac arrhythmias and coagulation. Therefore, dialysis sessions need to be individualised to cater for each patient, each treatment.

Conclusion: Because of innovations in cardiac transplant patients' management, our renal unit has successfully taken on the challenge of dialysing these patients, both as inpatients and outpatients.
132. Thinking outside the box: home haemodialysis in a residential care facility

Matthew Harvey¹, Ellen Ramas¹, Dr Louis Huang¹
Eastern Health, Victoria¹

**Background:** Mrs G is an 89 year old with ESKD who has been on satellite haemodialysis for 12 years.

**Challenge:** After a fall in 2016, Mrs G became immobile and after months of transferring her to and from dialysis, her 3 children were no longer able to provide this. She therefore required stretcher transfers for her dialysis. Like many other patients, this involved 2-3 hour waits for the ambulance, which meant Mrs G often left her facility at 0630 in the morning and may not return until 1700.

**Solution:** Fortunately for Mrs G her private health insurer was willing to subsidise the cost of dialysis trained nursing staff delivering her dialysis 3 times a week, in her care facility. Her care facility had the space, resources and commitment to make this happen, while an external agency was ready to recruit and provide ongoing support for the nursing staff that would be delivering her dialysis in her home.

**Enablers:** This was made possible by the persistence of Mrs G’s children and collaboration between the healthcare service, the dialysis nursing agency who had provided similar care arrangements in NSW, her health insurer and her care facility. All parties demonstrated patient-centred decision making and commitment to improving her quality of life.

**Outcome:** Mrs G has experienced over 2 months of complication free dialysis in the comfort of her care facility surrounded by family, friends and loved ones. This has had an impact on her quality of life, freed up satellite dialysis space and reduced strain on the ambulance service.
60. Overcoming financial barriers for home dialysis patients - the first step

Rosemary Simmonds¹, Kim Grimley², Prof. Josephine Chow³
Barwon Health, Victoria¹, State-wide Renal Service, New South Wales², South Western Sydney Local Health District, New South Wales³

Context: People at home on dialysis face increased utility costs resulting from elevated water usage and electricity requirements necessary to operate their dialysis equipment. As a recognised medical requirement, the State governments in Australia and many utility providers support some subsidies to assist home dialysis patients with the running costs of dialysis equipment. Many States and Territories offer ongoing financial assistance and/or single setup payment for home dialysis patients.

Objectives: The Finance Taskforce of the HOME Network aims to address the financial burden experienced by people who undergo dialysis at home. This includes collating and publishing the financial entitlements for home dialysis in each State and Territory across Australia and making this information available to patients, their carers and health professionals.

Key messages: In 2012, partnering with Kidney Health Australia (KHA), the Finance Taskforce developed State and Territory specific financial support fact sheets which provide information about the financial concessions/payments available to people on home dialysis. Financial assistance available for people at home on dialysis differs for each State and Territory. A communication strategy was utilised to disseminate this information. These fact sheets have provided a starting point for those lobbying State Governments and utility providers for a national more uniform approach to home dialysis subsidies. These fact sheets are updated every two years.

Conclusion: The HOME Network will continue to aim to improve the financial burden that dialysis in the home can present, to address the inequities in the financial support available and to disseminate information more widely.
109. The effect of room temperature and humidity on haemodialysis patient outcomes in a satellite unit

Tammy Pilton-Pluck¹, Pauline Thomas¹
Nambour Selangor Renal Unit, Queensland¹

Background: There are currently few guidelines on haemodialysis (HD) unit temperature or humidity. Precise thermoregulation may be an important part of HD treatment as these uncontrolled external factors could potentially contribute to symptom burden and morbidity. This study aims to explore the relationship between HD unit temperature and humidity to patient comfort and intradialytic events.

Methods: This is a single centre, prospective observational study of 25 incident HD patients observed over a 1-month period (16th of November to 16th of December 2016) with 347 dialysis sessions in total. Patient demographics, pre- and post- dialysis weights and temperature, location of patient within the unit, unit temperature and relative humidity, prescribed and actual dialysate temperature, external temperature and relative humidity, intradialytic events, and a patient questionnaire on comfort and symptoms were collected.

Results: The mean HD unit temperature was 24.7 ± 1.7 °Celsius and the mean external temperature was 29.8 ± 3.2 °Celsius. There was a 1° Celsius difference between morning and afternoon shifts. Unit humidity average 56.7% ± 12.5% and was higher than external humidity 54.9% ± 10.9%. Average humidity in the mornings was 59.4% and 53.7% in the afternoons. Initial data suggests a trend to increased cramping with elevated HD unit temperature and humidity. There was however a variation in temperature and humidity within the unit depending on the location of the air conditioning vents.

Conclusion: There was a variation in temperature and humidity control within our HD unit. Early data suggests this may have an impact of cramping episodes during HD. Larger studies are required to evaluate the variation of temperature and humidity at different seasons throughout the year and the impact on patient outcomes.
48. Adjusting to other haemodialysis units following a fire: patient and staff perspectives

Glenn Reynolds¹, Stephanie Bourke¹
Renal Dialysis Unit Logan Hospital, Queensland¹

**Context:** Internal disasters such as building fires interrupts the provision of dialysis and presents significant challenges to both patients and staff during the response and recovery phase. The temporary closure of a dialysis unit following a fire within the building resulted in both patients and staff being transferred to other dialysis facilities within the area.

**Objectives:** To present perspectives from patients and staff following transferral to surrounding units including difficulties encountered as well as recommendations and lessons learnt from the experience to reduce the impact of potential future events.

**Key messages:** Disaster preparedness and contingency planning is imperative in mitigating damage and adverse patient outcomes. The response was well-coordinated with assistance received from surrounding units in accommodating patients and staff. Logistical challenges and uncertainties, however, were still encountered by patients and staff largely due to being in unfamiliar environments. Following recovery, patients and staff had the opportunity to debrief highlighting such challenges encountered and resulting in recommendations for future improvements.

**Conclusion:** Through creating challenges for staff and patients, internal and natural disasters provide a learning experience to review, make necessary improvements and encourage planning and the sharing of resources among other dialysis facilities.
49. Fire in the dialysis unit; lessons learnt

Deslie Henley¹
Metro South, Queensland¹

Context: February 11, 2016 at 5:05, smoke and flames were seen in the water treatment plant at our haemodialysis unit. The unit was evacuated immediately. 82 patients and staff were sent to eight different dialysis units over the next 6 days and the unit was not back to full functioning capacity for 2 months.

Objectives: This experience has allowed us the opportunity to reflect on the difficulties we faced, what worked well and the lessons learnt to better prepare for disasters.

Key Messages: Some of the key learnings we have gained from experience this disaster included:

- The importance of having a plan for how to access patient information
- Staff phone numbers must be accessible
- Set up one main contact number to coordinate the disaster management - let switch know!
- Use of SMS to communicate with staff and patients
- Have a process to identify patients before they attend another unit for dialysis
- Utilise a white board to plan and strategically locate patients and staff at the supporting hospitals
- How to best support staff and patients when dialysing in another unit

Conclusion: The fire in our unit occurred at a time when no patients were dialysing. Although the experience was strategically challenging, only building and equipment damage was sustained. We were able to continue dialysis treatments needed by our patients though the support of the ICU and many surrounding haemodialysis units (some up to 57km from our hospital).
84. PD buddy: using smartphone technology to improve patient care

Marnie Budd¹
Logan Hospital, Queensland¹

**Context:** Online health tracking is a relatively new innovation used to empower patients. This will be achieved through encouraging patient engagement in their disease process, aiming to reduce their risk of complications. Currently peritoneal dialysis (PD) patients in our unit document vital health information in a simple exercise book, which is often incomplete or forgotten when a patient attends a PD clinic appointment. PD BUDDy is an innovation being developed locally in collaboration with a prominent research organisation to create a smartphone app and web portal for patients on PD and their clinicians.

**Objectives:** To develop and research the effectiveness of a PD app (PD BUDDy) and web portal for clinicians and patients. This smartphone app will allow patients to record vital information such as prescription, ultrafiltration, blood pressure and weight. With more accurate records it is envisioned that we will see more efficient and effective patient clinics, improved peritonitis rates and will help patients better manage their health in their own environment.

**Key messages:** Currently the trial is in the early stages with the app almost completed and when finalised will be piloted with 20-30 current patients on PD. User perceptions, clinic wait times and peritonitis rates will be monitored throughout the duration of the trial.

**Conclusion:** Innovation in health care is essential. PD BUDDy will streamline the way patients record and store information, potentially leading to improved health outcomes and extending their adverse event free time on the home-based therapy.
19. Heparin-free haemodialysis, what is the best practice?

Xian Zhu¹
Stafford Kidney Health, Queensland¹

**Context:** Haemodialysis treatment requires anti-coagulation, usually with unfractionated or low molecular weight heparin, to prevent clotting in the dialyzer and extracorporeal circuit. Patients with high bleeding risks, such as pre and post-surgery, heparin-induced thrombocytopenia syndrome, or an acute bleeding disorder, may need to dialyse without anticoagulation. This is known as heparin-free dialysis. A literature research was conducted to discover what the best practice of heparin-free dialysis might be, due to currently limited evidence based recommendations in Australia.

**Objectives:** To explore current and available practices when providing heparin-free haemodialysis to patients, by researching literature published between 2006 and 2016, to compare advantages and disadvantages of each option in regards to cost, success rate and practicality.

**Key messages:** Providing haemodialysis without systemic coagulation can be challenging. Clinical studies were conducted by several dialysis services, describing practices such as:
- Intermittent Saline Flush
- On-line Pre-dilution HDF
- Continuous Saline Infusion
- Use of Heparin-grafted Dialyzer
- Regional Citrate Anticoagulation
- Heparin Coating of Extracorporeal Circuit

Information gathered from this literature research will assist our service to develop a standardised practice for heparin-free dialysis, and an action plan for the potentially adverse outcomes based on reported cases.

**Conclusion:** Current studies have not provided sufficient evidence to prove cost effectiveness, clinical efficacy and safety for any particular practice. Clinical judgement and further research is recommended with the plan for a pilot study in this area.
116. Surgical pleurodesis for pleuroperitoneal leak: one unit’s experience

Lisa Paquin¹, Monica Bexton¹, Lizzie Chalmers¹
St Vincent’s Hospital, New South Wales¹

Context: The incidence of pleuroperitoneal leak leading to hydrothorax in peritoneal dialysis (PD) patients is reported to be between 2% and 10%. Occurrence can be at any point along the patient’s journey on PD. Unfortunately this can lead to cessation of PD therapy, with permanent transfer to haemodialysis. As is well described in the literature, this need not be the case.

Objective: To present 2 case reports of hydrothorax treated via thoracoscopic pleurodesis, with resultant successful resumption of PD. In addition, the development of diagnostic and management guidelines for such cases will be discussed.

Key Messages: Patients can be offered the option of surgical repair, particularly where cessation of PD results in dramatic lifestyle changes as a result of ceasing a home therapy. The impact on incentre haemodialysis resources is another important consideration. In addition, having clear unit guidelines on the correct use of diagnostic techniques, and patient management, are imperative, particularly with a complication infrequently seen.

Conclusion: Although pleuroperitoneal leak is an uncommon complication, it can result in technique failure for the PD patient. Treatment options with success rates ranging between 50% and 90%, have been reported in the literature. Despite this, treatment options are not always offered to the patient. We describe 2 recent cases where surgical treatment was successful.
114. Reflection of research skills gained when delivering options to support older chronic kidney disease patients

Annette Wilson¹, Dr Leanne Brown², Prof. Ann Bonner³
Sunshine Coast Hospital and Health Service, Queensland¹, Hervey Bay Health Service, Queensland², Queensland University of Technology, Queensland³

Context: Implementation of nursing research within a clinical setting can be challenging due to the inexperience of nurses in the research process. Nurses at a renal outpatient department of a non-metropolitan hospital were invited to support the implementation of a nurse-led randomised controlled trial; this was the first time for our department. The study involved renal nurses delivering a decision support intervention (OPTIONS) designed to assist older individuals with advanced kidney disease to undertake value-sensitive health decisions.

Objectives: To report on the experiences of renal nurses who had limited knowledge and experience of research.

Key messages: The study protocol for the randomised controlled trial did not align with current clinical delivery of education and decision support for chronic kidney disease patients attending our renal clinics. Key changes were needed to the delivery of care such as training nurses in delivery of OPTIONS, and coordination of appointments. Engagement of staff and patients was high due to a willingness to participate and promote nurse lead research. The nurses, through team work and communication with the principle researcher, were able to facilitate changes to delivery of care processes, to adhere with the study protocol. Funding was obtained from the Health Service Private Practice Fund.

Conclusion: Successful recruitment and delivery of the OPTIONS decision support intervention occurred once key strategies to support the research were implemented. Nursing participation in this randomised controlled trial significantly improved their research skills and understanding of the research process and its practical and positive application in the clinical setting.
7. Should potential transplant patients be on home haemodialysis?

Joanne Kok1
Monash Health, Victoria1

**Background:** Haemodialysis patients who on category 1 transplant waiting list are not usually offered home haemodialysis.

**Aim:** Compare the pros and cons of whether potential transplant patients should be offered home haemodialysis.

**Method:** A phone questionnaire was conducted with 5 patients who received either a planned or cadaveric kidney transplant within a year of commencing home haemodialysis and 1 patient who received a cadaveric kidney transplant during training. The 5 home patients had an average of 6 months of haemodialysis at home.

**Key messages:** Potential or imminent transplant patients are not usually offered home haemodialysis due to the cost of installation of a dialysis machine at home and the time and logistics of training.

Home haemodialysis costs and benefits for temporary and permanent home setups are measured. In the phone questionnaire, the patients were asked to score from 1 (lowest) to 5 (greatest). They were asked to score on overall experience with home haemodialysis, whether the training and home haemodialysis were valuable, whether they would have training if they knew that a kidney transplant was imminent, whether they felt the education was useful in their current transplant care and if they would recommend home haemodialysis to someone with a potential transplant.

**Conclusion:** Potential transplant patients should be offered the option of home haemodialysis. This should be recommended especially for patients who are still on the category one transplant waiting list as they would not know when their ‘big’ day would be. Patients received an overall positive experience with home haemodialysis even when they received a kidney transplant in a short time.
27. Post transplant lymphoproliferative disorder (PTLD) – is there a role for haemodialysis?

Kristine Dailey¹, Margaret Golding¹
Royal Prince Alfred Hospital, New South Wales¹

Context: A 41 year old male with a 26 year history of renal transplantation presented with chronic allograft nephropathy and seizures. On investigation he was found to have post transplant lymphoproliferative disorder (PTLD). Immunosuppression was reduced, rituximab and radiotherapy utilised.

Objectives: The acute haemodialysis unit was requested to attempt high dose methotrexate (HDMTX) reduction through use of high flux haemodialysis. This case is unique as HDMTX, although an established therapy for CNS lymphoma, is traditionally avoided in patients with impaired renal function due to an increased incidence of serious adverse events. The unit had no experience or an existing policy in relation to reduction of methotrexate.

Key Messages: Internationally limited literature was found to exist. Safety issues became paramount. Any delay in the reduction of methotrexate would result in a marked increase in bone marrow toxicity which could be fatal for the patient. In addition to this, HDMTX administered directly prior to commencement of haemodialysis carried an extreme cytotoxic risk for nursing staff. A draft policy was established with multiple clinical barriers experienced during development and implementation. This challenge carried a high level of clinical risk and highlighted the importance of communication and flexibility within our nursing and medical teams, both renal and haematology.

Conclusion: Successful reduction of methotrexate was achieved within the established timeframe. HDMTX use in this group of patients should now be given consideration. Despite significantly impaired transplant kidney function, use of high flux haemodialysis for clearance made the administration of HDMTX for treatment of PTLD feasible.
Session 3

How do we measure CKD care? Where should we invest next?

Prof. David Johnson¹
Metro South and Ipswich Nephrology and Transplant Services and Co-Director, Centre for Kidney Disease Research, Translational Research Institute, Queensland ¹

Chronic kidney disease (CKD) is a growing public health problem in Australia and globally. Although it is the most rapidly rising cause of death in Australia (increasing by 17.1% between 2005 and 2015), over 90% of Australians with CKD are unaware that they have the disease. This presentation will provide an overview of the rising burden of CKD in Australia and the initiatives that have been developed to combat this problem, including national CKD screening and detection programs, primary healthcare education and decision support, innovative CKD clinics (e.g. Beacon models and multidisciplinary nurse-led CKD clinics), and the Better Evidence And Translation in CKD (BEAT-CKD) program. The results of the first-ever Global Kidney Health Atlas (GKHA), recently published in JAMA, will also be presented with special attention being devoted to the gaps in CKD care provided in Australia benchmarked against 124 other countries in the world. Recommendations for future improvements in CKD care will be made.
Session 4A: Advanced Practice

74. Caring for complex chronic disease patients attending a novel nurse practitioner clinic

Prof. Ann Bonner¹, Cassandra Stone², Dr Clint Douglas¹, Kathryn Havas¹, Jennifer Abel², Maureen Barnes², Vincent Tam¹, Karen Mills²
Queensland University of Technology, Queensland¹, Logan and Beadudesert Hospitals, Queensland²

Background: Chronic kidney disease (CKD), diabetes mellitus (DM), and heart failure (HF), are highly prevalent, constitute a significant burden on the healthcare system, contribute significantly to mortality, and frequently co-occur. Despite this, these chronic diseases have traditionally been managed separately by independent teams, adding complexity to patients’ lives.

Aims: To describe a novel, integrated model of care provided by nurse practitioners (NPs) for complex patients with comorbid chronic diseases, as well as characteristics of this patient group.

Methods: A prospective, longitudinal study of patients with two or three chronic diseases (CKD, DM and/or HF) attending a metropolitan community clinic. Clinical and demographic data were collected from health records (N = 122) and a sub-group (N = 71) who also provided self-report health service utilisation (baseline and six months) and satisfaction with the clinic (six months).

Results: 122 patients aged 27-90 (63.9% male) attended 925 appointments. Most (79.2%) had CKD as one of their diagnoses. At baseline, blood pressure and HbA1c targets were achieved by 66.4% and 83.2%, respectively, although healthy-range BMI was 7.1%. Across their first six months of attendance, there was a trend towards more appropriate use of health services. Overall patient-satisfaction was very high (98.7%).

Conclusion: NPs can effectively refocus specialty disease-siloed clinician systems to manage complex comorbid chronic diseases through the provision of complete occasions of care. Results from this study indicate a high level of patient satisfaction when an integrated model of care is used, as well as decreased burden on the healthcare system.
56. **Nursing staff-focused outcomes of extension of nurse practitioner role into home training haemodialysis unit**

Bettina Douglas¹, Janine Jeffries¹, Adriana Hada¹, Vikki Tomlinson¹
Princess Alexandra Hospital, Queensland¹

**Background:** In 2014 there were changes to the model of care in the home training haemodialysis unit (HTHU). These sought to improve patient access to home haemodialysis by providing an evening shift for patients in the workforce. The additional capacity was used to create a “Transition Unit” to encourage new patients to consider home dialysis. These changes resulted in challenges for the nursing staff which were reflected in the results of the 2015 Best Practice Australia (BPA) survey.

**Aims:** To improve staff satisfaction and culture through the introduction of nurse practitioner (NP) support.

**Methods:** A facilitated focus group was conducted in early 2016. This verified the findings of the BPA survey and helped the nursing leadership formulate their response. Following consultation with the senior nursing and medical team, it was agreed that some hours from the established NP role based in the adjoining peritoneal dialysis unit would be available to the HTHU commencing June 2016. A staff survey was prepared and administered via Survey Monkey in May (baseline) and September 2016 and January 2017. There will be a final survey in April 2017.

**Results:** To date, the HTHU nurses report feeling more confident in their ability to assess and care for their patients. Also they feel more supported in their roles. Full results will be available in June.

**Conclusion:** Introducing an NP role is usually done as a patient-focused strategy. This project successfully addressed staff impacts arising from a changing environment.
20. Nurse practitioner lead renal supportive care in South Australia: strategies, barriers and significance

Dr Laura Lunardi\textsuperscript{1}
Hartley Dialysis, South Australia\textsuperscript{1}

\textbf{Context:} A Renal Supportive Care Nurse Practitioner (NP) role was created in South Australia in October 2014. The integration of the role has brought with it:

- service-wide changes in clinical practice and culture,
- closer integration with the local palliative care team, and
- a greater emphasis on quality of life, active management of symptoms, informed choice and care planning.

\textbf{Objectives:} This aim of this paper is to describe the role of the NP in Renal Supportive Care (RSC) as it has emerged in South Australia. It also identifies barriers and strategies used by the RSC NPC to enhance appropriate decision-making and conservative care for patients facing End Stage Kidney Disease (ESKD). Differing models of RSC are emerging across Australasia. The strengths and weaknesses of the South Australia approach will be elucidated as will the challenges facing RSC in the future. The transformative effects of the role will be explored and key enablers for success identified.

\textbf{Key messages:} The full integration of a meaningful supportive care pathway for patients facing ESKD involves more than fine words and good intentions. It requires significant leadership, considerable resources and service-wide cultural and clinical practice changes.

\textbf{Conclusion:} The emergence of RSC is the key to a comprehensive renal service, demonstrating maturation of our shared aspirations to:

- provide interdisciplinary care that fine tunes the balance between organ-based and whole-of-person care,
- engage in full and open decision making support with people facing renal treatment options, and
- recognise and respect the natural end point of an end-stage disease process.
43. Development of a standardised fluid assessment tool to decrease adverse events in haemodialysis

Victoria Meissner
Fresenius Medical Care, New South Wales

**Background:** Haemodialysis comes with a risk of adverse events, including hypertension, hypotension, cramping and dizziness. With increasing adverse events noted in the community haemodialysis centre, a standardised fluid assessment tool was developed.

**Aim:** To reduce adverse events by early identification and management of fluid related issues.

**Method:** A fluid assessment tool ‘IBROW’ (Intradialytic and interdialytic complications, Blood pressure, Respiration, Oedema and Weight) was developed based on the organisations fluid management education module. All clinic patients (n=33) are assessed on their mid-week treatment, with the results and intervention discussed at handover. Three and six monthly reviews of the program are planned, with the final review at the end of April 2017.

**Results:** Preliminary results show a 27% reduction in overall adverse events; with a 100% reduction in incidents requiring additional medical treatment, and a 41% reduction in minor incidents. The use of bioimpedence spectroscopy has tripled. There is currently an 80% compliance rate with conducting the weekly IBROW assessment.

**Conclusion:** The introduction of a weekly fluid assessment regime for community haemodialysis patients has led to a reduction in adverse events, by facilitating the early identification of signs and symptoms for timely intervention. The next step is creation of severity scores for each IBROW section to assist with determining the appropriate clinical response, as well as the development of an advanced fluid assessment tool.
9. Ultrasound of the inferior vena cava for volume assessment - can renal nurses master this skill? A cross sectional study

Ulrich Steinwandel¹, Dr Nick Gibson², Dr Amanda Towell-Barnard², Dr James Rippey³, Prof. Johan Rosman⁴
Fremantle Hospital, Western Australia¹, Edith Cowan University, Western Australia², Sir Charles Gairdner Hospital, Western Australia³, Curtin University, Western Australia⁴

Background: Ultrasound of the inferior vena cava (IVC-US) has been used to estimate intravascular volume status. Knowledge of intravascular volume status is of specific interest for renal nurses in the haemodialysis setting. To date, no study has examined whether renal nurses can reliably perform IVC-US for volume assessment. This study aimed to determine if a renal nurse could master the skill of performing and then correctly interpreting IVC-US on patients receiving haemodialysis.

Method: After receiving adequate theoretical training and performing 100 training scans, 60 nurse-performed ultrasound scans were categorized by the nurse into hypovolemia, euvoelma or hypervolemia through visual estimation of the maximal diameter and degree of collapse of the inferior vena cava (IVC). Scans were subsequently assessed for adequacy and quality and were then interpreted by two expert sonologists, who were blinded to each other’s and the nurse’s results.

Results: The interrater reliability (IRR) of 60 scans was good, with ICC 0.79 (95% confidence interval (CI) =0.63 to 0.87) and with a good interrater agreement for the following estimation of intravascular volume (Cohen’s weighted Kappa kw = 0.62), when comparing the nurse to an expert sonographer.

Conclusions: A renal nurse can reliably perform ultrasound of the IVC in haemodialysis patients, obtaining high quality scans for the purpose of volume assessment of haemodialysis patients. This novel approach could be more routinely applied by other renal nurses to obtain objective measures of patient volume status in the dialysis setting.
93. Dealing with the complications of high output cardiac failure: one patient’s journey

Pauline Byrne¹
Illawarra Shoalhaven Local Health District, New South Wales¹

Context: The CARI guidelines recommend a native arteriovenous fistula (AVF) as the preferred vascular access for haemodialysis as it has increased longevity with a lower risk of complications compared to an arteriovenous graft (AVG) or central venous access device (CVAD). The distal radiocephalic fistula is considered the best option, but suboptimal vessel size leaves proximal vessel site selection to be considered, such as the brachiocephalic fistula (BCF) or the brachiobasilic fistula (BBF), both of which carry an increased incidence of high access flow.

Objectives: To outline the haemodynamic effects and complications associated with AVF formation on cardiac function. To share the case study of a patient who developed high output cardiac failure and the subsequent medical and vascular access management required to resolve this condition.

Key Messages: A functional AVF with a large vessel size appears to be a good outcome. However, patients who develop an access flow >2L/min are at risk of overt heart failure. Identifying high access flow through surveillance can alert the renal physician to conduct cardiac function studies and alter the medical and vascular management if required.

Conclusion: Employing a patient centred approach to access creation and follow-up through prospective access flow surveillance can identify patients at risk of cardiac failure. Early medical and vascular intervention are key to reducing cardiovascular complications.
Session 4B: Transforming Home Haemodialysis

24. Home dialysis uptake factors – a multi-centre observational study

Prof. Josephine Chow¹
South Western Sydney Local Health District, New South Wales¹

Background: The use of home dialysis has been declining in Australia despite considerable advantages. Increased utility costs have been identified as one possible factor affecting the decision to take up home dialysis.

Aim: This paper reports on the results of an Australian multi-centre observational descriptive cohort study that aimed to identify factors which either facilitate or inhibit uptake of home dialysis from patients’ perspectives.

Method: A mixed research methods (combined qualitative and quantitative) was undertaken. Both qualitative and quantitative data were collected concurrently, thereby triangulating the data set with multiple data sources. The survey was purposely designed to gain insight into how home dialysis is perceived and experienced. Semi structured interviews, conducted according to a pre-designed template to probe decision making related to home or hospital dialysis.

Results: Survey responses were collected from 138 adult participants at five sites. 11 interviews were conducted across 3 sites, urban, regional and remote regional. Obstacles and facilitators to home dialysis were identified. While costs were a concern for many, cost alone did not explain treatment decisions. Age, home ownership, employment and health were key factors that contributed to decision making.

Conclusion: Results from this study will inform policy and practice at participating centres and in the broader clinical community by showing that parallel home and hospital dialysis services are complementary for many patients and that patients on home dialysis rely on hospital services for ongoing and necessary support. The results indicate that cost does not determine treatment decisions for dialysis patients in Australia.
87. Implementation of a price per treatment (PPT) funding model within a home dialysis unit– our experience

Michelle Ovenden¹
Royal Adelaide Hospital, South Australia¹

Context: In 2016 a Price per Treatment (PPT) funding model was introduced into all adult haemodialysis centres including home dialysis across South Australia. At that time patients were receiving this stock from an external provider and were dialysing on an aged haemodialysis machine fleet. The implementation of the PPT meant that patients were to change suppliers and involved the changeover of machines and RO’s.

Objective: Our objective was to ensure a smooth transition of machines and consumables in the home haemodialysis population and to provide training and support to the patients. Machine changeovers occurred in the unit or in the patient’s home. There were numerous complexities that arose with the changeover. Liaising with patients to ensure patients had an understanding of the new system of ordering and delivery of consumables. It also required us to be quickly able to resolve and alleviate patient concerns and stress during the implementation phase.

Key message: the implementation of PPT was a challenging process, requiring consultation with key stakeholders. Being able to communicate and build effective relationships with the two different providers and bring everyone together to ensure smooth transitions and to keep things simple and easy to understand for patients.

Conclusion: the implementation of PPT machine changes and consumables commenced in April 2016 and was completed by December 2016. The ongoing monitoring and problem solving of stock continues to be a challenge. The implementation of a PPT for home therapies unit requires careful planning and considerations for the needs of those patients dialysing in their homes.
108. Therapy at home: the patient’s untold story

Perambalam Pattabhiraman
Royal Prince Alfred Hospital, New South Wales

**Context:** One among the leading disease mortality and morbidity in Australia is caused by renal disease. Health services are expected to meet the growing population of Chronic Kidney Disease (CKD), by managing it through renal replacement therapies. Home therapies are trending to play a major role in the disease treatment effectively for both patients and service providers.

**Objectives:** The study involves Chronic Kidney Disease patient’s journey across renal replacement therapies. The two clinical settings - therapy at the hospital and therapy at home are compared and contrasted by the patients. Highlights of the Home Haemodialysis program in these patients and their personal experiences related to the training is discussed. Patient selection into the Chronic Kidney Disease pathway, with the therapy options and challenges met to plan for the future demand.

**Key messages:** Home Haemodialysis program’s role in Chronic Kidney Disease patients to improve self-efficacy and lifestyle. Teaching tool usage and training goals throughout the program as explained by the patients. Patients understanding of the training and strategies developed to focus on the learning. Different perception towards the treatment taken in hospital with comparison to therapy at home.

**Conclusion:** Home Haemodialysis is the effective management to Chronic Kidney Disease patients growing numbers in Australia. Positive aspects of hospital resources and the patient outcome together are discussed. Successful patient stories explaining their disease process and training experience. Role model patients sharing their stories to other patients, helps in better management of the complex disease nature.
117. “In the running”: promoting home dialysis

Anna Lee¹, Melinda Tomlins², Tanya Smolonogov³, Serena Frasca⁴, Rosmary Simmonds⁵, Kim Grimley⁶, Caroline McNaught⁷, Lyndel Askins⁸, Paula Donaldson⁹, Debbie Fortnum¹⁰, Keri-Lu Equinox¹¹
Illawarra Shoalhaven Local Health District, New South Wales¹, Hunter New England Local Health District, New South Wales², Western Sydney Local Health District, New South Wales³, Royal Adelaide Hospital, South Australia⁴, Barwon Health, Victoria⁵, Royal Prince Alfred Hospital, New South Wales⁶, Canberra Hospital, Australian Capital Territory⁷, Maruya Hospital, New South Wales⁸, Australia Medical Education Science and Medical Communications, New South Wales⁹, Sir Charles Gairdner Hospital, Western Australia¹⁰, Cairms Base Hospital, Queensland¹¹

Context: Home dialysis has not only been shown to improve outcomes and quality of life for people with CKD, it also results in better use of healthcare resources. Through a directed process of reflection and analysis of strengths, weaknesses and opportunities, the HOME Network has refined its vision and mission to identify solutions and strategies to promote and enhance home dialysis. Members are committed to driving outcomes aligned with the group’s renewed strategy and working towards achieving their overall vision and mission statement.

Objectives: This paper will discuss the key strategic direction and outcomes achieved through HOME Network.

Key messages: The HOME Network has been working within three focus areas:

- Improved awareness, knowledge and training about home dialysis for healthcare professionals.
- Early and ongoing education for patients about home dialysis as part of a standard model of care. This includes greater awareness and implementation of early and ongoing education for Australians with CKD.
- Support for new initiatives and technologies that strengthen home dialysis utilisation as part of establishing flexible and innovative models of care that strengthen support for people on home dialysis including their carers.

Conclusion: The model of the HOME Network can be easily transferred to other professional bodies nationally and internationally. The experience at the HOME Network presented here highlights the importance of a vision and thorough stakeholder engagement by senior clinicians who are passionate about home therapies.
25. “My condition makes everything so complicated” - Home dialysis in adulthood

Prof. Josephine Chow¹, Melinda Tomlins², Serena Frasca³, Keri-Lu Equinox⁴, Rosemary Simmonds⁵, Louise Collingridge⁶
South Western Sydney Local Health District, New South Wales¹, John Hunter Hospital, New South Wales², Central Northern Adelaide Renal Transplant Services, South Australia³, Cairns Base Hospital, Queensland⁴, Barwon Health, Victoria⁵, Macquarie University, New South Wales⁶

**Background:** Home dialysis is often recommended for younger patients on the assumption that home treatment will enable employment and secure an income. Yet, a commonly reported barrier to home dialysis is that of financial drain on the individual.

**Aim:** This study sought to understand how employment and home dialysis were experienced by working age adults with experience of home dialysis.

**Method:** A qualitative observational investigation was conducted with 11 semi-structured interviews of home dialysis patients. Three cases are presented in summarised form with comments and interpretation of each case.

**Results:** Semi structured interviews, conducted according to a pre-designed template. These cases analysed in depth illustrate that financial housing, employment and health are considerations that may explain the widely accepted notion that financial constraints contribute to the low uptake of home dialysis.

**Conclusion:** Multiple factors interact with age to determine if home dialysis can be successfully maintained. Housing, employment and supportive services all combine to influence how home dialysis is sustained, with complex interactions, in particular in working age adults. To reverse the trend observed in many countries of declining numbers of patients taking up home dialysis, attention may need to be drawn to the complexity that affects treatment decisions in individual cases so that appropriate and tailored support structures can be implemented. In particular, financial considerations and support should extend to practical aspects of housing and employment considerations.
10. Tjukarurru wangkanjaku- doing things the right way

Sarah Brown1
WDNWPT, Northern Territory1

Exploring our model for looking after people with kidney disease designed for and by remote Indigenous communities

What happens when people from the most remote part of Australia raise a million dollars from painting and get to set up their own dialysis service from scratch?

The result is a service which is holistic, quirky and which prioritises cultural imperatives. Come with us on a journey to revisit the genesis of this extraordinary organisation and track its progress over the last 16 years. It is a story of community resilience and grassroots determination. Over the years, we have combined high levels of clinical governance and cultural imperatives to create a safe, wrap around service for dialysis patients and a fulfilling adventurous life for staff.

Wouldn't we all love to dialyse in a place with chickens, karaoke and friends? There are lessons to be learned and stories to be shared!
Session 4C: Quality Innovation

51. Does regular hygiene audit reduce CVC infection rate in the dialysis unit? - single centre 5 year experience

Ginger Chu¹, Kelly Adams¹, Gemma Fogarty¹
John Hunter Hospital, New South Wales¹

Background: In Australia more than 50% of End stage Kidney Disease patients started haemodialysis treatment with a central venous catheter (CVC). While there are some benefits of CVC, there is a high risk of bacteraemia events associated with CVC. Hand hygiene and strict aseptic technique are the golden rules of preventing CVC infections suggested by national and International guidelines, and for this reason, many dialysis units have regular hygiene auditing.

Aim: To review if the satisfactory of audit result correspond with reductions in infection rates in our facility.

Method: Using a standardised audit tool to observe hand hygiene compliance and aseptic technique across 3 regional and remote locations for 5 years (2011-2016). The association of mean audit score with infection rate was statistically analysed using Poisson mixed model and presented in scatter plot.

Results: 17 hygiene measures, categorised into 3 domains: environment, aseptic technique, and dressing care were collected. A total of 350 audits were analysed, and the overall hygiene compliance was consistently high (from 85% to 99%). The relationship between mean audit score and infection rates was negative and the association was non-significant (p=0.7).

Conclusion: The overall infection rates have decreased in our facility, by an average of 76% across sites. The decreased infection was correlated to interventions such as minimising catheter utilisation, implementation of antimicrobial dressing and streamline protocol, not hygiene audit results. Hygiene audit results should not be used as a sole indicator to predict infection rates, nor the only indicator for preventing catheter infection.
22. Reducing the burden of dialysis catheter complications: a national approach (REDUCCTION)

Dr Sradha Kotwal1,2, Sarah Coggan2, Assoc. Prof. Kevan Polkinghorne3, Prof. Alan Cass4, Assoc. Prof. Girish Talaulikar5, Prof. Stephen Mcdonald6, Assoc. Prof. Nicholas Gray7, Assoc. Prof. Martin Gallagher2
Prince of Wales Hospital, New South Wales1, The George Institute for Global Health, New South Wales2, Monash University, Victoria3, Menzies School of Health Research, Northern Territory4, ACT/SNSWLHD Renal Network, Australian Capital Territory5, ANZDATA Registry, South Australia6, Nambour Hospital, Queensland7

Aim: The REDUCCTION Partnership aims to 1) Define and standardise reporting of bacteraemia from central venous dialysis catheters in Australia and New Zealand; 2) Reduce the rate of dialysis catheter related bacteraemia.

Background: Data on the true extent of variation in care of catheter use is not well known due to the absence of any routine standardised data collection.

Methods: The REDUCCTION Project is a national evidence implementation study using a stepped-wedge, cluster randomised design. The randomisation will occur at the level of the treating unit. There will be an initial period in which no clusters will be exposed to the interventions. At regular intervals, one cluster (approximately 10 units) will be randomised to receive the intervention. This process will continue until all renal units are receiving the intervention. Each unit will contribute data to before and after the intervention observation period.

Results: This will be the first implementation of such a methodology within Australian nephrology. We intend to randomise in three tranches over a 12 month period. We have currently recruited 40 renal units into the project. These units encompass the states of NSW (11 units), Victoria (7 units), Queensland (7 units), Western Australia (3 units), South Australia (2 units), Tasmania (1 units) and the Northern Territory (2 units) and 7 units in NZ.

Conclusions: This project will demonstrate the capability of the stepped-wedge cluster trial design for use in a real world evidence implementation setting. It will allow assessment of the success of a nationwide evidence implementation project.
5. A multicentre quality activity: waste reduction strategy in haemodialysis.

Kylie Dunbar-Reid¹, Elizabeth Buikstra¹  
Cairns Hospital, Queensland¹

**Background:** The delivery of haemodialysis comes at a high financial and environmental cost. A quality activity in waste reduction in a regional haemodialysis centre has been commenced with promising waste reduction and cost savings results with no negative implications to patient safety or healthcare delivery.

**Aim:** Modification of the draining procedure on the haemodialysis circuit will minimise the weight of clinical waste, resulting in positive financial and environmental outcomes.

**Method:** This is a quality improvement activity using a pre-post study design conducted in a regional haemodialysis unit. A staff satisfaction survey was also conducted.

**Results:** 1671 occasions of service (OOS) were evaluated, comparing the average weight of clinical waste per OOS pre and post implementation. Post implementation clinical waste decreased by an average of 0.34 kg per OOS, equating to $40 000+ potential health service savings per annum. Collectively, 82 staff satisfaction surveys were distributed to nursing staff in the relevant haemodialysis units. There was a 76% response rate with 95% of responded participants stating they were confident with the new practice. 91% of responded participants believe the new practice has a positive impact on waste reduction and the environment and 86% of responded participants would like to be involved in future green dialysis initiatives.

**Conclusion:** The decrease in clinical waste weight in a haemodialysis unit directly relates to financial savings and environmental sustainability practices. The Staff have embraced this initiative would like to be involved in future green dialysis initiatives.
92. Responding to the management and challenges of the “superbug” carbapenemase-producing enterobacteriaceae (CPE): one unit’s experience

David Jones¹, Angela Wignall², Melissa Stanley¹, Prof. Francesco Ierino¹ 
St Vincent’s Hospital, Victoria¹, St Vincent’s Health Australia (St George’s Hospital), Victoria²

Context: The emergence of multi-resistant bacteria worldwide and the clinical challenges created in the dialysis setting is demanding. Terms such as “superbugs” used to describe multi-resistant organisms in society, may cause anxiety for patients and healthcare professionals. Managing multi-resistant organisms such as Carbapenemase-producing Enterobacteriaceae (CPE) patients involves strategies that minimise broad spectrum antibiotic use, identify high risk groups, adopt strict infection control measures, and education to support patients carrying CPE.

Objectives: To define CPE and provide a worldwide overview of CPE emergence including morbidity/mortality rates. To report on infection control measures established at our dialysis centre, in line with Government strategies to minimise CPE emergence and transmission. A patient case study will be presented to highlight clinical challenges, together with best practice guidelines.

Key messages: Strategies to manage CPE in the clinical setting were employed, and emphasised the importance of collaboration between health services being open and transparent in reporting of cases. CPE education given to support patients, families and staff caring for them is essential. It should be emphasised that the bacteria is a naturally occurring enterococcus carried in the gut and transferred by touch contamination. Priority involves strict hand hygiene practices in hospitals and the community.

Conclusion: CPE presents a clinical challenge for health care professionals. Early screening to identify at risk groups, early isolation and infection control education for hospital staff is paramount. It is essential that health care providers collaborate to provide consistent policies and procedures, and provide standardised information to support patients and families.
105. “We are doing ok, why do we need to do things better?” – thinking outside the square in renal services

Jacqui Moustakas¹, Sarah Whitney², Megan James³, Hannah Bannell³
Royal Prince Alfred Hospital, New South Wales¹, Sydney Local Health District, New South Wales², Agency for Clinical Innovation, New South Wales³

**Context:** Home dialysis therapies, in comparison to facility based therapies, can enhance quality of life by providing patients with flexible, autonomous person-centred treatment. Facility based dialysis services are not sustainable, currently operating at or above capacity and we are not meeting the current NSW targets for home dialysis therapies. Home dialysis therapies are significantly more cost effective for the organization.

**Objectives:** The proportion of patients having home based dialysis therapies in our local district is currently 41%. By Dec 2019 we want to increase the proportion of patients on home based dialysis therapies to be greater than 50% based on the NSW State wide Renal Plan target.

**Key messages:** Six solutions were identified throughout a formal Agency of Clinical Innovation (ACI) redesign project to assist in improving the numbers:

1. Defining a clear referral criteria and implementing a new clinical pathway
2. Documenting and Implementing a standardized approach to Pre-Dialysis Education
3. Implementing a patient centred program in the Home Dialysis Training Unit (re-evaluating the training Manuals)
4. Providing a formal training program for Home Therapies staff in adult learning principles
5. Improving the home training environment
6. Optimising the Multi-Disciplinary Team meetings in home therapies

**Conclusion:** Implementation of the key solutions continue and progress is being evaluated at key time points.
Session 5

Kidney Transplantation – focusing on clinical trials in immunosuppression and long-term outcomes after kidney transplantation

Prof. Steve Chadban¹
Director of State-wide Renal Services, Sydney Local Health District, New South Wales¹

Of the 23,000 Australians currently receiving kidney replacement therapy for end-stage kidney failure, nearly one half are supported by a functioning kidney transplant. This talk will firstly review outcomes for those who have a kidney transplant, and secondly explore barriers to transplantation for those who remain on dialysis. This will include new developments in immunosuppression, transplant outcomes and where these may be improved, barriers to waitlisting and transplantation and current measures to increase donation and make more kidneys available for transplantation.
ANZDATA-“Everything you wanted to know but were afraid to ask”

Dr Phil Clayton¹
ANZDATA, South Australia¹

Phil will describe the ANZDATA Registry, its processes for data collection, and how to access data. He will use examples to show the many ways in which ANZDATA informs clinical practice in dialysis and transplantation.
Illuminating the experience of kidney disease, in collaboration with humanities.

Dr Helen Noble¹
Queens University, Belfast¹

Humanities in healthcare bring to bear a significant evidence base to demonstrate the benefits of this collaboration for individuals living with chronic and life-limiting conditions, such as end-stage kidney disease. Engagement in creative activity may positively impact health outcomes such as a reduction in physical and psychological symptoms, and a heightened sense of control. The Renal Arts Group at Queens University Belfast was awarded ESRC Northern Ireland Festival of Social Science funding for a public event titled: ‘Waiting for a transplant on dialysis: living while dying with kidney disease’. This production and other activities of the group will be discussed.
26. Barriers and facilitators to opportunistic chronic kidney disease screening by general practice nurses in regional New South Wales, Australia

Peter Sinclair¹, Dr Jenny Day¹, Prof. Tracy Levett-Jones², Assoc. Prof. Ashley Kable¹
University of Newcastle, New South Wales¹, University of Technology, New South Wales²

**Background:** Opportunistic screening in general practice (GP) is a cost-effective and viable approach to the early identification of chronic kidney disease (CKD). However, there is a need to identify ways in which CKD screening in the primary care setting can be improved.

**Aim:** This study sought to identify the barriers and facilitators to CKD screening of GP nurses working in a regional area of New South Wales, Australia.

**Methods:** An eight-item elicitation questionnaire was administered to a convenience sample of 26 GP nurses and a content analysis was undertaken.

**Results:** Participants identified that CKD screening enabled its early detection and treatment, the reduction of disease burden, and the opportunity to provide preventative education. These positive attitudinal beliefs were offset by negative beliefs about the impost of opportunistic screening on nursing time, particularly when there were other competing clinical priorities. Participants reported that practice doctors were wary of the financial costs associated with additional non-claimable services and believed that unfunded services, regardless of patient benefit, were difficult to justify in a private business environment. Screening was enabled in GP settings with existing screening protocols and when patients presented with known risk factors. Barriers to screening were more frequently described and illustrated a strong focus on financial aspects of GP. Without reimbursement through the Medicare Benefits Scheme, screening was not considered an economical use of nursing time.

**Conclusion:** The findings of this study can be used to inform the development of interventions that target opportunistic CKD screening in the GP setting.
59. Kidney disease education pathway guideline

Tanya Smolonogov1, Debbie Fortnum2, Janine Jeffries3, Prof. Josephine Chow4
Westmead Renal Service, New South Wales1, Sir Charles Gairdner Hospital, Western Australia2, Princess Alexandra Hospital, Queensland3, South Western Sydney Local Health District, New South Wales4

**Context:** Treatment options education and informed decision making are important steps in the patient journey as patients come to terms with their diagnosis of Chronic Kidney Disease (CKD), which has a large treatment burden. Education is an ongoing process and needs to be revisited throughout the patient journey when a patient may need to change treatment modalities either by choice or a change in their medical condition.

**Objectives:** To provide an overview of the educational needs of those with Chronic Kidney Disease throughout the continuum, from initial diagnosis to end of life.

**Key messages:** The education journey often takes place over extended periods of time. It is recommended that every unit utilises a schematic diagram (pathway) that outlines when, what and by whom education will be completed. This can be complemented by an ‘activity completed’ form for the patient when they have completed each stage. This Kidney Disease Education Pathway Guideline can be used in local pathway development and in the review of models of care. It outlines important information and models with supporting evidence. The goal for patient education is to support timely and effective renal replacement therapy, supportive care, dialysis starts with functional access and a timely and smooth transition between modalities.

**Conclusion:** The underpinning principles of the Kidney Disease Education Pathway Guideline include comprehensive patient education and decision-making that incorporates shared decision-making for all aspects of care during the patient journey.
32. Managing gout in chronic kidney disease

Barbara Harvie¹
RSA, ACNP, ADEA, ANZSN, New South Wales¹

Gout is known to be painful and debilitating, resulting in reduced mobility. In the context of chronic kidney disease (CKD), it is important to manage gout carefully to ensure preservation of kidney function. Taking a history, including current medications and medical history, food intake and allergies are initial steps towards developing a successful plan to minimise recurrence of signs and symptoms.

Objectives:
- Identify common and less common causes for gout
- Explore impact of gout on CKD
- Develop understanding of early symptoms of acute gout
- Explore opportunities to recognise and minimise acute episodes of gout
- Educate patients to manage gout effectively

Key messages:
- Patient education includes early identification of signs and symptoms, seeking assistance, management and support
- Some medications are safe for quick acting relief of acute gout, however in the presence of CKD, it is important to monitor kidney function and gout relief simultaneously
- Diabetes may confound management of acute episodes of gout

Conclusion:
Education plays a significant role in managing gout. Caution is advised when prescribing medications for both ongoing and acute gout management. Prevention is better than cure!
28. Transitioning care from peritoneal dialysis to home haemodialysis: patients’ perspectives

Susana SanMiguel¹, Glenda Rayment¹, Prof. Josephine Chow ²
Liverpool Hospital, New South Wales¹, South Western Sydney Local Health District, New South Wales²

**Background:** Home dialysis, either peritoneal dialysis (PD) or home haemodialysis (HHD) has proven beneficial to patients utilizing renal replacement therapies. It has certain advantages compared with hospital-based dialysis including greater independence, flexibility, and improved survival outcomes. In particular, PD is the first modality of choice for patients commencing dialysis in many renal units both locally and globally. However, there are conditions where patients on PD may need to convert to other dialysis modality type at a later stage due to clinical reasons. This paper would discuss how a Home Training Unit has strategically and successfully converted patients from PD to HHD. It also includes the key aspects of patients’ journey.

**Aims/Objectives:**
- To maintain patient’s independence and be able to continually dialyse at home.
- To successfully transition patient from PD to HHD

**Methodology:** Selection criteria for target patients were developed and implemented. Consultations and liaison with the patient’s treating Nephrologist was attended prior to approaching the patients. A semi-structured interview was conducted to seven (7) patients who have transitioned to HHD.

**Results:** Thirteen (13) PD patients have successfully transitioned to HHD, resulting in the saving of approximately $980,000 for the health service. The themes that arose from the interview include: freedom, fear, physical well-being & independence, with solute clearance as the main reason for conversion. Eight (8) patients have been transplanted since conversion.

**Conclusion:** Transitioning care from PD to HHD can easily be achieved with forward planning and patient education. The strategies discussed in this paper can be adopted by other Home Training Units.
33. Shingles, the devil in disguise - clinical challenges

Alison Smyth¹
St George Hospital, New South Wales¹

Context: Herpes Zoster, or ‘shingles’, or can be difficult to diagnose and treat and can lead to long-lasting and painful post-herpetic neuralgia. Add to that, Chronic Kidney Disease and the complexities of managing this condition can become a clinical challenge. The experiences of one Renal Supportive Care service in managing shingles will be described.

Objectives: Several case studies will illuminate the potential adverse effects of the conventional treatment of shingles in patients with renal impairment, in particular neurotoxicity. There is also the potential for ongoing, long-term post-herpetic neuralgia that can be both mentally and physically debilitating to the patient, highlighting the need to prioritise management. A clear understanding of appropriate treatment and management is of vital importance.

Key messages: Prevention is better than cure. Renal appropriate management of shingles is paramount in preventing adverse outcomes. Practitioners need to be aware of the recently released ‘National Shingles Vaccination Program’ by the Australian Government Department of Health, which provides vaccination guidelines that are generally applicable to patients with CKD.

Conclusion: Given the potential negative outcomes from the treatment of shingles in patients with renal impairment, and the long term implications of post-herpetic neuralgia, the new prevention strategy of the ‘National Shingles Vaccination Program’ offers hope for the future with a focus on prevention, rather than cure.
4. Pregnancy and renal disease: expecting the unexpected

Annette Bezzant¹
Monash Health, Victoria¹

**Context:** Pregnancy in the presence of pre-existing renal disease provides a challenging scenario for women, their families and the health care team. Pregnancy and perinatal complications increase according to the stage of chronic kidney disease (CKD) and maternal comorbidities. Evidence of successful pregnancy for a woman receiving haemodialysis was first described in 1971. Due to advances in obstetric and renal care there is a growing number of cases reported in the literature, however pregnancy for women on dialysis, whilst possible, is still unusual. No guidelines exist for the management of this complex cohort of patients due to the limited number of pregnancies reported. Specialised multidisciplinary team (MDT) care is recommended to promote optimal outcomes.

**Objectives:** To report on a series of clinical cases from a large metropolitan health service and identify the psychosocial and physical challenges for pregnant women with CKD, including those requiring dialysis. Practical management issues are discussed.

**Key messages:** Shared decision making with the patient at the centre of care is essential. Establishing strong communication links and maintaining patient advocacy across multiple specialties and amongst all members of the MDT is challenging, but crucial. Care co-ordination improves the patient journey.

**Conclusion:** Pregnancy for women with pre-existing renal impairment provides significant challenges, particularly for those with advanced stages of disease. Coordinated care to promote optimal patient outcomes creates unique challenges and opportunities for the advanced practice nurse. MDT management is essential to optimising care for women from preconception through to successful delivery and beyond.
44. Standardising the allocation of non-emergency ambulance transport to satellite haemodialysis patients at a Victorian metropolitan hospital

Dianne Pierce¹, Sivatha Ros¹
Austin Health, Victoria¹

**Background:** Large numbers of patients use non-emergency ambulance transport to attend satellite haemodialysis. This is a high cost finite resource which is often associated with long delays. With no formal processes for the allocation and review of ambulance transport, dialysis staff felt that not all patients using ambulance transport needed it. This was confirmed when one patient caught a tram home when her ambulance was delayed.

**Aim:** To establish standardised assessment and review processes to allocate non-emergency ambulances to satellite dialysis patients. This aims to ensure appropriate use of ambulance transport only for those patients who are assessed as being medically or physically unable to use any other form of transport.

**Method:** A multidisciplinary working group developed an assessment and review form and guideline based on Victorian government criteria. Systems were established to assess all patients prior to receiving ambulance transport and review three monthly. Ongoing conversations with renal unit staff and patients continue promoting ambulance transport as a resource and not a default option for transport.

**Results:** All satellite dialysis patients using non-emergency ambulance transport have an assessment form completed and reviewed three monthly. Ambulance Victoria feedback about the process is positive. Staff and patient culture is changing and other transport options are being explored; for example, volunteer drivers.

**Conclusion:** There is now transparency around the allocation of non-emergency ambulance transport to satellite dialysis patients. Ongoing conversations and auditing continue to drive culture change.
121. Where did all these patients come from? An audit of admissions of haemodialysis patients from multiple satellite units to a large regional hub unit.

Dr Bronwyn Hayes¹
Cairns Base Hospital, Queensland¹

**Background:** The complexity of haemodialysis patients with their multiple comorbidities means that this population have frequent presentations to emergency departments. For haemodialysis patients who live in rural and remote area acute conditions may mean transfer to larger hospitals for further investigations and treatment. When haemodialysis patients are transferred to the nearest referral hospital this can lead to capacity issues at the hub dialysis unit. The impact of these transfers is not captured by existing administration systems leading to short staffing and lack of resources to care for these sick patients.

**Aim:** To conduct an audit and collect data on the number and cause of patient transfers from a large Queensland regional renal services nine satellite units to its hub unit over a three month period. Duration of patients stay before returning to satellite unit was also recorded.

**Methods:** Retrospective data was collected from patient rosters and cause and duration of admissions was obtained from electronic patient records.

**Results:** Patients presented with a wide array of conditions. The main reasons for transfer related to vascular access procedures, access infection, sepsis and cardiac. Patients requiring limb amputation and complicated vascular access interventions required the longest admission stay away from their satellite unit. Indigenous patients were over represented in patient transfers.

**Conclusion:** Unexpected transfers from satellite units place increased burden on hub units. Through the conduction of this unit we were able to examine if transfers could be reduced.
130. A supplementary holistic communication tool for temporary satellite haemodialysis (SHD) patients

Gethsy Jayaseelan
Eastern Health, Victoria

**Context:** Empowering end stage kidney disease (ESKD) patients undergoing haemodialysis (HD) with self-management strategies is imperative while the nursing care interventions are delivered within the SHD. Existing gaps remains such as missing hepatitis vaccine doses, information on current medications such as iron and erythropoietin stimulating agents, vascular access history, clinical alerts, specific treatment parameters, and other multi-disciplinary appointments. This would also include a record of the health teaching topics delivered, and other prescribed special medications as appropriate to co-morbidities. These things can be missed when basic transfer procedure occurs between one unit to another unit.

**Objectives:** To ensure that the SHD nurses are aware of all the essential information about the temporary patients when they arrive randomly from another SHD unit.

**Key messages:** Patient’s care will be delivered more safely and effectively through application of a holistic care approach. Patients will be educated adequately to self-manage their chronic disease through undertaking a partnership role with their nurse utilising this supplementary tool.

**Conclusion:** This supplementary holistic communication tool will become a powerful tool. This will be filling in, to resolve the observed existing gaps during their transition period, until the permanent spot is provided for them. Nurses will be guided consistently without missing appropriate key components of care by using this specified tool in their patient’s care. Dialysis patients will be empowered through knowing their disease conditions and treatment requirements.
16. Sleep-disorder breathing in haemodialysis patients

Ginger Chu1, Kayla Szymanski1, Nick Yates1, Melinda Tomlins1
John Hunter Hospital, New South Wales1

Context: Sleep disturbance is one of the most common dialysis-related symptoms reported by haemodialysis patients. There are many types of sleep disturbances, sleep-disordered breathing (SDB), a general term for all breathing dysfunctions occurring during sleep, is one of the most common types of sleep disturbances experience by haemodialysis patients.

Objectives: 1) To report the prevalence and the risks of sleep disorders, particularly SDB in haemodialysis patients. 2) To discuss the common screening tools for sleep disorders and considerations when using on renal patients.

Key messages: Provide evidence to show that sleep disturbance is under-recognised and under-treated despite its prevalence and the risks to renal patients. Progression of kidney disease such as fluid and uraemic toxin accumulation can cause/exacerbate symptoms of SDB and overall sleep quality. Renal nurses are in a prime position to identify this symptom by using existing validated tools, which can be easily incorporated as a part of patient assessment in dialysis units.

Conclusion: Sleep disturbance is common in the dialysis population. The consequences of poor sleep such as fatigue and depression have significant impacts on the patient’s quality of life. In considering that up to 80% of haemodialysis patients experience sleep disturbance, and many have rated poor sleep quality as the most intense symptom burden having the strongest impact on their daily life, sleep quality should be part of dialysis nursing assessments and treated appropriately like other common dialysis symptoms such as nausea/vomiting or puritus.
89. Planning and implementation of a mixed haemodiafiltration study

Veronica Oliver¹, Angela Henson¹, Sally Carpenter¹, Kylee McCarthy¹
Queensland Health, Queensland¹

Background: In 2014 there were 11,354 patients in Australia with end stage kidney disease on haemodialysis, with 2207 (19%) of these patients receiving haemodiafiltration (HDF). HDF enhances small and middle molecule clearance through convection and diffusion, which may improve patient clinical outcomes. However, optimum dialysis dose has not been identified. Mixed-dilution HDF appears to offer the most favourable balance between solute clearance, efficiency and avoidance of haemoconcentration compared to other forms of HDF. Since its availability there has been limited uptake of mixed HDF in Australia.

Aims: To discuss trial design for a HDF study comparing post HDF and mixed HDF, in regards to convective volumes, clotting, transmembrane pressure (TMP), solute clearance and patient clinical outcomes primarily post-dialysis recovery time.

Methods: This is a prospective, open label, randomized, cross-over study conducted at two centres in Australia.

Results: This report outlines the process of planning and undertaking the study, and discusses aspects for others to consider when undertaking this type of research. Outcomes of the study are currently being collated.

Conclusion: Reporting on the research process and its implementation are important aspects in assisting potential researchers to develop and refine their studies. Effective planning, facilitation processes and follow-up ensures accurate data collection and timely results in order to achieve an effective research outcome.
134. A review of patient deaths within 90 days of commencement of dialysis

Monique Borlace¹, Laura Lunardi¹
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**Background:** End Stage Kidney Disease (ESKD) is increasing in Australia with over 21,000 patients requiring dialysis in 2014. ESKD patients have a higher mortality rate (3-8 fold) compared to the general population and experience increased cardiovascular morbidities, are at risk of frailty and have recurrent hospitalisation. Although multiple studies have examined associative factors for this long-term survival, less attention has been paid to very early survival on dialysis. Despite modern technology and medicines, mortality on dialysis continues to be high with an average 5-year survival of approximately 32% for patients over 75 years old, and only 19% for those patients over 85 years of age.

**Aim:** The aim of this study is to determine the incidence and risk factors for 90-day mortality in dialysis patients within our service between January 1, 2011 and December 31, 2016.

**Method:** Retrospective data will be collected from patients with ESKD who have started Renal Replacement Therapy (RRT) and died within 90 days of commencing dialysis. Patients surviving after 90 days of RRT will be used as aged matched controls. The key parameters to be measure include demographics data (baseline demographic data, comorbidities, cause of ESKD, cause of death) and clinical score data (nutritional status, pathology laboratory parameters).

**Conclusion:** The findings of this research will assist Nephrologists, Nephrology Nurse Practitioners and other health professionals, in making informed choices about commencing dialysis for new patients who may be expected to have marginal benefits from dialysis, in order to avoid non-beneficial interventional treatment.
Session 6C: Innovative PD Care

131. Cases series: managing anuric patient on PD

Dong Wang¹, Rita Carmel O’Neill¹
Eastern Health, Victoria¹

Background: Peritoneal Dialysis (PD) is associated with better preservation of residual renal function, less cardiovascular strain and flexible life style compared to haemodialysis (HD). However, anuric patients are often thought to be unsuitable for long term PD, due to fears of inadequate solute clearance and fluid removal. Here, we describe three successfully managed anuric patients on APD therapy, with two patients having received kidney transplants, and one patient continuing on PD.

Cases Presentation: 48 year old woman, end-stage kidney disease (ESKD) secondary to IgA nephropathy, commenced PD in April 2011, kidney transplant in December 2015, weight 49kg, height 150cm, BMI=22; 34 year old woman, ESKD secondary to diabetic nephropathy, commenced PD in 2013, kidney transplant 2016, weight 54kg, height 160cm, BMI=22; 67 year old female, ESKD secondary to diabetic nephropathy, commenced PD in October 2014, currently still on APD, weight 65kg, height 160cm, BMI=24.4

Management:

1. Large volume APD overnight, plus one CAPD during day if needed.
2. May need to use higher dextrose PD solution to improve ultrafiltration.
3. 6 monthly Adequest and PET and monthly blood review, to monitor dialysis efficiency.
4. Regular 6 monthly home visits, with more frequent visits if needed.
5. Regular meetings with the dietician for nutritional evaluation.
6. Frequent evaluation of fluid balance and cardiovascular status is needed.

Conclusion: It is clear that PD is feasible in some anuric patients. Those with a smaller body size, lower peritoneal membrane transport status and higher motivation to remain on PD, tend to do better.
68. Assisted automated peritoneal dialysis is viable - the Western Australian pilot study experience

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Sir Charles Gairdner Hospital, Western Australia¹, Fresenius Medical Care, Western Australia²

Background: Peritoneal dialysis (PD) requires a certain level of physical and mental ability which can preclude frail and older populations, or those with illness either long-term or short-term. An inability to manage PD usually results in transfer to centre-based HD, a costly and often stress inducing occurrence. Internationally assisted Automated PD models (aAPD) have been developed to overcome this hurdle.

Aim: To develop and evaluate a pilot aAPD programme in Western Australia.

Method: The aAPD model was developed with homelink nursing service staff receiving training to provide the assistance. Viability of the programme and evaluation methods included 1. Perceptions of dialysis survey 2. Patient user data including Charlson Comorbidity Index, QOL (SF36), clinical outcomes and quantitative evaluation 3. Nurse evaluation and stakeholder evaluation 4. Economic costings.

Results: Over 90% of PD patients agreed they would use the service if needed. 17 Patients were enrolled into the service for an average of 37 (range 1-165) days of care (respite and pretraining). Clinical outcomes reflected Charlson comorbidity scores (high score = poor outcome). Quantitatively patient acceptance was high although QOL of life scores ranged widely. Stakeholder evaluations were extremely positive but nurse training required high input. The service was cost neutral compared to the tier two funding received and cost savings for transport and hospital bed days were realised (final calculations being undertaken).

Conclusion: aAPD performed by a nursing service is a viable treatment option for patients reducing the need for both hospital bed days and transfers to HD.
126. Successful implementation of the first telehealth enabled automated peritoneal dialysis (APD) machine

Kelly Adams¹, Sarah Woolgar-Robe¹
HNELHD, New South Wales¹

**Context:** Approximately 12,000 patients currently live on dialysis within Australia with a significant number of those attending a home dialysis therapy. Patients that attend dialysis in their homes are trained to undertake this therapy either independently or with a carer within their own homes. Support’s provided by their home training team however it’s up to the patient to record the treatment and document any issues.

**Objectives:** To report on the experience of implementing a telehealth capable APD machine, the Homechoice Claria and associated software Sharesource into a service that caters for both rural and remote dialysis patients.

**Key messages:** Remotely monitoring treatment data on a daily basis has enabled staff to be more responsive to the needs of our APD patients and prioritize home visits accordingly. The ability to change prescriptions at the unit and have the machine automatically upload the information via its modem in the patients home has saved significant travel burden for staff and patients particularly for those in rural areas.

**Conclusion:** Home dialysis is the ideal treatment for patients that are able to attend to this therapy, however there is a feeling of isolation and doing it “all by myself”. The implementation of the telehealth enabled Homechoice Claria and Sharesource software has helped from a patient perspective to know someone is now looking at their treatment everyday. Staff also see benefit in effective allocation of resources and timely identification of issues before they escalate.
99. What happened with our peritonitis rates?

Anna Claire Cuesta¹
St George Hospital Renal Department, New South Wales¹

**Context:** The improvement of our unit’s peritoneal dialysis (PD) related infection rates since 2012 were directly attributed to the proactive PD program and high proportion of patients choosing automated peritoneal dialysis (APD). The proactive initiatives on enhancing patient education and support, staff training and clinical practice including implementations of best practice guidelines continued and the proportion of patients choosing APD remained above 90%. However, the annual audit of our unit’s PD related infection revealed a declining peritonitis and exit site infection rates in 2016. Our infection rates in 2015 was 133.1 patient months per peritonitis episode and 166.3 patient months per exit site infection episode, which plummeted down to 63.5 and 106 patient months respectively in 2016.

**Objectives:** Despite continuing to surpass the national rate at 63.5 patient months per peritonitis episode in 2016, it is crucial for our unit to immediately identify and address the issues affecting our PD related infection outcomes.

**Key messages:** A methodical review will be undertaken that involves root-cause analysis and patient demographic review of all PD related infective episodes in 2016 with relevant findings to be compared to previous years. It will also include a progressive review of our PD practices and literature search on recent infection control guidelines aimed to advance our infection prevention education, practices and strategies.

**Conclusion:** In our experience, a proactive PD program and respecting patient’s treatment choice were important strategies to improve infection rates. However, maintaining good infection rates will require a progressive review and evolution of the program.
106. Bridging the gap: avoiding weekend hospital admissions for peritoneal dialysis outpatients

Roslynne Templeman¹, Melissa Christiansen¹, Kerrie Wheeler¹
Royal North Shore Hospital, New South Wales¹

**Background:** The weekday service of the Peritoneal Dialysis (PD) unit meant that outpatients could not be assessed or treated with intraperitoneal antibiotics (IPAB) on the weekend. Thus, the approach that developed meant some patients were unnecessarily admitted as a precaution, significantly increasing cost, while others may have been at risk of delayed treatment until Monday.

**Aim:** To utilise the “Hospital in The Home” - Acute Post Acute Care (APAC) service during the weekend to reduce unnecessary hospital admissions and the associated increase in length of stay and potential for hospital-acquired infections. In addition, to provide appropriate outpatient treatment for peritonitis according to best practice guidelines.

**Methods:** A Peritonitis Policy was developed with a peritonitis pathway to train staff and provide for patient referrals to APAC for assessment and possible treatment outside the PD unit’s hours. This required extensive education of staff in APAC, Emergency Department, Acute Assessment Unit, clinical support nurses, and pharmacy staff. Due to the transient workforce in this teaching hospital, a transfer of care template supported the standardisation of peritonitis management along with new educational resources, a peritonitis care pathway and care plan.

**Results & Conclusions:** Six patients have been referred to the APAC weekend service. APAC now performs a structured patient assessment, including pathology for drug levels, on weekend days and administers IPABs if required. Clinical findings validate that unnecessary hospital admissions have decreased and care follows best practice guidelines. This has reduced the burden of peritonitis on patients and increased their satisfaction levels.
53. Community health and renal home therapies unit partnership: an innovative approach in peritonitis management at home

Glenda Rayment¹, Susana SanMiguel¹, Maria LiDonni¹
Liverpool Hospital, New South Wales¹

Background: Peritonitis remains the major cause of treatment failure for peritoneal dialysis (PD) patients and adherence to antibiotic treatment is essential for resolution. A home training unit of a major tertiary hospital experienced an increased number of PD related-peritonitis episodes resulting in the review of current practice and resources. A new and innovative model of care was developed between the Renal Service and Community Health for ongoing peritonitis management in the home.

Aims:
- To establish a collaborative partnership with the Community Health nurses and the home training unit to effectively manage peritonitis in the home
- To provide training utilizing ‘train the trainer’ approach and mentoring to the Community nurses

Methods: The model of care was initiated in 2016. Education was provided to the community nursing staff, renal ward and medical staff. A Practice Statement was developed for peritonitis management in the community setting.

Results: Following introduction of the service there have been 35 referrals. Pre and post implementation surveys of the nursing staff from the home training unit were attended with nurses reporting a decrease in time spent on peritonitis management following implementation. Patients surveyed also reported a preference for receiving their antibiotic treatment in the comfort of their own home.

Conclusion: The Renal Home Therapies unit and Community Health partnership for peritonitis management has been an innovative and successful model of care to support homebased dialysis patients that can be utilized by other renal services. The partnership has improved patients’ outcome and enabled better utilization of resources.
Session 7

Humanities and Healthcare – empowering empathy

Mr Ian Walsh¹
Urological Surgeon at Belfast Trust and Clinical Academic Fellow, Queens University, Belfast¹

Healthcare involves humans, with human-human interaction and human-machine interaction. This is only one explanation for why healthcare is neither an exact science, nor an entirely artistic pursuit.

Effective clinical practice demands mastery of both technical and nontechnical skills, within a complex hierarchy of human interaction. Central dimensions such as compassion and empathy further complicate the picture. Cracks can appear in a façade increasingly concerned with patient safety; it is within these cracks that potential for improvement exists.

Collaboration of healthcare with arts/humanities augments education and practice, simultaneously providing invaluable substrate for humanities; exemplified by humanito-centric narrative and sociomedical interaction.
Health economic evaluation in end-stage kidney disease

Assoc. Prof. Rachel Morton¹
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The demand for health system resources such as medicines, diagnostic tests, and highly trained staff exceeds its supply. Decisions must therefore be made about how to best allocate these scarce resources on the basis of efficiency and equity. This may mean stopping doing things because they are not effective or cost-effective. In this presentation I will describe how resource use, costs and health outcomes are measured in an economic evaluation, and how this can be performed alongside a randomised controlled trial. I will use the new CARSK trial (Canadian-Australasian Randomised Trial of Screening Kidney Transplant Recipients for Coronary Artery Disease) as an example.
115. Dialysis life at 100

Kylee McCarthy¹, Veronica Oliver¹, Angela Henson¹
Princess Alexandra Hospital, Queensland¹

**Context:** As the Australian population ages the number of older patients on haemodialysis is also increasing. The percentage of patients 85 years and over with end stage kidney disease on haemodialysis has increased from 2% in 2004 to 5% 2014. The increase of patients in this age group has led to a change of perspective in treatment outcomes.

**Objectives:** This case study will examine the dialysis journey of one centenarian and the modifications to his treatment plan to achieve both optimal dialysis key performance indicators (KPI) and quality of life.

**Key messages:** It is important to consider the patient’s perspective and the implication of strict adherence upon their quality of life and whether achieving dialysis KPIs is essential.

**Conclusion:** The challenges of balancing both optimal dialysis and quality of life are important aspects of care for all haemodialysis patients. However in this group where longevity is not a consideration there needs to be more focus on quality of life.
40. FEET 4 LIFE in action to reduce the number of lower limb amputations for Diabetic Dialysis patients

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New Zealand Nursing Council, New Zealand¹, College of Nurses Aotearoa, New Zealand², Counties Manukau Health, New Zealand³

**Background:** Patients who experience both diabetes and renal failure have a high risk of lower limb amputations due to the combined effects of sustained hyperglycaemia and uraemia. Additionally, foot lesions such as ulcers (that frequently lead to amputation) are potentially the most preventable and often mismanaged complication of both diseases. Approximately one third of diabetic related amputations are associated with diabetic patients receiving dialysis treatment. Furthermore, these patients have a 2.5 times higher prevalence of foot complications than those without renal failure.

**Aim:** To improve access to podiatry services for Diabetic Dialysis patients to reduce the number of lower limb amputation by 10%.

**Methodology:** The ‘Model for Improvement’ methodology was used. A multidisciplinary team was created to redesign existing processes that incorporate palliative podiatry care within our dialysis units. In addition, an expert advisory group - which included patient and family advocates - guided the development of the care pathway including assessment and treatment processes.

**Results:** Positive results have been seen such as the reductions in amputations, hospitalisations, mortality, waiting time, DNA rates, and costs. There have also been increases in patient quality of life, patient/whaanau satisfaction, staff skills and knowledge, and self-management skills (and support).

**Conclusion:** By redesigning existing processes to incorporate palliative podiatry care within the dialysis units, decreases in the incidences of amputations and improvements in diabetic dialysis patient’s quality of life.
6. Dietetic intervention reduces malnutrition at a West Australian satellite dialysis unit

Jo Beer¹, Emily Mountford¹
Sir Charles Gairdner Hospital, Western Australia¹

**Background:** Protein-energy malnutrition is an independent predictor of morbidity and mortality in dialysis patients and leads to poor dialysis outcomes, decreased quality of life and hospital admissions. With a prevalence as high as 75% in some groups, we hypothesised that regular dietetic input as per evidence based guidelines, would reduce malnutrition, improve patient health and nutritional status.

**Aim:** To examine the effect of regular dietetic input on malnutrition in patients at a satellite dialysis unit.

**Methods:** Renal dietitians reviewed patients at a satellite dialysis unit in Perth over a seven month period in 2015. Demographic, laboratory and malnutrition data using Patient Generated-Subjective Global Assessment (PG-SGA) were collated at baseline and follow-up. Individualised dietetic education was given to patients during the trial. Paired t-test and Wilcoxon signed rank tests were used to assess differences at follow-up and baseline.

**Results:** 152 patients were recruited for the project. At baseline, 63% were male, with a mean age of 71.0±12.4 years. Considerable malnutrition was noted at baseline (46%) with a hand grip strength of 23.7±12.7 kg (< 85% of normative data of healthy individuals); mean BMI of 27.7±7.0; PG-SGA of 6.8±4.5 and 25% had a serum albumin ≤35 g/L. The mean time since the patient’s last dietetic review was 2.0 years, with 25% over 3 years. At the end of the follow-up period, malnutrition significantly improved based upon changes in SGA scores (P= 0.0176).

**Conclusions:** Dietetic intervention in haemodialysis patients reduced rates of malnutrition, underlining the value of dietetic input in this setting.
30. Stepping into better health: improving foot care in patients’ with the introduction of monthly foot checks

Liz Tomlinson\(^1\)
St Vincents Health Network, New South Wales\(^1\)

**Background:** Diabetic patients have increased risk and incidence of foot ulcers, with 1 in 5 ulcers requiring amputation. This risk is furthermore increased in patients with End Stage Renal Disease (ESRD) requiring renal replacement therapies. Prior to this quality improvement project, foot checks had not been routinely practiced or standardised and no formal referral pathway was in place to address the ongoing management of the high risk foot within the Renal Ambulatory Care (RAC) unit.

**Aim:** To improve diabetic foot care practices within the RAC unit through the introduction and incorporation into practice, monthly foot checks and to create a formal referral pathway for patients’ attending the RAC unit for dialysis.

**Method:** A working party including key stakeholders was created. Patient and staff questionnaires along with auditing of clinical notes was conducted. The DART Diabetic Foot Assessment of Risk Test was trialled with the support of the podiatry department within the unit, along with staff and patients being educated on it prior to its implementation.

**Conclusion:** It is our goal that 100% of patients admitted to the RAC unit will have a lower limb assessment tool completed on admission to our service and monthly thereafter. Also that as a result, identified high risk patients will be referred promptly for the management by the podiatry or vascular team. By providing a coordinated and multidisciplinary approach to the prevention and management of lower limb wounds and amputations in this high - risk group we hope to improve these patients care and quality of life.
57. A train the trainer initiative: supporting skills development for peritoneal dialysis trainers

Prof. Josephine Chow1, Melinda Tomlins2, Donna Reidlinger3, Anna Lee4, Assoc. Prof. Carmel Hawley5, Prof. David Johnson6, Dr Genevieve Steiner7, Jo-Anne Moodie8, Keri-Lu Equinox9, Assoc. Prof. Matthew Jose10, Dr Yeoungjee Cho6, Dr Paula Donaldson11, Dr Moira Maley12, Prof. Neil Boudville12
South Western Sydney Local Health District, New South Wales1, John Hunter Hospital, New South Wales2, University of Queensland, Queensland3, Illawarra Shoalhaven Local Health District, New South Wales4, Princess Alexandra Hospital, Queensland5, Metro South and Ipswich Nephrology and Transplant Services and Co-Director, Centre for Kidney Disease Research, Translational Research Institute, Queensland6, Western Sydney University, New South Wales7, Royal Melbourne Hospital, Victoria8, Cairns Base Hospital, Queensland9, University of Tasmania, Tasmania10, The HOME Network, New South Wales11, University of Western Australia, Western Australia12

Background: There has been no published randomised controlled trial (RCT) data to demonstrate superiority of a specific protocol for training nurse Peritoneal Dialysis (PD) trainers. However, a formalised PD education program has been shown to significantly reduce peritonitis rates in Uruguay. The optimal education package is however yet to be established and hence it is highly likely that there are unrealised gains to be made for PD clinical outcomes.

Aim: To develop a standardised, evidence-based curriculum for PD trainers and patients that matches ISPD Guidelines using best practice pedagogy.

Method:
Step 1: Literature Search & Clinical Audit
Step 2: Focus Group
Step 3: Recruit expertise in PD nurses, nephrologist, consumers, medical education technology consultant and e-learning development consultant
Step 4: Training module development by the HOME Network with experienced PD nurses, nationally and internationally
Step 5: Pilot study & multi-centre international RCT

Results: A comprehensive PD training curriculum has been developed which includes modules for training PD staff, in an interactive electronic format. Assessment and retraining requirements are also addressed within the training package. The package includes two introductory modules and two clinical case modules. These educational modules will be delivered using interactive digital media, as well as traditional paper-based versions with practical demonstration deliveries.

Conclusion: In 2017, the training modules will be piloted in 2 PD units to collect pilot data on their feasibility. Clinical outcomes and safety data will also be collected to determine feasibility and resource requirements at sites, and to inform design for future larger trials.
55. Nephrology education; where to from here?

Lynn Brown¹, Monica Schoch²
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**Background:** Since inception in 2007, our education group has worked to support nephrology nurses in education roles. The organisational structure of the group has evolved over the last two years which has led to a paradigm shift, and prompted re-evaluation of the group’s purpose.

**Aim:** To continue to provide a dynamic and clinically relevant network to support nephrology nurses in education roles.

**Method:** Two main areas were identified as requiring ongoing commitment.

- Provision of education opportunities for nurses caring for patients with kidney disease.
- Provision of education and a support network for those educating other healthcare professionals.

In order to provide this support a sustainable framework needed to be implemented. Previously education resources would be built using input from a few members with a focus on recruiting volunteers to assist in the process. Discussion with the membership allowed a decision to be made about a meaningful way forward to support our colleagues. Use of social media and web based interaction allowed freedom of communication with members and face to face meeting provided opportunity for discussion with a large cohort of the group.

**Results:** The group now have a pathway to allow delivery of support and opportunities to nephrology educators

**Conclusion:** The group’s mission was re-evaluated and a new sense of purpose evolved. The education and peer support to nephrology educators would be continued in a new format with an annual education opportunity and ongoing use of web and social media based interaction and networking.
62. Post-traumatic stress disorder and dialysis

Barbara Harvie¹
RSA, ACNP, ADEA, ANZSN, New South Wales¹

**Context:** In Australia, the incidence of Post-Traumatic Stress Disorder (PTSD) is increasing. Most nurses have had limited experience in managing people with PTSD. The stress of end stage kidney disease (ESKD) adds another dimension. Nephrology nurses can contribute to improved care through developing an understanding of PTSD.

**Objectives:**
- Develop understanding of PTSD, symptoms, impacts and management
- Explore screening tools
- Source local practical (and online) resources
- Identify educational programs to improve skills and knowledge in PTSD management

**Key Messages:** There is an unmet need for nephrology nurses to develop skills in recognising and assisting with managing people with PTSD. It is anticipated that gaining new skills and knowledge will benefit people with PTSD, their families and health professionals.

**Conclusion:** PTSD is a significant health issue. Whether the person with PTSD is within the confines of a haemodialysis unit, or at home using peritoneal dialysis, nephrology nurses have an opportunity to identify and assist with PTSD management in collaboration with other health professionals.
69. Implementation of an evidence based clinical pathway for patients commencing haemodialysis: A JBI Clinical Fellowship program

Debra Turner
Central Northern Adelaide Renal and Transplantation Service, South Australia

Context: The implementation of this project was to determine whether the current clinical pathway for patients commencing haemodialysis (HD) within our service was based on evidence or expert opinion and to improve the knowledge regarding the evidence based practice of the clinical pathway for patients commencing haemodialysis within the service.

Objectives: To identify current clinical pathways for HD within Australia and review the current evidence to support the pathways and ascertain if the pathways were based on expert opinion only. Areas that were addressed included dialysis duration, dialyser size, needle size, dialysate flow rate, blood flow rate, dialysate composition and anticoagulation protocol. Introduce and implement a revised clinical pathway based on haemodialysis clinical pathways utilised across Australia and assess the knowledge, and extent of compliance of the clinical pathway for patients commencing haemodialysis.

Key messages: Clinical pathways are tools used to guide evidence based healthcare and there is no standardized definition of what a clinical pathway constitutes. The clinical pathways that were shared had a common thread which included a structured multidisciplinary plan of care, a detailed path for the course of commencing HD, with timeframes and criteria based progression as well as an aim to standardize care within the haemodialysis cohort of patients.

Conclusion: A revised clinical pathway was introduced to the service based on expert opinion rather than evidence based information.
31. How can we engage nurses to accept change

Lynn Brown¹
Hunter New England Health District, New South Wales¹

**Background:** A new vascular access form had been introduced. Dialysis nurses across the local health district were expected to draw a diagram of the patient’s fistula or graft. The nurses were also to use ultrasound equipment to add detail to the image. This would help inform nurses of areas for development and potential areas of concern. However, 10 months after the form was introduced, it was still not being well used.

**Aim:** To provide a rationale and framework that would encourage nurses to use best practice access management for our patients.

**Method:** The project nurses and educator met to discuss pertinent issues. The barriers to change were identified and discussed. These included:

- Time
- Complexity of detail required
- Nurses reported that they lacked clarity of purpose for the form
- Nurses required more ultrasound training

We needed to accept that our enthusiasm was not automatically shared by the wider team. We became aware that a more simple approach would be required to engage other nurses to accept the change.

We directly targeted nurses who were seen as role models and early adopters of change. Their understanding of completion of the diagram and confidence with the ultrasound was assessed. One to one training was given as required.

**Results:** The nurses have begun to adopt the change as it is now attainable and relevant to their practice.

**Conclusion:** Sharing the vision effectively and making goals achievable helped to engage the team.
Session 8C: Innovative Research

75. How to do a clinical trial by doing less

Peta-Anne Paul-Brent
The Australasian Kidney Trials Network, Queensland

Context: Randomised Controlled Trials (RCTs) are considered the gold standard of evidence for new medical treatments and interventions. However, RCTs are very resource intensive in terms of cost, patient time and workload for the staff involved at sites. In an effort to reduce this burden on both sites and patients, The Australasian Kidney Trial Network and their partners, are championing a new type of clinical trial that uses an established Patient Registry (ANZDATA) to collect patient data.

Objective: To discuss the rationale behind and methodology of Registry Trials using the examples of the RESOLVE and BEST-Fluids Trials.

Key messages: The RESOLVE trial is a cluster-randomised, open-label trial evaluating the effect of different dialysate sodium levels in haemodialysis patients on the number of major cardiovascular events they experience. The BEST-Fluids trial is a double blind, randomised trial examining the effect of intravenous fluids in deceased donor kidney transplant recipients on their post-transplant kidney function. Both trials will collect participant data using the new real time online ANZDATA Registry system.

Conclusions: Registry trials have a number of advantages for patients and sites over traditional type clinical trials. The RESOLVE and BEST-Fluids Trials are examples of registry trials and demonstrate many of these advantages.
54. Reflecting on researching vulnerable patients with end stage kidney disease: lessons learnt to inform future research endeavours

Prof. Ann Bonner¹, Dr Shirley Chambers¹, Dr Helen Healy², Prof. Geoff Mitchell³, Prof. Patsy Yates¹
Queensland University of Technology, Queensland¹, Kidney Health Service, Queensland², University of Queensland, Queensland³

**Context:** Providing supportive care alongside usual chronic kidney disease (CKD) clinical treatment is gaining momentum and acceptance in nephrology services although the collaboration and use of specialised palliative care services is not consistent. We undertook a longitudinal study of both dialysis and non-dialysis patients whose prognosis was <12 months at study entry.

**Objectives:** To reflect on our experience of researching patients with advanced CKD, and to provide other researchers with useful information of how to successfully research this vulnerable group of patients.

**Key Messages:** While the recruitment response rate was acceptable (69%), enrolling dialysis patients was more challenging than recruiting those not receiving dialysis. As the age profile of this cohort is older, to aid recruitment ensure information packages are concise and readable for low literacy levels. Prepare for possible gatekeeping difficulties when recruiting and following patients (e.g. aged care facility, patients screening calls). Avoid overburdening patients by spacing out follow-up data collection points, while being careful to maximise the data’s credibility. Frame questions or explanations to avoid patients editing responses they feel are not relevant to CKD (e.g. ‘normal ageing’). Undertake self-report data collection (e.g. pain, functional level) face-to-face so that non-verbal cues are not missed. This will increase the likelihood of eliciting reliable and complete information, than that collected by telephone. These steps are likely to increase participant enrolment and retention in a study.

**Conclusion:** Given the opportunity, patients with advanced CKD who have a relatively limited prognosis can and do participate in longitudinal research studies.
95. An overview and progress report of a multidisciplinary chronic kidney disease centre of research excellence

Prof. Ann Bonner1, Prof. Wendy Hoy2, Dr Helen Healy3, Prof. Geoff Mitchell2, Assoc. Prof. Glenda Gobe2, Prof. Jeff Coombes2, Prof. Zoltan Endre4, Assoc. Prof. Kathryn Panaretto2, Prof. Luke Connelly2, Prof. Robert Fassett2, Anne Cameron5
Queensland University of Technology, Queensland1, University of Queensland, Queensland2, Kidney Health Service, Queensland3, The University of New South Wales, New South Wales4, CKD.QLD and NHMRC CKD.CRE, Queensland5

Aim: To provide a progress report of the NHMRC Chronic Kidney Disease (CKD) Centre of Research Excellence.

Background/Methods: The Centre began its 5 year program in 2015. It is dedicated to improving CKD knowledge and management across the health care spectrum, and includes collaborators in almost every state/territory. There is a strong nursing component throughout including supporting nursing research students and clinical staff.

Results: The core research streams are now established. The “CKD-National-Surveillance-Network” incorporates 7,000 patients in a state registry and potentially thousands from national collaborators. The Centre is affiliated with the ISNs’ iNET.CKD, a global collaborative of CKD surveillance bodies.

Practice improvement projects include CKD care in primary care; development and evaluation of a novel, collaborative nephrology/palliative care kidney supportive care program (KSCp); and nurse-led projects in integrated nurse practitioner models of care, decision-making, self-management, symptom burden and KSCp.

The biomarker stream has ethics approval to establish Australia’s only CKD Biobank. Additional NHMRC project grants have been submitted, and a Fabry’s Disease Epidemiology project has commenced.

Health economic and health service evaluation includes an Australian-first data-linkage project of health service utilisation (public/private, outpatients/inpatients) and the KSCp.

Capacity building/education includes [funded] post-doctoral fellows and 9 RHD students, with 7 affiliated clinician researchers [medical and nursing]. Research translation and engagement is facilitated by a “Consultancy and Engagement Committee” comprised of nephrologists, representatives of the AIHW, and peak academic and private bodies.

Conclusion: The Centre is in-line with its projected 5-year framework, and is equipped to conduct innovative, high quality, collaborative research.
102. Challenges of engaging renal nurses in research activities

Dr Leanne Brown¹, Prof. Glenn Gardner², Prof. Ann Bonner²
Fraser Coast Renal Unit, Queensland¹, Queensland University of Technology, Queensland²

Context: Undertaking a multi-site randomised controlled trial to evaluate a decision support intervention required engagement with renal nurses and the health service district. Difficulty in recruitment of participants was identified early on in the research project. Despite changes to recruitment strategies and engagement of a further research site, this research project was unsuccessful in achieving an adequate sample size.

Objectives: To explore the barriers and facilitators experienced when undertaking a randomised controlled trial within a clinical setting.

Key messages: The absence of an embedded research culture and lack of research structure within the health care setting can have a serious impact on the success of important nursing research projects. Barriers were encountered at many steps during the implementation of the study. Initially governance at some sites delayed initiation of the research project. Then secondly it was difficult for clinical nurses to find adequate time to screen eligible participants even though extensive negotiations with management had taken place prior to commencement of the study and funding was allocated for research assistants. Finally it was observed that some nurses acted as gatekeepers; influencing successful participant recruitment. Gatekeeping was observed when the nurses believed they were protecting a vulnerable patient. However, at sites where renal nurses were committed to the success of the study there were fewer barriers.

Conclusion: A process analysis of barriers and facilitators in undertaking a study is almost as important as the study itself. Identifying facilitators and barriers will assist renal nurses when preparing for their own research.
61. Philanthropy in clinical research: coordinators’ roles and responsibilities

Prof. Josephine Chow¹
South Western Sydney Local Health District, New South Wales¹

Background: Research coordinators have significant responsibilities in clinical trials that often require them to find unique ways to manage their jobs and balance the ethical challenges, thus reshaping their professional identities.

Aim: The purpose of this study is to identify how research coordinators manage role and ethical challenges within clinical research studies.

Method: This is a qualitative study utilising semi-structure interview of 6 renal research coordinators. Research study participant observation in clinics also conducted on interactions between the principal investigator and participants, as well as between coordinators and participants. In semi-structured interviews, interviewees were asked questions about their job responsibilities and their “typical day” as well as questions about their experiences working in clinical research.

Results: Generosity and philanthropy is a recurring theme in how research coordinators define and view their work. Their roles include teaching participants the appropriate reasons to participate in clinical research and minimising the challenges between research and care so as to contest the undervaluation of coordinating. The coping strategies used by the renal research coordinators to handle the various challenges they experience in a difficult job including their strength in interpersonal communication, empathy, and multi-tasking.

Conclusions: This study illustrates that generosity and philanthropy should not be thought of as merely an attitude toward research but rather as a crucial, yet problematic, adaptation to a stressful and difficult job.
Session 9

From the engineering laboratory to the clinic … how can you make use of fluid dynamics?

A/Professor Tracie Barber¹
University of New South Wales, New South Wales¹

In vascular fluid dynamics research at UNSW, we use computational models and laser-based measurement to gain very detailed fluid dynamics information related to dialysis. We study fistula flows (both generic ones and patient-specific ones), we look at cannulation and how the flow varies for a plastic cannula, and we model the bubbles in airtraps.

How can we translate these findings into useful clinical information? What should a renal nurse know about fluid dynamics and what could they learn from an engineer with a PhD in aerodynamics?
Health pathways

Dr Angus Ritchie¹
HealthPathways, New South Wales¹

In recent years Clinical Pathways have emerged as an important component of integrated care in the Australian health care system. The best known example, HealthPathways, is a community that now includes more than 25 regions of Australia and which covers the majority of the Australian population. Clinical Pathways are creating comprehensive service maps to improve transparency and accessibility of local health services. In this session you will learn about how to develop Clinical Pathways and how to use them to improve your health care service. There will also be an overview over how the Clinical Pathways are being evaluated to ensure they are having a positive impact on outcomes.
Treatment of Hepatitis C in renal disease: A review of direct acting antiviral therapies

Dr Anastasia Volovets
Royal Prince Alfred Hospital, New South Wales

Hepatitis C Virus (HCV) a significant global problem affecting 2.8% of the world’s population. In Australia there is an estimated 230 000 people with chronic HCV, and of these 58 000 live with moderate to severe liver disease. Untreated, HCV leads to progressive liver inflammation, cirrhosis, liver failure and hepatocellular cancer. HCV positive patients with chronic kidney disease (CKD) have significantly higher risks for negative outcomes as well as higher levels of comorbidity and health costs. Historically, interferon treatment of these patients was limited due to increased toxicity and decreased sustained virologic response (SVR) rates. Ground breaking direct-acting antivirals (DAAs) are now available in Australia and offer decreased toxicity, simpler dosing, shorter treatment duration and high cure rates. This talk will focus on available data for DAAs in patients with CKD.
Session 10A: Vascular Access Innovation

129. Practice changes decrease buttonhole infection rates in home haemodialysis patients

Youn Park¹, Patty Tsang¹, Paul Snelling¹
Royal Prince Alfred Hospital, New South Wales¹

Background: Buttonhole cannulation (BHC) is associated with greater rates of infection compared to standard cannulation of arteriovenous fistulae (AVF). We report infection rates of buttonhole cannulation of AVF in home haemodialysis patients (pts) over 13 years, before and after changes in practice. Key changes from the old BH technique to the new procedure were to apply strict skin preparation and the use of topical mupirocin prophylaxis (TMP).

Aim: To reduce BH infection rates.

Methods: Observational study. Two hundred and two HHD pts using native AVF with BHC were observed for a total of 725 patient years in three different stages; 1) Stage 1: pre-new BHC procedures (BHCP) - 108 pts for 282 patient years, and 2) Stage 2: post-new BHCP - 68 pts for 75 patient years, and 3) Stage 3: post-new BHCP with TMP - 135 pts for 360 patient years.

Results: A total of 53 BH infection episodes were identified, giving an infection incidence of 1 episode per 13.6 patient years. The comparison of infection rates in the three different stages were: 1 episode per 7.8 patient years with thirty six infection episodes in Stage 1; 1 episode per 8.3 patient years with nine infection episodes in Stage 2; 1 episode per 45 patient years with eight infection episodes in Stage 3.

Conclusion: Infection rates in buttonhole cannulation can be decreased with strict hygiene procedures and TMP. A Randomised trial is merited to confirm these findings, particularly if BHC continues to be utilised in a significant proportion of patients.
135. Development of a tissue mimicking phantom for cannulation training

Dr David Fulkner¹, Yani Zhang¹, Jade Xiao¹, Assoc. Prof. Tracie Barber¹
University of New South Wales, New South Wales¹

Background: Navigating the vascular access to produce a safe puncture can be difficult due to the range of symptoms and anatomies which accompany arteriovenous fistulae.

Aim: This study aimed to produce a cannulation trainer which is provide feedback and are realistic, re-useable and adaptable in order to assist clinicians with ongoing cannulation training.

Methods: A moulding procedure was performed using an in-house adapted recipe of ballistics gel to mimic the mechanical properties of skin tissue. Cannulation trials were performed using standard Gambro 15G needles and 15G Argyle Fistula Cannulas. Evidence of successful cannulation with visual references was used to grade the samples. The moulds were melted and re-cast to test the re-usability of the system.

Results: The adapted recipe was able to maintain the mechanical tissue properties with underlying anatomy, producing a realistic phantom. Two recipes were produced to provide feedback on successful cannulation. The first mould had optically clear properties providing visual access to the underlying anatomy. The second mould produced high attenuation properties allowing visualisation through ultrasound. All cannulations performed in the tests produced flashback when connected to pressure, which serves as an additional visual guide for successful insertion. Reusability tests found that the moulds can maintain their shape and properties up to 4 weeks in a refrigerated environment, as well as being re-cast up to 10 times.

Conclusion: The study produced two types of moulds which can serve as cannulation trainers. The moulds provide feedback on successful cannulation, mimic the properties of human tissue and are reusable.
125. Three year evaluation of vascular access workshops for NSW staff concerned with improving patient access care and management

Deborah Knagge¹, Debi Cowan²
Royal North Shore Hospital, New South Wales¹, Central Coast Local Health District, New South Wales²

Three year evaluation of vascular access workshops for NSW staff concerned with improving patient access care and management.

**Context:** Vascular access (VA) is crucial for patients undertaking haemodialysis. A well maintained VA is essential for effective dialysis, increasing access longevity and patient survival. Therefore, it is imperative dialysis staff are competent. Ongoing education is important to monitor and care for the patient’s VA.

**Objectives:** To report on a program designed to provide both theoretical and practical components of VA care and management. A supportive environment provided over a two day workshop which was run over three consecutive years. Groups of 30 participants had the opportunity to learn and upskill their practices including ultrasound utility for VA surveillance and needle guided cannulation.

**Key messages:** Vascular access workshops provide opportunities for healthcare professionals to share experiences and gain knowledge. Introducing and improving ultrasound skills demonstrates how the utility of ultrasound in the dialysis unit compliments clinical assessment. This enables staff to identify changes or deterioration in a VA which is important in patients VA care impacting the patient’s experience and outcomes.

**Conclusion:** Vascular access care is paramount in the success of dialysis for patients with chronic kidney disease, importantly the implications on patient morbidity and mortality. The positive feedback from participants and the success of these workshops confirms the demand and necessity for continuing education opportunities and professional development for those working with patients receiving dialysis. Providing vascular access education to interested participants is both a joy and a privilege.
38. Plastic cannulae vs metal needles: comparison of cannulation outcomes

Vicki Smith¹, Monica Schoch²
Barwon Health, Victoria¹, Deakin University, Victoria²

Background: Plastic dialysis cannulas were introduced into a renal service in Australia as an alternative to metal dialysis needles. After an initial trial period, they were used on all new arteriovenous fistulas for a minimum of 6 dialysis sessions. Miscannulation of a metal needle or plastic cannula can lead to further cannulation attempts, aborted dialysis sessions, extravasations, haematoma formation and pain and anxiety for the patient. Currently, there is no published data available to assess if plastic cannula use results in less adverse events.

Aim: To evaluate if the introduction of plastic cannulas into a renal service has improved patient outcomes by comparing metal and plastic cannula data.

Method: Patient data were retrospectively collected from the digital medical records, including 16 months prior to the introduction of plastic cannulas and 16 months post the trial period. Data from the first 6 treatments were reviewed and adverse events such as, extravasations and missed dialysis sessions were noted. Only new patients were included in the study.

Results: Initial results indicate that the use of plastic cannulas showed improved outcomes with no aborted dialysis sessions and no mid-dialysis extravasations compared to the traditional metal needles, where there were 8 aborted dialysis treatments (dialysis was not commenced at all) and 4 mid-treatment extravasations, where 2 sessions were aborted all together.

Conclusion: This small study demonstrates that plastic cannula use in haemodialysis can lead to improved patient outcomes and less adverse events.
85. The use of plastic dialysis cannulas for central veno-venous haemodiafiltration in intensive care

Kirsty Musgrave¹
St Vincent’s Hospital Sydney, New South Wales¹

Context: Haemodialysis dependent patients with an arterio-venous (AV) access who require admission to intensive care units (ICU) historically require the insertion of a central vascular access catheter (CVAD) to allow for Central Veno-Venous Haemodiafiltration (CVVHDF). The use of AV access using traditional metal dialysis cannulas has been contra-indicated. This had significant implications for the patient, the intensive care unit and the haemodialysis unit.

Objective: To report on the successful use of plastic dialysis cannulas for three haemodialysis dependent patients with established AV access who were admitted to the ICU on inotropic support and required CVVHDF.

Key Messages: The cannulas were inserted, secured and removed by the haemodialysis staff. The patients received CVVHDF for periods of between 10 -24 hours with no associated fistula complications. Follow-up access surveillance showed no decrease in flows or recirculation. The patients did not require the insertion of a CVAD reducing the risk of associated complications of CVAD’s including infection, pneumothorax and central vein stenosis. The patients did not require to be moved to be near the water outlets and apart from the dialysis staff being required to cannulate and decannulate the fistula there was minimal impact upon the workforce in the haemodialysis unit.

Conclusion: For haemodialysis dependent patients with an established AV access, plastic dialysis cannulas provide a less invasive alternative access point for patients requiring CVVHDF in the intensive care setting.
77. Tandem procedure: a single acute in-centre experience

Denise Fraginal, Jerrin John
Monash Health, Victoria

**Context:** Patients may present with immune-mediated diseases and end stage kidney disease, requiring both therapeutic plasma exchange (TPE) and haemodialysis (HD). The most common diagnosis which may warrant the simultaneous provision of TPE and HD (tandem procedure) are delayed function of transplanted kidney, Good pastur’s/ Anti-glomerular basement membrane (Anti-GBM) disease, vasculitis, multiple myeloma, thrombotic thrombocytopenic purpura (TTP) and haemolytic uraemic syndrome (HUS). When the TPE and HD are done separately, total treatment time is at least 8 hours, patients are exposed to an extracorporeal circuit and anticoagulated for longer periods, and more resources are required. In order to lessen the burden caused by these treatments, the tandem procedure is being utilised in our unit.

**Objectives:** To describe how the tandem procedure is performed at a busy in-centre haemodialysis unit, its advantages and disadvantages.

**Key Messages:** The process and efficiency of both procedures are not altered in tandem. Patients who already have multiple medical appointments spend less time on treatment using tandem procedure. In a busy unit with limited chairs, it is very practical to use tandem when indicated.

**Conclusion:** Tandem is a safe and effective procedure. It is practical and cost effective. With tandem, patients get more of their time back, thus more of their lives back.
100. When culture comes to town - a learning journey of aboriginal culture and the dialysis unit

Kylie Herman¹
Port Augusta Hospital, South Australia¹

Context: Many Aboriginal people relocate from remote communities for dialysis, often moving to a larger city or regional town. Involvement in the Managing Two Worlds Together Project looked at difficulties specific to the Renal Aboriginal Patient Journey. This process also identified to me the vast differences in the way Culture is understood by colleagues both locally and in metropolitan areas.

Objectives: The objective of this presentation is to share my experiences of the Cultural diversities of Aboriginal Culture and the challenges of trying to incorporate this into a rigid dialysis unit structure.

Key Messages: Awareness of cultural issues is the beginning to providing a more holistic approach to care. Attempting to improve engagement of the patient and family with their care, and to empower the patient in an environment and routine that is very different to what they have previously known.

Conclusion: As a senior nurse in a regional dialysis unit with a high population of Aboriginal patients, I am continually learning from my experiences and the patients about the Culture and significance of the family structure, connection to country, the cultural obligation to both and how living many hundreds of kilometres away to receive dialysis impacts on this significant part of their life. To have these issues acknowledged and understood when delivering care is one step closer to closing the divide.
123. Understanding the bioecological determinants of vascular access for haemodialysis therapy. A case study in one satellite haemodialysis community

Debi Cowan¹
Central Coast Local Health District, New South Wales¹

Background: With a global population of over 7 billion, there are almost 3 million people living with end stage kidney disease (ESKD) undertaking renal replacement therapies including haemodialysis which require an effective vascular access. In Australia, the majority of patients living with ESKD receive their haemodialysis care within satellite haemodialysis unit communities.

Aim: To understand (through research results of a case study) the role and influences of nursing care that supports patients and family/carers to maintain the viability of the patient’s vascular access in a satellite haemodialysis community.

Method: This research project utilised a case study method to explore the bioecology of a single centre satellite haemodialysis unit (SHDU) community. This research project of the SHDU community included patients, their family/carers and the health care professional staff. The descriptive theory utilised an emic perspective to explore the phenomena of interest being the patient’s vascular access care.

Results: This case’s study findings demonstrates that the patient’s experience and outcomes of managing a patient’s vascular access, is influenced by everyone in the ecology of their care being patients, their family and or friends as carers and healthcare professionals.

Conclusion: This presentation outlines these significant and previously unexplored relationships. Across all three participating groups, the patients, family/carers and staff members within this satellite haemodialysis community, significant and previously unexplored relationships had emerged.
128. The use of denosumab in patients with chronic kidney disease on haemodialysis

Veronica Oliver¹
Queensland Health, Queensland¹

Context: Denosumab is a human monoclonal antibody, given six monthly as an intramuscular injection, used to treat osteoporosis, increase bone mass and to prevent skeletal related events due to bones metastases. This drug is considered safe in the general population; however severe hypocalcaemia has been reported in people with chronic kidney disease requiring dialysis.

Objectives: To report on two haemodialysis patients who received Denosumab for different clinical indications (pre-menopausal osteoporosis and metastatic bone cancer), and their post administration monitoring and care. It is important for renal nurses to be aware of the potential for increased risk of adverse events in the haemodialysis population when using this drug.

Key messages: Denosumab could cause fatal hypocalcaemia in haemodialysis patients and care should be taken with administration, follow up and clinical management in order to prevent potentially life threatening complications.

Conclusion: While the use of Denosumab may be clinically indicated in haemodialysis patients, it is imperative to raise awareness amongst health professionals of the risk of potentially severe hypocalcaemia in this population, so that steps can be taken to maintain serum calcium at a safe level.
83. Initiation of a convenient annual influenza vaccination program for the haemodialysis patient

Jacqui Moustakas¹, Dr Brendan Smyth²
Royal Prince Alfred Hospital, New South Wales¹, The George Institute for Global Health, New South Wales²

Context: Influenza is a highly contagious acute viral disease. To minimise the risk of infection and complications, care of patients with increased risk, which includes chronic kidney patients, should include prophylactic measurements such as the administration of a seasonal influenza vaccine. As haemodialysis (HD) patients attend dialysis three times per week and do not willingly go to their GP for extra appointments, their influenza vaccination coverage may be poor.

Objectives: We aimed to offer the flu vaccination to all the satellite patients in our unit.

Key messages:
2014 - 50% vaccinated (vaccine not formally offered)
2015 - 93% vaccinated
2016 - 93% vaccinated

All vaccinations were recorded on the EMR and a letter was sent to the patients GP. In 2016 we had an influenza outbreak in the unit. We were able to liaise with the infectious disease unit immediately and discuss who had been vaccinated and discuss the strain with the medical teams.

Conclusion: This program dramatically increases influenza vaccination coverage in our unit. It is now a formalised practice in our unit. This year we are intending to look further afield and offer vaccination to all incentre dialysis patients, our sister satellite dialysis unit patients, CKD and transplant patients.
Session 10C: Clinical Opportunities

64. Transport: thinking collaboratively outside the box

Barbara Harvie¹
RSA, ACNP, ADEA, ANZSN, New South Wales¹

Context: In many haemodialysis (HD) units, the term ‘patient transport’ is like waving a red rag to a bull! Community drivers, patient transport vehicles, non-government organisations (NGO), families, volunteers, buses, neighbours and friends are all involved in coordinating or providing trips to and from HD. Effective communication is the key. This case study describes the trials and tribulations for one man and the collaborative participation of multiple providers to optimise his transport for haemodialysis. The journey begins!

Objectives:
- Outline the capacity of available transport services
- Clarify availability of family members
- Identify relevant stakeholders and ‘routine’ transport options
- Develop proactive strategies (for next time)
- When transport options become tenuous, ask for help
- Be an advocate
- Think outside the box!

Key Messages: Communication and collaboration is essential to engage all stakeholders while ensuring the patient and family are at the centre of all discussions. Ask family members for suggestions. Developing a sustainable strategy is not always possible or practical. Keep an open mind and explore all opportunities.

Conclusion: Stakeholders all have vested interests, from personal (patient and family), NGO (resources and funding), nephrology (continuing HD), health service (resources and funding). All of us want the best outcomes for both the patient and our services. The journey continues!
88. Protection of the peritoneal dialysis catheter for people who swim: current practices

Anna Lee
Illawarra Shoalhaven Local Health District, New South Wales

**Background:** There is little evidence to support current recommendations made to people on peritoneal dialysis (PD) in regards to swimming and the type of protection or covering for the PD catheter. Recommending no swimming is due to the potential risk of infection of the exit site (ESI) or peritonitis.

**Aim:** To describe:
- The proportion of Australian PD units recommending swimming for people on PD and clinical practices and recommendations provided.
- The types of protection recommended for the PD catheter or exit site during swimming
- Estimate the proportion of people on PD who swim and developed an exit site infection or peritonitis due to swimming.
- Construct recommendations for people on PD for the care of the PD exit site pre and post swimming

**Method:** PD nurses were surveyed from a cross section of Australian PD units on recommendations and practices of people on PD in regards to swimming.

**Results:** Twenty five major PD units in Australia are currently represented. The majority of units (82%) while recommending swimming for people on PD, have no written policy or guideline. Covering the exit site and catheter with a waterproof type dressing or device and performing routine exit site care after swimming is recommended. Two patients developed an ESI and 1 patient developed peritonitis due to swimming.

**Conclusion:** Types of dressings or coverings vary and are recommended based on clinician preference. This research will serve to highlight the variability and recommendations within peritoneal dialysis units and provide a starting point for further research.
82. Advancing renal foot care: nursing staff and podiatry student partnerships

Kate Jakeman¹, Sarah Jensen², Karen Stewart¹
Royal Brisbane and Women’s Hospital, Queensland¹, Metro North Hospital and Health Service, Queensland²

Context: End stage renal disease (ESRD) is increasingly identified as an independent risk factor for foot ulceration and lower extremity amputation. In response, a satellite dialysis unit within metropolitan Queensland collaborated with community podiatry, to develop a non-discipline specific renal foot screening tool and user guide. This screening tool has been implemented through partnership with dialysis nurses and final year podiatry students.

Objectives:
- Provide a standardised evidence-based screening assessment and management pathway for the early identification of foot complications in dialysis patients.
- Facilitate the capture of core clinical indicators to minimise foot ulceration, amputation and hospitalisation.
- Encourage and prompt effective referral pathways for identified complications.
- Promote patient engagement and interdisciplinary collaboration regarding foot health education.

Key Messages:
- A total of 229 foot screens were completed across 56 patients in the 6 months from July 2016.
- Foot screens identified 59% high risk, 13% at risk, 28% low risk patients.
- Early identification of foot complications prompted patients to access local services; with 18% of patients referred to a high risk podiatry service.
- Patients and families encouraged to implement and maintain self-management foot health practices.
- Eight podiatry students participated in screening; increasing students’ confidence in completing foot assessments and assigning risk status to complex haemodialysis patients.
- Utilising podiatry students reduced workforce demand on dialysis nursing staff.

Conclusion: The renal foot screen program and inter-discipline partnership are embedded into routine care. The process is highly valued by patients, nursing staff, podiatry students and local podiatrists.
Teaching peritoneal dialysis in Australia: an opportunity for improvement

Prof. Josephine Chow, Dr Yeoungjee Cho, Keri-lu Equinox, Prof. Ana Figueiredo, Assoc. Prof. Carmel Hawley, Prof. David Johnson, Assoc. Prof Matthew Jose, Anna Lee, Jo-Anne Moodie, Elaine Pascoe, Donna Reidlinger, Dr Genevieve Steiner, Melinda Tomlins, Dr David Voss, Prof Neil Boudville
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Background: Up to a 10-fold difference in clinical outcomes between Australian peritoneal dialysis (PD) units exists. There is an international focus on the harmonization of educational practices in PD to determine whether this may lead to improved patient outcomes.

Aim: The aim of this paper is to evaluate the current teaching practices of nurses and patients in Australian PD units.

Method: An online survey with questions on nurse and patient training was made available to PD units in Australia.

Results: Thirty-eight (70%) of 54 PD units in Australia completed the survey. A written standardized curricula was utilized in 21 units (55%) for nursing staff and 30 units (86%) for patients, with 22% and 12% including an electronic delivery component for each group, respectively. Universal teaching of adult learning principles was not demonstrated. The hours spent on teaching nursing staff ranged from <15 hours in 24% to >100 hours in 21% of units. The average number of hours spent by nurses each day to train patients ranged from <2 hours in 14% to >6 hours in 11% of units, with the average total training days ranging from 2 to 3 days in 14% to over 7 days in 14% of units. Staff and patient competency assessments were performed routinely in 37% and 74% of units, respectively.

Conclusion: Considerable differences exist amongst Australian PD units in the education of staff and patients. There is a general lack of delivery and competency assessment to meet educational standards.
103. Investigate the quality and characteristics of referrals from general practitioners to the local health districts renal service and the impact of renal HealthPathways on referral patterns

Mikki Smyth¹
Renal Service Illawarra Shoalhaven Local Health District, New South Wales¹

**Background:** The renal service collected data on new referrals from General Practitioners (GP’s) in 2012. Data was gathered to inform the service of referral patterns, characteristics and to aid GP education strategies. In 2015 the Local Health District (LHD) and Primary Health Network rolled out HealthPathways. HealthPathways is an online information portal that publishes localised guidelines to general practice. A survey conducted in Canterbury New Zealand found that 60% of hospital clinicians reported improvements in referral quality, triage and working relationships with general practice. A renal referral pathway, based on the Guidelines for Chronic Kidney Disease (CKD) Management in General Practise was included in the initial roll out to this LHD.

**Aim:** Describe the patterns and quality of new referrals. Describe the number and characteristics of people referred. Describe the service provision upon receipt of new referrals.

**Method:** The investigator accessed new referrals, de-identified data and entered for appropriate statistical analysis. Data included demographics, GP, Nephrologist, reason for referral, pathology, comorbidities, medications, and days to first appointment. A new data collection set commenced in late 2016.

**Results:** Demographics included 50 new referrals per month, median age 70 and median eGFR 44mL/min/1.73m2. 32.4% of referrals had adequate information to triage urgency. 12.3% had no referral information. Median time to first appointment was 67days.

**Conclusion:** This presentation will report on data findings and compare to current data collected post HealthPathways. The services experience in engaging with primary care providers will be discussed including benefits and limitations.
14. Microwave heating of peritoneal dialysis fluid - literature review

Ignatius Abraham¹
Victoria Renal Health Network, Victoria¹

**Background:** Generally, for patient comfort Peritoneal Dialysis (PD) fluid is warmed before use. This can be done through warming cabinet, heater platform or microwave. These practices vary to according to facilities available within units. Microwave heating is the fastest and convenient way to heat the PD fluid and used around the world. There are some misconception about heating PD bags in microwave amongst Renal Practitioners and manufactures. There are limited evidence based studies to support the microwave heating.

**Aim:** A literature search was carried out to answer the question: Is microwave heating of peritoneal dialysis fluid safe?

**Methods:** A literature search was carried out in Medline, Pub Med, Google Scholar, and Ovid Nursing full text and Clinical Key for Nursing; using text words for peritoneal dialysis (PD) fluid, microwave heating/warming.

**Results:** Studies have shown that in microwave heating; there is no evidence of alteration in pH or biochemistry of the PD fluid. There were presence of hot spots in bag infusion ports but no ‘explosion’ and 37oC is achievable with no glucose degradation.

**Conclusion:** All the evidence based data shows that microwave heating is entirely safe. In a busy PD training unit to have the warmed PD bag with correct strength at any one time is not practical. Therefore microwave heating has proven to be convenient for busy facilities and at patient’s home.
17. Prep study – patient reflection on education and preparation

Jenny Best1
Princess Alexandra Hospital, Queensland1

**Background:** Predialysis education programs are endorsed best practice to support patients in choosing a kidney replacement therapy that best suits their needs and offers optimal quality of life. Predialysis preparation has proven effective in enhancing the wellness of patients with kidney disease, slowing disease progression and increasing the uptake of home dialysis. However how do we know we are meeting patients’ needs and requirements in this preparation phase? This quality assurance activity will ensure that the current model of care is delivering a desirable service.

**Aim:** This study will assess if patients commencing kidney replacement therapy believed they were adequately educated and prepared for treatment. The study will also highlight if there is any other information they would have liked provided or other aspects that may have assisted them.

**Method:** All patients who received predialysis education will be approached approximately 8 weeks after commencing dialysis and invited to complete a survey to assess their satisfaction with the preparation and education they received in the predialysis phase. The questionnaire comprises of 22 questions with the opportunity to provide free text to many questions. Participation will imply consent.

**Results:** It is envisaged approximately 55 patients will be surveyed, that is, all patients who received predialysis education and commenced dialysis in 2017. The questionnaire data will be collated to ascertain if any improvements can be made to improve the current process.

**Conclusion:** It is envisaged this study will provide feedback from patients to highlight if/where changes are warranted to improve the current service.
35. Kidney Transplant Success: A Nurse Lead Approach

Sarah Weston¹
Logan Hospital, Queensland¹

Transplantation endeavours to improve physical and emotional health for the recipient, and has been shown to significantly improve quality of life. The unit’s transplant portfolio was reviewed to consider alternative approaches. We identified a group of patients that had multiple barriers preventing them from being considered for the transplant list. To improve outcomes we identified a need for a more structured; multidisciplinary and nurse-lead approach to the transplant portfolio. The objective of this quality initiative was to see if a nurse led model of identifying and supporting possible transplant recipients would improve the numbers of patients “active” on the transplant list. The initiatives implemented to support our objective included:

- Monthly multidisciplinary meetings including dietician, psychologist, social work, clinical nurse consultant (CNC) and transplant portfolio CN.
- Monthly in-service with staff to discuss barriers and solutions for patients who could be worked up to be eligible for a transplant and the ongoing support and education needed for patients on the interim and active transplant list.
- Our unit uses a ‘primary nurse’ model of care; this initiative has increased the primary nurses’ awareness of support requirements for the possible transplant patient group.

Over the 10 month period since the practice change - monthly meetings, offline days dedicated to follow up, active participation of primary nurses and transplant information awareness, we have successfully worked up and made active 7 patients, 4 of which have been transplanted. We have flagged an additional 10 patients to work with closely using the same strategies.
36. Evacuate!

Alexia Mohr
Diaverum, Queensland

**Background:** A small private outpatient renal dialysis unit with 32 patients plus carers, and 18 staff. We provide code orange evacuation training twice yearly for patients and carers with median age of 60.5 years.

**Aim:** To empower patients, carers and staff to have confidence in their ability to handle an evacuation of the unit.

**Method:** Using pre and post questionnaires this evaluation has been able to identify core aspects of change for evacuation training within an outpatient dialysis setting. Patients and carers were excited about doing something new and being involved in aspects of their care, and responded positively to implementation of evacuation training. Patients and carers provided feedback to guide the improvement in application of training in future.

**Conclusion:** By partnering with consumers we have the ability to identify and implement positive patient and carer suggested changes within our unit. With feedback we have increased training sessions to twice yearly due to the identified demographic of elderly patients and carers, and updating of evacuation posters in line with current policy and procedures, including colouring them orange to indicate they demonstrate evacuation. Also, the printing of signs for our evacuation back packs so staff, patients and carers can clearly identify them, and a hat and vest to clearly identify our ‘in charge’ person for evacuation. Patients, carers and staff have reported increased confidence and involvement in what to do in the event of an evacuation.
37. A simple innovative strategy to deliver education to nephrology nurses across multi-site dialysis units

Nicola Parker¹, Laura O’Connor¹
Queensland Health, Queensland¹

**Context:** Within a multi-site kidney health service, consisting of 5 dialysis / renal clinics, nursing staff reported feeling isolated and missing out on education. The Education team experienced difficulties reaching all units due to part time status of employment. The Renal Education team noted that education was inconsistent across sites with delays in reaching all staff, resulting in discrepancies in standards of patient care.

**Objectives:** To design and implement a strategy which: enabled delivery of education consistently in real time to all staff within all units, reduced feelings of isolation, standardised the quality of education, minimised discrepancies in care, and enabled the renal education team to become more visible without needing to increase working hours.

**Key messages:** The renal education team developed and successfully implemented a “renal education schedule” which delivered nephrology nursing education sessions to all 5 sites at the same time each week using video conferencing equipment.

**Conclusion:** After 12 months, more staff are receiving contextual education with offsite campuses now able to access education which was previously inaccessible, as speakers or attendees were unable to travel between sites. Staff report feeling less isolated as able to see other staff on video link and communication between units has improved. The education team are more visible to staff. Education delivered reaches all units in real time with uniform messages, resulting in consistent standards of patient care between units.
41. Hepatitis B Virus Sero-conversion: our CKD unit’s journey

Brioney Weaver¹
Logan Hospital, Queensland¹

Hepatitis B Virus (HBV) infection remains a significant risk to patients on all renal replacement therapies globally, despite the availability of vaccines and antiviral therapies. With our expanding Chronic Kidney Disease (CKD) division and the introduction of a number of alterations to the Hep B vaccination procedure, our unit decided to review the potential benefits to the sero-conversion rates of our CKD patients commencing dialysis.

The main objective of this quality initiative was to see if there was an improvement in the proportion of CKD patients achieving HBV surface antibody (anti-HBs) titre of 10 IU/L or greater within commencement of renal replacement therapy.

Secondary outcomes reviewed were the length of time to seroconvert; the peak antibody titre levels and the safety and tolerability of vaccine.

This quality initiative retrospectively reviewed data, analysing the CKD unit’s statistics comparing the data prior to the modifications to the CKD HBV procedure to the data following the implementation of the procedure modifications.

This project is anticipated to demonstrate the value of the new HBV evidenced based procedure implemented in our unit. Allowing a more consistent and streamlined procedure for every patient who embarks on the HBV vaccination program.

It is essential that as nurses, we continually review our current practices taking into account new emerging evidence based research to maintain best patient outcomes and efficient use of resources, this project has achieved these objectives.
42. Laughter therapy / yoga in a haemodialysis setting: one unit’s experience

Dawn Moyle¹, Allison Brown¹
Logan Hospital, Queensland¹

Laughter yoga is a patient engagement strategy that promotes health and wellbeing through a structured group laughter therapy program or session. It is a cost effective, accessible, low intensity exercise that has been shown to help improve mood, reduce stress and anxiety and improve health outcomes. This complimentary therapy has been successfully trialled in several haemodialysis settings in both Australia and worldwide.

The aim was to evaluate the effectiveness of a patient engagement strategy - laughter therapy/yoga to a cohort of people during haemodialysis.

The study aimed to see an improvement in:

- Mood
- Levels of optimism
- Pain levels
- Energy levels
- Satisfaction with life in general

This research was a pre and post intervention design. The data collection tool remained constant for the pre and post survey to enable evaluation of improvement in patients’ feelings of wellbeing. Data was collected upon commencement of the patient engagement strategy and at four weeks from the initial implementation.

Of eligible patients in our unit, 50% chose to participate in the laughter therapy/yoga study. The overall average for the positive indicators for wellbeing improved and the adverse indicators for wellbeing reduced as a result of participating in the patient engagement strategy.

The implementation and maintenance of the patient engagement strategy was challenging, with moderate engagement from both patients and staff. Despite this, the patients that did engage with the activity found it value adding and an effective diversional therapy that supported their wellbeing while attending haemodialysis sessions.
46. A biggest loser challenge: a new dialysis centre team building and health promotion initiative

Julie Eastell¹, Richelle Ma Meregildo¹
Diaverum, New Zealand¹

Background: Our new dialysis centre opened in early 2016 bringing together a brand new team of thirty employees providing haemodialysis treatment for a cohort of ninety six patients. Over 80% of these patients have obesity-related Type Two Diabetes with associated multiple comorbidities.

Aims: Our aims for this challenge were twofold: to strengthen bonds between new colleagues and to promote and facilitate role-modelling in our new team for healthy weight loss through diet and exercise.

Method: The eight week challenge ran from July to September 2016. In total fifteen participants took part, including staff from two other peer dialysis centres and our Head Office, each of whom had responded to our invitation to join in the challenge. Participants were split into teams and each participant was buddied with a ‘motivator’. It was the motivator’s job to encourage, support and motivate their participant. Patients were encouraged to become involved by viewing the overall weekly percentage weight loss results for the teams displayed in the waiting area and offer their support.

Results: A combined total of 37.2kg was lost by the participants and the largest individual weight loss was 6.9kg. Prizes were awarded for winners which added an extra incentive for participants. Some staff have continued the initiative and are still losing weight.

Conclusion: This challenge demonstrated how cohesive teamwork with a clear message to improve and promote healthy lifestyles for both patients and staff can bring positive change. This also neatly fits with our organisation’s mission to revitalise and empower our patients.
47. Supportive care when you don’t have access to a supportive clinic

Deslie Henley1
Metro South, Queensland1

Context: Haemodialysis is a life-extending treatment for patients with kidney disease, for many patients being dialysis can be very challenging. At our hospital the haemodialysis patients do not have access to a formal supportive care clinic. We wanted to provide support and education to those patients who were finding haemodialysis partially demanding or nearing end of life.

Objectives: The aim of this initiative is to provide comprehensive management and support for patients on haemodialysis who:

- Who experience multiple symptom burden
- Have another terminal disease
- Are considering withdrawing from dialysis

This enables informed choices; optimising their quality of life.

Key Messages: Several strategies have been implemented to improve patient centred care is this cohort of haemodialysis patients including:

- Monthly meetings with direct care nurses/allied health to help identify patients requiring supportive intervention
- Identifying the symptom burden and initiating approaches to help manage this
- Improved communication collaboration with the multi-disciplinary team
- End of life planning
- Family meetings
- Identification of appropriate community support and resources
- Supportive care inpatient visits by haemodialysis CNC/RN

Conclusion: This model of care has ensured our patients and their loved ones are informed about choices and available services, improving the patient centred approach to the challenges faced while on Haemodialysis. This initiative has improved the knowledge of the nursing staff ensuring early referrals, close monitoring and follow up of vulnerable patients.
52. Individualising a training program in peritoneal dialysis

Tracey Clark¹
Latrobe Regional Hospital, Victoria¹

**Background:** A 48 year old male was admitted to hospital with Acute on Chronic End Stage Renal Disease, he would need to commence dialysis within weeks. He does not fit the usual accepted criteria of those suitable to perform a home therapy; due to his very limited literacy, dyslexia and significant learning disabilities.

**Aim:** To honour his choice for a home therapy, ensure his competence and maintain his safety. To develop an appropriate teaching aid and decrease the potential for exposure to risks of infection.

**Method:** Over two weeks at each haemodialysis session he collaborated on a pictorial PD guide. This was used at home during his PD training. The PD technique was taught silently and repeatedly until mastered by the patient. The “TeachBack”(2) method was then used to assess his understanding of PD concepts and troubleshooting.

**Results:** He grasped the technique quickly, used his ‘PD Guide’ for each exchange and was supported by his sister who liaised closely with the PD staff.

**Conclusion:** Despite questionable suitability to manage a home therapy this patient demonstrated that informed choice and motivation were key factors in success for home therapies. Using the patient’s strengths to develop a suitable teaching aid and involving him in the process was pivotal in his success. Defined supporter roles assisted in maintaining his independence, confidence and safety.
65. Utilising transonic technology in dialysis vascular access surveillance: a longitudinal observational study

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Bendigo Health, Victoria¹, Castlemaine Health, Victoria²

Background: Historically, there was no standardised dialysis vascular access surveillance program at our regional hospital. The hospital’s vascular access management is limited to a weekly visiting interventional radiologist. On other days, patients with thrombosed fistulae are urgently transferred to metropolitan centres for rescue interventions, which generate healthcare costs and patient inconvenience.

Aim: To examine the effect of implementing a novel vascular access surveillance program at a regional hospital using Transonic technology for one prospective year.

Method: Transonic measurements were performed three monthly for all our haemodialysis patients between July 2015 to June 2016. Measurements were increased to monthly in patients at higher risk of vascular access complications. Study end-points were: i) number of problematic fistulae identified by Transonic prior to the onset of abnormal clinical parameters; ii) fistula thrombosis rates and emergency trips to metropolitan hospitals for interventions, compared to retrospective data from the three previous years. A cost benefit analysis was also performed.

Results: Two episodes of thrombosed fistulae required patient transfer to a metropolitan hospital for interventions. Thirteen fistulae were identified by Transonic as problematic in the absence of clinical issues and were managed within our centre. This represents an estimated healthcare cost saving of up to $51,012 in transfer and hospitalisation fees, which offsets the $38,000 cost of the Transonic.

Conclusion: Implementation of a vascular access surveillance program at our regional hospital was a relatively simple intervention which helped identify problematic fistulae before the onset of clinical abnormalities. This translated to a reduction in thrombosis rates and costly transfers to metropolitan hospitals.
76. Evidence-based practice in intradialytic hypotension prevention

Jianhong Huang¹
Monash Health, Victoria¹

**Background:** Intradialytic Hypotension (IDH) is the most frequent and serious complication of haemodialysis treatments. As the front-line carers who control the majority of the dialysis procedure, haemodialysis nurses play a vital role in the prevention of IDH using the best evidence based practice (EBP).

**Aim:** The aim of this paper is to present literature research results of EBP in IDH prevention.

**Method:** Literature research was conducted using databases relevant to nursing, medicine, health, science and research. Research topics include the implementation of EBP including clinical guidelines and pathways, as well as the definition, pathophysiology and best-evidence based prevention strategies of IDH.

**Results:** There are a variety of IDH definitions in the literature and the latest international industrial guideline covering IDH prevention was published in 2007. There are a few organisations using their own clinical pathways to prevent IDH. Although the causing factors of IDH can be divided into two categories of those reducing cardiac output and those reducing peripheral resistance, nearly all the literature acknowledges that the processes contributing to IDH are multifactorial and patient dependent. There are a lot of evidence-based strategies to prevent IDH but there are no single best solution.

**Conclusion:** Further studies are required to clarify the definition of IDH and national/international IDH prevention clinical guidelines are needed. Haemodialysis nurses need use our critical judgement skills to choose the most appropriate EBP strategies to prevent IDH based on the individual patient’s circumstance.
94. Adapted automated peritoneal dialysis: one units experience

Lesley Williams¹
Royal Brisbane and Women’s Hospital, Queensland¹

**Background:** Four patients on automated peritoneal dialysis (APD) were identified as being under dialysed due to their inability to tolerate adequate PD fill volume through the day. This made clearance of solutes and fluid difficult to achieve on conventional APD, and haemodialysis was becoming an imminent option. Adapted APD offers a potential solution using a variation in volume and dwell times to optimise fluid and solute removal within the overnight therapy time, whilst maintaining a dry day.

**Aims:** To assess the effects of adapted APD on adequacy of dialysis, fluid removal and patient satisfaction, when conventional APD was no longer adequate.

**Method:** The four patients were assessed for their suitability for aAPD by measuring intraperitoneal pressure. Routine biochemistry, nutritional markers, blood pressure and patient satisfaction were measured and compared pre and post commencing therapy.

**Results:** Of the four patients who commenced aAPD, three were able to achieve improved blood levels of all parameters. One was recommenced on a small day fill. All patients reported improved activity and appetite whilst on adapted APD, and all felt very positive about treatment.

**Conclusion:** Overall it appears that there were not significant improvement in solute clearances, however physical activity, oral intake and fluid management have improved. This then has translated to greatly improved patient satisfaction, and deferring transfer to haemodialysis.
101. Introducing a set of semiquantitative circuit clotting scales

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Context: Anticoagulation is a pre-requisite in haemodialysis (HD) treatments due to factors like blood contacting air and artificial surface, turbulent flow, shear stress and blood pooling in the extracorporeal circuit (ECC). Currently heparin is the mainstream anticoagulant which has a systemic anticoagulation effect. Sometimes heparin free HD is required due to patients' bleeding risk or allergy to heparin. In both situations, properly assessing the ECC clotting is important.

Objectives: To introduce a set of semi-quantitative ECC clotting scales to facilitate better HD anticoagulant and/or the ECC clotting management.

Key messages:
1. Dialyzer clotting scales
   Grade 0: No or very little residual blood in the fibres; Grade 1: residual blood in <10% of the fibres; Grade 2: residual blood in 10 - 25% of the fibres; Grade 3: residual blood in 25 - 50% of the fibres; Grade 4: residual blood in >50% of the fibers.

2. Venous chamber (VC) clotting scales
   Grade 0: No visible clotting; Grade 1: Minimal clot (presence of fibrinous ring); Grade 2: Small clot < 2 mls, or cover < half VC bottom; Grade 3: Clot 2-5 mls; or cover > half VC bottom or big fibrin clot; but dialysis is still possible; Grade 4: Complete occlusion; or clot < 5 cm but (almost) blocked blood flow.

Conclusion: The semiquantitative scales standardize the ECC clotting assessment and facilitate ECC clotting communication among staff. Hence the utilization promotes the concept, optimizing anticoagulation and assist in the circuit management in heparin free HD.
104. Visit to anatomy cadaver lab for post-graduate nursing education

Donna Smith¹, Dr Sherrie Wentworth¹
La Trobe University, Victoria¹

**Background:** In the patient setting of renal replacement therapies, renal nurses become familiar with the names of anatomical structures in relation to their application. Anatomical vascular structures are stated in the context of devices being inserted or created such as ‘insertion of the permcath catheter into the subclavian’ or ‘creation of arterio-venous fistula’ (AVF). With limited undergraduate anatomy content provided in most nursing courses, better understanding of the anatomical relationships of these vascular structures will inform the nurses' practice during the delivery of day-to-day patient care.

**Aim:** To report on a pilot programme of registered nurses from a renal unit who visited the La Trobe University anatomy cadaver labs for a teaching session on the location of vascular structures used in haemodialysis.

**Method:** Nurses visited the cadaver labs and underwent a two-hour teaching session, being shown superficial and deep dissections of relevant regions of the thorax, arm and thigh. Feedback from the visit was sought using a questionnaire developed via SurveyMonkey.

**Results:** Preliminary results will be included.

**Conclusion:** Nurses were able to visualize the exact location and proximity of the arteries and veins used for vascular access. This provided additional benefits to the nurses in an understanding of the dimensions of the structures that are otherwise hidden to them (ie; beneath the skin). Nurses said that they felt able to explain more clearly to their patients the processes involved with these access devices.
118. Accurate blood pressure monitoring: a review from one rural outpatient renal clinic

Robyn Facchini¹
Greater Southern Area Health Service, New South Wales¹

**Context:** Achieving adequate blood pressure (BP) control is essential for reducing patient morbidity and mortality however, inaccurate BP measurements are well documented. Blood pressure assessment is a fundamental component of patient physical assessment and is particularly relevant in the renal cohort due to the marked prevalence of hypertension and the number of clinic referrals received for uncontrolled hypertension. However, accuracy in BP measurement is what matters, as inaccurate measurements misguide clinical management, possibly with deleterious effect.

**Objective:** To review BP monitoring practice in our renal clinics and recommend appropriate changes to ensure safe patient care.

**Key Message:** A focus will highlight the importance of the BP monitoring environment, BP measurements on both arms at initial consultation and reflect on home and ambulatory BP monitoring as complementary to clinic BP measurements. Adjunctive BP monitoring is vital due to the significant incidence of white-coat and masked hypertension which confounds BP accuracy. Comprehensive BP monitoring is particularly relevant in the rural setting as specialist hypertensive services, and ambulatory monitoring are difficult to access. Blood pressure measurements taken without appropriate undisturbed rest time, may not only be inaccurate but misguide clinical management and should be viewed with caution. Significantly, current evidence supports the use and accuracy of automated BP monitoring devices for multiple measurements.

**Conclusion:** There is significant potential for BP measurement inaccuracies and minimizing this risk is paramount to safe patient-centric care. Only then can we be assured that our patients receive appropriate clinical management decisions and individualized.
124. Are there any good apps out there?

AnneMarie Desai¹, Louise Stanley¹, Hillary Siah¹, Melissa Corken¹
Eastern Health, Victoria¹

Can ESRD patients benefit from apps to assist in the management of their kidney disease?

Context: Apps are becoming increasingly common place in the management of chronic disease and show enormous promise in assisting with self-management of activity and dietary intake. We wished to investigate whether there are any apps suitable for renal patients.

Objectives: To investigate 5 renal appropriate apps and to analyse their worth for patient self-management using the Mobile Application Rating Scale (MARS) an objective and reliable tool for classifying and assessing the quality of mobile health apps.

Key messages: Self-management of kidney disease requires patients to be educated and motivated. Traditionally nutrition education is provided by dietitians in tertiary settings. The utilisation of renal apps can augment and extend nutritional therapy beyond the “one off” education and handout. We discuss the challenges and benefits of embracing this evolving technology.

Conclusion: It is still early days in the development of apps suitable for use with renal patients in Australia. We recommend that patients should be assessed for their ability to navigate technology and where appropriate education should be provided on the utilisation of renal specific apps.
127. Using mindfulness in a local health district as a tool to reduce stress

Debbie Pugh¹
Royal Prince Alfred Hospital, New South Wales¹

**Context:** Due to increasing co-morbidities, mental health issues and an aging population, caring for renal patients can be stressful. Stress has been identified as a global health issue. Mindfulness has been associated with improved health outcomes. I have been fortunate to be enrolled in a new initiative in my LHD. The LHD saw the benefit of supporting staff wellness by introducing a Sankalpa Meditation Program. This program involves learning about the theory behind mindfulness and meditation, along with the different methods of practice. I am able to attend and facilitate weekly meditation sessions with nurses from all other specialities within the hospital.

**Objective:** Mindfulness is the ability of being ‘in’ the present moment and can be used as a therapeutic technique to reduce stress. It involves paying attention to one’s thoughts and feelings with a non-judgmental acceptance. Being mindful has the ability to; help a person increase performance, be able to listen effectively as well as study and work better. Wellness has been shown to lead to staff providing increased high quality compassionate care for patients & their families.

**Key Message:** Mindfulness can be practiced regularly and whatever we practice we get better at.

**Conclusion:** Research has shown a positive link between wellness and effectiveness, and that patients who have positive care experiences, have better clinical outcomes The aim of being engaged in the program is to develop my own skills and then use these skills to facilitate the benefits of mindfulness to both staff and patients - a win-win for all concerned, the LHD, staff and patients.
133. Renal failure due to Methylmalonic Acidaemia (MMA)

Monica Edwards¹
Princess Alexandra Hospital, Queensland¹

**Context:** Methylmalonic acidaemia (MMA) is an autosomal recessive disorder, which is passed down through families in which the body cannot break down certain fats and proteins. This results in build-up of substance called methylmalonic acid in the blood. Literature states that 1 in 25,000-48,000 newborn are diagnosed with this condition. However, the actual rate may possibly be higher because a newborn may die before the condition is even diagnosed. Clinical presentation includes lethargy, recurrent vomiting, dehydration, respiratory distress and coma. Treatment and management includes; avoidance of fasting, cobalamin and carnitine supplements, low protein diet and vitamin B12 injections. In the event of metabolic crisis, intravenous fluids of glucose is essential. Commencement of Haemodialysis or Peritoneal dialysis. Lastly, Liver or Kidney transplantation (or both) have also shown to help some patients.

**Objective:** This case presentation will discuss and define MMA, the sign and symptoms of this disorder and the pertinent treatment considerations and managements of MMA will be examined. Additionally, the nursing interventions will also be outlined.

**Key messages:** Ongoing education for patients and nurses in renal wards regarding this rare disorder, these includes MMA's clinical presentations, vital treatments considerations and managements of the disorder and imperative nursing interventions.

Chronic Kidney Disease (CKD) in MMA is slowly progressive with poorly understood natural cause. Moreover, various studies seem to described newborns or children that were diagnosed of MMA with renal failure however very limited data when it comes to adults. Therefore, further research in this topic is essential.

**Conclusion:** Chronic kidney disease is a common complication of methylmalonic acidaemia (MMA). There are few literatures on the management of renal failure in adults with MMA. Therefore further research is essential to fully understand the implication of renal failure in MMA.
2. An Aboriginal community controlled renal health service providing renal healthcare in a remote environment

Jennifer Cutter¹, Felicity Stewart¹
Kimberley Aboriginal Medical Service - Kimberley Renal Services, Western Australia¹

**Background:** The only Aboriginal Community Controlled Renal Health Service within Australia provides renal services throughout a remote region of Australia an area, which covers 420,000 kilometres of the country.

The Non-Government Organisation (NGO) provides a comprehensive renal service within four state of the art renal health centres. The service also operates a Mobile Dialysis Unit (MDU) that exists to take patients home to country.

**Aim of service delivery:** The service embraces ongoing innovation and change in order to provide a high quality renal health service in the most culturally appropriate way working within a model that seeks to support indigenous patients throughout their renal healthcare journey.

The model of care is that of an Integrated Team Care approach working alongside Primary Healthcare Providers ensures that from the start of their healthcare journey patients are supported.

The service has been in operation for 30 years and employs approximately 90 staff made up of a multidisciplinary team that includes Dr’s, nurses, aboriginal health workers, aboriginal care coordinators, chronic disease educators, pre dialysis coordinators, transplant and home therapy educator and a supportive palliative care nurse.

Working in a remote environment as a NGO has many challenges to overcome when providing a service to patients living in one of the most remote areas of Australia. The service is delivered by all members of the team in a culturally appropriate way and expertly navigates all the complexity of working in such a remote environment.
3. The art of renal advocacy in the remote area

Maila Fanning¹
Kununurra Renal Health Centre, Western Australia¹

Introduction: Our team in the far north deal with a number of remote communities with patients at various stages of disease. No regular services exist for these communities. Yet they are nestled amongst scenic hills and ancient culture, their surrounds rank a top 10 destinations for tourism. Health care is a high priority. Individual health care is problematic and patient wellbeing is consistently challenging.

Methods: Health services facilitate opportunities to address challenges in coordinated effort. These include but are not limited to Pre-Dialysis and Vascular access coordination, CKD education, Renal General Practitioner’s Outreach Program, Nephrology consultation, Dietician Coordination, Aboriginal Care Coordination among others. Our objective is to develop Health care up-skilling and empowerment.

Results: Deliberating on changes to renal care has established good relations with individuals being third party participants. They assist in identifying negative traits that impede treatment. Directly, a whole of community campaign is under way to share information and provide access to care specifically to keep patients in the region. Further, understanding diverse “Cultural Practices” has allowed us to overcome real barriers and drive messages deep to overcome culture/peer pressure and improve lifestyles.

Conclusion: These communities are far flung and extremely remote. Despite this fact our organisation has a very low rate of incidence with 4% stats representing patient care (see above sample chart). This service is delivered effectively because patients are active in their health and well-being.
8. Sunsets in home haemodialysis when the choice no longer sparkles: one unit’s experience

Joanne Kok¹, Siew Eng Foo¹
Monash Health, Victoria¹

Context: Patients going on dialysis are encouraged to consider home dialysis as the first choice of treatment. However, not all patients are suitable to have haemodialysis at home. Home patients experience life changes and haemodialysis at home may not be suitable for them anymore.

Objectives: Using case studies review, the poster will highlight the reasons and interventions for patients who have either failed to complete the training program or discontinuation of the home haemodialysis. The home dialysis patients were cared by a home haemodialysis unit in south east metropolitan Melbourne.

Key messages: The case studies suggested initial pre-assessments of home patients may not always identify the barriers that may deter the patients from completing the training program. The issues may unravel later during the training period through frequent contact over time.

The patients who are dialysing at home may experience changes in life situations face challenges that may deter them from maintaining dialysis at home. These reasons may be psychosocial, medical and compliance related. Clinicians need to maintain frequent open communication and provide vigorous support in patient retention and those who transition out of the home haemodialysis program.

Conclusion: Clinicians need to maintain open communication and ongoing reviews to ensure that home patients are able to maintain safe treatments and their general health. It is also important for patients who are transitioning out of the home program to feel supported by the health care team.
11. Work force challenges

Julia McIntyre¹
Kimberley Aboriginal Medical Services Limited, Western Australia¹

Our organisation has been providing local CKD interventions and satellite dialysis for over twelve years. Far north Western Australia covers 421,000 square kilometres.

To provide services a skilled sustainable workforce is required. The capacity to attract and retain qualified renal staff to live and work in a remote environment is an ongoing challenge for us. The current workforce is 90 strong and is a multi-disciplinary team of Aboriginal Health Practitioners, Nurses, Doctors, Patient care assistants and aboriginal care coordinators.

We need to consider ways to provide a sustainable workforce for future service provision.

Australia has 305 thousand nurses registered, 106 thousand doctors and 606 Aboriginal Health Workers. The Far north of Western Australia is home to a disadvantaged population who experience greater risk, prevalence and progression of kidney disease.

Aboriginal and Torres Strait Islander people are more likely to progress to end stage kidney disease and be hospitalised or die with from kidney disease than other Australians.

The incidence of end stage kidney disease is especially high in remote and very remote areas of Australia, with rates up to 20 times those of non-Indigenous peoples.

We currently have an ongoing attrition rate in some Centres that is unacceptable and not sustainable into the future.

For patients living remotely commencement of dialysis means relocating to treatment centres hundreds of kilometres from their families, community and cultural lands.

The turnover of staff has an adverse impact on continuity of care for our patients. We recognise and understand that the need to grow our own workforce is the only way to meet the objective of a sustainable workforce.

Max Reid¹
Kidney Health New Zealand, New Zealand¹

In recent years Kidney Health New Zealand has reviewed and renewed its Strategic Direction.
This poster outlines the four Strategic Objectives the organisation has adopted:
1. To be a primary source of reliable & relevant information on the prevention and management of kidney disease
2. To be the national voice for people with kidney disease and their families
3. To be a leading advocate for world class kidney health care in New Zealand
4. To commission and undertake research that supports the organisation’s objectives
The poster will expand upon these Strategic Objectives in further detail, locating these in the broader context of Kidney Health New Zealand’s Vision, Guiding Principles and Values.
23. Impact of advanced care on the prevalence of beta-2-microglobulin amyloidosis in haemodialysis patients

Suzanne Wang¹  
Western Health, Victoria¹

**Context:** Beta-2-microglobulin (B2M) amyloidosis is a disabling condition characterized by tissue deposition of B2M amyloid fibrils. B2M amyloidosis used to be predictable in long term haemodialysis (HD) patients. A cross-sectional study involving 147 HD patients over 10 years shows that conventional HD has a much higher circulation of B2M.

**Objectives:** Risk factors of B2M amyloidosis in HD patients are evaluated in terms of prevention and future solutions.

**Key messages:** With the use of newly developed high-flux dialysers which have significant improvements in biocompatibility, this now provides patients with better clearance of B2M. Also, as endotoxin contaminated dialysate induces B2M to dissociate from cell membrane, ultrapure dialysis fluid (UPDF) has been introduced for the best standard of care. Moreover, based on the fact that prolonged uremic state is closely related to the retention of B2M, long treatment hours and more frequent HD regimens result in significantly improved removal of B2M.

**Conclusion:** Advanced care can impact on the prevalence of B2M amyloidosis in haemodialysis patients.
34. Alternative respite options for home dialysis patients

Jane Maberley¹
Central Northern Adelaide Renal Transplant Services, South Australia¹

Since June 2011 the Mobile Dialysis Bus has been doing trips to the Anangu Pitjantjatjara Yankunytjatjara Lands (AYP Lands). This service enables the Indigenous renal patients who have been relocated to main centres, the opportunity to visit their home communities and receive dialysis for a limited time. When the bus is not travelling to the APY lands, it is not in use and is based at a local satellite unit.

In early January, the Home Dialysis Team was approached by a patient who expressed their wishes to visit regional South Australia with other Home Dialysis patients. Home haemodialysis patients and their co-dialysers often find arranging holidays and respite care difficult and challenging. The question was raised - “is there any possible way we could all go on holiday and give our much loved partners a break from the dialysis”. Respite from their usual routine of spending alternate days preparing and carrying out treatments ranging from four to five hours to “recharge” their batteries is difficult. The availability of dialysis spots at the unit nearest their destination address often necessitates long journeys, taking up valuable holiday time.

As a team we approached the Director of Dialysis and Country Health to request utilising the Mobile Dialysis Bus to organise a trip for some of Home Haemodialysis patients, enabling some respite and “responsibility free” treatments in a relaxed atmosphere.

This is where our journey began.....
67. Cognitive screening in end stage renal failure: outcomes for people considering home dialysis

Nina Hodge
Wansey Home Therapies Unit, New South Wales

Context: There has been increased dialogue regarding completing cognitive screening in ESRF.

Objectives: To extend dialogue to how cognitive screening results can be utilised in ESRF. To share experience correlating cognitive screening results with outcomes supporting people to complete home dialysis.

Key messages:

- What to be aware of with cognitive screening
  - Screening v Assessment
  - Who can administer, interpret, follow up?
  - Confounding factors
  - Be aware of your assumptions
    - Poor formal cognitive screening results does not necessarily dictate poor functional performance or ability to perform home dialysis

- Benefits of screening
  - Baseline information to observe change over time
  - Observing client attempting a task they may find difficult
  - Starting conversations with clients re strategies, modalities, onward referrals
  - Facilitate provision of appropriate level of compensatory support

- Where to from here?
  - Communicate and demonstrate to client screening is not to judge or label, but to best enable self-management of complex health needs
  - Use cognitive screening results as part of a multidisciplinary wholistic approach when supporting modality choices
  - Incorporate supportive strategies into all aspects of communication
  - Share supporting strategies with other supporting teams
  - Refer on if concerns exist.
  - Be aware learning new complex information to self manage complex health care needs often asks more of people than managing daily life.

3 case studies will be presented

Conclusion: Be aware of making assumptions based on cognitive screening results to rule out a client’s ability to self-manage complex health care needs. Cognitive screening results can be used to contribute to a supportive, client centred approach in ESRF.
70. Communication and education not AV fistula guards: facilitating client confidence to complete their preferred activities

Nina Hodge1
Wansey Home Therapies Unit, New South Wales1

**Background:** In the Hunter region, AV fistula guards have been fabricated by the occupational therapist with nursing consultation for those completing activities at high risk of a hit or cut. Over time, referrals occurred for increasingly benign activities. The occupational therapist believed understanding of the potential risk of the guard to the fistula was limited, and inconsistent staff opinions and vague activity recommendations were contributing to client anxiety. Few clients returned to have guards reviewed as appropriate.

**Aims:** Create and communicate agreed, clear activity and fistula guard recommendations which meet best practise.

- Facilitate open communication between client and renal team as to client activity choice
- Facilitate appropriate timely fistula guard referral

**Methods:**
- Complete literature review of activities causing AVF injury.
- Staff liaison regarding clinical experience.
- Clinical review of guard options.
- Create and communicate clear recommendations to guide decisions and timeframes for AV fistula guard referrals, client activity choice and facilitate confidence completing clients preferred activities.

**Results:**
- Occupational Therapist created and draft recommendations. Communication, review and agreement occurred between vascular and renal teams. Implementation of draft recommendations from Oct 2014 – Feb 2016. Main change being implementation of 3 months wait following fistula creation, education around comparing risk of guard to risk of activity, communication with Nephrologist and cut resistant options. Significant decrease in fistula guard referrals occurred.

**Conclusion:**
- Clear activity recommendations were created and communicated to clients and staff. These have assisted in guiding decisions and timeframes for AV fistula guard referrals, client activity choice and facilitating client confidence completing their preferred activities.
71. The effect of health literacy on self-reported treatment adherence and quality of life in maintenance haemodialysis patients: a cross-sectional study

Kristian Indino¹
Royal Adelaide Hospital, South Australia¹

Background: Haemodialysis (HD) is a complex and demanding treatment modality for end-stage kidney disease. People on HD experience poor quality of life (QOL), and treatment non-adherence is prevalent. Health literacy (HL) plays an important role in chronic disease self-management. Limited HL is common, and it is associated with worse health outcomes. There is limited study that has used a multi-dimensional HL tool in this patient cohort, and has investigated its impact on treatment adherence and QOL.

Aim: To determine the associations between HL and treatment adherence and QOL in maintenance HD patients using the Functional Communicative Critical Health Literacy (FCCHL) tool.

Method: Using a cross-sectional design, participants across two metropolitan Adelaide HD units were invited. Participants were adults (>18 years of age) receiving outpatient maintenance HD for at least three months. Patients with cognitive, visual or hearing impairments, and those unable to understand written or spoken English were excluded from the study. Forty two patients completed the FCCHL, the HD adherence questionnaire, and the World Health Organization Quality of Life-BREF (WHOQOL-BREF) tool.

Results: Participants rated their Functional HL lower than their Communicative and Critical HL. Functional HL was associated with medication adherence, while Communicative HL was a predictor of fluid and dietary adherence. Further, Communicative HL was associated with the psychological and environment domains of QOL. However, no HL domain was associated with the physical and social aspects of QOL.

Conclusion: Gaining a better understanding of the specific HL needs of HD patients may assist in tailoring the content, context and timing of education sessions for individual patients.
Dry day start up regime for peritoneal dialysis

Nikki Williams¹, Deborah Smith¹
Royal Brisbane and Women’s Hospital, Queensland¹

**Background:** Historically at RBWH patients commencing peritoneal dialysis (PD) start up with continuous 4 exchanges daily with no dry time irrespective of residual renal function (RRF), uremic symptoms and biochemistry. Patients have reported extreme abdominal discomfort, reduced activity levels and quality of life at start up. Patients reported bloated feeling, lethargy and general discomfort.

**Aims:** To determine if dry day intermittent peritoneal dialysis is an adequate start up therapy to commencing peritoneal dialysis.

**Methods:** Patients were assessed for RRF, biochemistry, uremic symptoms and cause of renal disease. Patients' prescription was individualised using the above factors and included a dry time. Bloods were closely monitored and script altered as needed.

**Results:** Patients reported improved activity, exercise tolerance, and oral intake. This resulted in high patient compliance and acceptance of peritoneal dialysis therapy.

**Conclusion:** Dry day start up therapy is beneficial to patient satisfaction. Benefits include maintaining appetite and nutritional intake. Improvement in biochemistry was noted. Also possibility in preserving residual renal function, however further studies in this area would need to be explored to validate these claims.

Dry day scripting at start up for new PD patients should be considered.
98. Trial of low volume APD at home post abdominal hernia repair: one centres’ experience

Deborah Smith¹
Royal Brisbane and Women’s Hospital, Queensland¹

Background: Historically, PD patients at our facility requiring abdominal hernia repairs were managed with temporary HD. To address the cost, risk, inconvenience and availability issues of temporary HD, we initiated low volume APD at home post surgery.

Aim: To determine if low volume APD at home post hernia repair was effective.

Method: After consultation with our Nephrologists and surgeons in 2015, we adopted a low volume APD protocol from a paper published by H.Shah et al in 1996. 6 patients on APD had hernia repairs and were trialled on low volume APD at home. Consent was gained after discussion of the pros and cons. Biochemistry was compared pre repair on usual therapy, weekly during reduced volume therapy, and post therapy, and showed no significant changes. Patients were monitored for pain, uremic symptoms, complications and recurrence.

Results: Retrospective analysis showed 5 out of 6 patients were managed successfully post repair (83%). Potential cost savings to the organisation were estimated at $9342-$12456 for avoidance of routine, uncomplicated HD.

Conclusion: Our continuous quality improvement initiative demonstrated that the small number of patients trialled on APD post hernia repair were managed successfully. Patients anecdotally reported a high degree of satisfaction with the therapy.
110. Dialyser reactions-complication during haemodialysis: one centre experience

Khin Myint
Westmead Hospital, New South Wales

Context: Haemodialysis is one of the options for renal replacement therapy and there are associated risks and complications during and after haemodialysis. Complications such as intradialytic hypotension, cramps, nausea and vomiting, headache, cardiovascular events, disequilibrium syndrome are common whilst haemodialysis dialyzer-associated hypersensitivity reactions are also one of the complications may occur on first dialysis or after a few sessions of dialysis. Dialyzer related reactions are divided into two types, anaphylactic type (type A) and non-specific type (type B) and can be life threatening if not provided with timely clinical management. Clinical symptoms include but not limited to symptoms of anaphylaxis, dyspnoea, shortness of breath, desaturation, itching, coughing, sneezing, watery eyes, abdominal cramping, hypotension, hypertension, fever, cardiac arrest and death.

Objectives: To report on clinical management of dialyzer reactions and differentiate haemodialysis related complications during haemodialysis in acute haemodialysis centre

Key messages: Early detection and proper clinical management of dialyzer reactions during haemodialysis by differentiating from other complications and nursing staff education within the unit

Conclusion: In absence of evidence based best practice to clinical manage dialyzer associated hypersensitivity reactions which are rare but could be life threatening, it is important to provide staff education in awareness and management of haemodialysis complications optimizing safe and quality nursing practice within the unit.
112. Haemodialysis engagement program trial: a holistic approach to improve patient wellbeing

Linh Pham¹
Royal Brisbane and Women’s Hospital, Queensland¹

Context: In April 2016, the renal social worker and renal dietitian conducted a patient survey for patients attending in-centre Haemodialysis in a large tertiary Hospital in QLD. The survey identified patient needs and suggested improvements in areas of nutrition, physical activity and meaningful activities for patients in order to improve their experiences and well being on dialysis.

Objectives: The survey outcomes assisted in the development of a Haemodialysis Engagement Program which is planned to run as a trial from February to May 2017. The program will be facilitated by the Renal Social worker and two Social work students in collaboration with Dietitians, Physiotherapist and Psychologist. Reward money from previous Renal Society of Australasia (RSA) conference and donations were utilized to purchase exercise equipment and cognitive activities such as adult colouring, games and memory making. Outcome measures will be completed and the program will be evaluated in June 2017.

Key Message: With the implementation of the Haemodialysis Engagement Program, it is anticipated that there will be improvements in healthy eating, engagement in health care, improvements in physical activity, reduction in hospital admissions, social isolation and mental health issues.

Conclusion: Completion of the trial and outcomes will assist in further evidence for a permanently funded Haemodialysis Engagement Program with an allied health facilitator in the Haemodialysis unit and other satellite units.
119. “Renal Day Unit” - Renal Services model of care improvement - SWSLHD. An outpatient service initiative

Maria Li Donni
Liverpool Hospital, New South Wales

Background: Renal outpatients of the South-Western Sydney Local Health District SWSLHD require day only treatment or non-surgical procedures such as Renal biopsies, Iron infusions etc. Hospital ambulatory service capacity reduced due to the rapid growth of renal patient numbers and demand. This has resulted in delay of procedures, treatments and in some cases admissions were required to facilitate more urgent procedures. Access procedures such as Insertion of Tenckhoff for Peritoneal Dialysis and Tunneled vascular catheters required a location for post procedural care.

Aims:
• To alleviate congestion
• Reduce occupation of hospital beds
• Reduce inpatient days
• Reduce patient wait times

Methods: The model of care was initiated in 2015 and commenced operations at Liverpool hospital in a four bedded/chair area within the Satellite dialysis unit, operating three days a week. The existing management and administration services were utilised. Work force funding is provided through capturing of billing opportunities and generation of revenue. The service was integrated with the Renal Interventional services.

Results: Following the introduction of the service, 432 outpatient and 41 inpatient procedures and treatments were performed in the first year. The revenue generated is greater than cost of the service thus far. Revenue raised exceeded $104,000. There was a reduction in patient wait times for access intervention via surgical pathways and a reduction in admissions required for these procedures due to predictability of bed for procedure.

Conclusion: The renal day unit has been innovative in providing service delivery to renal outpatients in the SWSLHD. The self-funded initiative incorporated existing services successfully and providing prompt and efficient safe, specialized care and services and access to treatment, avoidance of unnecessary admissions and/or delayed discharges and streamlining patient journey into dialysis pathways.
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