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5. Navigating ‘The System’: Myanmar to Logan...

Stephanie Fisk
Robyn Whittaker

1 Logan Hospital, Queensland Health

The Australian “National Strategic Framework for Chronic Conditions” outlines five strategic priority areas to support and provide appropriate care to people with chronic medical conditions. These are: active engagement, continuity of care, accessible health services, information sharing and supportive systems. The Framework identifies priority groups of people vulnerable to inequitable health outcomes, one group being people from culturally and linguistically diverse backgrounds. This e-poster aims to present and discuss the case study of a 25-year-old female refugee from Myanmar who arrived in Australia in December 2017 with newly diagnosed stage five chronic kidney disease. This case study will consider her experiences of navigating through the Australian healthcare system as a non-English speaking individual, with no literacy skills in either English or Burmese, her native language. Her journey includes many years in a Thai refugee camp, arrival in Australia with direct transfer to the hospital system for haemodialysis and then successfully learning to manage her own renal replacement therapy at home (peritoneal dialysis).

Understandably, becoming competent and confident in self-management of PD brought many challenges for her and her PD team. Significant adaptation, ingenuity and innovation were required to achieve a successful outcome.

The lessons learnt from this patient’s journey have provided insight into the obstacles and challenges that many culturally and linguistically diverse patients encounter. The need to ensure that she was involved in and central to all care plans highlights the importance of the person-centred care approach.

Our patient has given her permission for her story to be presented.
6. Asking the hard questions: Are dialysis nurses ready for point-of-care ultrasound guided cannulation?

Monica Schoch¹
Judy Currey¹, Paul Bennett¹,², Liliana Orellana¹, Vicki Smith³ and Alison Hutchinson¹⁴

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Background: Miscannulations, area puncture and extravasations are common in arteriovenous fistula (AVF) cannulation and can lead to haematoma formation, access damage and aborted haemodialysis sessions. Point-of-care ultrasound (POCUS) guidance in general vascular access research studies have shown improvements in the accuracy of cannulation insertions and noted a decrease in adverse outcomes. Currently, there is a paucity of published evidence regarding the use of POCUS guidance for AVF cannulation in haemodialysis.

Aims: The aims of this pilot and feasibility study are to pilot a study design and method to test POCUS-guided cannulation and to examine the feasibility of the use of POCUS-guided cannulation in haemodialysis.

Methods: Up to 10 nurses and 20 patients will be recruited from a regional satellite haemodialysis unit where a random crossover research design will be used to measure cannulation success. Data will also be collected related to miscannulations and needle repositioning and location inside the vessel on a static ultrasound image (measured by an image assessor). Surveys and interviews will be conducted to assess patient and nurse satisfaction. Quantitative data will be analysed descriptively; qualitative data will be analysed thematically. These results will provide pilot data and data related to the feasibility of the research design and methods.

Conclusions: The results will inform a future large multi-site research study to test the effectiveness of POCUS guided cannulation in haemodialysis. Key data regarding the operationalisation of POCUS in the haemodialysis unit will help answer the question “Are dialysis nurses ready for POCUS guided cannulation?”

Renal Society of Australasia Abstracts | June 2019
10. The difficulty of screening potential transplant donors. Let’s ask the hard questions.

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**Context:** Evaluating the medical and psychosocial suitability of a potential living kidney donor requires the unrestricted questing by multidisciplinary team members. These unrestricted questions are occasionally viewed as being difficult to deliver and similarly difficult to answer. The difficult questioning ranges from the motivations of wanting to donate to the suitability of donating within surgical, medical and psychosocial parameters.

**Objectives:** To report on the results from 2017-2018 on potential donors who were rejected from progressing the work up (n= 65). Comprehensively highlighting at what stage of the workup potential donors were rejected, identifying the themes of hard questions such as risky behaviours, history of alcohol and cigarette smoking. Additionally, the involvement of questioning the anatomical appropriateness, BMI’s and comorbidities will be highlighted.

**Key messages:** Whilst some criteria for renal transplantation have become restrictive through hard questioning, there have been others which have loosened such as age. The considerations that senior nurses, transplant nephrologist, social workers, psychiatrist, surgeons implement through their questioning not only reduces the liability of potential fault but eliminates adverse events for potential renal donors in their own future.

**Conclusion:** Systematic screening in multidisciplinary settings is suggestive of identifying risk factors collaboratively. By acknowledging the potential risk factors assists in identifying borderline donors and those who are rejected unanimously. The focus of collating these results and themes of hard questions may in the future indicate efficacy and efficiency in asking the hard questions, time management, unsuitability, liability for services and ultimately providing an improved structured framework.
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12. Respecting the choices of patients with Down Syndrome: A Dialysis Case Study

Sandra Egbert1

1 Monash Health

Background: The population of people with Down Syndrome in Australia is over 13,000 and is growing. Despite often experiencing co-morbid conditions, patients with Down Syndrome are encouraged to act with self-determination in making palliative care and end of life choices with the help of medical power of attorney.

Case Study: This paper focuses on a 54-year-old female Down Syndrome patient who dialysed for 13 years and later suffered from Alzheimer’s Disease for the last six months, yet decided to stop dialysis and enter palliative care. It demonstrates the role of effective care-giving in supporting self-determination and independence for such patients.

This paper will focus on the renal involvement, down syndrome, Alzheimer’s disease and respecting patients choices.
13. Home - The Model Service

Anne Britton¹

¹ SA Health

Context: The Home Dialysis Unit (HDU) is responsible for the delivery of training, education, and maintenance care of people who are reliant on home dialysis therapy. Working with the patient is essential when working within their home environment. In 2018 the HDU managed the care of approximately 145 people. In August of 2018, the unit structure for implementation of care underwent change aimed at improving the patient experience. This included the development of teams to ensure the best care for patients in training, on maintenance treatment in their home, and in-centre activity.

Objective: Develop a model providing the best care, sustaining home therapy to the dialysis-dependent person.

Key Messages: This is just the beginning. Patient centred model. The draft structure presented to the team and key stakeholders explaining the purpose and benefits of the model. Teams communicated the changes of the unit structure with the patient (and carer), and information shared via newsletters. Key stakeholder and consumer consultation conducted throughout implementation and beyond.

Conclusion: The service implemented three teams each lead by a senior nurse: (1) the peritoneal dialysis training team; (2) the peritoneal dialysis community team and (3) the haemodialysis team. The Nurse Unit Manager and Nurse Practitioner continue to maintain accountability and clinical oversight of the service. The teams have enhanced the patient’s control of their individual care needs.

The Continuous Improvement Methodology ensures the HDU maintains a patient focus within the three teams with active feedback from patients with the success of their home treatment.
14. Bring on the patient revolution

Mia Carroll¹

¹ The University of Auckland

So, are you ‘a magic’ professional or ‘a menace’ … that is the question?

People living with many long-term conditions (LTC’s) can spend up to 6-8hrs a day trying to live well. It is ‘hard work’ and costs in every way….. and we don’t make it easy! We have the opportunity and power to make a difference because every interaction we have with them has the potential to be healing or harmful, be hope generating or spirit breaking, be emancipatory or further relegate them to people labelled as “non-compliant”, “difficult”, “unmotivated”, “un-activated”, and ‘poor’ self-managers.

Language matters and relationships are key.

Everyone I know wants to be in charge of their lives, and people living with LT C’s do too! They might be “patients” sometimes, but they are always people. If we are truly person-centred, we will be able to find out what matters most to them; what worries them, what helps them get through the tough times, and what their bottom lines are in order to simply stay alive. We want to do this, and yet ‘industrial health’ care erodes our capacity and space to do so. It is not only harming patients but is also “killing the healer’s soul” (Montori, 2017, p 2). There is a real difference between “what is” and “what should be” in health. We need a patient revolution to reclaim co-created, careful, compassionate care, which leaves the smallest possible footprint on people’s lives and supports them to fulfil their hopes and dreams.
15. Fluid balance: a review of current medical and nursing practices for ‘at risk’ medical patients

Lenny Jacoby1

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Background: Fluid balance charts (FBCs) and daily weights are easy, non-invasive ways to assess fluid status. Inaccurate FBCs compromise the ability to recognise and respond to early signs of deterioration.

Aims:

- To identify documentation practices for FBC and daily weights
- To audit compliance with orders for FBC and daily weights

Methods: Fluid balance charts, medical admission forms, progress notes, observation charts and nursing care plans in electronic medical records are routinely used to document medical orders and nursing observations. Records from patients admitted with CCF, AKI and/or ESRD were retrospectively audited, noting orders and compliance. FBC were audited for accuracy of 1200hrs and 2400hrs totals.

Records were excluded for patients admitted to palliative care, complex ICU admissions, and mental health admissions.

Results: A total of n=607 FBC were audited from n=108 eligible episodes of care. The average length of stay (LOS) was 6.5 days, with shortest being 2 days and the longest being 37 days. Medical staff documented plans for FBC and/or daily weights for 30% of patients. Accurate documentation was completed 26% (12.00hrs) and 30% (24.00hrs) of the time. Daily weights were completed for 40% of patients.

Patients with documented medical plans were audited separately. The average LOS was 7.4 days. In total, n=224 FBC were audited with compliance of 34% for 1200hr totals and 39% compliance for 2400hr totals. Daily weights were completed for 64% of patients.

Conclusion: Compliance with completing FBCs and daily weights for ‘at risk’ patients is improved when clearly documented by medical staff.
16. Improving vascular access outcomes through a nurse-led clinic in a single renal unit

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**Background:** A well-functioning vascular access is vital in achieving adequate haemodialysis (HD); however, optimising objective performance indicators continues to be a challenge. The lack of a coordinated approach to maximise the utilisation of mature arteriovenous fistulae (AVF) has led to poor service performance hence a nurse-led vascular access service was established in 2005 at a local dialysis centre to address areas of breakdown in practice.

**Aim:** To evaluate the effectiveness of a nurse-led care delivery to vascular access outcomes.

**Method:** A retrospective analysis of vascular access outcomes sourced from the renal access database between 2004 and 2017 was conducted. The results were compared to the local and international standards to appraise overall service performance.

**Results:** Data included an annual average of 200 HD patients from 2004 to 2017. AVF placement has increased for both incident and prevalent patients (24-57% and 65-82%, respectively). There was a trend towards a higher number of functioning access on first HD (39-57%) and lower primary failure rate (28-10%). The thrombosis rates have dropped notably (49-3%) akin to a decline of prevalent synthetic grafts (19-5%). Tunnelled and non-tunnelled catheter use became marginal at the end of 2017 (62-38% and 14-5% respectively). The catheter-related infection rates had a steady reduction (3.0-0.54 episodes/1000 catheter-days) while the catheter dwell time (approximately 110 days) has remained unchanged over the same period.

**Conclusion:** The introduction of a nurse-led vascular access clinic in the single renal unit has translated into the improvement of access performance metrics that meet the national and international benchmark.
17. Renal Consumer Engagement: Our Story

Annette Wilson¹

¹ Queensland health

The Renal Consumer engagement story for our service commenced in 2013 prompted by the introduction of the National Safety and Quality Health Service Standards. Initially, the consumer group was an avenue for staff to share service delivery and future planning with consumers. The consumer group evolved and grew to include all stakeholders such as renal patients, staff, management and non-government organisations. A key consumer point of interest was: “What can we achieve within the boundaries of a structured health system”.

To provide structure and accountability, Terms of Reference were created with wide consultation. Agendas and minutes were tabled to provide documentation of activities, discussion and feedback to the service. Communication to management was achieved through the monthly Renal Business Meeting, where the consumer group activity is tabled as a standing agenda item.

Over time there has been fluidity in the representation of patients within the consumer group with membership ranging from 5-15 participants.

To enable the group to stay focused and manage expectations, yearly working plans were developed in a consultative manner. Regular quality achievements are tabled to maintain momentum and highlight successes. The renal consumer group benefited from the introduction of Consumer Engagement Officers who guided, supported and gave direction to the group.

What we have learned as a group is to never give up (despite ongoing systemic challenges), to keep asking the key questions and strive to promote change for the better.
18. Are informal carers of family members who receive haemodialysis burdened by their caring activities?

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\textsuperscript{3} Internal Medicine, Royal Brisbane and Women's Hospital, Brisbane

**Background:** Recent studies indicate that informal carers provide support to family members who are on haemodialysis although the amount and type of activities provided and the burden of this is not well-known.

**Aim:** To determine the level of burden and the type of activities provided by informal carers caring for adults receiving haemodialysis.

**Methods:** In a cross-sectional design, 178 informal carers completed the Zarit Caregiver Burden Scale (ZCBS) and the Oberst Caregiver Burden Scale (OCBS; measures daily tasks according to the time taken and level of difficulty). Demographic characteristics were also collected.

**Results:** Most carers were female (55.6%), between 30 - 60 years of age (66%), and were a spouse of the person receiving haemodialysis. Overall, carers reported a high level of burden ($M = 40.15, SD = 10.46$) with 80.9% identifying the level as severely burdensome. Household jobs and patient treatment-related tasks were the most problematic caregiving activities. In general, however, the caring activities were perceived as only slightly difficult ($M = 24.5, SD = 8.81$) and not requiring much time ($M = 29.47, SD = 8.75$). Doing more difficult and time-consuming caregiving tasks and having their own health problems were significantly associated with a higher level of carer burden ($R^2 = 0.43$, $p < 0.01$).

**Conclusion:** While the caregiving activities do not take much time, there was a high level of burden on those caring for a family member who was receiving haemodialysis. Renal nurses are ideally placed to assess carer burden and to provide support to them.
19. Nursing Beyond Dialysis

Liz Tomlinson¹

¹ St Vincent’s Public Hospital, Sydney

Context: Shifting demographics over recent years have resulted in increasing comorbidities and an older long term dialysis population. Patients with Acute Kidney Injury requiring haemodialysis too, are increasing in medical complexity. As medical technologies continue to advance worldwide, healthcare workers at its coalface face many challenges to increase their scope of practice to consistently deliver excellence in care to these population groups.

Objectives: Incorporating technologies within the renal dialysis unit to include permanent cardiac monitoring, enables extended admission criteria of patients requiring haemodialysis treatment in its in-centre. This, in turn, reduces loss of nursing resources in dialysis units. Ongoing provision of education, training and support to nursing staff, expands the dialysis nurses scope of practice.

Key messages: Along with the clinical mastery of care of the patient receiving haemodialysis, dialysis nurses are challenged clinically to upskill and expand skills and knowledge to deliver high quality of care to patients. This includes obtaining competencies in advanced life support, cardiac monitoring and rhythm interpretation, ventricular assist devices, high flow oxygen, low dose inotrope infusions and surgically complex patients.

Conclusion: Nephrology nurses and Renal Units throughout Australia face a rapidly changing healthcare landscape, explosion of technology and increasing complexity of a growing patient population.

The development of forward thinking planning of dialysis units is required to ensure the dialysis unit environment and its staff can support emerging technologies. The development of skills and professional pathways to help navigate these challenges for nephrology nurses will ensure that nurses can manage complex patients beyond dialysis.
20. Does the Kidney Failure Risk Equation (KFRE) accurately predict progression from chronic to end-stage kidney disease in an Australian metropolitan population - a retrospective clinical audit

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1 Metro North Hospital and Health Service  
2 MNHHS  
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Background: Patients with Chronic Kidney Disease (CKD) want information on disease trajectory and prognosis. This is often hard to predict due to disease heterogeneity and variable progression rates.

Tangiri reports on a 4 and 8 variable equation (KFRE) to predict 2 and 5-year probability of progression from CKD to End Stage Kidney Disease (ESKD) for patients CKD stage 3 to 4. The KFRE has been validated in 31 multinational cohorts but to date not in Australia.

Aim: To determine whether the KFRE 4 and 8 variable equations accurately predict progression to ESKD.

Method: A retrospective audit was conducted on patients referred to a Nurse-led multi-disciplinary adult CKD clinic between 2008-2013. The 4 and 8 variable equations were applied using the on-line KFRE calculator and risk of progression from CKD to ESKD at 2 and 5 years determined.

Results: 12.7% of the sample population progressed to ESKD (n=55), 64% male (compared to 49.88% in the sample population), 61.8% diabetic (52.19% in sample population). 8 were excluded through insufficient clinical data. 33.3% (n=6) calculated by the KFRE as ‘low risk’ progressed to ESKD whilst 77.7% calculated as ‘high risk’ (n=7) progressed. The 8 variable KFRE demonstrated greater accuracy then the 4 in determining overall risk of progression and both were more accurate when applied in CKD stage 4 that 3.

Conclusion: The 8 variable KFRE accurately predicted progression in 77.7% of patients studied. However, 33.3% of patients identified as ‘low risk’ progressed unexpectedly to ESKD. A larger retrospective/prospective audit is currently underway.
21. “What do you do when they don’t turn up?”: Setting a clinical pathway for patients who fail to attend dialysis

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² St Vincent’s Hospital Melbourne

Context: Standard dialysis therapy is 5 hours, three times per week. Patients who do not attend (DNA) – or miss – their scheduled haemodialysis appointments are more likely to be at greater risk of cardiovascular disease, hypertension and electrolyte imbalance. There is an increased emergency department presentation for hyperkalaemia and acute pulmonary overload. Moreover, failure to attend regular dialysis is associated with high risk of mortality.

Objectives: To assess the successful implementation of a new policy and protocol on the dialysis unit for patients who do not attend for regular dialysis treatment, with particular reference to the legal aspects of the unit’s “duty of care” for this group of patients.

Key messages: A consistent unit-based approach for patients who DNA for dialysis has proved successful in maintaining contact with patients, providing clinical support, and identifying any barriers that may lead to non-attendance. Regular contact with patients illustrates the important link between clinical staff and patients along the care continuum.

Conclusion: Introducing the DNA protocol has provided a clear and consistent clinical pathway for staff in managing patients who DNA, with the aim of encouraging patients to attend their regular dialysis sessions, reducing cardiovascular risk, electrolyte imbalance, and morbidity. In this regard, the protocol has been a tool to implement the unit’s best practice guidelines.
22. Improving patient outcomes through the utilization of an integrated software system: Is it as good as it sounds?

Vincent Nicolas¹

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Since 2017, our satellite renal dialysis unit has been using a dialysis integrated software system that has automated some of the nursing tasks, streamline dialysis workflow which then enables the caregiver to focus and allocate more time to the patient. A unified database has been established wherein a significant amount of information and data can now be taken electronically and analyzed to improve patient outcomes.

To report on the implementation of a software system that has impacted the renal unit’s standard clinical practice guidelines, policies and procedures.

Several improvements have been observed since the integration of the software system which includes: A more optimized and organized documentation of patient data, faster data retrieval and indexing in comparison with paper-based documentation, data trending that enables the caregiver to intelligently predict outcomes which can identify and prevent potential problems. However, the most significant impression was the establishment of a quality improvement initiative on dialysis adequacy which compares manual URR to software generated spKt/V. This also led to the formation of a core group of senior nursing staff that would focus and zero in on patients who are not meeting target clearance levels.

The dialysis integrated software system has revolutionized the clinical practice of renal nursing, particularly in the field of haemodialysis. This technology has both enhanced and empowered the caregiver’s clinical decision making capability to provide better care for patients. Although it is not without its challenges and limitations, its potential, however, cannot be undermined.
24. Vascular access - Where to when you are out of options? Is a H.e.R.O Graft the way forward?

Amanda Luke

1 Flinders Medical Centre

**Context:** Increasing numbers of patients are commencing haemodialysis with poor vasculature and experience complex vascular access issues leading to the use of a permanent central venous catheter (CVC) for haemodialysis. There are limited options available if this CVC fails or the patient experiences line sepsis requiring CVC removal. Not all patients will be suitable for transplantation and some will require access interventions whilst on the transplant waiting list.

**Objectives:** This case study describes the complex journey of one patient from multiple failed CVC’s for haemodialysis access to a HeRO (Haemodialysis reliable outflow) graft insertion, the first of its kind in South Australia.

**Key messages:** This patient who is awaiting renal transplantation had undergone the insertion of multiple CVC’s with limited success and experienced sepsis and poor flows resulting in inadequate dialysis and suboptimal health. An innovative alternative was sought as one of the only remaining options to continue haemodialysis and improve the patient’s viability for renal transplantation. The HeRO graft was cannulated 24 hours later and has been successfully cannulated for 3 weeks without complication. The patient now looks to have a much brighter future.

**Conclusion:** The use of a HeRO graft can be considered for patients with very difficult access and/or central stenosis as it does not require venous outflow and can greatly reduce the burden of long term CVC use and the associated risk of CVC related bacteraemia.
25. The Revolving Door - Challenges of recruiting and retaining renal trained staff in a remote environment

Jenny Cutter
1 Kimberley Renal Services

Background: The recruitment and retention of suitably skilled staff is recognised as an issue for many health organisations; the issue is further exacerbated when the organisation provides services in a very remote environment. An innovative/ flexible approach to improve long term recruitment and retention of staff in the remote setting is required.

Context: To date the service provider has had some success in recruiting nursing staff, however most have not been local residents with most committing to short term employment contracts, the average length being only 12 to 24 months. It has been recognised that the current approach to recruitment and retention is unsustainable; it is a time consuming, costly and repetitive exercise that can consume the role of department managers, taking them away from their core business of providing high quality patient care.

Objectives: With the help of the organisations Registered Training Organisation (RTO) we intend to ‘grow our own’ workforce by providing professional development for local people who wish to become skilled in renal nursing, thus ending the revolving door scenario and improving continuity of care.

An experienced nephrology educator will work alongside the RTO to develop a training program suitable for Registered Aboriginal Health Practitioners and Nurses in line with the needs of the current service model.

Conclusion: It is hoped that by developing and implementing the program and offering employment opportunities to local people, the service will be able to build capacity and thus play a major part in sustaining quality renal services throughout the region.

Jane van der Jeugd¹

¹ Flinders Medical Centre

Renal transplant is the ultimate therapy for those patients with end-stage renal disease. However, not all patients in this cohort are eligible for transplant. For those that are suitable for transplant, a transplanted kidney is a privileged and precious gift; good care, management and monitoring is crucial for graft longevity. Kidney transplant improves quality of life, with notable medical and economic benefits.

Kidney organs are a rare commodity. For those that receive organs, there is a need to develop strategies to improve graft survival. In Australia, the main causative factors for graft loss include: Malignancy, Infection and Cardiovascular disease.

Cardiovascular disease remains the leading cause for mortality in kidney transplant recipients, resulting from: obesity (BMI > 30kg/M²), hyperlipidaemia, poor exercise adherence, increased sedentary lifestyle, smoking and medications. High BMI contributes towards new onset of diabetes post-transplant, hypertension, cardiovascular disease, poor graft function and ultimately graft loss.

To understand prevalence of high BMI post-transplantation, and to determine if a Nurse-led wellness clinic can have a positive impact in relation to weight management in this patient cohort.

The method used is a retrospective/prospective study comparing BMI data collection, in patients attending the nurse-led clinic, versus transplant recipients using ANZDATA collection. Preliminary research findings to be discussed.
27. Living kidney donor conversion rates – a single centre study

Angela Jackson¹
Jo-Anne Lee¹ and Hari Talreja¹

¹ Counties Manukau Health

Living donor kidney transplant (LDKT) is the preferred treatment for patients with end-stage kidney disease (ESKD). The rates of LDKT remain low in New Zealand (NZ), especially in poorer socio-economic patient populations. Whilst there have been efforts to improve LKDT in these populations, there has been limited analysis of donor offer conversion rates (DCR)

Aim: To assess DCR at a single metropolitan tertiary hospital in NZ, and analyse factors associated with a successful conversion.

Methods: The sample consisted of all persons who expressed their interest to donate between January 1st, 2012 and December 31st, 2017. Date points were then measured across the patient journey to accurately measure procession through assessment. Outcomes were categorised as donation, medically unfit to donate, offer withdrawn or contact lost. A logistic regression model was used to determine factors associated with successful kidney donation.

Results: A total of 350 donor candidates were included in this study. There was a higher incidence of female versus male donor offers across all ethnicities. Māori and Pacific Islander (PI) donors were younger and had higher BMI. More PI children donated a kidney to their parents compared to other ethnic groups. Overall, DCR was 16.9%.

Logistic regression did not show any ethnic difference in DCR. Based on the univariate analysis, the only factors that were associated with successful conversion included > 1 donor offer (p<0.0001) and BMI (p<0.0001).

Conclusion: DCR was similar across all ethnicities and factors affecting this were outside socioeconomic status.
28. The Australian clinical renal physiologist workforce

Kristen Schuck¹

¹ Royal Melbourne Hospital Kidney Care Service

Context: Facility haemodialysis provision across Australia has increased by 12% over the last five years. A limitation in provision is the availability of dialysis nurses; several organisations in Australia face major shortages. Renal physiologists (previously dialysis technicians) have been providing care for patients since dialysis commenced in the 1960s. Training was given to predominantly science graduates through a comprehensive industry-based learning program. This was extremely successful, but lacked a nationally coordinated credentialing mechanism. In 2001, a U.S. based certification was implemented which was useful but not as aligned with the Australian workforce as other international models.

Objectives: Despite a highly educated and competent workforce, a regulatory process was needed to increase employer confidence. Moving to a self-regulated workforce required establishment of a governing body to mandate compliance with scope of practice, competency standards, education/training standards, and continuing professional development.

Key Messages: The New Zealand Board of Dialysis Practice was established in 2000. In 2018 this was expanded to become the New Zealand and Australia Society Renal Dialysis Practice (NZASRDP). Significant progress has been made in developing relationships with tertiary institutions; with the view to introduce post graduate qualifications for renal physiologists.

Conclusion: The renal physiologist workforce has a wealth of dialysis specific technical, scientific, and clinical knowledge, is regulated by NZASRDP, and employed by several organisations in Australia. They provide a complimentary workforce to the continued need for trained dialysis nursing staff, mimicking the trend to a mixed workforce seen globally.
29. Reliability of NZ Risk of Death Scoring System in Kidney Transplant Recipients

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¹ Counties Manukau Health
² Canterbury District Health Board

Introduction: TSANZ states deceased donor kidney transplant recipients (DDKTR) require reasonable post-operative life expectancy; defined as >80% survival probability 5 years after transplantation. In 2012, New Zealand (NZ) implemented an algorithm to estimate survival probability for potential recipients.

This study assesses the accuracy of survival predictions from the algorithm applied retrospectively to a cohort of DDKTR over 10 years from two large metropolitan tertiary NZ centres.

Methods: All DDKTR during the period were included and risk assessments using the algorithm were performed retrospectively using prospectively collected predictor data, then followed for 5 years. Outcome of all-cause mortality was captured. Risk of death at 5 years was assessed using logistic regression with predicted probability of death as independent variable. Time to death was modelled using Cox proportional hazards models with prediction of >20% 5 year mortality as independent variable.

Results: A total of 141 recipients were included in the study. Centre 1 had higher predicted survival > 80% (89% vs 72%, p = 0.02) and mean survival (90.6% vs 86.4%, p=0.01). Patients with survival probability < 80%, had 50% mortality. Compared with 1 of 115 with probability >80% mortality (p < 0.0001). For every 10% increase predicted risk, actual increased by 2.6 (95%CI 1.01-6.57, p = 0.04).

Conclusion: A probability of survival of less than 80% at 5 years after transplant based an algorithm was associated with poor survival post-transplant in a New Zealand cohort. Risk stratification using this algorithm is a valid way of estimating post-transplant survival.
30. “It’s hard to ask”

Merryn Jones¹

¹ Hawkes Bay DHB

Examining decision-making amongst end-stage renal disease patients considering asking friends and family for a kidney.

Aim: People needing kidney transplants in New Zealand can receive organs from deceased donors, or they can approach a living kidney donor. This research project explored end-stage renal disease (ESRD) patients’ willingness and motivation regarding transplant as well as their approach to living donors in order to facilitate improved donor-request processes for ESRD patients.

Method: A qualitative study comprising interviews of ESRD patients in Hawkes Bay, focusing on the factors surrounding donor recruitment. Purposeful sampling and thematic analysis of data was utilised.

Results: Fifteen participants were interviewed. Most stated it was hard to ask for a kidney; almost half had never approached anyone. For many, being expected to recruit donors was a barrier. Many Maori had limited recruitment opportunities due to comorbidities within extended whanau, making the decision of who to approach difficult. Other barriers included concern for donor health, poor health literacy, and poor self-efficacy.

Conclusion: Most recipients desired more support with approaching donors. Cultural differences existed between Maori and non-Maori in recruitment expectations. This presentation focusses on several recommendations highlighted in this research: development of a screening tool to assess psychosocial and cultural needs, willingness and motivation to accept donation, self-efficacy, communication skills, and health literacy in order to enable tailored support; and organisation of a regional transplant hui to discuss changing attitudes and values with Maori Health Providers.
31. Young adult comprehensive home therapies clinic

Andrea Ward¹
Rosemary Masterson¹, Jo-anne Moodie¹, Maria Safe² and Steve Holt²

¹ Royal Melbourne Hospital Home Dialysis Service
² Royal Melbourne Hospital Kidney Care Service

Background: The ideal treatment for young adults with end-stage renal disease is kidney transplantation, but this can be difficult in a significant cohort of this age group. Therefore, receiving optimal dialysis whilst waiting for transplantation is vital. Home therapies, either haemodialysis or peritoneal dialysis, allow young adults to optimise their health whilst providing autonomy and flexibility. Dedicated young adult clinics provide an opportunity for such patients to meet others in a similar situation, provide peer support and education.

Objectives: To establish a dedicated, multidisciplinary, young adult comprehensive home therapies (YACHT) clinic, with a holistic approach to providing clinical and psycho-social care.

Methods: Patients under 30 were invited to attend the first YACHT clinic which had both informal and formal aspects, a mixture of mentoring, education, and medical review. Post clinic, patients completed a survey to ascertain perceived benefits and provide general feedback for future clinics.

Outcome: Of the surveys returned, all indicated that they found the sessions beneficial. They especially valued the opportunity to talk with fellow dialysis patients of a similar age. To our surprise, isolation was not highlighted as an issue. Pre-assessment for dialysis therapy has since been revised based on feedback to include communication with a current dialysis patient.

Conclusion: The opportunity for young adults on home therapies to meet each other and provide peer support can have significant psycho-social benefits. Following the success and feedback from the clinic, we have adjusted our pre-dialysis assessment pathway and plan to conduct the (YACHT) clinic on a quarterly basis.
32. Chronic kidney disease in Sri Lanka: Demographic and clinical profile

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Background: Chronic kidney disease (CKD) is highly prevalent in agricultural regions of Sri Lanka and is impacting people’s lives. Understanding the profile of patients with CKD is important to consider when delivering care.

Aim: To examine the demographic and clinical profile of people with CKD in Sri Lanka.

Method: Using a cross-sectional design, adults with CKD stages 3-5, including those receiving either haemodialysis or peritoneal dialysis, completed a self-report demographic questionnaire. Renal clinical data were extracted from patient and hospital records.

Results: In total 510 people were recruited. The majority were male (n=351, 68.8%); the mean age was 55.4±11.3 years. CKD stages were 3 (n=103), 4 (n=117), 5 (n=89) and 5D (n=201). The mean duration of attending the renal clinic was 56.4±46.1 months. Of the 43.3% (n=221) who were working, 28.4% (n=145) were farmers. The majority (n=193, 96%) had a monthly income of 5,000-10,000LKR ($40-75AU), and most travelled 25-50km (n=227, 44.5%) to receive specialist renal healthcare. In addition to CKD, 44.5% (n=227) and 31.6% (n=161) had one or two other chronic diseases, respectively; of these 78.4% (n=400) had hypertension and 28% (n=143) had diabetes. Among those receiving dialysis, the majority were receiving haemodialysis (n=193, 96%) for a mean duration of 28.2±26.4 months.

Conclusion: Regardless of stage, CKD impacts negatively on people’s lives, particularly for those living in a developing country such as Sri Lanka. Knowing patients’ demographic and clinical profile will assist to structure and deliver the renal services that better fits with the profile of the patients who attend.
33. Comparing symptom burden across different stages of chronic kidney disease

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\textbf{Background:} Advanced stages of chronic kidney disease (CKD) are known to be associated with increased symptom burden. Few studies, however, have reported whether symptom burden changes throughout individual patients’ CKD trajectory.

\textbf{Aim:} To compare symptoms across CKD stages 3-5.

\textbf{Method:} Using a cross-sectional design, adults with a diagnosis of CKD stages 3-5 including those receiving dialysis completed the renal version of Integrated Palliative Outcome Scale (IPOS-renal). Demographic and clinical characteristics were also collected. Data were analysed using ANOVA and t-tests.

\textbf{Results:} Of the 510 participants, 351 (68.8\%) were male with a mean age of 55.4±11.3 years. CKD stages were 3 (n=103), 4 (n=117), 5 (n=89) and 5D (n=201). Those in stage 5 (30.0±10.7) and 5D (30.2±8.3) had significantly higher mean IPOS-renal scores than stage 3 (25.9±7.7; p <0.05 to 0.001); stage 4 (28.3±9.1) was not significantly different from any other group. Women reported significantly higher scores than men (30.0±8.8 vs 28.3±9.0 respectively; p <0.05) although there was no significant difference between those aged <55 years (29.6±8.6) and >55 years (28.3±9.3). Regardless of CKD stage, the three most common symptoms were pain (range: 76.2-87.2\%), mobility problems (67-78.4\%) and weakness (63.1-79.5\%). Across all stages, >78\% reported symptoms of anxiety and depression.

\textbf{Conclusion:} While symptoms increase as kidney function deteriorates, people experience substantial burden due to symptoms at multiple CKD stages. Nurses working in renal settings are in an ideal position to assess for symptom burden regardless of CKD stage and to ensure prompt interventions are implemented.
34. Comparing health-related quality of life across different stages of chronic kidney disease

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**Background:** An individual’s health-related quality of life (HRQoL) is reduced in end stage kidney disease although there is limited understanding about the impact of earlier stages of chronic kidney disease (CKD) on HRQoL.

**Aim:** To compare HRQoL across CKD stages 3-5.

**Method:** A cross-sectional study recruited adults with CKD stages 3-5 including those receiving either haemodialysis or peritoneal dialysis. Participants completed a demographic questionnaire and the HRQoL short form-36 (SF-36); maximum score=100. Renal clinical data were extracted from patient and hospital records. Data were analysed using ANOVA and t-tests.

**Results:** In total 510 people (male 68.8%, age range: 18-81 years) with CKD were recruited. The mean physical component summary (PCS) and mental component summary (MCS) scores were 40.5±9.2 and 45.2±7.8 respectively. Those receiving dialysis (PCS: 41.6±9.4, MCS: 43.8±8.0) had significantly higher mean PCS score than stage 5 (38.0±10.5, p <0.05) though, significantly lower mean MCS score than stage 4 (46.5±7.1, p <0.05). Compared to women (37.8±8.8), only mean PCS score was significantly higher among men (41.7±9.1, p <0.05). Those aged <55 years (PCS: 42.2±8.7, MCS: 44.0±7.9) reported significantly higher mean PCS score and lower mean MCS score than people >55 years (PCS: 39.1±9.3, MCS: 46.1±7.7, p <0.001 to 0.05).

**Conclusion:** Overall, HRQoL was lower than that of a healthy population and it seemed to trend downwards as CKD progressed. Early stages of CKD ought to be assessed by clinicians for HRQoL, so that strategies to better support patients’ functional health and mental well-being can be introduced into the care plan.
36. The missing piece: A bundled self-management intervention (4Ds) to improve patient’s knowledge of phosphate control

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Background: Evidence for practice has mostly focused on dietary and pharmacological education strategies to control hyperphosphataemia in patients receiving haemodialysis. However, the missing piece is the importance of educating patients on all strategies to control phosphate (i.e. diet; drinks; drugs [phosphate binders]; and dialysis adherence [the 4Ds]).

Aim: To test the effectiveness of a bundled intervention “Taking control of your phosphate with the 4Ds”.

Methods: A cluster randomised control trial compared the 4Ds with standard care in lowering phosphate levels and increasing patient knowledge of phosphate control methods. Inclusion criteria: ≥ 18 years, receiving HD with high serum phosphate levels (>1.6 mmol/L for at least 3 months). The intervention, conducted over 12 weeks, used the “teach-back” method to teach participants about the 4Ds. Serum phosphate (collected from routine biochemistry results) and patient self-reported phosphate knowledge (20-item instrument) were assessed at baseline (T0) and end of study (T1).

Results: Forty-seven participants were randomly assigned into the 4Ds and 36 into standard care. At baseline, there were no differences between groups. Mean serum phosphate decreased in the intervention group by 0.04mmol/L (95% CI: -0.26, 0.178; p<0.70) by T1 compared to the control group. The intervention group significantly improved phosphate knowledge by 16.32% (95% CI: 9.33, 23.37; p<0.001), compared to the control group by T1.

Conclusion: Education of the 4Ds using teach-back can be delivered by a nurse during routine HD treatment and does improve patient knowledge about all 4 phosphate control methods. Further research is needed to determine the effect on hyperphosphataemia.
37. Does pre-dialysis assessment affect patients’ outcome on peritoneal dialysis (PD)?

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**Background:** There is a substantial variation in peritonitis rates across peritoneal dialysis (PD) units globally. This may, in part, be related to the wide variability in patient selection and pre-dialysis assessment prior to commencement of home training.

**Aims:** This study aimed to evaluate whether performing a pre-dialysis assessment using a well validated assessment tool, JPAT (Jo Pre-training Assessment Tool) before the patient commenced PD affected patient outcomes positively, and subsequently reduced PD-related complications.

**Study Design:** This is a retrospective file audit of all incident patients who commenced PD at home from 1 July 2014 to 30 June 2016 in a metropolitan PD Unit in Sydney. Data collected included demographics, pre dialysis assessment, JPAT score, peritonitis episodes and commencement date of PD. Local Ethics Committee approval was sought prior to commencing the study. Outcome measures included time to first peritonitis episode and length of time on PD.

**Results:** The medical records of 155 patients who commenced PD were collected. The results showed that there was no significant statistical difference (p=0.494 > 0.05) for the onset of peritonitis between patients who had received Pre Dialysis Education or had a JPAT attended and those that did not.

**Conclusion:** The use of a validated tool to assess patient suitability for PD to enhance patient outcome has not been demonstrated in this study. The timing the JPAT was attended may have impacted on the outcome of the study as patient issues may have developed following assessment and prior to the commencement of dialysis.
38. Maintaining Water Quality in the Kimberley and the Challenges Faced by Renal Staff

Aurora Balbas

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Context: For over 50 years since its discovery, Limulus Amoebocyte Lysate (LAL) has been recognised as the most proven and reliable method available in the detection of endotoxins. Bacterial endotoxins, if inadvertently introduced into haemodialysis patients, can have a critical biological effect inducing a pyrogenic response, septic shock and possibly even death. It is imperative to recognise that whilst it is essential to maintain water quality integrity, access to technology from the remote areas is rather expensive and will regularly pose a challenge in the logistics process.

Objectives: To create an awareness about the process that staff are involved in a not-for-profit Aboriginal Community Controlled Health Organisation in the Kimberley region to mitigate errors, financial setbacks and environmental damage whilst preserving water sample integrity during the process of collection, packaging, and transport to a laboratory in a major city.

Key Messages: The challenge is that the human element cannot be outrightly eliminated; therefore, critical processes need to be strictly adhered to. These processes are established in order to reduce the risk for errors to ensure the integrity and accuracy of results.

Conclusion: The gold standard in detecting endotoxin presence is the LAL test. However, access to this technology for a not-for-profit organisation is expensive so it is vital to strictly adhere to critical guidelines in place. Subsequently, there should be a reduction in the wastage of resources and lessened impact of carbon footprint to the environment therefore promoting overall sustainability.
39. Changing Practice to Decrease Risk; An Innovative Approach to ESA Delivery

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Background: There were approximately 18500 needle stick injuries to health care workers in Australia last year. To decrease the chances of needle stick injuries in the haemodialysis setting a protocol was developed for needless continuous erythropoietin receptor agonist (CERA; methoxy polyethylene glycol – epoetin beta) administration.

Aim: To decrease the chances of needle stick injuries in the haemodialysis unit.

Method: CERA comes in a pre filled syringe of various doses. The CERA is delivered in to the pre dialysis HDF port of the lines of a Fresenius 5008 machine. The pre dialysis port was chosen as the syringe can be held perpendicular to the ground allowing all of the contents of the syringe (including the air bubble) to be delivered. The excess air is contained in the venous bubble trap. The CERA is 60 kilo daltons in size and the holes in the hollow fibre Fresenius dialysers are 30 kilo daltons. This means that the CERA is not dialysed off and the full dose will still be delivered.

Results: Overall 15 patient’s (13 males and 2 females) were switched to needle free CERA delivery. The mean Hb for clients with CERA delivered via needles was 104. The mean Hb for clients with CERA delivered needle free was 107.

Conclusion: Administering CERA needle free has no effect on clients HB and is an effective way of decreasing the risk of needle stick injuries to health care workers.
40. Growing our own: A strategy to improve staff retention in Remote Central Australia

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Context: Nursing turnover is important as it affects budgets and impacts on health system performance. The nurse turnover rate in Australia was reported at 15.1%. Review of our Hospital staff identified a nurse turnover rate of 31.8% for 2017. Aside from the financial costs associated with temporary replacement, high turnover of nurses has negative organisational consequences in terms of loss of knowledge and productivity. Our dialysis unit sought to pursue measures that will improve recruitment and retention.

Objective: This paper will address the strategy implored to improve dialysis nurse recruitment and retention in remote central Australia.

Key Messages: The shortage of dialysis nurses has become exacerbated with the increase in demand for service with 380 patients requiring dialysis in remote Australia. In addition, nurse to patient ration for our satellite unit has added more pressure to increase our roster of qualified dialysis nurses. Effective measures have been implemented to achieve desirable outcomes in the recruitment, training and retention of dialysis nurses. Following the implementation of the 5 weeks haemodialysis training program, our dialysis unit has succeeded in recruitment and retention of 50% of the nurses trained.

Conclusion: Ongoing training and support is a key component of retention to ensure that the service is well positioned to meet service demand. The training strategy implored in our unit has proved to be successful in the recruitment and retention of dialysis nurses.
41. Challenges of Remote Home Haemodialysis

Emil Tabbada¹

¹ Central Australia Health Service

**Context:** Home Haemodialysis remains to be the gold standard in Renal Replacement Therapy in patients who are contraindicated to Peritoneal Dialysis. Not only has it been proven as a cost-effective treatment for patients undergoing dialysis treatment, it also provides the advantage of providing patients with a treatment that enables self-management as well as enabling them to stay in their home community. With the current renal service’s area of responsibility spanning almost a million square kilometres, and catering almost exclusively to Indigenous clients, the challenge is to enable these clients who have opted for home haemodialysis to dialyse in their community whilst maintaining clinical safety and social support.

**Objectives:** To present how a renal service was able to surmount challenges in keeping the Home Haemodialysis program running.

**Key messages:** The challenges of managing and maintaining a Home Haemodialysis program in this unique circumstance include the tension between promotion of self-care and the maintenance of safety in the remote setting, cross cultural assumptions and expectations, the variety of the level of educational attainment of clients, and the logistics of managing a program over such vast area.

**Conclusion:** Although challenges may present to be seemingly insurmountable, this renal service was able to promote home haemodialysis, enable clients through training, and sustain patients through coordinated effort with remote clinics and service providers.
42. The effect of group education on exit site care outcomes: A unit experience

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**Background:** Education regarding exit site care has long been a major component of peritoneal dialysis (PD) training. Cyclical re-education is thought to be paramount in the fight to prevent catheter infections. Faced with increasing exit site infection (ESI) rates, a group education program was initiated.

**Aim / Method:** In order to gauge the potential for a successful group education programme, an invitation was extended to 99 patients to participate. Groups of 10-15 patients per session were organised resulting in 10 sessions over 10 weeks. Sessions were conducted over 45 minutes. Patients / carers were individually assessed prior to education intervention. Adult education principles were utilised including informal discussion, demonstration and visual presentation components. Surveys were gathered to gain insight into knowledge and practice change as well as ongoing interest in regular revision sessions.

**Results:** An overall participation rate of 83% from the patient group indicated that exit site care and participation was considered important. Survey results showed a significant gain in post intervention knowledge. An overall reduction in ESI rates was achieved however sustainability will dictate the timing of reintervention in planning discussions.

**Conclusion:** Establishing a positive social learning environment, focused on self-efficacy, has assisted in highlighting the benefits of group education. It is a cost and time effective alternative with positive impacts noted. One notable impact was the creation of a potential patient support system. Further investigation will be conducted into the potential limitations of individual training and the impact of using group training for other care components.
44. A third hand for home haemodialysis

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Background: Many self-care home haemodialysis (HD) patients are using vascular access on dominant upper arm. It is usually difficult to connect tubing due to limited length of fistula needle and hence a helper is needed for the procedure.

Aim: In order to restore the autonomy of the patients, a helping device called Needle and Tubing Connection Holder (NATCH) is designed to facilitate tubing connection.

Method: NATCH is designed by home HD training nurses and occupation therapists. It is produced by using 3D printing technology. It is a bracelet-like holder which has two tunnels that are used to hold the two fistula needles firmly. It can facilitate one hand screwing and tubing connection easily by patients themselves.

Results: Four candidates were recruited and they reported 100% success rate in tubing connection without helper assistance. Without NATCH, they need to flex elbow and wrist to hold the end of the fistula needle before tubing connection. This is an uncomfortable posture and could possibly cause stress to patient’s joints and increase the risk of infiltration, dislodgment, air emboli, blood loss and contamination. NATCH is useful in minimising these problems.

Conclusion: NATCH is a pilot device useful in assisting tubing connection for HD patients at home. Feedbacks are positive and patients are in favour of using the device. We believe NATCH is user-friendly device which allows patients to perform home HD independently and safely.
45. A ten-year review of infectious and non-infectious outcomes in patients on peritoneal dialysis (PD)

Michaela Kelleher

Prince of Wales Hospital

Peritoneal dialysis (PD) has emerged as a real alternative to haemodialysis, in many regions of the world is being promoted as the first dialytic option due to comparable survival rates, lower costs and improved patient quality of life. However, infectious and non – infectious complications are important contributors to patient morbidity and mortality. Infectious complications include peritonitis, exit site and tunnel infections. Non-infectious complications arise from the insertion and maintenance of the PD catheter, the increase in intraabdominal pressure and the metabolic effects of the absorption of glucose and poor clearances.

Objectives: The objective of this paper is to outline the rates of complications in patients on PD.

Methods: A retrospective review was conducted on patients receiving PD between 1/1/08 – 31/12/17. The international society of peritoneal dialysis guidelines were used to inform the process and to benchmark against. Episodes of non-infectious and infectious complications and outcomes were recorded for each patient.

Results: The sample consisted of 147 patients, 63% were male with an average age of 61 years with median time on been on PD of 17 months. 17% of the sample experienced at least 1 non-infectious complication. Peritonitis was the most common infectious complication with 39% of the sample having at least 1 or more episodes. The rate of peritonitis was 1 episode per 42.2 patient months.

Applications to practice: Peritonitis remains the Achille’s heel of PD, however undertaking this reviews allows us to identify opportunities for clinical practice improvement to improve the outcomes of patients on PD.
46. An efficacy and feasibility study comparing topical use of acetic acid at the exit site versus mupirocin to prevent exit site infections (ESI) in peritoneal dialysis (PD) patients (ACES study)

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¹ Royal Brisbane and Women’s Hospital

**Background:** Exit site Infections (ESI) is the leading causes of Peritoneal Dialysis failure. Mupirocin has been used in our PD unit since 2004. Mupirocin can result in antimicrobial resistance and increase in pseudomonas infection (PSI). We had a significant rise in PSI and PSI at the exit site. Carson et al found that acetic acid has *in vitro* activity against PS and Fraise et al demonstrated that acetic acid inhibits both PS strains as well as MRSA. ISPD guidelines (2017) recommend further studies in the use of acetic acid at the catheter exit site for prevention of ES.

**Aims:** To ascertain if the daily topical use of acetic acid would be a viable alternative to mupirocin.

**Methods:** Using a single-centered non-blinded RCT to access efficacy of acetic acid. Both groups use the standard unit exit site care, then group one applies topical acetic acid and group two applies mupirocin.

**Results:** 12 months into the study 58 patients had been recruited. 21 randomized to the treatment group while 24 randomized to the control group. 10 patients withdrew from the study 6 from the treatment group and 4 from the control group.

**Conclusion:** At 6 months analysis shows no significant increase or difference in ESI or peritonitis rates between the two groups. A 12-month data analysis will be presented in this presentation. A larger trial maybe recommended as statistical significance will not be achieved with this number of patients.
47. Is sleep apnoea associated with sleep disturbance in haemodialysis patients?

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Background: More than 50% of patients with End Stage Kidney Disease (ESKD) suffer from sleep disturbance and the majority have coexisting sleep apnoea.

Aim: To evaluate the relationship between sleep apnoea and sleep quality and explore patient’s experience of living with coexisting sleep apnoea and ESKD.

Method: Maintenance haemodialysis patients with newly diagnosed sleep apnoea (Apnoea-hypopnea index (AHI) ≥5/h) from four dialysis units were invited to participate in a semi-structured interview. Objective sleep data including sleep duration and efficiency were derived from the overnight in-laboratory polysomnography.

Results: There were 36 eligible participants (mean age: 65 years, median AHI: 34.5/h), and 26 agreed to interviews. Severity of sleep apnoea (assessed by AHI) did not correlate to sleep duration or efficiency (r=0.2, P=0.3; r=0.08, P=0.6, respectively). Four themes emerged from the interviews: 1. “Broken sleep”: related to short sleep duration, with waking and dozing off a common sleep cycle. 2. “Feeling unrefreshed”: many participants reported feeling unrefreshed upon wakening regularly. 3. “Impact of sleep disturbance”: included reduced physical, mental and self-management capacity. 4. “Soldier on”: interviewees employed strategies to cope with symptoms (just accept it/sleep more).

Conclusion: Sleep apnoea did not appear to have a direct association with objective sleep quality. However, patients perceived their sleep quality to be poor, and many suffered from the consequences of poor sleep, such as low mood and impaired quality of life. Our data suggests that it’s time to ask ourselves- are we providing adequate care for the multidimensional burden of renal disease?

Michaela Kelleher

1 Prince of Wales Hospital

Cardiovascular disease is one of the commonest complications after renal transplantation with a considerably higher incidence than the general population. Determining the incidence of cardiovascular events post-transplant and the associated risk factors is important in informing the healthcare professional for the need for screening and evaluation as part of the transplant workup.

Objective: The objective of this paper is to look at the association between pre transplant cardiovascular risk factors and post-transplant outcomes.

Method: The sample consisted of 400 transplants. Data collected pre-transplant included: age, gender, BMI, comorbidities, dialysis modality and vintage. Donor specific information included live versus deceased, HLA match, dual allocation and ischaemic time. Data collected post-operatively included: delayed graft function, graft loss, rejection, wound infections, bleeds and venous thromboembolic events, new onset diabetes and cardiovascular events.

Results: The average age of the cohort was 51 years, 64% of the sample were male. The majority of transplants were from deceased donors. The average body mass index was 26.4. The most prevalent complication post-transplant was bleeding, with 10% of the sample experiencing a bleed during the acute admission. 5% of the sample developed cardiovascular complications post-transplant, these included myocardial infarction, new onset atrial fibrillation and chest pain.

Applications for practice: Patients who are current smokers and have a had a previous myocardial infarction had a greater chance of having a myocardial infarction during the postoperative period (p < 0.0001). Smoking is a modifiable risk factor.
49. Use of a renal diet question prompt sheet increases the patient centeredness of renal dietitian outpatient consultations

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Background: Diet is critical in the management of kidney disease, but adherence is suboptimal. Use of question prompt sheet (QPS) has been shown to improve adherence to instructions and increase patient centered care (PCC).

Aims: Examine the impact of a QPS in the dietetic context on the volume of dialogue and patient centeredness of the care provided.

Methods: This exploratory study used a quasi-experimental prospective, pre-post design to evaluate the impact of a renal diet QPS on the number of questions asked; the volume of conversation and the patient centeredness. All patients attending three renal dietitian clinics over a nine-week period were eligible for inclusion. The 18-item renal diet QPS used in this study was sent to the patient at least one week prior to the appointment.

Results: Twenty-four patients were included in the study (n=11 pre and n=13 post). Verbal dialogue was analysed using the Roter Interaction Analysis System. The QPS was associated with significant improvements in the patient centeredness of communication (p=0.001), without increasing the volume of communication. The QPS was associated with an increase in the number of questions asked (p<0.0001) especially patient generated questions (p=0.0009). The pattern of communication was altered with significant reductions in the time devoted to relationship building and structuring the session; and an increase education and counselling (p<0.0001).

Conclusion: Use of a QPS increased patient centered care and engagement with the dietitian. More research is needed to determine if changes in PCC lead to improvements in clinical outcomes and quality of life.
51. Closing the loop in serum phosphate control: Improving self-efficacy in patients receiving haemodialysis

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Background: Adherence to diet, drinks, drugs (phosphate binders), and dialysis prescription (the 4Ds) remains a challenge for patients with hyperphosphataemia. Improving self-efficacy is known to increase self-management behaviours although its usefulness for patients on haemodialysis has received limited attention.

Objective: To evaluate the effectiveness of a bundled self-management intervention “Taking control of your phosphate with the 4Ds”.

Methods: A cluster randomised control trial compared the 4Ds with standard care in lowering serum phosphate and patient self-efficacy. Inclusion criteria: ≥ 18 years, receiving haemodialysis with high serum phosphate (>1.6 mmol/L for at least 3 months). Informed by social cognitive theory, the intervention focused on improving self-efficacy. The intervention was conducted over 12 weeks and used the “teach-back” method to teach participants about the 4Ds. Serum phosphate (collected from routine biochemistry results) and self-reported self-efficacy (6-item instrument) were assessed at baseline (T0) and end of study (T1).

Results: Forty-seven participants were randomly assigned to receive the 4Ds and 36 to receive standard care. At baseline, there were no differences between groups. Mean phosphate levels decreased in the intervention group by 0.04mmol/L (95% CI: -0.26, 0.178, p<0.70) at T1 compared to the control group. The mean difference of participants’ self-efficacy between the two groups at T1 was 1.41 (95% CI: 0.75, 2.06, p<0.001).

Conclusions: The 4Ds intervention is effective, feasible and increases self-efficacy for patients to adhere to phosphate control methods. It closes the loop in phosphate control and can be delivered by a nurse during routine haemodialysis.
53. Overcoming cannulation challenges for Home Haemodialysis patients with cannulation stencil

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Background: One of the major challenges of doing home haemodialysis is cannulation particularly self cannulation. Although vascular access issues also contribute to difficult cannulation, for a Home Dialysis patient in training gaining confidence to identify suitable areas to cannulate can be very stressful. In one Home Therapies unit cannulation stencils are making cannulating fistulas easier and reducing patients and carers’ needling anxieties.

Aim: To create a cannulation stencil tool to guide patients and carers to successfully needle a fistula.

Method: Patients with cannulation issues were trialed on the cannulation stencil. Fistula mapping were done by the nurse using a Site Rite ultrasound. Individualized cannulation stencil were created using a clear plastic sheet cut to the size of the fistula with markings of specific landmarks on the access arm added to assist with placement of the stencil on the patient’s arm. Patients were taught to use the stencil to mark exact needling sites prior to cannulation.

Results: There were twelve patients trialed on the stencil and the result was overwhelmingly successful. Both patients and carers can cannulate confidently without the added stress, anxiety and fear of potentially failed cannulations. Over the one year trial period, other benefits of the stencil were noted such as fewer episodes of extravasation, better fistula development, and prevention of pseudoaneurysm by being able to do rope ladder technique.

Conclusion: The cannulation stencil has successfully helped home haemodialysis patients overcome cannulation challenges during training and at home. It is helping to prevent failed cannulation and build confidence.
54. Exploring the benefit of blended learning to reduce patient training time and anxiety in a peritoneal dialysis unit

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Context: Recent publication of the International Society of Peritoneal Dialysis guidelines for teaching PD to patients, demonstrates little evidence to inform practice in this area. Emotional readiness is crucial in training, as success is derived from a patient’s ability to perform procedures safely and respond when intervention is required. The training program in our unit (as well as others) does not review emotional readiness or identify strategies to reduce anxiety prior to commencement of training.

Objectives: To introduce blended learning (electronic and face to face materials), 1 week prior to formal training to reduce patient’s learning anxiety. The team will measure knowledge and anxiety levels as part of the study prior to patients attending the online learning component, on its completion and on discharge home. Average training time will also be measured.

Key Messages: Anxiety is an emotional state that elicits psycho-physiological responses. It is often caused by feelings of fear or uncertainty. The association between anxiety and educational outcomes has been reported in educational literature; however, there is no evidence that reports interventions seeking to decrease anxiety levels associated with PD training.

Conclusion: This project aims to provide an innovative way of supporting patients in acquiring PD skills/knowledge, allowing engagement in learning better suited to their needs. It subsequently aims to decrease learner related anxiety, providing consistency in training and generating new knowledge in the management of PD patients.
55. Building capability in a rural renal nursing workforce: An initiative to address this barrier

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Context: Rural Renal Nurses employed in satellite dialysis units have limited opportunity to expand their renal knowledge and skills. To provide a rural renal service in which patient care can be supported along the chronic kidney disease (CKD) journey, the role of a renal nurse needs to focus on all aspects of renal nursing not limited to haemodialysis.

Objectives: To grow the rural renal workforce towards having the right number of staff with appropriate skills and knowledge to ensure a skilled workforce. A Renal Nurse Strategy Reserve Funding initiative provided the opportunity for facilitated placements at the tertiary hospital, the Renal Supportive Care (RSC) Hub and with the local Renal Outreach teams.

Key messages: Feedback from the tertiary hospital placements have overwhelmingly stated the strengthening of working relationships and understanding of team roles. RSC Hub placements have increased knowledge around the use of the symptom scoring tool (IPOS-Renal) and the role of RSC multidisciplinary teams. Renal Outreach placements have led to an increased understanding of patient care and management along the whole CKD continuum.

Conclusion: This initiative has led to an enhanced collaborative partnership between the tertiary and rural teams. Skills and knowledge have increased in relation to RSC, CKD and Home Therapies and there is a noted enthusiasm to learn more and provide support to the outreach clients. This has been complemented by renal nurses seeking and undertaking further education. An integrated Renal Service is now apparent.
56. Time to evaluate: What lies beneath?

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**Background:** In 2017 our renal service introduced a haemodialysis (HD) ultrasound (u/s) competency program to shift practice in cannulation technique for HD nursing staff. This created a practice change from blind cannulation of the arterio-venous fistula or arterio-venous graft to use of point of care ultrasound (POCUS) guided cannulation.

**Objectives:** To provide an 18 month appraisal of our HD u/s clinical competency program.

**Method:** An audit was conducted to assess: the number of nursing participants and their stage of competency achieved within the u/s program; the level of uptake in use of POCUS across the renal service. Patient perspective was assessed through interview to gauge their personal experience after their access was punctured using POCUS.

**Results:** 51 out of 58 nursing participants were assessed. Of these, 7 were HD enrolled nurses who were not required to complete the advanced level competencies. Although 100% of participants achieved a basic level of competency using POCUS, less than 50% of RN’s have completed the advanced level of competency. Whilst there was a demonstrated 10% uptake in use of POCUS across the HD service, the audit revealed sub-optimal data collection. All patients interviewed reported a positive experience when their access was punctured using POCUS.

**Conclusion:** The audit has shown that staff are achieving mastery in POCUS guided cannulation although not at the rate expected. Patients reported a positive POCUS access experience. This evaluation has led to a review of: u/s competencies and policy, Key Performance Indicators and the audit data collection tool.
57. Renal social workers present: Complex psychosocial case studies - What we can learn from them.

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Context: The Australian health system is currently overstretched by an ageing population, the growing burden of chronic illness and the increase of psychosocial complexities. These factors are evident and reflected in the chronic/ end stage kidney disease population. Renal social workers within a major tertiary hospital, utilise contemporary social work practices to support and maximise the psychosocial functioning of their patients.

Objectives: Extensive knowledge and experience in complex areas provides the foundation for renal social workers advancing their scope of practice. A collation of complex case studies was compiled and developed into a professional development (PD) presentation to provide education to new renal health professionals.

The complex cases included navigating the National Disability Insurance Scheme (NDIS), transitioning from active treatment to supportive care and ethical decision-making processes regarding home visiting patients with drug dependencies, working with dialysis dependent non-adherent patients and socially challenging transplant patients.

Key Messages: The main goals of the PD presentation are to further health professional’s knowledge of the social workers role within the renal context, to emphasise on the importance of working within the multidisciplinary team and effective communication, have an increase focus on person centred care and to understand the limitations of the health care and resources.

Conclusion: Renal social workers are advanced in their experience of working with challenging patients and are best placed to provide essential knowledge and education of these psychosocial complexities to the multidisciplinary team.
58. Dual Kidney Transplantation – an acute teaching hospitals experience: Does it answer all the hard questions regarding utilisation of marginal donors?

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Context: Chronic kidney disease (CKD) is a major health burden in Australia. Transplantation is a treatment option for CKD patients that approach end stage disease. To improve transplantation rates in Australia, increasingly marginal donors are offered and appropriate allocation of these organs remains challenging. Dual Kidney Transplantation (DKT) may be employed to prevent organ wastage of marginal donors for renal patients who are on the transplant waiting list for a long duration.

Objectives: To study the outcomes of patients who had DKT in a teaching hospital from 2008 -2018. Patient related outcomes were reviewed including patient and graft survival, delayed graft function, length of stay, surgical and wound complications and correlated with donor details such as age, past medical history and KDPI score

Key messages: DKTs allow marginal donor kidneys to be used so that CKD patients can be benefited. Usage of organs on DKT options helps to reduce discarding organs and meeting organ shortages. Transplant outcomes and graft function has been studied to aid clinicians when discussing the benefits and risks of DKT when offered to a patient. Quality of Life is improved on long standing dialysis patients with DKT options.

Conclusion: Review of DKT s has demonstrated positive outcomes with respect to patient and graft survival, overall graft function in relation to KDPI and longer lengths of hospital stay are noted. In the setting of a marginal donor, DKT can help a CKD patient to break the bondage of dialysis and lead a near normal life.
**60. Dialysis catheter brands - real time data from the REDUCTION project**

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**Introduction:** Dialysis access catheters are used in more than half the patients starting haemodialysis in Australia. There is no understanding of the heterogeneity of catheter manufacturers across the country nor guidance on variation in outcomes. Data on brands used, complications and catheter duration would allow units to make informed decisions on product supply.

Using REDUCTION (Reducing the burden of dialysis catheter complications) project data, we have evaluated dialysis catheter brands and types in patients of participating units.

**Methods:** Data was collected on all patients who had a dialysis catheter inserted between 20/12/2016 and 12/02/2019 (censored) at the 42 REDUCTION participating units. Data collection continues.

Data on catheter brands was collected for tunnelled catheters and includes product codes, capturing brand, catheter length and other configuration features.

**Results:** From 6816 dialysis catheters, 5114 were tunnelled. Catheter brand was missing for 5 catheters. Brand 1 (n=1611), Brand 2 (n=1159), Brand 3 (n=1134) and Brand 4 (n=617) are the most common used out of 7 brand groups. Median duration differed with the longest being Brand 5 (135.5 days (IQR 64-195) followed by Brand 3 (104.5 days (IQR 36-202). Brand 2 catheters had the shortest catheter duration at 72 (27-128) days.

**Conclusion:** The REDUCTION project has created opportunities to evaluate the type of dialysis catheters used across ANZ. Further, project data can also comment on catheter types and duration. Additional information on catheter brand use and potential associations with infection rates and catheter complications will be available once the study is complete in March 2020.
61. The comparative effectiveness between antimicrobial agents and heparin alone as central venous catheter lock solutions to reduce the incidence of catheter-related infection in haemodialysis patients: a narrative review and synthesis of the literature

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**Background:** Infection related to central venous catheter (CVC) use is recognised as a significant clinical challenge among the haemodialysis population. While the infection prevention and control strategy commences with the routine CVC care, intraluminal locking solutions are considered an adjuvant approach; however, there remains no standard of care surrounding this area.

**Aim:** The intent was to generate evidence on the comparative effectiveness between the intraluminal heparin and the antimicrobial lock solutions in the prevention and control of catheter-related infection through a synthesis of the literature.

**Method:** Journal articles in the English language were sourced from the MEDLINE (PubMed), Google Scholar, ProQuest Health & Medicine Complete and Cochrane Register of Controlled Trials (Central) databases published from 2008 through 2018. Eleven primary and four secondary research articles met the inclusion criteria using the keywords antibiotic or antimicrobial lock, catheter or catheter-related bloodstream infection and dialysis.

**Results:** Related research articles revealed that antimicrobial locks, both antibiotic- and non-antibiotic-based, are more efficacious than the conventional heparin lock in the prevention and reduction of CVC-related infection. However, the extensive use of antibiotic-based CVC locking solutions has paralleled the emergence of microbial resistance.

**Conclusion:** The review of relevant references suggests the superiority of antimicrobial lock over heparin lock as an adjunct measure to hamper the development of infection from haemodialysis catheter use. While there is no established recommendation on which antimicrobial agent to use, susceptibility for antibiotic resistance must be identified to allow an individualised approach on antimicrobial lock prescription.
62. Clinical Renal Physiologist an evolved workforce

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Objectives: The journey of a clinical Renal physiologist professional workforce and how we evolved as a recognised profession in New Zealand.

Context: Renal Physiologist workforce has been an integral part of dialysis setting. However, the workforce lacked national governance structure and a framework as a profession. Workforce development was done ad-hoc in-house training, in the form of certification by individual DHB.

Early 2000's a lack of locally trained personal, spurred recruitment of overseas trained personal.

Forecasted patient number increases on dialysis stressed the importance of an increase in workforce planning.

The professional group was formed in conjunction with renal nurses and nephrologists called the New Zealand Board of Dialysis Practice (NZBDP) in 2001.

We'll share our success and progress on the tertiary course that’s been run by MIT

Key message: NZBDP developed the Scope for Practice, competencies, training curriculum, Annual Practising Certification and registration. NZBDP also involved in establishment of tertiary qualification in alignment with future qualification framework for Allied Health Scientific and Technical profession by health workforce NZ. This qualification is now offered through Manukau Institute of Technology (MIT) since 2015 with involvement of regional DHB stakeholders.

Conclusion: This profession has evolved into a fully established health profession with structure and framework as an established profession in New Zealand and Australian society of renal dialysis practice Inc. (NZASRDP) managing professional society functions and Clinical Physiologist Registration Board (NZ) for managing registration body functions along with 5 other speciality physiologists professions.
63. Challenges for a sustainable ESRD Program: Value-Based Care

Jason Wei

Introduction: What is the value of the healthcare? It might be one of the hardest questions to answer, the healthcare market is shifting from volume based care to value based care, what is the value based care and why we need to do it and how to do it in ESRD program, these are the things I will present and share the review from current papers. I will talk about the challenges currently we face from the access to the healthcare system, the cost for that, the quality we delivery to and the sustainability of our nephrology practice at a global warming situation.

Objective/purpose: To bring the awareness of the challenges we facing related to value based care and the ways we can do to shift from volume based care to value based care, especially in our ESRD dialysis program.

Methods/approach: Literatures review

Implications: Changes make difference.

Conclusion: Healthcare system is shifting from volume based care to value based care in order to deliver the highest possible of quality of care at the lowest possible cost and for the long term sustainable practice, ESRD program is one of the most expensive one in healthcare system, the proper quality makers to be selected and measured are the good start to practice from volume based care to value based care.
64. Patient perceptions of transplant process, home based education and peer support

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**Background:** In order to increase live kidney donation rates our service implemented new initiatives including educational resources, home based education and a peer support programme. It was important to assess the effect these changes had on patient perceptions of care.

**Aims:** Analyse the perceptions of care of donors and recipients to assess the effectiveness of service changes.

**Method:** Semi-structured focus groups and telephone interviews were conducted with 11 previous donors, 14 recipients, and three support people, of live kidney donation prior to project implementation. Following the service changes, feedback was then sought from 20 donors and 18 recipients, and patients who had used the Peer Support programme and/or the Home Based Education programme (totalled 36).

**Results:** The main themes identified were the ‘Emotional impact’ of donating/receiving, ‘Time’ (mainly frustration at delays), ‘Communication’, ‘Patient-Practitioner Interactions’, ‘Impact on Life’ and ‘System issues’. Most patients reported the initiatives (education resources, home based education, peer support) helped them decide to donate or receive a kidney.

**Conclusions:** Significant barriers and concerns were reported by donors and recipients prior to service changes. These negative experiences led to the rise of negative emotions (such as guilt, depression, helplessness, anxiety) in both donors and recipients. Many of these barriers were no longer prevalent in the participants’ feedback, or were not as prominent, post service changes.

Enhancements in communication and patient-practitioner relationships could go far in improving patient outcomes and satisfaction with their health care services.
65. Introduction of Green Nephrology/Dialysis-way to support a sustainable RRT

Jason Wei¹

¹ RSA

Introduction: Climate change /global warming is the biggest global health threat of 21st century, tackling climate change could be the greatest health opportunity of the 21st century, global warming is direct/indirect impact on our health and related to more CKD as well, at the same time our daily clinical practice which is not that much environmentally health, create lot of CO2 and use/waste lot of resource (water, energy) especially in haemodialysis practice, so how to reduce the CO2 emission that comes from our dialysis practice especially how to save the water, energy and reduce the medical wastage is becoming a big challenge for our renal society. Green nephrology /dialysis practice is the program that is good to environment, patients, social and economic friendly and is sustainable to the future.

Objective/purpose: bring the current situation of climate change/global warming information and how that is related to our dialysis program, and bring some practice information on green nephrology / dialysis

Method/approach: Literature review

Implication: Green Nephrology practice is the key to a sustainable future of our ESRD program.

Conclusion: Global warming of 1.5 degree C by 2100 Not 2.0 degree C is the key message to everyone, green nephrology/dialysis practice is the way to reduce the greenhouse gas from our daily practice from unit design, material selection to our daily clinical operation.
66. Utilising an advanced scope pharmacy assistant to assess medication adherence: MAQ a difference

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**Background:** Medication non-adherence in chronic kidney disease can play an important role in the progression of the illness. Improving patient compliance can contribute to improving health care outcomes.

**Aim:** To assess medication adherence of patients with Chronic Kidney Disease prior to their clinic appointment with a renal pharmacist.

**Method:** Over 18 months an advanced-scope pharmacy assistant asked patients over the phone to consent to undertaking a validated Morisky Medication Adherence Questionnaire (MAQ). They were asked to answer yes or no to four questions:

- Do you ever forget to take your medicine?
- Are you careless at times about taking your medicine?
- When you feel better, do you sometimes stop taking your medicine?
- Sometimes if you feel worse when you take your medicine, do you stop taking it?

Results were collated and patients were identified as adherent, unintentionally non-adherent, intentionally non-adherent or a mixture of both types (intentionally and unintentionally non-adherent). The patient dispensing history was also obtained for clinical review.

**Results:** A total of 308 patient responses resulted in:

- 48% identified as adherent
- 41% identified as unintentionally non-adherent
- 5% identified as intentionally non-adherent
- 6% identified as a mixture of both types (intentionally and unintentionally non-adherent)

**Conclusion:** The pharmacy assistant identified suspected medication non-adherence prior to the pharmacist clinic appointment. It enabled pharmacists to prepare targeted intervention strategies and improve clinic effectiveness in patients with Chronic Kidney Disease.
67. Does a patient centred approach with the dialysis dietetic and nursing services increase adherence to dietary modifications to improve health outcomes and quality of life?

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End Stage Kidney failure from chronic kidney disease (CKD) requires extensive dietary changes to manage potentially life threatening electrolyte build up as well as fluid overload and malnutrition risk on dialysis. Dietary intake studies have shown patients’ experience difficulty in adhering to the scope and complexity of these dietary recommendations, which can increase morbidity and mortality in these patients. Patients on dialysis are inconsistently consulted regarding the support they desire to meet their personal goals to manage their condition. Our Key Performance Indicators (KPI) within our haemodialysis unit, indicated only 85% of patient report both confidence in managing their condition through diet, and satisfaction with the dietetics service. Our survey indicated that patients wanted more visual displays, cooking sessions and even shopping tours to enhance the way they learn and engage in making dietary modifications to improve their health outcomes. The aim of this project is to implement a patient centred multi-disciplinary education program (involving both nursing and dietetic staff) by tailoring education around our patients self-reported needs to aid adherence and improve outcomes for our patients. To undertake this project, visual displays and pre/post quizzes will be developed targeting specific nutrients (as well as the correct use of phosphate binders and managing fluid restriction), knowledge and the Quality of Life Survey (KDQOL-SF version1.3 ). This project aims to improve changes in biochemistry, knowledge and Quality Of Life survey results and improve patients overall confidence in managing their condition and satisfaction with the dietitian.
68. Are we wasting your time? Improving time efficiency for patients and families attending a kidney supportive care program.

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Background: Kidney supportive care (KSC) is a multidisciplinary clinic for people with advanced chronic kidney disease (CKD) and their families/carers. Palliative care, renal and allied health professionals are integrated into one clinic to provide symptom management, psychosocial support and assistance with advanced care planning.

Aim: Influenced by the #last1000days initiative, KSC assessed and changed the service delivery to improve time efficiency for patients and families/carers.

Method: We used a retrospective review of i) data gathered between February 2016 and January 2019 from the Integrated Palliative Care Outcome Scale (IPOS) Renal tool and ii) clinical records. The service was restructured in October 2018 to reduce “wasted time” by offering joint clinical assessments with 2 or more clinicians.

Results: Over the study period 343 people attended the clinic. 31% and 15% respectively of IPOS-renal responses identified that “up to” and “more than half a day was wasted on medical appointments in the past week”. KSC appointment lengths were 1.5 to 3 hours to accommodate time with up to 4 different professionals (nursing, medical, pharmacist and social work). After changing the service delivery model, 67% of appointments (n = 85) were shorter; a saving of 30-60 minutes for each patient and/or family.

Conclusion: Time is a precious resource, particularly for people with advanced CKD and their families/carers who attend many health-related appointments. Prioritising patients’ time, maximising the usefulness of appointments and minimising wasted time should be central to all areas of healthcare delivery.
69. Maintaining Patient and Staff Safety during Practice Change

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**Background:** Catheter related blood stream infection (CRBSI) is one of the most frequent, lethal and costly complications related to central venous catheterization. To address the increased incidence of CRBSI, the Renal Service implemented the introduction of the use of needle free CVC connectors for haemodialysis (HD) patients with central venous catheter (CVC) across 9 HD centres. The challenge was to maintain patient and staff safety during the practice change.

**Aims:** The aims of the project were to maintain patient and staff safety during the introduction of needle free connectors for HD patients with CVCs and reduce the incidence of CRBSI.

**Method:** Utilising the plan, do, study and act cycle, the Renal Service implemented a change in practice during the introduction of the use of needle free CVC connectors on HD patients with CVC.

**Results:** 177 CVCs were inserted during the project period. Consumers approved and were satisfied of the change. 87% (21/24) of staff who responded found the needle free CVC connectors were safe, efficient, economical and easy to use. The project demonstrated that the number of CRBSI over a 12 month period reduced by 0.5% from previous year. 0% staff incidence of needle stick or blood splashes during the project period.

**Conclusion:** Overall the project demonstrated that patient and staff safety could be maintained during a practice change. It supported that the use of needle free CVC connectors have reduced the incidence of CRBSI. Both patients and staff felt extremely satisfied with the practice change.
70. Psychosocial factors and the value of the social worker in a kidney supportive care multidisciplinary team

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Context: People with advanced chronic kidney disease (CKD) face complex biological, psychological and social challenges. Kidney supportive care (KSC) combines palliative care, renal, pharmacy and social work clinicians to provide personalized care for people with advanced CKD and their families/carers.

Objectives: To:

\begin{itemize}
\item report the psychosocial factors in the KSC population between February 2016 and January 2019, as measured by the iPOS-Renal tool
\item illustrate the functions of the social worker in the KSC team, using a case study methodology.
\end{itemize}

Key messages: Of the 343 patients attending KSC over the study period, advance care planning (ACP) and/or social factors were the second and third, respectively, most common reasons for referral to KSC. Of completed iPOS-Renal responses, 13\% reported feeling depressed, 18\% were anxious or worried about illness or treatment and 40\% identified unaddressed practical problems attributable to their illness. Carer worry or stress was a significant issue with 31\% identifying that family or friends have been anxious or worried about them.

To illustrate the value of the social worker we describe a case example, Ms X. The social worker was instrumental in ACP incorporating Ms X’s Aboriginal heritage and values, supportive counselling for historical trauma, safety planning for domestic violence, appropriate carer involvement, linkages to community agencies and reported improvement in quality of life.

Conclusion: Psychosocial factors are a significant component of the burden of symptoms in people with advanced CKD. The social worker brings important skills into a KSC interdisciplinary team, addressing complex treatment and support needs of patients and families/carers.
71. Living with haemodialysis: Patients’ social support and quality of life and their family carers’ level of burden

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Background: Support from family carers is crucial for people undergoing haemodialysis (HD) and this may be associated with patient’s health related quality of life (HRQoL). There is, however, limited knowledge about the relationships between social support, family carers’ burden and patients’ health outcomes.

Aim: To examine whether patients’ social support is associated with HRQoL, and whether carer burden is associated with patients’ HRQoL.

Methods: Using a cross-sectional design, 168 patients on HD completed the Medical Outcomes Study - Social Support Survey (MOSSS) and the HRQoL 36-item short form (SF-36) survey. Paired carers (n = 168) completed the Zarit Caregiver Burden Scale (ZCBS). Demographic characteristics were also collected from both groups.

Results: Most patients were male (53.6 %), average age of 49 years (±14.25), and HD duration was about 6 years (range 3 months-21 years). Most carers were female (57.1%), mean age of 45 years (±14.35) and most were a spouse (57.7%). In patients, the perceived availability of social support was significantly correlated with the mental health component of HRQoL (r = 0.185, p<0.05) but not with physical health. Carer burden was negatively correlated with the patients’ reported level of mental health (r = −0.16, p<0.05).

Conclusion: When patients undergoing HD perceived more support was provided by carers, and also when their carers reported less burden, the patients were likely to have better mental health. For nurses, assessing patients’ support needs as well as the burden on their carers should be part of routine care.
72. “Light at the end of the tunnel for an acute in-centre haemodialysis unit”

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Context: The rise in the incidence of Chronic Kidney Disease (CKD), progressing onto end stage kidney disease, resulting in renal replacement therapy is well documented. This paper will highlight the challenges and outcomes of continuing to provide a high quality service for patients in an acute haemodialysis unit with 10 chairs within a tertiary hospital setting. This unit manages combined treatment demands on acutely ill patients requiring specialised care for both haemodialysis and therapeutic plasma exchange.

Objectives: To identify gaps in our service delivery and have open communication with medical and nursing directors in collaboration with hospital administration to acquire adequate staff and space.

Key messages: Establishing a suitable working group to identify areas for resource support and structural change and to implement changes accordingly. Propose a plan to assess space and safety in order to maintain best practice standards.

Conclusion: Provision of accurate data by our manager, showing an increase in the number of treatments on our current number of chairs was pivotal for reviewing the capacity management of our unit. Successful collaborations and negotiations have resulted in a positive outcome for our unit. We have secured an extra 4 chairs and an increase in our effective full-time staff for now. Currently there are plans in place for further expansion of this service in the near future.
73. One Centre’s experience of introducing a shared care program into a satellite haemodialysis unit

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Context: Currently, long-term haemodialysis (HD) patients in Western Australia have two options – to be completely independent on HD at home or completely dependent on the nursing staff for their HD in a hospital or satellite environment. Research has shown that patients want to be more actively involved in their treatment and this in turn improves their quality of life.

Objectives: To report on the experiences of setting up a shared care HD program into a satellite unit in Western Australia. The unit is six months into a year-long quality improvement project.

Key Messages: Introducing a shared care program requires the dedication of nursing shared care champions to train patients and promote the program. Shared care must be tailored to meet the needs of the patient, with all patients choosing their level of independence and working with the champions to achieve that. A case study of a patient who achieved independence on HD and the benefits this brought to his life will be presented, along with hints and tips from the shared care champions on how to ensure success.

Conclusion: Shared care aims to bridge the gap between the traditional home HD and satellite HD models of care. Patients involved in shared care find increased levels of confidence, self-esteem and independence. The shared care champions enjoy improved job satisfaction from the changed dynamic with their patients, from a parent/child relationship to an adult/adult relationship.
74. Partnering with consumers: A survey of patients undergoing chronic haemodialysis in a regional satellite unit

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Background: Patients undergoing chronic haemodialysis have a significant symptom and treatment burden, which may lead to diminished quality of life. Our haemodialysis unit is a regional satellite unit in Victoria. In order to optimise patient well-being, it is vital to understand factors from a patient perspective of how we can improve our care and service delivery.

Aims and Method: We performed an initial and 6 month follow up survey of all the 20 patients undergoing haemodialysis in our regional satellite unit. We sought to evaluate what patients felt were performed well in our unit, what could be improved upon and any general feedback.

Results: Responses were received from all 20 patients within our unit. We found that our patients valued the care, empathy and compassion given to them within our unit. Given our small unit, there was a feeling of belonging to a community, which all felt was important. 7/20 (35%) of respondents initially requested storage lockers for personal belongings and were all grateful once this was instituted in the follow up survey. They also felt more staff and patient activities such as morning and afternoon teas and fundraising days may help with morale within the unit.

Conclusion: This survey completed by our patients gave both staff and patients of our unit a sense of what is valued and important in their haemodialysis treatment. With ongoing patient input and feedback, we hope to improve their quality of life and care delivery.
75. Reasons for dialysis catheter insertion - real time data from the REDUCCTION project

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Introduction: More than half the patients starting haemodialysis in Australia commence with a dialysis access catheter. Indication for dialysis catheter insertion have not been measured on a national basis. The REDUCCTION project collects dialysis catheter information across 42 Australian and New Zealand Renal units, including reason for insertion. Reporting data in real-time allows units to measure practice and place catheter use in a national context.

Methods: Data was collected on patients who had a dialysis catheter inserted between 20/12/2016 -12/02/2019 (censored) at 42 participating sites. Data collection continues.

Indication categories included: Acute Kidney Injury (AKI), commencement of maintenance dialysis, arteriovenous fistula/graft (AVF/AVG) dysfunction, transition from Peritoneal Dialysis (PD) without permanent vascular access and other.

Results: Data on 6816 (4588 patients, 733,017 catheter days) dialysis catheters were captured. Reasons for catheter insertion are: AKI (n=2341, 34%; 59% Tunnelled), commencement of maintenance dialysis (n=2087; 31%; 85.0% tunnelled), AVF/AVG dysfunction, (n=928, 14%; 41% tunnelled), transition from PD (n=784; 12%; 11.8% tunnelled), and other reasons (n=670; 10%; 17.5% tunnelled).

Tunnelled catheters (n=5114) contributed the majority of catheter days (709,097 days, 96%). 1555 catheters remained in situ at censor date while 5261 catheters were removed after a median of 26 days (IQR 7-106 days). The median duration for tunnelled catheters was 89 days (IQR 29-194) and non-tunnelled was 6 (IQR 3-9) days.

Conclusion: The data suggest opportunities to reduce catheter usage by understanding patients with AKI requiring dialysis, identifying those starting chronic HD promptly and better managing the transition from PD.
**76. “Welcome Group”: A multidisciplinary interactive group session designed to introduce patients to Chronic Kidney Disease (CKD) management**

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¹ Metro North Hospital and Health Service

**Context:** All patients triaged to the Chronic Kidney Team (CKT) are invited to attend a “Welcome Group” session prior to their first clinic visit. This session introduces patients and their families to the multidisciplinary team (MDT) and model of care, providing an overview of CKD, risk factors, goals of management, and includes self-management strategies.

**Objective:** The CKT “Welcome Group” encourages greater understanding of CKD, promotes self-management and patient engagement with healthcare, with the aim of increasing health literacy, patient participation and slow disease progression.

**Key Message:** The “Welcome Group” concept was devised in 2010 in response to an identified need for the development of an education platform within the CKT cohort in a multidisciplinary approach.

The sessions are facilitated by all members of the MDT, integrating the use of digital media including patient feedback comments, staff presentations and video presentations. Patient involvement, interaction is an important aspect of the group.

Of the participants who completed feedback regarding the welcome group 88% were satisfied or very satisfied with their degree of learning regarding active health management. Furthermore, 66% of respondents reported plans to monitor blood pressure at home, 88% planned to consider dietary changes and 90% intended to record their medications for appointments.

**Conclusion:** The Welcome group is an innovative educational concept that involves a unique MDT model of care. It provides patient-focused forum that delivers efficient and effective education, evidenced by feedback received from the target audience.
77. Patterns of outpatient clinic utilization by elderly patients on haemodialysis: Is this patient-centred care?

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**Background:** Chronic kidney disease is associated with a myriad of other conditions such as diabetes and its sequela. Patients end up attending multiple specialist outpatient clinics thereby negating the principles of patient-centred care, which takes into account individual needs and preferences, quality of life, symptom burden, and the presence of other medical conditions. This study aimed to describe the pattern and frequency of attendance to outpatient clinics by elderly patients on haemodialysis.

**Methods:** A 2-year retrospective audit was conducted on outpatient clinic attendance by 41 elderly patients (75 years and above). Data on all scheduled outpatient clinic appointments was collected. The actual numbers of attended and non-attended clinic appointments were determined. Dialysis appointments were considered as clinic time.

**Results:** The average age of participants was 79.8±3.9 years; 45% were women, and diabetes was the main cause of kidney disease (42.5%). Participants had 665 scheduled clinic appointments over the 2-year period, which was at least 16 clinic days per patient. 365 scheduled appointments were for renal, 36 for diabetes and 264 for other clinics with non-attendance rate of 27.7%, 13.9% and 48.9% respectively. When dialysis time was considered, patients spent an average of 45% of their time either attending outpatient clinics or having dialysis.

**Conclusion:** Elderly haemodialysis patients spend a significant amount of time navigating the health-care system. Consequently, they end up receiving sub-optimal care due to failure to attend some clinic appointments. A multidisciplinary clinic may be an appropriate medium of delivering patient-centred care to elderly patients on dialysis.
78. My experiences with kidney care: A Northern Australian qualitative study of adults living with CKD, dialysis and transplantation

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Context: Australian accreditation standards recommend health services partner with health care users to ensure the highest quality of care. Within a mainstream renal health service in the Top-End of the Northern Territory, we undertook a qualitative study with 29 adult clients from urban, regional and remote settings who were living with chronic kidney disease (CKD).

Objectives: Using in-depth interviews, and guided by an Indigenous patient reference group, our aim was to determine adult health care users’ experiences of and satisfaction with their mainstream renal service provider.

Key Messages: Client characteristics included a mean age of 55 years, 16 were female, 23 identified as Aboriginal. Clients’ kidney health condition included CKD without renal replacement therapy (13), receiving haemodialysis (11), kidney transplantation (4) and peritoneal dialysis (1). Key themes related to perceived gaps for clients and carers including: unmet need for holistic care, information needs, and opportunities for enhanced service delivery. Clients recommended the inclusion of patient-led collective care, including sustaining the Indigenous Patient Reference Group established for this project to support ongoing service decision processes.

Conclusion: Clients reported collective caring preferences, which resonated with patients’ perceptions of the missing elements of living well with CKD. The Indigenous Patient Reference Group was one mechanism recommended to support the co-design of preferred care models. Participants included people with CKD (not receiving dialysis) and people receiving renal replacement therapy, which adds weight to recommendations for patient-centred models of kidney care across the CKD spectrum.
79. Renal clinicians experience in establishing and maintaining a professional relationship: A systematic review

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Background: People with end-stage kidney disease (ESKD) receiving haemodialysis interact with renal clinicians over many years, often decades. Both clinicians and patients have expressed the notion that a unique professional relationship develops in a haemodialysis unit which is similar to being part of an extended family.

Aim: To review studies about the experiences of renal clinicians in establishing and maintaining a professional relationship with people with ESKD who are receiving haemodialysis treatment.

Methods: A systematic review of qualitative studies was conducted using the Joanna Briggs Institute (JBI) methods. Six databases (PubMed, CINAHL, EMBASE, PsycINFO, Cochrane Library and JBI library) were comprehensively searched using keywords for studies published in English from January 2008 to January 2019.

Result: Three studies met the inclusion criteria and after meta-synthesis the following themes emerged: professional relationships need to be built on trust; renal clinicians established trust with patients to improve their quality of life, renal experience, and treatment adherence; and the creation of a trusting relationship which then precipitated a professional bond to evolve between a patient and clinician. Clinicians maintained this professional bond by demonstrating empathy to patients and by using emotional detachment as a strategy to protect their wellbeing whilst providing emotional support to patients.

Conclusions: Due to the longevity of ESKD, there is a heightened importance to maintain and sustain a professional relationship. Surprisingly, few recent studies have been conducted into this social process warranting further research.
80. Acetic acid dressing for pseudomonas exit site infection in peritoneal dialysis patients: Single centre experience

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**Background:** Pseudomonas exit site infection (ESI) often results in catheter removal despite intensive antibiotic treatment. Our peritoneal dialysis (PD) unit experienced repeated episodes of pseudomonas ESI. We report pseudomonas infection rates of in PD patients (pts) before and after using 2.5% acetic acid dressing (AAD) for infected exit site with Pseudomonas.

**Aim:** To analyse the effectiveness of 2.5% acetic acid use for infected Pseudomonas ESIs

**Methods:** Observational Cohort study. Pseudomonas ESIs episodes between 2017 and 2018. We compared three groups with Pseudomonas ESIs using different antiseptic agents. Group 1 - Betadine dressing (BD) only, Group 2-BD first and later change to AAD, Group 3- AAD only. All patients received standard oral antibiotics as our unit ESI policy. There were 18 patients with follow-up 16.5 patient years; 10 pts in Group 1 for 7.5 years, 3pts in Group 2 for 5.8 years (BD 3.5yrs: AAD 2.3yrs) and 5pts in Group 3 for 3.2 years.

**Results:** 28 Pseudomonas ESIs developed in 18 pts; 6 patients had 1-3 repeated Pseudomonas ESIs. Group 1 developed 5 repeated Pseudomonas ESIs in 4pts after initial Pseudomonas ESI, Group 2 developed 5 repeated ESIs in 3pts during the BD period. No repeated pseudomonas ESIs were recorded in Group 2 after AAD and no repeat ESI occurred in Group 3.

**Conclusion:** Repeated Pseudomonas ESI rates can be reduced using 2.5% acetic acid for chronic ES dressing. Acetic acid PD dressing use to eradicate Pseudomonas ESIs merits further investigation.
81. Zero haemodialysis catheter infection in acute setting – case study

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**Background:** Patients with End Stage Renal Disease (ESRD) requiring Renal Replacement Therapy such as Haemodialysis (HD) require vascular access for their treatment. Whilst the gold standard is to commence HD via an arterio-venous fistula, this is not always possible. Patients often commence their first treatment via a Vascular Access Catheter (VAC) which can be cuffed or non-cuffed. In spite of the high incidence of catheter related infections (CRI) which is well documented, using a vascular access catheter for HD remains common.

**Aim:** To highlight how an Incentre dialysis unit of a large teaching hospital has kept low rates of catheter related infections.

**Method:** Regular auditing is performed by our infection control portfolio holders. They closely work with our Nurse Unit Manager and the Infection Control department. Depending on findings of these audits, action plans may need to be developed.

**Clinical findings:** Our unit had one episode of CRI over the past 3 years. The strategies which we have used to reduce CRI include 1) ensuring that all staff are up to date with infection control competencies such as aseptic technique, 2) proper documentation and 3) promoting both staff and patient education.

**Summary:** The incidence of CRIs cannot be underestimated, therefore it is central for all staff caring for these patients to be vigilant in adhering to protocols in place. This was successfully achieved in our unit where the rate CRIs was reduced.
82. REDUCCTION – Interventions to reduce dialysis catheter related bacteraemia

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Introduction: Dialysis catheter use is ubiquitous in Australian dialysis patients. Further, there is large clinical variation in dialysis catheter management practices across Australia. Multiple interventions to reduce infection rates have been proposed but high-quality evidence is limited.

As part of the REDUCCTION (Reducing the burden of dialysis catheter complications) project, we have implemented a suite of evidence-based interventions across 37 renal units in Australia to reduce the rates of bacteraemia.

Methods: The REDUCCTION intervention guidelines were designed by a voluntary clinically qualified project subcommittee and included representatives from KHA-CARI. An up-to-date search was conducted on publications related to dialysis catheter infection prophylaxis. The search results were reviewed by the sub-committee to inform the final suite of intervention guidelines. The guidelines are designed to be pragmatic, and have been divided into Interventions employed at the time of dialysis catheter insertion, ongoing maintenance, and advising catheter removal.

Results: The REDUCCTION Intervention suite was implemented in a stepped-wedge design across 37 Renal units. The Intervention has remained confidential until March 2019, the time point where all sites now implement the intervention guidelines on catheter care.

The key components of the intervention guidelines which required the most standardisation involve the use of an antimicrobial dressing OR an antimicrobial locking solution throughout the catheter duration.

Conclusion: The REDUCCTION suite of interventions is now implemented across all the sites of the REDUCCTION project. Data collection for the project continues until March 2020, which will determine whether bacteraemia rates have changed as a result of the Intervention.
83. Screening for risky alcohol and drug use is everyone’s business!

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Substance use in people who suffer chronic ill-health can complicate the presentation and management of any co-existing medical problem. Therefore, screening and early brief intervention for risky substance misuse should part of the arsenal of all clinical staff who manage these people. Asking a patient to answer a few simple questions about their alcohol and drug use and engaging them in a brief conversation (Aka a brief intervention) about their drug use, may be all that is required to significantly affect their clinical outcome. In this presentation, David will provide an overview of the research he has been involved in that has explored the effectiveness of screening and early brief intervention for risky substance use. This review will show that linking the results of such screening to a brief intervention can reduce the harms of alcohol and other drugs and therefore could potentially improve patient outcomes.
84. A prospective randomized controlled trial in comparing the usage of 95% Silver Nitrate Caustic Pencil versus 2% Aqueous Chlorhexidine Swabstick in treating peritoneal dialysis catheter exit-site granuloma – A pilot study

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**Background:** Exit-site granuloma is a common complication associated with Peritoneal Dialysis (PD) catheter. Granuloma cauterization with silver nitrate (AgNO₃) is the usual treatment. However, the treatment is corrosive and patients always complained of discomfort. Other non-invasive treatment may be an alternative to minimize AgNO₃ side effect.

**Aims:** To examine clinical efficacy and adverse effects in using silver nitrate versus 2% Aqueous Chlorhexidine (CHG) Swabstick in treating PD catheter exit-site granulomas.

**Methods:** A randomized controlled trial was conducted in two renal centers in Hong Kong. Forty-four patients with PD catheter exit-site granulomas were randomly allocated to receive either AgNO₃ (control) or 2% CHG Swabstick (study) treatment (1:1). Both groups were followed up for six weeks.

**Results:** The success rate of CHG group was 77.8%, which was significantly lower than the AgNO₃ group (100.0%, p=.04). The mean day-to-heal was significantly longer in CHG group (32.8+/−3.72) compared with AgNO₃ group (12.3+/−3.43), p<0.02. Moreover, the CHG group reported a higher rate of exit-site infection than the AgNO₃ group (18.2% vs. 5.0%) but was not statistically significant (p = .346). Compared with the AgNO₃ group, patients in the CHG group reported significantly lesser adverse reactions (54.5% vs. 9.1%, p = .001) and a lower mean pain score (2.26 vs. 0.71, p = .005).

**Conclusion:** Although patients in the CHG group took longer time than the AgNO₃ group to remove the granuloma, they expressed less discomfort. Enhanced patient training with proper dressing technique to prevent exit-site infection should be emphasized when introducing the CHG treatment.
85. You talk, we listen. Using patient and carer experiences to identify quality improvement activities.

Anne Britton¹

¹ SA Health

Background: Involving patients and carers in care improvement is essential to achieving high quality of care.

Aim: To collect and analyse stories about patient and carers experiences within the dialysis service.

Method: An information sheet with an explanation of why we are collecting patient stories was provided to all dialysis patients within the service. Patients interested in being involved in the project completed a consent form and if they wished to receive a de-identified project summary, they provided their contact details. A semi-structured discussion using open questions was utilised. Discussions took place in dialysis units facilitated by two nonclinical nursing staff.

Results: Stories were collated and themed. Themes included being “resigned” to chronic illness, loss of “health”, missing work life, inability to take holidays, transport and car parking. Issues which arose during the conversation which could be “quickly fixed”, for example a problem with accessing pension, were passed on to the Dialysis Nurse Unit Manager with the patient’s permission.

Conclusion: Themes identified have been invaluable in prioritising quality improvement activities for 2019 along with identifying patients and carers who wish to actively involve themselves in focus groups, research and development of communication strategies across the service including a patient contribution to a regular bulletin plus increasing the “home first” focus for treatment and shared care in the dialysis unit setting.
86. Syria to Australia – The Journey to Home (Dialysis)

Anne Britton¹

¹ SA Health

Context: The journey of a 36 year old Syrian born man, and his family, escaping the war torn country of their birth. Their journey made more complex due to Mr A's End Stage Kidney Disease requiring regular haemodialysis. Mr A’s physical disabilities related to injuries sustained by the war made it difficult for Mr A to perform the treatment independently. Mr A and his wife sought a transition to managing Mr A’s dialysis needs at home.

Objective: Successful transition of care from a satellite centre to self-managed home based therapy

Key Messages: Make Home dialysis an option for all. Multi disciplinary approach implemented to assist in the transition to successful home therapy. Consumer the focus in the planning and outcome.

Conclusion: The renal team worked collaboratively with Mr A, his wife, and interpreters to make the transition to a home based therapy a reality. Challenges still arise, but a collaborative approach ensures consistent and safe care.
87. Experience of symptom clusters and their impact on daily living among patients undergoing dialysis

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Background: Symptoms in patients receiving dialysis co-occur and cluster together. These symptom clusters are associated with negative patient outcomes. In previous studies, symptom clusters were derived using quantitative approaches. Little is known about the experience of symptom clusters from patients’ perspectives.

Aims: To explore the experience of symptom clusters and their effect on daily living in dialysis patients over one year.

Methods: Ten informants were selected from the sample of a longitudinal survey according to their gender, dialysis modality, and symptom distress score. Semi-structured interviews were conducted at enrolment, six and twelve months. Conversations were audiotaped, transcribed, and analysed using qualitative description and thematic analysis.

Results: The informants experienced a maximum of 8 concurrent symptoms. The most common symptoms were tiredness, sleep disturbance, and itching. Throughout the interviews, the informants disclosed some relationships through the narratives of individual symptoms. Relationships were commonly described between: 1) tiredness and sleep disturbance; 2) tiredness and breathlessness; and 3) tiredness and dizziness. Patients perceived changes in symptom experience by the consequences of symptoms (e.g., impaired functioning, hospitalisation) instead of the status of specific symptoms. Concerning the effect of symptoms on daily living, three themes emerged: “decreased physical functioning”, “decreased social engagement”, and “changes in dietary patterns”.

Conclusion: This qualitative study is the first to explore the experience of symptom clusters in dialysis patients. Informants were unaware of symptom clusters. However, patients reported their impact on physical and social well-being. The findings support the significance of assessments and management of symptom clusters in these patients.
88. Assisted Automated Peritoneal Dialysis in WA – Two years on

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In 2016 a pilot program for Assisted Automated Peritoneal Dialysis (AAPD) was conducted from Sir Charles Gairdner Hospital. The pilot had positive outcomes for patients, realised significant cost savings and became a regularly practiced new skill for a team of Home Link nurses.

Aim: To identify the adaptations required as AAPD transitioned from pilot to long-term program and report on the current state and outcomes of the program.

Method: The pilot study databases were updated to calculate the ongoing utilisation rates and estimated cost savings. Key stakeholders were interviewed to determine current views on the program. The Home Link nurses were resurveyed to determine current views and skill levels.

Results: The program continues to operate effectively. To date 1099 episodes of care have been delivered (674 during pilot and 425 since) with estimated cost savings of over $1 million. 90% of visits were for respite (patient and/or carer unable to self-care and 10% for support prior to patient training). The model of care has been fine-tuned and all existing forms/processes are operating effectively. Further upskilling of staff has been completed and additional training tools have been developed. Upskilling of hospital inpatients to manage the self-connect to AAPD (if they are not previously APD trained) continues to present the main challenge. The project has received a WA healthcare excellence award and a national healthcare roundtable nomination.

Conclusion: AAPD continues to operate as a patient-centred model of care in Western Australia reducing days in hospital and providing significant cost-savings.
89. An inaugural First Nations Data Governance Framework supporting the Australia and New Zealand Dialysis and Transplant Registry

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Context: The Australia and New Zealand Dialysis and Transplant Registry (ANZDATA) is a clinical quality registry monitoring care outcomes. Despite frequent monitoring, ANZDATA demonstrates sustained inequity in health outcomes for First Nations peoples. At a structural level, ANZDATA lacks a First Nations data governance framework (DGF) which aligns with international data custodianship principles to support advancement in First Nation kidney health.

Objectives: To describe the development of the ANZDATA Aboriginal and Torres Strait Islander Data Governance Framework.

Key Messages: ANZDATA leadership encouraged Indigenous knowledge incorporation in 2014. A working party: 1) examined First Nations data sovereignty principles, potential risks and opportunities for ANZDATA; 2) convened an expert First Nations advisory panel (2017); and 3) secured funding and developed a methodology to define the Framework, informed by patient and community data expectations and ANZDATA clinician contributors (2017-19). Indigenous-led consultations in Thursday Island, Alice Springs and Darwin with patients and families living with kidney disease identified: a) an ANZDATA DGF is needed, but must include Aboriginal and Torres Strait Islander values and control; b) profound knowledge gaps in the related purposes and value of collecting ANZDATA data, health service prioritisation, and care outcomes; c) data linkages between ANZDATA will support health services prioritisation for First Nation kidney health.

Conclusions: Strong endorsement of an ANZDATA Aboriginal and Torres Strait Islander Data Governance Framework was provided by patients, communities, ANZDATA clinical contributors, and the ANZDATA Executive for the express purpose of improving First Nations kidney health and addressing inequity in care quality and outcomes.
90. Empowering patients: A shared care approach

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¹ Monash Health

**Context:** This case study describes a multidisciplinary team approach in increasing patient knowledge about disease management and empowering patient to be a part of their care.

**Objective:** To show how a combined team approach can empower patients to be more involved in their care thereby improving their compliance and overall health.

**Key messages:** The multidisciplinary team at the Satellite Unit comprised of nurses, doctors, dieticians, nurse practitioners, social workers and exercise physiologist collaborated together to improve patient empowerment. Patients were encouraged to participate in their own care by increasing their knowledge and understanding about kidney disease, encouraging independence and self-advocacy.

A brochure on shared care program designed by the nurses in the unit were given to the patients. The brochure asked patients to tick which areas of their care they would like to have help with or are interested in learning. Depending on patient’s choice, they were taught how to calculate their intradialytic weight gain, target UF Goal thereby making patients more aware of their fluid intake. Patients were taught the significance of checking and recording their blood pressures. They were also shown how to set-up their fistula packs and encouraged to self-cannulate.

**Conclusion:** Positive outcomes and response from the number of patients participating indicated they felt more accountable for their health. Encouraging proactive care will increase confidence and improve a sense of empowerment, which may reduce hospital admissions but will further motivate self-care strategies.
91. Aboriginal and Torres Strait Islander patients and families recommendations informing best practice kidney care guidelines: The Catching Some Air Project

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Context: In 2016 the Kidney Health Australia Caring for Australasians with Renal Impairment (KHA-CARI) Guideline group committed to deliver an inaugural “Guideline for the Management of Chronic Kidney Disease in Aboriginal and Torres Strait Islander Peoples and Māori.” During April- November 2018, the Catching Some Air- Asserting Aboriginal and Torres Strait Islander Information Rights in Renal Disease project undertook guideline consultations in northern (Thursday Island and Darwin) and central Australia (Alice Springs). A culturally informed engagement protocol was developed, co-designed with local Aboriginal and Torres Strait Islander patient and community leaders.

Objectives: to describe key recommendations for best practice clinical care as advised by Aboriginal and Torres Strait Islander people living with CKD

Key Messages:
1. Kidney care close to home is a key priority in these regions
2. Kidney care needs to be supported by an intercultural and bicultural framework
3. Safety was articulated as needing to occur within the health service, during and after health care interactions, and within the transport and accommodation sectors used by health agencies.
4. Some health care users reported profound knowledge gaps, which justify urgent development of targeted resources, delivered by skilled, responsive culturally-relevant health educators, including expert-patients
5. An Aboriginal and Torres Strait Islander –led professional workforce was strongly endorsed

Conclusions: A culturally respectful collaboration with Aboriginal and Torres Strait Islander people has defined key clinical and non-clinical recommendations for the Inaugural “KHA-CARI Guideline for the Management of Chronic Kidney Disease in Aboriginal and Torres Strait Islander Peoples and Māori”. 
92. Kidney Exchange – A trans Tasman approach

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**Context:** Some patients have high levels of HLA antibodies which makes finding a compatible donor problematic. For many years Worldwide, kidney exchange programs have been used to address this issue, however a large donor pool is required to achieve compatible transplants for some patients.

With a small population in New Zealand, a smaller donor pool is inevitable, therefore a trans-Tasman approach for sharing kidneys between Australia and New Zealand will result in a much larger donor pool, thereby increasing the chance of transplantation for these patients on both sides of the Tasman.

**Objective:** To report on the progress that has been made towards establishing a joint program between Australia and New Zealand, including some of the trials and tribulations encountered along the way.

**Key messages:** There have been many hurdles to overcome such as secure data transfer, surgical timing/logistics, packaging, the import and export of organs to mention just a few. After 5 years the joint collaboration between the Australian Kidney exchange (AKX) and the New Zealand Kidney exchange (NZKE) looks set to commence later in 2019.

**Conclusions:** The ultimate aim is to increase the number of transplants across Australia and New Zealand. The importance of good communication and the goodwill of transplanting teams across both countries is paramount to achieving a successful program.
“I am 41kg no you are 41.5kg”: Challenges in providing haemodialysis in a patient with an eating disorder.

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Context: Haemodialysis (HD) may promote eating disorders in some patients. This is in part related
1. to constant weighing pre and post HD treatment
2. the importance of limiting “fluid weight” to prevent fluid overload
3. complications associated with transgressions of fluid and dietary restrictions constantly being reinforced by the dialysis staff.

Objective: to report the challenges associated with the management of Mrs A (58 year old) female who presented with end-stage renal failure, grossly underweight (40kg BMI 17.8) a history of anorexia nervosa with laxative and diuretic abuse.

Key Messages: Eating disorders are frequently ascribed to young females, however they are becoming increasingly commonplace in the older populations. Dietary and fluid constraints and the regular weighing of patients pre and post dialysis may trigger and or reinforce the eating disorder behaviours in susceptible populations. At times the patient’s desire to be a certain weight is not achievable and this requires nursing staff to be resolute in their decisions and not ‘bend’ to the patient’s demands as this can compromise patient safety.

Conclusion: Management of haemodialysis patients with eating disorders is complex, challenging and requires a multidisciplinary approach. It requires clinicians to take the focus away from the scales and use other forms of assessment to monitor health and well-being in this patient population.
94. Independent community dialysis houses - A home away from home

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Rationale and Objective: Community haemodialysis is a sub-modality of home HD. In New Zealand, community HD houses enable patients to perform haemodialysis independent of nursing or medical supervision in a shared community setting. This study describes the perspectives and experiences of patients utilising community HD to explore ways community HD may enhance best practice and care delivery of HD.

Methodology: Patients who had experienced community HD in New Zealand were invited to participate in a qualitative semi-structured, in-depth interview study. Interviews were audiotaped, transcribed, and analyzed inductively using thematic analysis.

Results: Twenty-five patients were interviewed. Most were in part-time or full-time employment. Over two-thirds dialysed for 20 hours a week or more. We identified four themes that described patients’ experiences and perspectives of choosing and using community HD: protecting myself and my family (when home isn’t an option, protecting family, maintaining privacy and self-identity, reducing the cost of home haemodialysis and gaining a reprieve from home); offering flexibility and freedom (having a normal life, maintaining employment, and facilitating travel); control of my health (building independence and self-efficacy, a place of wellness, avoiding institutionalisation, creating a culture of extended hour dialysis); and community support (building social inclusion and supporting peers).

Conclusions: Community HD meets the personal preferences of patients who otherwise may not utilize home dialysis and hence is considered superior to both home and facility dialysis. Community HD encourages best practice by allowing patients the ability to dialyze for extended hours, promoting patient well-being, quality of life and psychosocial support.
95. Understanding nurse’s perceptions of sexual dysfunction in people with end stage kidney disease requiring haemodialysis

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Context: Sexual dysfunction is considered a consequence of end stage kidney disease (ESKD) and is likely to be under reported, under treated and overlooked as treatment is mainly focused on ESKD.

Objectives: To describe the protocol for a study investigating renal nurses’ understanding and perceptions of sexual dysfunction, and exploring sexual dysfunction in people with ESKD receiving HD.

Key message: In this exploratory mixed methods study, phase one will entail a systematic scoping review of nursing assessment and interventions related to sexual dysfunction and a cross-sectional survey of renal nurses working in HD units to measure attitudes, assessment, knowledge and skills, and experience in addressing sexual wellbeing of patients. Phase two will then focus on adults receiving HD to identify if sexual dysfunction is occurring and whether it has an impact on their lives. This phase will also determine if sexual well being is addressed by renal nurses. Data will be collected and analysed separately for each phase then integrated using descriptive interpretation to provide a better understanding of sexual dysfunction.

Implication for clinical practice: This study will provide an in-depth understanding of renal nurse’s attitudes towards sexual dysfunction in patients with ESKD, their practices aimed at addressing sexual dysfunction in this population, and whether the needs of the patient are being met.
97. Strengthening Patient’s Understanding of the Role of Phosphate Binders in CKD

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Jenny Johnson1 and Jaswinder Bains1

1 Monash Health

Introduction: In Chronic Kidney Disease (CKD), hyperphosphatemia is one of the main contributing factors of cardiovascular morbidity and mortality as well as development of mineral bone disease. Patients’ adherence in controlling high serum phosphate level remains a challenge and non-compliance may be due to different factors. However, it is fundamental that patient understands the importance of taking phosphate binders; be informed of the available dietary options to assist them with the treatment.

Purpose: To provide information about the effectiveness of phosphate binders in reducing the risk of all-caused mortality and cardiovascular mortality. This will serve as an available data and a tool for healthcare providers in promoting patients’ understanding of dietary compliance and proper use of phosphate binders.

Method: The data collection utilized electronic database to gather observational studies; review of critical trials and meta-analysis from 2013 to 2017, to identify the efficacy of phosphate-lowering-agents in reducing the mortality of patients with renal failure.

Result: There is a significant association between higher serum phosphate and all-caused mortality rate. A combination of diet restriction and the use of phosphate binders significantly reduces serum phosphate level. The serum phosphorous level varies accordingly to patient’s eGFR.

Conclusion: Healthcare providers has significant role in strengthening patients’ understanding of their health and treatment. Patient education is an important strategy in promoting patient’s compliance with dietary restriction; adherence to phosphate binder regimen and proper administration of the medication to achieve its efficacy and benefit.
98. Facilitating choice in personal hygiene options for renal patients with a central venous line: A multi-phase study in the tropics

Joleen McArdle¹
Wendy Smyth¹², Kim Hughes¹, Kristin Wicking², Cate Nagle¹² and Kimberley Quayle¹

¹ Townsville Hospital and Health Service
² James Cook University

Background: A previous randomised controlled trial found that central venous catheter (CVC) exit site dressings only stayed intact two-thirds of the time in the tropics. Patients were advised to have baths rather than showers, without regard for their preferences.

Aim: The study aimed to increase patients’ abilities to attend to their personal hygiene needs whilst maintaining the integrity of their CVC exit site dressings between dialysis sessions.

Methods: A three-phase study commenced August 2018.

Phase 1: Survey of renal nurses about the acceptability and feasibility of two hygiene options.

Phase 2: Discussions with patients with CVCs about their hygiene preferences, difficulties they encountered with keeping dressings dry, and immediate impressions about the proposed options.

Phase 3: Multiple case studies with patients providing feedback about the utility and effectiveness of the selected hygiene options over a six-week period.

Results: Nurses and patients considered both options favourable, identified potential concerns related to their use; patients were enthusiastic about being able to attend to their personal hygiene without wetting their dressings.

The initial findings for phase 3 are that more patients prefer showering over the use of bath wipes; the use and application of the waterproof dressing cover needs to be modified for each individual. Patients who have elected to try the bath wipes have been happy with them.

Conclusion: Our tropical setting poses additional challenges to maintaining the integrity of an occlusive dressing and preventing sepsis. Data from this study will inform clinical practice and education.
100. Vascular Access: Out of options? - A Case Study

Helen Hoffman

1 Capital and Coast DHB

Introduction: I present the dialysis access challenges faced over 20 years of renal replacement therapy, by a young Maori woman now dialysing via a complex left leg fistula.

Case presentation: Mel began renal replacement therapy in 1997 at age 23 years. Now 43 years old it appears she may have reached the end of her dialysis access options. This case study focuses on the many dialysis access procedures she has undergone over this 20 year period. It discusses the multiple complications and challenges encountered such as central venous occlusion, superior vena-cava syndrome, multiple varices, inferior vena-cava thrombus, limb ischaemia and calciphylaxis. Included are insights from the patient, her nephrologist, the vascular surgeon and myself as the vascular access nurse.

Discussion: It is challenging and distressing for both patient and renal staff facing this scenario. What are some key strategies to extend the vascular access potential particularly of young dialysis patients? Should we prioritise the access needs of younger patients who may require dialysis for many more years and therefore have an increased likelihood of developing serious complications.
101. Development and introduction of a mentorship learning program for renal nurses

Lynn Brown

1 Hunter New England Local Health District

**Background:** To ensure quality care and management of patients in the renal network, we need training and skill development to be of a consistently high standard. Previously, nurses would be allocated a mentor when they joined the team. Although the nurse would have to complete a learning pathway, there was no standardisation in how mentors would facilitate the training required.

**Aim:** To achieve consistency of the standard of mentorship across all renal units within the local health district.

**Method:** We developed a training program for mentors. Pre-requisites for the program include

- At least twelve months experience working in renal area
- Completion of core renal learning packages
- Attainment of core renal competencies

Once enrolled in the program all aspiring mentors complete

- Pre reading and a survey of to ascertain their level of knowledge.
- Six hour structured mentorship workshop.
- Mentorship meetings throughout the year (5x 1 hour)

**Results:** We introduced this last year and have run it twice so far. To date, fourteen renal nurses have completed this training program. Evaluations have been highly positive and there is the beginning of a cultural change towards mentors networking with each other across different clinical areas.

**Conclusion:** This program will continue. We have altered the workshop to 3x2 hour sessions to facilitate managers’ needs, staffing restrictions and mentor feedback and support.
102. Glomerulonephritis Nurse - A new frontier

Kelly Gibson¹

¹ The Canberra Hospital - Renal Service

Glomerulonephritis (GN) is a group of diseases that causes bilateral, symmetrical or immunological mediated injury to the glomerulus. These include and not limited to: Focal Segmental Glomerulosclerosis, IgA Nephropathy, Minimal Change Disease, Lupus and Vasculitis.

GN is listed as the second leading renal disease behind Diabetes in Australia and New Zealand. Consequently, early diagnosis is essential as treatment can have significant impact on patient outcomes including the progression of kidney impairment.

**GN Program Development**

The GN program was established in 2017 with the purpose of formulating personalised treatment plans for patients with GN. This is achieved by analysing biological markers, extracting DNA and performing whole genome sequencing. This information is then used to see how a patient’s personal genome and genetic variations may contribute to a specific disease and how a patient may respond to a tailored treatment option.

**GN Nurse Role**

The GN nurse role was established to align with the GN Program and aims at developing nursing expertise for managing this specific groups of patients through active care coordination and ongoing communication and collaboration with clinicians. The GN nurse is regarded as the first point of contact for patients enrolled in the program, and also is actively involved in patient education, research and quality assurance. To date 195 patients have been identified for research exploration and within this cohort, four patients require intensive care coordination.

**Conclusion:** The establishment of the Glomerulonephritis Nurse role highlights an innovative role in its infancy and a new direction in renal nursing.
103. Experiences of Graduate Nurses in an Acute Haemodialysis Unit

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¹ Monash Health

Background: The Acute Haemodialysis Unit at Monash Medical Centre in Victoria, Australia commenced having Graduate nurses from June 2016. At this stage, 7 registered nurses have had their placements in the Haemodialysis Unit. Out of the 7 nurses, two have continued to work permanently in the unit with the rest regularly working casual shifts in the unit. However, little is known about the experiences of the graduate nurses who have gone through the acute Haemodialysis Unit.

Objective: To determine the experiences of the graduate nurses who have gone through the Haemodialysis Unit and to be able to determine areas of improvement to the program.

Methods: 5 Graduate nurses were interviewed regarding their feedback and experiences in the Acute Haemodialysis Unit. Interviews were conducted via phone call and verbal consent was obtained for the interviews.

Results: Among the 5 graduate nurses interviewed, the most common theme was on how supportive the haemodialysis nurses were to them. The nurses thought that haemodialysis nurses were knowledgeable and they were able to effectively impart their knowledge to the graduate nurses. With regards to areas of improvement, a shared observation was that support was reduced especially during busy times in the unit. Work load increase was also mentioned as a concern among the graduate nurses especially when there was sick leave of permanent staff members.

Conclusion: With all the necessary support, it is possible to equip graduate Nurses with knowledge and practical experience required to care for haemodialysis patients in an acute setting.
104. Fluid assessment is hard in the obese – a challenging case of 31L of fluid ultrafiltrated on Haemodialysis (HD) over two days

Samantha Holman¹
Helen Healy¹ and Mike Terry¹

¹ Queensland Health

Context: A morbidly obese 43 yo male (263kg, BMI >65), was admitted with declining mobility. He was discovered in end stage kidney disease and commenced chronic HD. HD was complicated by intradialytic systoles down to 70, resulting in poor ultrafiltration volume and clearance of urea. Assessment of fluid status was complicated by his body habitus and co-morbidity of pulmonary hypertension. His BP and respiratory function deteriorated and was admitted to intensive care unit (ICU). We removed 31L net of fluid over the next 2 days with ionotropic support, blood volume monitoring and arterial line measurements of BP. He weighed 200kg at discharge from ICU 10 days later. He is now dialysing in a satellite unit and living independently.

Objectives: Describe our experience of how challenging fluid assessment and removal is in a morbidly obese man starting dialysis.

Key Messages: The obese body habitus challenges our skills in assessing fluid status, acquired in the mid-range of BMI. The obese patient retains fluid in body compartments that are difficult to assess. These patients also have high probability of co-morbidities that influence fluid shifts, including removal by ultrafiltration eg. pulmonary hypertension, cardiovascular disease, diabetes etc.

Conclusion: Fluid assessment clinically is an inexact science. It is particularly difficult in the obese, where large volumes may be sequestered in body compartments. This case illustrates how much fluid can be retained without being clinically apparent. This can be safely removed in an appropriately supportive clinical setting that complements the iterative nursing assessment throughout a dialysis treatment.
105. High cut off haemodialysis: What, how and why?

Elizabeth Fleming¹

¹ SESIAHA

Contents: High Cut off Haemodialysis (HCO HD) is an expensive, intensive therapy for the small percentage of multiply myloma (MM) patients who require renal replacement therapy for severe kidney injury. Nursing Staff can find caring for the HCO HD patient overwhelming. It is not a frequently seen therapy in the dialysis unit and therefore education can be limited.

Objective: To discuss HCO HD, what it is, how it works and why. And to outline the nursing responsibilities in caring for MM patient on HCO HD.

Key message: HCO HD is an intensive and involved treatment. The nurses role is pivotal in monitoring this treatment and maintaining the patients safety. Its imperative to have a unit policy which guides practice, as well as good communication within the multidisciplinary team to ensure the best patient outcomes.

Conclusion: A clearly outlined unit policy can guide nursing practice to ensure an efficient and optimal treatment is achieved for the patient. Recovery from AKI using HCO HD has the potential to decrease the MM patients disease burden and improve quality of life.
106. Initiating simple ‘renal foot’ education to empower patients - part 1

Lisa Ruggiero¹

¹ B.Braun Renal Care Centre

Context: The ‘Renal Foot’ is one which has been classified as once a patient requires dialysis. The foot is often hypoxic, malnourished and it has been suggested that foot care in this population should follow the same principles as diabetic patients. Given these patients are dialysing in-centre with us 3-4 times per week, it was seen as an ideal opportunity for patients to become more involved in their own care, by teaching them how to check their own feet daily. In 2018, 2 of our patients had died in the OR having foot/leg wounds debrided. Keeping patients out of OR was our objective.

Objectives: To provide some simple, clear education, delivered on portable tablets, to the bedside during dialysis. To provide a simple tool for patients from admission, to record their daily foot checks. Early identification of any areas of concern.

Key messages: With early detection comes early intervention, which would provide successful outcomes. Completing daily foot checks would allow early intervention with appropriate advanced wound care, preventing wounds progressing to where surgical intervention was necessary.

Conclusion: The patients who were given the education found it easy to understand, short and concise. I introduced a simple self-management assessment tool which only takes a minute or two to complete.

The initiation of this education program is part 1 of this project. This is a quality improvement project, the results are not available yet, but will be presented as part 2 late 2019, ideally for inclusion in the 2020 RSA National Conference.
107. AVF rupture and the aftermath: One unit’s experience

Lisa Ruggiero¹

¹ B.Braun Renal Care Centre

Context: AVF Rupture is a life-threatening event, and a risk that dialysis patients live with every day. When a rupture occurs it can be fatal. When a rupture happens even the most educated professional can find themselves unprepared and without the necessary resources. By asking the hard questions, areas of strengths and weaknesses can be identified following such an event. This is one unit’s experience on how they took a critical incident and applied reflective practice to ensure that any future occurrences will be handled better.

Objectives: To outline an incident that occurred in a dialysis clinic, where a patient’s AVF ulcerated. The incident and the ensuing actions will be explained. To identify areas of practice to be celebrated, and areas where improvements can be made in the management of critical situations.

Key Messages: Appropriate equipment that should have been readily available was not. On reflection of the incident, it was apparent that not having these critical items available at the ready cost valuable time. In addition, the other patients in the clinic were witness to the emergency staff treating the patient.

Conclusion: AVF rupture can be catastrophic. Whether it goes very right or very wrong, the outcome can certainly be improved by having the best plans in place. With the introduction of the AVF rupture kit, and education of all staff, the team now feel much more prepared to manage any situation that eventuates, even in the most unlikely of locations.
108. Journey of a new RCC Manager: The good, the bad and the awesome

Lisa Ruggiero¹

¹ B.Braun Renal Care Centre

**Context:** Having never been a unit manager before, I had no idea what to expect. I only know what I had seen my own managers do and there seemed to be a lot of computer time and a lot of coffee. Turns out they probably needed the coffee since they could never leave their computer!

**Objectives:** To outline the journey from RN, to Clinic Manager. To describe the transition of also having a new corporate structure. To describe the process of NSQHS Accreditation for the first time.

**Key messages:** Having the support of both the former clinic manager, other managers and upper management is so empowering. Passion and commitment to the staff and patients, and to the clinic are all qualities I believe were at the forefront of the task. Knowing when something is not known, trusting your instincts and your systems, asking for help; all of these things are critical to becoming a good manager.

**Conclusions:** Managing payroll, invoices, broken beds, malfunctioning TVs, blocked toilets, too hot air-conditioning, too cold air conditioning is all in a day’s work. Throw in new structure, new computer systems, new machines, and accreditation and it could all unravel. However, passion for patient care and the unwavering support of my team helped me navigate the unchartered waters and I was able to steer my ship to receiving a national award for outstanding clinic achievements.
109. New recommendations and guidelines for the detection and management of chronic kidney disease (CKD)

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¹ Queanbeyan Renal Unit, SNSWLHD
² Kidney Health Australia

Context: It is estimated that there are currently 1.7 million Australians living with biochemical markers of chronic kidney disease (CKD). CKD is a dangerously silent condition, with only 10% of affected individuals being formally diagnosed. Early detection and best practice management of initial stages of CKD can delay or prevent a decline to end stage kidney disease.

Objectives: Recent advances in diabetes management, targets for blood pressure and treatment options for polycystic kidney disease have important clinical implications for people with CKD. In 2019 the introduction of revised recommendations and guidelines for the detection and management of CKD in primary care will be promoted with the release of the 4th edition of the handbook ‘Chronic Kidney Disease Management in General Practice’. Ultimately this information will provide both primary and tertiary health care practitioners with practical tools and resources that can be routinely implemented in practice.

Key messages: This presentation highlights key information from the new handbook and outlines new hypertension targets, the emerging role of SGLT2 inhibitors in diabetes management, cardiovascular disease and CKD, pharmacotherapy options for PKD, and also outlines the CKD national ‘hot spots’. The revised handbook also has a focus on the role that nurses play in driving patient-led behavioural change and encouraging lifestyle modification.

Conclusion: It is imperative that renal nurses understand the interplay between CKD, hypertension and diabetes, and that they have access to the latest evidence-based clinical guidelines and practice recommendations in the care of chronic diseases.
110. Our unit’s successful transitional to cloud based technology for Automated Peritoneal Dialysis machines

Phyllipa Southwell¹

¹ Royal Adelaide Hospital

Context: Currently our satellite renal unit has more than 140 people performing home dialysis. In 2018 we transitioned a cohort of more than 75 Peritoneal Dialysis (PD) patients to the cloud based Automated PD (APD) machine; clinicians are now able to access PD data in real time post treatment, via a secure database. Regimes can be altered and ‘pushed’ to the home patient’s machine from our clinic. Daily interpretation of this data has led to better patient outcomes; early diagnosis of drainage issues, fluid imbalances and missed therapy.

Objective: To record and document the transition of an existing PD population from card-based clinical record system to a web-based program.

Key Message: To achieve best clinical outcomes for our PD patients we updated the way we receive clinical information from the APD machines. This process requires consultation with a targeted consumer population, patient education and evaluation was required. The clinical and support team received education and training on the new system to minimise the amount of stress caused to our PD patients and staff during the implementation.

Conclusion: We have now completed the process; we surveyed all patients prior to the transition and will again twelve months post transition. We have engaged consumers for feedback regarding the processes used to implement the change, any positive effects that this change has had on the quality of support given to the PD patients and their quality of life.
111. Challenges in Pressure Injury Management in high risk inpatients

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¹ RSA, ISPD, ESSIG (part of Victoria Renal Health Network)
² Monash Health

Background: Each year, inpatients in Australia experience a large number hospital acquired pressure injuries. Our ward is a 40 bed unit, providing care for high risk patients with renal disease including renal/pancreatic transplantation and gastroenterology diseases. In the last twelve months there were reports of high incidences of pressure injuries below the ankle; stage 2 and above. These incidences warranted an investigation into our clinical practices.

Aim: To carry Ward Pressure Injury Project to investigate incidences over the last year and improve clinical outcomes by reduction in pressure injuries.

Method: Statistics were collected from Podiatry and ‘Riskman’ (hospital database) of the all reported pressure injuries on the Ward from June 2017 to June 2018. Then the action project was commenced in July 2018 to December 2018 to evaluate the efficacy. The four key implementations of this project were nurse huddles and rounding by: checking assessments are completed, does the Braden score reflect the patient’s risk? Check offloading devices in place and patient education.

Results: From June 2017 to June 2018, there were 39 validated stage 2 pressure injuries and of those 23 (58%) were found to be unstageable or Suspected Deep Tissue Injuries (SDTI). Since the commencement of this project, pressure injuries reduced by 56%.

Conclusion: There have been significant improvement in pressure injuries, since the commencement of project’s key implementations. The key focus here is the ward governance to make sure, all key implementations are adhered to reduce pressure injuries.
113. Kidney disease care and management in Samoa: Innovations and challenges

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Fredric Doss² and Mulipola Hazelman¹

¹ National Kidney Foundation Samoa
² Auckland Hospital

Objectives: Outlines the establishment of The National Kidney Foundation of Samoa (NKFS) to provide Renal Replacement Therapies, Prevention screening and awareness programme, and local workforce development.

Key message: NKFS innovative model of care provides Dialysis services with local medical, nursing and Technician workforce with support from overseas expert advisory team in the establishment of local workforce training framework. NKFS made significant achievement in the prevention area to retard the progression of kidney dysfunction. The team is currently in the process of establishing self-care philosophy for patient participation in treatment, Peritoneal Dialysis Services, exploration of kidney transplant option overseas and palliative care. On the other hand, this has financial implications for the health sector.

Context: Kidney disease is a growing concern in Samoa. Since the establishment of NKFS in 2005 to provide Haemodialysis services, 427 patients have been administered haemodialysis with an average increase of 35 patients per year. From 5 patients in 2005, this has grown 126 patients on maintenance HD as of 31st January 2019. Also, the Foundation provides acute dialysis services in the National Hospital. In its awareness and preventative efforts, NKFS established a comprehensive screening programme for awareness and prevention in community settings as well as remote villages with regular follow-ups and maintained the database. Significant growth in renal patient number has placed significant financial implication on the national health budget.

Conclusion: Providing these speciality services in a remote Pacific Island is challenging, but NKFS made significant progress in changing lives and making a difference in Samoa.
114. Supportive Care: Looking after the dollars makes sense

Kerry Linton¹

¹ Monash Health

**Background:** Is offering a supportive care service as part of usual care in a renal service financially viable?

As part of our review of outcomes for a new renal supportive care clinic, we investigated inpatient bed usage in the 12 months prior to death for 20 patients who were known to the renal supportive care team but died prior to clinic opening, 18 clinic attendees and 7 enrolled to clinic, used some services provided by clinic, but never physically attended.

**Aims:** The aim of this review was to determine if the Supportive Care service impacted upon usage and associated cost of inpatient bed days and emergency department presentations.

**Methods:** An Excel spreadsheet was compiled to include each hospital admission for the selected patients, including duration in days, hospital unit/s, with each episode of care costed by unit according to information provided by the Business Intelligence Unit.

**Results:** The group attending the Supportive Care Clinic had an average of one less ED presentation, eleven less inpatient bed days and a bed cost saving of $9500 per patient over the 12 month period.

**Conclusion:** These findings are a snapshot of a small group of patients, yet it is believed that these results are significant as they indicate that the service is cost effective and contributes to the suite of renal unit services in a positive way.
115. Nurse Practitioner leading chronic kidney disease management in primary care

Albert Robertson¹

¹ Whanganui District Health Board

**Context:** Managing the rising incidence of chronic kidney disease (CKD) district-wide is identified as a significant health issue. The challenges include a population that is at high risk for CKD development, including Maori and non-Maori, living in low socioeconomic and rural areas, leading to inequitable access to specialist services. With no local renal service to provide clinical leadership and support to primary care.

**Objective:** To report on the Nurse Practitioner (NP) led model of care that has been developed and implemented with positive results. This model focuses on the up-skilling of primary health care teams to help them address this burgeoning health problem.

**Key message:** Through this model a CKD database was developed for the stratification of CKD population and high-risk cases identified district-wide. An individualized approach for CKD management was negotiated with each practice. Barriers for engagement identified and addressed. CKD tools developed to facilitate better CKD management processes.

**Conclusion:** Patients with CKD have complex health needs due to other competing health problems. Evidence shows that effective CKD management in primary care is cost effective and improves patient outcomes. However, primary care teams do not have sufficient specialist knowledge and skills to manage this complex group of patients, hence dependence on largely over-stretched renal services for advice and support. Renal NPs have specialist knowledge and skills that can be utilized to up-skill and support primary care; this will improve equitable access to specialist care ‘closer to home’ for all patients with CKD.
116. Are renal nurses equipped to assist in closing the gap in renal transplant rates in Australia for Aboriginal and Torres Strait Islanders?

Tia-Maria Mark

1 Monash Health

**Context:** Dialysis is the leading cause of hospitalisation among Aboriginal and Torres Strait Islanders (ATSI) in Australia. While donor rates in Australia grow the number of ATSI receiving organs remains low. Barriers to renal transplantation for ATSI remain as they have for generations, identified, present, relevant but unachievable for most. Posing the question, are renal nurses equipped with the correct tools to assist ATSI to overcome those barriers?

**Objectives:** To identify effective models of care to allow renal nurses to enhance their current knowledge and collaborate with ATSI to overcome transplantation barriers in a culturally safe manner.

**Key messages:** In 2000 after the findings of the Aboriginal Perinatal Mortality Project (APMP) were released, New South Wales Health implemented a continuity of care model named the Aboriginal Maternal and Infant Health Strategy (AMIHS). The APMP identified key areas that needed addressing to improve health outcomes for Aboriginal mothers and their babies. The APMP is a culturally sensitive service based on respect, education, partnership, equality and inclusion. An evaluation after three years found that the program is successfully achieving required outcomes for Aboriginal mothers and their babies.

**Conclusion:** This model of care has been effective and can easily be adapted to other specialties such as renal. It will allow renal nurses to practice community consultation, partnering with Aboriginal health services and health care workers in a manner that is culturally safe and respectful. The intended outcome would be to decrease health gaps and ultimately increase the number of ATSI receiving renal transplants.
117. Improving live kidney donation in Indigenous and Migrant populations in South Auckland, New Zealand

Denise Beechey¹
Hari Talreja¹

¹ Counties Manukau Health

Between 2013 and 2017 a project was implemented in south Auckland NZ to improve live kidney donor (LKD) transplant in indigenous Maori and migrant Pasifika people both pre-dialysis and on dialysis. The project was a partnership between Counties Manukau Health (CMH) and the Auckland District Kidney society ( a patient support group). There are demonstrated disparities in this patient group compared to the rest of the CMH dialysis population that is not entirely explained by medical co-morbidities. Barriers to transplantation and to organ donation include access to clear and understandable information, lack of cultural skills in relevant health providers, an over-emphasis on dialysis decision-making in the pre-dialysis period and insufficient resources and operational support for recipient and donor evaluation. By using a multi-faceted health service delivery improvement project to educate, encourage and facilitate live donation, there was an improvement in both LKD offers and LKD transplants.

This presentation will provide detail around how different methods were developed and the application of them within the CMH renal population. There will be a demonstration of how these changes in practice can be adopted and adapted for use in areas where there is a disparity of health outcomes in indigenous, migrant or other disadvantaged populations. The results of the project will be presented to demonstrate the improvement in LKD offers, LKD transplants and service delivery.
118. Social media and transplantation

Ian Dittmer¹

¹ Auckland City Hospital

Faced with a shortage of organs available for transplantation what avenues might potential recipients take to try and attract live or deceased donors in 2019.

For much of the history of transplantation, it has been argued that recipients need to have a past and ongoing relationship with any live donor. However, definitions of relationships have changed, and in particular, many people are now recognised to have strong e-relationships. Is this enough to allow donation?

Letting others know of your need for an organ by word of mouth has been acceptable since non-familial live donation has been accepted but is “advertising” on electronic social media platforms acceptable (and similarly for deceased donation in jurisdictions where directed deceased donation is allowed).

And if e-advertising is allowed how might a potential recipient increase their chance of connecting with a potential donor.

Should transplant units allow these practices, should they be limited or governed, or should we allow this in an unregulated fashion.

Bring your device and contribute your opinion, we will try to do some interactive polling as the session develops.
119. A peritoneal dialysis unit’s experience in converting to Sharesource remote patient management and monitoring technology

Claire Cuesta¹

¹ St George Hospital

**Background:** The introduction of remote patient management/monitoring (RPM) through Sharesource platform for automated peritoneal dialysis (APD) patients was welcomed in a metropolitan hospital from late 2017.

**Aim:** To share the processes our PD unit undertook for a streamlined conversion to RPM technology.

**Methods:** The Plan Do Study Act (PDSA) cycle model was the methodology used for the conversion process. Anticipated benefits of RPM were outlined, and the main objective for conversion is to improve patient care and experience through progress. Unit decisions were made surrounding APD flags and parameters, patient and staff training timetable, model of care modification and identification of users and their level of RPM access. Conversion time frame was set for 18 months and evaluation process was through patient satisfaction survey & patient outcome audit. Competency training was carried out in three phases. Immediate feedback from users were collected & utilized to amend practice guidelines.

**Results:** 94% APD patients converted within 2 months. Patient satisfaction survey revealed all converted patients found the new device easy to use, believed they received enough training and declined to attend more training. Feedback from doctors, PD nurses and patients were positive with a common theme on its convenience and ease of use. A conversion training program supported by recently updated practice guidelines was established and currently in progress for the renal ward nurses.

**Conclusion:** The PDSA cycle model was essential in the efficient conversion to RPM technology. Our next step is to evaluate the impact of RPM to patient care and outcome.
120. Australian Haemodialysis patients on a 12-Day New Zealand Cruise

Jane Crossett¹
Gethsy Jayaseelan¹

¹ Monash Health

Context: A qualitative study was undertaken on 9 out of the 10 haemodialysis patients who travelled from Sydney Australia on the 5th February 2019 for a 12-day cruise around New Zealand South and North Islands. The study was undertaking by two haemodialysis nurses in survey and interview style on the patient’s final day of their haemodialysis treatment. A retrospective quality analysis was undertaken to review the patient psychological wellbeing prior to the cruise experience as well as outcomes of their experience near the end of the holiday.

Objectives: To obtain qualitative data regarding the psychological impact of patients and their travelling companions experiencing haemodialysis on a 12-day cruise. To increase health carers understanding of patient and carers experience to enable greater support and education to future patients considering a haemodialysis cruise. To educate nephrology colleagues regarding some of the concerns for a patient considering a dialysis cruise and possible benefits to their wellbeing after the unique holiday experience.

Key Message: Safe and supported Holidays on haemodialysis are often an essential part of increasing the Quality of Life for haemodialysis patients and their carer’s.

Conclusion: Embarking on a haemodialysis cruise as a patient or as a carer can cause an increase in anxiety by stepping out of normal routines. The benefits to haemodialysis patients and their carers can improve their quality of life by improvements to psychological, physical and social wellbeing.
121. Itchy skin, what can we do about it? Interactive group education for haemodialysis patients in our unit.

Patricia Lawford¹
Rosemary Thomas²

¹ Kimberley Renal Services
² Kimberley Renal Service

Context: High phosphate levels can be an issue in our haemodialysis unit, patients lack of understanding of the importance of phosphate binders and good food choices is considered to be a contributing factor. A targeted education program designed in collaboration with Aboriginal Health Workers (AHW), nurses and dietitian was initiated to improve patient understanding of phosphate management after patients identified itchy skin being a concern.

Objectives: To support the learning of our patients using a fun and interactive environment which builds their capacity to be able to self-manage phosphate levels.

Key messages: A session on phosphate self-management was well attended as symptoms such as itchy skin was a concern of high importance. Group sessions provide safe learning environment for patients and through a collaborative approach, education can be delivered both culturally appropriate and supported. The ultimate goal from an AHW perspective is to provide content that is understandable and achievable.

Conclusion: Verbal evaluation provided feedback - ‘Oh Diet coke has big mob of phosphate’ and ‘I could buy a sandwich at the takeaway store instead of chips and chicken’, showing improved understanding. All participants stated they learnt how to be healthier and wanted to come back to future sessions. High phosphate levels are still an issue, repeated sessions are likely to be required.

Yarning discussions can focus on symptom causes and the positive effects of good self-management. Combining yarning with diagrammatic explanations and interactive cooking demonstration enables those who learn differently to understand medication and more complex dietary needs.
122. Minimising transfusion reactions: a single acute in-centre experience

Denise Fraginal¹
Anna Qian¹, Yogarani Jeyakumar¹ and Edward Zimbudzi¹

¹ Monash Health

**Context:** The risks of administering blood and blood products for patients undergoing haemodialysis (HD) and therapeutic plasma exchange (TPE) is well documented. We report our experience of how we minimized these risks in an acute hemodialysis unit which has had an increase in the number of patients requiring transfusion over the past 5 years. The blood and blood products used in this unit are packed red blood cells (pRBC) during HD, and fresh frozen plasma (FFP) and 4% Albumin for TPE.

**Objectives:** To describe the strategies we have utilised to minimise transfusion reactions in a busy acute dialysis setting.

**Key Messages:** The unit has minimised transfusion-related reactions by ensuring that;

1. Recommendations from the National Safety and Quality Health Service Standards (National Standard 7) are adhered to.
2. Nurses are well-trained to handle blood and blood products.
3. Continuing education is provided for all nurses in the unit.
4. Support is given to new staff looking after patients requiring transfusions.
5. Hospital protocol for commencing transfusions and for identifying reactions is followed.
6. A clear escalation process and proper documentation is followed.

**Conclusion:** Teamwork is essential and is always practiced in this acute in-centre unit, and support is given to one another in events when transfusion-related reactions occur. Continuing professional development is observed by ensuring the staff are educated and updated if changes to practice arise according to evidence. Therefore, it is possible to minimize transfusion-related reactions by following stipulated procedures even in a busy working environment.
124. A local health district dialysis access patient characteristics

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Introduction: The purpose of this study is to examine the variety of patients referred for permanent dialysis access in SWSLHD a diverse multicultural region of Sydney.

Methods: A retrospective review of referrals made by the SWSLHD renal access co-ordinator for dialysis access from 1st Jan 2016 to 31st December 2017. Outcomes were censored on the 31st of October 2018. Data was collected from the eMR, access referral database and referral letters from nephrologist and vascular surgeons.

Results: There were 326 referrals made for 260 unique patients, 54 required more than 1 referral, one patient had 4 referrals in this period. The patients were: males 197(60%), median [IQR] age 60 years [49-69], 189 (58%) were diabetic, 187(57%) were pre-dialysis, and 109(33%) had a tunnelled catheter. The main country of birth was Australia 100(30%), 6(1.8%) were indigenous. The other main countries were: Western Samoa 26(8%), Fiji 25(8%), Vietnam 20(6%), and Iraq 14(4%). Thirty two religions were ascribed to, 49(15%) were of no religion. Twenty two languages were spoken: English 220(67%), Arabic 21(6%) and Vietnamese 18 (5%), with 61(18%) of all referrals requiring an interpreter for the appointment. Majority of patients were married 174(53%), and 40(12%) had private health insurance.

Conclusions: Patients requiring dialysis access referral in SWSLD are challenging for the dialysis access co-ordinator and the service providers due to ethnic and cultural diversity, with the majority of patients born overseas, with almost one in five requiring interpreter services for their appointments and nine out of ten without private health insurance.
125. Hypersensitivity Reactions to Synthetic Haemodialysis Dialyser Membrane-- Our Experience

Sujatha Mani¹
Fredric Doss¹

¹ Auckland District Health Board

Objective: This presentation aims to share the experience of case studies where the patient had dialyzer membrane reaction/hypersensitivity reactions to synthetic dialyser membranes.

Context: Two patients, who were on online Haemodiafiltration (HDF) modality experienced early stages of severe hypersensitivity reaction to synthetic polysulfone high flux polymer, characterised by general malaise, headache, desaturation, chest tightness, dyspnoea, bronchospasm and hypotension in spite of range of other interventions such as additional priming volume to flush extracorporeal circuit and other medical management. These interventions did not improve patient conditions. There was good response to the temporary suspension of treatment and reappearance of reactions on subsequent dialysis sessions. Use of alternate membrane option was explored. No hypersensitivity reactions reappeared when sessions were switched to asymmetric tri acetate and Bisphenol-A (BPA) free membrane.

Historically, synthetic membranes seem to be superior in biocompatibility compared to cellulose membranes. However recent studies reported the incidence of synthetic membranes associated with hypersensitivity reactions.

Key message: A key finding in these cases highlighted hypersensitivity reactions to the synthetic membrane which disappeared after switching to asymmetric tri-acetate and BPA free membrane.

Conclusion: This case studies highlights the importance of early recognition and management of membrane hypersensitivity and the use of an alternate membrane.
126. Advance Care Planning: Barriers and strategies

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¹ Queanbeyan Renal Unit, SNSWLHD

Context: Discussion about Advance Care Planning (ACP) needs to be raised long before patients start on their dialysis journey, whether with general practitioners (GP) or specialists Over the last few years, ACP completion has increasingly been incorporated into supportive care management. Issues we have identified locally include:

- Compliance with form completion, lack of understanding, families not wanting to initiate discussion
- Patients being informed about ACP at diagnosis rather than after dialysis has started
- Time limitations, awareness and education about ACP

Objectives:

- Understand the barriers to ACP discussion – and completion
- Identify optimal times to introduce discussion about ACP
- Explore the practical concepts of ACP, incorporating lay language
- Reduce the fear around ACP discussion by making it part of everyday life
- Develop strategies: improve ACP completion, staff education and awareness

Key messages:

- ACP education should be encouraged for nurses and other health professionals as well as community members
- Nephrology nurses have a unique opportunity to discuss ACP – trust builds with long term relationships
- Nurses need to recognise and act as advocates for patients and their families
- Nurses education will build a workforce both competent and confident in having ACP discussions

Conclusion: ACP is important. Early discussion with patients and families is crucial. Personal and professional experiences impact on patients, families and staff alike. Spirituality also plays a significant role. Having the right staff member available at the right time to listen, explain and advocate is in itself a challenge.
127. Factors influencing dialysis access creation time in a local health district

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Introduction: To investigate factors that influence Arteriovenous Fistula (AVF) creation and Peritoneal Dialysis Catheter (PDC) insertion from the time of surgical referral in SWSLHD.

Methods: A retrospective audit was conducted based on data obtained from electronic medical records (eMR) and access referral spreadsheet from 1st January 2016 until 31st December 2017. Outcomes were censored 31st October 2018. Analyses were performed with SPSS version 24.

Results: There were 326 referrals for 260 patients, 54 required more than one referral. Dialysis status on referral were: 187 (57%) Pre-dialysis, 109 (34%) on Haemodialysis (HD) via Tunnelled Catheter (TVC), and 30 (9%) on PD. A total of 202 procedures were performed. Median [IQR] wait times were: referral to appointment 13 [7-21] days, and appointment to procedure 62 [29-115] days. The median time to first use of 151 accesses was 70 [38-163] days. The presence of an existing access negatively impacted on appointment times $p=0.01$. Time to procedure was shorter in males $p=0.04$, for PDC requests $p=0.001$, and varied significantly between surgeons $p=0.001$ and hospitals $p=0.01$. Age, diabetes, interpreter requirement, and private health insurance had no impact on any wait times.

Conclusions: Permanent dialysis access creation times are significantly influenced by procedural factors including type of access requested, procedural location and surgeon which have planning and resource implications. The negative effects of female gender and the presence of an existing access (dialysis status) on wait times may be due to patient factors (anatomic & compliance), surgical triaging or the impact of dialysis itself on the ability to attend appointments.
128. Outcomes of patients referred for permanent dialysis access creation in a local health district over a two year period

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Introduction: To examine outcomes of patients referred for permanent dialysis access creation in SWSLHD.

Methods: A retrospective review of referrals for permanent dialysis access from 1st Jan 2016 to 31st December 2017. Outcomes were censored on the 31st of October 2018. Data was collected from the eMR, access referral database, and letters from nephrologists and surgeons. Analyses were performed with SPSS ver. 24.

Results: Two hundred and sixty patients were referred: 159 for arteriovenous fistula (AVF), 87 for peritoneal catheter (PDC) and 14 for both (AVF&PDC) simultaneously. The requested operation after a single referral was achieved in: 100(63%) for AVF, 55(63%) for PDC and 1(7%) for AVF&PDC. Patient age, gender, diabetes, interpreter assistance, presence of existing dialysis access, and time between referral to appointment had no impact on obtaining the requested access. At study end 125 patients were on haemodialysis (88 AVF and 37 by catheter), 47 were on PD, 13 transplanted, 22 remained predialysis, 3 conservative pathway, and 8 were lost to followup. Forty two(16%) patients had died, 15(35%) had an AVF and 1 PDC.

Conclusions: Obtaining the desired dialysis access (AVF or PDC) following referral is modest reflecting the complex interplay between nephrologist, patient and surgeon. The low likelihood of achieving simultaneous AVF&PDC displays the dominant local surgical preferences in this relationship. One third of patients who died had an AVF highlighting planning and prognostication challenges in this patient group with potential resource allocation implications.
129. Overcoming the pain of haemodialysis cannulation

Bronwyn Hayes¹

¹ Cairns Hospital/CQUniversity

Background: Haemodialysis relies on a well functioning fistula allowing ongoing, regular cannulation. Cannulation pain is frequently observed in haemodialysis patient and more so in patients commencing dialysis via a new fistula. Over the period of 12 months a patient can expect to have at least 300 cannulations of their fistula. Cannulation pain has been shown to cause pain and distress in haemodialysis patients leading to decreased quality of life and non-adherence with treatment. Haemodialysis nurses need to understand and relieve cannulation pain in order to increase the patients quality of life and improve quality of care. Numerous methods of pain relief have been described in literature.

Aims: To identify effective methods use to reduce cannulation pain in haemodialysis patients

Methods: A literature review was conducted using the search terms “haemodialysis cannulation pain”. Articles were selected if they contained methods used to relieve cannulation pain.

Results: A number of chemical and mechanical methods were identified in literature reporting varying levels of efficacy. Innovative ideas included the use of audio distraction, aromatherapy, cryotherapy, altered breathing techniques and various cannulation techniques.

Conclusion: Despite the known pain caused by cannulation, limited steps have been taken to relieve the suffering of patients. Interventions have been identified that demonstrate pain relieving characteristics and could be useful for patients experiencing pain, fear and anxiety related to cannulation with the resultant improvement in quality of life and satisfaction with care given.
130. Raising awareness of negative outcomes for dialysis patients due to poor assessment and cannulation of their access- a directorates experience

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¹ Central Adelaide Local Health Network
² CALHN

Context: Recently the vascular surgeons have noted an increased number of presentations to the Vascular Access Clinic with “problem fistulas” that can be directly related to poor assessment and cannulation techniques. This has resulted in an increased number of complex surgical procedures being performed thereby increasing the risks to patients through anaesthetic exposure, admission to hospital, risk of complications, and an increased cost to the health service.

Unit Managers were asked to identify their most experienced cannulator within their units, that not only had excellent clinical skills, but were also able to impart their knowledge, skills and information gained to others. These “experts” then attended a full day workshop focusing on assessment and cannulation skills.

Objectives: To raise awareness of the implications for patients and the health service due to poor assessment/cannulation of Arterio-Venous Fistulas or Grafts and thereby reduce the number of presentations to clinic/hospital attributable to poor cannulation techniques.

Key messages: Identification of a serious problem with adverse consequences for the patient by encouraging staff to “go back to the basics” – Assessment and Cannulation.

Conclusion: The workshop has resulted in an increased awareness of the importance of correct assessment and cannulation techniques. A Cannulation Link Nurse group has been established to ensure the dissemination of information gathered at the workshop. Possible positive outcomes will be measured by any decrease in the rate of presentation to the clinic over time through Clinic audits. With an aging population and longer exposure to dialysis, accesses require greater care to improve longevity.
131. The intergenerational impact of relocating for dialysis - Where do the children play?

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² Primary Health Tasmania

Background: The burden of end-stage kidney disease is heaviest amongst Aboriginal Australians, most of whom live in remote areas. Aboriginal kidney patients are at least 20 years younger than non-Aboriginal patients, more likely to be female and often have school age children. Limited remote dialysis services mean many are compelled to relocate for treatment. Little is known of the subsequent impact on their children, particularly in relation to school engagement and outcomes.

Aims: To explore the number of children who have a parent on dialysis and associations between parents relocating for treatment and school attendance patterns.

Methods: This data linkage study identified children of Aboriginal adults receiving dialysis in the NT (2000-2014). Using location mapping, we identified the adult’s residence pre-dialysis and analysed associations between parent relocation, child school enrolments and attendance patterns.

Results: Aboriginal children made up 84% of the 587 children with a parent on dialysis, and 73% experienced a parent relocating for treatment. Of these 429 children, 74% were either at school or about to commence school. Using multivariate analysis, children with a parent who did not relocate for dialysis were 1.54 times more likely to attend school compared to those who did relocate for treatment (p < 0.001).

Conclusions: Reasons for lower attendance rates require further exploration but may reflect family disruption, lower levels of parental supervision, housing insecurity and social dislocation. The study suggests that the impact of kidney disease may be inter-generational although the longer-term impact on education and employment outcomes are unknown.
132. Special consideration for older patients in the haemodialysis unit: One unit’s experience

Tina Chang¹
Sarah Han²

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² St. Vincent’s Hospital Sydney

Context: There is a growing number of elderly patients supported by haemodialysis (HD). One barrier for HD nurses to care for the older HD patients is the lack of awareness of Geriatric Syndromes. There are 12 conditions: Dementia, incontinence, delirium, falls, hearing impairment, visual impairment, sarcopenia, malnutrition, frailty, immobility, gait disturbance, and pressure ulcers listed as Geriatric Syndromes (Asian-Pacific Geriatric Societies 2013).

Aim: To identify nurses’ awareness of Geriatric Syndromes for patients who are greater than 65 years by using the results of Geriatric Syndromes survey to develop an education program for both patients and nurses.

Method: 49 patients were divided into three age groups, 66-75, 76-85 and >85. Nurses’ and patients’ responses were then compared.

Results: Some significant results were:

1. Falls, gait disturbance, immobility, frailty and sarcopenia were the most commonly recognised Geriatric Syndromes identified by nurses and patients.

2. Visual impairment: more patients identified that they have some level of visual impairment when compared to nursing staff.

3. Malnutrition: more nurses than patients identified that patients were malnutritional.

Conclusion: The survey identified that there is a gap in both nurses’ and patients’ perspectives in relation to Geriatric Syndromes. To ensure the tailoring of care to meet elderly HD patients’ needs, we suggest liaising with the Geriatric CNC to educate our nurses for nursing interventions to narrow the gap for caring for our elderly HD population.
133. Renal patient engagement in strategic planning and policy development: The Catching Some Air Project

Leeann Mick-Ramsamy1
Lachlan Ross2, Donisha Duff3, Jaquelyne Hughes4 and Phillip Mills5

1 Menzies School of Heath Research
2 Top End Renal Advisory and Advocacy Committee
3 Institute for Urban Indigenous Health
4 Menzies School of Health Research & Royal Darwin Hospital
5 Australian Institute of Tropical Health Medicine, James Cook University

Context: Renal patient engagement in strategic planning and policy is possible based on an inclusive consultation framework. This inclusive model uses a community development principle of ‘valuing the local’. Within the C-AIR project ‘valuing the local’ refers to renal patients and their carers. This framework is based on ‘planning from the ground up’, across and within three different levels, the community (patients and carers); local government and non-government agencies, and the Indigenous community-controlled sector; national and federal government agencies and including politician’s.

Objectives: The planning framework recognizes the need for a collaborative inclusive and transparent engagement of varying levels of expertise and knowledge including access to existing resources to assist kidney patients, their carers/families and communities.

Key Messages:
- Renal patients as leaders in kidney health planning and policy development.
- Valuing the local within an integrated collaboration using a bottom up approach.
- Integrated level of planning includes renal community, key government, non-government and Aboriginal and Torres Strait Islander community-controlled agencies.
- Culturally appropriate, culturally safe and culturally relevant strategies and methods for knowledge translation of renal information.

Conclusions: The outcome of the inclusive approach is to enable the various partners to work together to identify key gaps in health and other services, to listen and provide opportunities for change that ensures the journey for kidney patients their carers/families and communities are appropriately planned and resourced using an integrated model of care, which incorporates the social determinants of health not just the biomedical model of kidney health care.
134. Inequalities in renal patient transplantation listing: Why certain patients are disadvantaged, a single-centre haemodialysis unit experience

Terry Jennings
Katie Johanson

1 BOPDHB
2 Bay of Plenty District Health Board

Aims: To ascertain factors influencing haemodialysis patient transplantation listing

Background: A discrepancy exists in our local satellite haemodialysis unit (SHD); a high proportion of patients (39%) have high Transplant Survival Scores (TSSs) of >80% but only 18% are transplant-listed.

Methods: A snapshot analysis was undertaken, looking at: patient demographics, TSSs, Transplantation Awareness (TA) and comparisons were made between listed/non-listed SHD patients.

Results:

Demographics: age (59±14.4 years, average±Standard Deviation, range 32-82), gender (males/females: 18/10, 65%/35%), ethnicity (Caucasian/Maori/Pacifica: 15/10/3, 53.5%/35.7%/10.7%), diabetic/non-diabetic (10/18, 35%/65%), employed/unemployed (6/22, 21%/78%) and transplantation status (listed/not listed: 5/23, 18/82%).

TSSs: 11 patients (39%) scored >80%, 6 patients (28%) scored 70-80%, 9 patients (32%) scored <70% whilst 2 patients (7%) were ineligible/excluded, being >80 years old.

TA (using standardised questionnaire, only 25 participants): 8(28%) patients thought they were listed, 12(48%) patients had transplant knowledge, 15(60%) had initial discussions and 20/23(87%) non-listed patients were unaware of reasons for non-listing.

Comparisons between transplant-listed (n=5) versus non-listed (n=23) patients: mean age (45/61 years), gender (males, 60%/65%), ethnicity (Caucasian/Maori/Pacifica, 80%/20%/0% versus 48%/39%/13%), employment status (80%/13%), secondary education level (100%/65%), mean dialysis vintage (8.2/6 years), TSSs (90.9%/75.7%) and co-morbidities (<3 co-morbidities, 100/62%).

Conclusions: Discrepancies exist with the (lower) transplant listing of SHD patients when compared to their (higher) proportion with good TSSs and their (higher) perception of whether they were listed. Non-listed (but eligible) patients are more likely to be older, non-Caucasian, unemployed, have lower education levels, lower TSSs and have more co-morbidities. Efforts to increase SHD patient transplant listing could start with addressing the overall poor TA.
135. Going green in the dialysis unit: Reduce, reuse, recycle

Donna Macwan¹

¹ Monash Health

Background: Historically, there are excessive amounts of clinical waste in Satellite haemodialysis units.

Aims: To reduce clinical, water and paper wastage in the dialysis units as well as reduce power usage.

Methods: Initiatives were undertaken, including staff education on utilising Auto-flow on 5008 machines; more bins were introduced in the clinical area, dividing general and clinical waste; were possible, general, uncontaminated waste recycled to animal welfare.

Results: Clinical waste reduced by 50% which is a total of 235kgs per week by segregating the clinical waste and general waste. After discussions with renal technicians and switching to Auto-flow setting on the haemodialysis machine, water usage reduced per treatment, by a staggering 75 litres, saving an estimated million litres of water annually, with no compromise to therapy.

Discussion: Discussion was made within the unit around wastage. Staff were able to suggest ideas as well as utilise methods used by other units. We then implemented the use of smaller clinical waste bins, and to weigh each bin at the end of the day. We found that by designating a clinical and general waste bin to each station and recycling clean refuse to animal welfare, we decreased the weight of clinical waste by 50% within the first few weeks.

Conclusion: As a unit initiative, clinical waste and water usage can be successfully reduced, through systematic and collaborative practices. Future environmentally sustainable activities will consider recycling of RO (reverse osmosis unit) water.
136. Facilitating a change process in Aboriginal and Torres Strait Islander kidney health care: The Catching Some Air Project

Leeann Mick-Ramsamy¹
Donisha Duff², Jaquelyne Hughes³ and Phillip Mills⁴

¹ Menzies School of Health Research
² Institute for Urban Indigenous Health
³ Menzies School of Health Research & Royal Darwin Hospital
⁴ Australian Institute of Tropical Health Medicine, James Cook University

Context: Renal patients, their carers, families and communities cannot continue to work in isolation of renal health services. Moving forward to address kidney disease requires a collective effort across the various levels of the patient renal community and levels of government and non-government agencies. Facilitating a change agenda using a systematic and comprehensive approach must: 1) identify gaps in kidney health services planning and service delivery; and 2) plan a collective response to addressing the gaps based on sustainable strategic outcomes.

The Australia & New Zealand Dialysis and Transplantation Registry (ANZDATA) Indigenous Health Working Group, the ANZDATA Executive, and Australia and New Zealand nephrology leaders have recognised the timely priority to facilitate an Indigenous kidney health agenda.

Objectives: To work in partnership with Aboriginal and Torres Strait Islander expert process-change facilitators and consult across multiple-levels to define the gaps and priority for Indigenous kidney health advancement.

Key Messages: Change facilitators created opportunities for stakeholders to receive and act on advice from Aboriginal and Torres Strait Islander patients, their carers and communities, as well as other stakeholders. Facilitators employed layering strategies across multiple stakeholder levels to define Aboriginal and Torres Strait Islander:

- Information and Knowledge Rights in Kidney Health;
- Strategies for kidney health advancement;
- Data Governance Framework for ANZDATA;
- Indigenous-led kidney health knowledge exchange strategies; and
- Kidney health workforce priorities.

Conclusions: Over 15 months, the C-AIR Project’s targeted change-facilitation process achieved strategic collaboration for significant local, regional and national impact for Indigenous kidney health advancement.
Afsana Khan

Introduction: Secondary hyperparathyroidism develops in patients with Chronic Kidney Disease due to a combination of factors including vitamin D deficiency, hypocalcemia, and hyperphosphatemia. It is usually managed by phosphate binders but when hyperparathyroidism tips into the tertiary stage, calcitriol is used. Failed medical management results in surgical interventions due to the uncontrolled secretion of parathyroid hormone, hypocalcemia and hyperphosphatemia. Post-surgery, strict management strategies need to be followed to improve patient outcomes.

Aim: To describe the management of a haemodialysis patient immediately after parathyroidectomy.

Method: Data for a patient included in this case study was collected from hospital admission records. Data was deidentified for the purpose of this study.

Results: The patient had an elective admission for total parathyroidectomy, had pre-operation blood tests and haemodialysis prior to surgery. After the parathyroidectomy the patient had 6 hourly bloods to closely monitor for low calcium. The patient had calcium infusion as per protocol. On dialysis the patient had calcium 1.75 dialysate which was later reduced to 1.5 after week. On discharge the patient was prescribed calcitriol 3 times a day and 1.25 dialysate on haemodialysis. 2 weeks post discharge the patient was reviewed in renal clinic and monthly bloods were ordered.

Conclusion: With the protocol in place and close monitoring of calcium levels, haemodialysis patients can be cared for safely post parathyroidectomy.
139. Inaccuracies in resuscitation status documentation in satellite haemodialysis patients, a single centre satellite unit experience

Katie Johanson¹
Terry Jennings¹

¹ Bay of Plenty District Health Board

**Background:** Resuscitation status (RS) for satellite dialysis patients is an important part of Advance Care Planning (ACP). RS discussion outcomes are documented in 3 physical areas: ACP forms, formal resuscitation form (FRFs) (signed by physicians) and clinic letters (CL)s. They should also be electronically uploaded to ensure high visibility and transferability. The complexity of recording and displaying the RS in different forms and locations can result in omissions, discrepancies and mistakes.

**Aim:** To ascertain that RS is accurately documented both physically and electronically in patient records.

**Method:** All current HD patients were offered to voluntarily complete an ACP form. Their resuscitation wishes were compared to physician orders documented in FRFs and CLs. Discrepancies were highlighted. The ACP forms changed mid-study: the first 7 patients didn’t have a resuscitation question whilst the last 5 did.

**Results:** 12 patients completed their ACPs, corresponding FRFs and notes were reviewed.

Of the 5 patients who had the resuscitation question in the new ACP form, 3 chose resuscitation; 2 had the FRFs signed but only 3 had CL documentation. The 4 out of the 7 patients who didn’t have the ACP resuscitation question had the RS documented in both FRFs and CLs. 1 patient had RS documented in all 3.

**Conclusion:** The omission of the resuscitation question in 7 patients was only detected later in the study, making it difficult to ascertain any conclusions. However, if a patient completed an ACP, there is no guarantee of having the RS documented in all 3 RS forms.
140. An exemplary pathway

Mangala Mari Doss

1 Counties Manukau Health

**Background:** Clinical Renal Physiologists (CRP) were credentialed to administer limited medications as per historical Counties Manukau Health policy with variations noted compare to other DHB practices. A project was undertaken to implement streamline administration practice inline with Professional Society competencies and scopes of practice.

**Aim:** Clinical Renal Physiologists (CRP) be able to administer all renal related medications as part of providing dialysis care.

**Methods:** Consultation carried out with relevant stakeholders; Managers, Nursing Director, Allied Health Director and New Zealand Australia society of renal dialysis practice Inc (professional Society for CRP) and employee Unions.

Proposed administration practice policy presented to Counties Manukau Health (CMH) Renal Management and Medication safety Governance group for the approval.

**Results:** Development of reviewed Roles and responsibilities of Clinical Renal Physiologists which enables them to work on top of their scope of practice for Clinical Renal Physiologist as per professional society competencies.

**Conclusion:** Implemented renal related medications administration of all renal related medications as part of dialysis care by CRP. This resulted in improved patient quality of care as well as improved work culture in Renal Multidisciplinary team. This implementation process provided a template to other DHBs to utilise and implement.

It was a successful journey with a smooth transition.
141. Permcath exit site infections and sepsis: A unit’s experience in prevention of infection

Natalia Ortiz Acevedo¹
Frank Ierino¹, Melissa Stanley¹ and Nuala Barker¹

¹ St Vincent’s Hospital Melbourne

Context: Permcath exit site infections and catheter-related sepsis result in high morbidity and mortality rates, burden of cost to healthcare and prolonged hospital stay amongst patients with end-stage kidney disease (ESKD). There was an increased incidence of Permcath exit site infections and sepsis in a major hospital, which required intervention to improve patient health outcomes. A review of the hospital’s policy and procedures in Permcath management was undertaken.

Objectives: To report and discuss the Permcath care strategies and techniques that were implemented. This was executed by auditing current practices and comparing these to best evidence-based literature. The changes made in clinical practice resulted in a significant decrease in exit site infections and sepsis between 2018 and 2019.

Key points: To ensure optimal patient health outcomes, continual review of Permcath clinical practices and audits are essential. Nursing staff are imperative in ensuring timely assessment and aseptic care of Permcaths. To successfully reduce Permcath infections, nursing staff require teamwork, further education and support.

Conclusion: Permcath infections can result in patient death. To reduce hospital admissions and burden of disease for ESKD patients, the use of best evidence-based practice is crucial to ensure prevention of infection. Nursing staff are vital in these clinical changes and in continually improving their Permcath management and care.
142. Renal disease and chemotherapy

Alexandra McCarthy¹

¹ University of Auckland

Renal nurses are increasingly exposed to patients with renal complications related to chemotherapy. In addition, more patients with existing renal impairment are treated with cytotoxic drugs. This presentation broadly discusses:

1. How chemotherapy affects the kidneys
2. The common nephrotoxicities of cancer therapy
3. Some technical renal nursing considerations:
   a. Clearance of cytotoxics in haemo- and peritoneal dialysis
   b. Timing of dialysis and chemotherapy
   c. Safe handling: Dealing with cytotoxic renal effluent
4. Optimising outcomes: The prevention or management of chemotoxicities in the context of renal impairment and co-morbid chronic conditions.
143. Fat stigma, discrimination, and bias: Implications for practice

Cat Pause¹

¹ Massey University

Fat stigma is a powerful driver of population-level health disparities; it is a barrier to evidenced-based, bias-free, healthcare for fat people. In this space, we will explore the role that provider anti-fat attitudes and confirmation bias play in the failure to provide evidenced-based healthcare to fat patients. We will reflect on our own attitudes around fatness and consider ways that our practice could be reshaped to be fat friendly and ensure that we are providing ethical healthcare to all of our patients, regardless of size.
144. Change is good... unless you are a werewolf. Trials and tribulations from the dark side of paediatric nephrology

Chanel Prestidge¹

¹ Starship Children’s Hospital

The number of young patients graduating from pediatric to adult renal care has progressively increased due to improved management resulting in patient survival rates of 85–90%. Adult renal services are being exposed to an increasing number of adolescent and young adult patients who have either transitioned from pediatric care or presented directly to adult services. It is recognised that there are substantial risks of non-adherence at the time of transfer from pediatric to adult care and among the cohort of patients aged <25 years who are managed in adult care. Transition will be discussed alongside revision of the stages of adolescence and determinants of adherence in the hopes that improved understanding of these elements when caring for youth with renal disease might improve outcomes.
145. KHA-CARI Guidelines for CKD Maori Patients & Whanau - how we need to do better

Curtis Walker\textsuperscript{1}

\textsuperscript{1} Mid Central District Health Board

Indigenous Australians and New Zealanders experience poorer outcomes for chronic kidney disease compared to non-indigenous population. In response to this, the KHA-CARI Guidelines Group has commissioned the development of new guidelines for CKD management in Maori and Aboriginal and Torres Straight Islander people. A key component of developing these guidelines has been community consultation with Maori patients and whanau, along with primary care providers and nephrology providers. This presentation discusses the community approach to developing these guidelines and the themes arising from the consultation which highlight significant opportunities for improvement in the delivery of renal services to patients affected by CKD. Further, a proposed framework and topics for the new guidelines will be outlined along with a cultural safety approach for clinicians and services.
148. Software to bring home the Reality of CKD in your community

Allister Williams¹

¹ Taranaki DHB, New Zealand

Patients taking ownership of their Chronic Kidney Disease (CKD) can allow for a cost-effective method of managing both progression of CKD and overall maintenance of patient well-being.

This evolve around the principle that patient-doctor interactions in the primary and secondary interfaces are complicated and multi-directional. Through our approach, we can allow the patient and public to become active participants in their own chronic disease. We know that the secondary care delivery model is expensive and currently depends heavily on limited interactions between health practitioners and patients. Through the appropriate use of Health informatics and modern device platforms, we can change the location of service delivery directly to the patient’s home; which in turn allows the patient to be pro-active in their disease management.

To achieve this, we need to adapt and use the advances made in Information Technology to deliver a platform to the patient through which the patient can share personalized healthcare information, enabling them to take ownership of their CKD. This platform should consist of automated information, advice, educational tools /references and guidance about progress of their kidney disease and the associated organ-specific complications. Advances in information technology (IT) enable this redesign of health care processes based on the use and integration of electronic communication at all levels. New communication technologies can now support a transition from institution-centric to patient-centric management of kidney disease in your community. In 2014, we in Taranaki introduce these principles into our practise with fantastic results both from a financial and clinical point of view – and now we ready to share this with you. Including the opportunity for you, as healthcare provider, to bring the Reality of CKD to your community.
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