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Abstracts
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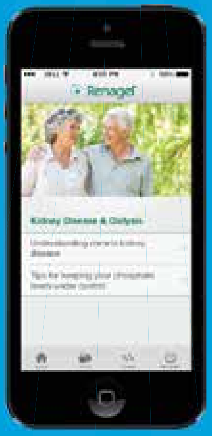

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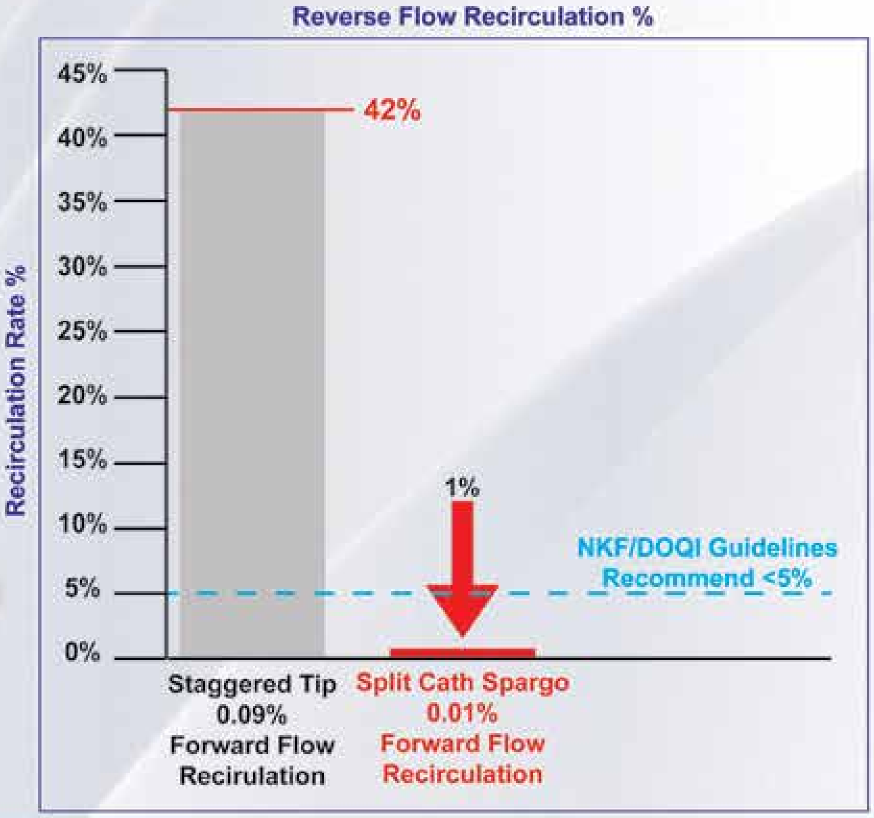

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Session 1: Opening Ceremony

1.1: Current Issues and Developments in Renal Transplantation

Dr Scott Campbell[1]
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A number of important changes are currently being developed for the way kidney transplants are allocated in Australia. These include ways of better assisting highly sensitised patients to access the specific kidneys that they require, and means of trying to match the potential longevity of kidneys and transplant recipients. It is hoped that these measures will improve the outcomes from renal transplantation, and provide a way forward for the allocation of our growing number of increasingly variable quality kidneys.

Session 2A: Haemodialysis Innovation

3: Exercise benefits and barriers: The views of people living with end-stage kidney disease on haemodialysis

Gethsy Jayaseelan[1], Helen Rawson[2], Wei Wang[3], Wendi Bradshaw[4], Paul Bennett[5]
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Background

Exercise programs in haemodialysis clinics are not commonly found in Australia. Understanding people's perceptions of benefits and barriers to perform exercise is imperative to introduce and sustain intradialytic exercise programs.

Objectives

The objectives of this study were to: (1) explore the perceptions of the benefits and barriers to exercise; (2) investigate whether exposure to an exercise program was associated with changes in patients' perceptions; and (3) measure the psychometric properties of the Dialysis Patient Perceived Benefits and Barriers Scale in an English speaking context.

Methods

A quantitative cross-sectional explorative study using a 24 question survey was undertaken on a convenience sample of 269 haemodialysis patients from 10 satellite haemodialysis centres in a large Australian city.

Results

The majority of participants were positive towards exercise on dialysis. Those who had seen exercise on dialysis were more positive than those who had not. Confirmatory factor analysis identified a four factor structure (daily life, symptoms, exercise side effects and exercise information) utilising 12 survey questions that demonstrated best fit.

Conclusions

People being treated with haemodialysis are positive towards exercise on dialysis, and therefore, their perceptions are not barriers towards an intradialytic exercise program. Dialysis staff are encouraged to pursue exercise programs to minimise the deterioration in physical function of people on dialysis. A shorter psychometrically rigorous 12 question instrument to measure exercise benefits and barriers has been developed in this study to evaluate the benefits and barriers to exercise and measure future exercise interventions.

136: A sepsis pathway for satellite dialysis units

Valerie Silvester[1], Andrea Doric[1]
[1] Eastern Health, VIC

Context

Sepsis can be a killer. It is a medical emergency which arises when the body's response to infection causes a generalised, systemic response. Research shows that early recognition of sepsis and timely administration of antibiotics can improve patient outcomes and reduce mortality.

In December 2015, a Victorian metropolitan renal service launched the Sepsis Pathway in their satellite dialysis centres.

Objectives

- Timely, standardised and effective detection and management of sepsis
- Reduced mortality, morbidity and bed-stays from sepsis-related conditions
- Enhanced clinician skills in sepsis recognition and management
- Safe high quality care
- Improved patient experience

Intervention

- Stakeholder engagement
- Sepsis pathway tailored for use in satellite dialysis units
- Antibiotic 'sepsis' kits stocked in units
- Education and communication

Results

Staff at one centre recently recognised that a patient was unwell with likely sepsis and referred to the pathway. The renal registrar was contacted, bloods taken, a phone order for intravenous Vancomycin obtained and antibiotics administered prior to ambulance arrival to transfer the patient to the emergency department.

Key messages

Dialysis patients are at high risk of developing sepsis. Early detection and prompt management of sepsis improves patient outcomes and saves lives. This translation of evidence into practice has enhanced clinician capability, improved resilience and improved staff satisfaction.

Conclusion

Introduction of the sepsis pathway in dialysis units has changed practice only slightly, however it has empowered staff with an official course of action and made all more aware of the importance of commencing IV antibiotics as soon as possible.

51: Introduction of online haemodiafiltration (O-HDF): One unit's experience measuring patients' symptom burden before and after O-HDF therapy

David Jones[1], Jacintha Lidiya[1], Hilton Gock[1], Nuala Barker[1], Mel Stanley[1]

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Context

Online Haemodiafiltration (O-HDF) combines diffusion and convective transport to remove uraemic solutes. Literature studying the benefits of O-HDF compared with low flux HD has been conflicting. Many studies investigate cardiovascular outcomes such as improved blood pressure and all-cause mortality but little evidence exists comparing patient perceptions of their symptom burden on high flux HD with O-HDF.

Objectives

To evaluate patient symptom burden before and after successful introduction of O-HDF for all patients in one metropolitan haemodialysis centre using the POS-S-Renal Patient Outcome Scale. A retrospective analysis of survey results from this cohort was compared to surveys completed 6 months following commencement of O-HDF. It was hypothesised that O-HDF would result in overall symptom improvement particularly for those patients experiencing weakness and lack of energy.

Key messages

Pre-surveying of patients indicated many experience a wide range of debilitating symptoms such as weakness and lethargy, nausea, poor appetite, and drowsiness. Post survey results demonstrated overall increased energy levels and reduced post-dialysis fatigue but many symptoms persisted at six months. Four patient case studies will be used to examine individual patient experiences, and demonstrate the successful implementation of O-HDF across the unit.

Conclusions

Symptom burden for patients in this centre is high. The introduction of O-HDF has resulted in a decrease in some symptoms but it may be too early to evaluate. Symptom assessment beyond the 12-month period is recommended for future care goals.

8: A comparison of self-reported quality of life for an Australian haemodialysis and haemodiafiltration cohort

Kathleen Hill[1], Susan Kim[2], Susan Crail[3], Tiffany Whittington[3], Tony Elias[4]

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Background

End stage renal disease is known to reduce self-reported quality of life (QOL). There is increasing interest in examining factors that can impact positively or negatively on QOL and incorporating this knowledge into the management of chronic kidney disease and the delivery of renal replacement therapies. Haemodiafiltration (HDF) has been widely studied for any evidence of superior outcomes in comparison to conventional haemodialysis (HD) however little is currently known about HDF and self-reported QOL in comparison to HD.

Aims

To determine if there is any improvement in self-reported QOL for satellite dialysis patients receiving HDF in comparison to HD.

Methods

A longitudinal study of self-reported QOL in a cohort of 171 patients receiving either HD or high efficiency post-dilution HDF in seven South Australian satellite dialysis centres.

Results

QOL for this cohort is reported as very low overall and HDF does not confer an advantage. Factors that are associated with a reduction in QOL are younger age, comorbid diabetes and dialysis vintage. This study has also demonstrated a decline in physical functioning over time regardless of age and treatment mode and that dialysing for more than twelve hours per week is associated with lower QOL in relation to the burden of kidney disease.

Conclusion

Despite advances in the delivery of renal replacement therapies particularly the development and increasing utilisation of HDF, HDF has not been shown to improve self-reported QOL in this cohort of satellite haemodialysis patients.

17: Preventing intradialytic hypotension: Translating evidence into practice

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Background

Intradialytic hypotension remains the most frequent severe side-effect of the haemodialysis procedure. Pre-emptive pausing of ultrafiltration for asymptomatic hypotension, using a prescribed clinical pathway, can decrease symptomatic episodes. Effectively translating this evidence into practice remains challenging.

Aims

1) Measure nurse compliance with an intradialytic hypotension prevention clinical pathway;

2) Identify the effect of the pathway use on hypotension incidence; and

3) Explore barriers or enablers to pathway implementation within clinical practice.

Methods

A four-week audit of dialysis worksheets (n= 2711) in five dialysis centres was undertaken to examine pathway compliance. An audit coding tool was devised to document the incidence of hypotension and effect of the pathway. Barriers affecting pathway implementation in practice were explored through focus group interviews.

Results

Mean compliance with the pathway was 69%, with considerable inter-unit variability (31.7% - 93.2%). Overall incidence of hypotension was less than 2%. Instituting an ultrafiltration pause decreased the odds of hypotensive episodes by 44% but this was not statistically significant (OR = 0.56, 95% CI = 0.20 - 1.56, $\chi 21$ = 1.25, p = 0.26). Nurses reported a lack of preparatory education prior to pathway implementation and concern regarding patient apprehension at instituting an ultrafiltration pause in the absence of symptoms.

Conclusion

Education is necessary to inform nurses of the evidence supporting new interventions. There was considerable variability in compliance across five haemodialysis units, highlighting the importance of active facilitation to promote translation of evidence into practice in order to optimise clinical outcomes.

105: Recreational drug use in haemodialysis patients: A nursing challenge

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Context

Recreational drug use is becoming an increasing health burden in contemporary society. Australia is at the forefront with its population classified as having the highest proportion of drug users globally and world leaders in the use of ecstasy, followed closely in the use of codeine, morphine, methamphetamines and cocaine. It has been documented that drug abuse can lead to Chronic Kidney Disease, however there is limited information available regarding the challenges that patients face as a result of taking recreational drugs whilst on dialysis. These challenges include excessive weight gains to extreme weight losses and using vascular access as their portal to inject, leading to thrombosis, tachycardia, hypertension and atrial flutters. There is limited information about the effective management of these patients.

Objective

Three case studies will be reviewed to understand the prevalence and challenges renal nurses face when dialysing recreational drug users. Information will also be reviewed in relation to the management of patients.

Key Messages

Multiple case studies may provide insight into the common and rare challenges nurses face in the management of patients with inter/intradialytic complications from recreational drug use.

Conclusion

Minimal evidence and information is available to help staff manage dialysis patients who take drugs recreationally. Information collected through multiple case studies will guide the development of management plans that could be implemented early with these patients to prevent further morbidity and mortality.

80: Randomised study to examine the management of stable stage 3-4 chronic kidney disease (CKD) patients by CKD nurse versus usual care with nephrologists

Kathleen Kan[1], Lisa Colquhoun[1]

[1] Eastern Health, VIC

Background

The decline in estimated glomerular filtration rate (eGFR) in many stable stage 3-4 chronic kidney disease (CKD) patients with optimal risk factor management is slow. Recent literature demonstrated that these stable CKD patients can be managed effectively by nurse practitioners (NPs).

Aim

To determine the effectiveness of a CKD nurse clinic versus usual care with nephrologists in the comprehensive care of stable stage 3-4 CKD patients.

Methods

Using a randomised controlled design, participants aged 18-85 years with an eGFR 25-59mL/min were randomized to be reviewed by the nephrologists or the CKD nurse practitioner candidate (NPc) every four months over two years. Participants randomised to NPc group were reviewed by nephrologists annually. Primary endpoints examined were changes in eGFR, cardiovascular events and death.

Results

Twenty participants (mean age 71.6 years, 70% males, 30% diabetics) were randomised after informed consent; 11 to the CKD NPc group and 9 to the nephrologist group. The change in eGFR at completion of the study was not significant between the groups. The mean eGFR at commencement of the study was 39.4mL/min in the NPc group and 39.9mL/min in the nephrologist group. At completion, the mean eGFR was 40.0mL/min in the NPc group and 41.6mL/min in the nephrologist group. There were two cardiovascular events in the CKD NPc group and no deaths.

Conclusion

This small study showed that there was no significant difference in change in eGFR in stable stage 3-4 CKD patients who were managed by NPc versus usual care by nephrologists.

129: A randomised cross-over trial comparing arterial line versus venous line administration of enoxaparin in haemofiltration and haemodialysis treatments

Kim-Leigh Fowler[1]

[1] Gold Coast Hospital & Health Service, QLD

Background

Within the extracorporeal circuits, low molecular weight heparin (enoxaparin) is widely used for anticoagulation, and is usually administered via the arterial port. However, with high flux dialysers, up to 80% of enoxaparin can be removed via the membrane which could potentially cause clotting of the extracorporeal circuit, thereby increasing the risk of adverse outcomes and dialysis costs. No evidence was available to determine the safety and efficacy of enoxaparin administration via the venous port in high flux dialysis treatments.

Aims

To compare the efficacy and safety of standard arterial line administration of low molecular weight heparin (enoxaparin) versus venous line administration in prevalent patients on haemodialysis (HD) and haemodialfiltration (HDF).

Methods

The trial was a dual centre, prospective, stratified open-labelled randomised cross-over trial using a high flux dialyser. 16 participants were included in the study, eight on HD and eight on HDF. The patients were randomised to receive enoxaparin via the venous line or arterial line and measurements of Anti-factor Xa (AXa) blood levels were taken within specific timeframes.

Results

Enoxaparin administered via the venous port showed a significantly greater 4 hour AXa blood level compared to arterial line administration, with no change in manual compression times ($P<0.001$).

44: An innovative model of improving access to renal specialist care: One rural centres experience with a nurse practitioner (NP) led chronic kidney disease (CKD) tele-health service

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Background

Access to CKD specialists is essential for slowing disease progression and improving long-term patient outcomes, however, access is often limited in rural and remote areas because of geographical location, socio-economic factors and health service resources.

To address this, a tele-heath model of care (MOC) for a rural CKD multidisciplinary service was facilitated by the renal NP.

Aim

To review NP-led tele-health CKD MOC in rural Queensland.

Methods

Patients attending a centralised traditional renal service were offered transition to a telehealth MOC, facilitated by a renal NP, within their local Hospital and Health Service. Patients were enrolled by informed consent into the CKD.QLD Registry. Patient demographics and longitudinal outcomes, including patient satisfaction, were collated.

Results

112 patients were seen from November 2011 until January 2016. 39% identified as Aboriginal and/or Torres Strait Islander (ATSI). Gender distribution was equal within the ATSI cohort, with the non-ATSI cohort predominantly female (57.5%). The ATSI cohort mean age was younger than non-ATSI. Comorbidities (all patients): 50% were diabetic and >90% had hypertension. Approximately 485 telehealth consultations were provided, with 90% including a relative/carer, resulting in financial savings (transport subsidy scheme) of $110,000, and a patient travel reduction of 147,000km’s. Patient satisfaction was high with 100% indicating they were treated with respect and dignity and 100% stating they would recommend the service.

Conclusion

CKD management via an NP-led tele-health MOC is safe, efficient and cost effective, enabling patients to be managed ‘closer to home’ with the benefits of local health service involvement, carers and family.

83: Pre-sternal peritoneal catheter - expanding the potential peritoneal dialysis population - a case study

Christine King[1]

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Context

Peritoneal Dialysis (PD) is a home therapy treatment. Previously, obese patients, and those with complex abdominal surgical histories were precluded from this home therapy due to catheter complications and concern about the ability to achieve adequate dialysis. It is now possible to offer PD as a home therapy to these patients, using pre-sternal catheter placement, instead of the traditional lower abdominal exit site location.

Objectives

To outline the benefit of pre-sternal catheter placement in an obese patient in regards to self- management, exit site care and drainage, as well as investigating the adequacy of PD in an obese patient.

Key Messages

- Pre-sternal catheter use will expand the potential PD population.
- Literature evidence, and our experience to date, indicates there are minimal additional catheter issues associated with this type of catheter - such as insertion, flows and adequacies.
- The location of the exit site permits optimal management by the patient in reducing their risk of potential exit site infections and catheter complications.

Conclusion

Evaluate the success of this catheter placement and the healing of the exit site. Quantify the adequacy of dialysis, to determine if this is an optimal treatment option for the obese patient.

57: Making it fit: The implementation of the productive ward in an outpatient dialysis unit

Shelley Tranter[1], Kylie Turner[1], Tracey Blow[1]

[1] St George Hospital, Sydney, NSW

Context

The Productive Ward is a series of service improvement modules developed for the hospital ward setting. The aim of The Productive Ward is to increase the proportion of time nurses spend providing direct patient care, improve the staff and patient experience and change the ward environment to improve efficiency, patient safety, quality and reliability of care.

The Productive Ward comprises three foundation modules: *Knowing how we are doing, Well organised ward* and *Patient status at a glance.* Process modules that focus on fundamental aspects of clinical care are then completed.

The Productive Ward started in our outpatient haemodialysis unit in early 2015 and to our knowledge this is the first time that The Productive Ward has been implemented in an outpatient dialysis unit.

Objectives

Modifications to the existing ward based program were required. Meaningful clinical indicators for dialysis patients such as hypotension episodes, clotting of lines and dialysers and “coming off early” were tracked with safety crosses. Other changes were made to the specific clinical modules e.g. replacing Hygiene with Hypotension on Dialysis.

Key messages

The Productive Ward is an effective methodology for implementing change in ward areas and the time taken to adjust the program has led to greater engagement of the nursing team in our dialysis unit.

Conclusion

It is envisaged that implementation of the modified Productive Ward program will continue to benefit both dialysis nurses and the patients we care for.

121: The role of nocturnal haemodialysis and gastric surgery in obtaining a kidney transplant following long-term dialysis treatment – a case study

Rachael Brown[1]

[1] Gold Coast Hospital and Health Service, QLD

Context

Morbid obesity comes with an increased risk of intraoperative complications and wound related issues for patients receiving a kidney transplant. The effect of long-term dialysis treatment reduces survival as risks from cardiovascular, cerebrovascular and vascular calcification complications increase over time. Reducing weight with chronic kidney disease whilst receiving dialysis treatment becomes insurmountable for some individuals who otherwise would be suitable candidates for transplantation.

Objectives

To present a case study describing how nocturnal haemodialysis paired with laparoscopic sleeve gastrectomy (LSG) resulted in a long-term dialysis patient receiving a renal transplant.

Key messages

With nocturnal dialysis the patient was well dialysed and able to enjoy overall good health - with the exception of obesity, over the entirety of his years on dialysis (13.5yrs). A body mass index (BMI) of >40 made him ineligible for a renal transplant and he underwent an LSG procedure which reduced his stomach size enabling weight loss to achieve the required BMI.

Conclusion

Nocturnal haemodialysis is seen as the ‘gold standard’ in dialysis treatment. It has been shown to lessen stress on the heart, slow calcium deposits forming, improve sleep patterns, improve cognition and memory, as well as improving sexual libido and function. Paired with gastric surgery, nocturnal haemodialysis can keep patients well dialysed, increasing their likelihood of transplantation despite long-term dialysis.

78: Assessment and personalised treatment of malnutrition in the haemodialysis population

Melissa Corken[1], Anne-Marie Desai[1], Shaylyn Bertino[1], Louise Stanley[1]
[1] Eastern Health, VIC

Background

Malnutrition is linked to increased morbidity and mortality in the haemodialysis population. The prevalence has been reported between 23-76%. A metropolitan Melbourne renal service prioritises assessment and treatment of malnutrition in their satellite centres. Dietitians use the validated Subjective Global Assessment (SGA) to identify malnourished patients and those at risk. These patients are prioritised to receive personalised intensive dietetic input.

Aim

To track malnutrition rates across four haemodialysis satellites from 2010 and evaluate the effectiveness of strategies used to treat malnutrition.

Method

Ongoing six monthly SGA has been completed since 2010. Patients identified as malnourished or at risk of malnutrition receive personalised nutrition intervention including oral nutrition support (ONS) where indicated. A subgroup of 10 malnourished patients were tracked to determine the effectiveness of the implemented nutrition strategies. Albumin levels and weight were recorded before and after 6 months of nutrition intervention. A two tailed paired t-test was used to determine statistical significance.

Results

Analysis of >1300 assessments found malnutrition rates decreased from 33% to 17%. A small ONS budget has been successfully implemented since 2012 to assist in treating malnutrition. Personalised dietetic intervention significantly increased albumin levels by a mean of 7.7g/L, (t(9)=5.355, p<.01). A non-statistical t increase in weight of 2.2kg was observed, (t(9)=1.529, p=.16).

Conclusion

The initial rates of malnutrition identified (33%) are similar to previous studies with the haemodialysis population. The use of routine SGA enables a personalised dietetic service, resulting in significantly reduced incidence of malnutrition and improved patient outcomes.

58: Keeping kidneys clinic: Lessons learnt

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Context

Keeping Kidneys (KK) service commenced in 2013 aiming to address the unmet needs of patients with early stage Chronic Kidney Disease (CKD). The service is located in a primary care setting in an area of high disadvantage. The Practice Nurse (PN) and doctors are up-skilled in CKD management and supervised by a Nephrologist. Shared care involves KK clinic doctors, a Nephrologist and/or the patient's usual General Practitioner.

Objectives

The clinic aims to delay the progression of CKD by improving both access to appropriate care and patient knowledge about how to manage CKD. The clinic also aims to increase the knowledge and skills of primary care physicians and PNs through education and interaction with a Nephrologist and multidisciplinary team.

Key messages

The KK service encountered unforeseen challenges requiring innovative health care delivery. This was due to the comprehensive care required to manage this group of complex patients, many of whom had numerous co morbidities and a long list of medications. This was compounded by the limited knowledge these patients had on how to manage their multifaceted health issues. Many of these patients are demographically disadvantaged, culturally and linguistically diverse emphasizing challenges faced with their management.

Conclusion

Care of the patient with CKD is complex and requires a multidisciplinary approach. The PN proved to be crucial in facilitating and maintaining communication with all stakeholders. From a service delivery aspect discrete funding is required to support PN time for patient support, coordination of the service and ongoing professional development.

31: A feasibility study to track the last 12 months of life in chronic kidney disease patients: Baseline characteristics

Shirley Chambers[1], Ann Bonner[1], Shivani Chhabra[1], Helen Healy[2], Sharad Ratanjee[2], Adrian Kark[2], Patsy Yates[1], Wendy Hoy[3]

[1] Queensland University of Technology, QLD [2] Queensland Health, QLD [3] Univesity of Queensland, QLD

Background

Chronic kidney disease (CKD) is associated with a high symptom burden and reduced quality of life particularly in individuals who are in their final year of life. A palliative care approach that targets symptom burden would benefit many patients but few collaborative renal/palliative care services exist.

Aim

To track the experiences and health service utilisation of people with CKD over the last 12 months of life.

Methods

A longitudinal, prospective design was used to follow 19 patients attending a renal service without a formal collaborative renal/palliative care approach. Inclusion criteria were age ≥18 years, CKD stages 3-5, prognosis <12 months (using “surprise question”) and cognitively sound. Measures included modified dialysis symptom index (31 symptoms; prevalence, frequency, severity and distress), Australian Karnofsky Performance Scale scores (AKPS), and if known to a palliative care service (PCS).

Results

Baseline characteristics were: median age 78 years (range 42 - 90); male (n=12); CKD stages 4 (n=4) and 5 (n=15); 9 non-dialysis and 10 haemodialysis; and median AKPS score was 60 (range 40-70). The most prevalent symptoms were lack of energy (n=15, 98.95%), dry mouth (n=13, 68.42%) and dry skin (n=13, 68.42%). Lack of energy and sleep problems were the most severe and distressing symptoms. At baseline only two participants were actively engaged with a PCS.

Conclusion

Ascertaining changes over time in symptom burden and functionality will assist with targeting the level and type of services needed along the end-of-life trajectory in CKD, and to ensure timely and appropriate renal and palliative care is provided.

10: Team tactics: A co-ordinated approach to care management

Michelle Rice[1], Kate Jakeman[1], Natasha Lorenzen[1], David McIntyre[1], Carla Scuderi[1]
[1] Royal Brisbane and Women's Hospital, QLD

Context

The multi-disciplinary team (MDT) at a satellite dialysis unit within a metropolitan renal service in Queensland commenced monthly reviews of all patients in March 2015. The reviews were introduced to maximise the finite resources of the MDT and better utilise nephrologist time. The MDT consists of a Renal Nurse Practitioner, Pharmacist, Dietitian and Nurse Unit Manager. Patient's haemodialysis information, monthly biochemical and haematological results, medications, nutritional status and psychosocial concerns are reviewed. The MDT review is documented in the patient clinical record and feedback provided to the patient within 48 hours.

Objectives

To report on the implementation and outcomes of monthly MDT reviews within a satellite dialysis unit.

Key messages

A fully collaborative approach to monthly patient reviews has resulted in:

- Maintenance of biochemical and haematological key performance indicators comparable to the previous medical review model
- Increased patient involvement
- Timely referrals and follow up
- Transparent review process with real time clinical documentation
- Optimising limited allied health resources
- Ongoing professional development for the MDT

A documented framework for the MDT to follow and regular review of the initiative identifies both ways to improve efficiency and target areas for the unit to focus on. The MDT reviews are fully supported by nephrologists and has facilitated an increase in their clinic availability.

Conclusion

Monthly MDT reviews are embedded into practice within the metropolitan satellite dialysis unit. The process improves efficiency and is highly valued by patients, nursing staff, MDT and Nephrologists.

Session 2C: Peritoneal Dialysis Innovation

91: PD in paradise

Sophie Wade[1], Richard (Mark) Shipton-Smith[1]
[1] Princess Alexandra Hospital, QLD

Context

Managing a patient successfully on a home based dialysis therapy can be a challenge. This challenge is greatly increased when the patient's home is thousands of kilometres away from their Home Peritoneal Dialysis Unit. This presentation will outline the journey our unit has taken in caring for a home Peritoneal Dialysis patient who lives in remote Rabaul, Papua New Guinea.

Objective

This presentation will outline the journey our unit has taken in caring for a home Peritoneal Dialysis patient who lives in remote Rabaul in Papua New Guinea and supporting him to do PD for over 9 years in this remote location.

Key Messages

- Managing home patients in remote areas
- Keeping patients engaged and communication links strong despite geographical distance
- Thinking outside of the square - how to keep track of a home patient's progress when a home visit is not possible

Conclusion

While a challenge, out unit has forged a successful clinical relationship with a remote PD patient who lives and works in an area that is geographically remote from our unit. With limited options for other forms of dialysis available to him in this remote location, this patient has succeeded in staying alive on PD for an amazing 9 years and in doing so has taught us to think outside the square when it comes to managing our patients on home based dialysis therapies.

67: Can a body motion sensor record the impact of peritoneal dialysis on body movement: Implications for reducing back pain and fatigue: A pilot study

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Background

Peritoneal Dialysis (PD) involves the instillation of a large amount of fluid into the peritoneal cavity. This fluid load causes muscle fatigue; poor posture leading to back pain and fatigue. This study marks the start of a program of research validating the use of disruptive technology in chronic kidney disease to identify changes in body mechanics using an external device known as the SABEL Sense™. Body mechanics can be described as the way our bodies move when we perform daily activities.

Aims

The aim of this study is to identify the patterns of change in biomechanics in relation to normal daily activity and reported fatigue for people having PD.

Methods

This is a cross sectional investigative study and participants were recruited from the PD population from a single renal unit in NSW. The sensor was worn for 3-5 days. The sensor data was collected automatically, and the data collected was stored and then sent electronically to a specific computer program for analysis.

Results

At the time of writing this abstract there are no results to be reported, however these will be available for presentation at the conference.

Conclusion

The predicted conclusion is that the SABEL Sense™ will demonstrate how the body movement and position changes during PD as a result of the fluid load within the peritoneal cavity. The results will provide information to enable programs to be developed which will strengthen the muscles and spine to support this load and decrease posture fatigue.

108: The ongoing challenge in peritonitis prevention – improving patient's journey

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Background

Peritonitis is the major cause of morbidity and mortality in Peritoneal Dialysis (PD) and represents one of the most important patient-related barriers to the greater uptake of PD. A PD Unit of a Major Tertiary Hospital has experienced increasing episodes of PD related-peritonitis whilst concurrently experiencing large growth in patient numbers. The sudden spike of unacceptably high peritonitis rate has prompted the unit to review the current practice and the need for improvement. This paper will discuss the strategies and implementations taken to reduce peritonitis rates.

Aims

- To conduct a gap analysis on the peritonitis management against recommendations from the International Society of Peritoneal Dialysis (ISPD) guidelines
- implement changes in practice using an evidence-based approach

Method

Literature review on strategies to reduce the risk of PD-related infections was conducted and compared with current unit practice. Wider consultation within the PD Unit was conducted. Several changes were identified for implementation:

- Regular assessment of technique
- Regular home visit
- Monthly root cause analysis for each episode
- Retraining program

Results

The first change was implemented January 2015, but did not see a difference until the implementation of the second change. Following implementation of the two changes, there was a 26% reduction in infection rates. Further changes will be implemented in the next few months.

Conclusion

On-going review and evaluation of clinical practice is paramount in maintaining best practice and is essential in improving patient outcome. Our unit experience, and actions taken to improve peritonitis rate could be adapted by other training unit.

118: Peritoneal dialysis catheter insertion: A review of procedural outcome

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Background

A metropolitan peritoneal dialysis (PD) unit offers patients two types of PD catheter insertion procedures since 2010: percutaneous insertion performed by the interventional nephrologist in a procedure room or surgical insertion performed by the vascular surgeons in operating theatre.

A review of the PD catheter insertion procedure outcomes was established as part of the PD unit's quality improvement activity.

Aims

The aim is to review PD catheter related complications or infections within 4 weeks after insertion.

Methods

Patients with a new PD catheter are monitored closely for 4 weeks post insertion. Every PD catheter insertion procedure and its outcome is collected, analysed and audited annually. PD catheter survival and complication rates were presented to the renal and vascular department where practice improvement strategies are discussed, identified and planned.

Results

PD catheter survival and complication rates are similar for percutaneous or surgically inserted PD catheters. Both procedures are relatively safe with low post procedure infection rate. Percutaneous insertion by the interventional nephrologist reduces the workload of the vascular surgeons and reduces the use of operating theatre. It also allows for acute start on peritoneal dialysis with lesser risk of fluid leakage from the catheter exit site. Surgical insertions by the vascular surgeons are reserved for patients with difficult abdominal anatomy and complicated or failed percutaneous insertions.

Conclusion

A review of procedural outcomes is beneficial in determining that percutaneous and surgical insertions of PD catheter procedures are complementary and not in competition with each other.

25: The introduction of cognitive assessment for renal patients in a secondary hospital

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Context

Cognitive impairment in renal patients is widely underdiagnosed and is associated with increased hospitalisation, and mortality, making their care more costly. Is Cognitive testing a useful tool, along with age and other co morbidities, when assessing appropriateness for dialysis?

Objectives

To report on the introduction of cognitive assessment, as a routine evaluation for pre-dialysis and haemodialysis patients and the findings so far.

Key Messages

The initiation of cognitive testing was an effort to decrease the amount of patients that “fail to train” on to home dialysis modalities and decrease the amount of frail elderly patients initiated onto dialysis. The introduction of the Addenbrooke’s Cognitive Examination (ACER-r) cognitive testing method was adopted. The use of a data base of patients’ results, as well as case examples, will illustrate how effective cognitive testing has become for the dialysis service as well as the patients.

Conclusion

Since starting the assessments the numbers on dialysis have remained steady and the failure to train numbers have declined dramatically. The testing has, also, shown benefit for dialysis patients, by diagnosing gradual decline in cognition, enabling further supports to be put into place for the patients.

103: The peritoneal dialysis mentorship program

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Background

The peritoneal dialysis (PD) champion program is a mentoring program established from 2012 in a metropolitan PD unit. The program is offered to the emergency department and renal ward wherein senior nurses are supported to advance their PD knowledge and skills in a structured process.

Aims

The ultimate goal is to improve patient care and PD service delivery in an acute environment.

Methods

Voluntary participation and completion of basic PD competencies and learning package were the entry criteria set in consultation with the key stakeholders i.e. PD nurses, nurse unit managers, nurse educators and clinical nurse consultants (CNC) to gauge the participants' interest in the mentoring program. Orientation to the program is provided by the PD CNC where expectations from the participants and the program's module are outlined that involves: attendance to internal and external PD courses and completion of advanced PD competencies and learning package.

The participants' progress on the program is followed-up by the PD CNC and reported annually to the key stakeholders.

Results

The program is ongoing and requiring continuing support from the key stake holders to ensure participants to the program are released for ad hoc PD training, provided study leave to attend PD courses and are allocated time to complete the PD competencies. It has raised the level of awareness and interest in PD on the renal ward and ED.

Session 3:

3.1: Brain games and thought trains – investigating the role of cognitive decline and mood disorders in PD patients

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The prevalence of cognitive impairment (CI) is substantial in patients with chronic kidney disease (CKD) compared to the general population. With active screening, CI may typically be detected in peritoneal dialysis (PD) patients at a rate exceeding 1-in-3. The functional limitations associated with CI have broad implications but are particularly relevant to the provision of home-based renal therapies. CI may see functional reduction in the domains of comprehension, treatment adherence, decision-making, troubleshooting, and ability to self-care. Though not prospectively linked to increased PD-peritonitis risk, CI independently predicts all-cause mortality in this group.

Depression contributes to illness burden in CKD patients with prevalence rates of 26-42% in haemodialysis and up to 62.5% in observational PD cohorts. There is overlap with CI and depression which can impact executive function, immediate and delayed memory carry implications for a patient’s ability to learn, manage and troubleshoot therapy safely. Depression is directly associated with peritonitis and an independent predictor of death in PD patients.

In the context of a home-dialysis service this combination of high prevalence and associated poor patient outcomes demonstrates potential for identification, intervention and multidisciplinary support. Serial assessment may provide an opportunity to improve quality of care and ultimately patient outcomes. This discussion will cover existing literature and broad concepts of time-point and longitudinal CI / depression screening using validated tools in renal populations.

3.2: Modernisation of ANZDATA – transforming data collection and reporting

Kylie Hurst[1]
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The ANZDATA, ANZOD and ANZLKD (Living Kidney Donor) Registries provide national data collection, analysis and reporting in the area of renal replacement therapy (dialysis and transplantation) and organ and tissue donation. The Registry has undergone reform in recent times and developed ways to improve data collection and the provision of more meaningful reports. This modernisation of the Registry continues to develop the strengths of the existing ANZDATA, ANZOD & ANZLKD databases and increase their value to users, contributors, sponsors and Federal and State Departments of Australia and the New Zealand Ministry of Health. The objectives are to expand on existing statistical and epidemiological analysis as well as develop opportunities in reporting of renal disease, renal replacement therapy outcomes, organ and tissue donation and transplantation. In doing so, the Registry is developing significant opportunities for electronic efficiencies in data collection, accuracy and analysis. Our aim is a best practice model to which clinical quality outcome data can contribute to patient, unit, jurisdictional and national programs.

Session 4A: Vascular Access Innovation

116: Maintaining a viable vascular access for haemodialysis in an elderly person with diabetes: A journey to live, not just to stay alive

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Context

The case presented is of a 70 year old Australian Caucasian woman with Type 2 insulin-dependent diabetes receiving a regular schedule of haemodialysis therapy for end stage kidney disease (ESKD). We follow the journey of one person's care where the patient and her family's goal is to connect deeply with each other while maintaining the patient's quality of life and wellbeing. As commonly experienced, elderly patients receiving peritoneal dialysis or haemodialysis as their renal replacement therapy (RRT) remain reliant on these modes of RRT without release through receiving a kidney transplant. This is owing to a lack of donor organs available for kidney transplantation and as in this case, the patient was ineligible to receive a donor kidney because of the physiological effects of chronic kidney disease (CKD) and additional co-morbidities.

Objective

The active engagement of the family in the care and decision making process detailed in this case is atypical. Not every client has a proximal family with functional bidirectional relationships however this case illustrates, the importance of including the family or an external personal carer in healthcare.

Key clinical message and conclusion

The longevity of a successful vascular access (VA) is enhanced when the care of the patient's VA is the responsibility of everyone involved, including the patient and their family. A family nursing perspective enhances VA care outcomes and increases quality of life and wellbeing for patients requiring haemodialysis.

143: Vascular access mapping and surveillance in haemodialysis 22 bed satellite dialysis unit

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Background

As a result of the loss of a dedicated vascular access nurse, a sharp increase in adverse vascular events had been identified by dialysis nursing staff in a 22 bed satellite dialysis unit. Adverse events arose such as clotted access, miscannulations, underdeveloped arteriovenous fistula and prolonged use of central venous catheters.

Aim

To promote vascular ultrasound use by haemodialysis nursing staff to perform accurate arteriovenous fistula mapping to reduce the risk of adverse events and improve patient outcomes and experience.

Method

A vascular access classification tool was adopted. Education was provided to experienced dialysis nurses in development of effective vascular ultrasound use and mapping. An arteriovenous fistula ultrasound surveillance project was undertaken.

Results

Patients identified as “high risk” and or newly created vascular access had ultrasound mapping completed by nursing staff with monthly surveillance monitoring the development of their arteriovenous fistula reducing adverse outcomes.

Conclusions

Ultrasound mapping is performed and recorded using a vascular access classification tool, prior to first cannulation of arteriovenous fistula by haemodialysis nursing staff. Monthly ultrasound surveillance enables early identification of developing vascular access issues and prevention of adverse outcomes. Improvements in the use of vascular ultrasound and mapping have also improved patient dialysis outcomes and experience.

119: Care of a patient’s vascular assess for haemodialysis: A narrative literature review

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Background

Patients requiring haemodialysis have diverse clinical needs impacting on the longevity of their vascular access and their quality of life. A clinical practice scenario raises the potential of unsafe cannulation practises for a patient’s vascular access as a result of minimal patient empowerment. Vascular access care is the responsibility of everyone, including the patient and family/carer.

Aim

The aim of this narrative literature review (1997 - 2014) explores the current understanding of what factors influence the care of vascular access for haemodialysis.

Method

A narrative literature review allows the synthesis of the known literature pertinent to the research question into a succinct model or unique order to enable new understandings to emerge. Bronfenbrenner’s bioecological model of process, person, context and time was used to guide the thematic analysis of the literature.

Results

The narrative literature review revealed five themes related to care of vascular access: patient experience; relationships-empowerment and shared decision making; environment of healthcare; time; and quality of life as the outcome of care.

Conclusion

The management of a patient’s vascular access is complicated. Current available literature predominantly concentrates on bio-medical aspects of vascular access care. Contextualised vascular access care in the complex ecology of the patient and carers lives has the potential to enhance nursing practice and patient outcomes.

54: Plastic cannula use in haemodialysis

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Background

Metal needles are currently used throughout Australia and most units throughout the world to cannulate arteriovenous fistulas. Unsuccessful cannulation in the first two weeks of dialysis can lead to adverse events such as deferred dialysis, haematoma formation, scarring and needle phobias. The introduction of plastic cannulas into Australian renal units offers the dialysis patient an alternative to metal needles.

Aims

To identify if plastic cannula use can reduce the incidence of mis-cannulations and adverse events in arteriovenous fistulas in the first two weeks of cannulation.

Method

Train all staff in the unit to insert plastic cannulas and implement a new protocol for cannulating arteriovenous fistulas in the first two weeks of haemodialysis.

Results

Implementation of the new protocol took 12 months longer than expected due to reservations from staff. Initial data from the Victorian Statewide Key Performance Indicators, which measures proportion of new, planned HD patients that successfully use a vascular access at first treatment, saw a rise from 50% in 2013 to 78% at June 2015. Cannulation by staff was more successful on patients with AVF only (67%) compared with patients who also had a CVC insitu (24%).

Conclusion

It is now protocol within this renal unit that plastic cannulas are used on all new arteriovenous fistulas for a minimum of six haemodialysis treatments. The introduction has been a long process, but with time, perseverance and expertise, plastic cannulas can offer a successful cannulation program for patients on haemodialysis.

130: Improving practical technique in stent cannulation: Ultrasound guided cannulation into stents in haemodialysis

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Background

Cannulation into stent grafts in an arteriovenous fistula (AVF) is not recommended by current guidelines because of the potential to damage stents during the process. However, some stents are positioned in locations where cannulation through the stent is unavoidable.

Aim

To report cases where ultrasound-guided needle placement (USNP) was used to minimise the complications encountered when cannulating into stents, thus prolonging the lifespan of the AVF.

Method

Three patients with failed native AVFs had stent grafts inserted to salvage their vascular access in locations where cannulation into the stents was unavoidable. Inexperience, and lack of relevant guidelines, initially led to complications, including stent separation from the intima wall and pseudoaneurysm formation (due to cannulation). These were overcome by implementing USNP with appropriate clinical measures.

Results

Using normal cannulation technique, two patients experienced stent separation due to the needle tip being placed between the stent and the intima wall during the course of dialysis. All patients suffered pseudoaneurysm formation and haematoma after needle removal. Using USNP to confirm the needle tip position, and prolonging holding off time after needle removal, effectively controlled these complications. One patient’s AVF is still functional after four years of cannulation. One died of unrelated complications, and one transferred to another facility after 5 months.

Conclusions

USNP performed by dialysis nurses with specialized training has prevented further complications and prolonged the lifespan of the AVF in this small sample of patients. Further research with a larger sample is recommended.

61: Empowering the home haemodialysis patient with vascular access ultrasound

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Background

Home haemodialysis (HHD) is advocated as the dialysis of choice for people with end stage kidney disease. However, its success can be reliant upon successful cannulation by the patient of an arteriovenous fistula (AVF). Complications with self-cannulation can erode confidence, prolong training and ultimately be the cause of failed transition to HHD.

Aim

By using Point of Care (POC) ultrasound, provide home dialysis patients with the increased knowledge and confidence they need when self-cannulating their AVF.

Method

POC-ultrasound was introduced into the Home Therapies Unit (HTU) as an adjunct to AVF assessment for staff and patients. The portable, compact ultrasound features real-time 2D imaging and is simple to operate. Patients in HTU are trained to use the ultrasound prior to cannulation to identify both the health of the AVF and possible areas for needle placement. If experiencing difficulties at home, patients are encouraged to attend HTU to use the ultrasound for review of their AVF and others have taken the ultrasound home for use in their own homes.

Conclusion

POC-ultrasound enhances education and learning and readily engages the patient. It improves comprehension of the anatomy of the AVF and aids in identification of potential areas to cannulate and areas to avoid. Anecdotally there has been reduced need for intervention resulting in cost saving to the health service and has resulted in better overall health and utilisation of the AVF. POC-ultrasound provides skills and confidence, and empowers patients to participate and achieve success with their home haemodialysis.

Session 4B: Quality Initiatives

152: Narrative survey of renal nurses - an enquiry of challenging clinical situations with people on haemodialysis approaching end of life

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Background

Around 20% of people on dialysis will die each year. Renal nurses are well placed to deliver high quality end of life care to this cohort. However, renal nurses report lack of confidence in supporting patients on their end-of-life journey.

Aims

To describe renal nurses' experiences of caring for people who are approaching the end of life while on haemodialysis.

Methods

A qualitative descriptive approach was adopted. Nurses provided a narrative account of an incident of caring for a person on haemodialysis who was approaching end-of-life stages. The narratives were subjected to content analysis, with themes then identified.

Results

Fifty-three proformas were completed (40% response rate). The majority of staff were female (94%), with an overall median age range of 41-55 years (55%). Overall, 53% of participants had over ten years of renal nursing experience. The analysis of the narratives revealed that nurses were generally unclear about end-of-life care for this population, particularly around how decisions to stop treatment are made. When end-of-life situations aligned with the nurses' personal values around end-of-life care, they reported feeling positive about their practice. However, many nurses described strong feelings of moral distress, isolation and abandonment, with an ongoing sense of moral unease.

Conclusion

The findings suggest that renal nurses require further education and support to care for people who are approaching end-of-life while on haemodialysis. Further research into the interdisciplinary delivery of end-of-life care for this population would be useful to collaboratively negotiate decision points in the illness trajectory.

128: Want a good unit to be great? Here's how: An overview of quality improvement measurement

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Context

Quality improvement has become an integral component of the health care landscape in recent decades. This focus has resulted in the advent of the National Safety and Quality Health Service (NSQHS) standards and the required evidence of achievement. Simultaneously, within nephrology nursing, there is a drive to further develop and embed patient centred care into practice with its reliance on implementation of evidence based practice. Units now face an increased burden of evidence gathering to meet these goals combined with increasing workloads, often with limited training, and resulting in missed opportunities.

Objectives

To provide an overview of strategies that have been successfully utilised to refine and improve services within renal nursing including a peritoneal dialysis service review, training program evaluation, database creation and patient satisfaction; and outline how these strategies are able to be implemented across a broad range of services.

Key messages

Case studies from within nephrology will explore how units have improved the quality of their service through having staff knowledgeable in basic quality improvement science, to measurement strategies and data sources, underpinned by an explicit definition of unit purpose. Barriers to strategy implementation and potential opportunities will also be discussed.

Conclusion

The requirement for quality improvement evidence has increased and knowledge in quality improvement science is needed to ensure efficacy in data gathering efforts. Application of appropriate measurement strategies can improve both patient experience and outcome, and transform a good unit into a truly great one.

23: How frequent is frequent? Monitoring for intradialytic hypotension

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Background

Intradialytic hypotension (IHD) is a common and serious complication associated with haemodialysis. The frequency of haemodynamic assessment by nurses is variable and international guidelines offer limited advice about the frequency of assessment for IDH.

Aims

To audit the incidence of IDH and the types of nursing interventions performed when IDH occurs.

Methods

A 34 question audit tool was completed by nursing staff over 4 weeks across three haemodialysis (HD) units to capture information about every chronic HD session for 132 patients (n=1,584 sessions).

Results

Nurses returned 876 audits (55.3% response rate). Most patients were male (59.4%) receiving haemodialysis (90.5%) for 5 hours (42.8%). There were 8.4% actual episodes of IDH with 9.1% episodes where nurses recorded intervening to prevent IDH. IDH most commonly occurred in the second or third hours of treatment (33 or 44.6% respectively). Hourly monitoring of blood pressure was being performed on most occasions (70.3%) prior to an actual or potential episode of IDH. In almost half of the IDH a trend in blood pressure (40.5%) triggered increasing the frequency of monitoring to every 5-15 minutely during the event, and then 15 - 30 minutely following the event. Nurse initiated interventions were mostly decreasing ultrafiltration goal (51.6%) or ceasing ultrafiltration (36.9%). On 38.5% occasions nurses reported doing more than one intervention.

Conclusion

Individualised assessment of patients is required with more frequent monitoring required in the second or third hours of treatment, especially in patients with multiple co-morbidities, shorter treatment times, and higher ultrafiltration rates.

95: Prediction of intradialytic hypotension occurrence using variations of saturation of oxygen and heart rate

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Background

Intradialytic hypotension is a common symptom for end stage renal disease patients undergoing haemodialysis. It may cause severe complications and even lead to sudden death. Currently, there is no effective pre-occurrence system for alerting health care staff for the occurrence of intradialytic hypotension.

Aim

To explore predictors for detecting intradialytic hypotension occurrence.

Methods

Patients diagnosed with end stage renal disease and required for temporary or long-term haemodialysis treatment were recruited in the study. Intradialytic hypotension was defined as having a decrease in systolic blood pressure by 30mmHg or more below the predialysis measurement or to an absolute value below 100 mmHg. Data of variations of saturation of oxygen and heart rate of sixty-eight patients during their haemodialysis sessions were classified, and then analyzed using sequence alignment.

Results

Variations of saturation of oxygen and heart rate were found to be associated with intradialytic hypotension, and could determine pre-occurrence of IDH within 30 minutes.

Conclusion

The study suggested that variations of saturation of oxygen and heart rate could be used as predictors for developing an alarm system, which could ensure timely interventions to be provided to patients undergoing haemodialysis for the prevention of intradialytic hypotension.

28: Effectiveness of bioimpedance spectroscopy on dry weight (DW) measurement in haemodialysis patients

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Aim

To review the effects of bioimpedance spectroscopy (BIS) to measure dry weight (DW) in haemodialysis (HD) patients when compared to clinical examination.

Methods

The review was conducted according to the JBI Meta-Analysis of Statistics Assessment and Review Instrument. A standard JBI three-step search strategy was used. We searched all quantitative studies from major databases.

Results

A total of four randomised controlled trials (RCT) met the inclusion criteria. These studies all involved patients with end stage kidney disease (ESKD receiving haemodialysis and the use of compared BIS versus clinical judgement using cardiovascular parameters and mortality outcomes. The meta-analysis of BIS when compared with clinical judgement found no significant differences in the reduction of the mortality rate, hospitalisation rate or other cardiovascular parameters after 12 month of the intervention; only significant improvement in pre-dialysis systolic BP(WMD -5.41, 95%CI -9.00 to -1.82; p=0.003) was reported. However, individual RCTs found that BIS is an effective intervention for HD patients in the reduction of the mortality rate (Hazard Ratio (HR) 0.100, 95%CI, 0.013 to 0.805; p=0.04) after 2.5 years of the intervention and LVM (Mean Difference (MD), -10.2; 95% CI, -19.2 to -1.17; p=0.04) after 12 months of the intervention. Furthermore, prospective studies identified problematic HD patients (hyper overloaded with or without clinical symptoms) among clinically nomohydrated patients using the BIS device and positive outcomes post-BIS intervention.

Conclusion

The small number of participants and restricted participant selection criteria all has considerable impact with regard to generalising these finding to a wider haemodialysis populations.

109: Haemodialysis and therapeutic plasma exchange as a tandem treatment

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Context

A number of acute kidney injury and post renal transplant patients require both haemodialysis (HD) and therapeutic plasma exchange (TPE) treatment. Combining the two procedures of HD and TPE offers a range of benefits to the patient as well as the Hospital. If the procedures were undertaken separately the time frame would range from 6 to 8 hours. Undertaken together the timeframe is approximately the same as for haemodialysis on its own approx. 4 hours. Other benefits include a reduced use of anticoagulation and less infection risk.

Objectives

The setup of both machines will be discussed, the adjustments to both HD and TPE prescriptions, as well as the nursing management of complications and the treatment challenges.

Key Messages

Each tandem treatment is individualised with a thorough assessment of the patient's condition, potential risks, and effective symptom management. Discussion of the process and nursing management will enable the renal nurse to develop confidence in the use of tandem treatment and be able to provide appropriate education to the patient.

Conclusion

The highly skilled renal nurse is integral to the successful use and management of tandem treatments. Close monitoring and early management of complications enable the benefits of tandem treatment to be realised.

Session 4C: Chronic Kidney Disease Innovation

40: Supporting people with chronic kidney disease to self-manage: What do the patients want?

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Background

Chronic kidney disease (CKD) necessitates burdensome and intensive daily self-management, which requires support of healthcare providers (HCPs). The CKD literature is lacking regarding needs of patients.

Aims

To explore the types of self-management support (SMS) that people with CKD desire, and how they would like to receive this support.

Methods

In 2015, a cross-sectional survey was delivered face-to-face in a Queensland primary care clinic and Australia-wide via an online interface promoted by Kidney Health Australia. The survey was based upon research identifying 10 aspects of self-management that people with CKD report as needing more support. Participants had a self-reported diagnosis of any stage of CKD (N=97) and were ≥18 years old.

Results

Respondents were 97 CKD patients aged 16-89 (*M*=56.44), who had been diagnosed with CKD zero-60 years ago (*Mdn*=8.08 years). The hardcopy survey was done by 36 participants, while 61 completed it online. Participants expressed strong interest in extra support across all 10 areas (*Mdns*=8.00 - 10.00). Furthermore, most (72.2%) would attend SMS sessions during work hours, though this would be more challenging for employed patients (47.1% able) than unemployed/retired (100.0% able). Most participants were open to receiving support from a nephrologist (70.1%) or external self-management expert (71.1%), while 52.6% were open to receiving it from a nurse.

Conclusion

While HCPs often focus on imparting CKD knowledge, patients desire practical daily strategies. Individuals' circumstances should be taken into account when planning SMS, and many patients may not yet recognise the contribution that renal nurses can make.

64: Analysis of longitudinal clinical data to evaluate the impact and effectiveness of a CKD program

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Background

In 2007 the Australian Government funded registered nurse positions based in four Aboriginal primary health centres in the Northern Territory to improve the identification and management of people with CKD. The Renal Case Manager (RCM) program was based on an expert nurse-led, protocol-driven approach to care and aimed to decrease the number of Indigenous people progressing to ESKD and dialysis.

Aims

To provide quantitative evidence of the program's impact on processes of care and patient outcomes.

Methods

De-identified aggregated clinical information for all patients over the age of 18 years and with an eGFR below 60mls/minute/1.73m2 between 2004 and 2014, was extracted from one primary health service's clinical information system. Data were analysed as an "interrupted time series", (with the interruption being the RCM program commencing) comparing differences in service utilization, blood pressure and glycaemic (HbA1c) control, rate of progression of eGFR and the time to progress to ESKD.

Results

Significant increases in the identification and diagnosis of people with CKD, as well as improvements in the attainment and maintenance of clinical targets for BP and HbA1c. A significant reduction in the rate of progression of CKD with time to ESKD extended from a median of 2.5 years before to 4 years after implementation.

Conclusion

There were large benefits from the introduction of a dedicated CKD management program. The analysis found improvements in the identification, management, disease trajectory and outcome of people with CKD in stages 3, 4 and 5 post implementation of the RCM position.

24: My kidneys, my health - empowering people to reduce progression to end-stage kidney disease

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Background

Early detection and optimal management can reduce the decline in chronic kidney disease (CKD) function by as much as 50%. There are limited educational materials that meet recommended health literacy standards and aim to empower people diagnosed with CKD to self-manage and reduce their risk of disease progression.

Aim

To develop educational information including links to support services and strategies to slow decline in kidney function and to ensure the information meets health literacy standards.

Method

An Advisory Group representing multiple disciplines and consumers was established. Using published literature, the Advisory Group designed a 14-item questionnaire to identify the information needs of people newly diagnosed with CKD. The survey was promoted from February to April 2015.

Result

117 consumers completed the survey. Responses indicated that the information needs of people newly diagnosed with CKD were diverse and widely unmet. Respondents wanted to know information about stopping the progression of CKD, managing CKD, their treatment options, diet and lifestyle, and support groups. Preferred methods of receiving information included a central website, talking to someone, hard copy, electronic materials and a phone-app. The results of the survey and further consultation with the Advisory Group informed the development of the *My Kidneys, My Health* hard copy handbook, smart phone app, and website content.

Conclusion

People diagnosed with early CKD have a diverse range of physical, social, emotional and financial information needs. A collaborative approach was utilised to merge consumer and clinical input into a simple resource in different mediums and self-management focused.

111: Choices in patient education for CKD

Jenny Beavis[1], Brett Sobey[1], Steve Holt[2]

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Background

Research suggests that when patients with chronic illness are informed about their disease and treatment options, outcomes are more favourable. Our unit uses a patient-centred approach to CKD education which facilitates choice regarding the provision of treatment options and symptom management.

Aim

To compare the effectiveness of delivering CKD education in either a group or individual setting using a shared-decision making tool.

Method

39 patients were assigned to a group (n = 23) or individual (n = 16) educational setting, and were surveyed before, immediately after and 2 weeks following the session. Outcomes included level of comprehension on modality choices; utilization of resources provided; whether patients felt able to make a decision about future care, and a qualitative evaluation.

Results

The individual setting showed an increase in reported comprehension of all topics immediately after attending. The group setting showed an increase in all topics except transplantation, which showed equivalent understanding before and after. Knowledge about PD and transplant increased more in the individual setting ($P < 0.05$). There was no significant loss of understanding after two weeks for either setting. 80% of patients in both settings had read the information they were given, however only 17% had used the electronic resources. Both settings were well received, with patients commenting on the quality of the personal engagement in the individual setting.

Conclusion

While both settings met the educational needs of patients, neither was shown to be superior and consideration should be placed on individual patient circumstances when providing education.

18: The New Zealand consensus statement for the management of chronic kidney disease (CKD) in primary care

Carmel Gregan-Ford[1]
[1] Kidney Health, New Zealand

The burden of CKD in New Zealand continues to increase with the number of people requiring dialysis has almost doubled since 2000. The New Zealand Consensus Statement for the management of chronic kidney disease (CKD) in primary care has recently been developed following successful pilot studies of nurse-led management of CKD patients and a National Consensus Conference which included discussions with general practitioners, nurses, diabetes specialists and nephrologists.

The National CKD statement highlights the need to view CKD as a significant contributor to cardiovascular risk and recommends that targeted testing for CKD should be linked to routine cardiovascular risk assessments and diabetes screening.

The Ministry of Health (2006) noted that screening in the primary health care setting can be an effective means of identifying the presence of disease in an individual, however there is currently no systemic process for this in New Zealand in regard to CKD. Most CKD identification is best performed in primary care and managed without referral to a specialist. Many aspects of CKD management lend themselves to involvement of a team approach, with the practice nurse potentially playing a pivotal role.

This presentation discusses the Consensus Statement and how primary care nurses can make clinically significant improvements in outcomes for patients at high risk of progressing to kidney failure by introducing complementary nurse led interventions.

70: Examining patient’s knowledge about chronic kidney disease in a primary health care setting

Colette Funyui Wembenyui[1], Ann Bonner[1], Clint Douglas[1]
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Background

Knowledge about chronic kidney disease (CKD) is an important factor in self-management. However, people with CKD often lack adequate levels knowledge relating to their disease. In addition, there are only a few suitable instruments that measure kidney disease - specific knowledge in this population.

Aim

To measure the levels of kidney disease knowledge in an Australian population with CKD.

Method

A cross-sectional study was conducted at a General Practice during 2015 recruiting 78 individuals with CKD stages 1 - 4 who completed the self-report Kidney Knowledge Survey (KiKS; 28-items; maximum score = 28). Demographic and renal clinical characteristic were also collected.

Results

Participants were mostly male (51.3%) with a mean age of 67 years (range 31-88 years), and the majority had CKD stage 3 (n = 51, 65.4%). Most participants had completed 12 years of schooling (42.3%) and most were retired (64.1%). KiKS scores ranged from 6 to 25 (mean 17.4 SD ± 4.4) and there was no differences between men and women. However, men had larger range of scores. Overall 2 items were most frequently answered correctly (87.2%), whether CKD increases a person’s chance of a heart attack, and death from any cause. Only 10.3% knew why too much protein in the urine was not good for the kidney.

Conclusion

People attending primary care services have limited knowledge about CKD. The use of practice nurses to provide focused CKD education to patients improves self-management behaviours particularly in the earlier stages of CKD.

Session 5:

5.1: Managing cardiovascular risk and disease in chronic kidney disease: How good is the evidence?

Professor David Johnson[1]

[1] Metro South and Ipswich Nephrology and Transplant Service, Princess Alexandra Hospital, Brisbane, QLD

People with chronic kidney disease (CKD have greatly increased risks of cardiovascular events and mortality that exceed those of people with diabetes mellitus. Indeed, people with CKD are up to 20 times more likely to die from premature cardiovascular disease than survive to the point of requiring renal replacement therapy. Whilst recommendations for reducing cardiovascular risk exist in the general population, their applicability to the CKD population is questionable due to the fact that the majority of cardiovascular randomised controlled trials specifically excluded patients with CKD. This presentation will systematically review the quantity and quality of evidence for the safety and efficacy of interventions targeting cardiovascular risk modification in people with CKD. The interventions that will be discussed include anti-hypertensive medications (including renin-angiotensin-aldosterone blockers), statins, glucose-lowering drugs, lifestyle modifications (diet, exercise, weight reduction), phosphate binders, cinacalcet, vitamin D, erythropoiesis stimulating agents, aspirin, fibrates, anti-oxidants and urate lowering drugs. Recommendations for current cardiovascular risk management in CKD and for future research will be made.

5.2: Chronic Kidney Disease of Unknown Etiology (CKDu): The kidney crisis of the first half of the 21st century

Professor Wendy E Hoy[1]

[1] NHMRC CKD Research Centre for Excellence, Centre for Chronic Disease, the University of Queensland, QLD

In recent years, an epidemic of kidney disease has killed many tens of thousands of people in Central America, Sri Lanka, and elsewhere. It is most common in male agricultural workers, especially cane cutters and rice paddy farmers, but is recognised in dockworkers, miners, steel foundry workers etc. Victims, otherwise in the prime of life, lack the background of obesity, diabetes and hypertension so common in Western countries. It is a tubulointerstitial disease, without proteinuria in its early phases and is diagnosed by decreased eGFR, usually at late stage disease.

CKDu is undoubtedly multideterminant. Risk factors probably include exposures to herbicides, pesticides, fertilizers and heavy metals through work activities and broader environmental contamination, along with work-related stress associated with extreme heat, ergonomic expenditure and dehydration. Biomarkers of kidney injury in women and children hint at a predisposition more broadly. Low birthweight and preterm births probably contribute. These operate against a background of poverty, unempowerment, poor nutrition, piece work, nephrotoxic drugs and deficient access to social benefits and health care.

We are challenged to accept new conceptual models of disease, understand impacts and pathways of socioeconomic disadvantage, bridge the divide between global economic priorities and human rights and environmental protection, and develop a globally cooperative research agenda, with parallel mitigating interventions. Our specialty groups should find ways to lead this advocacy.

Session 6A: Renal Replacement Therapy

12: Walking a mile: A health care professional perspective on chronic condition self-management: Snapshot simulation of an insulin-dependent diabetic lifestyle

Margaret (Maggie) Goitia[1]
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Context

There are many restrictions placed on renal patients, particularly those on haemodialysis with diabetes. It is imperative that health care professionals empathise with and have insight into the difficulties that people with chronic conditions experience on a day to day basis.

Aim

The aim of this simulation project was to give health care professionals the opportunity to role play and become familiar with the 'lived experience' of a person with diabetes. Furthermore, participants were asked to share their experiences and determine whether the simulation influenced attitudes concerning patients that struggled with adherence to diabetic regimes. The implications for clinical practice are: by experiencing problems faced by people with chronic conditions (in this instance, insulin dependent diabetics), health care professionals will be better informed and thus able to enhance their practice.

Methods

Twelve health care professionals were asked to simulate insulin dependent diabetes for one week. All participants were asked to self-test and record their blood sugar levels four times a day, inject normal saline as a placebo for insulin and treat hypo/hyperglycaemia in keeping with an algorithm provided. Additionally, they were asked to write daily reflections, do an hour of exercise per day and adhere to a diabetic diet. The participants were interviewed before commencement, assessed after two days and again at the week's end.

Results

The role play undertaken in this simulation project demonstrated a uniform increase in empathy and insight amongst the participants regarding everyday problems that challenged people with diabetes.

127: A qualitative review of medication errors made by new kidney transplant recipients

Susan Fisher[1], Michelle Nalder[1], Peter Hughes[1], Steve Holt[1]

[1] Melbourne Health, VIC

Background

After kidney transplantation, patients are required to follow a complex and frequently changing medication regimen. Non-adherence to the prescribed schedule is associated with increased rates of rejection and graft loss, but detecting patients who make unintentional errors or who are intentionally non-adherent can be difficult. To assist with improving medication management in this group, the Renal Transplant Outpatient Pharmacist (RTOP) role was established.

Aims

To identify the rate and types of medication administration errors made by patients after renal transplantation; to explore reasons for these errors and to develop strategies to prevent further deviation from the prescribed regimen.

Methods

The RTOP reviews all new renal transplant patients in clinic after hospital discharge, providing medication education and early identification of medication errors. Medication administration errors were recorded in the nephrology patient database (Nephworks). Records were reviewed retrospectively for the first 50 transplant patients since the RTOP role was established to identify and characterise those errors.

Results

The RTOP identified numerous dangerous mistakes including: confusion over medication strengths leading to under and overdosing; tablets halved inappropriately; incorrectly packed dose administration aids; incorrect administration times and failure to make prescribed dosage changes.

Conclusions

Medication errors were common in the early post-transplant period. The majority of errors identified at this early stage were unintentional and related to poor medication knowledge, the complexity of the medication regimen and misunderstandings about changes. The RTOP provided follow up with patients identified as being non-adherent to improve their medication management and help avoid further errors.

101: ‘I just don’t wanna be there!’: Improving cultural safety and competence within renal units for Indigenous Australian patients

Liz Rix[1], Charles Moran[2], Russell Kapeen[3], Shawn Wilson[4]

[1] NSW Health; The University of Sydney, NSW [2] Gnibi College of Australian Indigenous Peoples, NSW [3] CEO Koori Mail; CEO Kurrachee Lands Council, NSW [4] University of Sydney; Southern Cross University, NSW

Context

Indigenous Australians are overrepresented in renal services. Providing culturally competent treatment and care for Aboriginal people within mainstream renal services is complex, challenging and poorly informed. A recent study involving both staff and patients found few examples of individual racism, however health institutions are not providing opportunities for increasing cultural competence within renal units.

Objectives

To recommend the participant’s suggestions for improving cultural safety of rural dwelling Indigenous Australian haemodialysis patients.

Key Messages

Participants made several suggestions for reducing the trauma of long hours in a hostile environment, for example: an Indigenous specific pre-dialysis pathway. It is possible to provide the knowledge, skills and cultural understanding to enable renal staff to deliver treatment and care that are acceptable to and appropriate for Indigenous Australians. Patients suggest that Aboriginal health workers within renal units can act as patient advocates and provide a cultural bridge between patients, their families and renal clinicians. Indigenous Australian Elders and community would deliver on-site cultural education to the staff within renal units with the goal of increasing two-way understanding and building strong, positive relationships.

Conclusion

Improving the cultural competence of individual non-Indigenous healthcare providers is possible. Achieving this requires a commitment by health institutions to providing resources and opportunities for the building of relationships based on increased two-way understanding and respect. Working with and listening to each other with mutual respect will encourage culturally competent care for Indigenous Australians within mainstream renal services.

41: Improving the Aboriginal renal patient journey

Kylie Herman[1], Cheryl Wilden[2]
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Context

Many Aboriginal people experience complex patient journeys across diverse geographical and health care landscapes, with specific communication and continuity of care challenges. Their personal, family and cultural health care needs often require a considered response by the multidisciplinary health care team. Experienced senior renal nurses are uniquely placed to recognise and address these needs, having spent years developing relationships with patients, their families and service providers to achieve the best possible health care outcomes.

Objectives

The objective of this project was to develop, trial and adapt a set of patient journey mapping tools that assisted in the written documentation of Aboriginal patient journey case studies to help improve their health care journey.

Key Messages

Mapping the patient journey helps to identify specific barriers and enablers encountered by Aboriginal patients who require renal treatment away from their home. The mapping tools that were utilised for the project assisted to identify gaps in care provided and highlighted strategies that needed to be implemented to improve the Aboriginal patient journey. Mapping the patient journey will assist with future policy and practice development and be used for setting bench marks for standards of care.

Conclusion

The adaption and utilisation of the Aboriginal patient journey mapping tools proved to be an effective instrument for capturing the complexity and difficulties of the patient journey and provided documented evidence of how patient centred care is being delivered for auditing and benching marking purposes.

32: Optimising renal pharmacist clinic time using an advanced scope pharmacy assistant for pre-clinic preparation

Carla Dawson[1], Carla Scuderi[1], Lauren Millard[1], Michelle Rice[1]

[1] Kidney Health Services, Metro North, QLD

Background

Pharmacists can spend significant time obtaining complete, accurate medication histories during outpatient appointments and on follow-up.

Aims

Evaluate impacts of pre-clinic preparation completed by an advanced-scope pharmacy assistant on the work efficiency of pharmacists in chronic kidney disease clinics.

Methods

Data was collected at 50 pharmacy appointments prior to the introduction of assistant clinic preparation and 50 appointments following implementation, including:

- Amount of pharmacist time spent interviewing a patient for their medication history and on follow-up activities
- How many patients brought their medications
- How many patients brought a medication list
- Number of pharmacist interventions recorded

Subjective feedback from pharmacists to indicate if adequate time was available pre-consult, during consult and post consult to complete allocated tasks

Results

An assistant undertaking pre-clinic preparation resulted in:

- Average length of patient’s medication history interview decreased by 19%
- Average length of follow-up undertaken by the pharmacist per patient decreased by 85%
- Number of patients who bought their medications increased by 40%
- Number of patients who bought a medication list increased by 25%
- Intervention recording increased by 75%
- The proportion of instances where pharmacists reported having adequate time to complete tasks increased by 41% during pre-consult time, 25% during consult and 45% post consult follow up
- Four hours per week of pharmacist time saved was allocated to a new renal-pharmacy service

Conclusion

The introduction of an advanced-scope pharmacy assistant undertaking pre-clinic preparation provided significant contribution to pharmacist clinical review and patient outcomes.

49: Education: If it isn't documented then it didn't happen

Kristen Bull[1]

[1] Royal Adelaide Hospital, SA

Background

In the past, haemodialysis units had to develop local educational packages for new nursing staff. A lot of excellent was work was produced however this work had not been collated into one single education tool that met the requirements of metropolitan and country units state-wide. As such, the renal education team have sought to standardise an education tool for use across all haemodialysis clinical settings within SA Health.

Aims

To develop an education tool that records written evidence of the education received and the education still required. It will promote best practice guidelines and consistent haemodialysis education throughout the state.

Methods

Local educational packages were analysed and assisted in the development and creation of a single haemodialysis education tool. The education tool is flexible, transferable, and easily adaptable to any haemodialysis clinical setting regardless of the geographical location, resources or patient population.

Results

The standardised education tool was constructed and piloted for 3 months in a haemodialysis unit. Feedback was received from the new staff member and the preceptor. Industry consultation was sought and received from multiple sources. The education tool was implemented state-wide in February 2015.

Conclusion

The haemodialysis education tool allows the unit manager; student and educator to keep written records of education received and more importantly, identifies individual educational requirements that are still required throughout the induction process. The education tool serves to standardise the delivery and quality of education received by new haemodialysis nurses state-wide.

Session 6B: Renal Supportive Care and Patient Journeys

47: Renal supportive care: A pathway where there was none

Elizabeth Josland[1], Alison Smyth[1], Anna Hoffman[1], Frank Brennan[1], Mark Brown[1]
[1] St George Hospital, NSW

Context

With the increasing longevity of the general population, there is an increasing complexity of patients presenting with renal failure with advanced age, comorbid disease burden and treatment decision making difficulties. Ten years of renal supportive care has seen a great deal of complex patients pass through our doors for symptom management and end of life care. Not every patient is suitable for dialysis, and dialysis patients also suffer from non-renal related symptoms.

Objectives

To discuss renal supportive care through narratives from the front line. The stories will take you through the process of decision making, complexities of care, support required by families and end of life care through the eyes of the staff who deliver the care.

Key messages

Renal supportive care is a service that helps to support patients and families throughout the trajectory of their renal failure particularly where there is a symptom burden that requires expert management. It offers the expertise of nurses with renal and palliative knowledge, a palliative care consultant and allied health to work alongside the renal team.

Conclusion

Renal supportive care is a chronic disease model of care that fills a previously identified gap in our renal service. These narratives aim to shine a light on the role of renal supportive care, how it works alongside an existing service and how it links to long term chronic disease management.

84: Introduction of the POS-S renal patient reported symptom assessment scale into a large ESKD program

Kerry Linton[1]

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Background

Renal supportive care, the provision of care to people with end stage kidney disease (ESKD) who do not opt for renal replacement therapy (RRT) is developing in Australia as one of the three pathways of renal service delivery.

Patients with ESKD have high mortality, significant symptom burden and poor quality of life regardless of treatment choice. Symptom burden is not well documented although recent studies show that patients are seeking holistic care and improved quality of life rather than extended length of life. The Palliative care Outcome Score (POS) was developed in 1999 by Professor Irene Higginson, with a later variation, POS-S Renal introduced to evaluate the symptom burden in renal disease. The use of POS-S Renal, a patient reported outcome measure, is consistent with the principles of patient-centred care.

Objectives

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

Methods

The POS-S Renal was completed by approximately 1600 occasions by patients with CKD4/5. The results are reviewed during individual consultation and items of concern addressed. Results are tabulated and analysed to inform the care needs of the population.

Results

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

Conclusion/Application to practice

The POS-S Renal is encouraging patients to voice issues which concern them. The findings highlight the need for multidisciplinary teams in ESKD care.

113: Improving patient journeys – from the emergency department to the ward

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The 2015 National Emergency Access Target (NEAT) is for 90% of patients to be seen, treated or admitted within four hours of arriving at an emergency department. The target recognises that some patients will appropriately stay longer than four hours in Emergency Departments to meet their clinical needs. The renal ward was chosen as a Model Concept ward within the local health network in preparation for moving to a new hospital in 2016. The purpose of the model concept ward was to improve the admission process from the Emergency Department (ED) to the wards with a particular focus on direct or expedited admissions.

A 6 month trial was undertaken to identify how barriers to admission impacted the NEAT target guidelines. Direct admissions were classified as not requiring admission through the ED and being able to move directly into the ward environment. Expedited admissions were those admissions in which patients present to ED and either be discharged or admitted to a hospital bed within 4hrs of presentation to the ED triage desk. It was envisioned as part of the Clinical Practice Consultant (CPC) role that the CPC would be the first line of assessment of specifically identified renal patients who presented to the Emergency Department. During the trial period it was identified that approximately 72% of all presentations were suitable for either direct or expedited admission. The remaining 28% of patients who did not meet the criteria for direct or expedited admission required significant intervention from multiple disciplines within the hospital.

97: Kidney supportive care program: From concept to implementation

Ilse Berquier[1], Mike Terry[1], Bernadette Taylor[1], Carol Douglas[1], Helen Healy[1]
[1] Royal Brisbane & Women's Hospital, QLD

Context

Worldwide, kidney services are now recognising the need for supportive care models focused on providing patients with evidence based care. The complex care needs of patients with end stage kidney disease has been widely published and supportive care programs need to be accessible to patients just as chronic kidney disease, dialysis and transplantation care currently are.

Objectives

To describe the process of developing, implementing and evaluating the Kidney Supportive Care program. Sharing lessons learned, culture change challenges and advice for translating practice.

Key messages

Having commenced early February 2016, this innovative cross facility model of patient care now provides supportive care to kidney patients across a large and diverse health service. The collaboration, involving a palliative care service and kidney health service, aims to meet the needs of the patient and their families with a focus on complex decisions around end of kidney life.

Conclusion

A large health service has commenced one of the first dedicated Kidney Supportive Care programs in Queensland. The program is dedicated to providing care to those vulnerable patients, who up until now, have not had access to a structured, best practice model of care. The program is described in detail as are, lessons learned, challenges surrounding culture change and advice on implementation to service.

43: Facilitating a patient's wish to cease dialysis

Jenny Beavis[1], Ian Fraser[1], Sarah Margary[1], Tim Hewitson[2], Steve Holt[2]

[1] The Royal Melbourne Hospital, VIC [2] The Royal Melbourne Hospital & University of Melbourne, VIC

Context

ANZDATA shows that approximately 30% of deaths in patients on dialysis are due to the withdrawal of treatment. Prognosis after dialysis withdrawal depends on co-existing illness and residual renal function but most studies show a median time to death of 8-9 days following cessation of this therapy.

Objectives

To facilitate the patient's wishes to cease dialysis and provide exceptional collaborative care to provide best patient care across the spectrum of his disease and enable a good death. To describe our unit's experience with a 55-year-old gentleman who chose to cease dialysis after being on haemodialysis for two and a half years.

Key Message

A multidisciplinary and interagency approach was taken to support the patient's decision to cease dialysis after assessment of competency. The transition from acute care to palliative care took place over several months. The case was new to many staff involved in the patient's care, who had not experienced a planned withdrawal of dialysis from a medically stable dialysis patient outside of the setting of an acute deterioration.

Conclusion

Early care planning, taking direction from the patient and interagency/discipline meetings were key elements to providing care in accordance with this competent patient's wishes which appeared counterintuitive to some staff.

81: Supporting the renal supportive care nurse - who should I tell my stories to?

Cherry Millar[1]

[1] St Vincent's Hospital & Australian College of Nursing, VIC

Context

There is now recognition that patients with CKD stage 5 over the age of 75 experiencing more than two co-morbidities may well benefit more from a conservative management pathway as opposed to dialysis. This has resulted in greater focus and consequent funding opportunities in the area of 'Renal Supportive Care'(RSC). NSW has benefitted from considerable mentorship for these 'new' positions through the 'Renal Supportive Care Hubs' despite this, the rapid evolution of these positions may mean some refinement is still required..

Key messages

The role of the Renal Supportive Care CNC/CNS varies however all nurses are caring for patients that are preparing for and grieving the impending loss of their own mortality as well as relatives preparing for the loss of a loved one. In some roles the CNC/CNS is also influential in the dying process and following up with grieving relatives after the loved ones demise.

As determined by research in the palliative care area this constant exposure to grief and bereavement has the potential to impact negatively on the care provider, resulting in self-doubt, depression, and burn out,

Objectives and Conclusion

This presentation aims to evaluate the RSC nurse's perception regarding the opportunity for debriefing which encompasses evaluation of the process of dying and validation of the level of relative support. It will also explore strategies currently in place which may lead to quality improvement, professional development and minimise potential for nurse burn out.

Session 6C: Collaborative Aspects of Care

110: Shared care enables home haemodialysis for paediatric patients

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[1] Melbourne Health, VIC [2] Royal Children's Hospital, VIC

Context

Home based renal replacement therapy is the preferred model of care for patients with ESRF when transplantation is not immediately available. Home haemodialysis (HD) has not traditionally been offered in the paediatric setting. These children are offered in centre HD only. The negative impact on school attendance, participation in extra-curricular activities and family relationships has a lifelong legacy on vocational and psychosocial development. Home haemodialysis can circumvent some of these impacts. Through collaborative efforts of adult and paediatric services, a new model of care for paediatric home based haemodialysis is presented.

Objectives

This case study presents the experience of a shared care relationship between paediatric and adult nephrology services to facilitate home haemodialysis for a 16 year old girl.

Key messages

Planning and clear delineation of roles and responsibilities were seen as the keys to success in achieving the shared care relationship. Open communication between the dialysis service and parent hospital as well as between nursing staff, the patient and her family enabled a smooth transition from in-centre, through training to home. Issues identified and addressed in achieving the home dialysis care of this patient included clinical support and management, technical support, staffing and relationship building and financial pathways.

Conclusion

Home haemodialysis can be offered to families of adolescents with the formation of a shared care arrangement between the home training centre and the paediatric hospital.

26: Education, support and the impact of treatment: What do Australian patients think?

Debbie Fortnum[1], Marie Ludlow[1]

[1] Kidney Health Australia, VIC

Background

Dialysis has a huge treatment burden. A 2011 dialysis perspectives survey provided the first insight into the consumer's opinions of education, choice and some aspects of the lifestyle impact of dialysis. However, there is still inadequate quantifiable data on many salient issues.

Aim

To determine the opinions of Australians on dialysis about education received, support (both provided and unmet needs) and the impact of dialysis on lifestyle factors.

Methods

A 39 question multi-choice survey was developed with consumer consultation. Following ethics approval, it was distributed to all dialysis patients (unit based and home dialysis) at 46 randomly selected units across Australia.

Results

1021 responses were received. 74% were satisfied with being on dialysis. Nephrologists were the key influence for treatment choices (70%) with consumers who were younger more likely to make their treatment choice ($p<0.001$). Identified education gaps included the health outcomes of dialysis (38%), the difficulties of dialysis (34%) and community support (28%). Taking holidays (64%), social events (53%), and ability to participate in sport were the top three lifestyle impacts of dialysis. 55% were under financial strain and this was higher in those under 44yrs ($p<0.001$). 64% involved a carer somehow in their dialysis treatment. Differences exist by gender, dialysis type, age and time on dialysis.

Conclusion

All modalities of dialysis have a negative lifestyle impact which was often higher in younger consumers, and also impacted on family life. There were gaps in education and support that could be addressed.

59: The factors that inform decisions regarding home dialysis: A qualitative descriptive study of patients from Greek backgrounds in a hospital based dialysis unit

Shelley Tranter[1]

[1] St George Hospital, NSW

Background

An audit revealed that 20% of hospital based dialysis patients were from a Greek background in comparison to only 7% in the home therapy group. A study to provide the opportunity to increase the uptake of home dialysis therapies in people from a Greek background was conducted in 2015.

Aim

To provide a better understanding of the factors that inform people from Greek backgrounds' decisions regarding dialysis and identify the enablers and barriers to choosing home therapies for this group.

Method

The qualitative descriptive study was conducted using a purposeful, convenience sample of hospital based patients who are from a Greek background.

Results

Ten interviews supported by a Greek interpreter were conducted. There were 7 male and 3 female participants and the average age was 78 years. They had migrated to Australia on average 53 years ago. Three of the participants had been on peritoneal dialysis prior to commencing haemodialysis. Interview themes identified were - *not understanding, the doctor told me, doing for the husband* and *not in my house*.

Conclusion

Age at dialysis start and cultural influences impacted on the participants' dialysis choices. The main theme of *not understanding* reflected participants' literacy levels and photo sheets for home therapies translated into Greek for use in the Predialysis Clinic is one of the strategies arising out of this study.

29: Collaboration is the key to engaging experienced nurses to share knowledge

Lynn Brown[1]

[1] Hunter New England Health, NSW

Background

Development of a learning package was required for Therapeutic Plasma Exchange (TPE). The existing package did not reflect current practice or include requirements of the machines in use. There were a few nurses who were deemed TPE competent; however, no others had been trained to attain TPE competence for several years.

Aim

To produce evidence based learning package for therapeutic plasma exchange.

Method

The educator and TPE competent nurses met to discuss training requirements. An acknowledgement was made of the team's level of expertise in the provision of TPE but highlighted the need to train other experienced nurses to sustain the dialysis unit's ability to continue to provide TPE in future. The educator completed a literature search and liaised with other units providing TPE to gain information on their training methods. The team decided that the learning package would need to reflect current practice, be clear, succinct and provide stimulating activities.

Results

The team produced and reviewed the learning package and sent to experienced nurses identified to undertake TPE training, for feedback. The prospective learners were satisfied with content, clarity and flow. The manager and the educator negotiated supernumerary time to be allocated for practical assessment of each learner.

Conclusion

Collaboration has facilitated the creation of an effective training programme for Therapeutic Plasma Exchange.

19: Opportunities for technology use for self-management in chronic kidney disease: The TELI-CKD study

Ann Bonner[1], Katina Corones[1], Katrina Campbell[2], Bronwyn Hayes[3], Barbara Harvie[4], Jaimon Kelly[2], Kerri Gillespie[1], Kathryn Havas[1]

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Background

Australians are considered early adopts of technology with over 80% using the internet and over 90% having a mobile phone. In healthcare, technology can be used to support self-education, improve communication, and enhance clinician-patient relationships. However, current technology use amongst our Australian CKD population is unknown.

Aim

To investigate the use of technology in people with CKD.

Methods

A 38-item self-report survey was distributed to consenting CKD stage 1 to 5 (dialysis) patients across five health districts. Demographics, current technology use (internet and mobile phone), reported barriers and opportunities to support CKD self-management.

Results

Of the 619 (n= 244 dialysis) participants, 48% were >60 years; mostly male (54%), not on dialysis (59%), and had more than 10 years of schooling (52%). The vast majority had access to a computer (90%) and used the internet at home (77%). Only 25% were aware of websites to get information about renal healthcare. Overall 85% reported owning a mobile phone; of these, 66% were smartphones. Mobile phones were mostly used for making calls (86%) and sending/receiving SMS (81%). In those with smartphones only 38% used apps. About half (51%) indicated a willingness to use technology for their renal healthcare. Barriers were did not know how to use (16%) and did not like to use (13%).

Conclusion

Those with CKD are using the internet and mobile phone mostly for communication. The wide-spread introduction of technology to support self-management may be justifiable, however in the non-dialysis group in-person education and support is still required.

146: Clinical challenges in the rural setting (An ode to the country dialysis nurse)

Christine Russell[1]

[1] Country Health S.A. Renal Service, SA

Context

The ever increasing challenges faced by haemodialysis nurses in metropolitan facilities are now mirrored by their colleagues in the regional setting. Commitment to provide the best care closest to the patient’s home, an increase in complex medical conditions and expectations from patients and their families are no longer barriers to prevent these patients from receiving care in their local community.

Objectives

To highlight the challenges facing nurses working in rural and remote dialysis units in country South Australia.

Key messages

Due to the nature of their workplace, country nurses are the true generalist nurses expected to work in all areas of the hospital and be an expert in managing the complexities of the haemodialysis population without the supports that are afforded to their metro colleagues. Managing the dialysis patient having chemotherapy, mental health issues or morbid obesity (to name a few) are now commonplace in most country settings.

Conclusion

The tyranny of distance is no longer a barrier for contemporary health care and its associated challenges in the rural setting. With careful planning and engagement from the patient, family and stakeholders most patients with complex needs can be managed in their communities supported by their Nephrology team and local dialysis staff.

Session 7:

7.1: A "healthy" diet in CKD: What is on and what is off the menu?

Dr Dianne Reidlinger[1]
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Population-wide dietary guidelines are broadly similar worldwide, advocating high intakes of fruit, vegetables, wholegrain cereals and smaller amounts of lean meats, reduced fat dairy products, added sugars and salt. A recent meta-analysis demonstrated that a dietary-guidelines eating pattern in patients with established CKD was associated with reduced all-cause mortality. By contrast, dietary approaches for CKD have traditionally been restrictive in nature, focusing on single nutrients such as potassium, protein and sodium. This presentation will explore the evidence, potential benefits, barriers and safety considerations in the adoption of less restrictive eating patterns as practical advice for practitioners working with CKD patients.

39: Acute Dialysis Ready

Susan Robertson[1]
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Context

Our state has built a world class health care facility and within this new hospital, an eight space acute dialysis centre. A new model of care was required, we will now be in a position to care for acutely unwell patients requiring cardiac and possible BiPAP monitoring in centre. In the last year our services have been preparing their renal staff for this exciting move.

Objective

To give our staff an opportunity to develop their acute haemodialysis skills, a four space area was set up in the existing renal and transplant ward. Feedback from staff was essential for identifying their educational and emotional needs prior to the move to the new centre. An educational programme was paramount to facilitate the move and enable our nurses to become highly competent and comfortable within this dynamic setting.

Key messages

Our staff have comprehensive knowledge of their patients in the maintenance dialysis area and now face the challenge of working in the acute setting to care for a ‘mystery patient’. In discussion, fear of the unknown and new educational challenges needed to be addressed. The setting was mimicked but due to the formidable learning curve that some of the staff experienced extensive and ongoing education is necessary.

Conclusion

Staff welcomed the educational opportunities offered to them, concerns were alleviated and they now feel a great sense of achievement. We will be able to fully evaluate our work when the new centre is opened late 2016.

Session 8A:
Innovation in Renal Replacement Therapy

102: Self-management course for dialysis patients: Sending the message home

Anne Maguire[1]

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Context

Patients who elect to undertake a renal replacement therapy face a lifelong need for treatment and struggle with the changes in their general health and the loss of choice and independence that goes with being dependent on dialysis. Forming a partnership with the health care team which includes honest and open communication is vital to their survival and wellbeing. There are many supports which can assist the patient to regain some control but all of these require the patients to attend training on non-dialysis days.

Objectives

The aim of this project was to offer the patients a relevant course which addresses self-management principles but is specifically for dialysis patients and can be conducted during treatment.

Key messages

An internationally evidence based course, created by Stanford University, and disseminated under a license was adapted with permission to suit our renal population. Health care professionals and peer group leaders were trained by the course coordinator. The course methods were adapted to the dialysis setting and a pilot course was undertaken with the Home Therapies nurses. The course was then incorporated into home haemodialysis training program.

Conclusion

A course which is presented by other patients creates a powerful and meaningful message. The major challenges were the restrictions due to the patients being attached to a dialysis machine and the noise level and interruptions due to treatment. Benefits were felt by the patients and nurses. Patient confidence levels were visibly improved.

82: Kidney health education: The Big Red Kidney Bus community education in schools project

Jo Fairbairn[1], Yvonne Farquharson[1]

[1] Kidney Health Australia, VIC

Kidney health awareness is generally low in the Australian community. Education about kidney health is important, and it needs to be aligned with messages of how to prevent early development of the co-morbidities of obesity, type 2 diabetes, high blood pressure and kidney failure. Of people with chronic kidney disease in Australia, 50% have kidney failure due to type 2 diabetes (37%) and high blood pressure (13%).

Given Australian community trends in these health statistics, there is an urgent need to educate school children to develop awareness of kidney health and promote healthy lifestyle habits. The Big Red Kidney Bus (BRKB) arrives in rural towns for holiday dialysis, and a Community Education in Schools Project is being run in conjunction with those visits. Students, teachers and family members are the target audience. This Project is providing an innovative educational approach by combining community awareness, health promotion, early detection, and potential prevention of kidney disease.

The Project provides a series of 1-hour evidence-based and interactive kidney health information sessions involving guided experiments, flashcards, stories, songs and dance. It consists of learning about healthy kidneys, sick kidneys, kidney failure, and dialysis keeping people alive. In ongoing evaluation of primary school students, 95% of participating students and 86% of surveyed teachers want to make some healthy lifestyle changes as a result of the BRKB Community Education in Schools Project.

15: Clinical rotation: A new spin on an old idea

Cheryl Hyde[1], Jacqueline O'Neill[1], Roslynne Templeman[1]
[1] Royal North Shore Hospital, NSW

Context

A structured professional development program is required to support novice dialysis nurses to extend their knowledge and skills by rotating to all areas of the dialysis service. To address this need a professional career path has been introduced at a major teaching hospital in Sydney. This program has met the goal of developing newly skilled dialysis nurses to be capable to fulfil leadership roles within the renal service. Further benefits have been increased staff satisfaction and retention, succession planning, increased uptake in post graduate studies and improved skill mix and flexibility in rostering.

Objective

To provide novice Registered Nurses with a structured and supported rotation program which offers the opportunity to gain clinical expertise in the various sub-speciality areas of dialysis nursing.

Key Messages

- Provision of a structured professional development program supports nursing staff to achieve career goals while improving the quality of patient care.
- Organisational support for ongoing education fosters job satisfaction and staff retention.

Conclusion

Recruitment and retention of novice Registered Nurses to dialysis is essential to maintaining a progressive and vibrant workplace. It is incumbent on nursing managers to ensure support structures are in place to facilitate Registered Nurses in the transition from novice to expert. Interest in this rotation program has also proven attractive to experienced dialysis nurses wishing to extend their skills across modalities. A clinical work environment which actively acknowledges and promotes professional development fosters a happy, engaged and valued workforce. The ultimate goal is quality patient care with best practice outcomes.

68: Travel medicine advice for international travel after kidney transplant: What recipients and their physicians need to know

Michele Harvey[1]

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Context

International travel to tropical and ‘high-risk’ destinations can be particularly hazardous to people who are chemically immunosuppressed such as those who have received a solid organ transplant. Despite the risks, kidney transplant recipients (KTRs) are known to travel to these destinations often without having received appropriate vaccinations and specialist travel medicine advice. Without appropriate preparation they risk serious illness, disruptions to travel plans, and in rare cases, rejection of the transplanted organ.

Objectives

To review the literature which describes the nature of the KTR traveller, their travel habits and specific travel preparation needs. To examine the availability of suitable resources to guide both the KTR traveller and their treating physicians. To design a suitable resource to improve the gap in information currently available.

Key messages

The KTR traveller is at increased risk of infectious diseases and more severe illness whilst travelling and should receive self-treatment advice and prescriptions prior to travel. Live vaccines should be avoided and other vaccines may be less efficacious in KTRs. Immunosuppressive medications may interact with medications for malaria prophylaxis, and the treatment of traveller’s diarrhoea and acute mountain sickness.

Conclusion

There is little research on the availability, appropriateness and accessibility of resources to the KTR traveller, therefore, a Kidney Health Australia factsheet providing more detailed and specific travel medicine information for KTR’s and their treating physicians has been designed to guide and improve the preparation of the prospective KTR traveller.

Session 8B: Clinical Challenges

56: When a dialysis unit burns

Tony Ryan[1]

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In the early hours of the morning on Tuesday 27 May, the phone rang and in my sleepy consciousness, I realised it was the overnight hospital coordinator. Thoughts of staff shortages, water alarms and even patient related issues rushed through my mind. Then I went into a state of disbelief when I heard her say that our satellite dialysis unit was on fire.

Driving in the darkness, to the satellite, the news on the car radio confirmed my worst fears. Police and the fire service were attending a blaze at one of our dialysis units. On arrival, my immediate objectives were to liaise with the emergency services and the hospital coordinators. Then to work with the unit staff to prepare for those patients who were due to start arriving, in the next hour, for their morning dialysis sessions, to locate rosters, patient files, histories and dialysis orders from the smoke and water damaged unit. We would deal with the afternoon patients later.

A temporary control centre was set up to contact all remaining staff and patients, to tell them not to be concerned. To reassure those patients who had heard the radio announcements that their ongoing treatments would be rearranged and we would be in touch with details as soon as arrangements were in place. What followed was a much longer than expected path of patient movement, equipment replacement, rebuilding, legal and financial hurdles that none of us could have anticipated.

86: Where were you when the call came?

Michaela Kelleher[1], Pauline Paul[1]
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Background

As individuals we often remember where we were and what we were doing during momentous times in history. It is also memorable for an individual waiting for the call to come offering them a kidney. Kidney transplantation has become the preferred treatment for patients with chronic kidney disease (CKD). The hope of a transplant is an important factor in people's ability to cope with CKD and dialysis. However, for patients listed on the deceased donor list the wait for a kidney transplant can seem interminable.

Aim

The aim of this paper is to explore people's recollection of when the call came and how a kidney transplant has transformed their life.

Method

Narrative inquiry was used to map the stories of 49 transplant recipients and their experiences of waiting for the call and the impact the following transplant had on their lives. Stories were collected from patients who had been transplanted between 1965 - 15 through semi structured interview. The narrative approach advanced by Clandinin and Connelly (2000) was used to guide data analysis. This involved the examination of three aspects of the narrative: interaction, continuity and place.

Results

Through analysis of the patient stories it became clear that not only could the patients interviewed remember what they were doing when the call came but the majority of participants could also recall the time of day the call came and who called them. The majority of participants commented that receiving a transplant had been a transformative experience.

34: Art for holistic health: Positive effects of art for patients in a renal dialysis setting

Joanne Wilkinson[1], Ria Gilham[1]

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Context

Art education and activities has been offered to our patients who spend lengthy hours of their lives on dialysis. Conversations and positive feedback that has followed has encouraged further research into the health benefits of arts in health, leading to findings that support varied benefits for patients including, relaxation, pain relief, improved general wellbeing and blood biochemistry.

Objectives

To explore the available written evidence of the health benefits provided by utilizing arts in medicine. To determine what would be a helpful and feasible program for patients in our dialysis facility.

Key Messages

Engaging patients in a variety of arts including, visual, auditory, written and craft, is an enjoyable way to achieve relaxation, lower anxiety, improve overall wellbeing and social contact. Depression and fatigue markedly respond to creative engagement enabling patients to self-regulate negative mood and physical states.

Conclusion

Implementing art in a practical way can be utilized in much the same way as other activities offered to the patient on dialysis. Group gatherings, social supports, ongoing education that improves quality of life and decrease the symptom burden in our patient population is complemented with the addition of creative engagement.

139: What are the important steps when investigating a haemodialysis catheter related blood stream infection clinical incident?

Leanne Avis[1], Gemma Fogarty[1]

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Context

Current evidence indicates a Central Venous Dwelling Catheter (CVDC) has a significantly greater risk of infection than an arteriovenous fistula or graft. CVDC's are avoided as a choice of access however they remain an integral part of dialysis care. Consequently Catheter-Related Blood Stream Infection (CR-BSI) in haemodialysis patients contributes to hospitalisation demanding a thorough investigation and assessment allowing determination for avenues of prevention.

Objectives

To report our unit's experience on implementing and modifying processes during investigation of a CVDC associated BSI. Renal patients are considered a high-risk group due to immunosuppression and MRSA colonisation. Reducing CVDC use should be first line management in prevention along with identifying key contributing factors.

Key messages

Our experience of existing CR-BSI investigation checklists is focus remains on post management care, e.g. catheter removal and staff asepsis competency. In haemodialysis, reducing placement and use of CVDC's should be the key aim. Identification of contributing factors e.g. late referral, poor pre-dialysis planning and delayed surgery, should be integral to the BSI investigation. The checklist created by our unit encourages our team to re-think overall use of CVDC's, resulting in CVDC reduction from an average of 40% to 20% in the total patient population.

Conclusion

Dialysis CR-BSI remains a common, yet preventable complication in dialysis patients. Haemodialysis units should strive to minimise the use of CVDC's as first line management with the aim of reducing the incidence of CR-BSI.

117: Could your fistula rupture?

Greg Collette[1], Julie Tondello[1]

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Context

In February 2013, a 15-year NZ girl, Maya, posted the story on the BigDandMe dialysis blog of how her father's sore and swollen fistula burst when in bed at home and he bled to death. Subsequent blogs shows this death is depressingly common. Many could have been prevented if nursing staff and especially patients knew of the possibility of rupture, how to prevent it and how to respond.

Objectives

To report on the pilot program, Could Your Fistula Rupture? This program is designed for regular (quarterly) fistula safety training for new staff and patients on haemodialysis.

Key Messages

The program delivers three key messages:

1. Fistula ruptures can happen and they can be fatal.

2. To avoid a rupture: Be Fistula Fussy!. Red and sore fistulas, blisters or large scabs could indicate the fistula is infected, blocked or have weak spots that fail to re-seal after needling, are all warning signs of a potential impending rupture.

3. What to do if a rupture happens? Don't panic! Press with your finger. Lift your arm. Call for help. Immediately apply direct pressure over the site of bleeding with a single finger. Raise the ruptured area of the bleeding above the level of your heart. Call for help or ring 000.

Conclusion

The pilot program has successfully educated dialysis nursing staff and dialysis patients. They are more aware and proactive regarding the care of fistulas. It will be made available nationally and internationally.

Session 8C: Renal Workforce

35: Grief and loss - regional renal experiences

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Context

Grief and loss is a significant part of renal care. In one regional renal unit, almost half the nurses have worked more than ten years. Simultaneously there are patients who have received renal treatment for this same timeframe, creating professional bonds. Employment of a renal social worker prompted an opportunity to review methods used for grief and loss locally and compare with strategies used by other renal units.

Objectives

- Recognise grief and loss, encouraging staff to communicate their individual experiences
- Review coping strategies and benchmark against other Queensland renal units
- Reflect on strong bonds created due to the frequency of renal treatment - especially for long term staff/patient relationships

Key messages

- Renal health care can result in a notable grief and loss impact upon staff
- Staff require access to a range of strategies that enable them to appropriately process their grief and loss
- All renal units use multiple strategies to support their staff and patients - which can be shared with each other to inspire diversity of care

Conclusion

Grief and loss has a ripple effect due to the close bond developed over long periods with renal patients and their families. Whilst death and dying is a natural progression of renal disease, this can have a profound impact upon staff and patients. Social work reflection has prompted a benchmark comparison with other renal units to explore coping strategies and methods of supporting grief and loss experiences.

37: To infinity and beyond! Enhancing dialysis access care through network and education

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Context

Maintaining and sustaining vascular access surveillance is pivotal in providing the best possible care for haemodialysis patients. This can be challenging especially if the dialysis services are located in a large geographical area. To address this issue, a group of specialist clinicians was formed in a large tertiary hospital.

Objectives

- To formulate a Dialysis Access Working Group across the district renal service with the aim of collaborating on strategies to address access problems, develop clinical pathways, and monitor dialysis access of patients.

Key Messages

After a year since its establishment, the Dialysis Access Network (DAN) was able to construct and implement new clinical pathways, update brochures, and develop clinical guidelines for Haemodialysis Services in the district. The development of clinical pathways has resulted in early detection and intervention of dialysis access problem. Survey of staff revealed positive feedback with overall increased in self-confidence in assessing and reporting of dialysis access problem and implementing action accordingly. In addition, staff clinical competencies have improved, and utilization of vascular surveillance equipment was widely accepted by clinical staff.

Conclusion

DAN is an effective strategy to establish connection between dialysis facilities. It has assisted the district in developing and implementing programs that suit the needs of clients across the different dialysis facilities, with the common goal of improving patient safety & care. This strategy could be applied/adapted to other dialysis units.

77: Reflections on a new transplant pharmacy service 12 months on

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Aim

To describe the integration of a pharmacist into an existing kidney transplant service

Methods

A tertiary teaching hospital, with an established service involving nurse led case management for kidney transplant patients, integrated a pharmacist into the outpatient clinic model. A criterion predicated referral process was established; based on medication regimen and time since transplant.

Results

Outcomes include: in a 12-month time period 85% of all transplant patients had been seen by the pharmacist at least once in the transplant outpatient clinics. In total the pharmacist conducted over 170 consultations. Several significant interactions, drug duplications and omissions were detected in this time. The pharmacist provides real time advice and solutions to both patients and nursing/ medical staff in complex regulatory environments, multiple systems of drug supply and clinical queries.

Conclusion

The pharmacist has become an integrated part of the transplant team. Patients, nursing and medical staff have embraced the new service and integrated the pharmacist into the transplant care team. Medication lists are more accurate and accessible. Both patients and staff report counselling on new medicines and changes to medicines are beneficial to care. Pharmacy skills are of indispensable value in sourcing information about medications and accessing individual patient dispensing histories to a transplant service. Utilization of this additional specialist communication and clinical skillset has enhanced the care of transplant patients.

60: Achieving paperless haemodialysis medical records in a satellite unit – better for the client and staff

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Context

Renal clients have complex care needs and traditional medical records do not allow for timely, comprehensive collation of all records of investigations, consultations, liaison and care undertaken in multiple care settings including off campus sites. Our vision was of a Renal Electronic Medical Record (EMR) allowing a multidisciplinary team to improve patient care. Our EMR is an integrated multidisciplinary medical record for Haemodialysis (HD), Outpatients, Outreach, pathology and procedure reporting, prescribing and medication administration and secure online viewing. Our Community Dialysis Centre (CDC) is a 24 bed satellite unit.

Objectives

To give safe client care whilst rolling out a paperless HD EMR to a well-trained, resourced and supported dialysis nurse workforce.

Method

A project team was formed which undertook the planning and implementation of the EMR.

Key messages

CDC now has an EMR that:

- evolved with use
- improved patient care
- reduced errors
- improved interdisciplinary communication
- improved client outcomes.

Conclusion

Difficulties associated with change management and the importance of good communication was highlighted. Educating many nurses who are not computer literate was a big challenge and was achieved by creating a super user group and providing support in the work place. Other challenges included several delays in EMR rollout with concurrent new HD machine contract, meaning many changes for nurses and clients to absorb at one time. The nurses met the challenges and where not deterred from achieving their aim of transitioning to paperless HD records whilst maintaining a safe environment for the clients.

48: Prevention, assessment and management of post dialysis fatigue for patients attending in-centre haemodialysis: A best practice implementation project

Veronica Oliver[1]

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Background

The haemodialysis population experiences a myriad of disease burden symptoms, which are often not recognized and/or not treated. Post dialysis fatigue is a frequent complaint of in-centre haemodialysis patients following a dialysis session, and there is currently no evidence-based approach to alleviate this problem.

Aim

To implement evidence-based strategies for the prevention, assessment and management of post dialysis fatigue, with a view to lessen the disease burden experienced by in-centre haemodialysis patients.

Methods

A baseline audit was conducted, followed by implementation of evidence-based strategies with a focus on staff and patient education. A follow-up audit was performed to assess the effects of the interventions on compliance with best practice.

Results

The baseline audit showed that there was no evidence-based approach to prevention, assessment and management of post dialysis fatigue in place, with only two of the 11 audit criteria showing compliance greater than 50%. Education programs for nursing staff and patients were established, along with the implementation of additional strategies to prevent, assess, and manage post dialysis fatigue. The follow-up audit showed a dramatic increase in the utilisation of evidence-based strategies, with ten of the 11 audit criteria achieving above 75% compliance.

Conclusions

An evidence-based program to prevent, assess, and manage post dialysis fatigue was successfully implemented. Future studies may reveal if this project has lessened the disease burden experienced by in-centre haemodialysis patients.

Session 9: What's Hot & What's New?

9.1: Where are we going in renal research? The emergence of the pragmatic randomised controlled trial

Dr Carmel Hawley[1]

[1] Princess Alexandra Hospital, QLD

The Randomised Controlled Trial (RCT) is considered the 'gold standard' in clinical research when evaluating the true effect of an intervention. However, the burgeoning cost and increased burden on hospital staff of conducting an RCT has challenged clinician researchers to explore alternative ways of conducting medical research in clinical settings. Using examples from The Australasian Kidney Trials Network research portfolio, A/Prof Hawley will discuss the emergence of the pragmatic randomised controlled trial, and the opportunities this shift provides to clinician researchers for their own research projects.

9.2: The interface between palliative and renal care

Dr John Rosenberg[1]

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Over the past few decades, we have seen a growing appreciation of the value of palliative care services to patients with non-malignant conditions, including those with end-stage renal failure. New models of palliative care have been developed in many care settings specifically for patients with renal disease. Systems for ensuring routine assessment of the outcomes of palliative care have been implemented at a national level through the Palliative Care Outcomes Collaboration, providing opportunities for benchmarking and identification of areas for practice improvement. Innovative whole of workforce approaches to building palliative care knowledge and skills have also been implemented, ensuring patients receive the best care possible in any care setting. These advances at the health system level are complemented by growing efforts to build community capacity to enable more effective responses to death and dying. Strong collaboration between palliative care and renal specialists will be needed to optimise the outcomes of these reforms and ensure quality of care is provided to those who are dying.

9.3: Functional genomics in inherited kidney disease: From clinic to lab and back again

Dr Andrew Mallett[1]

[1]Royal Brisbane & Women's Hospital, Brisbane, QLD

Functional genomics is an approach coupling functional assays and validation methods with genomic sequencing in order to meaningfully interrogate the significance and potential causality of genetic variants in human disease. Kidney disease is one field in which functional genomics can play a role in the identification of novel genetic aetiologies and their validation. This is likely to ultimately provide opportunities for disease understanding which may translate into optimised diagnostics and therapies. Within a broader healthcare context embracing the mainstreaming of genetics into everyday clinical care, bedside-to-bench and bench-to-bedside collaborations are required to realise this significant potential.

9.4: Chronic Disease Comorbidity: Challenging Healthcare Providers to Innovate

Prof Ann Bonner[1]

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Typically those with chronic kidney disease (CKD) also have other chronic diseases, however, practitioners tend to focus on one disease or even one symptom at a time rather than focus on the whole person. This results in people attending a number of appointments with a range of healthcare providers. There is emerging evidence internationally that innovative nurse-led services directed towards people with multiple chronic diseases improves access to care, achieves clinical targets and patient-reported outcomes, reduces hospitalisations and emergency department presentations, and has high levels of patient satisfaction. This presentation will present evidence about new service delivery models and why nurses are in an ideal situation to provide a holistic approach to chronic disease comorbidity.

Session 10A: Psychosocial Aspects

100: The psychosocial impact of caring for elderly patients with CKD stage 5

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Background

The incidence of older people diagnosed with chronic kidney disease stage 5 (CKD5) is increasing. A body of evidence exists around the psychological and physical distress experienced by caregivers caring for older patients with other chronic illnesses, but few studies have addressed these issues in this group.

Aims

To explore whether;

- caregiver burden increases throughout prolonged periods of caring
- levels of depression, anxiety and stress are related to caregiver burden
- caregiver burden is inversely related to perceived quality of life (QoL)

Method

Caregivers (*N* = 11) of elderly CKD5 patients (75 years and older) were assessed for the impact of caring, with regard to their: perceived caregiver burden, depression, anxiety and stress and QoL using the Caregiver Burden Scale, the Depression Anxiety Stress Scale and the 12-Item Short-Form Health Survey respectively. Data was collected at baseline and at six months.

Results

Aggregate caregiver burden and psychological distress were moderate at inception but did not appear to change significantly over time. Yet these tools identified a number of individual caregivers with excessive stress scores after death of the care recipients (DASS-stress score 10 to19 and 13 to 23) while another was severely distressed (DASS-stress score 20). On the SF-12 mental domain, all scores ranged between 21 and 43 indicating worrying mental health status in carers.

Conclusion

This study highlights the paucity of research in this area and the need for the development of better psychological and support interventions to help caregivers cope with challenges related to caring for older CKD5 patients.

89: Implementation and evaluation of modified early warning score (EWS) tool for acute and critical care dialysis

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Background

Caring for Acutely unwell and critically ill patients can be challenging. Evidence shows that recognising and responding early to changes in vital signs, help to determine and provide effective intervention in a timely manner can prevent serious adverse events and improve patient outcomes. Early Warning Score (EWS) is one such tool that helps to capture changes in patients' vital signs and prompt pre-determined action. Implementation of EWS in ADHB wards and its evaluation showed current medical emergency call outs are to a therapeutic level, with every 17 medical emergency calls one cardiac arrest or further detoriation is prevented.

Aim

To implement and evaluate modified EWS tool for acute and critical care dialysis settings observation & monitoring.

Method

Modified EWS in Acute Dialysis Prescription and Observation was implemented in ADHB dialysis. Evaluation carried out after six months by random audit of 10 acute dialysis prescription and observations with modified EWS. The results has have shown 100% compliance on dialysis prescription parameters by prescriber and staff dialysis parameter documentation. Among vital signs BP, Heart Rate and Temperature had 100% compliance but pain and respiratory rate had 80% compliance.

Conclusion

Implementation and evaluation of modified EWS showed improved patient observation monitoring in-line ward in-patient settings. The evaluation showed effective early interventions with pre-determined actions leading to reduction in medical emergencies and cardiac arrest call outs. This has also resulted in elimination in duplication of documentation between dialysis unit and inpatient areas.

20: Explaining how symptoms cluster together in advanced stages of chronic kidney disease

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Background

Symptom burden is high in chronic kidney disease (CKD) due to multiple symptoms affecting everyday life. Symptoms, however, are known to form clusters in cancer and other chronic disease but little is known about CKD symptom clusters.

Aim

To explore symptom clusters in advanced stages of CKD.

Methods

Using a cross-sectional design, 436 people with advanced stages of CKD completed the Chronic Kidney Disease - Symptom Burden Index which assesses the multidimensional nature of 32 symptoms. Exploratory factor analysis was used to identify symptom clusters. A high cutoff of 0.50 for factor loading was used for all analyses. Core symptoms in each cluster were determined based on stability across dimensions and clinical plausibility.

Results

Participants were mostly men (53%) with a mean age of 48 years (*SD*±14.86) and receiving dialysis (75.5%). Five symptom clusters were identified across all symptom dimensions (occurrence, distress, severity and frequency); namely fluid volume symptoms, neuromuscular symptoms, gastrointestinal symptoms, sexual symptoms, and psychological symptoms. Several symptoms were also interconnected with multiple clusters. Fatigue cross loaded onto all five clusters, whereas sleep disturbance and restless leg symptoms cross-loaded across three clusters.

Conclusion

Adopting a symptom cluster approach is a promising method to advance symptom assessment and management in CKD. Routine clinical assessment and management strategies targeted at the cluster level should have synergistic effects in reducing symptoms. Fatigue is a highly prevalent and pervasive symptom for those with CKD that is interconnected with global symptom burden, suggesting better management of multiple symptom clusters may also reduce fatigue.

62: Creating a new culture - implementation of advance care planning in a large metropolitan dialysis service

Nuala Barker[1], Caroline Scott[1], Melissa Stanley[1], Margaret Morris[1], Robyn Langham[1]

[1] St Vincent's Hospital, VIC

Context

The global dialysis patient population is becoming increasingly elderly with multiple co-morbidities in addition to kidney failure. Patients with kidney disease have a yearly mortality rate surpassing that of many cancer diagnoses. Patients are at risk of becoming acutely unwell and unable to engage in treatment decisions. Advance Care Plans (ACP) outline patient's wishes and goals of their care to ensure clarity, even when the patient's capacity is diminished.

Objectives

An Advance Care Planning pilot at our hospital aimed to educate and support nephrology clinicians to initiate conversations about such planning and encourage higher uptake of ACP and Enduring Power of Attorney (medical treatment) (MEPOA). A suite of seminar in-services was implemented in a multi-disciplinary context with tailored resources. An inventory was used to evaluate the success of the pilot by tracking the number and content of conversations with individual patients over seven months and whether these conversations resulted in creation of an ACP or a nominated MEPOA as outcomes.

Key messages

ACP was predominantly introduced to patients by nurses. Nurse Practitioner (60%) and Registered Nurses (35%). The majority of initial conversations (75%) were within the dialysis setting. 45% of patients had follow up conversations. There was not a marked increase in the number of patients with completed ACP during the pilot.

Conclusion

Seven months is not sufficient time to see a change of culture. More work needs to be done to ensure a multidisciplinary approach to ACP with frequent follow up in settings beyond the dialysis unit.

Session 10B: Innovation in Renal Replacement Therapy

87: The importance of muscle in maintaining health status in patients with chronic kidney disease (CKD)

Michaela Kelleher[1], Pauline Paul[1], Grace Wong[1]
[1] Prince of Wales Hospital, NSW

Background

The theory of reverse epidemiology predicates that patients on dialysis with a higher body mass index have a survival advantage over patients with lower body mass index. When this survival advantage has been further analysed it appears from the research that survival advantage pertains largely to the amount of muscle mass the individual has.

Aim

The aim of this paper is to examine the relationship between muscle and lean tissue mass and health status in patients with CKD.

Method

191 patients with CKD were enrolled in the study. After obtaining consent the following physiological data was collected: Weight, height, BMI, upper arm circumference and body composition. Body composition was evaluated using bioimpedence spectroscopy. Each patient was asked to complete a health status questionnaire which collected data on nine domains of health status. In addition to calculating a total health status score, scores for physiological and psychosocial health were calculated.

Results

Data was analysed using SPSS 23. A multivariate analysis was conducted examining the relationship between lean tissue mass and physiological, psychosocial and total health status. The results demonstrated that there was a statistically significant association between lean tissue mass and total health status (f = 4.560; p = .035) and psychosocial status (f = 6.722; p=.011). However, the relationship between physiological status and lean tissue mass wasn’t significant.

Conclusion

The role that muscle plays in the health status of individuals with CKD requires further investigation. However, it provides a future focus for rehabilitation programmes for patients with CKD.

120: Effect of intradialytic resistance exercise training on physical function in end-stage kidney disease patients

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Background & Aims

Patients with end-stage kidney disease (ESKD) have reduced quality of life, physical function and increased falls risk compared to the general population. ESKD treatment commonly requires thrice weekly dialysis, exacerbating the time patients spend being inactive. Intradialytic exercise programs can provide positive benefits but a major limitation is the lack of staff expertise to prescribe and encourage exercise, with accredited exercise physiologists (AEPs) a logical solution to this. The aim of this study was to determine the efficacy of a sustainable AEP led resistance exercise training program on the physical function of people receiving haemodialysis.

Methods

One hundred seventy one participants from 15 community satellite haemodialysis clinics performed progressive resistance training in a seated position during the first hour of haemodialysis treatment. A stepped wedge design of three groups each containing five randomly allocated cluster units, allocated to an intervention of 12, 24 or 36 weeks. The primary outcome measure was objective physical function measured by the 30-second sit to stand (STS) test, the eight-foot timed up and go (TUG) test and the four square step test (FSST).

Results

Resistance exercise training led to significant improvements in physical function as measured by STS and TUG. There was a significant average downward change ($\beta=-1.59$, $p< .01$) before the intervention and a significant upward change after the intervention ($\beta=.38$, $p< .01$) for 30- second STS with a similar pattern noted for TUG.

Conclusion

Intradialytic resistance exercise training can improve the physical function of ESKD patients receiving dialysis.

123: Eculizumab as a treatment for atypical haemolytic uraemic syndrome in children: A unit's experience

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Context

Atypical Haemolytic Uraemic Syndrome (aHUS) is a rare disease that can affect children and adults. It can frequently progress to end stage renal disease with high recurrence after renal transplant. Renal replacement therapy (RRT) and plasma exchange has been the first line of treatment for aHUS. Eculizumab (ECU), a monoclonal antibody that binds to complement protein C5, is beneficial in the treatment of aHUS

Objectives

Two cases of children with aHUS will be presented to highlight the effects of the drug ECU, for the treatment of aHUS instead of the conventional treatment of RRT and plasma exchange. RRT was commenced on one child initially and ceased after commencement of ECU therapy.

Key messages

The importance of early diagnosis of aHUS to prevent long term consequences and commencing ECU therapy. This paper will discuss the management of two cases of aHUS presentations in our unit. The effects of the drug ECU for the treatment of aHUS compared to the conventional treatment will be examined.

Conclusion

In conclusion, the timely introduction of ECU in the treatment of aHUS is important to avert these patients from undergoing RRT and plasma exchange. In our experience it was an effective treatment for both patients who tolerated ECU well and no adverse effects were observed. However, more research is needed on the safety, long term efficacy and optimal duration of treatment for children to benefit from novel therapeutic approaches.

36: Booster hepatitis B vaccination in haemodialysis patients – A 5-year prospective study

Casey Light[1], Hemant Kulkarni[1]
[1] Armadale Health Service, WAS

Background

The duration of Hepatitis B boosters in non-responsive haemodialysis population is unclear. Impact of the new protocol consisting of 3 annual boosters following the primary regime was reviewed

Aim

A five-year study to determine the efficacy of 3 yearly Hepatitis B boosters in haemodialysis population.

Methods

Protocol with up to 3 annual Hepatitis B boosters following primary regime of 0,1,6 months was established in 2008, with ongoing monitoring in 4th and 5th year. Patients responding to “initial” and “boosters” were classified as “Initial” and “Late” responders (Anti-HBsAb > 10 mIU/mL). Blood transfusions and Hepatitis B infection related data were reviewed in this population.

Results

46 HD patients (M=26; F=20) completed the 5-year vaccination regime. None of the 20 “initial” responders needed boosters. Of the 26 non-responders to primary vaccination, 26, 21 and 15 patients received boosters in Year 1, 2 and 3 respectively. 3 patients responded to the 2 boosters, with short term (<12 months) response in 2 (Anti-HbsAb <21 mIU/mL) and long term response (>36 months) in one (Anti-HBsAb >100 mIU/mL). 141 patients were dialysed in the unit from 2008-2014, 68 patients receiving 488 transfusions. 2 patients were Hepatitis B positive prior to arrival to the unit, there was no reported acquired transmission over the study period.

Conclusions

Our findings suggest limited or no benefit of surveillance or vaccinations in unresponsive haemodialysis patients beyond 3 years. Use of standard precautions and targeted surveillance should suffice in this population. Larger studies confirming the benefit are useful.

Session 11: Patient Empowerment

Session 11: Patient Empowerment: linking community and hospital concepts - Interactive Session

This interactive panel session explores the interface between nephrology and primary healthcare and will consider patient empowerment linking community and hospital concepts in relation to “84 year old Betty”. Our three speakers will present their own views and experiences, and the audience will be invited to comment and ask questions and each speaker will provide a “take home” message. Topics covered will include delivering person-centred care in the context of the medical model, quality of life whilst living with chronic kidney disease, justification of the high cost of providing supportive care to this cohort of patients, assessment of lifestyle risk factors, questioning if Betty is receiving evidence based treatment for her long term conditions, advance care directives/ planning, and much more.”

Panellists

- Prof Elizabeth Halcomb, Professor of Primary Health Care Nursing at the University of Wollongong, NSW
- Fred Graham, Clinical Nurse Consultant (Dementia & Delirium), Princess Alexandra Hospital, QLD
- Dr Balaji Hiremagalur, Senior Staff Specialist in Nephrology, Gold Coast Hospital and Health Services, QLD

Facilitator

- Melissa Chamney, RSAJ Editor

Posters

2: Innovative activity calendar in a satellite renal haemodialysis unit

Judy Bell[1], Stephanie Mengel[1], Samantha Woodhouse[1]

[1] Ipswich Renal Unit West Moreton Hospital and Health Service, QLD

Background

The function of a renal unit has become complex, it is difficult to ensure all governance requirements are met. Information was located in several areas which overwhelmed staff, this led to inaccuracies and was recognised as a reason for noncompliance. Safe renal nursing practice recognises nurses' responsibility in maintaining renal focused mandatory training, competencies and focused learning.

Aim

To improve all staff engagement and participation, an activity calendar was developed.

Method

Our first step was to map current processes which led to clarification of all expected measures and recognition of the need to meet national standards. To ensure staff within the unit felt valued, engaged and consulted it was recognised that attendance at local unit meetings and awareness of global HHS team meetings were afforded to them regularly. Education opportunities, in-service training and personal development are critical components of practice development within the nursing team and continuous improvements in nursing care provision. Finally clinical governance, audit and measurement of hard data must be gathered regularly to demonstrate effective nursing care and must be collected by members within the team for a global awareness of patient care delivery.

Results

Within renal dialysis at our health service we have developed a comprehensive activity calendar which links all above to national standards and is used as a one-stop shop for all key information.

Conclusion

Significant improvement can be demonstrated in all areas of clinical governance compliance, training and education requirements and staff engagement.

4: What impact does hypotension have on a haemodialysis patient's quality of life?

Debbie Turner[1]
[1] CNARTS, SA

Background

Hypotension is a significant side-effect of haemodialysis and adds to the burden of those with ESRD who already have a lower quality of life than the general population. To address the impact of hypotension for those who have a lower quality of life than the general population a small study was conducted. Whilst research has been conducted on both hypotension and quality of life, there is a paucity of literature on this combined topic.

Aims

The aim of the research was to determine if there is a relationship between post-dialysis hypotension and quality of life.

Methods

A cross-sectional research design was utilised to capture the haemodialysis population at a specific point in time. Hypotension was the study exposure variable and defined as a systolic blood pressure (SBP) ≤ 90mmHg or diastolic (DBP) ≤60 mmHg. Quality of life was measured along with clinical and demographic variables. This did not change after adjusting for clinical variables.

Results

The study included 112 patients. Results demonstrated those with hypotension were older, more likely to have a longer number of years on dialysis and a higher comorbidity index. Those with hypotension reported a higher quality of life score, although there was no statistical difference between the two groups.

Conclusion

The result of this research has highlighted the need for further research on the impact of hypotension on the quality of life of haemodialysis patients with a larger study population.

5: Waiting for a kidney transplant from a deceased donor – a qualitative study

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[1] St George Hospital, NSW [2] University of Wollongong, NSW [3] University of Wollongong and St George and Sutherland Hospitals, NSW

Background

In Australia approximately 1100 people are waiting an average of 3.6 years for a kidney transplant. Worldwide it is estimated that there are over 100 000 people waiting. Most of these people live on dialysis while they wait.

Aims

The aim of this study was to explore the experiences of people who are living on dialysis and waiting for a kidney transplant from a deceased donor.

Methods

This qualitative study used focus groups to enquire from people under the care of a large metropolitan hospital renal department who were on dialysis and listed for transplant. Focus groups interactions were digitally recorded, transcribed verbatim and thematically analysed.

Results

The findings from this study show that people feel trapped by the experience of living on dialysis and view a kidney transplant as a means of escaping dialysis and returning to 'normal' life. The experience of waiting includes feelings of fear, uncertainty, acceptance and endurance. The support of family, friends, the community of dialysis patients and the hospital staff is highly valued although participants admit to protecting loved ones from all the details of their illness. Key to the escape is the deceased donor.

Conclusion

This study provides information about this experience which may be used to develop interventions to provide care for this significant patient population.

6: Working towards excellence in patient education

Allison Brown[1], Mary Boyde[2], Grant Ramke[3], Jenny Kohlhardt[2]

[1]Logan Hospital, QLD, [2] Princess Alexandra Hospital, QLD [3] Metro South Hospital and Health Service, QLD

Background

Education of patients is a crucial component of health care and requires the nurse to apply educational theory to nursing practice. Patient education outcomes can be impeded when nurses' lack the necessary evidence-based knowledge and skill.

Aims

Within our large metropolitan health service we identified a need to develop nurses' knowledge and skills in relation to educating patients with the ultimate aim being increased provision of effective patient education through a partnership approach.

Methods

Education was delivered as one-day workshop, allowing both theory delivery and practical application to bridge the theory practice gap. Facilitators were all experienced Nurse Educators with post graduate qualifications and a passion for patient education. Nine workshops were facilitated within a metropolitan health service over 2.5 years with 168 participants.

Results

Evaluations demonstrated that the workshops were valued, content was applicable to nursing practice, the structure facilitated learning and the learning strategies enabled active participation. The follow-up survey indicated that 81% of respondents had been able to incorporate the principles of adult learning into their current nursing practice.

Conclusion

Effective patient education can improve patient outcomes. The challenge for nurse educators is to refocus nursing staff to the importance of teaching patients effectively, ensuring that patient education is routine practice and a core component of nursing care. Patient Education workshops can assist nurses to develop the knowledge and skills required to improve their patient education skills, as well as have a positive effect on their confidence to undertake this vital role.

9: Clinical handover in renal services; the NSQHS standards, striving for excellence

Allison Brown[1]

[1] Logan Hospital, QLD

Context

Clinical handover (CH) is the professional transfer of information, accountability and responsibility for a patient or group of patients and is an essential criterion for the National Safety and Quality Health Service (NSQHS) standards. Nurses in our renal service continue to seek ways to continuously improve and create efficiencies and strive for excellence in the health care delivery for their patients. We are a dynamic environment that includes haemodialysis, peritoneal dialysis and chronic kidney disease services; therefore the implementation and use of the structured CH process needs to reflect the variations.

Project objectives

1. Review the existing methods of CH across the service
2. Educate and engage staff in the change process
3. Implement the organisationally agreed standardised CH tool; introduction, situation, background, assessment and recommendation (ISBAR)
4. Improve patient care delivery and safety and quality
5. Develop monitoring tools that reflect CH process

Key messages

The CH tool ISBAR was introduced to nursing staff and discussed how the tool could be adapted to suit the different CH situations. Due to the diversity of the service audit tools were developed for patient rounding, clinical meetings and home therapies written handover. Audits of CH were conducted and results disseminated to the service

Practice implications

The focus of this project was the improved use of a flexible standardised CH tool as set by the organisation to reduce errors between health professionals and improve patient engagement, safety and care.

11: Constipation prevention and management in peritoneal dialysis patients in a home dialysis or outpatient setting: A JBI best practice implementation project

Dana Cotton[1]

[1]Royal Adelaide Hospital, SA

Dialysis modality failure, peritonitis and even perforation of the colon, may occur as a result of constipation in the peritoneal dialysis (PD) patient. Factors contributing to constipation include the age of the patient (increased risk with age), type of diet (low fibre), restricted fluid intake, sedentary lifestyle, lack of exercise and some types of medication (iron and calcium supplements. Constipation management is currently reactive - treatment options proffered when condition reported to clinicians rather than proactive self-management by the patient or inappropriate self-management by the patient. Education regarding constipation may also be ad hoc.

The aim of the project was to identify current practices in the PD home therapies/outpatient setting and assess compliance with best practice in constipation prevention/management using a baseline audit and an audit tool developed by the Joanna Briggs Institute.

Following the audit, a self-management tool was developed for PD patients to prevent constipation by early identification of symptoms and commencement of appropriate treatment options (lifestyle and/or medication).

A second focus was the education of patients re bowel health, constipation management and prevention of complications resulting from constipation and to improve documentation of patient bowel health by clinicians.

13: Staffing a general medical ward to safely manage peritoneal dialysis

Brendan Zornig[1]

[1]Logan Hospital, Metro South Health, QLD

Emergency Department (ED) presentations of patients with complex conditions compounded by numerous chronic comorbidities are a common occurrence, and these patients are frequently admitted to medical wards. Chronic kidney disease is increasing in prevalence, and patients who undergo peritoneal dialysis (PD) frequently present to ED, often requiring treatment related to PD.

Outside of specialised renal units, PD is a skill that is rarely in the repertoire of most nurses. With over 100 FTE of nursing staff in the ED, providing PD training and frequent practice is not achievable in this facility. This places PD patients in the ED at high risk of adverse events related to PD, including severe infection of the peritoneum and/or Tenckhoff catheter exit site, potentially causing life-threatening complications.

The general medical ward 3A is the ward of choice for admitting renal patients at this facility. Most of the nursing staff of this ward are competent in PD, and with the support of the Renal Dialysis Unit (RDU) are able to adequately meet the PD needs of all admitted patients. After hours, PD support for patients presenting to the ED is sourced from ward 3A. It has been shown to be difficult to maintain safe patient care in the ward when staff are required to leave the unit to support the patient in ED.

The purpose of this poster presentation is to describe the quality improvement initiative recently commenced to address the risk surrounding lack of available support for PD patients presenting to the ED after hours.

14: Overcoming barriers to incident reporting - shifting the paradigm of ’blame’: One regional unit’s experience

Kimberley Withers[1], Hayley Dickfos[1], Lynne Abell[1]
[1]Fraser Coast Renal Service, Qld Health, QLD

Context

Negative attitudes and misconceptions are barriers to the use of formal reporting processes. This culture is often associated with non-reporting and seen as a blame process, rather than a means of identification and subsequent opportunity for process improvement. This culture presented our unit with a risk to identifying the barriers and subsequent opportunities to enhance quality improvement processes within the service.

Objective

The challenge was to change the perception of the process amongst staff from a perceived blame system to a blameless quality improvement process with positive outcomes. With this change it was anticipated that compliance with adverse clinical incident reporting would be enhanced with congruent improvement in sustainable process improvement within the service.

Method

Staff were encouraged to have active participation in the process of incident investigation. The staff associated with each incident report were requested to attend the associated clinical incident review. Other staff members were also encouraged to attend as a means of removing the stigma attached to the process.

Results

The effectiveness was measured through the monitoring of incidents being reported. Negative attitude towards incident reporting has decreased and staff are more actively participating with a solution focussed attitude.

Conclusion

Change of attitude and improved understanding of quality processes has improved the ability to identify risk and implement quality improvement processes. Staff engagement has allowed robust discussion and a more pro-active approach to the management of adverse clinical incidents.

16: A telehealth initiative to increase support for home dialysis patients living in remote parts of South Australia

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Adelaide, SA

Telehealth initiatives designed to assist in the delivery of care and support for people on home dialysis is a logical approach to providing effective community-based care. Telehealth consultation offers the opportunity to improve health outcomes, including support for self-management. The ability to transmit voice, data, images and information between patients and their healthcare team during a dialysis procedure assists the team to deliver supportive health services to patients in remote areas, thereby reducing the need for either patients or members of healthcare team to travel.

In South Australia (SA), the ‘Rehabilitation in The Home Project’ supports telehealth consultation via video conferencing to provide clinical decision support, and to improve communication with patients. As part of this, the Home Training Unit at Central Northern Adelaide Renal and Transplant Services, with the support of SA Digital Telehealth Network (eHealth Systems), undertook a trial project with five home dialysis patients living in remote areas of SA, using Cisco-Jabber delivered via iPads for video conferencing. The unit sought to provide more frequent face-to-face assessments and maintain contact with patients.

21: Chronic kidney disease self-management: A validation study in Vietnamese language

Thi Nguyet Nguyen[1], Clint Douglas [1], Ann Bonner[1]

[1]Queensland University of Technology, QLD

Background

The prevalence of chronic kidney disease (CKD) is rapidly rising in both developed and developing countries. Effective self-management behaviours are known to slow the progression of CKD; however, to measure CKD self-management behaviours of people in Vietnam, translation and validation of an instrument is required.

Aim

To evaluate the validity and reliability of the Vietnamese language version of the CKD self-management instrument (CKD-SM).

Methods

Participants were recruited from hospital renal service in Vietnam for a test-retest study (14 days apart). Translation from English into Vietnamese of the CKD-SM occurred using an internationally accepted process. The self-report V.CKD-SM comprises 32-items measuring self-integration, problem solving, social support, and adherence behaviours with CKD treatment. The total scores range from 32 to 128.

Results

Initial testing involved 158 participants who were mostly female (51.3%), aged between 18-84 years with advanced stages of CKD (77.8%). The mean score of the V.CKD-SM was 72.20 (SD ± 10.17) with most not understanding the importance of laboratory tests, being able to discuss their kidney treatment with doctors and nurses, and few searched for information about CKD. Instrument reliability of the V.CKDSM was good (Cronbach's alpha = 0.93). Re-testing involved 52 of the same participants showing good good intraclass correlation coefficient (0.84, $p < .01$). There was a significant relationship between the test and re-test time ($p < .01$).

Conclusion

Vietnamese patients had moderate levels of CKD self-management behaviours. The V.CKD-SM is acceptable and feasible to use to measure whether self-management behaviours improve following patient education about CKD.

22: Kidney knowledge survey: A validation study in Vietnamese language

Thi Nguyet Nguyen[1], Clint Douglas [1], Ann Bonner[1]

[1]Queensland University of Technology, QLD

Background

Globally chronic kidney disease (CKD) is a major problem and in Vietnam it is increasing rapidly. Improving patient knowledge assists in slowing the progression of CKD. However, there is a lack of a valid and reliable instrument in Vietnamese language to measure patient knowledge.

Aim

To evaluate the reliability and validity of the kidney disease knowledge survey (KiKS) in Vietnamese language.

Methods

Following a recognised and robust translation process, the KiKS was translated from English into Vietnamese (V.KiKS). The V.KiKS is a 28-item self-report instrument measuring knowledge about preserving kidney function, treatment options, and common signs and symptoms of CKD. Maximum score is 28. The V.KiKS was subjected to a test-retest study involving patients with CKD recruited from a renal department in Vietnam.

Results

Initially 158 participants completed the V.KiKS. Most were women (51.3%), between 20-39 years of age (40.5%) with CKD stage 5 (68.3%). The mean knowledge score was 17.7 (*SD ± 2.61*) with most not knowing types of medications to avoid, what “eGFR” means, and symptoms associated with CKD. Instrument reliability was acceptable (Kuder-Richardson-20 = 0.58). Re-testing (two weeks later) involved 33% of the same participants (n=52) revealing good reliability of the instrument (intraclass correlation coefficient=0.82), and a significant relationship between testing times ($p < .01$).

Conclusion

Vietnamese patients had low levels of knowledge about CKD. The V.KiKS is quick and simple for patients to complete. The instrument could be used by clinicians and researchers to evaluate patient’s knowledge particularly prior to and following CKD education programs.

27: Renal transition support program (TSP): Rising to the challenge of returning to study

Ms Karin Ahearn[1]

[1] Metro South Health, QLD

Context

As registered nurses it is essential to ensure we remain up to date and contemporary with our knowledge and skill to ensure safe patient outcomes. Attaining nursing post-graduate qualification is one facet of the learning opportunities that is advocated. Returning to post-graduate study and the commitment of course work, interpreting and writing assignments and completing assessments after an extended time away can be a very challenging experience.

Objectives

To share with the wider renal nursing community, the benefits and challenges of completing a Renal TSP or similar as a stepping stone towards a post-graduate nursing qualification.

Key messages

The Transition Support Program (TSP) which provides Queensland Health nurses with a continuing professional development pathway within the workplace can be recognised for advanced standing into a tertiary post graduate program.

Juggling work, family and study commitments is an art that requires practice, patience, and reflection to make it achievable. Relearning the skills required to undertake a post-graduate qualification was challenging, requiring me to seek support and coaching from key colleagues.

Implication for practice

The Renal TSP was useful towards embarking on a tertiary qualification (Master of Nursing) and helped me develop the skills and confidence to continue to further my nursing education. I was able to successfully complete two subjects relating to my nursing specialty which improved my nursing practice, contributed to my professional development and enabled me to further support colleagues in their education journey.

30: Impact of a dedicated renal vascular access nurse

Yanella Martinez-Smith[1]
[1]St George Hospital, NSW

Background

Ensuring a patient's arteriovenous fistula (AVF) or graft (AVG) is created in time for haemodialysis is an important part of pre dialysis preparation, however, making sure it continues to remain viable and able to support optimal dialysis is just as important. This paper highlights the excellent vascular access outcomes for our service, emphasising the impact of the vascular access nurse position.

Aims

To evaluate the impact of the role; vascular access outcomes for AVF at first dialysis, vascular catheter use and access thrombosis and infection rates.

Methods

A vascular access nurse role was introduced to a metropolitan hospital in 2005. Vascular access data was collected and analysed against historical dialysis service outcomes and national and international benchmarks.

Results

At the end of 2014, 61% of patients' commenced dialysis with a functioning AVF compared to 46% nationally. Prevalent data revealed that 92% of patients were using an AVF or AVG for haemodialysis surpassing the national benchmark of 85%. The AVF thrombosis rate was 0.09 episodes/patient year compared to the recommended rate of < 0.25 episodes/ patient year at risk. The recommended vascular catheter related bacteraemia rate of <1.5 episodes/1000 catheter days was surpassed at 0.29 episodes/1000 catheter days with one catheter-related infection for a total of 93 catheters in situ. There were no infections reported for AVFs and AVGs.

Conclusion

The introduction of the vascular access nurse role has resulted in a steady improvement in vascular access outcomes for our patients and would be a useful initiative for other units.

33: Integrated chronic disease nurse practitioner model of care: Improving the patient journey

Justine Hetherington[1], Cassandra Stone[1], Maureen Barnes[1], Jennifer Abel[1], Clint Douglas[2], Kathryn Havas[2], Ann Bonner[2]

[1] Queensland Health, QLD [2] Queensland University of Technology, QLD

Background

Chronic kidney disease, cardiovascular disease and diabetes mellitus and are highly prevalent in Australia and there is a well-established association between these three diseases. In 2014 an Integrated Chronic Disease Nurse Practitioner (ICDNP) model commenced to provide streamlined care, improve access through a coordinated approach for patients with at least two of these three chronic diseases, and to improve the patient journey and quality of life.

Aim

To examine the perceptions of stakeholders following the introduction of the ICDNP clinic.

Methods

Using a qualitative descriptive design, 14 patient interviews and 3 focus groups with staff (medical, allied health, nursing and administrative) were conducted. Data was analysed for themes.

Results

Overall patients described the benefits of attending the clinic were due to the good communication and interaction with the nurse practitioners and how this contributed to building trust and enabling them to have a better understanding of their chronic diseases. Staff recognised the positive impact that the ICDNP clinic had on the patient's navigation of the healthcare system, reducing the need for multiple clinic appointments, and how the clinic contributes to improving chronic disease self-management.

Conclusion

The ICDNP model of care has shown a high level of patient satisfaction with regard to their journey of chronic disease self-management. Importantly healthcare professionals are supportive and engaged with the clinic due to improved communication and collaboration across multiple specialties and relevant team members.

38: The introduction of advanced life support training in satellite units

Lynn Brown[1]

[1] Hunter New England Health, NSW

Background

Nurses in satellite dialysis units need to act as first responders in emergency situations. Need identified to enable first responders by improving their skills base.

Aim

To improve response to emergencies requiring resuscitation by adding advanced life support (ALS) provision capability in each unit.

Method

Renal educator undertook ALS instructors training and gained nationally recognised accreditation. Four senior satellite nurses were identified to attend advanced life support training, and completed the prerequisite learning packages. The nurses attended a one-day course provided by the educator to complete training which included both theory and practical assessments.

Results

All attendees successfully completed the first course, becoming ALS providers. The course was evaluated by learners as highly successful, meeting their learning needs.

Conclusions

Advanced Life Support training will now become a regular part of the renal education calendar. This will include training for key staff and ongoing annual assessment for all ALS providers within the satellite units. The educator undertakes to keep her ALS instructor's accreditation current to be able to continue to provide training and assessment.

42: Improving staff and patient communication in renal ambulatory care

Elizabeth Tomlinson[1]

[1] St Vincent's Public Hospital, Sydney, NSW

Context

Dialysis patients experience many challenging restrictions to their lifestyle in order to maintain optimal health outcomes. Access to information emerged as a theme from patient stories and unit based patient satisfaction surveys, with consumers indicating they would appreciate increased communication especially in maintaining fluid and diet restrictions. The nursing team also wanted to keep patients educated and engaged in their healthcare on a long-term basis.

Objectives

To produce a quarterly newsletter to improve communication and promote education for our patients receiving dialysis.

Key messages

In September 2014 the Renal Ambulatory Care (RAC) unit at a public hospital in Sydney, launched the *Nephron News.* This newsletter has been created especially for consumers. All members of the multidisciplinary team and the patients themselves write the articles, which reflect the RAC values of open communication and inclusiveness throughout this project. The contents of the newsletter educate and entertain, reinforce verbal communication and support patients to manage their dialysis treatment both in and away from the dialysis unit.

Conclusion

The newsletter medium conveys consistent information tapered to feedback from our consumers. Patients have also begun to connect to each other through the sharing of personal journeys, which enables them to make decisions and have further control over their healthcare. Positive patient survey results depict a 27% increase in clients stating that staff are educating them on their fluid restriction from 60% in 2013 to 87% 2014. In September 2015 84% patients found the Nephron News content relevant to their health and dialysis treatment.

45: A quality initiative ensuring ‘the look, listen and feel’ approach to vascular assessment is integrated into a haemodialysis unit

Paula McLeister[1]

[1] Princess Alexandra Hospital, QLD

Context:

The concept of thorough examination prior to cannulation of the vascular access is not a novel idea, and has been widely reported to have beneficial effects for the patient. With clear directions in the literature it was noted that readily available resources to assess access were routinely under-utilised. The goal was to ensure the renal nurse included vascular access assessment in his/her core renal nursing assessment skills.

Objectives:

To report an initiative whereby renal nurses have incorporated the ‘look, listen and feel’ approach into their core pre dialysis assessment skills, including the utilisation of readily available resources.

Key Messages:

Vascular access monitoring has seen many advances in recent years, with introduction of ultrasound guided cannulation; access flow monitoring and the introduction of our valued vascular access nurses. However, with all the education and equipment available it is pivotal that nurses recognise their own importance, and their role in assessing the vascular access for each treatment. By developing assessment skills renal nurses develop confidence in their ability to assess the vascular access, and awareness they could determine a decline in access function, by utilising ‘look, listen and feel’.

Conclusion:

Vascular access is not infinite in longevity and must be closely monitored. The highly skilled renal nurse is integral to ensure early indicators of failing access are reported in a timely manner. Early intervention is paramount to prevent loss of access and undue stress for the patient.

46: Improving the renal nurses’ education experience: using an education needs analysis survey

Laura Austin[1], Nicola Parker[1]
[1]Queensland Health

Context

A nursing education needs analysis survey was conducted across an ever expanding, multi-campus renal service within Queensland, Australia to measure and evaluate the adequacy of the education currently being provided. Considering major constraints of having a limited educator workforce and budget, it is imperative that the effectiveness of this service be evaluated to stimulate innovative ideas for improvements in the future, despite these constraints.

Objectives

The fundamental goals to this survey were to illustrate a demographic picture of the nursing workforce and identify preferred learning methods. Assess nursing comprehension of the differences in the Clinical Facilitator and Nurse Educator roles. Obtain constructive nursing opinion and feedback on workplace education experience to help identify future strategies to market the educators’ role better and improve the renal nurse education experience.

Key Messages

A partial demographic description of the nursing team was formulated, having received a 50% response rate. Overall the survey revealed encouraging and positive feedback by distinguishing the key education being delivered well such as mandatory and National Standards training and running the Renal Transition Support Programme whilst identifying areas for improvement such as Nursing Research, personal career planning and general clinical skills training.

Conclusion

Many key themes have emerged from the abundance of information collected within this survey. Revealing an overall positive insight to how the current education service being delivered is viewed by renal nurses. Using this valuable feedback will enable a collaborative approach to initiate some of the necessary improvements required for future renal nurse education.

50: Cholecalciferol therapy for low serum Vitamin D levels in haemodialysis over 52 months – a prospective observational study

Casey Light[1], Hemant Kulkarni[1]

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Background

Effects of long term Vitamin D therapy in haemodialysis patients with low serum vitamin D levels are unknown. Short term trials have shown limited benefits with Vitamin D treatment.

Aim

To study the effect of long term oral Vitamin D therapy in haemodialysis population with low serum vitamin D levels on the haematological and biochemical parameters of bone chemistry.

Methods

A prospective observational study at outer metropolitan haemodialysis unit from 2009-2014 in 72 eligible patients (M49, F23). Oral Vitamin D was nurse administered at 6000 Units/week (Serum Vitamin D 50-75 nmol/L) or 18000 Units/week (<50 nmol/L) with 3 monthly monitoring of parathyroid hormone and serum Vitamin D levels. Effect of treatment on PTH, haemoglobin, Erythropoietin use, calcimimetic use, and parathyroidectomy is studied. Comparison was made with other satellite unit without use of Vitamin D therapy.

Results

Median (IQR) age (years), dialysis duration (years), follow-up period (weeks) was 61.3(51.8-71.6); 0.93(0.25-2.65) and 21(12-156) respectively. There were 25 deaths, 5 renal transplant and 9 unit transfers. PTH reduction was not significant beyond first 6 months with normalised vitamin D levels. At baseline (n 72), 12(n 51), 24(n 28), 36(n 19) and 48(n 11) months, mean (SD) for PTH were 47(16), 51(34), 60(32), 62(36), 74(45) and Vit D levels were 44(18), 73(19), 82(28), 95(31) and 76(23) respectively. PTH trend did not differ from the comparative dialysis unit.

Conclusions

Our study showed limited impact of vitamin D therapy on biochemical bone mineral parameters in haemodialysis population. Larger randomised study is recommended.

52: A new clinical handover tool for iPad using filemaker solution in the haemodialysis unit

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Context

Many researches have shown that up to 80% of medical errors are related to communication failure. Also, a recent study revealed that patient's complexity and medical compromise are associated with clinical handover information omissions and interruptions, which increases communication error and potentially harms to patients. Thus, effective communication throughout clinical handover is extremely important.

To achieve it, our unit has utilised chair-side handover in the beginning of the treatment. This chair-side handover has been successfully applied to our unit with the following benefits: effective communication, patients' involvement with their treatment, and patients' satisfaction.

When we applied chair-side handover, a paper-based handover tool was used. It has few demerits, such as the difficulty of searching patients, extra time-consuming for typing and printing, and the limited space of inputting complex information. Therefore, I have developed a Filemaker solution using identity-situation-background-assessment-request (ISBAR) structure for clinical handover that works in iPad, which overcomes all those defects of the paper-based handover tool.

Objectives

I will demonstrate functions of the new iPad clinical handover tool as a form of Filemaker solution and explain the benefits of using it. In addition, I will show the result of survey from nursing staff and patients, regarding clinical chair-side handover using iPad.

Key messages

Improved communication via chair-side handover with ISBAR structure using advanced technology can help seamless information sharing and eventually promote patient safety.

Conclusion

According to the result of the survey, over 80% of nursing staff and patients are satisfied with this iPad handover tool.

55: Single needle dialysis has an important place in our skill set

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Context

Single needle dialysis (SND) was first reported in 1964, but in a more primitive form than used today. It has failed to gain momentum since then, probably due to fears of back-filtration, recirculation and sub-optimal dialysis. Patient's dialysis care is becoming increasingly complicated by factors such as advancing age, additional co-morbidities, multiple surgical interventions of the same vascular access and increased length of time on the haemodialysis service. SND can be useful as a short term solution in this climate of complicated patient care.

Objectives

To raise awareness of SND as an appropriate option in selective patients and to examine the advantages and challenges in considering this form of dialysis therapy.

Key messages

SND is not suitable for every patient and for success, considerations need to be examined. SND can be an adequate option for a limited time, possibly avoiding further fistula surgery or vascular access catheters and therefore should be thought of as a realistic alternative.

Conclusion

SND is not preferable to standard double needle dialysis as a long term form of renal replacement therapy, but it certainly has a place in our skill set. Having the knowledge and skill to discuss and perform SND, can only be beneficial for our patients. SND has the potential to improve patient outcomes as well as reducing health care costs.

63: Treatment of severe calciphylaxis in a diabetic renal patient – case study

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Context

This case study involved a 63 year old man with diabetes and chronic renal failure. As his renal disease progressed he developed pain and bruising bilaterally on his legs. This rapidly developed into calciphylaxis with extensive wound breakdown including necrosis. While calciphylaxis has an estimated one year survival rate of 45.8 percent, mortality increases to 80 percent in the presence of ulceration.

Objectives

This presentation involves a brief discussion about the origins of calciphylaxis and the course of treatment. The patient was given intravenous sodium thiosulfate and low calcium dialysate to reduce the calcium build up and promote wound healing.

Key message

This rare condition is characterised by systemic medial calcification of the arterioles leading to ischaemia and subcutaneous necrosis. While the pathogenesis is poorly understood the patient experiences intense pain and often involves long recovery periods with extensive dressing changes. Although a serious condition there is hope for recovery through careful planning involving regular dressings and dialysis unit involvement including assisting with pain management.

Conclusion

Our patient journaled his condition with his smartphone and has kindly provided photos for our educational purposes. Finally the case study ends with an update on the patient's condition.

66: Working from within – effectively managing palliative care needs in a remote renal service

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Context

The prevalence of end stage renal failure in the Kimberley region of Western Australia is above the national average. Palliative care provision in remote WA is limited, focused on end of life care and reliant on overextended healthcare professionals. The innovation to employ a palliative care nurse within a renal service was introduced to provide the supportive and palliative care needs of end stage kidney disease patients regardless of treatment modality.

Objective

To formally report on the challenges, barriers and cultural considerations faced within this role, and to provide recommendations on how service needs might best be met. To implement new innovations in care provision, building capacity within the renal service to address the palliative care needs of ESKD patients.

Key Message

Development and implementation of a validated symptom assessment scale within the renal service. Showcase the strategies that improve understanding of the role of palliative care in ESKD through workshop and discussion groups.

Conclusion

The benefits of palliative care provision to ESKD patients and their families cannot be overstated. Remote locations should not be an insurmountable barrier.

69: Gauging the level of chronic kidney disease self-management behaviours of patients in a general practice

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Background

Chronic kidney disease (CKD) is a debilitating disease and people with CKD bear the primary responsibility for its day-to-day management. In order to effectively self-manage, these individuals need skill training and education. However, only one CKD specific validated instrument has been identified in literature.

Aim

To measure levels of CKD self-management in patients attending a General Practice.

Method

A cross-section of 78 adults with CKD stages 1– 4, recruited from a General Practice during 2015 completed the CKD self-management instrument (32 items; maximum score = 128). Additional data collected included demographic and renal characteristics.

Results

Participants' mean age was 67 (ranging from 31 to 88) years and 51.3% were males. Most of the participants had CKD stages 3a and 3b (65.4%). The majority of participants had completed high school (42.3%) and most were retired (64.1%). Self-management scores ranged from 51 to 125 (51 ± 125). Mean self-management scores were high across all CKD stages, with a large range of scores in the different stages. People with CKD stage 3B had the highest mean score (92.4 ± 16.9) while those with CKD stage 1, had the lowest (87.7 ± 22.9). Self-management scores were slightly higher in males (91.7 ± 17.8) than in females (90.9 ± 17.2).

Conclusion

Regardless of CKD stage, people are required to engage in self-management behaviours. This instrument could be used in Australia to identify those in need of education to enhance self-management, and whether self-management behaviours are sustained.

71: Tubulointerstitial nephrtis and uveitis (TINU) syndrome

Sally Webb[1], Catherine Dobson[1]
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Context

Tubulointerstitial nephritis and uveitis (TINU) syndrome is a rare, obscure disease characterised by two conditions: tubulointerstitial nephritis and uveitis. First described in 1975 there are less than 300 reported cases where the pathogenic mechanisms are poorly understood. Two recent cases presenting within 1 month provided increased interest within the nephrology department. Two case studies will be discussed, with biopsies confirming TINU. Once commenced on treatment both patients showed improvement in renal function and were discharged home with renal follow-up.

Objectives

This poster discussed the two case studies with TINU, including defining the condition including the renal impact, outlining the treatment course and management plans. The key nursing responsibilities related to renal and ophthalmology care will be outlined as part of their hospital stay and follow-up.

Key messages

Ongoing education regarding this rare renal disease is paramount for all renal nurses including and its presenting complaints, course of treatment, and the patient care provided. Research into TNIU is limited due to the disease being rare and under diagnosed, hence sharing this knowledge and undertaking further research is needed in this area.

Conclusion

Holistically providing patients with evidence based information and nursing care regarding their disease is imperative when dealing with any chronic illness. These patients not only have to deal with the diagnosis of renal disease but also their ophthalmology needs and ongoing treatment and any future concerns. Ensuring ward staff has the opportunity to learn about such rare conditions ultimately benefits the patients and the care provided to them.

73: Code black (personal threat) on the renal ward... when the mental health patient goes psychotic!

Christine Bond[1]
[1]Princess Alexandra Hospital, QLD

Location of the mental health renal patient within the hospital settings is paramount in providing specialised care and maintaining the safety and reduction of stress to other patients, visitors and staff. The paranoid schizophrenic patient on an Involuntary Treatment Order (ITO) refuses to go to haemodialysis because, they believe the machines are taking their blood. The patient then runs out of the ward.

Our team

a. Ordered urgent psychiatry review
b. staff member with good rapport followed patient
c. Security called

Patient returned, entered reception and grabbed scissors from desk.

1. Security phoned police
2. ADON alerted Code Black in progress
3. Receptionist and staff removed from reception
4. Security blocked reception exits
5. Ward patients safety checked
6. Policeman entered reception, grabbed patients arm holding weapon, instructed patient to drop weapon multiple times. Threatened patient with taser. Scissors dropped.
7. Antipsychotic medication administered under ‘show of force” (3 security officers, 1 policeman and 2 RNs). Escorted back to room
8. 2nd Psychiatric review ordered. Security and psychiatric nurse special ordered. Nil psychiatric nurses available, ward nurse specialled patient

Follow up

- ADON support, external counselling offered
- Prime/incident report completed
- Education regarding management of mental health patients
- Meeting with security
- Patient Safety formal review
- Staff

In order to provide a safe work environment for patients and staff, a designated area needs to be provided where there are psychiatric doctors and nurses qualified to manage and provide care to these mental health patients.

74: Be proactive and stop renal failure... keep blood sugar and blood pressure under control

Christine Bond[1]

[1]Princess Alexandra Hospital

To decrease renal failure we must keep blood sugar and pressure under control. Our kidneys are being damaged when our blood sugar and pressure are high. Hyperglycaemia and hypertension can be treated. Long term unstable blood sugars and hypertension lead to permanent irreversible damage to the kidneys. If left untreated progression to end stage renal disease occurs and without peritoneal dialysis, haemodialysis or a transplant, life cannot be sustained and palliative care is all we can provide. Diabetes and hypertension are the leading causes of kidney disease. If blood sugars and hypertension are managed, damage done to the kidneys maybe reversed, if not further damage and progression of the renal disease may be prevented.

Our ward has re-energised blood sugar and pressure management focusing on maintaining levels within normal limits through medication, diet, exercise, education and self-management. Nephrology, endocrinology and after hour-medical reviews provide medication management. Renal dietician, diabetic and physiotherapy reviews provide education so the patient can self-manage their renal disease independently at home. Regular blood sugars and pressures are recorded, medication administered and trends observed whilst in hospital. Collaboratively a formalised individual plan of care is provided for each renal patient.

Adherent patients can sometimes reverse their diabetes and renal failure through diet and exercise alone and sugar and BP medications can be reduced or ceased. Our kidneys play a vital role in sustaining life and we must look after them. The right medications, diet and exercise regimen increase kidney life and preserve renal function.

76: The importance of multidisciplinary approach to the care of young adult facing a serious illness

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Context

Goodpastures Syndrome (GS) is an acute illness causing rapidly progressive renal and lung injury because of the development of complement fixing antibodies towards type IV collagen. In the past GS was rapidly fatal but immunosuppressive and antibody removal treatments have dramatically improved prognosis. However treatment is aggressive and invasive. Most work has focussed on keeping the patient alive, but far less attention has been paid to ensuring psychological wellbeing during such intensive therapy.

Objectives

Through a case presentation, we aim to highlight the significance and importance of a multi-disciplinary approach to the care of an adolescent. Prioritisation of the emotional, psychological, social, peer and family factors and social isolation in addition to the medical therapy was needed to support adjustment to a frightening and life-threatening diagnosis.

Key Messages

A multi-disciplinary approach was paramount in providing this patient with the emotional, psychological and social support needed to allow her to cope with this devastating acute illness. Key interventions from the team included psychological education, individual and family therapy, diversional and harm minimisation strategies, practical support and liaison with community services for outreach support.

Conclusion

The involvement of the multidisciplinary team for our patient enabled to return home to regional Victoria with support from friends and family with relatively little damage to her psychological well-being allowing resumption of ‘normal life’.

79: Pharmacy service expansion for kidney patients

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Aim

To redesign pharmacy services for the purposes of expanding access to all kidney patients across the entire Hospital and Health Service.

Methods

A review of current services was performed and a future state plan developed. A gap analysis reported inequity of patient access to specialist kidney pharmacy care that was attributed partly to maldistribution and partly to insufficient resources. These works informed the successful advocacy of new positions and their inclusion into the redesign of the Kidney Pharmacy Service in 2014. The key deliverable of the Kidney Pharmacy Service is equitable access for all patients and timely pharmaceutical review.

Results

Outcomes included redesigning the advanced scope pharmacy assistant’s role from a supply role to an integrated part of pharmacy team. The pharmacy assistant now supports pharmacists’ work in outpatient clinics. Additionally pharmacists joined an existing multidisciplinary team in clinical decision making of dialysis dependent patients e.g. monthly blood reviews. Robustness was built into the service by skilling all pharmacist in both clinic and dialysis work resulting in a more resilient team. The redesign of the Service resulted in pharmacist time being released for the more professionally satisfying clinical work through efficiency gains.

Conclusion

The Kidney Health pharmacy team is providing outpatient clinics across the spectrum of chronic kidney disease, utilising an advanced pharmacy assistant. In addition pharmacists also provide services to dialysis and transplant patients. The innovations being achieved within the Kidney Health Service could be applicable to other chronic diseases settings.

85: Taking the anxiety out of cytotoxic administration in the renal setting: Renal ward and outpatient setting

Genevieve McLoughlin[1], Angela Henson[1]
[1]Princess Alexandra Hospital

Currently cytotoxic and bio/immune-modifying drugs are being used as part of patient therapy on the renal ward/outpatients, to treat various auto-immune and transplant related conditions affecting the kidneys. Commonly used cytotoxic drugs include: Cyclophosphamide, Cidofovir and Ganciclovir; whilst bio/immune-modifying drugs include Rituximab and Eculizumab. Frequency of administration ranges from one to seven doses per fortnight, dependent on drug type and patient location.

Safe administration of these medications in renal areas is reliant on nurse competence and confidence. National Safety and Quality Health Standard 4 dictates that medication safety requires the clinical workforce to be supported in the administration and monitoring of medicines, therefore highlighting the importance of staff education and confirmation of their knowledge, confidence and practical skills. Within our hospital it is mandatory for all nursing staff to complete online and practical cytotoxic waste/spill management training annually.

Informal discussions with staff from both areas reveal a varying level of confidence in cytotoxic spill/waste management and drug administration, therefore highlighting the need for further educational support. Previously various departments had developed local specialised resources to support nursing education however more recently, nurse educators of the Division of Medicine have taken a collaborative approach.

These strategies aimed at improving staff competence and confidence includes the development of a unified ‘Cytotoxic and Bio/immuno-modifying Drugs’ learning package; clarified and improved processes; standardisation of equipment and training and collaborative support.

88: Novel treatment for focal segmental glomerular sclerosis in chronic kidney disease – plasma exchange

Angela Henson[1], Sally Carpenter[1]
[1]Princess Alexandra Hospital, QLD

Context

Primary Focal Segmental Glomerular Sclerosis (FSGS) is an auto-immune disease atypically causing nephrotic syndrome, and often requiring treatment with immunosuppressive medication. There is typically a circulating protein in the blood that causes the glomerulus to leak protein. If these patients reach end stage renal failure their desire for a renal transplant as a strategy to maintain health carries a significant risk of disease recurrence resulting in transplant loss and return to dialysis. It is thought that this recurrence is due to the circulating protein damaging the new kidney. Plasma exchange (PE) has been used to treat recurrent disease post renal transplant, theoretically by removing the circulating nephrotic factor. Two patients with primary FSGS of their native kidneys and who had failed multiple pharmacological treatments were given a trial of plasma exchange.

Objectives

The two cases will be discussed where PE is successfully maintaining renal function and quality of life in the setting of FSGS. The patients' health histories will be examined including prescriptions, monitoring regimens and pertinent treatment considerations.

Key messages

Discussing nursing management strategies will increase confidence in current treatment alternatives, ensure staff are educated and be able to provide appropriate support to patients.

Conclusion

As experience increases with PE, this treatment is being considered a viable alternative for many renal conditions. As PE is largely regulated and monitored by nursing staff it is essential that we understand the treatment requirements, processes and long-term monitoring strategies in order to ensure effectiveness of this newer initiative.

90: A baby at last! An experience of the home haemodialysis unit

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Context

Incentives for home haemodialysis are traditionally aligned with improved quality of life, increasing flexibility and better health outcomes. Promoting home haemodialysis as a means of facilitating improved pregnancy outcomes for women would not be common. Women requiring dialysis are encouraged to wait until transplantation to conceive, as perinatal survival is 94% compared to 63% for women who are receiving dialysis at time of conception.

Objectives

To outline the medical management of a 37-year-old, morbidly obese, diabetic, home haemodialysis patient who successfully conceived and provide data related to pregnancy outcomes for women on dialysis.

Key Message

During the CKD stages of her renal disease, this woman did not attend her medical appointments and commenced dialysis without a permanent access plan and was introduced to home dialysis via our newly initiated transition program. After a short trial of peritoneal dialysis during which she had serious complications, she commenced home haemodialysis training. The self-management and resilience this woman has demonstrated throughout her pregnancy has been remarkable. She was able to increase dialysis intensity in the comfort of her home with continued support from her loved ones while sustaining employment.

Conclusion

The benefits of increased dialysis intensity in regards to improving fertility and pregnancy outcomes have become clearer during the last 15 years with foetal survival rates ranging between 70% and 90%. Home haemodialysis as an option for women who express a wish to conceive may not be utilised to its full potential particularly if the path to transplantation is difficult.

92: A glimpse at the future! Preparing for the renal component of an electronic medical record

Angela Henson[1], Sally Carpenter[1]
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Context

Regardless of the computer program utilised, transferring from a well-established paper based medical record needs extensive planning and consideration of work practices to ensure completeness in documentation and patient safety adherence. As part of a tertiary hospital with haemodialysis inpatient and outpatient services the breadth of data to be documented is considerable, with many forms specifically designed and ‘recrafted’ over the years to meet particular needs of the unit. Twelve months on and further integration was required to align with the remainder of the hospital and the introduction of Digital Hospital.

Objectives

As one of the first public hospitals to embark implementation of the electronic renal modules and integration with a digital hospital system, key strategies will be discussed in order to provide a starting-point for other units embarking on a similar route. In addition an understanding of the complexities in workflow, ensuring the large amount of the renal patients’ information is easy to navigate and access will be provided.

Key Messages

Practical considerations such as physical infrastructure, training and development, workflow and documentation mapping and support strategies will be outlined. The process of change is always challenging and confronting however a focus on the positive aspects and the benefits to the individual patient is paramount.

Conclusion

Extensive planning, team cohesion, flexibility and adaptability are vital to ensure staff acceptance of this significant clinical and organisational change. By sharing specific strategies related to renal domains we hope other units will be well prepared for this exciting and challenging endeavour.

93: Beta-2-microglobulin (β2m) amyloidosis in patients requiring haemodialysis: Should we still be concerned?

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Context

Patients with chronic kidney disease (CKD) requiring dialysis face the prospect of reduced life expectancy accompanied by significant loss of health related quality of life due to disease complications. Numerous studies have shown a direct correlation between a rise in serum β_2M concentration and increased mortality. Clinical manifestations of β_2M amyloidosis make up one such disease complication. Is the threat of dialysis related amyloidosis (DRA) still a reality in an era of advanced HD technology?

Objectives

To examine the pathology and symptoms of β_2M amyloidosis in kidney disease. Additionally to review current and historical levels of β_2M in a single tertiary haemodialysis unit using only high flux membranes accompanied by the most advanced HD technology available, and finally to look at currently available treatments for patients suffering such complications.

Key messages

An understanding of β_2M amyloidosis is essential for nurses caring for long-term haemodialysis patients. This is particularly so when a kidney transplant is not always a reality and the long-term complications of kidney disease are very real. Nurses need to be aware of the various treatments available for patients so that they may achieve better health outcomes.

Conclusion

β_2M amyloidosis is an insidiously accumulative disease that can have devastating consequences for patients with CKD on dialysis. Fortunately the clinical incidence seems to have reduced noticeably over the past 25 years. As a consequence DRA is now an inadequately researched area of dialysis with respect to the current treatments and trends in clinical manifestations.

98: Exercise on dialysis: Implementing the kidney health Australia program

Jennifer Osborne[1], Reality Manyuchi[1]
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Context

Intradialytic exercise has been shown to improve numerous outcomes for haemodialysis patients, including improved quality of life, increased fitness, improved mental wellbeing, improved blood glucose control, improved blood pressure, and reduced muscle cramping. The nursing staff in our unit continue to seek quality improvement activities that work towards increasing best patient outcomes. The Kidney Health Australia (KHA) Exercise on Dialysis program was researched and implemented for our haemodialysis patients.

Project objectives

1. Review the KHA Exercise on Dialysis program and assess the viability and sustainability of implementing it in our service
2. Educate and engage staff in the delivery of the program
3. Educate, engage and consent the patients in the participation of the program
4. Improve patient care and quality of life

Key messages

The KHA Exercise on Dialysis program has been embraced by both staff and patients improving morale and community spirit in the unit. It has taken key staff, with a fun positive attitude, music and colour to sustain the exercise program. Staff from our unit have been nominated for staff excellence awards for the implementation of the program.

Practice implications

The focus of this project was to improve patient quality of life while on dialysis, aiming to improve lower limb strength, enhance correct gait, and reduce the falls risk for patients. The unexpected outcome of this program was lifting the attitude of the patients and staff involved and creating a fun atmosphere promoting health and wellness in a difficult setting.

99: Remote renal anaemia management: Keeping people in the community

Jen Bakker[1], Leanne Mills[1]
[1]Austin Health, VIC

Historically, at our facility, we have managed a cohort of patients who only attend renal outpatient appointments to obtain a prescription for their Erythropoiesis Stimulating Agent (ESA) from their nephrologist. Many of these patients will never require dialysis and will be managed under the supportive care model. In general, patients managed with supportive care are older, frailer and have more co-morbidities than patients managed with renal replacement therapy, and often find attending such appointments difficult and burdensome.

To ensure that these patients received appropriate care without having to attend regular renal appointments we have devised a sustainable, ongoing referral system and clinical pathway for the remote anaemia management of chronic kidney disease patients by Renal Anaemia Clinical Nurse Consultants. These nurses receive referrals for patients and develop a patient centred system of care that involves both in-hospital expertise under the guidance of a nephrologist, and community liaison. These referrals can be received from multiple sources including primary care, aged care, palliative care, general medicine and nephrology.

Blood results are monitored at least three monthly and new prescriptions for ESA and iron infusions are organised as necessary. Any changes are reported to primary care givers. Renal function is assessed and patients are only required to attend a renal outpatient appointment annually to be reviewed by a nephrologist. This program aims to reduce carer and patient distress, inconvenience, transport costs, and assists with optimising the use of limited renal outpatient resources.

104: Advancing collaborative practice between renal and palliative care services to improve the care of people living with stage 4/5 chronic kidney disease (CKD)

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Context

Research shows that older people with Stage 4/5 CKD, have multiple and complex care needs. A palliative approach aims to improve the quality of life for people living with a life-limiting illness by maximising comfort and function, and reducing physical symptoms and distress – psychological, spiritual or social. This approach to care is the basis of the renal supportive care model.

Objectives

To improve the quality of life of people with stage 4/5 CKD living in Southern Tasmania by increasing the knowledge, skills and confidence of the Renal Team to further develop a renal supportive care model, and promote collaborative practice between health care services and providers.

Key messages

A dedicated position has been funded for a Clinical Nurse Consultant - Specialist Palliative Care Service, to work collaboratively with the Renal Service from February 2015 to June 2016. Relationships with key stakeholders have been established through a variety of activities, including working groups, newsletters and shared educational opportunities. Areas of focus include symptom identification through the use of iPOS-RENAL, symptom management, communication workshops, advanced care planning and liaison between renal and palliative care services.

Conclusion

Collaboration between the Specialist Palliative Care Service and Renal Service in Southern Tasmania has fostered multiple opportunities for the development of a renal supportive care model. Further evaluation expects to demonstrate an improvement in the quality of life for people living with stage 4/5 CKD.

106: Foot assessments in the haemodialysis unit: Their importance in preventing diabetic foot complications: a literature review

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Context

The incidence of Haemodialysis patients with diabetes is increasing and requires closer attention from the multidisciplinary team. Diabetic nephropathy is a leading cause of patients commencing dialysis. The financial costs associated with hospitalisations from diabetic foot complications are considerable, notwithstanding the resulting psychosocial hardships experienced by patients.

Background

The importance of foot care, education and assessments has been identified by many authors in this literature review; however a practice change to regular foot assessments of Haemodialysis patients with diabetes has not occurred widely.

Diabetic haemodialysis patients have a higher probability of mid-leg amputations than non-diabetics. Survival rates after amputation are variable and have been compared to survival rates post coronary artery bypass graft surgery, breast cancer or stroke.

Key Messages

The primary nurse foot assessment is a valuable opportunity for proactive monitoring of the patient's feet and subsequent referral to the podiatrist for early diagnosis. Timely interventions may lead to prevention of adverse events for the patients. Striving for optimal outcomes may reduce patients' personal hardships, lengthy disability and healthcare costs.

Conclusion

Proactive foot assessment has been highlighted by many studies but a change of practice has not been widespread. Primary nurses are able to identify at-risk feet. Improving access to skilled healthcare providers such as podiatry and the multidisciplinary team assists in prevention of lower extremity amputations and adds value to the primary nurse role.

107: Addressing inequity in renal care access for CKD 4-5 clients with a cross-border solution

Megan Hughes[1]

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Context

A renal network evolved to provide renal outreach clinics and dialysis, both in-centre and home therapies in the adjoining states' local regional and rural areas. A renal electronic medical record (EMR) was initiated to facilitate communication between the network's multiple sites with single source, accurate and up to date clinical records for the renal multidisciplinary team. Renal outreach clinics save patients up to a 3 hour drive each way for their renal physician review or for in-centre dialysis treatment.

Objectives

To provide the same access to renal care for clients living in regional and rural centres as clients in a metropolitan area. Monthly CKD teleconferences are held between the CKD outreach nurses, CKD coordinator, renal CNC, renal home therapies CNC, and vascular access nurse from either side of the border. The main purpose of the teleconference is to identify potential self-care dialysis clients, and to identify future demand in those in-centre dialysis units.

Key messages

Patients appreciated local access to renal care and reduction in travelling. CKD outreach nurses actively engaged with EMR use. Single source information improves communication between network members and avoids cross-border barriers that can interfere with timely and appropriate patient care.

Conclusion

Rural CKD 4-5 clients have improved local access to renal services coordinated by a tertiary hospital outside their own state. Health departments in two jurisdictions can provide coordinated collaborative local care to a formerly disadvantaged group of rural clients.

112: Creating a patient centric home therapies approach across a large network: A capital experience

Anne Maguire[1]

[1]Canberra Hospital & Health Services

Context

Separate peritoneal dialysis and home haemodialysis teams existed in our service and were managed by separate supervisors resulting in a disjointed service delivery. Patients in southern NSW wishing to undertake dialysis at home were required to travel to Canberra for education training and follow up.

Objectives

The objective was to improve efficiency by combining the two home based therapies and including patients in southern NSW. A dedicated clinical nurse consultant (CNC) coordinated the program and ensured a consistent message about the benefits of home dialysis. A patient centric approach demanded that patients in the rural areas of our network would be afforded education, training and follow up in their local area rather than have to travel to the parent unit.

Key messages

The team was co-located in a redesigned unit. Change management principles were important to achieve a gradual transition to a combined unit. Southern NSW nurses and the CNC aligned policies and procedures with ACT documents. Experts in both modalities were retained but all nurses were trained to perform the functions related to both therapies. An on-call system for home patients was developed utilising these nurses who were known to the patients.

Conclusion

Peritoneal dialysis education, training and follow up are now performed locally. Replication for home haemodialysis is planned for 2016. Information and instruction are coordinated across the network and there is a greater interest of patients in the rural area.

114: A clinical tool for early detection of arteries-venous (AVF) stenosis and thrombosis

Huili Li[1], Jane Crossett[1]
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Background

AVF stenosis and thrombosis has a high mobility rate among haemodialysis patients, venous stenosis is the major cause of this complication. Early detection and intervention of AVF stenosis is crucial in order to keep the access patent for each dialysis treatment, avoiding emergency access procedures and hospitalisations.

Aim

Adequate and frequent access surveillance plays an important role in prevention of stenosis. Although ultrasound (U/S) is used as a gold standard to diagnose fistula stenosis, it often requires a pre-booked appointment and it's not practical to be used as surveillance for all dialysis patient .It is more effective to develop a local clinical tool for daily fistula surveillance.

Method

Three months retrospective study was conducted in a satellite dialysis unit, 72 patient's venous pressure (VP) was monitored during each dialysis session. Elevated VP ≥160mmhg with blood pump (QB) 300mls/min in five consecutive dialysis sessions is considered high VP.

Results

During the study period, 8 patients were identified of having high VP, of which 6 were confirmed having a high grade venous stenosis of their AVF by U/S. This resulted in further vascular interventions being required. The other two patient's fistula stopped during dialysis and both need emergency hospital admissions.

Conclusion

In conclusion, VP can be used as a reliable clinical tool in early detection of venous stenosis, therefore appropriate action can then be taken to ensure the vascular access is patent for the next scheduled dialysis treatment.

115: Tumour lysis syndrome causing acute kidney injury: A case study

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Context

Tumour lysis syndrome occurs in response to chemotherapy treatment in patients with untreated solid organ and haematological tumours. The administration of chemotherapy results in the release of intracellular ions rapidly producing hyperkalaemia, hyperphosphataemia, hypocalcaemia and hyperuricaemia. The electrolyte disturbances can cause cardiac arrhythmias, seizures and renal failure.

Objective

To illustrate the safe and highly effective use of haemodialysis in intensive care (ICU).

Key Message

We present a case of a 44 year old man to illustrate the use of haemodialysis in unwell ICU patients. This patient was unresponsive due to cerebral leucostasis from untreated chronic lymphocytic leukaemia. His past medical history included stage 3A chronic kidney disease. His total white cell count (WCC) was 852 X 10 ^ 9/L. On admission his potassium was 8 mmol/L, phosphate 3.3mmol/L, calcium (adjusted) 2.21mmol/L, urate 1.43 mmol/L and creatinine 176umol/L. Urgent renal replacement therapy (RRT) was required to manage his hyperkalaemia and to prevent urate or calcium- phosphate deposition in the renal tissue as further renal injury would reduce the ability to administer urgent chemotherapy. Haemodialysis was administered twice for 6 hours with a high flux dialysis membrane, a blood pump speed of 300-350 mls/min, dialysate flow rate of 700mls/min with no anticoagulation. Electrolytes were brought into a persistent safe range. Chemotherapy was administered after dialysis. This patient was discharged a month later with normal WCC, electrolytes and renal function.

Conclusion

Utilising acute haemodialysis as RRT in ICU can be lifesaving.

122: The introduction of hand held ultrasound machines: What impact has it had on vascular access cannulation in satellite haemodialysis units

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Background

Arteriovenous fistula (AVF) as vascular access for haemodialysis is the standard for patients with ESRD. The cannulation of vascular access is dependent on access assessment and technique. Dialysis treatments are dependent on cannulation success. In October 2015 our renal unit purchased 5 handheld Pre Vue ultrasound machines. These were distributed to all of our metropolitan satellite haemodialysis units.

Aim

To determine the impact of introducing hand held ultrasound cannulation on transfers to the acute unit, following unsuccessful cannulation in the satellite units.

Method

Following the introduction of Pre Vue ultrasound machines in services were conducted in July 2015, in all satellite units, demonstrating practical AVF assessment and ultrasound guided cannulation. Patients with new and high risk arteriovenous fistula were particularly recruited for ultrasound guided cannulation. A record of each cannulation attempt was documented at each satellite unit using a standard excel worksheet.

Results

Pre implementation 211 patients transfers to acute centre, male 135 female 76 (64% vs 36%) Post implementation 103 transfers, male 68 female 35 (66% vs 33%) and pre vs post (6% vs 7.7%) related to cannulation issues. 1 case from satellite unit with ultrasound availability.

Conclusion

Hand held ultrasound guided cannulation has increased in the satellite and in centre units, and has assisted in successful cannulation and completion of dialysis; thereby reducing the transfers into the acute unit for cannulation assistance.

124: A systematic review: a practical application of heel specific interventions for preventing heel pressure injury

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Background

A peritoneal dialysis patient on a renal ward developed a suspected deep tissue injury (SDTI) on his heel, requiring a below knee amputation. A systematic review was initiated as a response. A review of clinical incidents in the preceding year showed there had been 3 heel SDTIs.

Aim

To determine the effectiveness of heel specific interventions in preventing heel pressure injury (PI).

Method

A systematic review was conducted. Criteria for studies considered included randomised controlled trials that assessed the effects of heel specific interventions and measured heel pressure ulcer incidence.

Results

284 studies were identified; 4 met the inclusion criteria. One study compared heel suspension boots to standard care. There were no PIs in the intervention group (n=120) and 17 in the control group (n=119). The second study compared sheepskin overlay/booties to standard care. There were 2 PIs in the intervention group (n=155) and 28 in the control group (n=142). The third study compared mepilex heel to standard care. There were 5 PIs in the intervention group (n=161), 19 in the control group (n=152). The fourth study (n=240) compared 3 different heel devices and found no statistical difference in pressure ulcer incidence between the groups.

Conclusion

Heel elevation plays an important part in preventing heel PI. Mepilex heel or sheepskin overlay/booties may aid in the prevention of heel PI. Consequently, all renal inpatients are provided with a heel wedge and mepilex heel on admission. To date, 10 months post intervention, there have been no reported SDTIs in renal inpatients.

125: Impact of neuropathic pain in a Fabry patient cohort

Elizabeth Centra[1], Donna North[1]
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Background

Fabry disease, a genetic multisystem disease, causes progressive renal, cardiac and vascular disease. Although rare, it is disproportionately represented in renal patient cohorts, where previously undiagnosed patients may be recognised via vigilance for associated symptoms. Neuropathic pain in the hands and feet commonly begins in childhood and may continue throughout adulthood.

Aim

To assess overall and neuropathic pain burden in our cohort of Fabry patients, using the brief pain inventory (BPI) and records of analgesic intake.

Method

We administered serial BPI questionnaires prospectively and routinely to all Fabry patients ≥18yrs, at baseline prior to commencement of treatment, then 6-monthly. Reported pain levels were collated, together with analgesia use. Data for patients >5yrs post enzyme replacement therapy (ERT) were explored.

Results

Baseline data were collected from 37 male and 64 female patients, aged 18 – 68 years. Neuropathic pain was reported by 65% of males compared with 22% of females. 41% of males required regular analgesia for pain. 27% used neuropathic analgesics compared with 7.8% of females. 10-yr data were available for 18 patients (15 male), in whom prevalence of reported pain was stable (83% baseline vs 88% yr10). The rate of neuropathic analgesic use at yr10 (77%) was similar to baseline (64%).

Conclusion

Neuropathic pain is common in adult Fabry patients, and actively seeking its history in undiagnosed male CKD patients may help specific diagnosis. Prevalence of reported pain in our cohort remained stable over time, and BPI use helps monitor effectiveness of pain management.

126: Management of paediatric haemodialysis vascular access in Queensland

Jo Jones[1]
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The dialysis literature based on outcomes for adult patients reflects that those receiving haemodialysis treatments fare much better when receiving therapy via an arteriovenous fistula (AVF) rather than a long term central venous dialysis catheter. Infection rates and catheter dysfunction are the main reasons reported that make permanent catheter access inferior.

The reality in Queensland is that the overwhelming majority of paediatric patients receive haemodialysis treatment via long term dialysis catheters. In paediatric haemodialysis patients, AVF can be difficult to create and maintain in young children.

With this high catheter use in mind, infection rates on long term chronic dialysis catheters are collated and reported as key performance indicators every 2 months.

Over the past 3 years, the rates of infection are considerably lower than those reported in the literature. The catheter failure rates are also extremely low. It would appear that no one thing stands out as being responsible for the favorable results but rather a group of practices. I would like to share the nursing practice that is undertaken at the pediatric center which has significantly contributed to these ongoing results.

The predominant use of long term haemodialysis catheters will continue due to the specific circumstances of the paediatric group here in Brisbane. I believe the ability to greatly reduce the rates of infection and failure of catheters does make the option of long term catheter access in paediatric patients more acceptable.

131: Improving peritonitis rates: A clinical practice improvement project

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Background

Peritonitis is the leading complication of peritoneal dialysis (PD). It contributes to technique failure, hospitalisation and is sometimes associated with patient death. For PD to be successful close attention must be paid to preventing PD related infections. In this PD training unit peritonitis infection rates are below current International Society for Peritoneal Dialysis (ISPD) guidelines. Therefore a Clinical Practice Improvement (CPI) project was implemented to deal with this important issue.

Aim

The aim was to reduce incidents of peritonitis in our PD patients by 50% within 18 months. Through Plan Do Study Act (PDSA) cycles we aimed to identify processes which could improve peritonitis rates in our patients.

Method

We performed a 6 hour observation study where activity within the training environment was recorded. To assess patient recollection, knowledge and retaining of training information specific to peritonitis, our patients were asked to complete a questionnaire.

Result

The training environment was easily interrupted by outside staff, other patients or visitors. We have had over 50% response from the patient surveys, which have identified some patient specific areas that need to be addressed in our training schedule.

Conclusion

We were able to create a calm training environment through changes to access to the training unit and the layout of the training area. Patient knowledge and recollection of information specific to peritonitis continues to be addressed through our training.

132: Introducing supportive care assessments for patients on in-centre haemodialysis: improving the quality of care for patients with chronic kidney disease

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Context

Internationally it is recognised that the dialysis population is increasingly getting older with increasing co-morbidities and symptom burden. Some evidence indicates that patients with chronic kidney disease have a similar symptom burden as patients with cancer. It is not uncommon for patients not to mention their symptoms or that they are in pain. Symptom management is key to improve the supportive care of renal patients and improving the knowledge of renal health care professionals.

Objectives

To document the process and learnings of introducing supportive care assessments for patients on in-centre haemodialysis in a large Renal Service from both the staff and patient perspective.

Key messages

Including a dedicated nursing lead to provide overarching clinical leadership and mentoring resulted in the successful implementation of supportive care assessments. The development of a formal education plan fostered commitment and support from key stakeholders. Collaboration with medical officers and nurses to identify barriers and to adapt the process at each implementation phase maintained sustainability.

Conclusion

Implementation of supportive care assessments has improved nursing awareness of symptom burden experienced by patients they care for. It has facilitated management of patient's symptoms that were not previously reported or recognised. Self-assessment using the supportive care tools allowed patients on in-centre haemodialysis to report perceived symptom burden which they may not otherwise report including psychosocial issues. The result reinforces that symptom assessment and management are integral components of quality care for patients with advanced kidney disease.

135: Prospective comparison of a transparent film dressing and gauze dressing for central venous catheter exit sites in an acute haemodialysis population

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Background

Central Venous Catheter (CVC) exit site dressings in haemodialysis patients provide a barrier and help prevent line dislodgment. However, it is unclear what type of dressing is most appropriate.

Aims

In this randomised prospective study, we evaluated the clinical performance of a transparent film dressing with a chlorhexidine gel pad (film) with a standard gauze dressing (gauze) in haemodialysis patients using CVCs in an acute dialysis unit (n=11 each). Our hypothesis was that film dressing requires less dressing changes than gauze, and that its water proof properties offer lifestyle advantages.

Methods

To test this we documented frequency of dressing change, scored performance of dressing (including ease of application, adherence, catheter securement, absorption of exudate) and patient satisfaction over a 4-week period.

Results

There were no differences in gender balance, age or catheter vintage (days post CVC insertion) between groups. Other than a single episode, film dressings were changed every 7-days in accordance with CDC guidelines while gauze dressings were changed each dialysis session (3x per week). Overall dressing performance was better in the film group than the gauze cohort (1.1 vs 2.5; $p<0.001$), as was patient satisfaction (median rating 2 vs 3; $p<0.001$). All 11/11 patients with film dressings were able to shower compared to 1/11 patients with gauze.

Conclusion

Our results indicate significant improvements in clinical utility and patient experience with different CVC dressings. Although specialist dressings are more expensive, there is a need for less frequent dressing changes, but a full economic analysis is warranted.

138: Reducing the burden: Dedicated kidney transplant accommodation for country patients

Sarah Bailey[1]
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Context

A survey of renal unit social workers indicated a growing need for dedicated accommodation for country and interstate kidney transplant patients across Australia. These patients are emotionally and financially disadvantaged by being away from their families, support networks and employment for an extended period. Even with the government subsidy, out-of-pocket accommodation costs are often crippling for patients and it can be difficult to secure suitable housing at peak times. The emotional impact can be significant with many patients experiencing isolation and anxiety.

Objectives

To improve the quality of life for country and interstate kidney transplant patients by providing housing and support to reduce the financial and emotional burden of extended metropolitan stays.

Key messages

- There is a need for dedicated, purpose-built kidney transplant accommodation across Australia
- High quality and free accommodation for country and interstate patients
- Reduce the emotional and financial burden on country patients
- Additional support for patients throughout their transplant journey

Conclusion

In 2014, the first dedicated, purpose-built kidney transplant apartment was opened in Melbourne for country and interstate patients. To date, nine patients and their families have utilised the free accommodation which includes dialysis plumbing. Feedback surveys indicate the accommodation improved the quality of life during recovery for 100% of patients. The program is strongly supported by the renal unit social workers. Evaluative evidence will be used to continue to assess the effectiveness of the transplant housing program. Consideration is being given to different models of operation and expansion of the program to other states.

140: An intergrated team approach to home therapies

Beverley Griffin[1], Aton Din[1], Marianne Vinski[1]
[1]Northern Health, VIC

Our health service established an independent renal service in 2013 and hence was in the rare position of being able to design a multi-disciplinary model which could be targeted to meet the needs of a contemporary stage 4 and 5 kidney disease population.

One primary objective of the model was to support more holistic preparation of and support for people who choose home therapies, with outcome objectives of increasing home therapy uptake, home dialysis sustainability and decreasing incidence of admissions for this population. Our demographic represents an elderly and culturally diverse population with higher than state average socio-economic disadvantage.

Our Home Team and Renal Allied Health EFT consist of:

KD and Home Dialysis Coordinator	1.0
Home Dialysis Nurse	2.0
Dietitian	1.0
Occupational Therapist	0.6
Social Worker	1.0
Pharmacist	0.8
Podiatrist	0.4
Psychologist	0.5

The POS-S Renal patient survey tool was introduced in 2015 to enhance identification of patients' symptom burden and generate timely consultation with the medical and allied health team.

The potential for success of this approach is exemplified in this case study of MM, a 70 year old widow who lives alone. Interventions by the team pre-dialysis, during PD training and once establish on APD have resulted in only one admission, for an inferior STEMI, in nearly 2 years on home therapy.

Our health service renal workforce was designed to better meet the holistic needs of people who are living with kidney failure and to strengthen home therapies.

141: Quality of life in Victorian Fabry patients, as measured by the sf-36, is significantly diminished

Donna North[1], Elizabeth Centra[1]

[1]The Royal Melbourne Hospital, VIC

Background

Fabry Disease is a lysosomal storage disorder, which causes progressive decline in renal, cardiac and vascular systems, and is represented in all major Australian CKD cohorts. For many patients, especially males, the disease can be a significant burden on physical and mental health.

Aim

To evaluate physical and mental functioning of Victorian Fabry patients compared with Australian population using the SF-36 (Quality of Life) questionnaire.

Methods

The SF-36 was administered prospectively to all Fabry patients' ≥15yrs, at baseline prior to treatment. SF-36 scores were standardised to obtain %values correlating to 8 health dimensions. Results were expressed as mean ± SD, and compared to population norms. Norm based scores (NBS) for physical and mental components from the 8 dimensions were also analysed.

Results

Data from 96 patients aged 15-80yrs were analysed; only 2 had received any ERT prior to baseline questionnaire. Mean SF-36 scores for Fabry males (n=34) were significantly lower than the non-Fabry male (n = 1470) scores across all eight dimensions (All $p<0.01$). Norm based scores for physical components for Fabry males were significantly less than non-Fabry male scores (43.1±10 vs 51.3±10, $p<0.0001$) as were mental health components (46.7±10 vs 53.5±10, $p<0.0004$).

Conclusion

Fabry Disease has significant negative impact on quality of life of adult Fabry males. Awareness of this may assist renal staff to meet their care needs in the hospital setting.

142: A complex patient with calciphylaxis managed at home by the home dialysis team with her husband as carer

Kate O'Brien[1], Lionel Holt[1]

[1] Eastern Health, VIC

Context

Mrs T has been managed by our health service following the failure of her cadaveric renal transplant in November 2013. She received haemodialysis initially in the Satellite dialysis unit, and was eventually trained for quotidian home haemodialysis as a means of providing improved calcium/phosphate clearance. Her husband, a former RN, had been trained to perform haemodialysis in the home, while administering sodium thiosulphate with each treatment, as well as IV antibiotics when required. Following the failure of the fistula in December 2015, Mr T was retrained to haemodialyse via a permcath. Mrs T is a complex patient with multiple co morbidities including: insulin requiring type 2 diabetes mellitus, focal segmental glomerulosclerosis, haemodialysis 1980-1989, cadaveric renal transplant 1989, dyslipidaemia, gout, osteoarthritis, atrial fibrillation, transient ischaemic attacks, obesity.

Objectives

To look at the management of a patient with complex medical issues in home dialysis.

Key messages

Using a varied supportive approach home dialysis is an excellent way to manage complex patients, offering possibility of extended hours of dialysis, support of the carers, patients and their families.

Conclusion

It is possible to manage medically complex haemodialysis patient with calciphylaxis at home.

144: A sudden unexpected vaginal loss

Kate O'Brien[1]

[1] Eastern Health, VIC

Background

Leakage of peritoneal dialysis fluid has been described around the peritoneal catheter, through surgical wounds, inappropriately causing hernia, or into the pleural space. This case describes unusual per-vaginal leaking of PD fluid and its management.

Case

A 70 year old with a history of hysterectomy and oophorectomy developed end-stage kidney disease secondary to nephrosclerosis. An elective peritoneal catheter was inserted without complications, and CAPD training was commenced 4-weeks later. One week post training the patient reported having wet underwear. A multi-stix dipstick was placed on the underwear during a 1L dwell revealed 4+ for glucose. Dipstick of the urine at that time was negative for glucose. A CT peritonealogram and an examination under anaesthesia were performed; however, no peritoneal-vaginal fistula was observed. The patient then underwent a cystoscopy and laparoscopy after dwelling a PD exchange with methylene blue. No fistula was seen. The only finding was a severely atrophic genital tract due to age and post–menopausal state. Due to the suspected PV leak via an atrophy vagina, CAPD was suspended. Oestrogen pessaries were used to increase vaginal wall thickness. After 4 weeks, PD was restarted with 500mL Icodextrin overnight when supine, dwell volumes were slowly increased. The patient is now performing CAPD without recurrence of fluid leak.

Take home message

Managing the unexpected can be simple once you identify problem

Conclusion

We describe a successful method of detection and management of a PD-related vaginal leak in an elderly woman commencing PD.

145: The dialysis optimal health program: A duty of care

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Background

Despite extensive evidence of the severe stresses and high rates of psychological co-morbidity in patients with end stage kidney disease (ESKD) undergoing maintenance dialysis, psychological intervention trials remain rare. In dialysis units, most psychiatric services remain reactive, treating those who are referred with obvious symptoms, representing only a small fraction of those we know to be affected.

Aims

There is a compelling case for routinely providing psychological interventions to prevent such co-morbidity, to improve coping, well-being, quality of life and level of function. This is particularly so in the first year of transition to life on dialysis.

Methods

We are conducting a randomized controlled trial of a psychosocial support program, the Dialysis Optimal Health Program (DOHP) within the dialysis service of major metropolitan hospital in Melbourne. We are studying patients transitioning to dialysis over a twelve month period and recruiting over 3 years. Measures at periods over the 12 months assess the primary and secondary outcomes QOL, treatment compliance, healthcare utilisation and level of function as well as coping, illness beliefs, and illness perceptions.

Results

Preliminary results will be included.

Conclusion

This study is a "world first" trial of the effectiveness of a psychosocial support program in reducing the risk of depression and anxiety in patients with ESKD. It is informed by earlier studies undertaken by our group demonstrating the feasibility of such a program in this patient cohort.

147: End stage kidney disease symptom screening: An occupational therapy perspective

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Background

Within the satellite haemodialysis units of a large metropolitan renal service the impact of end stage kidney disease (ESKD) symptom burden was not routinely screened. Consequently patients did not always receive timely referrals to health professionals to assist in symptom management.

Aims

To (i) implement validated tools to measure symptom burden and quality of life indicators in people with ESKD; (ii) improve appropriateness and timeliness of referrals to support services, e.g. allied health; (iii) monitor the impact of intervention strategies on quality of life in people with ESKD

Methods

The Palliative care Outcome Scale – Renal (POS-S-R) was administered to 77 satellite haemodialysis patients across three satellite haemodialysis units. A pathway was developed to generate referrals to health professionals able to assist in the management of each symptom.

Results

The symptoms most prevalent in this population were weakness and low energy 44%, poor mobility 34%, difficulty sleeping 32% and pain 27%. This single screening using POS-S-R generated 27 referrals to occupational therapy. Occupational therapy input with these patients included fatigue and pain management education, environmental modifications and equipment prescription. Formal review identified goals of treatment in a majority.

Conclusion

POS-S-R in conjunction with referral pathways improved referrals to occupational therapy for patients burdened by ESKD symptoms. This improved the accessibility of occupational therapy services to this patient group and provides a platform to discuss the impact of these symptoms on their activities of daily living.

151: Profound hyponatraemia in a stable peritoneal dialysis patient due to diluted dialysate

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Background

Hyponatraemia in peritoneal dialysis patients is often attributed to excessive water consumption or malnutrition. We report such a presentation not associated with patient factors.

Case Report

A 71 year old woman, stable for 8 years on automated nocturnal peritoneal dialysis, presented to a tertiary hospital in NSW in 2015. She was acutely confused and had significant peripheral oedema. Blood tests revealed marked hyponatraemia (113 mmol/L; NR 135-145) and hypotonic serum (256 mOsm/Kg; NR 275-300). With continuation of her usual daily dialysis regimen including two 2.5%, 6L glucose bags, she made a complete recovery over 5 days.

The patient's dialysis technique had been excellent with no prior concerns regarding excessive fluid intake. Consequently, we were suspicious that this illness may be due to the use of diluted dialysate. Samples taken from some of the patient's unused bags were tested at the hospital and one was found to be approximately 75% diluted. The dialysate supply company confirmed our results finding several of the patient's bags to be significantly diluted, while others were normal. The NSW Ministry of Health was notified and a nation-wide recall of the affected dialysate batch was conducted. The cause of the dilution was determined to be a manufacturing error in the dialysate production process, whereby a quantity of distilled water, meant to be flushed to the waste, remained in the bag filling line.

Conclusion

Severe hyponatraemia is uncommon in patients on peritoneal dialysis. In this case, it was due to the use of significantly diluted peritoneal dialysate.

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Michaela	Kelleher	86 (p. 71)	87 (p. 88)									
Jaimon	Kelly	19 (p. 62)										
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