1. Peritoneal Dialysis Home Support Nurse Project

Peritoneal Dialysis Unit, Royal Columbian Hospital
Leader: Heather Zadorozniak
Team members: Susan Hanna, Ina Graham, and Karen Mahoney

Once a newly trained Peritoneal Dialysis (PD) patient is competent and safe to perform self-dialysis, there is little opportunity to review/assess their PD technique except during outpatient clinic visits. After learning a new skill, adult education principles indicate a need for repetition/reinforcement of learning at one week, one month, and six months to ensure competency/confidence.

This project aims to have a PD nurse provide home visits to new patients at strategic intervals once training is complete. It would also offer re-training to ensure technical competency for patients who have peritonitis or recent hospitalization. The visit would include review of a patient's PD prescription, technique, medications, physical examination, and a survey of their confidence in self-management. A risk assessment tool is used for consistent data.

The project's goal is to retain patients on PD and reduce peritonitis episodes by providing assessment/intervention for new patients or those at risk for PD failure.

2. Road to creating and developing a new peritoneal dialysis training manual

Peritoneal Dialysis Unit, Royal Columbian Hospital
Leader: Marianne Robbie

Staff in our Peritoneal Dialysis (PD) Unit felt that our old PD training manual was not meeting the learning needs of our current patient population. Literature on adult learning principles indicates that most adults read at a grade 6 level. Knowing this encouraged us to engage with two public school educators who were able to give us some insight into how to write a new manual using the appropriate language and pictorial formatting.

Meeting and working collaboratively as a team (nurses, dieticians, social workers) we brainstormed about vital PD content and the manual formatting. After the initial meetings, two educators and a nurse clinician then began to create a draft of the new manual. After numerous proof-readings and revisions we finalized our new manual. We then took the final draft to patients and some family members for their input. Currently, we are experiencing great feedback from patients, families, other health care professionals, and PD Units.

3. Successful implementation of the BCPRA anemia protocol in the BC Northern Renal program: Challenges encountered and suggested innovative process implementation using a continuous quality improvement platform.

Northern Renal Program: Prince George Dialysis Unit, Northern Independent Dialysis Unit, Northwest Community Unit, and Fort St. John Community Unit

Leader: Diana Sloan
Team members: Susan Wood, Sheri Yeast, Tania Wiebe, Sushila Saunders, Les Osborne, and Carole Leloup

Implementation of the BCPRA anemia protocol was associated with barriers and resistance to adaptation from an administrative and nursing staff perspective. The goal is to provide insight into these barriers and highlight an innovative process for implementation that was used for successful adaptation.

A continuous quality improvement (CQI) platform was used and included a well established plan-do-study-act (PDSA) cycle model of improvement aimed at enhancing efforts towards patient/program outcomes and strategic planning.

Barriers to adaptation of the BCPRA anemia protocol were found primarily in the large dialysis centre in Prince George, whereas the community units were able to implement the protocol with little resistance. The CQI platform allowed for clearly defined relationships between quality indicators and outcomes. Clear and measurable objectives have been established to continue to ensure the best possible outcomes for our patients.

Implementation of the protocol with a well defined strategy may result not only in improved patient outcomes, but also reduce the barriers and allow easier adaptation from an administrative and staff perspective.

4. Implementation of the BCPRA anemia management protocol in the Northern Renal program: safety and potential cost savings

Northern Renal Program: Prince George Dialysis Unit, Northern Independent Dialysis Unit, Northwest Community Unit, and Fort St. John Community Unit
Leader: Tania Wiebe
Team members: Susan Wood, Sheri Yeast, Diana Sloan, Sushila Saunders, Les Osborne, and Carole Leloup

The Northern Renal Program implemented an anemia management protocol in each of their four dialysis programs. Evaluation of anemia parameters was examined post-protocol implementation and compared to the results pre-implementation.

Retrospective data was collected on all renal patients (n=174) treated for anemia for 6 months pre and 6 months post protocol implementation at 4 centres in the BC Northern Renal Program.

Preliminary data shows that the percentage of patients within our Nephrologists' guidelines for target hemoglobin values of 110-125 g/L decreased from 54 to 50%. Parameters associated with potential cost savings were not realized as anticipated. Data for T-sat and EPO usage are currently being evaluated. Several variables were identified that may have caused an unexpected result in the data which will be described in our poster presentation. Data comparison after the implementation of the anemia management protocol revealed unexpected results; however there are variables which may have contributed to this result.

5. Nutritional targets in Pediatric HD patients: is there a value in supplements?

BC Children's Hospital
Leader: Nonnie Polderman
Team member: Colin White and Paula Woo

Our purpose was to determine the effects of supplement use in achieving nutritional/ anthropometric goals in HD patients (as per NFK/KDOQI).

At our centre, we formally track serum albumin (ALB), anthropometrics, nPCR, daily protein requirements and nutritional supplementation. We abstracted this data from our database and dietary records from 9 HD patients, ages 4-16, from June 2006 to October 2007. Those in the supplement group received either daily NG feedings or oral supplements no fewer than 4x/week while patients in the non-supplement group received none.

Significant improvements, as expected, in nPCR and DPI are seen. However, no apparent benefit is documented in the mean percentile for MAMC or Albumin levels in the supplements group. Due to the small numbers and short time frame, of the project, further work on this question is warranted, including other outcomes related to nutrition – egg. HSDS, TSF and formal Qol scores.

6. Peritoneal Dialysis Procedure Demonstration DVD

Peritoneal Dialysis Clinic: Kelowna General Hospital, Royal Columbian Hospital and Royal Inland Hospital
Leader: Karen Forsberg
Team members: Heather Zadorozniak, Donna Garrod, and Pam White

Teaching patients and families the steps involved in performing the procedure of peritoneal dialysis (PD) can often challenge even the most experienced PD training nurse. The utilization of multiple approaches for learning ensures that each patient's unique learning needs can be matched with teaching tools to achieve a positive outcome.

Our purpose was to develop a DVD that demonstrates step-by-step instructions for performing Baxter Twin Bag Exchange and Baxter Home Choice Pro Cycler procedure. The DVD is designed for patients who have chosen PD as their primary modality. The DVD may be used as a supplement to the initial training and/or review post-training. The video may also be useful for educating patients who are considering PD as a modality option to visually see the steps involved in PD therapy.

All nine PD programs in British Columbia were asked to submit procedures pertaining to Baxter Twin Bag and Home Choice Cycler set up. Consensus in procedure was established with subsequent script development. A Continuous Ambulatory Peritoneal Dialysis (CAPD) patient and an Automated Peritoneal Dialysis (APD) patient was selected to participate in the production of the film. Temperance Street Productions was hired to produce the video and guide us through

the production process. The video has been translated into several languages including Punjabi, Cantonese, Mandarin and Tagalog.

The DVD is available to all new patients starting PD as part of their educational material given during training. Feedback to date has been extremely positive from all involved with the evaluation process, including staff nurses. The DVD will also be made available to other Canadian and US PD programs on request.

Any peritoneal dialysis program that teaches patients the Baxter Twin Bag Exchange and/or the Baxter Home Choice Cycler would benefit from having this DVD as a supplement to their training.

7. Sodium Ferric Gluconate Infusion In Pre-Dialysis Chronic Kidney Disease Patients

Providence Health Care
Leader: Marianna Leung
Team members: Maggie Chui, Monica Beaulieu, and C. Gabana

The objectives of this study were to determine the effectiveness, tolerability and optimal dosing regimen of sodium ferric gluconate (SFG) in the pre-dialysis population. A retrospective chart review was conducted for patients receiving SFG infusions between July 2005 and August 2007. The patients were stratified based on their dosing regimens: one-time, consecutive and multiple. All 47 patients received 250 mg infusion with 79% receiving the one-time regimen. The multiple group was the only regimen to achieve a median TSAT level of > 20% post infusions. All groups reached median Hgb levels > 110g/L post infusion(s). Thirty percent and 50% of patients achieved the target TSAT and Hgb levels after one time infusion, respectively. Hypotension was the most commonly reported adverse reaction. In conclusion, SFG was well-tolerated but the one-time 250 mg dose did not appear to be sufficient in optimizing both TSAT and Hgb levels.

8. "There's No Place Like Home" DVD for patients considering home hemodialysis

Fraser Health Home Hemodialysis
Leader: Janice Newell
Team members: Vanessa Shortis and Pauline Sheppard

Potential home hemodialysis patients may not see themselves as able to do independent hemodialysis. A DVD was produced to share success stories and personal experiences of three patients currently doing hemodialysis at home. The DVD is to be utilized as a recruitment tool to assist with promoting this modality to patients. The topics discussed included; training and going home, needling, good things about home hemodialysis, work and dialysis, and support.

9. Recognizing BC CNeph(C) Nurses

Providence Health Care Renal Program
Leader: April O'Brien
Team members: Jodi Jantzen, Greg Searle, Toni Trewern, Katie Nikle, Tes Parent, Susan Haskett, Melissa Matteucci, and Susan Wood

The Canadian Nurses Association (CNA) Certification is a voluntary professional development opportunity for Registered Nurses to confirm their competence in their nursing specialty. The purpose of CNA Certification is to promote excellence in nursing care; to establish national nursing standards in specialty areas; and to identify through a recognized credential nurses who have met the national standard to practice within their specialty.

A provincial survey of Nephrology nurses sponsored by BCPRA in 2003 revealed that approximately 30 Nephrology nurses had attained their CNeph(C) designation. The 2008 CNA statistics reveal that BC currently has 131 CNeph(C) certified nurses.

The BC Renal Educator Group supports CNA Certification by encouraging Nephrology nurses to obtain this national credential and assisting nurses to prepare for the exam through study group learning sessions.

This poster recognizes BC Nephrology Nurses who have attained and maintained their CNeph(C) designation.

10. Changing Homes: Peritoneal Dialysis in Long-Term Care

Collaboration between St. Paul's Hospital, Vancouver Hospital and Three Links Care Centre
Leader: Faria Ali
Team members: Nancy Erb, Julie Nhan, and Serena Chee

Like the general population, the number of dialysis patients over age 65 is increasing. Statistical data collected by the Canadian Institute of Health Information (2006) shows that the number of end-stage renal disease patients between the ages of 65 to 74 has increased by 38% from 1995 to 2004, with a threefold increase for the group of patients over the age of 75. Issues associated with this aging population include declining functional and cognitive status, multiple co-morbidities and insufficient support to manage their peritoneal dialysis (PD) at home. This raises the concern of how to provide ongoing support to maintain these patients on PD.

The option of providing PD in long-term care facilities has been an ongoing discussion since the mid-1990s, with successful implementation of this initiative in 1997, by Fraser Health Authority. At the Regional PD Operations level, further discussions between Providence Health Care and Vancouver General Hospital generated ideas on how to support this initiative within their health authority, resulting in the partnership with Three Links Care Center, Vancouver. This poster will discuss the benefits of providing PD in a long-term care facility, the process of how Vancouver Coastal Health Authority achieved this goal and the implementation of this initiative. In particular, focus will be on the development of the education program, standardizing policies and procedures and some of the challenges encountered during the collaboration between two tertiary facilities, the community and a long-term care facility.

11. Self-Management in Chronic Kidney Disease

Kidney Care Centre, Fraser Health
Leader: Rita White

Team members: Alice Cabarlo, Violet Tong, Sharn Hara, Marineth Hizon, and Gail Walker

A shared vision to delay the progression of Chronic Kidney Disease (CKD) process began within the Renal Program of FHA in 2003. One aspect of improving patient care outcome was identified as self management, which is a process of educating patients about managing the effects of CKD. Self-management has two components: Self-management of health care and self-management in everyday life.

Self-management of health care involves self-care activities and self-efficacy, communication skills, partnership in care, and adherence to treatment plan. Self-management in everyday life includes achieving/maintaining "normality" in everyday roles and functioning.

Understanding the components of self-management may help health care professionals and patients to adopt this approach, to enter the mutual relationship it requires, and to maximize positive outcomes for patients with CKD. This poster will provide a review of this initiative and the process the FHA Renal Program wishes to achieve.

12. Advance Care Planning Conversations: The Family Perspective

Renal Centre: Fraser Health
Leader: Alexandra Kruthaup-Harper

A summary of findings from the study Advance Care Planning Conversations (ACP): The Family Perspective is presented. Five hemodialysis families shared their ACP experiences. The families considered ACP to be an invaluable component of hemodialysis. They perceived their role as essential, extending beyond this process to encompass the trajectory of endstage renal disease. Families explained how going through this process provided context for beginning (or revisiting) a reflective journey of their collective illness experience. This process enabled family members to share their individual values and beliefs about health and illness, discuss past events, and clarify assumptions and perceptions. They were then able to create an advanced care plan, which they felt would reduce the potential for conflict at the time of emotionally challenging decision-making. Families identified communication as integral to not only the ACP process but rather throughout the course of the illness experience.

13. Provincial Vascular Access Services Team (PVAST)

Vascular Access Educators Group
Leader: Rick Luscombe

The Provincial Vascular Access Services Team (PVAST) was initiated in 2005/06 to facilitate a provincial, multidisciplinary approach to improvements in vascular access.

PVAST has been active in a number of areas, including development of:

- Province-wide incidence, prevalence, and infection rate reports (a first in Canada).
- Evidence-based guidelines and tools on topics such as assessment of newly created fistulas

and grafts, cannulation of fistulas and grafts, and management of vascular access related infections.
- Process and teaching materials to match the skills of cannulators with ease of accesses to cannulate, with roll-out planned for 2 sites in 2008/09 (another first in Canada).
- Best practices for VA clinics and related structures and processes to improve VA outcomes.
- Algorithms for inter-site and inter-HA referrals.
- VA related Patient teaching pamphlets.

The poster presentation will highlight the work of PVAST, including samples of the various guidelines, tools, and patient teaching pamphlets developed.

14. A Quarter Century of PD: BC Children's Hospital Experience

BC Children's Hospital
Leader: Jennifer M. Leechik
Team members: Brent A. Chang and Colin T. White

Our purpose was to analyze patient demographics, outcomes, and clinical practices over 25 years of Peritoneal Dialysis (PD) in our dialysis program.

120 unique patients underwent 141 discrete PD representing a total of 1932.5 months of PD. Patients mean age: 10.4+/-5.9 years while remaining on PD for 13.0+/-10.9 months. Overall modality choices were true IPD (5.7%), CAPD (39.7%) and CCPD (54.6%). 71.6% initiated PD from Chronic Kidney Disease clinics, others coming from another form of PD, secondary to Acute Renal Failure or transfer from Hemodialysis (HD). Patients left PD due to successful transplants (56.7%), other reasons included transfer: to HD (20.6%), another form of PD (7.8%), death (5%). Reasons for discontinuing PD excluding transplant were recurrent peritonitis (7.1%), death (5%), membrane failure (2.8%) and social/family reasons (2.1%). Major non-infectious complications included hernias (7.8%), leaks (17.7%), and 34 catheter replacements in 29 patients. Infectious complications included 49 episodes of exit site/tunnel infections for rate of 1/39 months at risk and 136 episodes of peritonitis—overall rate of 1/14.2 months at risk. Common organisms seen in peritonitis episodes were Gram positives (50%), Gram negatives (15.4%), fungi (5.1%) and culture negative (29.4%).

Throughout 25 years in our centre, PD has allowed our children to be successfully transplanted with complication rates comparable to rates in the published literature for peritonitis (1/15.6 patient months), organisms Gm+ (50-60%)/ Gm– (20-30%), hernias (12-53%), leaks (2-9%) and mortality (3.6%).

15. Lanthanum use in BC: A single centre experience

Royal Inland Hospital
Leader: E. C. R. Wijeyesinghe
Team members: K. Degirolamo, M. Michaud, and J. Vicic

Hyperphosphatemia can lead to heart and bone disease in the dialysis population. Calcium, which has been the predominant phosphate binder in use, is also known to cause cardiac morbidity. Non calcium phosphate binders have been suggested as alternatives. Two of them, Sevalamer and Lanthanum have been approved for use in BC under strict guidelines. Lanthanum is less expensive than Sevelamer, better tolerated and potentially more effective.

This study looked at Lanthanum use as a phosphate (PO4) binder in a single dialysis centre in BC (Thompson-Cariboo-Shuswap region). Twenty patients prescribed Lanthanum were followed for up to 9 months with doses being adjusted to fulfill KDOQI guidelines of PO4 control. (250 three times day to 1000 mg three times a day).

Phosphate, calcium, albumin and iPTH were monitored as per standard protocols. The impact of Lanthanum use on these parameters will be presented.

16. Proactive Management of Patients with Chronic Kidney Disease in Primary Care: Experiences of the Richmond Chronic Kidney Disease Collaborative

Richmond Chronic Kidney Disease Collaborative
Leader: Dr. Jack Kliman
Team members: Dr. Robert Baker, Dr. Scott Garrison, Dr. Danny Wong, Dr. Michael Myckatyn, Dr. Raul Carvalho, Dr. Ki-Sun Kim, Dr. Jennifer Rogerson, Dr. Boon Wong, Denise Perron, Sharon Calvert, Robin McKenzie, Anita Chan, Joanne Nairn, Carol Ramus, Robyn Wells, Barb Leslie, and Bethina Abrahams

The general practitioners, along with their medical office assistants, in the Richmond Chronic Kidney Disease Collaborative have been working to ensure optimal care for their patients with chronic kidney disease thereby improving patient outcomes. With the Expanded Chronic Care Model as a guide, the primary care teams have focused on:

- Utilizing clinical information systems
- Delivery system design
- Decision support
- Self-management support

Specifically, they have identified all their patients with chronic kidney disease within their practices and established patient registries. Participants have used the Chronic Disease Management Toolkit to support recall systems, improve access to guideline based care and track patient progress. The CKD Collaborative members have also worked with nephrologists in the community to establish a set of core measurements and to improve access for their patients to specialist care. As well, they have connected with community resources which can support patient self-management activities.

17. Taking Charge of Our Health

Penticton Integrated Health Centre
Leader: Susi Wilkinson
Team members: Jill Materns

Our purpose was to demonstrate that effective collaborative self-management support could be delivered in our programs at the Penticton Integrated Health Centre. The project was part of New Health Partnerships, a national program of The Robert Wood Johnson Foundation® (RWJF) at the Institute for Healthcare Improvement.

To maintain health, people with chronic conditions have to manage their condition from day to day. Many patients experience great difficulty in self-managing complex medical regimens, and planning and following through with lifestyle changes, such as losing weight, reducing stress, or increasing exercise. Improving self management support may help patients be more successful in these activities and ultimately achieve improved health outcomes.

We focussed on adults with diabetes. We were part of a virtual learning community and participated in learning sessions which prepared our team to incorporate self management support strategies into their patient care activities. We tested and implemented improvements in the areas of relationship building, collaborative goal setting, follow up, and problem solving.

Our improvement team included representatives from clinical, administration and management staff as well as four patients and one family member. Monthly patient surveys targeted the patient experience with self management support interventions in their appointment. Clinical documentation and outcome data were gathered from our electronic medical record.

We made changes to program processes and developed patient and clinician tools to promote collaborative agenda setting, goal setting and problem solving. We observed increases in the number of patients with whom we engaged in collaborative goal setting and the number of patients with an improved A1C. Our patients and care team are highly satisfied.

Our team's experience working with patients and family members was exceedingly rich and has led to lasting changes in how we think about and do our work.

Incorporating competent self management support practices into the services we provided to our adult patients living with diabetes assisted many to make a variety of changes which resulted in an improved A1C.

18. The Patient's Role in Patient Safety

Renal Services, Vancouver Island Health Authority
Leader: Anne Gloster

In 2006, in an ongoing effort to involve and educate patients in their own care, the VIHA Renal Services Program, in conjunction with their Patient Advisory Council, began the development of a Patient Charter. This project evolved further through preparations for a CCHSA (accreditation) review in October 2007 and led to the development of a 6 point guideline that recognizes the vital role patients play in contributing to better and safer care. The poster delineates the six points and how a patient may participate in relation to each.