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Our Past Turned Toward Our Future 2008 CONFERENCE ABSTRACTS

## CANNT JOURNAL JOURNAL ACITN





### **CANNT 2008**

Quebec Convention Centre, Quebec City, Quebec October 23–26, 2008

**OUR PAST TURNED TOWARD OUR FUTURE** 

## Conférence nationale annuelle de l'ACITN de 2008

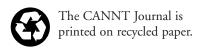
Centre des congrès de Québec, Ville de Québec, Québec October 23–26, 2008

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2008 CONFERENCE ABSTRACTS





### **CANNT 2008**

Quebec Convention Centre Quebec City, Quebec

October 23-26, 2008

## OUR PAST TURNED TOWARD OUR FUTURE

This conference, CANNT 2008, promises to be a stimulating forum where nephrology professionals... nurses, technologists, administrators, researchers and pharmacists... will be able to learn, share, network, discuss and socialize together.

Experience all that CANNT 2008 has to offer...

- Share in the messages of top-rated professional speakers...
- Choose from more than 40 concurrent sessions suited to all interests... topics range from nutrition, transplantation, end-of-life issues, pediatrics, infection control and much, much more...
- Peruse a record-breaking number of poster presentations (54), with contributing authors from one coast of Canada to the other—you'll be delighted in the diversity of nephrology topics being profiled this year!
- Interact with our corporate partners as they display their latest products and services, and share their expertise with delegates. With ample opportunities to network with corporate representatives, delegates should come prepared with questions and issues.
- Immerse yourself in this year's conference theme. Our social activities and the scientific program will inspire, educate, rejuvenate and motivate you for the everyday challenges of your professional and personal lives.

Register today! CANNT 2008 information is available as follows:

- 1) printed brochure available by calling: (519) 652-0364 (Innovative Conferences & Communications)
- 2) downloadable brochure on-line at www.cannt.ca
- 3) program, abstracts, on-line registration and secure payment on-line at www.cannt.ca

We're excited to welcome Canadian nephrology professionals to Quebec — to experience CANNT 2008.

#### **Abstracts**

Some of the key strategic goals of CANNT are to disseminate educational materials to CANNT members, profile scientific research, and to provide opportunities for nephrology colleagues to network.

CANNT's national conference, CANNT 2008, provides an excellent venue for accomplishing these goals of CANNT. However, only a portion of CANNT members are able to attend the national conference annually. Cognizant of this, CANNT is pleased to be printing the abstracts to be presented in both oral and poster format at this year's annual conference as a supplement to the special anniversary issue of the CANNT Journal.

The following abstracts celebrate the diversity of nephrology topics being investigated and discussed across Canada. It is our hope that CANNT members interested in pursuing a profiled topic will contact our national office at (705) 720-2819 or 1-877-720-2819 or cannt@cannt.ca to receive information regarding how to contact the author about the work.

We hope you will carefully review these abstracts!

Gillian Brunier, Editor, CANNT Journal



### Conférence nationale annuelle de l'ACITN de 2008

Centre des congrès de Québec, Ville de Québec, Québec

October 23-26, 2008

### NOTRE PASSÉ TOURNÉ VERS L'AVENIR

La Conférence nationale annuelle de l'ACITN de 2008 promet d'être un forum stimulant où les professionnels de la néphrologie—infirmières, technologues, gestionnaires, chercheurs et pharmaciens—se donnent rendez-vous pour approfondir leurs connaissances, échanger leurs idées et opinions, réseauter, discuter et nouer des relations.

Venez vivre l'expérience de la Conférence nationale annuelle de l'ACITN de 2008...

- Venez écouter nos conférenciers-invités, tous experts dans leur domaine.
- Choisissez parmi plus de 40 ateliers simultanés ceux qui répondent le plus à vos champs d'intérêt. Les sujets abordés vont de la nutrition, à la maîtrise de l'infection, en passant par la transplantation, les questions liées à la fin de la vie et les enjeux d'ordre pédiatrique. Et, beaucoup plus encore!
- Consultez le nombre record d'affiches scientifiques (54) auxquelles ont participé des auteurs d'un bout à l'autre du Canada—vous serez enchantés par la diversité des thèmes qui sont présentés cette année sur la néphrologie!
- Venez rencontrer nos partenaires commerciaux. Ils vous feront part de leurs plus récents produits et services et partageront avec vous leur expertise. Comme nous vous offrons maintes occasions de réseauter avec les représentants de l'industrie, nous vous conseillons de préparer les questions ou sujets de discussion que vous aimeriez aborder avec eux.
- Laissez-vous vous imprégner du thème de la Conférence de cette année. Les activités sociales prévues et le programme visent notamment à vous inspirer, à parfaire vos connaissances, à vous régénérer et à vous motiver afin de relever les défis quotidiens qui jalonnent votre vie professionnelle, mais aussi votre vie personnelle.

Inscrivez-vous maintenant! Pour de plus amples renseignements sur la Conférence nationale annuelle de l'ACITN de 2008, veuillez consulter les sources d'information suivantes :

- 1) brochure imprimée en appelant au 519-652-0364 (Innovative Conferences & Communications)
- 2) brochure en ligne à www.cannt.ca
- 3) programme et actes de la conférence, inscription et paiement sécurisé en ligne à www.cannt.ca

C'est donc un rendez-vous à Québec pour tous les professionnels canadiens de la néphrologie—venez vivre l'expérience de la Conférence nationale annuelle de l'ACITN de 2008.

#### Actes de la conférence

Conformément à certains de ses objectifs stratégiques clés, l'Association canadienne des infirmières et infirmiers et des technologues de néphrologie (ACITN/CANNT) doit diffuser des outils éducationnels à ses membres, médiatiser la recherche scientifique et offrir des occasions de réseautage aux collègues de la néphrologie.

Le Congrès annuel de l'ACITN/CANNT de 2008 offre un excellent cadre pour l'atteinte de ces objectifs. Toutefois, nous sommes conscients qu'une seule portion des membres de l'ACITN/CANNT peut y assister. Pour remédier à cela, nous avons le plaisir de vous annoncer que nous publierons les textes complets des communications et des affiches scientifiques du Congrès de 2008 sous forme d'un supplément inséré dans le numéro spécial anniversaire du Journal de l'ACITN/CANNT.

Les résumés suivants célèbrent la diversité des sujets en néphrologie qui font l'objet d'études et de discussions au Canada. Les membres de l'ACITN/CANNT qui désirent approfondir un sujet en particulier, abordé pendant le Congrès, peuvent communiquer avec le bureau de l'ACITN/CANNT, par téléphone au (705) 720-2819 ou au 1-877-720-2819 ou par courriel à cannt@cannt.ca, afin d'obtenir la marche à suivre pour joindre le ou les auteurs.

Je vous souhaite une bonne lecture attentive de ces résumés!

Gillian Brunier, Rédactrice en chef, Journal de l'ACITN/CANNT



### Proposal for an enhanced Nova Scotia satellite dialysis service

Susan MacNeil, RN, BN

In collaboration with the four in-centre hemodialysis programs and the Department of Health, the Nova Scotia Provincial Dialysis Program is working toward an integrated approach to dialysis care that involves the implementation of a satellite dialysis "New Model of Care". As the result of the growing renal population, public demand for dialysis services closer to home and the recommendations of a satellite program review, the group embarked on a project that would enhance local integration, coordination and provision of care in collaboration with the specialty expertise provided by the in-centre dialysis program.

This New Model of Care will provide a balance of local resources with access to specialized expertise, which will be accomplished by travelling physician/nurse teams, regularly scheduled tele-communication links, and physician alliances with local physician groups. The local satellite staff will be integrated into the life and basic operations of their institutions. The pilot project will create a new staffing model with the proper staff mix, to provide appropriate renal care for an expanded patient population. The benefits of this new model of care include the integration of all satellite services provided within the local facility, the fiscal resources for infrastructure required to support the satellite program, the clinical and educational support from the in-centre program and the collaborative relationship with the Provincial Dialysis Program to identify and plan for future needs.

This presentation will outline the satellite program, as it currently exists; the issues or service gaps identified; the opportunities for resolution; the project purpose, scope and benefits; the "New Model of Care"; the pilot project; and the evaluation component and next steps.

### Development of a peritoneal dialysis support initiative for clients in the community

Susan MacNeil, RN, BN

Many clients would benefit significantly from peritoneal dialysis. However, they are either not capable of performing it themselves, or they do not have family members capable of performing it for them. The Nova Scotia Continuing Care/Acute Care Peritoneal Dialysis Working Group was

established to develop a framework for provision of community-based peritoneal dialysis services for this specific population. The working group has developed a report and recommendations for a Continuing Care Peritoneal Dialysis Program. The program will promote service delivery models that take peritoneal dialysis services to the client and promote a collaborative effort amongst home care, long-term care, acute care and service providers to better meet the needs of this specific patient population.

The Continuing Care Peritoneal Dialysis Program will provide education and supports required to provide peritoneal dialysis to clients using six service delivery models: 1) Clients residing in their own home, where home care service provider performs peritoneal dialysis; 2) Clients residing in their own home, where home care service provider augments existing caregiver support by performing peritoneal dialysis; 3) Client residing in long-term care (LTC) facility, where client performs peritoneal dialysis independently, but under the supervision of the LTC facility staff; 4) Client residing in LTC facility, where home care service providers perform peritoneal dialysis; 5) Clients residing in LTC facility, where LTC facility staff perform peritoneal dialysis; and 6) Clients residing in acute care facility, where home care service provider performs peritoneal dialysis.

This presentation will outline the process, the program goals, the service delivery models, the home care and LTC pilot projects, the working group recommendations, policy changes required and progress to date.

#### Old dolls with new tricks: The Ontario Late Career Initiative in action

Linda Bruce, RN, and Barbara Blackwell, RN

In Ontario, many registered nurses are over the age of 55. These nurses have the advantage of vast experience and knowledge that is invaluable to the health care system. In order to retain nurses in this age range in the workforce, the Ontario Ministry of Health and Long-Term Care (MoHLTC) Nursing Secretariat has introduced the Late Career Initiative (LCI), which provides funding to facilitate financial support for these experienced nurses to work on a project designed to improve patient care or nursing workplaces. An example of such a project would be a staff education, patient education, or mentoring initiative. In the interest of retaining nurses in this age group and benefiting from their experience, our nursing administration put out a call to nurses over the age of 55 who were interested in carrying out a change project in their unit. In our hemodialysis unit, patient orientation was not carried out using a systematic approach. We proposed that using LCI funding, we could provide patients with a comprehensive orientation program when they initiated hemodialysis at our centre. Packages were prepared that included relevant information required by patients entering the program and then presented to patients via a one-on-one information session. The one-onone approach allowed for patient feedback and open dialogue relating to the experience of hemodialysis. The opportunity provided by the MoHLTC has empowered us and broadened our horizons—proving that older nurses have meaningful contributions to patient care.

#### SARP educational program

Rajneet Atkar, RN, BN, CNeph(C), Kuljit Parmar, RN, BN, CNeph(C), Jozefina Scarrett, RN, BN, CNeph(C), and LaiKing Wu, RN, BN, CNeph(C)

A discussion of Southern Alberta Renal Program's (SARP) hemodialysis educational program will be provided. An overview of our current orientation, documentation tools, follow-up education, in-servicing and workshops will be provided in a poster presentation format. The purpose is to inform attendees of what our educational program involves. This will offer a benefit of sharing what we know and do, in addition to learning how other programs deliver their hemodialysis education.

Our hemodialysis orientation currently consists of two weeks of classroom instruction, three weeks of practical experience with a clinical nurse educator (CNE), and two to three weeks working with a preceptor. We also have a written exam, with an 80% pass mark. We utilize a documentation tool that enables us to have written documentation on the progress of the new orientee and utilize it as a communication tool between unit managers and all the CNEs.

We also provide follow-up education to our new staff at three months after orientation completion. This is to assist in evaluation, learning and retention. We also have started to provide ongoing education to our more senior nurses for learning and retention purposes as well.

Our program last year provided three large workshops. We have 14 units spread throughout Southern Alberta. All workshops are available to all SARP staff. We have also introduced Diascan, antibiotic protocol, case management, safety needles and buttonhole needling. We were able to roll out all of these successfully and consistently throughout all our units.

We will share how we utilize the e-mail system to reach staff at all our different sites. We have innovative ways of delivering information, e.g., question of the month, dialysis crossword, annual review, etc.

### Biomedical nephrology technical services: Is your job description lined up with reality?

Gil Grenier, Dialysis Technologist

Job descriptions often drive the type and level of support offered by a service organization. They may have a major impact on the effectiveness of a department should they be outdated or inaccurate, as the role perceptions by the employees may differ from reality. Complete and accurate job descriptions typically include overall description of the position, requirements for education and experience, as well as a listing of specific duties related to the position, and are normally used for posting open positions, determining compensation and as a basis for performance appraisals. Job description analysis may be conducted through processes such as wage standardization and pay equity. These are designed to objectively capture position requirements and job details. Through such processes, the creation of a job fact sheet is made possible and, in parallel with a workload measurement project, a new and more accurate job description may be created. In 2006, the Biomedical Nephrology Technical Services Department of The Ottawa Hospital undertook the revision of the Dialysis Technician II job description and found major differences from the 2001 version. The role has changed drastically due to the introduction of new operational technologies and recommended standards of practice. Clarification of role perceptions has provided us opportunities to set specific goals and objectives for employees. At the end of this presentation, the readers will have a complete understanding of the new job description, as well as the tools that enabled us to complete this project.

## Evaluation of the nephrology nurse practitioner role: Looking back with a clear vision toward the future

Marsha Wood, RN, BN, MN, CNeph(C), Sohani Welcher, RN, MN, GNC(C), and David Landry, RN, MN, CNeph(C)

This presentation will describe the process used by three nephrology nurse practitioners to lead a formal evaluation of this advanced practice nursing role within a large, academic health care institution in Canada. Here, nurse practitioner (NP) roles have been implemented in several clinical specialties.

The NP role evaluation utilizes the evidence-based Canadian Nurse Practitioner Initiative (CNPI) Implementation and Evaluation Framework (CNA, 2006) and the Logic Model (Treasury Board of Canada, 2001). The CNPI framework was developed by clinical and academic experts on the NP role from across Canada. The CNPI framework maps out objectives, resources, activities, performance indicators and significant outcomes of an NP role, which are necessary in the implementation and evaluation of nurse practitioner roles in all clinical settings.

This nephrology NP role evaluation process is ongoing at the time of abstract submission. Completion of the evaluation is expected before the CANNT conference in October 2008. The presentation will provide a summary of the role evaluation process.

The data collected and methods used for this evaluation will inform any future development, implementation and evaluation of NP roles within the specific health care institution, and could very well be utilized to evaluate other NP roles, regardless of clinical or geographical setting.

#### References

Canadian Nurse Practitioner Initiative (CNPI). (2006, February).

Canadian nurse practitioner initiative: Implementation and evaluation toolkit for nurse practitioners in Canada.

Canadian Nurses Association (CNA): Ottawa, ON.

Treasury Board of Canada Secretariat. (2001, August). Guide for the development of results-based management and accountability frameworks. Retrieved from http://www.tbs-sct.gc.ca/eval/pubs-RMAF-CGRR-RMAF\_Guide\_e.pdf





### Building partnerships: Promoting peritonitis prevention

Debra Appleton, RN, MN, CNeph(C), Sharron Izatt, RN, BScN, CNeph(C), Elizabeth Kelman, RN, MEd, CNeph(C), Fatima Benjamin-Wong, RN, BScN, CNeph(C), Wendy Clarke, RN, Cathy Dickenson, RN, BScN, CNeph(C), Kay McGarvey, RN, CCHN(C), Judith Ferguson, RN, Emily Harrison, RN, BHScN, CNeph(C), Linda Nasso, RN, CNeph(C), Mina Kashani, RN, BHScN, CNeph(C), Ramona Cook, RN, Estrella Mercurio, RN, BSN, MA, GNC(C), ET, Cenona Wilson, RN, Pat Pollard, RN, Christina Rajsic, RN, Jannette Solomon, RN, Patricia Trieu, RN, MScN, Sharon Fairclough, RN, CNeph(C), BN(c), and Saverina Sanchez, RN, BScN, MScN(s), CNeph(C)

The City-Wide Peritoneal Dialysis Interest Group (CWPDIG), representing 10 peritoneal dialysis (PD) centres in southern Ontario, will present a quality initiative project aimed at developing strategies for prevention of peritonitis and improving peritonitis rates. The CWPDIG has established a benchmark of one episode of peritonitis in 30.4 months.

Having developed the benchmark, the group, through literature review and consensus discussions, has developed guidelines for prevention of contamination and peritoneal catheter exit site care. Guidelines for primary/secondary and tertiary peritonitis prevention are in development.

While sharing both the completed projects and works in progress, the group hopes to emphasize the benefits of collaborative work involving both nephrology nurses and community partners. CWPDIG has found this group work to be effective in standardizing practices and developing educational resources for nurses working with patients on peritoneal dialysis. Mentoring and networking have enhanced professional growth in the recognition of issues relevant to improving patient care.

#### Caring for clients who care for themselves

Gail Barbour, RN, CNeph(C), and Fernanda Morley, RN, CNeph(C)

The management of chronic health conditions requires a multidisciplinary team approach with the focus on the client. This approach promotes client autonomy and responsibility toward the decisions surrounding their care. Receiving important information concerning their health, the clients can actively participate as a member of the team and can accept responsibility or take charge of their lives. Accepting more responsibility in their own care will allow clients to make informed decisions and provide the necessary guidance toward their future goals.

A communication tool such as this booklet will offer clients an opportunity to monitor important health information and will act as a catalyst for active participation in their own care. Active participation in their own care is instrumental toward the success of self-management strategies. Self-management promotes empowerment of the client leading to a better quality of life physically, emotionally and psychosocially.

The "Caring for me... while living with kidney disease" communication tool has been developed by health care professionals and formatted into a booklet. The booklet comprises personal information, a calendar, medication template, nutritional recommendations, blood work graphics, exercise monitoring, and community support services. Recording and tracking this pertinent medical information will reflect the trends and progress for the clients to evaluate their current status and assist them to make the necessary changes to meet their self-directed goals.

This communication tool will also help communicate pertinent information to other health care professionals who are outside the immediate team. Since the client is actively updating the information, it reinforces the importance of self-management.

## Canada Day fire—Disasters can happen at any time—Do you have your evacuation kit ready?

Emily Harrison, RN, BHScN, CNeph(C), Patti Elliott, RN, Anne Goerz, RN, Karen Tunney, RN, Irene Brown, RN, and Judy Wilson, RN

July 2, 2007, a fire caused the evacuation of an entire health care facility, home to a regional nephrology program, outpatient clinics and complex continuing care patients.

Being a statutory holiday, the clinics for 25 home hemodialysis patients, 600 Kidney Care patients, and 125 peritoneal dialysis and other clinics were closed. Thirty-three hemodialysis patients in the midst of dialyzing and 80 complex continuing care patients were living in the building.

Staff quickly implemented emergency measures: alerting the emergency services, fire, police and ambulance, and then initiating evacuation procedures. All hemodialysis treatments were stopped. Where the smoke was an issue, the hemodialysis machine was stopped, lines were clamped and disconnected, and then the patient was escorted to the parking lot. For patients not affected by smoke, the hemodialysis circuit was retransfused, lines were clamped and disconnected, and then the patient was escorted to the parking lot.

Emergency evacuation kits are available within the unit at all times, and are checked for proper equipment and expiry dates on a regular basis. These kits have enough equipment to safely disconnect 10 patients from their access. All patients had their access safely managed in the parking lot with the equipment from these kits.

Triage procedures then determined who needed to complete their entire hemodialysis treatment that evening.

The importance of emergency evacuation planning, including the availability of appropriate equipment, allowed for the smooth, safe evacuation and triage of all patients within Lakeridge Health, Whitby. This concrete example will highlight the value of comprehensive strategies to deal with disaster situations.

### Lakeridge Health—Regional Nephrology System—Report on best practice and strategies to improve peritoneal dialysis (PD) catheter implantation

Emily Harrison, RN, BHScN, CNeph(C)

Catheter implantation has been identified as a barrier to increasing PD prevalence in Ontario. For our program, through a large number of strategies, current PD prevalence has surpassed the provincial target of 30% of all dialysis patients. Catheter implantation, in particular wait time for implantation, is the next strategy to further break down barriers to PD.

The Ministry of Health and Long-Term Care for Ontario approved one-time funding to six chronic kidney disease regional programs. These six centres formed the Provincial PD Catheter Implantation working group to support the dissemination of best practices for PD catheter implantation throughout the province. The ultimate goal of this group, in collaboration with the Provincial PD Implementation action committee, was to assist in improving practices/methods, and knowledge transfer, and possibly expedite PD catheter implantations in other centres across Ontario.

As one of the six PD catheter implantation coordinating sites, the following key deliverables were met:

- 1. Document PD Implantation Practice.
- 2. Complete a literature review of their respective PD implantation best practices.
- 3. Develop a flow map of the current PD implantation practice.
- 4. Identify key elements that expedite PD catheter implantation.
- 5. Identify opportunities to enhance existing practice.
- 6. Indicate resources that are needed to address barriers.
- 7. Identify and track outcome indicators.

Through an analysis of our best practices for PD catheter implantation, we are able to further break down barriers to PD. This presentation will describe our current practice, barriers, and strategies to improve PD catheter implantation within our program.

#### Home visits: Behind closed doors

Anna-Marie Sutherland, RN, CNeph(C), Cathy Baynham, RN, CNeph(C), Heather Bouckley, RN, CNeph(C), Gale Burden, RN, CNeph(C), Michelle Donoghue, RN, Heather Jackman-McCallum, RN, CNeph(C), Linda Nasso, RN, CNeph(C), Heather Schroder, RN, CNeph(C), and Pat Reed, MSW, RSW

In our peritoneal dialysis (PD) program at Lakeridge Health, home visits were being done sporadically. There was a need for structured documentation, as well as a plan for scheduled home visits. We developed a home visit form that is used each time a nurse visits a patient's home. The home visit form allows for all nurses to be consistent with their visit. We also developed a home visit protocol. Visits are now done when the patient first starts PD, when there is a change in the system, and after any peritonitis episode. We also strive to do yearly visits. The visit consists of fluid assessment, vital signs, monitoring technique, inventory of supplies, assessment of the environment, review of peritonitis, assist in setting up night cycler machine, review of technical support, and other issues that may come up. Being in a patient's home gives a true picture of what is going on and how patients are doing. Concerns or problems can be identified that would not have been apparent at a routine clinic visit. You never know what you will find behind closed doors. Discussions will include barriers and issues that needed to be overcome. What we learn from the past only better prepares us for what we may encounter in the future.

## Nursing responsibilities re. vascular access primary nurse versus assigned nurse: Two views—One direction

Karen MacDonald, RN, CNeph(C)

Purpose of the project: Vascular access is a vital component in hemodialysis. Preserving a good, functioning access is directly related to optimal patient care and quality of life. Maintaining an adequate access or prevention of complications requires use of the nursing process (assessment, planning, implementation and evaluation).

Description: Vascular access is a concern to all caring for the patient in the hemodialysis setting. Clear communication is a powerful tool in patient care. My presentation involves comparing the nursing responsibilities of the primary nurse and the assigned nurse. This involves two different views with all working in the same direction toward optimal patient care regarding vascular access.

Evaluation/outcomes: My target audience was the nursing staff working in the hemodialysis unit where I work. The responsibilities and expectations of the primary nurse and the assigned nurse regarding vascular access were presented at a fistula camp





seminar. Following the workshop, random chart audits were performed to evaluate if these expectations were being met. It continues to be a work in progress and will be ongoing. Overall, I feel there was a positive response to the presentation.

Implications for nephrology practice/education: Without a vascular access, one cannot perform hemodialysis. The patient's access is their lifeline. Professionally and ethically, as nurses, we are obliged to treat the vascular access with the utmost importance in delivery of patient care. Maintaining the vascular access keeps hemodialysis as an option for treatment in end stage renal disease. This is a life-sustaining measure.

#### Watch your back!

Fran Boone, RN, and Carrie Armstrong, RN, BScN

The work environment in most dialysis units is constantly changing. Patient acuity is high and will continue to rise with the aging population. Consequently, patients are unable to physically and cognitively assist in their care, placing more demands on the staff. According to a Statistics Canada study (Hospital-News, 2008, February), nurses are more prone to musculoskeletal injuries. In addition, the average age of nurses has increased considerably. We will discuss the major causes and risk factors for back problems.

In our verbal presentation, we share our personal experiences with back pain and our road to recovery over the past year. Working in a busy, acute care dialysis unit, we recognize the need for a regular program to prevent and treat back injuries. An action plan was developed with the assistance of the ergonomics department utilizing the lifts and transfer algorithm.

As nurses and allied support staff who work in nephrology, we cannot continue to perform as we did in the past. We must attempt to educate our colleagues to promote healthy back care. Our future depends on it.

## A continuous quality improvement project to enhance data collection related to peritoneal dialysis infections

Lynn Gosselin-McRae, RN, CNeph(C), and Brenda Cyr-Mockler, RN, CNeph(C)

In the home dialysis unit, we currently track our infection rates via data entry into an infection tracking comput-

er program. After performing a detailed computer data entry audit, we identified that a large percentage of infection data was missing, not completed, or not entered at all. We believe this is due to the fact that infection data are not available all at one time, and must be tracked over a period of time. After consulting with colleagues, we created/initiated a continuous quality improvement, detailed tool/worksheet, to address this issue.

The new tool/worksheet now being used captures infection information from start to end. The person who completes the worksheet once all sections are filled out, is responsible for the computerized data entry and sign-off.

The outcome indicator for this tool is ongoing and will be fully determined with our next continuous quality improvement computer data entry audit.

Proper tracking of infection rates is important for the generation of accurate infection rates so that areas of concern can then be addressed. Proper patient follow-up after the start of an infection is very important to ensure that infections are treated in a timely manner and that necessary follow-up testing is done to ensure that the infection is no longer present.

# End stage renal disease supportive care pathway: A pathway to guide supportive and end-of-life (EOL) care for people coping with renal disease

Cynthia Mills, RN, BN, CNeph(C), Monique Caines, BSc, RD, and Debbie Hodgins, BA, BSW, RSW

Purpose: The supportive care pathway will enable the interdisciplinary (IP) team to identify and anticipate the needs of the patients and their caregivers throughout the disease trajectory and during EOL issues. The pathway provides a framework for the assessment, interventions, and teaching/support to meet specific needs for the patients (hemodialysis and peritoneal dialysis). The standardized plan promotes consistency and assists novice to advanced practice professionals to collaborate in patient care leading to a culture of improvement.

Description: The clinical pathway was created based on current evidence using the Palliative Performance Scale (PPS) and the Edmonton Symptom Assessment Scale (ESAS) tools to trigger the sequencing and timing of therapeutic interventions at different stages of the patients' disease. The pathway was interfaced with our electronic patient record (NephroCare) to facilitate its use in the renal program.

**Evaluation:** With use of the pathway, we have seen an increase in discussion of code status (DNR), discussion of Power of Attorney/Advance Directives and a stronger partnership with community agencies, specifically at EOL.

Implications for nephrology practice/education: Educational sessions were provided to the team to enhance knowledge of the PPS, ESAS, and advanced directives. EOL preprinted orders have been developed for the inpatient units and forwarded to community agencies for use as well. With the use of NephroCare, the renal program will be able to identify specific statistics for future research.

### Quality of life issues evolving from the impact of nocturnal hemodialysis

Joanne Selin, BN, RN, CNeph(C), and Bonnie Couture, RN, CNeph(C)

Losing control of one's life is never a welcome experience. Hemodialysis schedules, frequent appointments and the long-term debilitating effects of their disease and treatments combine to contribute to the plight of people with renal disease. Nocturnal hemodialysis appears to be a conduit for gaining some control back and improving certain aspects of life's quality for these patients.

Nocturnal hemodialysis has been a dialysis modality option in the Southern Alberta Renal Program since 2004. Patients have anecdotally reported that they have experienced a positive impact on their health status when they converted from conventional to nocturnal hemodialysis. The purpose of this poster presentation is to correlate the conclusions of a recently published randomized clinical trial (Culleton et al., 2007) on the serial impact of nocturnal hemodialysis on quality of life with a social work-driven patient survey regarding certain quality of life issues and testimony from the televised interviews of two Calgary nocturnal hemodialysis patients.

We hope to provide and disseminate this information to demonstrate an increased quality of life in this patient population, and to aid in the provision of better quality care for renal patients in all nocturnal hemodialysis programs.

#### Reference

Culleton, B.F., Walsh, M., Klarenbach, S.W., Mortis, G., Scott-Douglas, N., Quinn, R.R. (2007, September). Effect of frequent nocturnal hemodialysis versus conventional hemodialysis on left ventricular mass and quality of life: A randomized controlled trail. JAMA, 298(11), 1291–9.

## Managing peritoneal dialysis patients across the continuum: An awareness campaign for PD stakeholders

Teresa Morosin, RN, Martin Ruaux, RN, BScN, and Mary Stock, RN

A review of provincial programs reveals an alarming gap in the knowledge base of stakeholders in the provision of care for peritoneal dialysis patients. As many programs struggle to reach provincial PD targets in Ontario, St. Joseph's Healthcare (SJHH) has assumed a lead role in developing and delivering a three-stage plan to help bridge this gap. The target stakeholder groups include: nursing units at SJHH, nursing units at other regional partner sites, community care providers such as CCAC offices and LTC facilities, physician offices and diagnostic centres, first responders, 911 dispatchers, and airport staff.

A survey of these stakeholders identified the need to address this knowledge gap in order to ensure the delivery of comprehensive regional care. The team developed a poster campaign, as well as modular education sessions for nursing and other identified stakeholders ensuring that best evidence emergent and preventative care is available for this patient population.

This education campaign will include the following:

- · Poster campaign for all SJHH nursing units
- Poster and Education Awareness campaign for other identified stakeholders.

#### Future opportunities:

- Structured, ongoing group education sessions for identified stakeholders
- Program expansion to include hemodialysis vascular access awareness.

Through knowledge sharing, this initiative will ensure health care providers have both the basic knowledge and resources to manage the unique situations of PD patients. This initiative will provide a reference source for urgent and routine optimal care. This will improve patient well-being, increase comfort and decrease risk in the provision of PD care.

## The impact of single-needle hemodialysis on new chronic dialysis starts for individuals with arteriovenous fistulae

Barbara Wilson, RN, MScN, CNeph(C), Lori Harwood, RN, MSc, CNeph(C), Bonita Thompson, RN, BA, Gail Barbour, RN, CNeph(C), Mike Berta, RN, BScB, BScN, Lisa Hannah, RN, Margaret Herman, RN, Elaine Liston, RN, Margaret Robb, RN, Nola Rowland, RN, CNeph(C), and Twylla Dawn Wyton, RN

Background: Native arteriovenous fistulae (AVF) are the 'gold standard' for hemodialysis (HD) vascular access. Unfortunately, AVFs can develop complications including inadequate maturation, cannulation difficulties and needle infiltration. In an effort to decrease complications and subsequent central venous catheter (CVC) use, our centre introduced single-needle (SN) dialysis in April 2006 for new chronic patients receiving their first six HD treatments.

Purpose: To evaluate the impact of implementing SN dialysis on the incidence of CVC placements, investigative procedures required (i.e., arteriography), and missed HD treatments within the first three months of commencing dialysis. A secondary objective was to compare these data with double-needle (DN) dialysis treatments from the previous year.





Methods: Retrospective chart reviews were conducted for all new chronic HD outpatient starts from April 2005–April 2006 for patients using DN dialysis, and from April 2006–November 2007 for those using SN. Information gathered included demographic data, location and vintage of the AVF, laboratory parameters, frequency of CVC placements, arteriography, and missed HD treatments due to cannulation difficulties.

Results: In total, data pertaining to 11 DN and 22 SN patients were collected. Of the 11 DN patients, two (18.2%) required a CVC placement in the first three months of treatment as compared to two (9.1%) using SN dialysis. Similarly, arteriographic investigations of the AVF were required in four (36.4) DN versus three (13.6%) SN patients. There were a total of 19 missed treatments (eight DN, 11 SN). Laboratory parameters appeared consistent between the two groups.

Conclusions: Use of SN dialysis for the first six HD treatments resulted in fewer CVC placements and investigations while maintaining adequate laboratory parameters. These results lend support for further research in this area.

# Achieving full scope of practice in hemodialysis for the registered practical nurse at Lakeridge Health

Emily Harrison, RN, BHScN, CNeph(C), Barb Brown, RPN, Laura Wigley, RPN, Jennifer Verrydt, RPN, Betsy Brown, RPN, Sherri Wood, RPN, and Andrea Ravestein, RN, CNeph(C)

In 1997, registered practical nurses (RPN) were hired into the hemodialysis unit in our program working as dialysis aides. They became experts on the set-up of equipment and monitoring of the patient during treatment. As their expertise increased, their desire to work to their full scope of practice became evident. This professional development of the RPN role was seen as beneficial to the program and would assist with the recruitment and retention of RPNs in hemodialysis.

In 2001, a committee was organized to explore the opportunity to have RPNs cannulate, access central lines, initiate dialysis, assess and monitor the patient, and discontinue dial-

ysis. This committee included: professional practice leaders, union representatives, RNs and RPNs working in hemodialysis, and leadership from the program along with consultation from the College of Nurses of Ontario. A plan was created to safely integrate full scope of practice within the hemodialysis unit. Training began for the RPNs in the fall of 2001. We now have a complement of six full-time and five part-time RPNs who work collaboratively within the hemodialysis unit.

In of 2007, the RPN scope of practice was further increased to include administration of Erythropoetin IV push during hemodialysis. It received approval through the corporate committee process.

Next steps are to explore the possibility of administration of IV antibiotics after the initial dose and once the patient is stabilized.

This presentation will highlight our past through to our future in the professional development of the RPN role within the hemodialysis setting.

## Alerting nephrology nurses to diet and diabetes self-care issues for patients with type 2 diabetes on hemodialysis

Teresa L. Taillefer, BASc, RD, CDE

Purpose of the project: This project alerts nephrology nurses to the complexity of the diet prescription and self-management for type 2 diabetes (DM) on hemodialysis (HD) and provides a screening questions tool to assist in identifying concerns for this population.

Project description: A registered dietitian completes nutritional assessments and develops nutritional care plans with patients on HD with type 2 DM. The HD regimen facilitates frequent nurse-patient interaction. This positions registered nurses to identify diet and DM management issues. This project describes the complexity of the diet prescriptions for this population. As well, the self-management issues of type 2 DM on HD are identified. The risk of hypoglycemia and hypoglycemia unawareness is presented. Also, the impact of HD on DM self-management is highlighted.

Outcome: The outcome of this project was the development of screening questions related to the identification of diet and diabetes self-management issues.

Implication for nephrology practice: With increased awareness and use of the screening questions, nephrology nurses may be better able to identify diet and diabetes self-care-related issues. With enhanced identification and understanding of diet and DM self-care issues for patients on HD with type 2 DM, nephrology nurses and dietitians can look towards collaborative care plan development to positively impact the quality of life for this population (Taillefer, 2008).

#### Reference

Taillefer, T. (2008). Nurses and dietitians collaborating to positively impact dietary and diabetes management issues for patients with type 2 diabetes on hemodialysis. Unpublished manuscript. Centre for Nursing and Health Studies, Athabasca University, Athabasca, Alberta.

### A quality improvement initiative: Our version of a vascular access camp

Mary Larade, RN, CNeph(C), and Heather MacQueen, RN, BScN, CNeph(C)

The demand for hemodialysis continues to grow with greater challenges around vascular access. Vascular access is one of the significant quality indicators used to determine patient outcomes in our renal program. In October 2007, we attended CANNT and viewed a poster presentation from York Central Hospital Dialysis Program on their vascular camp, which inspired us to host our own vascular initiative.

In January 2008, we were successful in obtaining an Integrated Quality Improvement Grant from the Cape Breton District Health Authority. Our camp goal was to provide education to support and enhance clinical excellence with a focus on vascular access. Upon completion of a four-hour comprehensive vascular access camp that included lectures, interactive booths, open discussion, and feedback, each participant would achieve the learning objectives.

In March 2008, the camp was held twice so all available staff could attend. The grant assisted with compensating staff for their time. A multidisciplinary team was invited to participate. To measure quality outcomes, a pre- and post-test, an evaluation form, a crossword puzzle, and a chart audit were utilized. Feedback from the staff was mostly positive. Lectures from our vascular surgeon and interventional radiologist were well received. An improvement was shown in the post test. The chart audit will be repeated in one month.

Overall, the camp enabled us to share evidence-based practice, with everyone receiving the same information, which enhances the continuity of patient care. Whether new to dialysis or a veteran of many years, we can benefit from continuous professional development.

## Implementation of a multidisciplinary medication reconciliation review in the outpatient hemodialysis program

Gigi Wo, BScPhm, RPh, Ryan Leppert, BScPhm, RPh, Reshma Dole, BScPhm, RPh, Sara Durkee, CPhT, and Lynn McArthur, CPhT

The goal of medication reconciliation includes provision and maintenance of an accurate and current medication record; correction of discrepancies between physician orders and what's being taken; and prevention of adverse events and potential patient harm. Medication reconciliation is a key component of seamless care.

The purpose of the initiative is to implement an effective multidisciplinary medication reconciliation review process in the outpatient hemodialysis program. Patients with chronic kidney disease are prescribed on average 10 to 12 medications. The initiative involved two stages of implementation.

Stage I: An evaluation-order form (tool) was developed to identify medication discrepancies. From March to April 2007, renal pharmacists conducted medication review on 88 outpatient hemodialysis patients. The pharmacists recorded and reviewed the discrepancies with a nephrologist, if indicated. Six months later, nursing staff conducted medication reconciliation using the evaluation-order form on the same group of

patients. Each patient's evaluation-order form was reviewed by a nephrologist at the next patient care round allowing for correction of discrepancies, if indicated. The type and number of medication discrepancies were collected for each patient. Evaluation through data analysis and team feedback will determine if the process and form are effective in capturing medication discrepancies.

Stage II: Started in January 2008, the study patients are receiving more frequent medication reconciliation at every four months (twice by a renal pharmacist and once by nursing staff). Evaluation through data analysis will determine if more frequent reconciliation can maintain a more accurate medication record.

This initiative can be shared with other centres to promote effective medication reconciliation.

### Changing homes: Peritoneal dialysis in long-term care

Nancy Erb, RN, CNeph(C), Faria Ali, RN, BScN, GNC(C), Julie Nhan, RN, MN, CNeph(C), and Serena Chee, RN, BScN, CNeph(C)

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) show that the number of end stage renal disease patients between the ages of 65 and 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 comorbidities 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 Centre, 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.

#### Acknowledgements

Dr. Paul Taylor, Physician, Operations Leader for PD, Providence Health Care; Lee Clark, Director of the Renal Program, Providence Health Care; Michaela Leicht, Renal Social Worker, Providence Health Care; Lisa Kirkpatrick, Patient Educator, Providence Health Care; The PD Team at Providence Health Care; Dr. Suneet Singh Nephrologist, Medical Director for PD, Vancouver General Hospital; The PD Team at Vancouver General Hospital; The PD Team at Fraser Health Authority; Baxter Canada; Mae Quon-Forsythe, Vancouver Community; and Three Links Care Centre.

### Welcome to London Health Sciences Centre Satellite and Home Care Program: A brief outline from a technical point of view

Andy Gottfried, Dialysis Technologist

As the demand for dialysis increases, the availability of dialysis also needs to increase. There are a couple of ways in which larger city hospitals can meet the increase in demand. One way is for larger city hospitals to create partnerships with smaller/rural hospitals to implement smaller "satellite" dialysis units. Another route that larger city hospitals might venture down is to send dialysis patients home and develop a "home care" program.

So, how do other hospitals provide technical services/coverage to support a "satellite" or "home care" program? This question has been raised in multiple discussion forums and renal chat rooms that I have visited over the past couple of years. During this time, I have been providing technical services for London Health Sciences Centre's "satellite" and "home care" program.

This poster presentation will provide a brief history of London Health Sciences Centre's Satellite and Home Care program, an outline of technical interests including such things as number of technologists, number of machines, and travel/distance and, finally, the process followed from when a system fails to when it is fixed and returned to service.

The reader will hopefully walk away with a general knowledge of London Health Sciences Centre's Satellite and Home Care program.

## Home hemodialysis: Challenges to success— A community hospital perspective

Tracey Burton, RN, CNeph(C), HBSc, and Tina Regular, RN

The benefits of home dialysis therapies continue to be documented by large teaching hospitals within Canada, but smaller community hospitals have rarely been able to provide these services to their patients in the same capacity. Lakeridge Health (LH), in forecasting the future needs for dialysis, identified a priority to improve home therapies and, specifically, home hemodialysis (HD). The presentation focus is the experience of a community hospital in development, implementation, expansion and evaluation of a home hemodialysis program.

LH has been able to offer patients all modalities of home hemodialysis (nocturnal, short daily and conventional) within the confines of existing resources. At present, for our home HD program, 27% are short daily and 73% are nocturnal. No patient is currently on conventional HD at home.

Home HD program capacity has been increased substantially since the beginning the process from less than 1% to 7% currently, with a target of 10% by April 2009. The growth at LH has been achieved through staff dedication, innovation, creativity and leadership. By looking at the past practice and toward the future needs for dialysis, LH has developed a successful home HD program.

#### Day of celebration and learning

Tracey Burton, RN, CNeph(C), HBSc, Pat Reed, MSW, RSW, and Tina Regular, RN

The benefits of home hemodialysis in terms of patient wellbeing and the reduced economic cost of treatments are well documented. In addition to the physical benefits, the accomplishment of mastering the techniques, having more control over scheduling, and being involved, at work or in hobbies and family life, can enhance patients' self-esteem. Staff in the home hemodialysis program, Regional Nephrology System, Lakeridge Health, has developed an innovative way to acknowledge the successes in individual patients and the growth of the program by hosting an annual Day of Celebration and Learning. Patients/caregivers who have completed home hemodialysis training are given diplomas in celebration of this accomplishment. Potential new patients considering home hemodialysis are invited to attend. The patients' perspective is provided by a seasoned speaker doing home therapy who shares experiences and some coping ideas. There is informal sharing amongst the attendees. Feedback from those who attend indicates it is validating for those already in the program to be recognized in this tangible way. It is helpful for those considering home modality to hear from their peers, as well as having written information to take home. This success is also shared across the corporation by coverage for the inhouse newsletter.

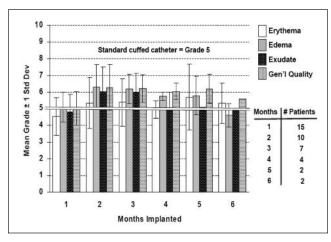
### Exit site healing for a novel vascular access device

Anna-Marie Sutherland, RN, CNeph(C), Abram Janis, MS, Murray Asch, MD, FRCPC, Andy Myers, MD, CM, FRCPC, and Andrew Steele, MD, FRCPC

Purpose: A vascular access device has been developed to ease catheter exchange and allow catheter repositioning through a tissue integrating port, which replaces the cuff on tunnelled central venous lines. Exit site wound healing is an important predictor of implant success, as the healed skin can act as a barrier to extrusion and infection.

Methods: This study was an interim analysis of a prospective non-randomized clinical trial of 50 patients. Exit site erythema, edema, exudate, and general quality of wound healing were graded during monthly follow-up using a visual analog scale [worse (0) to better (10), relative to cuffed tunnelled catheter (5)].

Results: Fifteen patients were enrolled and graded between July 16, 2007, and January 23, 2008. The mean grade for each parameter is shown below. The number of patients assessed for each month is listed in the figure legend. There were no significant differences between time points, and the exit site erythema, edema, exudate and quality were similar to those for cuffed catheters, and were generally higher at later time points. There were no infections or serious device-related adverse events.



Conclusions: These results suggest that the wound healing parameters were not different from those for cuffed tunnelled catheters at one month, with a trend towards better healing at two to six months.

**Implications for nephrology care:** A novel device that offers additional functionality, yet has similar exit site healing to standard care would be a benefit in the care of patients.

### Patient satisfaction with a novel vascular access device

Anna-Marie Sutherland, RN, CNeph(C), Abram Janis, MS, and Andrew Steele, MD, FRCP(C)

Purpose: A vascular access device has been developed to ease catheter exchange and allow catheter repositioning through a tissue integrating port, which replaces the cuff on tunnelled central venous lines. Patient satisfaction with the device provides important feedback and may be a useful predictor of compliance.

Methods: This study was an interim analysis of a prospective non-randomized clinical trial of 50 patients. Patient satisfaction with insertion procedure, recovery, follow-up care, comfort, and dialysis treatments was graded during monthly follow-up using a visual analog scale ["very unsatisfied" (0) to "satisfied" (5) to "very satisfied" (10)].

Results: Seventeen patients were enrolled and censused between July 16, 2007, and January 23, 2008. The mean grades ± 1 standard deviation for each parameter are shown in the table below. There were no significant differences between time points for all the parameters (P>0.05, Kruskal-Wallis One-way ANOVA), with the exception of months three (P=0.006) and four (P=0.007) versus month one for procedure (One-way ANOVA). All the mean grades were between "satisfied" and "very satisfied".

Conclusions: On average, the clinical trial patients rated their experiences between satisfied and very satisfied. These high ratings persisted throughout the six-month follow-up period.

| Table 1. Results |       |       |       |       |       |       |  |
|------------------|-------|-------|-------|-------|-------|-------|--|
| Month            | 1     | 2     | 3     | 4     | 5     | 6     |  |
| N                | 17    | 10    | 7     | 5     | 3     | 3     |  |
| Procedure        | 7.32  | 7.97  | 9.29  | 9.50  | 8.4   | 9.13  |  |
|                  | ± 1.7 | ± 1.9 | ± 1.0 | ± 0.5 | ± 0.4 | ± 0.5 |  |
| Recovery         | 7.06  | 8.03  | 9.51  | 9.46  | 8.73  | 9.17  |  |
|                  | ± 2.6 | ± 1.9 | ± 0.6 | ± 0.5 | ± 0.5 | ± 0.3 |  |
| Follow-up        | 9.11  | 9.48  | 9.70  | 9.62  | 8.97  | 9.27  |  |
|                  | ± 1.2 | ± 0.5 | ± 0.5 | ± 0.4 | ± 0.7 | ±0.4  |  |
| Comfort          | 6.92  | 8.18  | 8.40  | 9.04  | 8.80  | 9.03  |  |
|                  | ± 2.5 | ± 1.9 | ± 1.9 | ± 0.8 | ± 0.5 | ± 0.6 |  |
| Dialysis         | 8.69  | 9.04  | 9.10  | 8.88  | 8.20  | 9.17  |  |
|                  | ± 1.4 | ± 1.6 | ± 1.0 | ± 1.3 | ± 1.0 | ± 0.4 |  |

Implications for nephrology care: A novel vascular access device that offers additional functionality would be a benefit in the care of patients. The generally positive ratings by patients regarding their experience with this device are encouraging.





# Achieving patient and management expectations through an interdisciplinary peritoneal dialysis approach

Sylvie Bureau, inf., Clinicienne, and Nicole Mathieu, infirmière

**Background:** In 2006, we had only 29 patients left on peritoneal dialysis, from approximately 95 in 1998. We decided to look at the whole peritoneal dialysis process.

**Objectives:** Revitalize the peritoneal dialysis program in order to increase the number of patients, improve the patient's quality of life and increase productivity.

Methods: An extensive revision of our peritoneal dialysis program began, combined with a participative research approach. We started with the direct involvement of a peritoneal dialysis nurse at the predialysis clinic. A specific surgical team, which consists of a surgeon and two peritoneal dialysis nurses, was created to insert catheters under local anaesthesia. We empowered the hemodialysis nurses with the knowledge of peritoneal dialysis modality, so they can recruit patients among their units. For any peritoneal dialysis patients coming to emergency to rule out peritonitis, an agreement was reached to limit to less than one hour the time needed to evaluate them and to go up to the nephrology unit.

Results: Over an 18-month period, the number of peritoneal dialysis patients increased by 44%. Quality of life seemed a common feeling among the majority of our patients. Adverse events were less frequent and the waiting list for catheter insertions disappeared. The dialysis program cost analysis has demonstrated a substantial cost reduction and increased productivity.

Conclusion: Challenging every step of our peritoneal dialysis program brought positive effects. The involvement of the peritoneal dialysis nurses throughout the whole process of continuum of care has really made the difference.

### A creative partnership: Utilization of a new patient information binder as a self-management strategy

Linda Ballantine, RN, MEd, CNeph(C), Mary Schwan, RN, and Heather Pitcher, RN

Background: Patients with chronic kidney disease are an ideal group to participate in the management of their chronic illness as partners in their care. The goal of this quality improvement initiative focused on preparing patients to assume a more active role in this partnership by giving them a tool to support their learning, organize their data, and enhance self-efficacy.

Method: One-on-one interviews were conducted with all patients capable of responding to the question, "What would have been helpful for you to know when you started on dialysis?" Based on this feedback, a draft patient information document for patients starting on hemodialysis was developed by an experienced senior hemodialysis nurse and reviewed by the program multidisciplinary team. Funding from a vendor was obtained to purchase three-ring binders with dividers to separate the categories, in which to organize the contact numbers, flow-sheets, and information on nutrition, exercise, medication, interventions, etc.

Results: Through August 2008, 103 patients will be given the binder. A survey will be distributed to evaluate satisfaction with the new information binders, and to ascertain how frequently the information is accessed. It is postulated that another success factor will be the augmented interaction between patients and the nurses regarding lab values, adherence to prescribed regimens, and knowledge transfer.

Conclusion: The implementation of this project helped staff recognize what is important information from the patient's perspective. By freely sharing this binder with colleagues across the nation, other patients may benefit form the work already done, development costs can be minimized, and research into the effectiveness of such an initiative may be prompted.

## Transitions: The changeover from one peritoneal dialysis system provider to another

Linda Ballantine, RN, MEd, CNeph(C), Judith Ferguson, RN, CNeph(C), Kimberley Bolender, RN, CNeph(C), and Janice Herdman, RN

Background: The York Region Dialysis Program at York Central Hospital opened its doors in November 1998, providing peritoneal dialysis (PD) services to residents of York Region in Ontario. At that time, a competitive bidding process awarded one company the contract as the sole provider of the PD supplies and equipment. In 2007, a second Request for Proposal was issued and the decision to change to another vendor was made.

Using Lewin's Force Field Analysis as the model guiding the change, a key feature of the process was the identification of the forces that either supported or hindered the organizational work plan for the changeover. It was also recognized that patients would be greatly affected by this change, and Schlossberg's Transition Theory provided a framework for understanding how people react to certain life events that

require a change to help staff prepare patients for the transition to another system. The transition involved training all the staff (PD clinic staff and hospital, i.e., the in-patient unit, operating room, diagnostic imaging) and patients, complete inventory turnover, and follow-up home visits.

This presentation will be particularly relevant for those who may be anticipating a major change in vendors, equipment, or supplies. However, it describes a process that is transferable to any change initiative. After reviewing the poster, participants will be able to describe principles that will guide the change process and identify assets and liabilities to consider when creating a work plan to implement a change.

## Elevated glycosylated hemoglobin levels in peritoneal dialysis patients: Is it all about the glucose load?

Christina Vaillancourt, BSc, RD, CDE

The purpose of this project was to investigate the root causes of elevated glycosylated hemoglobin levels (HgA1c) in chronic kidney disease (CKD) patients receiving peritoneal dialysis (PD) as a home therapy. Fifty-one diabetic charts were reviewed (7 type 1 and 43 type 2). Patients were divided into two groups: those with HgA1c less than 7%, and those with HgA1c greater than 7%. For each group, the following were determined: membrane type, dialysis solutions (glucose versus glucose sparing), type of PD regimen (continuous ambulatory versus night time cycler), whether patients had a family doctor (FMD) to manage their diabetes, had attended or were attending an adult diabetes education clinic (ADEC), if diabetic medications were maximized and body mass indices (BMI).

Evaluations: 50% of the patients had HgA1c greater than 7%. Of those patients, no correlation was noted regarding the level of HgA1c, membrane type, the use of glucose sparing dialysate or the dialysis regimen. All but two patients had FMD and attending ADEC did not result in a lower HgA1c. It was noted that those patients with HgA1c greater than 7% did not have optimal antihyperglycemic therapies and were found to have elevated BMIs.

Implications for nephrology: While, in theory, the use of glucose sparing solutions would result in lower HgA1c levels and, thus, better diabetic management, the review suggests that diabetic management of PD patients is multifactorial and requires a multidisciplinary approach.

### Technical challenges of delivering mobile rural dialysis in Alberta

Taras Sembaliuk, Biomedical Engineering Technologist, and Troy Rossmann, Biomedical Engineering Technologist

An oral PowerPoint presentation by the Northern Alberta Renal Program (NARP) technical support group will describe the NARP program and will introduce their first Mobile Dialysis Unit, deployed on January 18, 2008.

This presentation will outline the rationale for building and operating a mobile dialysis unit as opposed to site-based dialysis units. A comparison of capital cost and operating costs will be discussed. Positive and negative patient impact will be shown, as well as the advantages and disadvantages for the NARP program to operate a rolling dialysis unit.

The concept of building the rolling dialysis unit will be discussed, and will include the type of vehicle required, square footage needed for the number of treatment stations specified and the necessary clinical systems needed to create a fully self-sufficient dialysis clinic on wheels.

A description of the actual design of the bus, along with drawings, will be shown and described. Rationale for the dialysis-related equipment chosen will be discussed, as well as unique and custom designs for housing clinical systems such as the water treatment and the oxygen storage and distribution equipment will be shown. Power, water, sewer, and data connections will be shown and described

Once the bus project was implemented, challenges and difficulties associated with travel, and weather will be described. Changes to the design and adjustments will be discussed to meet the environmental severities of Alberta.

A conclusion and discussion of the overall success of the project along with what we would do differently if we were to build another bus will close the presentation with a question and answer period.

## Do we have a problem? Assessing vascular access infections in our home hemodialysis program

Sarah Thomas, RN, BSN, CNeph(C), and Beverly Sondrup, RN, BSN, CNeph(C)

In August 2007, we began to notice what appeared to be an increase in vascular access (VA) infections among patients registered in our home hemodialysis (home HD) program. Was this an actual increase, or did it just appear that way?

Our first step to assess whether or not we had a problem was to discuss our observations with the VA nurses from our region. Questions our home HD team of nurses and nephrologists posed included: How do our infection rates compare with those of other home programs? Are our patients a more visible group, making any infections more noticeable? Do all our patients receive the same teaching about VA and infection control techniques during home HD training? And, is this education adequate?

Next, our team conducted a chart review of all home HD patients trained in our program. Our goal was to gather data about the VA infections patients developed while on our pro-





gram in terms of their type, severity, frequency and timing.

So... did we find a problem? Benchmarking our infection rates with those of other home programs showed our rates were actually lower than others. What was revealing was the timing when infections occurred. In our patients, infections were highest within the first six months following home HD training and after 24 months on the program. These findings provided us with new insight into the need to develop ongoing training and re-certification guidelines, and underscored the importance of consistent, comprehensive education and support for new patients.

## Making an electronic order entry and documentation system work for peritoneal dialysis — Surmounting design limitations

Donna Leafloor, RN, BScN, MHSM, and Monique Bénard, RN, CNeph(C)

In 2007, the home dialysis team at The Ottawa Hospital created innovative strategies to permit implementation of the nephrology computerized physician order entry and documentation (CPOE) system for the peritoneal dialysis (PD) population. CPOE had been utilized in the seven hemodialysis units for a number of years, but it had not yet been implemented for PD. Last year, we decided this must be a priority to support evidence-based practice and patient safety.

Lack of access to PD patient information was a growing problem, particularly when patients required admission at one of three in-patient campuses and the paper chart was located at the outpatient campus. The barrier we faced was that the PD component of the system was formatted in a way that was not consistent with our documentation requirements.

This presentation describes the steps taken to implement the system. On both the CAPD and CCPD screens, we needed to add information that did not fit into the existing formatted areas and drop-down menus. Therefore, we optimized our use of the sections for free text comment, frequently prescribed orders and progress notes. Dozens of templates were created to ensure consistency of orders and documentation and to support data retrieval and reporting from the system.

Currently, information about PD patient care can be accessed electronically throughout the hospital via secure intranet connections. Implementation of the electronic patient

record has contributed to consistency in standards of care and physician orders, improved communication and continuity, and supported quality monitoring and reporting.

### Data safety monitoring boards: What role do they play in clinical research?

Valerie Cronin, RN, BA, SCM, MA, CCRP

Data Safety Monitoring Boards (DSMBs) have been developed to monitor and protect the safety of subjects participating in clinical research, particularly those involved in large multicentre, long-term studies. The method and degree of monitoring involved is related to the research risks, complexity, intervention and the study endpoints. The purpose of this presentation is to provide an overview of DSMBs, discuss when a clinical trial needs a DSMB, and review the roles and responsibilities of DSMBs in clinical research.

In our research centre, the DSMB play a crucial role in nephrology clinical research, protecting participant safety and clinical research integrity. DSMBs are not involved in the day-to-day coordination or the management of the clinical trial, but have the expertise required to monitor the trial, assess adverse and serious adverse events, review interim analyses, modify protocols or recommend conclusion of the trial when clinically significant benefits have been found, or when risks greatly outweigh benefits.

This presentation will review ways that DSMBs have added validity and transparency to our clinical research. It is crucial that all members of the research team understand the role and responsibilities of the DSMB when conducting clinical research. Data from our clinical research studies will be used to develop nephrology clinical practice guidelines, enabling health care professionals to apply the guidelines in their nephrology clinical practice with patients.

#### Le réseau vasculaire : un capital à préserver pour le futur

Diane Desmarais, BSc, DESS, Sc., Inf, et Lyse Pelletier, Bsc, Inf

Prélèvements, injections, cathéters intraveineux font partie de la réalité des jeunes insuffisants rénaux. Ces traumatismes répétés altèrent le réseau veineux et peuvent créer des obstacles irréversibles lors de la réalisation d'un abord vasculaire pour l'hémodialyse. Il est donc primordial d'adopter, le plus tôt possible, une stratégie de protection du réseau vasculaire chez notre clientèle pédiatrique.

Au CHU Sainte-Justine, l'unité de dialyse et greffe rénale s'est dotée d'outils (affiches, étiquettes et cartes personnalisées) qui permettent d'améliorer la qualité de vie des jeunes en préservant leur capital vasculaire. Ces outils ont été mis en place chez tous les patients (prédialyse, dialyse péritonéale, hémodialyse et greffe rénale) depuis 2006. Nous rapportons l'évaluation qualitative rendue par les différents intervenants impliqués dans la prise en charge de ces patients (anesthésistes, chirurgiens, infirmières, inhalothérapeutes, radiologistes) et aussi par la famille et le patient. Ces outils ont été appréciés et ont permis de véhiculer l'information dans les différents services ainsi que dans le réseau de santé.

Il nous semble donc très pertinents d'utiliser ce matériel pour protéger le réseau vasculaire des enfants et éviter d'hypothéquer leur avenir. Same abstract as above—in English:

### The vascular network: A capital to preserve for the future

Diane Desmarais, Bsc, DESS, Sc, Inf, and Lyse Pelletier, Bsc, Inf

Blood samples, injections, and intravenous catheters are a part of the reality of young people with end stage renal disease. This repeated trauma alters the venous network and can create irreversible obstacles during the realization of a vascular access for hemodialysis. It is, thus, essential to adopt, as soon as possible, a strategy of protection of the vascular network of our pediatric patient.

At CHU Sainte-Justine, the dialysis and renal transplant unit is equipped with tools (posters, labels and personalized cards) that allow improvement in the quality of life of young people by protecting their vascular capital and also by avoiding mortgaging their future. These tools were set up for all patients (predialysis, peritoneal dialysis, hemodialysis and kidney graft) since 2006. We report the qualitative evaluation returned by the various speakers involved in the care of these patients (anaesthetists, nurses, radiologists, respiratory therapists, surgeons) and also by the family and the patient. These tools were appreciated and allowed to convey the information in the various services, as well as in the health network.

It seems to us very relevant to use this material to protect the vascular network of the children and avoid mortgaging their future.

### Peritoneal dialysis growth at Saskatoon Health Region: What happened?

Jane Dutchak, RN, CNeph(C), Brendan McLoughlin, RN, BScN, Joann Merkley, RN, Nancy Fortier, RN, BScN, Susan Robichaud, RN, BScN, and Julie Nhan, RN, MN, CNeph(C)

The peritoneal dialysis (PD) program at Saskatoon Health Region implemented a continuous quality improvement project (CQI) to enhance PD utilization. This exciting initiative aims to advance PD therapy by supporting and improving program excellence at Saskatoon Health Region. Through this CQI process, we were able to assess and identify potential areas of improvement in relation to acquisition and retention rates. It also identified opportunities to support our program's desire to grow PD by 3% by the end of December 2008, and an overall goal of 30% by the end of 2010.

After a 'needs assessment' was completed, we recognized that our energy needs to be focused on improving acquisition. As a result, our program proposed a number of changes to identify patients who may be suitable for PD. The primary focus of the initiatives was to increase PD knowledge/awareness amongst medical, nursing and patient populations. This was achieved through a plan that included education sessions for hemodialysis nurses, 'options classes' for the chronic renal insufficiency patients and a more formalized referral process to identify potential patients.

This presentation will review some of our initiatives, as well as discuss some of our preliminary results, including an increase in PD usage from 21.6% in January 2007 to 25% by year end. Most importantly, it will highlight how dili-

gence, perseverance and commitment from all levels at the PD program in Saskatoon Health Region, including medical team, nursing management and the renal staff, can make a difference.

#### Acknowledgements

Renal staff from chronic renal insufficiency and hemodialysis units, Diane Shendruk, Manager of Chronic Renal Insufficiency and Peritoneal Dialysis Programs, Saskatoon Nephrology Group, and Baxter Canada.

### Guidelines for disaster planning — Home hemodialysis

Gourie Ramlal, BSc, CDP, Meenakshi Sundharam Sudarshan, PGD, Dt, Cdt, and Cesar Santiago, GPD, Dt

Purpose of the project: Toronto General Hospital is a leader in Global Health Care in many disciplines. The home hemodialysis program at this institution is no exception. With increasing global disasters, this institution has formulated a plan to include all of our hemodialysis patients in the event of any disaster. Our patient population ranges in distance from within 1 km of the hospital to as far as 750 kms away. This presentation will present guidelines for all patients involved in home hemodialysis treatment in our program. It will include disasters ranging from blackouts, floods, infectious diseases, and other medical or manmade disasters.

**Description:** We will be reviewing the various procedures involved in each of these disasters. We will look at patients having to relocate to access medical care, as well as patients who cannot leave their homes because of an outbreak that will require them to remain indoors.

Outcome: Widespread outbreak would overwhelmingly strain the health care system, not only patients, but also doctors, nurses and other health care personnel. Effective communication and preparedness will play a vital role in any critical situation.

Implications: Successful implementation is always challenging and it requires complete team support. Overall, our poster presentation is to assist home dialysis patients and care providers to better prepare themselves in the event of such disaster.





### Home but not forgotten: A "case" for inclusion of home-hemodialysis patients in clinical research studies

Anna-Marie Sutherland, RN, CNeph(C), Abram Janis, MS, Murray Asch, MD, FRCPC, Andy Myers, MD, CM, FRCPC, and Andrew Steele, MD, FRCPC

Lakeridge Health has been conducting a clinical trial to evaluate a novel vascular access device. This device has been hypothesized to ease catheter exchange and repositioning through a tissue integrated port, which replaces the cuff in hemodialysis (HD) catheters. This device has been used for incentre, as well as home hemodialysis (HHD) patients. A 53year-old, 46 kg male on peritoneal dialysis (PD) was no longer receiving adequate dialysis. He had an arteriovenous fistula created for HD access, which had failed to mature, and a central venous line was required. The patient consented to enter the clinical study and a vascular access device and catheter were inserted. HHD training began post insertion. One week after insertion, line function was compromised, and a catheter reposition/exchange was performed by interventional radiology. This was the first clinical line exchange ever performed using this device. Function improved after exchange and the patient successfully started dialysis at home after six weeks of training. This patient has been on HHD for almost one year without any difficulties or adverse events. Currently, there are two additional trial patients who are also part of the HHD program. Patients have been able to care for and successfully use this vascular access device at home. These patients demonstrate that this vascular access device does not require more care than a regular cuffed catheter and that HHD patients should not be excluded from clinical trials, as they provide important data and can benefit from investigational studies.

### Variability between transonic access flow measurements: How significant is it?

Janet Graham, RN, BHScN, MHScN, CNeph(C), Gil Grenier, Dialysis Technologist, Jim Jaffey, BSc, MSc, and Peter Magner, MD, FRCPC

**Background:** The monitoring of AV fistula (AVF) blood flow (QA) has become the standard of care for the detection of stenosis and the prevention of thrombosis. The most widely

used and validated method of measuring QA is the Transonic® ultrasound dilution monitor. The Ottawa Hospital has been using this device to measure QA in AVFs since 2002. During this period, we have observed significant transient variability in QA measurements within the same patient with no other clinical findings. In an attempt to validate and explain this variability, we designed a study examining repeated QA measurements in patients with an AVF over 20 hemodialysis treatments.

**Purpose:** To assess the reproducibility of QA measurements using the Transonic<sup>®</sup> access blood flow measurement device in individual patients over multiple measures.

Results: A total of 741 measurements were recorded in 40 patients: 636 (86%) within 20% of the mean for the individual patient: 414 (56%) within 10%.

A multivariable analysis demonstrated that there was more variability in upper arm fistulae and in patients with higher systolic BP at the time of measurement.

Factors not predictive were age, sex, presence of diabetes, UF target and change in BP between start of dialysis and QA.

Conclusion: QA measurement using Transonic® is reproducible the majority of the time using the 20% target as set by CSN and NKF KDOQI Guidelines. This study emphasizes the need to repeat QA measurements to confirm changes and to examine trends in QA, not relying on individual values to determine the need for interventions.

# The Renal Community Council as a model for partners in care: Addressing past concerns, managing present issues and preparing for the future

Robert M. Minke, Chair, KW Site Renal Community Council, Hemodialysis Patient, Ken Roberts, BSW, MSC, RSW, and Joy Bevan, RN, BHScN, MHM

The Grand River Hospital Renal Program, in partnership with patients utilizing renal services, has developed a self-directed and viable Renal Community Council (RCC). This council comprised staff, patients and community members from all program areas. It acts as a voice between the health care team and the renal community, representing patients and caregivers. The council addresses concerns and obtains timely responses related to the renal program, treatment issues, and the context of service delivery.

The council has developed a standardized format and process for obtaining patient and caregiver concerns, and for directly addressing those concerns with the treatment and administrative teams. Included in this process is a juried method for responding to patient and team concerns that ensures discretion and confidentiality.

As a result of the patient-driven council, the renal population has been successful in achieving greater consumer and provider satisfaction, has addressed 100% of the concerns raised by patients, and has influenced many treatment issues, community topics, patient comfort, and program changes impacting patients. The RCC has co-developed an annual patient satisfaction survey as a program quality indicator. The survey has been individualized for each treatment area.

The development, institution and ongoing practice of the RCC have been successful due to the cooperative and accommodating relationship between service providers and recipients within the renal community. The model being presented by the council has direct applicability to other renal programs and communities and offers solid and tested processes for making such an effort transferable to other renal programs.

### Home dialysis: Water treatment system design and equipment selection

Sal Treesh, Biomedical Engineering Technologist, BSc

Pure water is the essence of life itself. Nothing is more important to our health than crystal clear drinking water, clean air, and nourishing food. Unfortunately, all sources of drinking water, including municipal water systems, wells, lakes, rivers, and even glaciers, contain some level of contamination. Contaminants range from naturally occurring minerals to man-made chemicals and by-products, to biological agents such as bacteria, viruses, and cysts. Most contaminants are found at levels low enough not to cause immediate severe health consequences. However, for dialysis patients, it is well documented in scientific journals and research papers that even low-level exposure to many common contaminants can cause severe illness. Even some of the chemicals commonly used to treat municipal water supplies such as chlorine and fluoride are known to have significant adverse effects on the human body, especially dialysis patients.

There is a wide range of water treatment devices available on the market today. In reality, there is no single treatment that will eliminate every contaminant from water to make it suitable for dialysis. Many technologies target only a specific type of contaminant and may be completely ineffective against others. Typically, most complete systems use a combination of filter technologies and reverse osmosis to achieve the best results. It is, nevertheless, important to choose the system that specifically targets the known or potential contaminants in each water supply.

To help health care professionals involved in the design and selection of water treatment equipment gain a better understanding of water purification technology for home dialysis, a complete description of the relevant technologies and a step-by-step guideline for equipment selection, system maintenance, and quality monitoring will be presented. Also, this presentation will feature a number of technologies in various combinations to show how to achieve the best possible water quality for home dialysis patients.

### Advancing practice: Managing peritoneal dialysis by expansion of the RPN role

Debra Appleton, RN, MN, CNeph(C), and Norma Bonnick, RPN

Historically, peritoneal dialysis (PD) in hospitals has been exclusively the purview of registered nurses (RN). Once dialysis was no longer a sanctioned medical act in Ontario, the restriction to a certified RN was lifted, thus allowing for an alternate skill mix. Due to budgetary issues in 1995, the inpatient nephrology unit at the University Health Network (UHN), Toronto, ON, expanded the use of RPNs. A review

and analysis of the skill of PD was carried out, and components that met the College of Nurses of Ontario (CNO) scope of practice for RPNs, revealed that many specific PD skills complied with the CNO. RNs provided supervision and collaborative decision-making, and carried out those skills outside of the RPNs' scope, such as medications. As UHN is a large city hospital encompassing multiple sites, the RPNs were well positioned to assist with off-unit PD. The RNs were responsible for intraperitoneal (IP) medications except heparin. Over a 10-year period, RPNs have become the in-house experts in PD, and have facilitated expansion into long-term care facilities and the community. In January 2008, with an expansion of the scope of practice for RPNs, the hospital provided upgrading for RPNs, which included medication administration, allowing for full PD management by RPNs.

### Achieving the 2006 pediatric Kidney Disease Outcomes Quality Initiative (KDOQI) anemia targets in hemodialysis (HD): Outcomes following a nurse-driven anemia protocol

Lori Paillé, RN, BSN, CNeph(C), and Colin T. White, MD

Revisions of the National Kidney Foundation KDOQI for anemia in chronic kidney disease (CKD) included recommendations for anemia therapy in children with CKD.

Management of anemia in children with CKD/end stage renal disease (ESRD) remains difficult with much variation seen in monitoring and dosing strategies.

**Purpose:** Compare pediatric KDOQI anemia targets in two cohorts of HD patients (pre- and post-initiation eras) of a nurse-led anemia protocol.

Methods: Data abstraction pre- and post-initiation of protocol. Utilizing the monthly blood work—pediatric HD unit nurses would use the anemia protocol and suggest changes to current ESA or iron therapy doses and/or changes in monitoring.

**Results:** The percent of patients IN TARGET based on the KDOQI targets (P=0.06) either approaches or meets statistical significance. The protocol reduced the percent value ABOVE





TARGET in both target ranges (2006, p=0.009). There has been no significant change in the amount of ESA or IV iron therapy required to achieve these results. The current protocol appears to produce significantly lower mean hemoglobin (109.5 versus 114.4 G/L, p< 0.05) than seen pre-protocol.

Conclusions: The current nurse-driven protocol can effectively achieve the goal of having the majority of hemoglobins within the current pediatric guidelines and do so with less overshoot of the upper limit while utilizing similar ESA and iron doses.

### Our experience: Establishing a PD program — A nursing framework

Sharon Fairclough, RN, CNeph(C), BN(c)

The future of growing PD as an equal option to hemodialysis is important for the management and care of patients with end stage kidney disease. There is a lack of available hemodialysis stations and a continued average annual growth of 12% to 15% of patients with end stage renal disease. The option of having a home PD unit is becoming more popular than ever. The newest ministry initiative is helping us get there. But, how does one develop a peritoneal dialysis program. Is there a "How to" section in the nursing procedure manual that gives step-by-step instructions?

What happens once you obtain ministry approval, funding and build your space? As a nurse given the enormous task of developing such a program, and our team of nephrologists, director, manager and educator, we started our journey.

The extent of our work involved the initial steps of networking and collaborating with existing successful programs. We learned from the trials and tribulations of others. Establishing partnerships with the various services being impacted was essential, deciding on equipment and supplies to be utilized, developing policies and procedures, guidelines for care and approval of these documents were a few of the challenges encountered.

The results are pending as we move forward to opening day, but the framework for this project is written and available to all that will one day soon be in the same position we once were. No longer will we have to reinvent the wheel of establishing a home PD program.

#### Targeting dry weight

Gail Barbour, RN, CNeph(C), Julie Ann Lawrence-Murphy, RN(EC), MScN, CNeph(C), Margaret Hastings, RN, and Christine St. Roch, RN, BScN

Dry weight is a fundamental part of the dialysis prescription. The concept of "dry weight" is described as the targeted post-dialysis weight at which most, or all excess body fluid has been removed. The dry weight changes periodically due to variances in patient's body fat composition and, therefore, resetting of dry weight needs to be re-evaluated on a regular basis. Often, patients' dry weight is determined on a trial and error basis before the target weight is achieved. Dry weights that are set too high will result in patients being fluid overloaded at the end of their treatment. High-targeted dry weights, in addition to large interdialytic gains may result in edema or pulmonary congestion. Not only are high-targeted dry weights problematic, but low-targeted dry weights can compromise the patient as well. Complaints of feeling washed out, persistent muscle cramping and hypotension during or after dialysis may suggest that the target weight is too low. This is a sign that the primary nurse and patient need to collaborate to determine a new dry weight.

A need was identified in our hemodialysis unit to develop a tool that would not only assist new staff to the process of targeting dry weight, but also assist all staff with the assessment of the medically complicated patient. Identifying standard evaluation criteria for fluid assessment, relating this information to possible causes, then developing an action plan was the basis for the creation of an assessment flow sheet and treatment plan. This document, "Dry Weight Assessment Flow sheet/Targeting Dry Weight Treatment Plan" was presented to the renal departmental committee and, with approval, is being implemented into the hemodialysis unit as a working tool. Education sessions will introduce the document to staff and two staff members will facilitate the rollout.

Evaluation of the flow sheet and treatment plan will be performed by the primary nurse at three- and six-month intervals and adjustments to the tool will be made as identified with utilization. Expected outcomes will be the following:

- A reduction in negative complications related to targeted dry weight
- Achieving and maintaining targeted dry weight by mutual agreement of the patient and primary nurse.

### The technology behind blood pressure measurement — From past to future

Gabriel Fotiou, Dialysis Technologist, Kerry MacNeill, Dialysis Technologist, Larry Srigley, Dialysis Technologist, Mollah Haque, Dialysis Technologist, Lou Borsella, Dialysis Technologist, and David Lee, Dialysis Technologist

Blood pressure measurement has historically been one of the key indicators in determining a dialysis patient's physiological condition before, during and after hemodialysis. The process and method of obtaining accurate blood pressures since the inception of modern-day hemodialysis has often been taken for granted. A typical four-hour hemodialysis treatment consists of approximately 12 blood pressure readings by the hemodialysis machine. Each reading provides valuable information 45 seconds after the blood pressure button is pressed. But, what actually occurs when the blood pressure button is pressed, how does it work and how has it evolved?

In keeping with the 2008 CANNT conference theme of "Our Past Turned Toward Our Future," this poster will outline the history and evolution of blood pressure measurements dating back over 200 years to current-day technologies. It will also explore the future of blood pressure technology and methods.

The reader will be enlightened by the earliest invasive methods of blood pressure measurement, involving a brass pipe inserted into the artery of a horse, the physics behind the measurement techniques and an outline of the two most common non-invasive measurement methods used today, the auscultatory and oscillometric methods. This poster will also allow the reader an opportunity to feel the forces of blood pressure with an interactive experiment.

The technology behind blood pressure—From past to future is designed to educate and stimulate the hemodialysis interdisciplinary team using a hands-on approach, and to allow the reader to appreciate the history and technology behind the measurement of blood pressure.

#### Peritonitis in North America: The current state and best demonstrated practices

Susan McMurray, RN, BN, CNeph(C)

Peritonitis has always been a major concern for peritoneal dialysis (PD) patients and staff. Fortunately, peritonitis rates have improved dramatically over the last 20 years. This has been partly due to exceptional patient education (Adult Peritoneal Dialysis-Related Peritonitis Treatment Recommendations: 2000 Update, Keane et al., PDI, 2000).

This poster will review the most common causative organism of peritonitis in North America based on the article Microbiology and Outcomes of Peritonitis in North America (Mujais, KI, November, 2006). As well, best demonstrated practices for the prevention of infectious complications will be examined according to Bender et al. (Prevention of Infectious Complications in Peritoneal Dialysis: Best Demonstrated Practices, KI, November, 2006).

### Examining data quality in Canadian dialysis units

Cathy Nadiger, RN, BSN, CNeph(C), and Connie McNaught, RN

Introduction: The importance of any data collection is validating that the information is correct and reflective of the study group. Canadian dialysis units submit primary diagnosis and risk factors to Canadian Organ Replacement Register (CORR) on all patients who have initiated renal replacement therapy. The Canadian Institute of Health Information (CIHI) conducted a study looking at these data to determine if this information was actually a true reflection of the comorbid conditions in the renal population.

Method: CIHI launched a data quality study to identify discrepancy in the information by performing a chart review of a sample of patients from different dialysis units across Canada. To conduct the chart review, CIHI recruited clinical experts from across Canada including two different disciplines, regis-

tered nurses and health information management professionals. The clinical experts were provided with intense training to facilitate consistency when collecting the data.

Results: The coding directives and education for each risk factor and comorbid condition allowed for consistent coding between the clinical experts who participated in this study. If similar directives were developed to help those completing the CORR dialysis forms at the dialysis units, then more consistent data would likely exist in the CORR database.

Conclusion: Further education is required for the personnel submitting data to CORR. More guidelines and definitions are needed concerning these risk factors and primary diagnosis. An electronic submission of data would also be helpful for prompt submission of data and a decrease in error because of manual entry.

### Optimizing care and improving outcomes in evening dialysis patients

Sharon Kostiloff, RN, CNeph(C), BScN(c), and Janet Feener, RN, CNeph(C), BScN(c)

According to Curtis et al. (2005), patients exposed to formalized clinic care in combination with routine nephrologist follow-up demonstrate an overall improvement in survival outcomes. The nephrology primary care nurses (PCN) at St. Joseph's Hospital in Hamilton work collaboratively with nephrologists in the management of patients with end stage renal disease providing structured multidisciplinary care to improve patient outcomes and quality of life within the chronic disease setting. Practising under medical directives, the PCN provides advanced renal management through the ongoing monitoring of outcome measures such as dialysis adequacy, access function, laboratory values and medication adherence.

Under the current model, services provided by the PCN, as well as the allied health team are primarily offered during regular daytime hours, ultimately limiting access to patients routinely dialyzing during the evening. In an attempt to overcome some of the barriers faced by evening dialysis patients, a formalized multidisciplinary clinic will be implemented on a trial basis and evaluated in a qualitative manner through an anonymous patient satisfaction survey.





Survey results, as well as feedback provided by the multidisciplinary team will be examined and presented in a poster format, illustrating the challenges, as well as expected benefits in improving access to care for the evening dialysis patient population.

Implementation of this multidisciplinary clinic will provide the opportunity to further enhance patient care and excellence in service while cultivating the relationship between the patient and the PCN.

#### Reference

Curtis, M.B., Ravani, P., Malberti, F., Kennett, F., Taylor, P.A., Djurdjev, O., & Levin, A. (2005). The short- and long-term impact of multidisciplinary clinics in addition to standard nephrology care on patient outcomes. Nephrology Dialysis Transplantation, 20(1), 147–154.

### A quarter century of PD: BC Children's Hospital experience

Jennifer Leechik, BSN, Brent Chang, BSc, and Colin T. White, MD

**Purpose:** Analyze patient demographics, outcomes and clinical practices over 25 years of peritoneal dialysis (PD) in our dialysis program.

**Method:** Relevant collected data (1981-2005) entered into Excel spreadsheet and analyzed.

Results: 120 unique patients underwent 141 discrete PD representing a total of 1,932.5 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 com-

plications 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%).

Conclusion: 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%).

### Picture this... putting a face to positive patient identification

Saverina Sanchez, RN, MScN(c), CNeph(C), and Annette Weeres, RN, BScN, MN(s)

Patient safety is the ultimate goal in the delivery of quality health care. In a dialysis unit with a large culturally diverse population where language barriers and similar names contributed to the incidence of error, it was imperative that we addressed the issue of positive patient identification. With incidents of mislabelled blood specimens increasing, this practice needed to be addressed in a manner that promoted positive patient outcomes.

Change is imperative, but how and what evidence supports a possible change (Carroll, 2005) and what changes are sustainable within the work environment? The most common solution to this issue would simply be to use patient armband identification for each dialysis visit. However, the recurrent registration process resulted in delayed patient treatment and a significant financial impact for the dialysis unit. Current literature supports that patient photo identification is one method to reduce the incidence of errors in health care settings.

This presentation will describe the process for developing patient photo identification for dialysis patients and the impact on misidentified blood specimen errors. In addition, in the chronic setting of the dialysis unit, this new and innovative project resulted in positive patient outcomes, as their involvement in the process resulted in feeling ownership, pride and autonomy.

Photo identification has helped the dialysis unit deal with high volumes of patient registration, as well as the issue of misidentification. Photo identification is just one more step in ensuring all the data are correct and that a picture ...put a face to positive identification.

### Quality assurance through a custom designed database

Kugan Sangarapillai, Dialysis Technologist

Modern-day hemodialysis has brought us many technological advancements to provide a more efficient and effective treatment for our patients. Many of the advancements have been related to treatment methods and medications, but one vital tool that has been overlooked is the quality assurance database used to help diagnose dialysis machine technical failures. Have you ever asked yourself, "Has my

dialysis machine been repaired correctly? How do I know that this is not the same machine I have used before with the same problem?"

The nephrology technologists at Toronto St Joseph's Health Centre have developed a dialysis technical database, built from the ground up, to improve the existing quality assurance program and take it to the next level. This custom program was specifically designed for the St. Joseph's Renal Unit.

This database program allows dialysis technologists to enter and retrieve data for machine failures, preventive maintenance and parts inventory. There is also a component for reports, which allows technical administrators to perform statistical analysis. Unscheduled machine service files keep track of all necessary information about the incident, the name of the nurse and the dialysis assistant, station number and time of the incident. The possibilities are endless. It also allows technical staff to do queries based on machine identifiers, alarms, parts used or any other data that have been entered. Essentially, the query possibilities are endless. The program is extremely userfriendly. The fields in the database have been designed with pull-down menus that help make the data entry simple and consistent. The database works very well within a multi-user environment. It also allows importing and exporting of data from other database files, as well as spreadsheet programs such as Excel.

This program is a valuable asset to any dialysis program. It ensures the dialysis machine is maintained correctly the first time to ensure the utmost in patient safety, and takes the dialysis technical program into tomorrow's paperless world.

## Info to go... A pilot project: A complete peritoneal dialysis (PD) education toolkit for community nurses

Debra Grant, RN, BN, CNeph(C), Catherine Brumwell, RN, BScN, and Kathryn Levedag, BA

This PD education toolkit was developed as a pilot project in response to a survey of PD programs across the country, which identified the lack of community nursing support as a barrier to PD for some patients. There has also been an increased awareness by the provincial governments of Ontario, British Columbia, Nova Scotia and Quebec about the need for increased home support for peritoneal dialysis (PD). Our organization has received repeated requests for assistance by PD programs to deliver standardized education to community nurses.

The toolkit was designed to contain everything the PD program should need in order to deliver a complete education session to a community nursing agency. It consists of an instructors' manual that includes "Basics of Caring for a PD patient" curriculum in PowerPoint (DVD), an agenda, a list of supplies needed, post test, evaluation and certificate of education. There is an opportunity to customize the course by the instructor, to include PD program policies and procedures.

As well, a cycler and a toolbox containing supporting literature and training tools for CAPD and CCPD are left behind as an ongoing resource. The first pilot education session was a resounding success and was very well received by both the PD nurses and the community agency. Some of the positive responses from the nurses related to their appreciation of the

hands-on training, basic nephrology information that gave them confidence to manage patients in the community, and the opportunity to develop relationships with the supporting hospital PD unit.

Although initially developed for the community nurses, the course and materials have been found to be of equal value to hospital educators of in-patient unit nurses, who may find their exposure to nephrology patients intermittent and, thus, may not always be confident in care of the nephrology patient.

### A peritoneal catheter project: Strategies to improve peritoneal dialysis catheter implantation

Zita Abreu, RN, BScN

The Provincial Peritoneal Dialysis (PD) Joint Initiative identified PD catheter implantation as a barrier to achieving target 30% PD utilization in Ontario.

In January 2007, a PD catheter survey was completed by every dialysis program in Ontario. This survey provided the ministry with information regarding PD catheter implantation, help to identify root causes preventing expedited PD implantation, and identify possible strategies that can overcome these root causes. At that time, the University Health Network (UHN) was given the opportunity to submit a proposal with a budget for one-time funding for a pilot project to identify innovative PD catheter implantation practices that, if adopted by a greater number of CKD centres, could establish the standard of best practice of PD catheter implantation for the province.

In February 2007, The Ministry of Health (MOH) identified UHN as one of six "leadership sites" in Ontario for their PD catheter initiatives to increase incident and prevalent patient census of home PD. UHN was selected for identifying an interest in the use of the pre-sternal PD catheter as a way to prevent patient drop-out due to peritonitis in conjunction with already achieving the targets set by the MOH. Another area of interest was the role of a PD catheter access coordinator to decrease wait time from referral to surgeon. Approval was given by the MOH for one-time funding to UHN to undertake this project.

#### Project thesis





- To decrease wait times between referral from nephrologist to PD catheter insertion.
- To ensure optimal utilization of operating room time available to nephrology.
- To ensure patient is well informed of PD catheter options.
- To substantiate less peritonitis than with conventional PD catheters, as observed by the University of Missouri (using pre-sternal catheters exclusively).
- To decrease dropout rate from PD to HD that results from peritonitis.
- To decrease health care costs associated with peritonitis treatment.
- To improve quality of life for home PD patients (option to take a tub bath; less peritonitis)

The poster presentation will primarily describe how the role of a PD catheter access coordinator has positively impacted our PD catheter insertion practice (decrease in wait times, increased utilization of operating room time and better patient transition of care from the pre-dialysis clinic to the home peritoneal dialysis clinic). As well, it will describe our experience to date using the pre-sternal PD catheter (peritonitis rates, catheter outcomes, patient quality of life).

#### A closed system is the way to go!

Shelley Stamm, RN, CNE, and Rhiannon Thomas, RN, CNE

Purpose of the project: To have a closed-system method of accessing hemodialysis central venous catheters (CVC) and by doing so, decreasing CVC infections, saving on nursing time and providing patient satisfaction with a cost-effective outcome.

**Description of project:** In January of 2007, a trial was initiated with 10 clients with CVC using a closed-system connector exclusively designed to be used for capping dialysis catheters. The trial period was held for a timeframe of three weeks.

During the trial period, the following factors were looked at: flow rates, access pressures and any indication of signs and symptoms of septicemia. A cost-effective analysis was also performed, which included nursing workload and cost of supplies utilized. A cost comparison between past and present practices was performed. Staff and patients were also given an evaluation form to complete at the end of the trial.

Evaluation outcomes: At the end of the trial period, flow rates

and access pressures remained unchanged as a result of using the closed system. There were no patient adverse events noted as a result in the change of practice. An evaluation of infection rates remains ongoing. The evaluations completed post trial period by patients and staff revealed positive feedback. When looking at the cost effectiveness of the change, the results showed substantial savings to the nursing unit.

Implication for practice: Introducing the closed-system method of accessing CVC showed it was beneficial for nursing staff, the nursing unit and improving patient outcomes.

#### Blow up the balloons — We're 10!

Katie Nikl, RN, CNeph(C), June Morgan, RN, CNeph(C), and Lee Beliveau, RN, CNeph(C)

On September 14, 1998, we made B.C. history when Surrey Memorial Hospital, located in Surrey, B.C., opened its door to the first new in-centre hemodialysis unit in more than 30 years!

In 10 short years, we have travelled a diverse road of growth. We have expanded our program from 42 to 125 incentre patients and lived through three and one-half renovations to provide the needed capacity. We have amalgamated with two community dialysis units and each has undergone renovations to meet the growing needs of almost 200 community-based patients.

Through all of this, it is our staff that has rallied to each challenge giving its all and propelling us to our next achievement! Recruitment and retention of renal staff is always a challenge from management's perspective.

We would like to share our successes with you as we celebrate our past and our future and the continued efforts of our initial dynamic team. What made them great and where have they ascended to in the common goal of striving for excellence in nephrology nursing?

## Implementation of a nursing intervention checklist for hemodialysis permanent catheter dysfunction

Margaret Jenkins, RN, Twylla-Dawn Wyton, RN, Sherry Maltby, RN, Valerie Cameron, RN, Charlotte McCallum, RN, MN/ACNP, CNCC(C), and Bonita Thompson, RN, BA

Hemodialysis permanent catheter dysfunction is a frequent complication in the hemodialysis population. The majority of dysfunctional catheters are related to an accumulation of fibrin-based material. However, a significant number of dysfunctions are related to mechanical or positional issues. Historically, nurses have used various positional changes to assist with troubleshooting dysfunctional catheters to rule out mechanical or positional complications before requesting thrombolytic agents. Expert opinion recommends positional changes. Interestingly, no research is available to support specific positional changes. Due to a perceived inconsistent approach, a choice was made to trial a checklist for nurses to troubleshoot dysfunctional permanent hemodialysis catheters. All nursing staff at three dialysis units were surveyed regarding practice knowledge both prior to, and post implementation phase of a checklist. Twenty-seven paired surveys were utilized for this study. The anonymous staff nurse surveys were statistically evaluated using a paired-t test, which found no statistically significant difference (p= 0.77; p=0.39) in nursing knowledge of troubleshooting dysfunctional permanent catheters prior to, compared to post implementation of a checklist. Interestingly, there was a statistically significant decline (p= 0.02) in thrombolytic use per permanent catheter capita following the implementation phase of the checklist. Our research suggests that although the troubleshooting checklist did not impact on nursing knowledge, it may have served as a reminder to utilize other manoeuvres to improve catheter functioning, thereby reducing the use of thrombolytics.

## Determinants of the systolic blood pressure response to sub-maximal intradialytic exercise

Christopher Pawliuk, BSc, MSc(PT), Mhairi Karklin, BSc(PT), MSc(PT), Heather Ballagh, BSc, MSc(PT), Jill Becker, BSc, MSc(PT), Dominic Paquet, BSc, MSc(PT), Kyle Ruttan, BSc, MSc(PT), Edwin Toffelmire, BSc, MSc, MDCM, FRCPC, FACP, and Cheryl King-VanVlack, BSc, MSc, PhD

This study investigated mechanisms (volume change, autonomic function, dialysis efficacy) that may contribute to anomalous systolic blood pressure (SBP) responses, which occur in some individuals during intradialytic exercise. Data from 12 participants were analyzed (age=56±17 yrs, dialysis vintage=58±55 mos, five females and seven males). Exercise intensity was self-selected (3-4 on a 10-point Rating of Perceived Exertion Scale). Patients were randomly assigned 21 protocols, which varied the duration and timing of exercise (eight 15-min, four 30-min, four double 15-min, two double 30-min bouts of exercise within the first two hours of dialysis and three control no-exercise). Autonomic function was determined in each individual on one day prior to dialysis using five classical measures of parasympathetic nervous function (PNF) and sympathetic nervous function (SNF). Two groups were identified: those that increased SBP ≥10 mmHg in at least 60% of the exercise bouts (SBP Responders, n=6) and those who didn't (SBP Non-Responders, n=6). SBP and heart rate (HR) responses to exercise were greater in the SBP-Responders in 50% of the exercise bouts. Serum Kt/V (dialysis efficacy) did not differ between the two groups. Forward stepwise regression (DSBP vs. PNF, SNF, Vol Loss, Kt/V, DHR) identified volume loss as the only significant, but minor contributor (r<sup>2</sup>=0.06) to the change in SBP with intradialytic exercise in the SBP-Responders. In the Non-Responders, PNF was the only significant contributor (r<sup>2</sup>=0.17) to the SBP response to intradialytic exercise. These data suggest that abnormalities in PNF function can play a substantive role in the anomalous SBP responses to intradialytic exercise.

## Decreasing hospital admissions while improving outcomes for patients initiating peritoneal dialysis

Gillian Brunier, RN, MScN, CNeph(C), Joyce Hiller, RN, CNeph(C), Cindi Wheeler, RN, CNeph(C), Shirley Drayton, RN, BA, and Sheldon Tobe, MD, FRCP(C)

**Background:** Prior to August 2003, surgical services performed all peritoneal dialysis (PD) catheter insertions at our centre and the patients usually had to be admitted to hospital, often resulting in delays. Since August 2003, the intervention-

al radiologists have inserted all PD catheters for our patients and a dialysis access coordinator has managed all the teaching and care for these patients around the time of PD catheter insertion. The purpose of our present study was to assess if a dedicated dialysis access nurse, along with the new procedure of radiological insertion of PD catheters, would result in decreased hospital admissions and improved outcomes for patients starting PD.

Methods: We conducted a retrospective chart review of all patients (January 2000-May 2007) who had a PD catheter inserted at our centre.

Results: During the study period, 124 patients received a surgically inserted catheter and 89 received a radiologically inserted catheter. Patients received a PD catheter electively as an outpatient in only 32% of surgery cases, compared to 71% of radiological cases (p<0.0001). Also, at the time of PD start, those with a radiologically inserted PD catheter had significantly higher estimated glomerular filtration rates (p<0.001) and serum albumin levels (p<0.0001). Patients with a surgically inserted PD catheter had a significantly higher incidence of primary catheter malfunction compared to those who had a radiologically inserted PD catheter (13% versus 3%).

Conclusions: The new procedure of radiological insertion of PD catheters coordinated by a dedicated dialysis access nurse has resulted in significantly decreased hospital admissions, more timely initiation of PD, and decreased incidence of primary catheter malfunction.

# Cracking the case of reverse transmembrane pressure (TMP) in a patient with Waldenstrom's Macroglobulinemia

Pamela Laprise, RN, BScN, CNeph(C)

This patient presented to our hemodialysis program in the autumn of 2007, with a diagnosis of Waldenstrom's Macroglobulinemia. Her initial treatments were fraught with numerous reverse TMP alarms, to the point where the dialysis machine was changed three times in one run alone.

The common causes of reverse TMP did not seem to apply





to this patient. The reverse TMP alarms were so frequent that the stopping of the blood pump with each alarm resulted in the clotting of her extracorporeal circuit. Her hemoglobin would drop to the point where she required transfusions despite receiving ESA (Erythropoiesis-stimulating agents). We had to find a way to dialyze this patient.

A literature search was done, hoping that there would be an article or case study that could assist us. We found nothing related to this case in the literature. Several physicians in our program were consulted seeking both a cause and a solution.

We would like to share our experience with this patient and her disease, our theory on the cause of the problem and how we are able to provide her dialysis treatments and minimize extracorporeal clotting.

# Developing a pathway in nephrology for risk screening and reporting a patient's medical condition to the Ministry of Transportation

Cherie Waldock, MSW, RSW, and Kathleen Brown, RN

The purpose of this presentation is to encourage a meaningful dialogue about the requirement to report the medical fitness of a dialysis patient's ability to drive a motor vehicle and the psychosocial ramifications of having their driving licence suspended. The presentation will begin with a brief outline of the obligation to report, how an assessment is conducted, and how ability is determined.

Within the context of my clinical practice as a renal social worker, there have been a number of occasions where group discussions have occurred around the duty to report a patients' medical condition to the Medical Review section of the Ministry of Transportation. The implications of reporting and not reporting, and the impact these decisions have on patients and dialysis staff has resulted in the realization that this is an issue that affects ability and motivation of a patient to maintain dialysis treatment.

My focus will be on the rural dialysis patients and the struggles that are unique to them based on their geographical location. These factors may include distance to dialysis treatment centres, local weather conditions, economic status and available community resources. Discussion will focus on how these

conditions affect a dialysis patient's ability to continue life-sustaining dialysis treatment.

### CANNT Technical Standards: The next step... Home dialysis

Darrell Cuza, CET, cdt, Martin Dyke, AScT, Mukesh Gajaria, BSc, CDP, Robert Greening, CTech, cdt, Marc Heroux, CTech, Mark Kusznier, CET, Patricia Loughren, RN, BScN, MA(Ed), and Shripal Parikh, AscT, cdt

The Canadian Association of Nephrology Nurses and Technologists, (CANNT), as a professional association, has a mandate to establish, maintain, evaluate and revise standards of practice. The future has opened a new chapter in patient care and the creation of a home dialysis standard.

The nephrology technologist requires a broad knowledge that is specific to the home dialysis modality. The CANNT Standards for Nephrology Technical Practice is the first component that technologists can follow for home dialysis. We have added electrical requirements, equipment requirement, patient training, documentation, water requirement, supplies/storage, and hazardous waste in the home environment. The CANNT Home Dialysis Standards of Technical Practice provides guidelines for evaluating this knowledge by identifying the minimum professional and practice expectations.

These standards will give direction by identifying goals for the home dialysis modality while promoting and defining quality in home dialysis environments by outlining qualification requirements and a scope of practice statement.

# Maximizing effectiveness of renal health education: Experiences of developing and implementing a needs assessment tool within the Manitoba Renal Program

Lesley Cotsianis, BMR(OT), OT Reg(Mb), Alison Lindsay, BN, BHE, CNeph(C), and Joanne Plamondon, RN, CDE, CNeph(C)

Purpose: High financial and social costs associated with chronic kidney disease (CKD) and its progression to kidney failure have increased the focus on prevention. The Manitoba Renal Program (MRP) provides renal health outreach (RHO) preventative education in First Nations communities. A group of interdisciplinary renal health professionals (Aboriginal liaison coordinator, dietitians, nephrologists, nurses, occupational therapist, and pharmacists) travels to at-risk communities to provide education on kidney health, risk factors, and prevention strategies. In order to improve effectiveness of outreach activities, the RHO team seeks to implement a needs assessment survey. The purpose of this project is to describe the process of implementing the survey for renal health education delivered by the MRP.

**Description:** We plan to develop and implement a needs assessment survey in the targeted communities to help focus outreach activities to each community's specific needs. We will identify community-specific educational needs and describe the development and pilot testing of the survey.

**Evaluation/outcomes:** We will present the needs assessment survey and results of pilot testing.

Implications for nephrology education/practice: Findings

from this project will be used to conduct a needs assessment and improve RHO initiatives within the MRP by focusing outreach activities on individual communities' specific needs. This tool may be used as a model for other renal programs in developing and delivering outreach activities aimed at prevention of CKD.

### Rethinking and integrating nephrology palliative care

Susan Young, RN, MN

Mortality rates for people with chronic kidney disease are worse than most cancers. High symptom burden, multiple comorbidities and advanced age are common among people receiving renal care. It is, therefore, not surprising that among the nephrology community, awareness is growing regarding the need for nephrology palliative care. What does this care look like? How can it be integrated within current renal care? This presentation will share our journey to date—how we are coming to understand and work through these questions.

Well beyond end-of-life management, nephrology palliative care is beginning to be understood as a "pathway of care over time", focused on promoting quality of life and, ultimately, aimed at a dignified end of life. Facilitating this understanding is a growing body of literature informed by the experience of renal and palliative care professionals as they explore nephrology palliative care, and by a newly emerging focus on nephrology-specific end-of-life care research.

Advanced care planning, pain and symptom management and bereavement support are identified as key components of our nephrology palliative care initiative. Developing education and system supports, and garnering resources are key to implementing this initiative across our program's renal care continuum. Honing communication skills that facilitate advance care planning, breaking bad news and bereavement support enable engagement with patients and families in ways that honour our commitment to understand their values, wishes and beliefs and that are culturally sensitive.

Our journey has just begun. So far—it's the trip of a lifetime!

### Putting our best foot forward!

Donna Schofield, RN, CNeph(C), Foot Care Nurse, and Kathleen Bijman, RN, BScN, CNeph(C)

Where have we come from, where are we today and what is our future for tomorrow? Three years ago, we implemented a foot care program in our two clinics to see if it would have an impact on the number of amputations patients were having in relation to foot ulcers. Since then, we have been compiling data from our diabetic patients to prove that a foot care assessment within a hemodialysis unit promotes positive outcomes for the diabetic population.

To validate our practice-based observations, we have collected data from three years prior to the implementation of the foot assessment to three years post implementation. The data will look at hospitalizations, amputations and deaths of the diabetic population during this six-year span.

We will prove that with diligent foot assessment and education of both patients and family, it is possible to maintain a very low rate of hospitalization and amputation.

To facilitate the process, we have continued to educate the

patients and nursing staff, and built a liaison with the community nursing agencies and a physician referral base.

For the future, we envision a shared foot care network between hemodialysis units across Canada to decrease the prevalence of lower limb amputation.

### Fistula banding for steal syndrome: An interventional approach

Marie Webb, RN

This case study highlights a 25-year-old hemodialysis patient experiencing symptoms of severe steal syndrome. After review by vascular surgery, it was decided that ligation of the fistula was the best option. In consultation with the interventional radiologist, it was felt worthwhile to attempt a "fistula banding" under fluoroscopy and using an angioplasty balloon to control the degree of constriction. This procedure had never been attempted by interventional radiology at Credit Valley Hospital.

This presentation will review the patient's vascular history, symptoms, consultations and procedures leading up to the fistula banding. The innovative and simple technique is also reviewed with images of the banding and excerpts from the radiology report. Post-procedure challenges and outcomes are presented as the patient is followed for the next six months after successfully banding the fistula and relieving all the patient's symptoms. The patient was able to maintain the fistula and avoid subsequent surgery for both ligation and future access creation.

# "Beat those bugs!"— Implementing contact precautions in our community dialysis units for closer to home care

Susan Young, RN, MN, Carole Dalziel, RN, Jim Curtin, RN, BScN, CIC, Michael Burns, RN, Barbara Carter, RN, CNeph(C), Peter Lam, RN, CNeph(C), April O'Brien, RN, BSN, CNeph(C), and Catherine Sullivan, RN, BNSc, MA(c)

"Beat those bugs!" was our call to action to build capacity in our community dialysis units (CDUs) to care for patients colonized with an antibiotic resistant organism (ARO). Our goal was to implement contact precautions (CP) in all our





CDUs so that patients choosing and able to do so could dialyze in their home communities.

To implement "Beat those bugs!", we first needed to ensure that basic infection control "best practices" were in place. Collaborating with our hospital and regional health authority's infection control practitioners, we finalized our regional hemodialysis ARO guideline. Using this guideline, we reviewed the housekeeping contract including housekeeping procedures and cleaning solutions; redefined our yearly ARO Screen as a quality improvement tool in addition to its traditional case-finding role, and instituted an annual handwashing blitz in all our dialysis units. Reviewing evidence-based infection control practices raised general awareness of these practices, enabling their ongoing implementation and evaluation.

Our "Beat those bugs!" initiative included making site visits to each CDU to assess barriers and facilitators to CP implementation, developing practice standards for nurses and renal technicians to enact CP care, providing staff and patient education essential to implementing these standards, and securing environmental and equipment supports required for CP care. Through our "Beat those bugs!" initiative, all six of our CDUs now have the capacity to provide care that includes contact, as well as standard precautions—enabling "closer to home" care for patients and their families.

### Building benchmarks: A foundation for practice

Debra Appleton, RN, MN, CNeph(C), Sharron Izatt, RN, BScN, CNeph(C), Elizabeth Kelman, RN, MEd, CNeph(C), Fatima Benjamin-Wong, RN, BScN, CNeph(C), Wendy Clarke, RN, Cathy Dickenson, RN, BScN, CNeph(C), Kay McGarvey, RN, CCHN(C), Judith Ferguson, RN, Emily Harrison, RN, BHScN, CNeph(C), Mina Kashani, RN, BHScN, CNeph(C), Diane Demedieros, Administrative Assistant, Pat Pollard, RN, Jannette Solomon, RN, Patricia Treu, RN, MScN, and Saverina Sanchez, RN, BScN, MScN(s), CNeph(C)

The City-Wide Peritoneal Dialysis Interest Group (CWPDIG), representing 10 peritoneal dialysis (PD) centres in southern Ontario, Canada, will present a quality initiative project aimed at reducing the episodes of peritonitis (EOP). The group reviewed current practices and EOP

among the centres in order to develop evidence-based practice guidelines.

Following a literature review in 2003, a decision was made to develop a preliminary survey to define our current population and practices. This survey (2004) included demographics, census by modality, and practice policies and procedures in order to determine similarities and differences between programs.

In 2006, a second survey was developed to validate the peritonitis data obtained from the 2004 survey and to establish a benchmark for months between EOP.

Both surveys had a 100% response rate. PD prevalence within the centres grew from 772 (Jan. 2004) to 910 (Dec. 2006)

In designing the survey, it was noted that a range of methods of data collection was in use. Thus, a decision was made to use a standardized reporting formula for calculating the benchmark.

The results for the overall rate of peritonitis were 1:29.4 in 2004 and 1: 31.5 in 2006. The combined rate from both surveys was 1: 30.4. Units were then able to review the results and determine the benchmark based on the recommended value.

CWPDIG provides a forum for nurses to establish foundations for standardizing education and practices for patient care in peritoneal dialysis.

### A nurse-run renal insufficiency clinic: The CanPREVENT experience

Denise Gaudet, RN, MSN, Maryse Pelletier-Hibbert, RN, PhD(c), Anita Molzahn, RN, PhD, and Rosalie Starzomski, RN, PhD

Chronic kidney disease (CKD) is commonly unrecognized or undertreated in its early stages (Tonelli et al., 2001). Several interventions of proven efficacy can slow disease progression and reduce associated morbidity and mortality (Barrett, 2003). Protocol-guided care with a focus on illness management and prevention that is coordinated by nurses may offer the best opportunity to maximize treatment effectiveness for people with early CKD. The Canadian Collaborative Group for the Prevention of Renal and Cardiovascular Endpoints Trial (CanPREVENT) examined the effectiveness of a nurse-run, physician-monitored CKD management clinic in hospital settings. In this paper, we will describe the findings of a study that was a component of the larger trial. The study was designed to explore the nature of care provided to people with early CKD and to describe patients', physicians' and nurses' experiences in the CKD clinic. Data collection consisted of telephone interviews and randomly selected charts reviews. Themes pertaining to the nature of care were revealed and included patient-centred care, health promotion, teaching, dealing with problems, time, protocols, consultation/referrals, logistics and paperwork/documentation, physician-nurse collaboration, challenges, and outcomes. Patients, as well as nurses and physicians, reported positive experiences with the clinic. Positive outcomes were also noted. Data pertaining to morbidity, mortality, biochemical and physiological parameters, quality of life and cost-effectiveness are being collected as part of the larger trial and will be reported at a later date.

### Canada Day fire —

#### Disasters can happen at any time

Emily Harrison, RN, BHScN, CNeph(C), and Shaunette Williams, RN, BHScN

July 2, 2007, a fire caused the evacuation of an entire health care facility, home to a regional nephrology program, outpatient clinics and complex continuing care patients.

Being a statutory holiday, the clinics for 25 home hemodialysis patients, 600 Kidney Care patients, 125 peritoneal dialysis and other clinics were closed. Thirty-three hemodialysis patients in the midst of dialyzing and 80 complex continuing care patients were evacuated with no injuries.

Triage procedures determined who needed to complete their entire hemodialysis treatment that evening. The importance of emergency evacuation planning allowed for the smooth, safe evacuation and triage of all patients within that facility.

That was the easy part!

Where were 1,000 nephrology patients going to receive their care for an undetermined length of time? How were 200 hemodialysis patients going to receive their treatment when 33 stations could no longer be used?

Code Orange Disaster plans were put into effect. With the assistance and support of corporate, community and company partners, no hemodialysis treatments were missed. Nephrology clinics continued with very little interruption as they moved from a community health clinic temporarily and then into another site of the corporation. Within one week, all hemodialysis patients were repatriated to a different site within the corporation.

The evacuation and disaster plan that was implemented before, during and after the fire at Lakeridge Health, Whitby, highlights the need for these important plans to be in place, practised and reinforced. This concrete example will highlight the value of comprehensive strategies to deal with disaster situations.

#### SARP vascular access workshop

Jozefina Scarrett, RN, BN, CNeph(C), LaiKing Wu, RN, BN, CNeph(C), Rajneet Atkar, RN, BN, CNeph(C), and Kuljit Parmar, RN, BN, CNeph(C)

An oral presentation of the Southern Alberta Renal Program's (SARP) Vascular Access Workshop will be provided. This was a one-day workshop that was developed by SARP as an educational opportunity for our hemodialysis nurses.

This workshop was very different from the conventional format in that we had four modules and the participants were actively involved. We had 160 participants and we divided them into 10 tables. Each table had a moderator who led the discussion for the assigned group. We had lecture format followed by application of the information learned by getting the participants to answer specific questions.

An overview of the booklet, explanation of the tools utilized and layout of the workshop itself will be discussed. This workshop's focus was getting back to the basics of assessment, palpation and auscultation of the fistula only. Other key indicators involved reviewing basic anatomy, determining viability, physical and functional maturation,

assessing for complications and suitability for needling, application of diagnostic imaging, common needling complications, access monitoring and stenosis, and common complications of the fistula.

It would be a benefit for other programs to see if this would work for the educational needs of their centres. We had excellent feedback on the workshop, as evidenced by the evaluation survey results.

### Predictors of hemodialysis central venous catheter exit site infections

Lori Harwood, RN, MSc, CNeph(C), Barbara Wilson, RN, MScN, CNeph(C), Bonita Thompson, RN, BA, Elizabeth Brown, RN, and Danae Young, RN

Central venous catheter (CVC) exit site infections contribute to bacteremia and patient morbidity and mortality among patients on hemodialysis. This structured observational study examined predictors of positive CVC exit site infections. Hemodialysis nurses documented the physical appearance of the CVC exit site for sites they believed to be infected and required a swab culture. Additional information that pertained to the catheter, exit site care and demographic data were also collected. No patient characteristics were associated with an exit site infection. However, the type of dressing (p=0.007) and cleansing solution (p=0.007) used were positively associated with an exit site infection. Negative exit site culture reports were more likely to have dressings changed weekly (p=0.03). The size of peri-wound erythema (p=0.008) was also associated with a higher incidence of exit site infections. Patients with dry crust present at the exit site were more likely to have negative culture results (p=0.03). A large number of negative swab culture results (71%) were obtained suggesting that further nursing education is needed. The results of this study contribute to our understanding of the physical characteristics of an infected CVC exit site. Given the morbidity and mortality associated with CVC infections, more nursing research is needed in this area.





### Anatomy and management of chronic wounds in end stage renal disease

Maria Scattolon, RN, MSN, CNeph(C), APN

Management of chronic wounds commonly seen in clients in end stage renal disease necessitates knowledge of the anatomy and inhabitants of the wound environment.

Chronic wounds are burdened with necrotic tissue, exudate, inflammatory proteins, and pathogenic colonizers. Collaborative partnerships among client, primary wound care nurse specialist and the bedside care provider prevents progression of tissue destruction that requires surgical intervention, promotes more rapid wound closure, and shortens the life of the wound. Effective wound care management is primal in restoring a client's level of function and minimizing the personal and organizational cost of wound care management.

The objectives of this presentation are to:

- Graphically illustrate chronic wounds commonly seen in clients on peritoneal and hemodialysis
- Identify the pathogenic inhabitants and cellular dysfunction within chronic wounds that impede healing
- Discuss preparation of a clean wound bed and the value of initial and periodic wound debridement to accelerate healing
- Discuss techniques for assessing infection in wounds, managing necrotic tissue and exudate
- Provide product information and novel research information that is helpful in selecting appropriate wound care strategies.

#### Outcomes:

- Knowledge acquisition and transfer of wound care management strategies help the practitioner select appropriate treatment options that prevent progression of tissue destruction and enhance healing.
- Improved wound care management promotes client health and independence.

### Human caring through peace and power

Saverina Sanchez, RN, MScN(c), CNeph(C)

Leadership utilizing the concepts of Peggy Chinn's Peace and Power helped create an environment that fosters respect, and nurtured growth and empowerment that revitalized a caring workplace. Bringing the art of human science nursing to life in the dialysis unit was the impetus of this project.

In a unit where the large majority of nurses are foreign-trained, introducing nursing theory in our day-to-day practice setting was important. Dr. Jean Watson's theory of Human Caring has been introduced to all the staff in the dialysis unit. To complement the theory and to help set the foundation, the concepts of peace and power act as the building blocks of the caring environment. Human science nursing focuses on life and health as humanly experienced and human beings are viewed as the subjects of their own lives.

As an advocate of patient-centred care, embracing human freedom, choice and responsibility is of the essence of the nursing care I wish to be embraced. The focus on consciousness and intentionality on caring is important, and taking the time to foster healing is necessary in this fast-paced world. Nurses need to focus on wholeness, rather than on disease, illness and pathology. The person is viewed as whole and complete, regardless of illness or disease.

In the dialysis world, quality is measured in terms of the right amount of treatment time and the right number of treatments in order to achieve the lab results that guidelines have determined to be the gold standard. We soon forget the patient and get caught up in the task. The theory of Human Caring can help bring the human aspect back to nursing and the art of caring can be revitalized in the workplace.

# "Patient voices": Results of renal patient satisfaction and QoL surveys and their impact on service delivery planning

Ruth Burns, Dip Eng Tech, and Karen Mahoney, RN, MSN

In 2004, the Fraser Health Renal Program launched a renal chronic disease management initiative. One of the outcomes is a well-developed quality improvement (QI) process aimed at helping us evaluate and plan our services. On an alternating basis, we send out Quality of Life (QoL) and Satisfaction surveys to our renal patients. These surveys have assisted us in the assessment of our care delivery system and how it ultimately affects our patient outcomes.

The results have helped us to understand what patients identify as important aspects of care, and where we need to focus our efforts. Our specific QI processes have led to several initiatives around patient education and transition to dialysis, pain and symptom management protocols, and advance care planning processes.

Documentation of baseline and ongoing data will allow us, over time, to track and trend our progress toward maximized satisfaction and QoL ratings. Additionally, we anticipate being able to identify new areas for improvement, particularly in areas that matter most to patients with renal disease. This presentation will detail our learnings from surveying our patients over the last three years and how we have utilized the results to remain patient-focused in moving our renal program forward.

### La pratique d'activité physique : un atout à ne pas négliger pour les patients hémodialysés

Marie-Josée Quesnel-Mercier, Kinésiologue, MSc

Problème, situation, sujet. Cette présentation traitera de l'intégration et des bienfaits d'un programme d'activité physique supervisé auprès des patients hémodialysés.

Approche utilisée. Nous partagerons notre expérience relativement à l'intégration d'un programme d'activité physique pour les patients hémodialysés. En premier lieu, il est essentiel de joindre à l'équipe interdisciplinaire, un kinésiologue, spécialiste de l'activité physique, afin d'assurer un encadrement, un suivi et une évaluation adéquate des patients. À ce sujet, nous expliquerons en quoi consistent les entraînements physiques. Par la suite, nous dispenserons l'information nécessaire en ce qui a trait aux coûts reliés à ce projet et à l'équipement nécessaire (pédaliers, poids chevilles, poids libres, bandes élastiques, etc.).

Conclusion, résultats. Les résultats et les bienfaits de la participation des patients au programme d'activité physique sont nombreux. On constate notamment une amélioration du profil sanguin, du poids corporel, de la pression artérielle, etc. Ce programme a pour objectif d'améliorer l'endurance cardiovasculaire et musculaire, d'augmenter l'estime de soi, de réduire le niveau de fatigue que les patients ressentent à la suite des traitements d'hémodialyse et surtout maintenir ou même améliorer la capacité fonctionnelle des patients.

Pertinence de la pratique d'activités physiques en néphrologie. L'intégration d'un programme d'activité physique en hémodialyse est une façon efficace et innovatrice d'améliorer non seulement la condition physique des patients hémodialysés, mais aussi la qualité de vie.

#### PD complication: A challenging case

Maria Gatto, RN, CNeph(C), and Liliane Hess, BSc, CNeph(C)

Peritoneal dialysis (PD) is an established mode of renal replacement therapy in end stage renal disease (ERSD).

A variety of complications are reported in patients on PD, some of which are related to increased intra-abdominal pressure that results in accumulation of dialysis fluid in the pleural cavity, resulting in hydrothorax.

Approximately 2% to 3% of PD patients develop hydrothorax secondary to pleuro-peritoneal communication, and it mostly affects older females.

Here, we describe a case of hydrothorax that occurred in a patient on CAPD and highlight the problems of diagnosis and management.

A 68-year-old woman with ESRD secondary to Systemic Lupus Erythematous (SLE) selected CAPD therapy, following pre-dialysis education.

CAPD was initiated at the end of August 2008.

There was no past medical history that would have aroused suspicion regarding the presence of diaphragmatic defects prior to starting PD.

Patient was diagnosed with hydrothorax in February 2008. In retrospect, during her five-month course on CAPD, the patient presented with various vague complaints, such as cough, mild pleuritic pain, mild shortness of breath and dimin-

ished effluent return. These clinical presentations were initially managed as symptoms of fluid overload. Different trials of PD prescriptions were attempted with temporary relief of symptoms. When the patient presented with severe dyspnea, an x-ray was done, which confirmed right-sided hydrothorax.

In conclusion, this case demonstrates the challenges we encountered by an uncommon condition related to PD that was initially unrecognized and, as a result, was difficult to manage.

#### HDF (Hémodiafiltration en ligne)

Chantal Painchaud, infirmière en néphro, et Suzie Mayer, infirmière en néphro

Le but de notre projet est de comparer une nouvelle technique, peu ou non existante en Amérique du Nord, l'hémodiafiltration en ligne (HDF), à l'hémodialyse conventionnelle (HD).

Pour se faire, nous débuterons notre présentation par un bref historique.

Par la suite, nous vous expliquerons :

- épuration des molécules en HDF (diffusion et convection)
- considérations techniques :
  - eau ultra-pure
- solutions ultra-pures (dialysat et liquide de substitution)
- appareils dédiés
- filtres haute perméabilité
- pré-dilution vs. post-dilution
- Outils de monitoring (moniteur de température, moniteur de volume, KT/V en ligne, etc.)
- Bénéfices attendus et escomptés (hémodynamie, épuration, équilibre hydro-électrolytique et acido-basique)
- Résultats préliminaires (KT/V, % épuration b2m, marqueurs inflammatoires, etc.)
- Nos impressions

Les patients sont actuellement randomisés 1 : 1 en hémodiafiltration vs hémodialyse, afin de comparer la mortalité (toutes causes) et la mortalité/morbidité cardio-vasculaire entre les deux groupes. Le statut nutritionnel, la qualité de vie, différents marqueurs inflammatoires, certains marqueurs économiques (facture de médicaments, séjours hospitaliers, dose EPO, etc.) seront également étudiés. Ces rédultats risquent fortement de changer nos pratiques de la dialyse dans le futur.





## Supporting patients' decision-making across the trajectory of chronic kidney disease: A nursing best practice guideline

Gillian Brunier, RN, MSN, CNeph(C), Eleanor Ravenscroft, RN, PhD, CNeph(C), and Jenny Oey Chung, RN, MN

Purpose: Evidence about supporting patients with chronic kidney disease (CKD) to make quality decisions about their health has not been well integrated into the literature or assimilated into practice. To address this gap, a provincial nursing association has undertaken a critical synthesis of existing evidence and development of a best practice guideline.

Description: A panel of 16 experts with clinical and scholarly expertise in CKD and in decision support from community and hospital sectors was recruited by the provincial nursing association. The panel, with assistance of a librarian, performed a comprehensive systematic literature review and critically appraised existing clinical practice guidelines on the topic, as a basis for developing the best practice guideline.

Evaluation/outcomes: The literature search revealed that evidence in the area of decision support and CKD is sparse, not systematically collated, and difficult to locate. The paucity of available evidence confirms the importance of pursuing this topic and improving the availability of the existing evidence to assist practitioners. Several areas have emerged for future research inquiry.

Implications for nephrology nursing: Increased awareness, accessibility and availability of evidence-based decision supports could help nurses and other practitioners to think critically about their practice, engage in evidence-based interventions tailored to patients' needs and preferences, and encourage leaders to emerge in this important practice area. This best practice guideline is scheduled for publication and dissemination in late 2008.

#### Qualité de soins et efficience de gestion en dialyse péritonéale : Une équation résolue

Nicole Mathieu, infirmière, Bureau Sylvie inf. clinicienne

Sujet: Entre 1998 et 2006, le nombre de patients en dialyse péritonéale (DP) passait de 95 à 29. La révision de notre programme s'imposait. Des stratégies innovatrices ont permis de solutionner certaines problématiques observées.

#### Approche utilisée:

- Dès la prédialyse, lorsqu'un candidat à la DP est identifié, le suivi à travers tout le continuum de soins est assuré par l'infirmière de DP.
- Une équipe chirurgicale dédiée à l'insertion des cathéters a été créé (un chirurgien, deux infirmières de DP et une infirmière du bloc opératoire). Sous anesthésie locale et dans un local réservé, l'équipe procède à l'installation des cathéters et au suivi clinique personnalisé. La liste d'attente n'existe plus.
- Des rencontres informatives abordant les aspects cliniques et de gestion à l'intention des médecins et des infirmières ont permis d'augmenter le recrutement de patients potentiels.

Conclusion: Sur une période de dix-huit mois, on note une augmentation de 44 % de la clientèle en DP versus 0,05 % en hémodialyse d'où une réduction de coûts substantielle. Une meilleure collaboration au sein de toute l'équipe en suppléance rénale s'est développée et la qualité de vie des patients s'est accrue.

Pertinence à la pratique en néphrologie : La révision de notre programme de DP a non seulement permis une augmentation de la clientèle mais a également eu des effets positifs sur la qualité des soins offerts aux patients. L'implication des infirmières de DP tout au long du continuum de soins en a fait toute la différence.





### Happy 40<sup>th</sup> Anniversary CANNT

The Scarborough Regional Dialysis Program