CANNT JOURNAL
JOURNAL ACITN

Volume 21, Issue 3 July–September 2011

IN THIS ISSUE:

Your partners in renal care.

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JULY–SEPTEMBER 2011 ■ VOLUME TWENTY-ONE ■ ISSUE THREE

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The CANNT Journal is printed on recycled paper.

The CANNT Journal
is the official publication of the Canadian Association of Nephrology Nurses and Technologists, 336 Yonge St., Ste. 322, Barrie, ON, L4N 4C8, telephone: (705) 720-2819, fax: (705) 720-1451, email: cannt@cannt.ca. Published quarterly, the journal is received by all members of CANNT. Subscriptions are: Canada $50.00 (plus HST), US. $60.00, Outside N. America $85.00. Back issues, when available, are $7.50 (+HST) per issue and are available from the editor. Opinions expressed by writers in the CANNT Journal are not necessarily those held by the editor or CANNT. Contrasting views by our readership and membership are welcome. All letters, comments and articles are to be sent to the CANNT office, 336 Yonge St., Ste. 322, Barrie, ON L4N 4C8. Toll-free: 1-877-720-2819
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• **Deadlines for submission to the CANNT Journal are:**
January–March – January 15, for publication March 15;
April–June – April 15, for publication June 15;
July–September – July 15, for publication September 15;
October–December – October 15, for publication December 15.
The CANNT Journal is indexed in the Cumulative Index to Nursing and Allied Health Literature (CINAHL), the International Nursing Index (INI), MEDLINE, EBSCO, ProQuest and Thomson Gale.
ISSN 1498-5136

The CANNT Journal is produced by Pappin Communications, The Victoria Centre, 84 Isabella St., Pembroke, Ontario K8A 5S5.

Letter from the Editor: Gillian Brunier

Donating time and talents to CANNT

It is not always clear why some members of CANNT do volunteer their time and others do not. The CANNT organization would not survive without volunteers for its many activities, yet we struggle each year to continue. The latest results of a survey by Statistics Canada on volunteerism may shed some light on this topic. This national study had some interesting findings. When asked about barriers to volunteering, 75% responded that they did not have the time, 52% were unable to make a long-time commitment, while, of interest, 30% responded that no-one had asked them and 15% responded that they did not know how to get involved (Statistics Canada, 2009). There is some food for thought in this information, that we at CANNT possibly do not ask enough, neither do we explain well enough, how CANNT members could be more involved.

If you are interested in volunteering, Reg, our in-house "Green Tech," has written an excellent piece on "green giving." While clearly not everyone across Canada can donate money to worthy causes, another way of giving is to volunteer your time or your talents. If you are interested in contributing your time or your talent to the CANNT organization or the *CANNT Journal,* please don't hesitate to contact us through Debbie Maure at the CANNT National office: e-mail cannt@cannt.ca

Now, to the other authors who have given of their time and exceptional abilities for this issue. Marie-Chantal Loiselle, professor at the School of Nursing, University of Sherbrooke, Sherbrooke, Quebec, describes in detail her doctoral work on "Developing a decision support intervention regarding choice of dialysis modality." Many of you may not be familiar with the body of literature on decision support, much of the work coming out of the University of Ottawa. We encourage you to read Marie-Chantal's preliminary work on this exciting new topic and see if you can obtain some ideas on how to help your nephrology patients make the difficult choices with which they are confronted.

Our continuing education (CE) article is written again by Colette Raymond and Lori Wazny, pharmacists at the Health Sciences Centre in Winnipeg, Manitoba. Again, Colette has chosen an excellent topic to write on: "Treatment of leg cramps in patients with chronic kidney disease receiving hemodialysis." There is some important information in this article for all of us who work with patients on dialysis and, again, we encourage you to read through this article and test your knowledge with our CE quiz.

Patient safety is a topic that is regularly in the news. Look through the article prepared by Alison Thomas, Nephrology Nurse Practitioner at St. Michael's Hospital in Toronto. Alison challenges us to think outside the box for ways in which we can improve patient care outcomes in our own hemodialysis units. We're certain that those of you who work in hemodialysis units across the country will be familiar with her case scenarios of near misses and incidents. We sincerely welcome your comments on this issue of how we can best improve the culture of safety for our patients.

All these contributions to the *CANNT Journal* were created by volunteer authors who are also working full-time or studying full-time. Why do these authors volunteer their valuable time for the *CANNT Journal?* Possibly, the explanations are related to the top reasons Canadians volunteer their time: to make a contribution to the community, to use skills and experiences, or to explore one's own strengths (Statistics Canada, 2009). We challenge you to talk to all of us on the CANNT board and the CANNT Journal editorial board, as well as the CANNT conference co-chairs to learn more about how you can "give" of your time and talents to CANNT at our upcoming CANNT National Conference in Calgary.

Reference

Statistics Canada. (2009). *Caring Canadians, involved Canadians: Highlights from the 2007 Canada survey of giving, volunteering and participating.* Retrieved from www.statcan.gc.ca/bsolc/olc-cel/olc-cel?catno=71-542-XIE&lang=eng

Mot de la rédactrice en chef: Gillian Brunier

Donner de son temps et de ses talents à l'ACITN

Il n'est pas toujours évident de comprendre pourquoi certains membres de l'Association canadienne des infirmières et infirmiers et des technologues de néphrologie (ACITN) se portent bénévoles, alors que d'autres ne le font pas. Notre Association ne pourrait survivre sans bénévoles pour planifier et organiser ses nombreuses activités, et malgré tout, nous y arrivons de justesse chaque année. Les résultats d'une enquête menée par Statistique Canada sur le bénévolat viennent jeter un peu de lumière sur ce constat. L'enquête réalisée à l'échelle nationale a permis de relever certaines observations intéressantes. En les questionnant au sujet des obstacles qui les empêchent de faire du bénévolat, 75% des répondants ont indiqué le manque de temps, 52%, l'incapacité de s'engager à long terme, 30%, ne pas avoir été invités à faire du bénévolat—ce qui est des plus intéressants—et 15%, ne pas savoir comment s'engager (Statistique Canada, 2009). À la lumière de ces conclusions, il y a là sans doute matière à réflexion pour les dirigeants de l'ACITN. Demandons-nous suffisamment à nos membres de faire du bénévolat ou leur expliquons-nous suffisamment bien comment ils pourraient donner de leur temps ou mettre à profit leurs compétences et leur expérience?

Si vous souhaitiez faire du bénévolat, Reg, notre «tech vert» maison, a rédigé un excellent article sur l'entraide, le partage et le troc [*Green giving*]. Bien qu'il soit évident que ce ne sont pas tous les Canadiens et toutes les Canadiennes qui peuvent donner de l'argent à de bonnes causes, une autre façon de donner consiste à faire don de son temps ou de ses talents. Si vous désirez donner de votre temps ou mettre vos compétences et votre expérience au service de l'ACITN ou du *Journal de l'ACITN*, n'hésitez pas à communiquer avec Debbie Maure au bureau de la permanence de l'ACITN à cannt@cannt.ca.

Passons maintenant aux autres auteures qui ont contribué en temps et en talents exceptionnels à la publication de ce numéro du *Journal de l'ACITN*. Marie-Chantal Loiselle, professeure adjointe à l'École des sciences infirmières, de l'Université de Sherbrooke, à Sherbrooke, au Québec, présente en détail ses travaux de doctorat en cours sur le «Développement et l'évaluation d'une intervention de soutien à la décision pour aider le choix d'une thérapie de suppléance rénale pour des personnes atteintes d'une maladie rénale chronique avancée». Bon nombre d'entre vous ne sont peut-être pas rompus à l'utilisation de corps de littérature sur l'aide à la décision, dont la plupart des travaux sont issus de l'Université d'Ottawa. Nous vous invitons à lire les travaux préliminaires de Marie-Chantal sur ce nouveau sujet emballant; vous pourriez y puiser certaines idées sur la manière d'aider vos patients en néphrologie à faire les choix difficiles auxquels ils sont confrontés.

Notre article portant sur la Formation continue (FC) a été rédigé par Colette Raymond et Lori Wazny, pharmaciennes au *Health Sciences Centre* à Winnipeg, au Manitoba. Une fois de plus, Colette a choisi un excellent sujet, soit le «Traitement des crampes dans les jambes chez les patients atteints de maladie rénale chronique et qui reçoivent des traitements d'hémodialyse» [*Treatment of leg cramps in patients with chronic kidney disease receiving hemodialysis*]. L'article regorge d'information importante pour nous tous qui travaillent auprès de patients dialysés. Aussi, vais-je vous encourager à lire cet article et à tester vos connaissances avec le test de FC.

La sécurité des patients est un sujet qui revient souvent dans l'actualité. Lisez l'article d'Alison Thomas, infirmière praticienne en néphrologie au *St. Michael's Hospital* à Toronto. Alison nous met au défi de sortir des sentiers battus pour trouver des manières d'améliorer l'issue des soins que nous prodiguons aux patients dans nos unités d'hémodialyse. Nous sommes persuadées que ceux et celles d'entre vous qui travaillent dans les centres d'hémodialyse au pays connaissent bien les scénarios de cas qu'elle présente sur les incidents et ceux évités de justesse. Nous vous invitons à nous faire part de vos commentaires sur ce point et sur la manière dont nous pourrions améliorer la culture entourant la sécurité de nos patients.

Toutes ces contributions au *Journal de l'ACITN* ont été faites par des auteures bénévoles qui travaillent ou étudient également à plein temps. Quelles sont les motivations qui animent ces bénévoles à donner de leur temps au *Journal de l'ACITN*? La réponse réside peut-être dans les raisons les plus couramment citées pour expliquer l'action bénévole : contribuer à la vie de la collectivité, mettre à profit ses compétences et son expérience ou encore découvrir ses points forts (Statistique Canada, 2009). À notre prochain congrès, qui aura lieu à Calgary, nous vous lançons le défi de nous poser la question à nous tous qui font partie du Conseil d'administration de l'ACITN et du comité de rédaction du Journal de l'ACITN ainsi qu'aux coprésidentes du Congrès de l'ACITN pour en apprendre plus sur la manière dont vous pourriez «donner» de votre temps et de vos talents à votre Association.

Le Journal ACITN
est la publication officielle de l'Association canadienne des infirmiers/infirmières et technologues en néphrologie, a/s 336 Yonge St., Ste. 322, Barrie, ON, L4N 4C8, téléphone: (705) 720-2819, télécopieur: (705) 720-1451, Courriel: cannt@cannt.ca. Publié quatre fois par année, ce journal est envoyé à tous les membres de l'Association. L'abonnement annuel est: Canada, 50 $ (+TVH), E.-U., 60 $, hors du Canada et E.-U., 85 $. Les publications antérieures, lorsque disponibles, coûtent 7,50 $ (+TVH) chacune. Les opinions émises par les auteurs dans ce journal ne sont pas nécessairement partagées par l'Association ni par le rédacteur en chef. Nous invitons les lecteurs à nous faire part de leurs opinions. Toute correspondance devra être envoyée à l'ACITN, 336 Yonge St., Ste. 322, Barrie, ON L4N 4C8.
Site web: www.cannt.ca

• Voici les échéanciers à rencontrer pour soumettre des articles/nouvelles au journal:
Janvier–mars – le 15 janvier, pour publication le 15 mars
Avril–juin – le 15 avril, pour publication le 15 juin
Juillet–septembre – le 15 juillet, pour publication le 15 septembre
Octobre–décembre – le 15 octobre, pour publication le 15 décembre
Le journal CANNT est maintenant répertorié dans le "Cumulative Index to Nursing and Allied Health Literature (CINAHL)", "International Nursing Index" (INI), "MEDLINE", "EBSCO", "ProQuest", et "Thomson Gale".
ISSN 1498-5136

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Message from the President

Sunny days ahead

Although many of us were faced with a long, cold winter and spring started off with a lot of rain, we now have sunny days ahead, with beautiful green lawns and flowering plants.

At our spring board meeting, the CANNT board of directors did something a little different. Rather than the traditional face-to-face spring meeting, we scheduled three separate teleconferences; one in February, one in April and one in May, 2011. The board of directors decided on teleconferences in an effort to reduce operating costs and demonstrate fiscal responsibility. Moving forward, the current board of directors unanimously agrees to conduct teleconferences, rather than face-to-face meetings, for the spring board meetings.

Some of the items developed at the spring board meeting include an evaluation form for the conference planner and the planning committee; formalizing an orientation program for new members and providing mentoring opportunities for new board of director members; poster evaluation form; theme for Nephrology Health Care Professionals' Day, 2011; and distributing surveys for members. This year, the board of directors decided to ask members to come up with a theme for the Nephrology Health Care Professionals' Day, 2011. We held a contest called "Name the Nephrology Health Care Professionals' Day" in January, and the two winners each received a gift certificate to Chapters bookstore. The winning theme of the Nephrology Health Care Professionals' Day, 2011 is TEAM (Together Everyone Achieves More) and the same acronym applies to the French translation (Travailler Ensemble pour Atteindre le Meilleur de soi). The purpose of the on-line survey was for the association to determine from you, our members, what you want from the association, and suggestions of what the association can do to improve member services.

The CANNT website has undergone some exciting changes. Check out the CANNT website at **www.cannt.ca**. CANNT now has Facebook, Twitter, and a discussion board for members, poster and abstract information for authors, and much more. Members are encouraged to take advantage of these network opportunities and share information with their nephrology colleagues from coast to coast. Under "What's New", see Best Practice Guidelines for adults living with chronic kidney disease, results from the members' survey, the theme for Nephrology Health Care Professionals Day, and an update on the Canadian Standards Association (CSA) home dialysis standards project.

CANNT actively supports the Canadian Nurses Association (CNA) national certification exam for nephrology nurses, CNeph(C), held each spring. Congratulations to all nurses who wrote the professional certification exam this year and we wish you luck. Those who are considering writing the certification exam, check out the CANNT website for courses and presentations to help you prepare. There are also CNA preparation sessions held annually at the CANNT symposium in French and English. By participating in the national certification program, you are demonstrating your dedication and commitment to the nephrology profession and your patients.

The 2011 annual symposium is being held on October 20–22, 2011, at the Calgary Telus Convention Centre in downtown Calgary, Alberta. The theme of the conference is "Blazing New Trails". The conference includes clinical research, innovative projects, ethics, case presentations and clinical reviews that are evidence-based and appropriate for nephrology professionals from novice to advanced practice. The planning committee, with the leadership of the conference planner Heather Reid of Innovative Conferences & Communications and the planning committee co-chairs Heather Dean and Janice MacKay, is sure to provide a conference that you won't want to miss. Registration is now open. Go onto the CANNT website and you will find information about the conference and registration information.

If you are presenting at this year's conference in Calgary, the board of

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directors encourages you to consider submitting a manuscript to the *CANNT Journal*, a peer-reviewed publication. In this way, both conference attendees and those who are unable to attend the conference can benefit from your knowledge and efforts. If you need any assistance, please contact Gillian Brunier, the editor of the *CANNT Journal* at **gillianbrunier@sympatico.ca**.

On behalf of the board of directors, I would like to thank you for your continued support and we look forward to meeting you in Calgary at the annual symposium.

Patty Quinan, MN, CNS, CNeph(C)
CANNT President

Mot de la présidente

Des jours ensoleillés

Bien que nous ayons été nombreux à survivre à un hiver rigoureux et à un printemps pluvieux, nous avons encore des journées de soleil devant nous, embellies de verdure et de fleurs.

Les membres du Conseil d'administration (CA) de l'Association canadienne des infirmières et infirmiers et des technologues de néphrologie (ACITN) ont fait les choses un peu différemment pour la tenue de l'assemblée semestrielle qui se déroule normalement au printemps. Au lieu de nous rencontrer autour d'une table de conférence, nous avons tenu trois téléconférences distinctes : une en février, une en avril et une en mai 2011. Le CA a convenu de privilégier la formule des téléconférences dans un effort de réduire les dépenses d'exploitation et de faire preuve de responsabilités financières. Pour aller plus loin, les membres du CA ont accepté à l'unanimité de mener des téléconférences, au lieu de se rencontrer en personne, et ce, pour toutes les prochaines assemblées printanières.

Voici quelques-uns des points qui ont été abordés lors de cette assemblée : le formulaire d'évaluation de la planificatrice d'événements et du comité organisateur du congrès; l'adoption officielle d'un programme d'orientation pour les nouveaux membres et de mentorat pour les nouveaux membres du CA; le formulaire d'évaluation des affiches scientifiques; le thème de la Journée nationale des professionnels de la santé en néphrologie de 2011 et le sondage distribué à l'ensemble de nos membres.

Cette année, le CA a décidé de demander à ses membres de lui soumettre un thème pour la Journée nationale des professionnels de la santé en néphrologie de 2011. Nous avons donc lancé en janvier dernier un concours pour trouver un thème à cette Journée. Les deux gagnantes ont reçu un chèque-cadeau de la librairie Chapters. Le thème retenu pour la Journée nationale des professionnels de la santé en néphrologie de 2011 est TEAM (**T**ravailler **E**nsemble pour **A**tteindre le **M**eilleur de soi ou *Together Everyone Achieves More*, en anglais). Comme vous pouvez le constater, le même acronyme s'utilise en anglais et en français! Quant au sondage mené en ligne, il avait pour but de cerner ce que vous attendiez de votre Association et d'obtenir vos suggestions d'amélioration sur les services aux membres.

Notre site Web a subi quelques remaniements. Visitez-nous à **www.cannt.ca**. L'ACITN est maintenant sur Facebook et Twitter, possède un forum de discussion réservé à ses membres, affiche les lignes directrices sur la rédaction d'affiches scientifiques et d'articles à l'intention des auteurs, et bien plus encore. Nous encourageons les membres à maximiser l'utilisation de ces réseaux sociaux et à partager l'information avec leurs collègues en néphrologie d'un océan à l'autre. Sous l'onglet *What's New* (Quoi de neuf), consultez les lignes directrices portant sur les meilleures pratiques pour les adultes vivant avec une néphropathie chronique, les résultats du sondage mené auprès des membres, le thème de la prochaine Journée nationale des professionnels de la santé en néphrologie et la mise à jour du projet de rédaction de la norme sur la dialyse à domicile de l'Association canadienne de normalisation (CSA).

L'ACITN appuie activement l'agrément des infirmières et des infirmiers en néphrologie, CNeph(C), dont l'examen se tient chaque printemps sous la direction de l'Association des infirmières et infirmiers du Canada (AIIC). Nous désirons féliciter toutes les infirmières et tous les infirmiers qui se sont inscrits à

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l'examen d'agrément et leur souhaitons bonne chance! Pour ceux et celles qui désirent s'inscrire à l'examen, consultez le site Web de l'ACITN pour obtenir la liste des séances d'information et de présentation, conçues pour vous aider à vous y préparer. L'AIIC tient également des séances de préparation à l'examen d'agrément en néphrologie pendant le congrès annuel de l'ACITN. Ces séances ont lieu en anglais ou en français. En participant à ce programme d'agrément national, vous faites preuve de dévouement et d'engagement à l'égard de la profession infirmière en néphrologie et de vos patients.

Le congrès annuel de 2011 aura lieu du 20 au 22 octobre au *CalgaryTelus Convention Centre*, au centre-ville de Calgary, en Alberta. Le congrès a pour thème « Explorons de nouvelles voies » et porte notamment sur des travaux de recherche clinique, des projets innovateurs, des études de cas et des revues cliniques, tous fondés sur l'expérience clinique et tous pertinents aux professionnels de la santé en néphrologie, que ce soit des infirmières débutantes aux infirmières de pratique avancée. Le comité organisateur, sous la direction de la planificatrice d'événements, Heather Reid, de Innovative Conferences & Communications, et les coprésidentes du comité organisateur, Heather Dean et Janice MacKay, vous préparent un congrès que vous ne voudrez certainement pas manquer! Rendez-vous à **www.cannt.ca** pour trouver toute l'information sur le congrès et l'inscription.

Si vous faites une présentation au congrès de Calgary, le CA vous encourage à prendre en considération de soumettre votre manuscrit au *Journal de l'ACITN*, qui est une revue scientifique à comité de lecture (évaluation par des pairs). De cette façon, les personnes qui assisteront au congrès et celles qui ne peuvent pas y assister pourront bénéficier de vos connaissances et de votre expérience. Pour toute question, n'hésitez pas à communiquer avec Gillian Brunier, rédactrice en chef du *Journal de l'ACITN* à **gillianbrunier@sympatico.ca.**

Au nom de tous les administrateurs du CA, je tiens à vous remercier de votre soutien continu et j'espère vous rencontrer en grand nombre au congrès annuel de l'ACITN à Calgary, en Alberta, du 20 au 22 octobre 2011.

Patty Quinan, M.Sc.Inf.,
ICS, CNeph(C)
Présidente de l'ACITN

CANNT 2011 promises to be a great conference where nephrology professionals… nurses, technologists, administration, researchers, pediatric nurses, pharmacists and more… will be able to learn, share, network, discuss and socialize together.

Experience all that CANNT 2011 has to offer:

- Share in the upbeat plenary addresses: combat stress, tackle bullying in the workplace, incorporate humour into everything!
- Choose from 54 concurrent sessions, five workshops and three satellite symposiums suited to all interests… topics range from nutrition, transplantation, end-of-life issues, pediatrics, infection control, technology, research and much, much more.
- Learn from 40 poster presentations with contributing authors from across Canada!
- Engage with our corporate partners as they showcase their latest products and services. Come prepared with questions and issues—our exhibitors want to hear from you!

And finally, immerse yourself in this year's conference theme "Blazing New Trails" and take in the beautiful Rockies setting! Western hospitality will warm your spirits, re-energize you professionally and personally, and leave you engaged and ready to return to work!

Register today! **CANNT 2011** information is available as follows:

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

We're excited to welcome Canadian nephrology professionals to Calgary—come and join us—we're "BLAZING NEW TRAILS" for CANNT!

Ask the Green Tech

Green philanthropy

Dear Green Tech,

I am always excited for the holiday season to begin. Thanksgiving weekend is approaching and Santa and his elves are bustling about, getting everything ready for all the good nurses and techs on his special day. I realize just how fortunate I am in my life, and have always given back to charities and to those less fortunate. However, in these uncertain economic times, I do not have as much to give as I once had. Being the resident green guru, I thought it only fitting to ask if you had any ideas as to how I can give without it putting a dent in the purse strings.

Sincerely,
Kindly Giving from Kelowna

Dear Kindly,

Thank you for doing what you can to enhance the lives of others. You can attest that Canadians have a long-standing tradition of doing, giving and caring for the world. When the world comes calling for help, we are there (quite often first) to help. Defending the sovereignty of our allies in times of war, or sending relief during natural disasters, as in the cases of Hurricane Katrina or the Haitian earthquake, are just some examples of where we have given in the past. Caring for the ill and malnourished completes the trifecta, a value which lies deep within our compassionate hearts.

I am proud to say, as do many of us, that I am Canadian and very thankful for the life I live. The benefits I reap in living in such a great country are endless. There are, however, many much less fortunate than us around the world, as well as in our own backyard. Giving back is an inherent trait of a Canadian. To prove just how generous we are, in 2008 alone, during the heart of the worst economic collapse our generation has seen, we were responsible for donating $8.7 billion to a variety of charitable causes.

But our good hearts can only take so much giving. I hate to be the bearer of bad news, but this little thing we call climate change will only make the occurrence of such natural disasters a more regular phenomenon. As well, the economic collapse of 2008 has put our purse strings on a tight watch. These unstable global economic and meteorological patterns are making it harder to give to the charities that we hold close to our hearts.

So, let's not focus too much on the negative and think a little more positive and ask the question, "How can we still make a difference while keeping those purse strings tight?" Have no fear, as the Green Tech is here to help you give until it doesn't hurt and, trust me, it won't.

Okay, so let's begin by defining what is giving or, more appropriately, what is philanthropy. Philanthropy is defined as a deliberate affection for mankind, shown in contributions of money, property, or work for the benefit of others. Bottom line is that there are many ways to give outside of monetary giving. Two books helped inspire me to write this current column. The first one was *Green Philanthropy for Families: 160 Simple Earth Honoring Gifts, Actions, Activities and Projects* by Helen Deffenbacher, Justin Deffenbacher, and Alexis Deffenbacher. The other book was *How to Be an Everyday Philanthropist: 330 Ways to Make a Difference in Your Home, Life and World—At No Cost* by Nicole Bouchard Boles. As I mentioned, these books were the heart of my inspiration but, in fact, it has led me to do much more than that.

Halton Healthcare Services is a great place to work and quite unique in that we have a wellness department—Kailo. I have collaborated with the Kailo department on many occasions. A few years ago it ran a *29 Days of Giving* program, which was fantastic and created great results for those involved. This led me to create, along with the Kailo Co-ordinator Louisa Nedkov, the Kailo Cares program. Many of the organizations highlighted in this column have also been selected for the Kailo Cares program. So, how the program will work is a campaign is created for one of our either international or local charities every other month, and it is promoted to staff for participation. We plan to launch it this fall, so stay tuned for updates. I am very hopeful that it will be a great success and morale booster for all. And did I mention just how easy that giving can be?

So, on to the good stuff. Both the *Green Philanthropy for Families* and the *How to Be an Everyday Philanthropist* were written similarly, where their individual ideas were compiled into various categories for the reader to reference more easily. In keeping with the book format, I intend on doing the same. I will unfortunately not be able to cover everything, but will hopefully give you enough of a taste of what we can all do to make it part of your daily routine.

The power of time: The heart of all hospitals is their volunteers. Without them, we could not continue certain programs or would have to cut back on services because of increased staffing costs. Many of us volunteer, as do I, with my ongoing contributions to the *CANNT Journal* and the CANNT board of directors. Finding the time to volunteer can be difficult. Many of us with children truly know the term "how time flies." However, there is no better way to show your kids at an early age respect, compassion and caring than to participate in one of their activities.

One of my fondest moments as a kid

was in Scouts. In order to spend more time with me and my brother, my father (a registered nurse) became a cub leader. In order to share my memories of this time with others, I will be donating my old scouting memorabilia to the Canadian Scouting Museum in Ottawa.

If you don't have kids or they have finally moved out of mom and dad's place, then use some of your new found time to do something rewarding. Any amount of time you give will enhance the lives of others. Walking dogs from animal shelters like the Ontario Society for the Prevention of Cruelty to Animals (OSPCA), to tracking of migratory birds, delivering meals (Meals on Wheels), or reading to someone are just a few ways that people can give back a little time to their community and the environment.

The power of bytes: We all have a computer that we touch daily, either at work or at home. There are some pretty cool things you can do with a computer to help others. With a click of the mouse or the use of your keyboard, you can change the lives of others forever. Use your computer for research by helping to conquer cancer or to find clean water. During your computer's idle time, various research groups can use your computer's internal processing power to compute thousands of hours of data. Download the needed BOINC software at **worldcommunitygrid.org** and change the world one bit at a time.

Like shopping? Then shop online using various charitable shopping portals such as *GoodShop*, or *IGive*, where a percentage of sales (up to 30%) is returned to charitable organizations. Even better, you can add a specific charity to their database if not listed, so that you can directly funnel your money where you want.

Searching the internet for new vegetarian recipes like I do, or just to see what the current local news is? Use a search engine like *Good Search* or *Search Kindly*. *Good Search* donates about 1¢ to the organization of choice, where *Search Kindly*, a Google service, donates one-third of a cent to a monthly polled charity.

Need a new email or a separate one for all of your philanthropic ventures? Sign up for e-mail service through *Care2 Email* or *Planet Save*. *Care2 Email* provides you a 100MB account and donates 5% of its revenue to both environmental and good causes. *Planet Save* provides you with a 25MB email and donates 25% of its revenue to green causes.

Have a minute to spare? Use your mouse and "click" for immediate change. Websites like *Care2.com* or *The Hunger Site* allow you to click on buttons for ending hunger, or helping whales, or even to help kids read. The money they use to donate to these charities comes from corporate donations, which are highlighted on their site. And why not take a few minutes and work your brain by playing the online game *Free Rice* (**www.freerice.com**) and help end hunger.

Unfortunately, most of these web-based charity programs do not cater to Canadian-based charities (at the moment). The only one that I could find with a Canadian connection is the *IGive* website, as it will support your favourite Canadian charity. With that said, do what you can and click to help others regardless of whether or not they are Canadian.

Last, use that inner geek and let your voice be heard through online petitions. You have a cause close to your heart, then start one of your own. There are various websites such as *Avazz*, *Care2.com*, *Change.org*, *Petition Online* or *The Petition Site*, where you could use your voice to help in creating change locally or internationally.

The power of stuff: Stuff. Yeah, we all have stuff and many of us way too much. Quite often people just throw it away once you get new stuff. Old running shoes, for example, can have a new life on someone else's feet by sending them to *Soles4Souls*, a non-profit organization that collects gently used or new shoes of all types and sends them to various locations in need of relief. Visit them at **www.soles4souls.org** and learn how you can start a drop-off location at work and about their other programs like *Clothes4Souls* and *Hope4Souls*. The other unique thing about *Soles4Souls* is that it has created a network of micro-businesses to sell any surplus shoes and help to empower the impoveris hed to be self-sufficient and support themselves and their families.

Still have clothes from the last decade in your closet? How about donating your old wears to various used-clothes programs, but keep that Michael Jackson leather jacket—totally cool for Halloween. Drop off your clothes at either a physical location such as *The Salvation Army/Value Village/Goodwill*, or a Canadian Diabetes Association *Clothesline* drop-off box.

Your benefit coverage allows you to get new glasses every two years? So now those old glasses are so last year, man—okay then, I have a super plan for you to get rid of them. It is the Lions Club of Canada's *Recycle for Sight* program. They collect used glasses and help roughly 153 million people worldwide who have uncorrected vision. It costs the Lion's Club about $0.08 to send a pair of recycled glasses to a needy individual.

Take a deep look into what possessions you have in your house and ask yourself the question, "Do I really need that?" If the answer is no and you haven't used it in more than a year, then I would look at giving it a new home. Do a *Freecycle* collection with your work colleagues and choose where you would like the donations to go—donate it to a local women's shelter, a Habitat for Humanity Restore centre or number of other agencies for the needy. Pretty much everything you have in your house can be donated (building material, pens and paper, appliances, furniture, etc.). Don't worry, as your donations will definitely find a good home. All it takes is a two-minute web search.

The power of the talents within: Being a musician has many perks, but being able to give my time to raise money is priceless. You may possess the same musicianship skills as I and have also done great things with your talents. But hey, Green Tech, I don't have a musical bone in my body, what then? We all have talents or hobbies, things at which we are good. Great at writing? Then why not pen some thank you letters for our young men and women in the Canadian Armed Forces fighting abroad via *Project Thank You*. You can also be a pen pal and write inspiring letters to terminally ill children thanks to the *Make a Child Smile* (**www.makeachildsmile.org**) program.

Like to knit and sew? Then here are a few cool ideas if you are in need of a project. Be a "blanketeer" for Project Linus (**www.projectlinus.org**) and create a comforting washable blanket for a sick or traumatized child. You can create any number of blankets ranging from quilts, tied comforters, fleece blankets, crocheted or knitted afghans, to receiving blankets. Knit a warm cap and booties for a premature baby. Have some

homemade teddy bears collecting dust? Donate them to the Teddy Bears of Hope (www.teddybearsofhope.com/).

Crochet a cool eco mat made of used milk bags and provide a sleeping mat for a young child. For more information on the Milk Bag Project, contact the North Burlington Baptist Church: info@nbbc.ca

You have a green thumb and love to garden. Why not donate some of your veggies to your local food bank or homeless shelter? Next year when you are planning your garden, why not plant a row and grow a row? Connect with a local gleaning program where volunteers come and pick the vegetables for you and, in return, share in the harvest, as well as donating the last third to a local food bank.

The power of junk: Well, one day my Subaru Impreza is just gonna say "no" and I will have to shop for a new set of wheels. When that happens, I plan on donating my car to the Kidney Car program through the Kidney Foundation of Canada, rather than just send it to a scrap yard.

We talked about collecting gently used shoes, but what about those destined for the landfill? No problem, ship them off to Nike Reuse-A-Shoe (www.nikereuseashoe.com) program, where the shoes are dismantled into three pieces and each piece is then separated and ground down so that it can be used as the base material for various sporting surfaces, such as running tracks, basketball courts and tennis courts. Keep in mind that this program will only accept used athletic footwear.

Just returned from holiday and you have brought back home with you more small shampoo and conditioner bottles from the resort to be added to the already large collection? Well my friends, I have a new and useful home for all of these soaps and shampoos/conditioners. Send them to the great people at Clean the World (www.cleantheworld.org/). The soaps and shampoos are used to help impoverished people around the world who are dying due to acute respiratory infections and diarrheal disease as a result of the unsanitary conditions they live in, who do not have the money for such items.

We all get mail (mostly bills and junk mail), and the majority of it will have a stamp stuck on it. Most often these envelopes or post cards go either into the recycling bin or the trash. Collect the stamps and envelopes and help the Oxfam Canada Stamp Out Poverty (www.oxfam.ca/stampoutpoverty) campaign succeed. Last year they were able to generate about $10,000 with the sale of stamps to collectors.

What to do about all those birthday and Christmas cards we have hanging around in boxes and drawers around the house? Do some spring cleaning and send them off to St. Judes Ranch (www.stjudesranch.org/help_card.php), a Southern U.S.-based facility that helps to nurture abused and neglected children. The children create new cards by removing the front of the cards and attaching a new back. It also provides the children with entrepreneurial skills.

I spoke of some green recycling programs (Think Recycle & Terracycle) that you could use to fundraise in my last Ask the Green Tech column. So, if you don't have any fundraising to do, then find a drop-off location for your used electronics and ink cartridges. If your favourite charity does not have any of these programs set up, then offer your services and help them to fundraise. Just recently I did a tech room clean-up and was able to generate $71 from my e-waste drop-off at Green Go Recycling Solutions in Barrie, Ontario, for my team, The Kidney Kickers, fundraising campaign.

The power of me: We all have one and without it, well, there would be no getting around to do things, hugging family and, more importantly, living. Those of us with healthy bodies can do great things to help others who, unfortunately, are unable to do so themselves. There is nothing more profound than giving from you, literally. You can lend a hand and help build communities through Habitat For Humanity.

On Saturday September 10, I will be using my body to raise funds for the Kidney Foundation's Give the Gift of Life Walk in Oakville. There are many walks being planned for the Ontario chapter of the Kidney Foundation of Canada and throughout Canada during the month of September, like the St. Catharines walk on September 17 or the Kitchener walk on September 11 to name just a few. The second annual 100k Kidney March is being held in Calgary, September 9–11. So use what your mama gave you for doing good.

In order to help our team, The Kidney Kickers, meet its fundraising goals, I will be putting myself up for auction. The highest bidder gets me for eight hours as their dedicated manservant. I will let you all know how I made out.

Since we are on the topic of what your mama gave you, why not donate your beautiful locks of hair to create wigs for kids and others going through chemotherapy. Donate your hair (10-inch ponytails) to Pantene Beautiful Lengths (www.beautifullengths.ca) or numerous other agencies across Canada. For more information visit the Canadian Cancer Society website www.cancer.ca for other provincial campaigns. If you don't have long hair and want to make a difference to the environment, donate your hair clippings to Matter of Trust. Matter of Trust turns your unwanted hair into oil-absorbing mats in place of harsh chemicals to soak up oil spills in our waterways.

The month of November is of great interest for men. Movember, as we now call it, is the month when men from across the globe now sport the greatest (and the ugliest) moustaches to lend their support and awareness for prostate cancer. Those of you who attended last year's conference could attest to the gloriously Magnum PI-esque stash I grew.

The next two have high importance to our kidney patients. As the motto goes, "Blood, it's in you to give" is an easy sacrifice we can all make to help our dialysis patients who may need a blood transfusion or albumin. Contact the Canadian Blood Services (CBS) (www.blood.ca) and find a local blood donor clinic. Book an appointment today and save a life.

The Canadian Blood Services also has another program called, One Match, which is a stem cell and bone marrow donation program. It is quite easy to do—listen to someone who has already done it. All you do is contact CBS and they will send you a kit. All you do is take four separate tissue swabs from your cheeks and send it back. You can add your name to the already registered 11 million people in more than 50 different registries worldwide. No better way to connect yourself than to make your stem cells and bone marrow available to someone half way across the globe.

The greatest act of kindness any person can perform is to be an organ donor. I know that when that time comes for me, I would love to see my memory live

on in others who can get the chance to live the life they have always dreamed. Being a donor can save up to eight lives and, hey, I sure can't take them or use them where I am going, so there is really no reason not to be one. I had signed the back of my driver's licence, but also registered my consent online to solidify my wishes. For those of you in Ontario, go to **www.beadonor.ca** and register your consent. Every province has a slightly different way of being an organ donor, so doing a web search for your province will lead you to the answers you need to make that very important decision. Save lives and show your pride.

I have provided you with lots of great ideas and I know that this is just a sample of the ideas we can use to make a difference. Most importantly, share your experiences. It is not the act of giving, but the experiences you have that truly matter, so please share with others by whatever means you can. Blog away and tell others of your philanthropic adventures, please add Join the movement and spread the word with www.peopleforgood.ca, a collective of like-minded individuals looking to make a difference. It's also a fantastic resource full of ideas and you can share yours as well. We all have the power to change a life, and nothing should stop us from doing so. Please do what you can and give somone an experience they will never forget. I will also share my adventures with you in the near future in a "What's Happened" segment of the column. So, now that you have the tools, there is no excuse to not give a little in many ways over the holiday season.

Thank you all for letting me share. I would love to hear your stories. If you have other great ideas to share, I would love to hear them and have them highlighted in a future Green Tech column. Need other ideas? Contact me at **regq101@gmail.com**. Have a terrific Thanksgiving and Christmas and we will be back in 2012 for more Green Tech-ing.

In the famous words of Ryan Seacrest—Green Tech Out! Thanks and remember to Keep it Green, Eh!

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For any and all questions, feel free to e-mail me, Reg, aka "Green Tech," Quesnelle at ***regq101@gmail.com***

NOTICE BOARD

- Ottawa Supper Clubs—Contact Janet Graham, Nephrology Unit, Ottawa Hospital, **jgraham@ottawahospital.on.ca**
- September 1, 2011. Registration time begins for the Nephrology Certification Exam. Contact Canadian Nurses Association Certification Program, e-mail: **lvachon@cna-aiic.ca**. Website: **www.cna-aiic.ca**. Toll-free phone number: 1-800-450-5206
- September 10–13, 2011. 40th European Dialysis and Transplant Nurses Association/European Renal Care Association (EDTNA/ERCA) International Conference: Ljubljana, Slovenia. Website: **www.edtnaerca.org**
- September 21, 2011. Nephrology Health Care Professionals Day.
- October 15, 2011. Deadline for applications for Allied Health Research Grants, Kidney Foundation of Canada. Website: **www.kidney.ca**
- October 20–22, 2011. CANNT 44th National Symposium. Telus Convention Centre/Hyatt Regency, Calgary, Alberta. Conference Planner: Heather Reid: e-mail: **hreid@innovcc.ca**. Website: **www.cannt.ca**
- February 26–28, 2012. Annual Dialysis Conference 2012, San Antonio, Texas. Website: **www.som.missouri.edu/Dialysis**
- March 15, 2012. Kidney Foundation of Canada. Deadline for Allied Health Fellowships and Scholarships. Contact: Coordinator, Research Grants and Awards, 1-800-361-7494, ext. 232. E-mail: **research@kidney.ca**. Website: **www.kidney.ca**
- April 21, 2012. Exam date for CNeph(C) certification exam. Contact Canadian Nurses Association Certification Program. E-mail: **certification@cna-aiic.ca**. Website: **www.cna-aiic.ca**. Toll-free phone number: 1-800-361-8404
- April 29–May 2, 2012. The American Nephrology Nurses Association (ANNA) National Symposium. Walt Disney World Dolphin Resort, Orlando, Florida. Website: **www.annanurse.org**
- September 9–12, 2012. 14th Congress of the International Society of Peritoneal Dialysis (ISPD), Kuala Lumpur, Malaysia. Website: **www.ispd2012.org.my**

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Developing a decision support intervention regarding choice of dialysis modality

By Marie-Chantal Loiselle, RN, MSN, PhD student, Annette M. O'Connor, RN, PhD, and Cécile Michaud, RN, PhD

Abstract

Predialysis nurses have an important role in supporting patients who must make decisions when renal replacement therapy is needed. However, no effective interventions have been established for nurses who provide this decision support. The Ottawa Decision Support Framework provides a structure to develop such interventions, which include a patient decision aid and decision coaching.

Goal: *To propose a method for developing and implementing a decision support intervention.*

Method and results: *Guided by this model, a mixed method design is proposed to develop and evaluate the intervention. The intervention includes a decision aid intended for patients and their families and training in decision coaching intended for nurses. Its development requires knowledge synthesis and a decisional needs assessment with key informants. The development of decision coaching competencies for nurses will include an interactive skill building workshop. A constructivist evaluation approach will be used to evaluate the intervention.*

Conclusion: *This study proposes an innovative approach to develop interventions and should contribute to improving the quality of decision-making regarding dialysis modality and to developing nurses' skills in providing decision support.*

Key words: predialysis, patient and family participation, decision support intervention

Introduction

Predialysis nurses have an important role in supporting patients with chronic kidney disease (CKD) stages 4 and 5 not on dialysis who face decisions about renal replacement therapy (RRT). Since the option of a kidney transplant is a limited option for many patients with CKD, choosing between hemodialysis and peritoneal dialysis is the more common, difficult decision (Harwood, Locking-Cusolito, Spittal, et al., 2005). In the absence of scientific evidence demonstrating the superiority of one option over the other, the decision about RRT lies in the preferences or values of the person with CKD stages 4 and 5 who is not on dialysis. This decision is often made following participation in an educational program in the predialysis clinic, coordinated by a nurse. In spite of this preparation, people experience decisional conflict, or personal uncertainty about the best course of action. In other care situations, decision support interventions have been effective in reducing decisional conflict and improving informed values-based decision-making. The Ottawa Decision Support Framework provides a structure to develop such interventions, which includes decision aids and decision coaching (O'Connor, Jacobsen, & Stacey 2002; O'Connor & Jacobsen, 2007). These interventions aim to improve the quality of decision-making. However, we were unable to find interventions developed for people with CKD stage 4 and 5 not on dialysis and their families. Our goal is to propose a method to develop and implement a decision support intervention for this patient population.

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Submitted for publication: March 8, 2011.

Accepted for publication in revised form: July 21, 2011.

Literature review

For patients with CKD stages 4 and 5 not on dialysis who elect to undergo some form of dialytic therapy, the options of hemodialysis or peritoneal dialysis must be considered. There are different advantages and disadvantages between options that have important implications for the afflicted person's personal, family and social life, as well as for the person's clinical and therapeutic patient management (Farrington & Warwick, 2009; Whittaker & Albee, 1996). This difficult decision often causes a feeling of uncertainty (Lin, Lee, & Hicks, 2005), which corresponds to the construct of decisional conflict. According to the North American Nursing Diagnosis Association (NANDA), decisional conflict is defined as personal uncertainty regarding the best course of action when competing options involve risk, loss, regret or challenge to personal values (NANDA, 1992). Although uncertainty stems from the inherent nature of the tradeoffs between options, modifiable factors can exacerbate uncertainty including lack of knowledge, unrealistic expectations, unclear values, and feeling unsupported or pressured by others (O'Connor & Jacobsen, 2007).

Furthermore, Canadian and American guidelines have been issued to ensure the monitoring and adequate preparation for dialysis of the patient with CKD (Farrington & Warwick, 2009). They indicate that clinical and educational preparations must start early in order to initiate dialysis under the best conditions and to avoid emergency procedures, which are associated with a greater mortality in the first months of dialysis, as

well as more frequent and longer hospitalizations (Sprangers, Evenepoel, & Vanrenterghem, 2006). Education programs coordinated by nurses have been developed to inform decision-making by patients and their families and to enhance care planning within multidisciplinary teams. The presence of the family or significant other is desirable given their influence on the decision-making process (Lee, Gudex, Povlen, Bonnevie, & Nielsen, 2008; Whittaker & Albee, 1996).

The effectiveness of these educational programs (Klang Bjorvell & Clyne 1999; Manns, Taub, Vanderstraeten, Jones, Mills, Visser, & McLaughlin, 2005) is disputed in the scientific literature, because recent studies demonstrate that patients lack knowledge (Finkelstein et al., 2008; Landreneau & Ward-Smith, 2007; Mehrotra, Marsh, Vonesh, Peters, & Nissenson, 2005), feel pressure from professionals (Michaud & Loiselle, 2003), have misconceptions of the preferred role in the decision-making process (Orsino, Cameron, Seidl, Mendelssohn, & Stewart, 2003), feel a sense of inadequacy in making an informed decision (Tweed & Ceaser, 2005) and manifest persistent decisional conflict (Michaud & Loiselle, 2003; Tweed & Ceaser, 2005). The decisional conflict that CKD stages 4 and 5 not on dialysis patients experience with the values-sensitive RRT decision point is a concept that is not being considered in predialysis educational programs.

Values-sensitive decisions require a shared decision-making (SDM) perspective, which is particularly important for CKD patients stages 4 and 5 not on dialysis (Pfettscher, 1997). SDM is a process whereby patients and their health care professionals consider health care options and reach agreement on the option that best fits with patients' clinical needs, priorities, and preferences (Stacey, Murray, Légaré, Dunn, Menard, & O'Connor, 2008). The Ottawa Decision Support Framework provides a process that facilitates SDM. This framework situates the decisional conflict as a central element of the decision-making process. It has three key elements: 1) assessing decisional needs; 2) addressing identified decisional needs using decision support intervention with interventions such as patient decision aids (PtDAs) and coaching; and 3) evaluating the decision quality and progress in decision-making. These operations apply to all participants, including the patient and his family and their health care professionals. The Ottawa Decision Support Framework asserts that participants' decisional needs will affect decision quality, which will, in turn, have an impact on implementation behaviour, health-related quality of life, regret, and appropriate use of services. Decision support interventions in the form of a PtDA and decision coaching can improve decision quality by addressing unresolved decisional needs.

Decisional needs are assessed by considering the following elements: perception of the decision (knowledge, expectations, values, decisional conflict and type of decision), perception of others (pressure from others and social support), and personal and external resources needed to make the decision (experience, self-efficacy, and access to information and health care).

A high-quality decision is defined as being informed and consistent with personal values. Improving the quality of the decision can have a beneficial effect on other outcomes such as behavioural implementation of the choice, health-related quality of life, regret, and appropriate use of costs and services (Greenfield, Kaplan, Ware, Yano, & Frank, 1988).

The Ottawa Decision Support Framework frames the development of decision support interventions that aim to address decisional needs (O'Connor, Jacobsen, & Stacey, 2002). Assuming that better decisions are based on better knowledge, realistic expectations, and personal values, the Ottawa PtDAs present information about the options, outcomes, and associated probabilities of the decision, and offer explicit values clarification. They are designed to complement—rather than replace—counselling from health care professionals. Many PtDAs using the Ottawa Decision Support Framework have been developed within an interdisciplinary context and subsequently tested with proven effectiveness in various clinical contexts (O'Connor et al., 2009; O'Connor et al., 2002).

Decision coaching is provided by a skilled health professional and is supportive, but non-directive toward the health care decision (Stacey, Murray et al., 2008). It is an adjunct to the decision support that is offered within the framework of the clinical consultation between the patient and the physician. It aims at helping the patient and the family to develop the self-efficacy and skills necessary to prepare for the medical consultation, for the deliberation leading to the decision, and for the implementation of the latter. This intervention, when conducted by a nurse, shows some promise in improving satisfaction and appropriate use of services, as well as reducing costs (Kennedy et al., 2002).

The design of the coaching intervention uses the decision coaching model developed by Stacey, Murray et al. (2008). The model is based on the Ottawa Decision Support Framework and positions the nursing coaching role within the framework of SDM between the patient and the physician. Since providing decision coaching is a relatively new role for the nurse, it requires knowledge and skill building, which can be provided with Murray's skill-building workshop (as described in the method). This workshop has been shown to be effective in developing coaching skills (Murray, 2009).

The studies conducted to develop and evaluate the decision support intervention that used the Ottawa Decision Support Framework are based on experimental design. However, Campbell, Fitzpatrick, and Haines (2000) recommend a phased approach to the development and evaluation to help researchers define clearly where they are in the research process. The use of decision support in the context of CKD stages 4 and 5 not on dialysis is complex. The disease is chronic and decision-making incremental. A team is involved and usual care interventions roll out over time. Dialysis not only changes the patient's life, but also that of the family. The evaluation of such complex interventions in an equally complex clinical situation requires the use of both qualitative and quantitative evidence. We, therefore, propose an innovative approach to developing decision-support interventions in CKD stages 4 and 5 intended to facilitate predialysis care that is evidence-based, feasible, and improves decision quality regarding RRT choice. The design of the PtDA would benefit from a multi-method approach. The development of decision-coaching abilities will be based on the coaching model using an approach centred on self-discovery and personal development (Rush, Shelden, & Hanft, 2003). Finally, the evaluation of the support intervention according to a constructiv-

ist evaluation approach would provide a certain value to the study of decision support. Let us examine in more detail the development and implementation stages of the decision support intervention.

Method

Guided by the Ottawa Decision Support Framework, the development of the decision support intervention has three phases: 1) design of the support intervention, 2) pilot implementation of the intervention, and 3) evaluation of the support intervention by the persons with CKD stages 4 and 5 not on dialysis and their families, as well as by the nurse who will have implemented the intervention.

Development of the support intervention

The aim of the support intervention is to: a) provide the patients with CKD stages 4 and 5 not on dialysis who are considering dialysis options with a PtDA that is based on scientific evidence and that responds to their decisional need; and b) to help nurses to develop decision coaching skills in order to support patients more effectively.

Design of the patient decision aid. The content of the PtDA will be structured using the general format according to the Ottawa Decision Support Framework and will meet the international standards for PtDAs known as International Patient Decision Aids Standards (IPDAS) (Elwyn & O'Connor, 2009). Its development requires several steps (O'Connor & Jacobsen, 2003). The information content and format for the decision aid will be developed through an iterative process and it includes at first a systematic overview of factors influencing the choice of RRT for the patient with CKD stages 4 and 5 not on dialysis, a needs assessment using key informants to elicit patients' and professionals' perceptions of the decisional needs when choosing RRT, and an evidence review to summarize the key benefits, harms, and side effects of each option to be presented in the PtDA. These activities will be realized by the researcher. The second step will be to adapt the Ottawa PtDA template according to the results found from the research activities described below. The third step is to create a steering committee composed of one or two nephrologists, nurses and expert dialysis patients with their relatives. Together with the researcher and an expert researcher in decision sciences, they will collaborate to produce a final version of the PtDA.

Conception of a decision-coaching skill building workshop. Murray's decision-coaching, skill-building workshop (2009), an interactive educational training kit intended for nurses, will be adapted to the RRT decision-making context. Based on the Ottawa Decision Support Framework, the training aims to improve nurses' self-efficacy and skills as follows: assessing patients' decisional needs, providing support to address decisional needs, monitoring progress in decision-making and screening for factors influencing implementation. The training evolves in a three-step approach. The first step includes theoretical training on the Ottawa Decision Support Framework, the PtDA and the decision-coaching skills described in the decision-coaching model of Stacey, Murray et al. (2008). The second step focuses on developing communication skills in decision coaching. Activities will comprise interactive education strategies such as the demonstration and evaluation of decision-support interventions from pre-recorded videos with standardized patients, role play, and evaluation of interactions. The third step is the development of decision-coaching skills focused on implementing the decision. During this workshop, nurses will practise with real patients. Self- and peer appraisal during this step will be supported by the use of a decision-support analysis tool (Stacey, Taljaard, Drake, & O'Connor, 2008).

In order to translate knowledge beyond the original workshop, a clinical nurse specialist will be trained to continue to support nurses in learning coaching skills and to facilitate the integration of that practice in daily operations. Finally, the coaching model of Rush et al. (2003) will be used to support the development of nurses' skills.

Table 1. Activities of the pre-dialysis educational program and integration of decision-support interventions in these activities

Activities of the education program in pre-dialysis					
Initial meeting	**Educational meeting**	**Educational monitoring**	**Decision**	**Decision monitoring**	**Surgery access**
Collection Group or individual orientation	Information on the options	Complete the information	Nephrologist Consultation	Medical and symptom-management monitoring	Fistula or peritoneal catheter
	1 month	2 months	3 months	4 to 7 months	8 to 12 months
Decision-support interventions					
Evaluation	Education/ communication	Clarification/ deliberation	Decision	Implementation	Surgery access
Decision Discomfort Decisional needs	Benefits/risks (scientific evidence)	Exercises of value Clarification/deliberation on the decision	Nephrologist Consultation	Obstacles Screening ↑ Feeling of self-efficiency	Fistula or peritoneal catheter
	1 month	2 months	3 months	4 to 7 months	8 to 12 months

Pilot implementation of the support intervention

The pilot implementation phase of the intervention will take place at the predialysis clinic where the study is to be realized. The nurse will integrate the decision-support intervention into the activities of the current care pathway and educational program in predialysis. The activities are as follows and are particular to this predialysis setting: first of all, the nephrologist will determine the patients' clinical eligibility for the dialysis options and refers the patient and significant other to the predialysis program. An appointment with the nephrologist is also scheduled in two to three months, where the patient communicates his or her choice and preparatives to plan the initiation of the dialysis are primed. Upon receipt of the referral, the nurse plans the preparation activities for modality selection. The main activities are the following: the initial visit (data collection and orientation towards group or individual education sessions); education visits the month following the initial visit, and monitoring and symptom management (together with the medical visits) until the initiation of dialysis. During these visits, the patient is invited to share his or her modality choice in order to facilitate planning of access for the dialysis type selected.

Within the framework of this study, we foresee that nurses will use the PtDA and integrate the decision-coaching interventions at various intervals within the context of the activities of the education program in predialysis (see Table 1).

Evaluation of the support intervention

The aim of the evaluation phase is twofold. First, it aims to understand the experiences of CKD patients, their significant other, and the predialysis nurse with this intervention. Second, it aims at targeting the elements of the intervention that influence decision support. During this phase, we will evaluate more specifically the components of the decision support intervention and their influences on the decision point, the choice of dialysis modality, and the quality of the decision both for the patient and his or her significant other. We will also study the experience of decision coaching in terms of self-discovery and personal development for the nurse. Finally, we will evaluate the decision support interventions that nurses can use to facilitate the evaluation, the clarification and deliberation, and the implementation of the decision.

The evaluation of the decision support intervention will be carried out using a qualitative design with a constructivist evaluation approach by Guba and Lincoln (1989). These authors have suggested an evaluation process that facilitates meaningful collaboration with participants. It is characterized by the study of cases constituted of groups of people reporting their experience with the phenomenon.

Case selection

In this study, a case will include a patient and significant other who will both have benefited from the intervention, as well as the nurse who will have conducted the support intervention. Eight cases will be recruited by intentional sampling, taking into account characteristics that influence the choice of a dialysis technique, namely: the age, the sex, and the social network.

Data collection

The method of data collection will use three strategies: semi-structured interviews, questionnaires, and sociodemographic data and field notes. An in-depth interview using open-ended questions to uncover information will be used to allow participants to express opinions and ideas in a profound manner and to provide flexibility (Lincoln & Guba, 1985). An interview guide semi-structured qualitative format will be used and will capture the evolution of the intervention of the decision support. Since this type of study must be conducted in the natural context, this meaning where the decision is made regarding the choice of an RRT, the in-depth interviews for the patients and their significant others will be conducted at their place of residence. The nurse will be interviewed at the predialysis clinic.

Process evaluation

This evaluation approach is a local and teaching/learning process whereby the stakeholders (key informants) and researcher collaboratively create a consensual construction of a phenomenon (in this case the decision support intervention). It is a continuous and recursive process that subsumes data collection and data interpretation into one inseparable and simultaneous whole. The researcher undertakes a discourse interpretation process in order to find the meaning of the experience and then to construct a narrative that has to be confirmed by participants. The exchanges between the researcher and the participant are aimed at reaching a consensus.

Data collection will be carried out by a wave of interviews and follows the steps below. For the patient and his significant other, this represents a qualitative interview at home followed by a telephone interview with validation of their narrative provided before by the researcher. In parallel, the nurse will have a qualitative interview at the prediaylsis clinic followed by a telephone interview with validation of his or her narrative provided before by the researcher. When each case participant has validated the narrative, the researcher gathers them to construct a summary. This summary is then submitted to the participants for validation. This grouping together enables identification of the similarities and the discrepancies and arrives at the design of a model that would be the most significant and applicable for each of the persons involved (Michaud, 2000; Sylvain, 2000). This process recalls the hermeneutic dialectic circle. This summary is then reinvested in the next case and is presented at the end of the first qualitative intervention with the patient and the significant other.

In order to reach a prospective understanding of the decision support intervention, qualitative interviews will be held at different time points. For the patients and their significant others, those moments are the following: after the initial meeting, after the meeting for clarification and deliberation with the nurse, and after consultation with the nephrologist. For the nurse, the interviews will be conducted after the initial meeting with the patient and his significant other, and after the clarification and deliberation meeting.

Data analysis

The qualitative interviews will be typed and analyzed according to a hermeneutic and dialectic process using a constant comparative method (Skrtic, Guba, & Knowlton, 1985). The

researcher approaches the data with empathy and is open to the ideas expressed in the text. This is an interactive approach to texts with the researchers, as individuals and as a group engaging in a dialogue with the text, comparing and contrasting through a dialectical interchange. The aim is to discern a consensus construction that is more sophisticated and informed than earlier constructions (Sylvain, 2000; Smythe, Ironside, Sims, Swenson, & Spence, 2008).

According to Skrtic, Guba and Knowlton (1985), the constant comparative method consists of identifying, coding, and categorizing the primary patterns in the data. Categorizing involves organizing coded data units into categories identified through similar characteristics (Lincoln & Guba, 1985). The important task of categorizing is to closely examine and compare for similarities and differences of those codes and bring them together into temporary categories to facilitate their handling. Categories must be meaningful both internally, in relation to the data understood in context, and externally, in relation to the data understood through comparison. A refinement of the category remains an ongoing process throughout the data analysis.

The trustworthiness criterion of Guba and Lincoln (1989) will be adopted to ensure the study's scientific quality. Credibility will be ensured by the participants, which will validate the summary of the experience of decision support and the counterchecking of the final result by the members of the steering committee of the development of the PtDA. Moreover, there will be a close supervision of more experienced researchers throughout the process, including the two supervisors of the thesis with one being an expert researcher in developing and evaluating PtDA. Transferability will be ensured by a detailed description of the context of the study and by having the interviews conducted in the participants' natural setting. Finally, reliability is ensured by the coding of qualitative data with two researchers, a detailed description of the research process, a prolonged experience of the researcher with the patients in this study, and the extent of time spent in the field. We will ensure that the integrity of the results is rooted in the data themselves and in the validation process, always in action. The keeping of field notes by the researcher will also contribute to the reliability of data.

Strength and limitations

One strength of this study is the adoption of the constructivist evaluation approach by Guba and Lincoln (1989), which is focused on knowledge transfer. Using a participative approach, the proximity between researcher and clinician strengthens this research, as it values the feedback of each participant who is considered a co-researcher. Moreover, it will be the first study to provide insights on the decision process at the time of decision about RRT. We expect also to learn more about the utility of the Ottawa Decision Support Framework and the decision-coaching model, which will contribute to the development of the nurses' role in the area of decision support.

This study has some limitations. The results will be difficult to generalize, as they will be linked to the perspective of patients and professionals from the predialysis clinic and to the particular environment where the study will take place. In addition, the results will capture the phenomenon of intervention to support decision-making only during the first three months. Some difficulties in recruiting sufficient patient participants and their significant others may occur given the context in which they will be recruited (high decisional conflict). This could mitigate the study.

Ethical consideration

This project will be submitted to the ethics committee of the research centre that will host the study.

Conclusion

Patients with severe CKD and their families face complex decisions concerning the initiation of RRT that require comprehensive information and support to allow them to make an informed decision about RRT. More recently, there is North American acceptance that a SDM approach should be adopted in the case of choosing RRT (Renal Physicians Association, 2010). In addition, the Registered Nurses' Association of Ontario (RNAO) has published in 2009 a specific guideline on decision support for adults living with chronic kidney disease by recommending the use of decision support interventions to help patients make decisions about managing their CKD, which include choosing RRT. This study is timely and should contribute to improving the quality of the decision regarding the choice of RRT and promote self-management for the patient. Also, it should help nurses to improve their teaching skills and incorporate into their practice a decision support intervention.

Acknowledgement

This research was supported in part by a doctoral training grant from the Ministère de l'Éducation, du Loisir et du Sport du Québec (Ministry of Education, Leisure and Sports of Quebec), the Quebec Interuniversity Nursing Intervention Research Group (GRIISIQ) and its government partner, the Quebec Health Research Fund, the Research funds from University of Sherbrooke, and the GRAPPE research fund of the Charles LeMoyne Hospital.

Conflict of interest

The author declares having no conflict of interest. This study is conducted within the framework of doctoral studies in the clinical sciences program, path in nursing sciences of the University of Sherbrooke. This study is under the supervision of professors Cécile Michaud and Annette O'Connor.

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Contact hour: 2.0 hrs

Treatment of leg cramps in patients with chronic kidney disease receiving hemodialysis

By Colette B. Raymond, PharmD, MSc, and Lori D. Wazny, PharmD

Objectives

After reading this article, the reader will be able to:

- Describe factors that contribute to leg cramps for patients receiving hemodialysis
- Compare and contrast the pharmacologic interventions to treat leg cramps
- Discuss non-pharmacologic interventions to treat leg cramps.

Introduction

Muscle cramps (involuntary muscle contraction associated with severe pain) occur frequently in patients receiving dialysis. Muscle cramps can involve the legs, most commonly in the feet, but can also involve arms and hands, as well as abdominal muscles (Holley, 2011; Kobrin & Berns, 2007). It is estimated that 33% to 86% of patients receiving dialysis have experienced cramps (Holley, 2011). In a study from 2001, 25% of hemodialysis patients reported two or more interdialytic cramps weekly (Khajehdhi, Mojerlou, Behzadi, & Rais-Jalali, 2001). The purpose of this paper is to review medications used to treat muscle cramps in patients with chronic kidney disease (CKD) receiving hemodialysis.

Pathophysiology and associated medical conditions

Muscle cramps begin with fasciculations or muscle twitches and are felt to be related to nerve conduction rather than the muscles themselves (Holley, 2011). Numerous factors contribute to muscle cramps in patients with CKD receiving dialysis and include volume contraction, hypotension, changes in plasma osmolality, hyponatremia, tissue hypoxia, hypomagnesemia, deficiency of carnitine and elevated serum leptin (Holley, 2011; Kobrin & Berns, 2007). Patients who experience cramps associated with dialysis have been reported to have lower parathyroid hormone levels than patients who do not experience cramps (Holley, 2011). Low concentrations of sodium in the dialysate bath and increased ultrafiltration required to remove excess fluid are factors related to the dialysis procedure itself, which increase the risk of muscle cramps (Holley, 2011).

Muscle cramps may have serious consequences for patients who experience them. Muscle cramps can be painful and this may impact quality of life. Cramps may also limit a patient's ability to tolerate dialysis and, therefore, contribute to underdialysis or chronic fluid overload. Patients who experience cramps associated with dialysis have been reported to have higher serum creatine phosphokinase values (suggesting muscle injury) than patients who do not experience cramps (Holley, 2011).

Quinine

Quinine is a medication that has been used for many years for the treatment of cramps both in the general population and in the dialysis population (Kobrin & Berns, 2007). Quinine is approved only for the treatment of malaria, and is used off-label to treat cramps. Quinine reduces leg cramps by decreasing excitability of the nerve stimulations, which increases the muscle refractory period and, subsequently, prevents prolonged muscle contractions (Canzanello & Burkhart, 1992). Quinine does not require a dose reduction for reduced renal function, but has a delayed onset of action, so it must be administered one to two hours prior to starting hemodialysis (Kobrin & Berns, 2007).

Some evidence from clinical trials supports the common practice of using quinine for leg cramps in patients without CKD or in those receiving dialysis. A systematic review of 23 trials (1,586 patients) found that quinine 300 mg daily (range 200 mg to 500 mg) reduced cramp number over two weeks by 28%, cramp intensity by 10% and cramp days by 20%. Cramp duration was not affected. In the included trials, there were no significant differences in adverse effects compared to placebo, with only one quinine-treated patient experiencing thrombocytopenia. The authors concluded that therapy with quinine up to 60 days was supported by moderate quality evidence, and with this duration of therapy, serious adverse events did not appear to be different from placebo (El-Tawil, Musa, Valli, Lunn, El-Tawil, & Weber, 2010). However, this systematic review included only two studies with dialysis patients (Kaji, Ackad, Nottage, & Stein, 1976; Roca et al., 1992).

Very little evidence from clinical trials supports the common practice of using quinine for leg cramps in patients receiving dialysis (Kaji, Ackad, Nottage, & Stein, 1976; Sandoval et al., 1980; Roca et al., 1992). In the first published randomized study, nine hemodialysis patients with frequent cramps (baseline rate not specified) received 320 mg quinine or placebo before each

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dialysis session for 12 weeks. Over 162 dialysis sessions, patients receiving quinine experienced cramps during 6.2% of dialysis sessions, compared with 17.3% of those taking placebo (Kaji, Ackad, Nottage, & Stein, 1976). However, this study was of short duration, and did not measure the number of cramps or intradialytic cramps (El-Tawil, Musa, Valli, Lunn, El-Tawil, & Weber, 2010). In the second study of eight patients who received 300 mg quinine for eight weeks followed by placebo for eight weeks, the frequency of cramps was reported to be reduced (Sandoval et al., 1980). However, this study was not included in the systematic review, because it was not randomized and patients were also treated with hypertonic saline (El-Tawil, Musa, Valli, Lunn, El-Tawil, & Weber, 2010). In a third study, 29 patients receiving hemodialysis were prescribed quinine 325 mg daily (16 patients) or vitamin E 400 IU daily (13 patients) for two months. Quinine reduced leg cramps to 3.3 per month, and vitamin E to 3.6 per month ($p<0.005$ for both groups), and both treatments reduced pain severity (Roca et al., 1992). However, this study did not report on adverse effects and only reported outcomes for 30 of the 60 days of treatment (El-Tawil, Musa, Valli, Lunn, El-Tawil, & Weber, 2010).

Numerous reports of toxicity related to quinine have recently been cause for concern. Adverse effects of quinine include tinnitus, deafness, dizziness, nausea and vomiting (generally after consumption of toxic amounts), cardiac arrhythmias, thrombocytopenia, hypersensitivity reactions and hemolytic uremic syndrome (Kobrin & Berns, 2007). Many of these serious adverse reactions, especially profound thrombocytopenia, can occur at any time during therapy, even after a single dose (Brinker & Beitz, 2002; Younger-Lewis, 2011). Quinine also has several important drug interactions, including with warfarin and digoxin (Kobrin & Berns, 2007). Recently, the Food and Drug Administration in the United States has issued warnings about using quinine for the treatment of leg cramps, and cautioned consumers and prescribers that the risk of severe adverse events does not justify the use of quinine for this indication (U.S. Food and Drug Adminstration, 2010). Prescribers in the United States are now required to provide patients with information about the risk of potentially severe reactions, as part of a risk management plan (U.S. Food and Drug Adminstration, 2010). Similarly, Health Canada published a review of 71 reports of serious adverse reactions suspected to be associated with quinine (thrombocytopenia, Stevens-Johnson syndrome, vasculitis, arrhythmia); 41 of these were life-threatening or required the patient to be hospitalized. Health Canada reminds health professionals about the severity of adverse effects associated with quinine, and that quinine is not indicated for the treatment of leg cramps (Younger-Lewis, 2011).

Vitamin E

Three studies suggest that vitamin E may be an alternative therapy for the management of leg cramps for patients receiving dialysis. One small study discussed above found similar reduction in leg cramps between quinine and vitamin E (Roca et al., 1992). In another study, 60 hemodialysis patients with a mean of 4.4 cramps per week were randomized to receive vitamin E 400 IU daily, vitamin C 250 mg daily, a combination, or placebo for eight weeks. The mean number of cramps per week decreased by 54%, 61%, 97% and 7% for the vitamin E, vitamin C, combination and placebo groups respectively, and no adverse effects were reported (Khajehdehi, Mojerlou, Behzadi, & Rais-Jalali, 2001). Finally, a study of 19 hemodialysis patients with a mean number of cramps over a 12-week period of 77.1 (6.4 cramps per week) received vitamin E 400 IU daily for 12 weeks. The mean number of cramps declined over a second 12-week period to 24.8 (2.1 cramps per week), with no adverse effects (El-Hennawy & Zaib, 2010). Both studies were of short duration, and one study was not blinded, had no control group and was not randomized. It is unclear if any adverse effects would result from dialysis patients continuing to take vitamin E with or without vitamin C therapy long-term. Vitamin E is known to cause bleeding, and to interact with warfarin to increase the risk of bleeding (Product monograph, vitamin E). Additionally, a meta analysis of 19 clinical trials with 135,967 participants in studies of vitamin E found that high-dosage (> or = 400 IU/d) vitamin E increased all-cause mortality (Miller, Pastor-Barriuso, Dalal, Riemersma, Appel, & Guallar, 2005). It is recommended that vitamin C supplementation be limited to 60 mg to 100 mg daily. Higher doses can result in the accumulation of a metabolite of vitamin C called oxalate. High levels of oxalate in the blood may lead to the development of kidney stones composed of calcium oxalate and in calcium oxalate deposits in organs, soft tissues, joints and blood vessels. (Rocco & Blumenkrantz, 2000). Replavite®, a multivitamin commonly prescribed for dialysis patients, contains 100 mg of vitamin C.

Other medications

Carnitine deficiency is felt to contribute to the pathophysiology of muscle cramps, which has led to several studies of its effect on cramps. A meta-analysis of six randomized, placebo-controlled trials with 167 hemodialysis patients that evaluated the effect of levocarnitine on cramps found a pooled odds ratio of 0.3 (0.009–1.00, $p=0.05$), suggesting, although not statistically significant, that carnitine may improve cramps. However, these studies were of varying duration and of heterogeneous design, with the seeming benefit driven by a single positive study. When the analysis was limited to studies conducted with modern dialysers (1990 or later), or all the studies except the outlier study, the results became clearly non-significant, suggesting no benefit to supplementation with carnitine (Lynch, Feldman, Berlin, Flory, Rowan, & Brunelli, 2008). A Japanese supplement of peony and liquorice root (shakuyaku-kanzo-to) administered to patients with cramps has demonstrated efficacy in treating 61 dialysis patients; cramps were relieved in an average of 5.3 minutes in 54 or 61 cases (Hyodo et al., 2006). However, the study was not blinded, had no control group, and was not randomized. Additionally, the ultrafiltration rate was reduced during cramps, so any effect of the medication is not known (Kobrin & Berns, 2007). Well designed placebo-controlled trials are required before carnitine or shakuyaku-kanzo-to can be offered as therapeutic alternatives for patients receiving dialysis.

Non-pharmacologic therapy

Numerous strategies can be employed in order to prevent cramps in patients receiving dialysis. The most common factors related to the hemodialysis procedure itself are volume contraction and hyponatremia. Preventing hypotension associated with dialysis, minimizing interdialytic weight gains including re-evaluating the patient's appropriate dry weight, the use of sodium modelling, increasing the frequency of hemodialysis, or switching to peritoneal dialysis have been effective in reducing the frequency of cramping. Local mas-

sage of the affected muscle and the application of moist heat may provide some comfort. Other low-risk strategies include performing stretching exercises before dialysis, performing mild exercise such as riding a stationary bicycle during dialysis or prior to bedtime, minimizing alcohol and caffeine, and keeping bed covers loose and not tucked in to prevent cramps. Local heat (including showers or baths) or ice, massage, walking or leg jiggling followed by leg elevation, are other methods reported to help relieve muscle cramps (Holley, 2011; Sheon, 2011).

If cramps occur during dialysis, it is important to assess the patient for hypotension. Dialysis-related hypotension may be treated through slowing or stopping ultrafiltration, placing a patient in Trendelenberg position, or reducing the blood flow rate. Hypertonic saline or 50% dextrose may be useful for the treatment of dialysis-associated cramps occurring near the end of dialysis. These treatments were shown to be equally effective for the relief of cramps in a double-blind, placebo-controlled study of 20 patients with 100 episodes of muscle cramps (Holley, 2011; Sherman, Goodling, & Eisinger, 1982). However, hypertonic (50%) dextrose has been suggested to be the better therapeutic option in non-diabetic patients because it does not adversely affect salt and water balance. Mannitol infusions are not recommended over hypertonic saline or 50% dextrose, especially near the end of a hemodialysis session, as mannitol may accumulate in the extracellular space.

Implications for practice

It is important to discuss non-pharmacologic strategies to prevent and treat muscle cramps with patients in order to minimize pharmacotherapy and to utilize hemodialysis interventions such as sodium modelling and reassessing dry weight. The literature describing effective pharmacotherapeutic interventions to prevent muscle cramps in patients with chronic kidney disease is lacking. Patient education about the available evidence for benefit and potential for harm of pharmacotherapy, is an important aspect of treatment. If a trial of quinine is considered, patients should be apprised of the potential for harm associated with the therapy. Some references suggest informed consent. Careful monitoring of the patient for efficacy and toxicity are warranted; if the drug is ineffective, or if any evidence for adverse effects, it should be discontinued (Kobrin & Burns, 2007). A short-term trial of vitamin E can be considered. However, interactions with antiplatelets, anticoagulants, and a concern for adverse effects for patients at risk of bleeding may limit its use in dialysis patients. For patients who receive these therapies, an evaluation of quinine or vitamin E prescriptions for a potential to discontinue is important to minimize toxicity related to medications.

Acknowledgements

The efforts of Laura Delavau, pharmacy student, University of Manitoba, in performing a drug information search on this topic are acknowledged.

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CONTINUING EDUCATION STUDY QUESTIONS **Contact hour: 2.0 hrs**

Treatment of leg cramps in patients with chronic kidney disease receiving hemodialysis

By Colette B. Raymond, PharmD, MSc, and Lori D. Wazny, PharmD

1. Clinical manifestations of muscle cramps in patients receiving dialysis include:

(a) urge to move the legs, sudden jerking leg movements, varicose veins
(b) involuntary muscle contraction accompanied by severe pain, which can occur in the legs, arms, hands or abdomen
(c) urge to move the legs, sudden jerking leg movements, skin sensitivity, pain and tingling in the legs
(d) involuntary muscle contraction accompanied by severe pain, which only occur in the legs

Case one

Ms. C.O. is a 69-year-old female receiving hemodialysis. She regularly experiences leg cramps, which occur during dialysis sessions, but also occasionally at night.
Questions 2 to 4 refer to this case.

2. Therapeutic options for Ms. C.O. include:

(a) minimize intradialytic fluid gains, leg massage during cramps, stretching exercises before dialysis
(b) increase caffeine intake, especially before dialysis sessions, sleep during dialysis sessions
(c) reduce caffeine, alcohol and nicotine, perform relaxation exercises during dialysis, avoid intradialytic aerobic exercise
(d) reduce caffeine, alcohol and nicotine, perform mentally alerting activities during dialysis, apply hot compresses to legs during dialysis sessions

3. Pharmacotherapeutic alternatives for Ms. C.O. include:

(a) quinine, mannitol, gabapentin
(b) carnitine, vitamin E, pramipexole
(c) mannitol, gabapentin, quinine
(d) quinine, carnitine, vitamin E

4. The dialysis nurse should be aware that vitamin E therapy may interact with warfarin (Coumadin) to:

(a) decrease INR levels
(b) increase PTT levels
(c) increase the risk of bleeding
(d) decrease the risk of bleeding

Case two

Mr. J.T. is a 47-year-old hemodialysis patient who has recently been experiencing leg cramps at night. He has received a prescription for quinine 200 mg daily at bedtime.
Questions 5 to 7 refer to this case.

5. Mr. J.T. should be aware of the following adverse effects:

(a) tinnitus, deafness, dizziness, nausea, arrhythmias, thrombocytopenia and hypersensitivity reactions
(b) dizziness, drowsiness, headaches, intradialytic hypotension, hyperphosphatemia, anemia
(c) dizziness, drowsiness, ataxia, hallucinations, fatigue, gastrointestinal disturbances, insomnia, orthostatic hypotension
(d) sedation, pruritis, hallucinations, constipation, gastrointestinal disturbances

6. Medications that have been studied for the treatment of leg cramps in some hemodialysis patients, but really lack any evidence to recommend for patients include:

(a) pramipexole, gabapentin, levodopa
(b) carnitine, shakuyaku-kanzo-to
(c) morphine, naproxen, pramipexole
(d) carbamazepine, amitriptyline, gabapentin

7. After six months of therapy, Mr. J.T. did not notice a benefit from quinine, so instead, he received a prescription for vitamin E 400 IU daily plus vitamin C 250 mg daily. Concerns that Mr. J.T. should be aware of with this treatment for leg cramps include:

(a) numerous long-term studies describe the benefit of this treatment, potential for bleeding risk, vision changes
(b) limited long-term studies describe the benefit of this treatment, risk of thrombocytopenia, nausea, arrhythmias
(c) limited studies describe the benefit of this treatment, potential for bleeding risk, vitamin C may increase kidney stones
(d) dizziness, drowsiness, ataxia, hallucinations, fatigue, gastrointestinal disturbances, insomnia, orthostatic hypotension

8. Which of the following statements about leg cramps in patients receiving dialysis is correct?

(a) 6% to 60% of patients receiving dialysis experience leg cramps
(b) 25% of dialysis patients report two or more interdialytic cramps per week
(c) high dialysate sodium and increased ultrafiltration required to remove extra fluid increase cramps
(d) younger adults experience more leg cramps than older adults

9. Which of the following statements about managing leg cramps in patients receiving dialysis is correct?

(a) carnitine is clearly associated with an improvement in cramps
(b) quinine is always recommended to treat cramps
(c) very limited literature describes effective treatments for cramps
(d) mannitol should be used as a treatment option

10. Health Canada has only approved quinine for the treatment of:

(a) tuberculosis
(b) hepatitis
(c) polio
(d) malaria

CONTINUING EDUCATION STUDY ANSWER FORM

CE: 2.0 hrs continuing education

Treatment of leg cramps in patients with chronic kidney disease receiving hemodialysis

Volume 21, Number 3

By Colette B. Raymond, PharmD, MSc, and Lori D. Wazny, PharmD

Post-test instructions:

- Select the best answer and circle the appropriate letter on the answer grid below.
- Complete the evaluation.
- Send only this answer form (or a photocopy) to:
  CANNT National Office,
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- Post-tests must be postmarked by September 30, 2013.
- If you receive a passing score of 80% or better, a certificate for 2.0 contact hours will be awarded by CANNT.
- Please allow six to eight weeks for processing. You may submit multiple answer forms in one mailing, however, you may not receive all certificates at one time.

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Post-test answer grid

Please circle your answer choice:

1. a b c d
2. a b c d
3. a b c d
4. a b c d
5. a b c d
6. a b c d
7. a b c d
8. a b c d
9. a b c d
10. a b c d

Evaluation

	Strongly disagree				Strongly agree
1. The offering met the stated objectives.	1	2	3	4	5
2. The content was related to the objectives.	1	2	3	4	5
3. This study format was effective for the content.	1	2	3	4	5
4. Minutes required to read and complete:	50	75	100	125	150

Comments: _____

_____

_____

_____

Complete the following:

Name: _____

Address: _____

_____

CANNT member? ❑ Yes ❑ No Expiration date of card _____

Patient safety in hemodialysis care delivery—A commentary

By Alison Thomas, RN(EC), MN, CNeph(C)

Hemodialysis, like other invasive health care treatments, is not without its risks. Patient care incidents and events are numerous and commonly seen and reported through event tracking mechanisms specific to individual programs or institutions. Examples of reportable incidents include medication errors (wrong patient, wrong medication, wrong dose, wrong time), breach of infection control practices, errors in dialysate composition, falls, and more. Quality assurance (QA) or Continuous quality improvement (CQI) programs are often an integral part of hemodialysis units yet, despite improvements, incidents and errors continue to be reported. Pressures related to time and staffing appear to have exacerbated the problem, leading to staff and administrative concern about this important issue (Tregunno et al., 2009).

Numerous nursing-focused studies have been carried out that have demonstrated the impact of near misses and patient-level incidents related to patient health care. For example, Tregunno et al. (2009) conducted focus groups with direct care providers (nurses) and nursing leaders to examine the role of the latter in the prevention of patient-level errors. They revealed the need for a culture of safety—as defined by the nursing leader—that supports incident reporting while at the same time encouraging discussion without any fear of repercussions. The focus here is on using incidents and errors as opportunities for improvement and for learning, and not for blame.

Moreover, near misses in health care have been described both as proactive opportunities (to avoid error) and as recovery processes—an opportunity to change nursing care delivery in order to avoid a negative outcome. For example, Jeffs, MacMillan and Maione (2009) describe that screening for, detection of, and management of early stage pressure ulcers can be viewed as near misses since avoidance strategies or adjustments to nursing care can prevent complications such as pain, infection, and even death. In this case, prevention of the complications equates to avoidance of patient-level incidents or errors.

In another study, Jeffs, Affonso and MacMillan (2008) explored the experiences and perceptions of health care providers (nurses and pharmacists) and health care consumers about near misses in patient care and what contributes to their occurrence. This qualitative analysis revealed a number of themes that were commonly found in participants' dialogue in the focus group setting. Amongst other findings, they identified that "Collectively, the current complex and acute nature of the health care system coupled with the demands put on the health care team increase the potential for near misses and errors to occur" (p. 491). Worldwide, there has been a strong academic focus on the subject of health care and safety. Numerous resources exist to assist us in providing quality, safe patient care. For example, organizations such as the World Health Organization (WHO) have provided guidelines for prevention of errors in health care. Their Conceptual Framework for the International Classification for Patient Safety, created in 2009, provides tools that facilitate incident reporting through standardized definitions and organized template development based on the existing literature. The WHO document is intended to standardize safety concepts in health care and facilitate reporting, analysis, and interpretation of information in an effort to improve outcomes in patient care. More locally, the Canadian Patient Safety Institute (CPSI) has recognized the importance of education for health care professionals about patient safety and their role in prevention of health care-related errors. Their "Safety Competencies Framework" provides "a simple, powerful, and flexible framework that could be integrated smoothly into curricula at educational institutions, adopted by health care associations and directly applied in patient care sites across the spectrum of health care delivery" (Frank & Brien, 2008, p. 2). The CPSI also delivers the "Safer Healthcare Now!" program, which focuses on frontline providers and the health care delivery system by providing education and tools for improving patient safety throughout Canada. These tools and resources can be found at their website www.saferhealthcarenow.ca.

From a medication safety perspective, the Institute for Safe Medication Practices (ISMP) was established in 1975 with a regular journal column that educated and informed readers about the prevention of medication errors. ISMP is now a world-renowned organization that advises in an impartial manner about medication safety practices. Their website (www.ismp.org) contains information, tools, reporting forms, access to webinars, and safety alert newsletters. The ISMP will also carry out consultations to organizations that are interested in a review of systems and processes with a view to reduce potential for errors.

How safely do we deliver hemodialysis? Besides CQI or QA programs, we use checklists to verify machine settings during setup, and have regular equipment checks and calibrations done by our technological colleagues. In fact, over the years, hemodialysis has become more complex and sophisticated and, coincidentally, has evolved to be more strictly regulated and managed from a technological perspective in order to improve safety and mitigate risk. For example, air detector monitors, online conductivity monitoring, and blood circuit pressure gauges (arterial and venous pressure monitors) have all come to exist by way of necessity and as a result of

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Department Editor: Eleanor Ravenscroft, RN, PhD, CNeph(C)

patient incidents. The age-old adage resonates here—we learn from our mistakes. Early on, hemodialysis equipment was not regulated by standards and manufacturing guidelines. Nowadays, however, hemodialysis equipment must conform to Canadian Standards Association (CSA) standards that describe and mandate appropriate parameters for water used for hemodialysis, concentrates used in delivery of hemodialysis, and dialyzer reuse to name a few. According to the CSA, their standards in health care "help protect patients and workers in the health care system by setting minimum requirements for safety in medical devices, buildings, systems, and management of professional practices." They also "increase efficiency in health care facilities and systems without compromising patient care" (n.d.). Our technologist colleagues can attest to and educate us on these standards and their meaning to the everyday practice of maintaining hemodialysis equipment and water treatment systems, along with numerous other pieces of equipment for which they are responsible.

Despite the regulated technological standards that are intended to keep our patients safe, patient care examples of near misses or incidents are numerous in hemodialysis settings. Consider these scenarios:

Scenario A: Patient A.J. has been ordered to have predialysis lab work done today. When the RN goes to search the computer for the results, she cannot find any evidence that blood has been received in the lab. Shortly thereafter, J.J.'s RN receives a call from the laboratory advising her of a low hemoglobin level on her patient from a sample sent predialysis today. She is puzzled, since she did not draw any lab work on J.J. when initiating his hemodialysis treatment. Coincidentally, A.J. and J.J have similar surnames and it is presumed that there has been a mix-up in labelling, either in the hemodialysis unit, or in the laboratory.

Scenario B: Maria is looking after M.R. today. She has been ordered to receive an intravenous dose of iron every two weeks on hemodialysis. When reviewing M.R.'s chart postdialysis, Maria notices that she inadvertently omitted the dose of intravenous iron today. She revises the schedule to ensure that the dose will be delivered at the next hemodialysis session.

Scenario C: Patient S.T. reports to the chair for his hemodialysis and indicates his predialysis weight to Jane as 74.5 kg. Jane jots down the number, and is called away to the desk. Robert returns from lunch break and initiates S.T.'s hemodialysis treatment. About two hours into the treatment, S.T. becomes severely hypotensive with bilateral leg cramping. A normal saline bolus and reduction in ultrafiltration rate are required to resolve the symptoms. On review of the situation, Jane and Robert discover that Robert misread Jane's handwriting and had set the target fluid loss at 2 kg higher than the actual target required to achieve S.T.'s desired postdialysis target weight.

The scenarios are probably not foreign to hemodialysis staff. However you would define these, as either near misses or adverse events, these are potentially avoidable missteps in delivery of care. Dr. Alan S. Kliger described the challenge in a web-based conference hosted by the ECRI institute in 2008 as follows: "Mistakes are common… and are part of our daily lives. The conundrum is that when admitted to … a dialysis unit, we expect no mistakes. … so the real challenge is to figure out how you bridge that gap" (as quoted in Hogan, 2008).

Kliger and his American colleagues at the Renal Physician's Association and the Kidney & Urology Association of America, Inc. surveyed patients and professionals in nephrology in 2006–2007 about their experiences with errors in nephrology settings. Errors were commented on in categories such as hand washing, needle insertion, medication errors, predialysis setup, and falls. Results of the survey showed that 87% of professionals reported errors had occurred in their centres within the previous three-month period—and that 59% of those errors were attributed to lack of adherence to unit procedures. Twenty-seven per cent of patients reported having witnessed a mistake within the previous three months, and 49% said they worried about a mistake being made related to their treatment (Hogan, 2008). These are sobering statistics.

What can we do? Acknowledging the problem is the first step. Taking measures to improve the culture of safety at both leadership and direct care levels is also needed. QA or CQI initiatives are clearly important—but we need to do more. Reviewing unit processes and reducing pressure on staff that is either self-imposed or imposed by anxious patients who are keen to get their treatment underway is also important. Review of documentation tools for clarity and ease of use, use of electronic charting programs, and use of incident reports as educational opportunities are additional ways of improving outcomes and reducing risk. Many operating rooms are now using surgical safety checklists prior to initiating any procedures. This initiative not only involves staff, but also involves the patient as part of the health care team. The "surgical pause" could be a tool revised for use to slow down the busy hemodialysis team and potentially prevent setup and initiation errors in hemodialysis patient care.

Finally, researchers have called for efforts—both organizational and professional—to support nurses engaging in research projects that advance patient safety practices in clinical settings (Jeffs et al., 2009). It is time to address some of the more commonly occurring incidents in hemodialysis care and try to come up with alternative methods to prevent these incidents. As nurses, we have the patients' interests at heart—and their safety in our hands. I challenge you to think outside the box for ways in which you can improve patient care outcomes in your own hemodialysis units. Why not start today?

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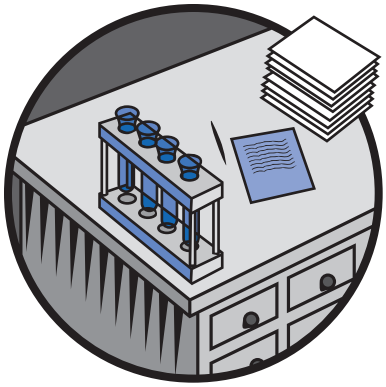

Research review

Cardiovascular risk reduction in CKD patients: Let's get SHARP!

By Alison Thomas, RN(EC), MN, CNeph(C)

Baigent, C., Landray, M.J., Reith, C., Emberson, J., Wheeler, D.C., et al. (2011). The effects of lowering LDL cholesterol with simvastatin plus ezetimibe in patients with chronic kidney disease (Study of Heart and Renal Protection): A randomized placebo-controlled trial. *The Lancet, 377*(9784), 2181–2192.

Have you ever thought about how many of the patients that you care for in your nephrology practice have co-morbid cardiovascular conditions? How many of these conditions are related to atherosclerosis and may, therefore, be preventable with use of lipid-lowering agents? Until recently, the answer to the latter was unclear. The fact is that cardiovascular events are more frequent in patients with impaired renal function, and cardiovascular disease is a major cause of death in this population (Tonelli, Isles, Curhan, et al., 2004). In the general population, i.e., patients without chronic kidney disease (CKD), studies have shown that the use of statins has a positive effect and they are, therefore, recommended for use to prevent major coronary events such as myocardial infarction (MI) or death from coronary heart disease and ischemic strokes (Baigent et al., 2011). However, those clinical trials have excluded patients with kidney disease (Levin et al., 2008). Two randomized trials specific to patients with CKD have been published in the literature in recent years—namely the "Atorvastatin in patients with type 2 diabetes mellitus undergoing hemodialysis" (4D) trial (Wanner, Krane, Marz, et al., 2005) and the "Rosuvastatin and cardiovascular events in patients undergoing hemodialysis" (AURORA) trial (Fellstrom, Jardine, Schmieder, et al., 2009)—of which both were negative trials, meaning they did not demonstrate a significant benefit to the use of lipid-lowering agents in the prevention of cardiac death, MI, or stroke. This has left clinicians wondering about the use of lipid-lowering drugs in the CKD patient population.

While many have generally felt that extending the standards of practice for the general population to the CKD population is not harmful—and the CSN has, in fact, endorsed this approach in their Clinical Practice Guidelines for CKD (Levin et al., 2008)—many have been uncertain about the benefits given the lack of evidence in the literature. Despite the fact that the 4D and Aurora trial results were negative, there were promising small improvements in cardiac events and MI that were intriguing to researchers. This led to the design of the Study of Heart and Renal Protection (SHARP)—the results of which were first revealed at the American Society of Nephrology meeting in October of last year. The SHARP trial results were met with enthusiasm—this was the first trial to demonstrate a clear and safe benefit from the use of lipid-lowering agents in CKD patients (Baigent et al., 2011).

The SHARP study objective was to assess the safety and efficacy of lowering LDL cholesterol using a combination of ezetimibe and simvastatin daily in men or women aged 40 years or over without known heart disease and with CKD. This was a randomized, double-blind trial including more than 9,000 patients; 3,000 on dialysis (PD or hemodialysis) and 6,000 not on dialysis. The participants had no known history of MI or coronary intervention (e.g., angioplasty). After agreeing to participate, patients were randomized to receive either a combination of ezitimibe 10 mg and simvastatin 20 mg per day, or to receive a placebo. Observation during the study period consisted of routine follow-up appointments and blood safety monitoring at two, six, and 12 months, and then every six months for at least four years. The study was double-blind; neither patient nor clinicians knew what group the patient was in and whether or not they were receiving the real drug or the placebo. From a research perspective, this is an important point. This type of trial prevents the potential for contamination of the data through the removal of unintentional bias.

The results reported that 9,270 patients were randomized, with 4,650 patients receiving active treatment and 4,620 patients receiving placebos. All variables among groups were similar, which strengthens the findings (this way, the researchers have convinced us that we are comparing two similar groups of people and, therefore, the findings cannot be attributed to a difference in one group's characteristics). An in-depth review of the findings along with statistical analysis is beyond the scope of this article. However, nephrology nurses should be aware of the following study outcomes reported in the literature:

- there was no increase in risk of myopathy, liver and biliary disorders, cancer or nonvascular mortality
- there was no substantial effect on kidney disease progression (this confirms the safety profile of the medications)
- two-thirds compliance with the combination of simvastatin and ezitamibe reduced the risk of major atherosclerotic events by 17%

Alison Thomas, RN(EC), MN, CNeph(C), Nurse Practitioner, Hemodialysis, St. Michael's Hospital, Toronto, ON.

- full compliance with the simvastatin/ezitamibe combination would reduce the risk of major atherosclerotic events by one quarter, or 30 to 40 events per 1,000 patients treated over a five-year period (this confirms the efficacy of the medications).

One-quarter reduction in risk of major atherosclerotic events is a meaningful change. This suggests that widespread use of LDL-lowering agents in CKD patients would have a substantial impact on cardiovascular disease complications. From a "What's in it for me?" point of view, this is an important study that has answered questions for nephrology teams with respect to the use of lipid-lowering agents in patients with CKD. Dr. Adeera Levin from Vancouver, B.C., one of the trial investigators, has commented that "The [SHARP trial] results should change practice, by providing a clear answer to physicians, who have 'been all over the map…' variability in practice was huge, and there was a lot of misunderstanding. Everyone worried these drugs might be unsafe [in chronic kidney disease patients] and that they didn't work. Now what SHARP says is, these drugs are safe and they work" (Canadian Heart Research Centre, n.d.).

More importantly, as nephrology nurses, awareness of the impact of this trial to your clinical practice will be of benefit to your patients. Discuss these findings amongst your teams at rounds or medication reviews. Ask your physician or NP colleagues about the impact of these findings on practice in your clinics or dialysis programs. Is this evidence leading to a change in prescribing practice? Is there an opportunity to discuss individual cases in your programs to determine if protocol changes are needed? Has your patient now been prescribed simvastatin and ezitimibe? If so, perhaps you can support them with education as to the rationale for this change.

Want to know more about the SHARP trial? Check out the website at http://www.ctsu.ox.ac.uk/~sharp/

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Profiling…

New CANNT board members 2011–2012

Colleen Wile, President- Elect

I feel very privileged to once again serve on the CANNT Board of Directors, this time as president-elect. I began my nephrology nursing career in 1987 at the Victoria General Hospital in Halifax. Over the last 24 years I have worked in all areas of the nephrology program. These areas have included the in-patient nephrology/transplant unit, the home dialysis unit, the hemodialysis unit, research in the pre-dialysis clinic, and, for the last 4.5 years, as educator for the home dialysis unit and satellite hemodialysis clinics for Nova Scotia.

I have been a member of CANNT since 1988 and, over the years, I have been involved in the planning of many regional CANNT conferences, as well as being co-chair of the CANNT 2005 National Symposium in Halifax. I have presented many posters at the CANNT national conferences, as well, at the 31st Annual Dialysis Conference in Phoenix in 2011. I had the honour to represent the Atlantic Region as CANNT Atlantic VP from 1999–2001, 2003–2005, and 2007–2009. I currently serve on the editorial board of the *CANNT Journal*, as well as being a member of the examination committee for Nephrology Certification with the Canadian Nurses Association (CNA).

This is an exciting opportunity for me to once again become more actively involved on the CANNT board at a national level as president-elect. This opportunity will help me grow both personally and professionally. It will give me the opportunity to learn new skills and become more connected with the nephrology community from coast to coast. I look forward to working with the current members of CANNT and hope to help expand the organization and grow the membership across the country.

Roch Beauchemin, Quebec VP

My name is Roch Beauchemin and, since 2006, I have been a Nephrology Nurse Practitioner at The Royal Victoria Hospital in Montreal. I graduated from the Université de Montréal. What started out as a short experience in hemodialysis in 1984 (a one-year maternity leave) has evolved into a full career in nephrology. In 1986, upon completion of my Bachelor's degree, I became the assistant head nurse of a rapidly growing hemodialysis unit. Being in a university/tertiary hospital, the acuity of care and technology continues to evolve and so do the challenges. In 2003, the nurse practitioner program was made available at the Université de Montréal and, for me, it was the next logical step in my career.

Apart from clinical care in pre-dialysis and dialysis, I am involved in teaching nurses and students, as well as linking with other units, local community service centres (CLSCs), and conducting research projects. I was involved in the early 1990s in the introduction of on-line hemodiafiltration in Canada. We are still quite active and interested with this form of therapy.

I was part of the organizing committee for the CANNT annual symposium in Montréal and Québec City. I have also presented at CANNT conferences in Ottawa and Halifax on "On-line Hemodiafiltration" and, with my colleague Chris Brookes, won the CANNT Upjohn Excellence in Technical Practice in Halifax in 1993.

I am interested in being active in CANNT as representative of Quebec, to be able to link up with other nephrology nurses and nurse practitioners in the country and to be able to promote CANNT in Quebec. There is a lot of expertise and knowledge in this country that is not shared. By helping nurses who are looking for specific information and through linking up with the experts, many projects could be easier to set up and result in more rapid improvement of our quality of care, our ultimate goal.

Roch Beauchemin, Vice-Présidente du Québec

Mon nom est Roch Beauchemin, je suis Infirmier Praticien Spécialisé en Néphrologie depuis 2006, à l'Hôpital Royal Victoria de Montréal. J'ai complété ma Maîtrise à l'Université de Montréal. Mon séjour en Hémodialyse devait être court, un remplacement de maternité d'une année, en 1984. Le tout a évolué et j'en ai fait une carrière. En 1986, après avoir complété mon Bacc., je suis devenu Assistant Infirmier Chef de l'unité d'Hémodialyse. Cette unité située dans un centre universitaire/tertiare, n'a cessé de grandir tant en nombre de patients que dans la complexité des soins qu'ils reçoivent. La technologie n'a cessé d'évoluer dans cette période. Les défis, eux aussi, sont souvent de plus en plus complexes. En 2003, lorsque le programme d'Infirmier Praticien fut ouvert à l'Université de Montréal, pour moi, c'était le prochaine étape dans ma carrière en Néphrologie.

En plus de mon travail en Clinique Pré-Dialyse et Dialyse, je suis impliqué dans la formation continue des Infirmières, l'enseignement aux étudiants, lien avec d'autres unités de soins, les CLSC et des projets de recherche. Dans le début des années 90, j'ai été impliqué dans l'introduction de: L'Hémodiafiltration On-line au Canada. Nous sommes encore très impliqué dans ce type de traitement.

Carolyn Bartol, Atlantic VP

I am very honoured to be an incoming board member of CANNT in the position of vice-president Atlantic Region. My nursing experience includes seven years in medical-surgical settings, as well as the past 14 years in the nephrology program at Capital District Health Authority (CDHA) in Halifax. I have worked in various positions including hemodialysis, kidney transplant research, home dialysis unit, as interim clinical nurse educator and now clinical nurse educator for the hemodialysis units in Halifax and Dartmouth,

the inpatient nephrology unit at CDHA and the pre-renal clinic at CDHA.

Completion of my certification in nephrology deepened my commitment to nephrology nursing and re-affirmed my passion for learning and for teaching others. My current role has allowed me to develop skills in building capacity amongst staff. This has been challenging, fulfilling and is an ongoing learning experience.

My interest in becoming a board member of CANNT has developed through membership, through the encouragement of co-workers, and through active participation in regional CANNT Atlantic conferences over the past two years, as a committee organizer and as a presenter.

I hope to use this time on the CANNT board to promote the work of CANNT and to act as a link between Atlantic members and the association. In particular, I would like to see more membership and involvement among novice nephrology nurses in order to spark their interest in developing their skills to lead us into the future. I look forward to this new experience, to the things I will learn and to passing these on to more nurses, so they will be encouraged to become involved in the work of this association.

Florence Elyn, Website Coordinator/Treasurer

I am both happy and excited to once again be a part of the CANNT board of directors.

I began my nursing career in 1990, when I proudly graduated as an RN from the Misericordia General Hospital School of Nursing in Winnipeg, Manitoba. I then went on to work in acute surgery and as a float nurse in med/surg. I also worked for three years with the Victorian Order of Nurses as a home care nurse. Then, in 1998, came my new career choice in hemodialysis at the Health Sciences Centre in Winnipeg, Manitoba. I have now been there for 13 years: six years as a general duty floor nurse, at which time I was frequently a preceptor and mentor, and for the last seven years as a Clinical Resource Nurse (CRN). On a daily basis I am either sharing my knowledge with staff or learning something new from them. I currently sit on various hospital committees including the Standards Committee, Renal Nurse Leadership Committee, and the MeRIT User Adviser Group, which is working to incorporate a new patient scheduling and information system to be used in all the dialysis units in Manitoba. In the last few years I have completed my Level II ethics course and I continue to be fascinated and intrigued by ethics. I have received the Nursing Excellence Award twice—once while employed at Misericordia Hospital and more recently in 2005 in my current unit at the Health Sciences Centre in Winnipeg.

I feel honoured to be a part of CANNT. It truly is a great organization and a great bridge to allow people from across our nation to network with each other. Previously I have held the CANNT Western Regional vice-president position, where I learned a huge amount about CANNT. During that time, I lobbied for the Western provinces to add 'nephrology' to the licence renewal forms—accomplishing that on both the College of Registered Nurses of Manitoba (CRNM) and College of Licensed Practical Nurses of Manitoba (CLPNM) forms in Manitoba. I have had the opportunity to attend numerous symposia and have been our CANNT Unit Liaison. I have also presented at a CANNT conference and reviewed *CANNT Journal* articles. In 2007, I was co-chair for our CANNT national conference in Winnipeg, Manitoba. This was a bit nerve-wracking, but quickly became a huge learning experience and opportunity to both meet and work with great people. To be able to network with people in our profession from across the country is amazing. To carry that further by also being a member of the American Nephrology Nurses Association (ANNA) and having the chance to attend their conferences and network with them is exciting. This is just another step in how we continually strive to be the best we can for ourselves and for our patients.

I am looking forward to my newest challenge—that of CANNT website coordinator/treasurer. In an age where technology is everywhere and has become such an integral part of our daily lives both at work and home, we owe it to ourselves and our patients to keep up with the latest advances in technology. We need to keep striving for better, whatever that may be. I want to learn more about CANNT's inner workings from the website side of things. I think we all have the ability to make new and potential members as enthusiastic about CANNT as we are.

I appreciate this opportunity to serve on your board of directors and to try to make some small difference.

Guidelines for authors

The Canadian Association of Nephrology Nurses and Technologists (CANNT) Journal invites letters to the editor and original manuscripts for publication in its quarterly journal. We are pleased to accept submissions in either official language—English or French.

Which topics are appropriate for letters to the editor?
We welcome letters to the editor concerning recently published manuscripts, association activities, or other matters you think may be of interest to the CANNT membership.

What types of manuscripts are suitable for publication?
We prefer manuscripts that present new clinical information or address issues of special interest to nephrology nurses and technologists. In particular, we are looking for:

- Original research papers
- Relevant clinical articles
- Innovative quality improvement reports
- Narratives that describe the nursing experience
- Interdisciplinary practice questions and answers
- Reviews of current articles, books and videotapes
- Continuing education articles.

How should the manuscript be prepared?
Form: The manuscript should be typed double-spaced, one-inch margins should be used throughout, and the pages should be numbered consecutively in the upper right-hand corner. More formal research or clinical articles should be between five and 15 pages. Less formal narratives, question and answer columns, or reviews should be fewer than five pages.

Style: The style of the manuscript should be based on the **Publication Manual of the American Psychological Association (APA),** Sixth Edition (2009), available from most college bookstores.

Title page: The title page should contain the manuscript title, each author's name (including full first name), professional qualifications [e.g., RN, BScN, CNeph(C)], position, place of employment, address, telephone, fax numbers and email address. The preferred address for correspondence should be indicated.

Abstract: On a separate page, formal research or clinical articles should have an abstract of 100 to 150 words. The abstract should summarize the main points in the manuscript.

Text: Abbreviations should be spelled out the first time they are used with the abbreviation following in brackets, for example, the Canadian Association of Nephrology Nurses and Technologists (CANNT). Generic drug names should be used. Measurements are to be in Standards International (SI) units. References should be cited in the text using APA format. A reference list containing the full citation of all references used in the manuscript must follow the text.

Tables/Figures: Manuscripts should only include those tables or figures that serve to clarify details. Authors using previously published tables and figures must include written permission from the original publisher. Such permission must be attached to the submitted manuscript.

How should the manuscript be submitted?
Email your manuscript to: **gillianbrunier@sympatico.ca**
Include a covering letter with contact information for the primary author and a one-sentence biographical sketch (credentials, current job title and location) for each author.

How are manuscripts selected for the CANNT Journal?
Each manuscript will be acknowledged following receipt. Research and clinical articles are sent out to two members of the **CANNT Journal** manuscript review panel to be reviewed in a double-blind review process. All manuscripts may be returned for revision and resubmission. Those manuscripts accepted for publication are subject to copy editing; however, the author will have an opportunity to approve editorial changes to the manuscript. The criteria for acceptance for all articles include originality of ideas, timeliness of the topic, quality of the material, and appeal to the readership. Authors should note that manuscripts will be considered for publication on the condition that they are submitted solely to the **CANNT Journal.** Upon acceptance of submitted material, the author(s) transfer copyright ownership to CANNT. Material may not be reproduced without written permission of CANNT. Statements and opinions contained within the work remain the responsibility of the author(s). The editor reserves the right to accept or reject manuscripts.

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❏ Yes ❏ No

Professional Status
❏ Registered Nurse
❏ Registered Practical Nurse/ Registered Nursing Assistant/ Licensed Practical Nurse
❏ Technician
❏ Technologist
❏ Other (Specify) _____

Number of years in nephrology _____

Area of responsibility
❏ Direct Patient Care
❏ Administration
❏ Technical
❏ Teaching
❏ Research
❏ Other (Specify) _____

Work environment
❏ Acute Care
❏ Self-Care Unit
❏ Independent Health Care
❏ Private Sector

Highest level of education

Nursing	*Non-Nursing*
❏ Diploma	❏ Diploma
❏ Baccalaureate	❏ Baccalaureate
❏ Master's	❏ Master's
❏ Doctorate	❏ Doctorate

I am at present studying toward

Nursing	*Non-Nursing*
❏ Specialty Certificate	❏ Specialty Certificate
❏ Baccalaureate	❏ Baccalaureate
❏ Master's	❏ Master's
❏ Doctorate	❏ Doctorate

Primary area of practice
❏ Progressive renal insufficiency (pre-dialysis)
❏ Transplantation
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Date du dernier renouvellement : _____

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Faites vous partie de l'AOIA?
❏ Oui ❏ Non

Statut professionnel
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❏ Infirmière(ier) auxilaire autorisée(sé) / infirmière(ier) auxilaire
❏ Technicienne /technicien
❏ Technologue
❏ Autre (spécifier) _____

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Domaine de responsabilité
❏ Soins directs
❏ Administration
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❏ Enseignement
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❏ Soins actifs
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