# CANNT JOURNAL JOURNAL ACITN

Volume 21, Issue 4 October – December 2011

## IN THIS ISSUE:

22 Perspectives on organ and tissue donation among Chinese Canadians
*By Rosalie Starzomski, RN, PhD, and Beverley Curtis, BHEc*

26 CONTINUING EDUCATION SERIES
Iron replacement and supplementation in patients with chronic kidney disease
*By Lori D. Wazny, PharmD, and Colette B. Raymond, PharmD, MSc*

Your partners in renal care.

bellco

BHC MEDICAL
Renal Care

2900 Argentia Road, Unit 10
Mississauga, ON L5N 7X9
Tel: 1.866.443.8567
Fax: 1.866.443.9567
www.bhcmedical.ca

OCTOBER–DECEMBER 2011 ■ VOLUME TWENTY-ONE ■ ISSUE FOUR

# CANNT JOURNAL
# JOURNAL ACITN

## CONTENTS

Letter from the Editor: Gillian Brunier/ Lettre de la rédactrice: Gillian Brunier 4

Notice board 5

Message from the President 6

Mot de la présidente 7

CANNT contact information 7

Your board in action 12

Votre conseil d'administration en action 14

Guidelines for authors 33

Lignes directrices à l'intention des auteurs 34

8 CANNT 2012
Call for abstracts

10 CANNT 2012
Demande de communications

16 CANNT 2011
Blazing new trails

19 Kidney Foundation of Canada Allied Health Scientific Committee Annual Report 2011

20 Nephrology certification update

22 Perspectives on organ and tissue donation among Chinese Canadians
*By Rosalie Starzomski, RN, PhD, and Beverley Curtis, BHEc*

26 CONTINUING EDUCATION SERIES
Iron replacement and supplementation in patients with chronic kidney disease
*By Lori D. Wazny, PharmD, and Colette B. Raymond, PharmD, MSc*

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
Website: www.cannt.ca

• **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.*

**Editor-in-Chief**
Gillian Brunier, RN(EC), MScN, CNeph(C)
*Toronto, Ontario*

**Editorial Board**
Lee Beliveau, RN, CNeph(C)
*Surrey, British Columbia*
Rejean Quesnelle, AScT
*Oakville, Ontario*
Eleanor Ravenscroft, RN, PhD, CNeph(C)
*Toronto, Ontario*
Colette B. Raymond, PharmD, MSc
*Winnipeg, Manitoba*
Rosalie Starzomski, RN, PhD
*Vancouver, British Columbia*
Alison Thomas, RN(EC), MN, CNeph(C)
*Toronto, Ontario*
Colleen Wile, RN, CNeph(C)
*Halifax, Nova Scotia*

**Managing Editor**
Heather Coughlin, *Pembroke, Ontario*

**Layout and Design**
Sherri Keller, *Pembroke, Ontario*

**Advertising Sales**
Heather Coughlin,
Pappin Communications,
84 Isabella Street, Pembroke, ON K8A 5S5
T: (613) 735-0952
F: (613) 735-7983
email: heather@pappin.com
rate card: www.pappin.com

*Letter from the Editor/Lettre de la rédactrice:* Gillian Brunier

# Thank you to our 2011 reviewers!

# Merci à nos critiques de 2011!

There is much work that takes place behind the scenes to bring high-quality articles to publication in the *CANNT Journal*. I would like to thank the following reviewers who assisted us in manuscript review during 2011. It is these manuscript reviewers who have volunteered their time and provided such expert assistance in reviewing manuscripts over this past year. Please take a moment to acknowledge their support of the *CANNT Journal* and advancement of Canadian nephrology practice.

Une part importante du travail se fait dans l'ombre avant la parution d'articles de grande qualité dans le *Journal ACITN*. Je profite de l'occasion pour remercier les personnes suivantes qui ont participé à la révision de manuscrits en 2011. Elles ont donné gracieusement de leur temps et mis à contribution leurs connaissances spécialisées dans la révision des articles avant leur parution au cours de la dernière année. Nous prenons donc le temps ici de reconnaître leur soutien dans la publication du *Journal ACITN* et de souligner leur collaboration aux progrès de la pratique de la néphrologie au Canada.

**Angie Arcuri, RN, BN**
Clinical Nurse Educator
Alberta Children's Hospital
Calgary, AB

**Shelley Casier, RN, MScN**
Advanced Practice Nurse, Pediatric Nephrology
Children's Hospital, London Health Sciences Centre
London, ON

**Patsy Cho, RN, MN**
Advanced Practice Nurse, D2 General Medicine & Nephrology
Sunnybrook Health Sciences Centre
Toronto, ON

**Billie Hilborn, RN, BScN, MHSc (Bioethics), CNeph(C)**
Nurse Clinician, Kidney Care Clinic
Humber River Regional Hospital
Toronto, ON

**Betty Kelman, RN(EC), MEd, CNeph(C)**
Nurse Practitioner, Nephrology
University Health Network
Toronto, ON

**Julie Nhan, RN, MN, CNeph(C)**
Nurse Practitioner
Northern Alberta Renal Program
University of Alberta Hospital
Edmonton, AB

**Eleanor F. Ravenscroft, RN, PhD, MSN, CNeph(C)**
Assistant Professor
Faculty of Nursing, University of Calgary
Calgary, AB

**Jane Ridley, RN(EC), MScN, CNeph(C)**
Nurse Practitioner, Nephrology Program
University Campus, London Health Sciences Centre
London, ON

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

**Diane Watson, RN(EC), MSc, CNeph(C)**
Nurse Practitioner, Nephrology
University Health Network, Toronto General Hospital
Toronto, ON

**Rachel Williamson, RN, MN**
Pediatric Nurse Practitioner
Peter Lougheed Centre
Calgary, AB

**Barbara Wilson, RN, MScN, CNeph(C)**
Advanced Practice Nurse
London Health Sciences Centre
Victoria Hospital
London, ON

**Marsha Wood, BN, RN, MN, CNeph(C)**
Nurse Practitioner Nephrology
QEII Health Sciences Centre
Halifax, NS

De plus, je désire remercier la personne suivante qui a procédé cette année à la révision méticuleuse de la traduction en français des rapports et manuscrits pour le Journal ACITN :

And to the reviewer this year who so carefully read the proofs of the French translation of reports and articles for the CANNT Journal:

**Sandra Lagacé, BSN, CNeph(C)**
Infirmière conseillère en hémodialyse/
Hemodialysis Resource Nurse
George Dumont Hospital
Moncton, NB

# NOTICE BOARD

- Ottawa Supper Club—Contact Janet Graham, Nephrology Unit, Ottawa Hospital, jgraham@ottawahospital.on.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. Email: research@kidney.ca. Website: www.kidney.ca
- April 21, 2012. Exam date for CNeph(C) certification exam. Contact Canadian Nurses Association Certification Program, email: certification@cna-aiic.ca. Website: http://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 1, 2012. Registration time begins for the Nephrology Certification Exam. Contact Canadian Nurses Association Certification Program, email: lvachon@cna-aiic.ca. Website: www.cna-aiic.ca. Toll-free phone number: 1-800-450-5206
- September 9–12, 2012. 14th Congress of the International Society of Peritoneal Dialysis (ISPD), Kuala Lumpur, Malaysia. Website: www.ispd2012.org.my/
- September 19, 2012. Nephrology Health Care Professionals Day.
- October 15, 2012. Deadline for applications for Allied Health Research Grants, Kidney Foundation of Canada. Contact: Coordinator, Research Grants and Awards, 1-800-361-7494, ext. 232. Email: research@kidney.ca. Website: www.kidney.ca
- October 25–27, 2012. CANNT 45th National Symposium. Ottawa, Ontario. Conference Planner: Heather Reid, email: hreid@innovcc.ca. Website: www.cannt.ca

**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

*Le journal CANNT est préparé par Pappin Communications, The Victoria Centre, 84 rue Isabella, Pembroke, Ontario K8A 5S5.*

**Rédactrice en chef**
Gillian Brunier, RN(EC), MScN, CNeph(C)
*Toronto, Ontario*

**Conseil de rédaction**
Lee Beliveau, RN, CNeph(C)
*Surrey, Colombie-Britannique*
Rejean Quesnelle, AScT
*Oakville, Ontario*
Eleanor Ravenscroft, RN, PhD, CNeph(C)
*Toronto, Ontario*
Colette B. Raymond, PharmD, MSc
*Winnipeg, Manitoba*
Rosalie Starzomski, RN, PhD
*Vancouver, Colombie-Britannique*
Alison Thomas, RN(EC), MN, CNeph(C)
*Toronto, Ontario*
Colleen Wile, RN, CNeph(C)
*Halifax, Nouvelle-Écosse*

**Éditeur**
Heather Coughlin, *Pembroke, Ontario*

**Conception et design**
Sherri Keller, *Pembroke, Ontario*

**Publicité**
Heather Coughlin,
Pappin Communications,
84 rue Isabella, Pembroke, ON K8A 5S5
T : (613) 735-0952, F : (613) 735-7983
courriel : heather@pappin.com
information de publication :
www.pappin.com

## 2011–2012 CANNT Board of Directors

## Conseil d'administration de l'ACITN 2011–2012

**President/Président:**
Marilyn Muir, RN, CNeph(C)
T: (204) 787-3611
F: (204) 787-7038
email/courriel: mrmuir@hsc.mb.ca

**President-Elect/Présidente-Élue:**
Colleen Wile, RN, BScN, CNeph(C)
T: (902 473-5868
F: (902) 473-4168
email/courriel:
ColleenD.Wile@cdha.nshealth.ca

**Past President/Présidente sortante:**
Patty Quinan, RN, MN, CNeph(C)
T: (416) 249 8111 ext. 4855
F: (416) 243-4372
email/courriel: pquinan@hrrh.on.ca

**Website Coordinator, Treasurer/ Trésorière coordonatrice du site internet:**
Florence Elyn, RN
email/courriel: fmelyn@hotmail.com

**Vice-President of Technologists/ Vice-Président des Technologues:**
Reg Quesnelle, AScT
T: (905) 845-2571 ext. 6857
email: regq101@gmail.com

**Atlantic Region Vice-President/ Vice-Présidente de l'Atlantique:**
Carolyn Bartol, RN, BScN, CNeph(C)
T: (902) 473-4944
F: (902) 473-4168
email/courriel:
carolyn.bartol@cdha.nshealth.ca

**Quebec Vice-President/ Vice-Présidente du Québec:**
Roch Beauchemin, RN, BSS, MSN, NNP
T: (514) 934-1934 ext. 35039
F: 514-843-2860
email/courriel:
rochbeauchemin@hotmail.com

**Ontario Region Vice-President/ Vice-Présidente de l'Ontario:**
Jocelyn Laing, RN, BScN
T: (905) 937-0072
F: (905) 682-0389
email/courriel: laing.jocelyn@gmail.com

**Western Region Vice-President/ Vice-Présidente de l'Ouest:**
Heather Dean, RN, CNeph(C)
T: (403) 943-9400
F: (403) 943-9401
email/courriel:
Heather.Dean@albertahealthservices.ca


*Message from the President*

# The year in review

I realize that this may sound like a cliché, but *time flies when you are having fun*. This is my final message to you, as president of CANNT. As I am composing this message and reflecting on this past year, I find that I have mixed feelings of joy and sadness.

I am honoured to have had the opportunity to serve you as president this past year and I am proud of the many accomplishments that the association, now in its 43rd year, has achieved. This past year has been very busy for the board of directors. We started off the year with board meetings in February and April, accepted nominations for board positions, awards, grants and bursaries. Information about board positions and the numerous awards, grants and bursaries can be found on the CANNT website. We launched a *Discussion Board* where nephrology nurses and technologists can pose questions and replies to their fellow colleagues on clinical practice issues, protocols, guidelines and standards. The Refined Clinical Practice Groups (RCPG) under CANNT provide members with a unique opportunity to share information and network with their colleagues, nationally and internationally. RCPGs include nephrology specialty groups such as vascular access coordinators (CHAC), nurse practitioners (CNNP), renal administrative leaders network (RALNO), and the home dialysis interest groups (HDIG). In partnership with our members, we conducted a survey to find out what the members want from the association, added Twitter and Facebook, and developed media partnership with Renal Business Today. Check out the CANNT website at www.cannt.ca for these exciting additions.

This year's annual symposium was held in Calgary, Alberta, on October 20–22, 2011, and the conference was a huge success. The theme of the conference was "Blazing New Trails". The planning committee successfully integrated the theme of innovation and leading-edge technology throughout the conference, in the areas of peritoneal dialysis, green technology, vascular access, end-of-life care, transitional care and much more. On behalf of the board of directors, I would like to express our sincerest thanks and appreciation to conference co-chairs Heather Dean and Janice MacKay, committee members, volunteers, and conference planner for delivering a fabulous conference. Mark your calendars for the 2012 CANNT conference that will be held in Ottawa, Ontario, under the leadership of conference co-chairs Gail Sprott and Rita Brownrigg.

At the annual general meeting, CANNT award recipients were recognized for their contributions to the nephrology profession and the 2012 board of directors was introduced. This year's award recipients included Rajneet Atkar, Jan Baker, Gail Barbour, Lee Beliveau, Jovina Concepcion-Bachynski, Judy Deane, Lynn Dufresne, Lisa Harley, Leslie Holm, Lorin Hompoth, Janice MacKay, Rosa Marticorena, Terra Townsend, and Melanie Wiggins.

I would like to welcome incoming CANNT board members Carolyn Bartol, Vice-President of Atlantic Provinces, Roch Beauchemin, Vice-President of Quebec, Florence Elyn, Treasurer and Website Coordinator, and Colleen Wile, President-Elect. I wish you all the best and hope that your experience on the board of directors is rewarding both personally and professionally. Marilyn Muir has assumed the position of president for 2011–2012 and I have assumed the position of past president.

To our outgoing board members, Rick Luscombe, Beverly Watson and Cathy Ehrhardt, on behalf of the board of directors I would like to sincerely thank you for your time, expertise and years of commitment to CANNT. It is with sadness that I say goodbye to you and wish you all the best in the years ahead.

As the holiday season approaches, I would like to wish all members and their loved ones, a safe, healthy and happy holiday season.

**Patty Quinan, RN, MN, CNeph(C)**
**CANNT President 2011**

# La revue de l'année

Je me rends compte que cela peut paraître cliché, mais *comme le temps file quand on s'amuse!* Voici mon dernier message en tant que présidente de l'Association canadienne des infirmières et infirmiers et des technologues de néphrologie (ACITN/CANNT). En rédigeant ce message et en réfléchissant à l'année qui vient de s'écouler, j'éprouve des sentiments partagés de joie et de tristesse.

Je suis honorée d'avoir eu la chance d'agir en qualité de présidente de 2010–2011 et je suis fière des nombreuses réalisations accomplies par l'ACITN qui en est maintenant à sa 43e année de fondation. Cette dernière année a été très remplie pour le Conseil d'administration (CA). Nous avons démarré l'exercice avec des assemblées du CA en février et en avril et nous avons reçu et étudié les mises en candidature pour les postes vacants du CA, les prix, les bourses et les subventions. Pour en savoir plus sur les postes du CA ainsi que les nombreux prix et les nombreuses bourses et subventions, veuillez consulter le site Web de l'ACITN. Nous avons également inauguré un *Forum de discussion* où les infirmières et infirmiers et les technologues de néphrologie peuvent poser des questions et répondre à leurs collègues sur les enjeux, les protocoles, les lignes directrices et les normes de la pratique clinique. Des groupes de discussion sur la pratique clinique *(RCPG [Refined Clinical Practice Groups])*, parrainés par l'ACITN, fournissent aux membres une occasion unique d'échanger de l'information et de réseauter avec leurs collègues, que ce soit à l'échelle nationale et internationale. Ces groupes de discussion sont formés de groupes spécialisés en néphrologie, dont celui des coordonnatrices d'accès en hémodialyse *(CHAC [Canadian Hemodialysis Access Coordinators])*, celui des infirmières praticiennes *(CNNP [Canadian Nephrology Nurse Practitioners])* et celui des directeurs administratifs du réseau rénal de l'Ontario *(RALNO [Renal Administrative Leaders network of Ontario])*, et de groupes d'intérêt des infirmières et infirmiers de dialyse à domicile *(HDIG [Home Dialysis Interest Groups])*. En collaboration avec les membres, nous avons mené un sondage afin de cerner leurs attentes à l'égard de l'Association; avons créé un compte Twitter et une page Facebook et avons établi un partenariat avec les médias, principalement avec *Renal Business Today*. Pour en savoir plus sur ces passionnantes activités, visitez le site Web de l'ACITN.

Le congrès annuel, qui s'est tenu à Calgary, en Alberta, du 20 au 22 octobre 2011, fut un immense succès. Le thème retenu était « Explorons de nouvelles voies ». Le comité organisateur a réussi à intégrer avec brio le thème de l'innovation et de la technologie de pointe au fil du congrès dans les domaines de la dialyse péritonéale, de la technologie verte, des accès vasculaires, des soins en fin de vie, des soins de transition et bien plus encore. Au nom des membres du CA, j'aimerais transmettre nos sincères remerciements et notre profonde gratitude aux coprésidentes du congrès, Heather Dean et Janice MacKay, aux membres du comité organisateur et à la planificatrice de l'événement pour l'orchestration d'un congrès aussi fabuleux. Inscrivez dès maintenant à votre agenda le prochain congrès de l'ACITN de 2012, qui aura lieu à Ottawa, en Ontario, et qui se déroulera sous la coprésidence de Gail Sprott et de Rita Brownrigg.

Lors de l'assemblée générale annuelle de l'ACITN, nous avons présenté le nouveau CA de 2012 et reconnu différents membres pour leur contribution à la profession en néphrologie. Cette année, les récipiendaires des prix, des bourses et des subventions étaient: Rajneet Atkar, Jan Baker, Gail Barbour, Lee Beliveau, Jovina Concepcion-Bachynski, Judy Deane, Lynn Dufresne, Lisa Harley, Leslie Holm, Lorin Hompoth, Janice MacKay, Rosa Marticorena, Terra Townsend et Melanie Wiggins.

J'aimerais accueillir chaleureusement les nouveaux administrateurs du CA, Carolyn Bartol, vice-présidente des provinces de l'Atlantique; Roch Beauchemin, vice-président du Québec; Florence Elyn, trésorière et coordonnatrice du site Web et Colleen Wile, présidente élue, et leur souhaiter beaucoup de succès et la chance de vivre une expérience personnelle et professionnelle des plus enrichissantes. Marilyn Muir assumera le poste de présidente pour 2011–2012 et j'occuperai celui de présidente sortante.

Aux administrateurs sortants, Rick Luscombe, Beverly Watson et Cathy Ehrhardt, les membres du CA et moi tenons à vous remercier très sincèrement de votre temps, de votre expertise et de vos années de dévouement auprès de votre Association. C'est avec tristesse que je vous dis au revoir, mais je vous souhaite beaucoup de succès dans vos prochains défis et projets.

Avec la saison des Fêtes qui arrive, je tiens à vous souhaiter à toutes et à tous, ainsi qu'à vos familles respectives, joie, santé et prospérité.

**Patty Quinan, inf., M.Sc.inf., ICS, CNéph(C), Présidente de l'ACITN**

## CANNT Representatives/Contacts

## Représentants/ contacts ACITN

**Journal Editor-in-Chief/ Éditrice en chef du Journal:**
Gillian Brunier,
RN(EC), MScN, CNeph(C)
T: (416) 480-6100 ext. 3149
F: (416) 495-0513
email/courriel:
gillianbrunier@sympatico.ca

**Allied Health Council Committee of the Kidney Foundation of Canada (KFOC)/ Représentant Comité Scientifique – Fondation du rein du Canada:**
Heather Beanlands, RN, PhD
T: (416) 979-5000 ext. 7972
email/courriel: hbeanlan@ryerson.ca

**CNA Liaison/Liaison pour AIIC:**
Patty Quinan, RN, MN, CNeph(C)
T : (416) 249 8111 ext. 4855
F : (416) 243-4421
email/courriel: pquinan@hrrh.on.ca

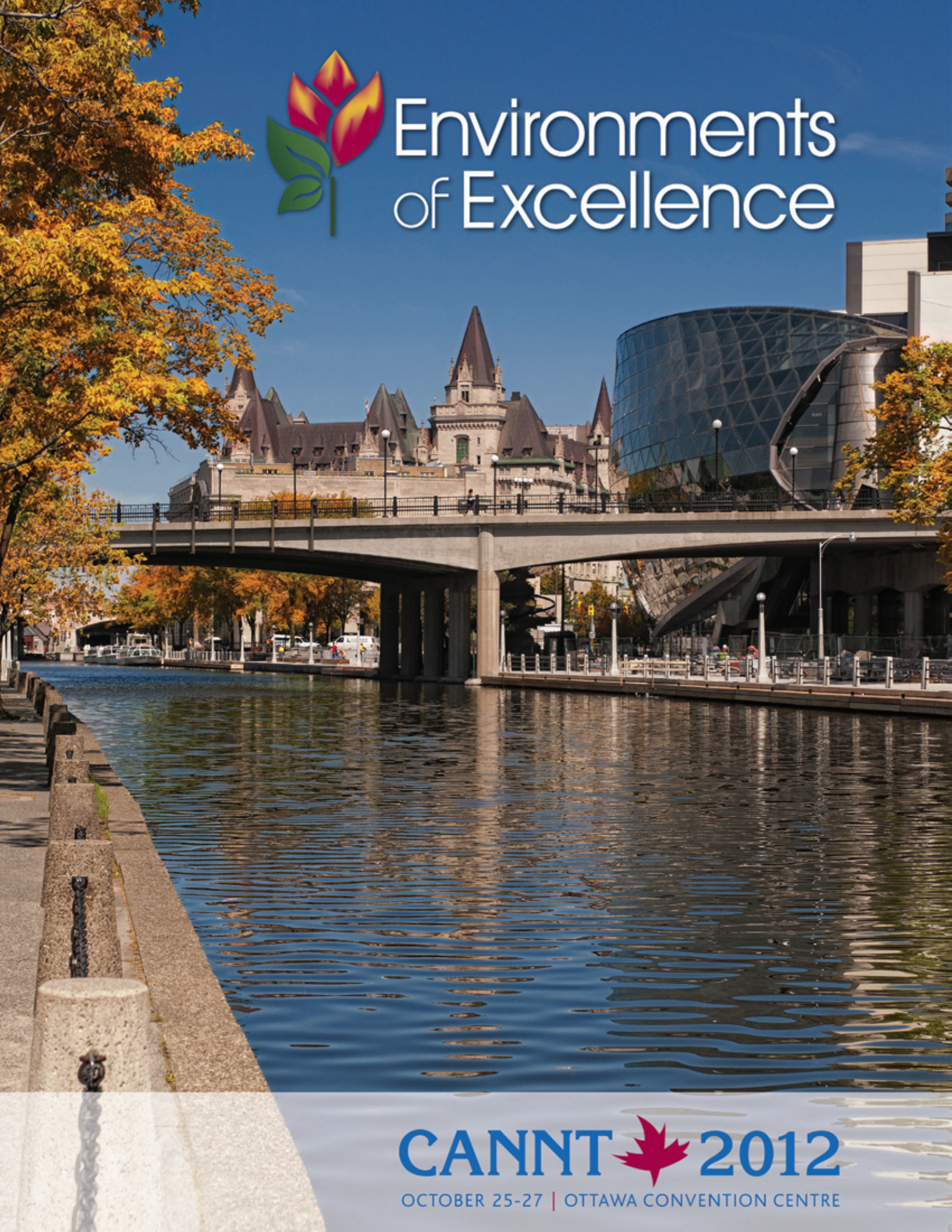
**Kidney Foundation of Canada—MAC Representative/Fondation du rein—Comité de médical consultatif President/Président:**
Marilyn Muir, RN, CNeph(C)
T : (204) 787-3611
F : (204) 787-7038
email/courriel: mrmuir@hsc.mb.ca

**Bursary Committee/Comité des Bourses President/Président:**
Marilyn Muir, RN, CNeph(C)
T : (204) 787-3611
F : (204) 787-7038
email/courriel: mrmuir@hsc.mb.ca

**2012 Symposium: October 25–27, 2012, Ottawa, Ontario/Congrès 2012: 25–27 Octobre 2012, Ottawa, Ontario:**
Conference Planner/Organisatrice de la conférence: Heather Reid—Innovative Conferences and Communications
T: (519) 652-0364
F: (519) 652-5015
email/courriel: hreid@innovcc.ca

**Journal advertising contact/Personne contact pour la publicité du Journal:**
Heather Coughlin
Pappin Communications,
84 Isabella Street, Pembroke, ON K8A 5S5
T: (613) 735-0952
F: (613) 735-7983
email/courriel: heather@pappin.com
rate card: www.pappin.com

**CANNT Administration Office/ Bureau National de l'ACITN:**
Administrative Assistant/
Assistante administrative
Debbie Maure
336 Yonge St., Ste. 322,
Barrie, ON L4N 4C8
T: (705) 720-2819
F: (705) 720-1451
Toll-free: 1-877-720-2819
email/courriel: cannt@cannt.ca
Website: www.cannt.ca



# Environments of Excellence

CANNT 2012

OCTOBER 25-27 | OTTAWA CONVENTION CENTRE

# CALL FOR ABSTRACTS

Abstracts are currently being accepted for ORAL and POSTER presentations for **CANNT 2012 –"ENVIRONMENTS OF EXCELLENCE".** This annual national meeting of the Canadian Association of Nephrology Nurses and Technologists will be held **October 25-27, 2012** at the Ottawa Convention Centre – Ottawa, Ontario. Topics of interest may include: clinical research, innovative projects and solutions, ethics, case presentations and clinical reviews. All abstract submissions must be evidence-based.

## CONFERENCE VENUE:

The Ottawa Convention Centre, a new icon for the nation's capital, is a sleek, glass, environmentally healthy and "green" meeting facility overlooking the Rideau Canal and the downtown Ottawa skyline. Built to LEED (Leadership in Energy and Environment Design) Silver Designation, the Convention Centre sets new standards for environmental design and sustainable practices. In keeping with CANNT 2012 - ENVIRONMENTS OF EXCELLENCE, abstract submissions should demonstrate leading edge nephrology topics, appropriate for the novice through to the advanced practice professional. Please consult the sidebar topics for possible areas of interest.

## ABSTRACT SUBMISSION GUIDELINES:

### Deadline: March 1, 2012

All abstracts must be submitted via e-mail (hreid@innovcc.ca) as an attachment in Word or WordPerfect

***Submissions must include the following:***

**Abstract Title**
- must accurately reflect the content of the presentation

**Abstract Text**
- should be no longer than 250 words (font: Times New Roman 12 point)
- provide author information on a separate page
- should be as informative as possible
- define **all abbreviations** the first time they appear in the abstract
- use only the **generic** names of drugs
- **do not identify companies and/or products in the body or title of the abstract**

If **research-based**, should include:
- purpose of study
- methods
- results
- conclusions
- implications for nephrology care

If **practice/education-based**, should include:
- purpose of the project
- description
- evaluation/outcomes
- implications for nephrology practice/education

## LEADING EDGE TOPICS IN:

| | | |
|---|---|---|
| Modes of Dialysis | Technology | Vascular Access |
| Pathophysiology | Chronic Kidney Disease | Nutrition |
| Pediatrics | Psychosocial | Ethics |
| Pharmacology | Advance Directives | Professional Practice |
| Education | Professional Development | Research |
| Leadership | Infection Control | Transitional Care |
| Transplantation | Health Care & The Environment | Immunology |

## PRESENTATION INFORMATION: (provided on separate page)

- identify preferred format of presentation (ORAL or POSTER)
- full names and credentials of authors
- contact information for first author must include: full name, e-mail address, fax number, mailing address with postal code, home & work telephone numbers
- identify preferred audiovisual requirements (PC Viewer for Powerpoint or Slides)

## IMPORTANT NOTES:

Only **COMPLETE** submissions received by **Thursday, MARCH 1, 2012** will be considered.

All correspondence will be with the first author only.

Acceptance of abstract does not waive attendance fees (registration, transportation, accommodations).

Notification regarding selection decisions will be provided by Friday, March 30, 2012.

Should the abstract be selected for presentation, the author(s) authorize(s) the publication of the abstract submitted for publication in the CANNT Journal.

The presentation shall not make comparison to companies or products for any purposes of product marketing, nor will topics or materials used discredit companies or products.

The abstract should make full disclosure of corporate funding sources.

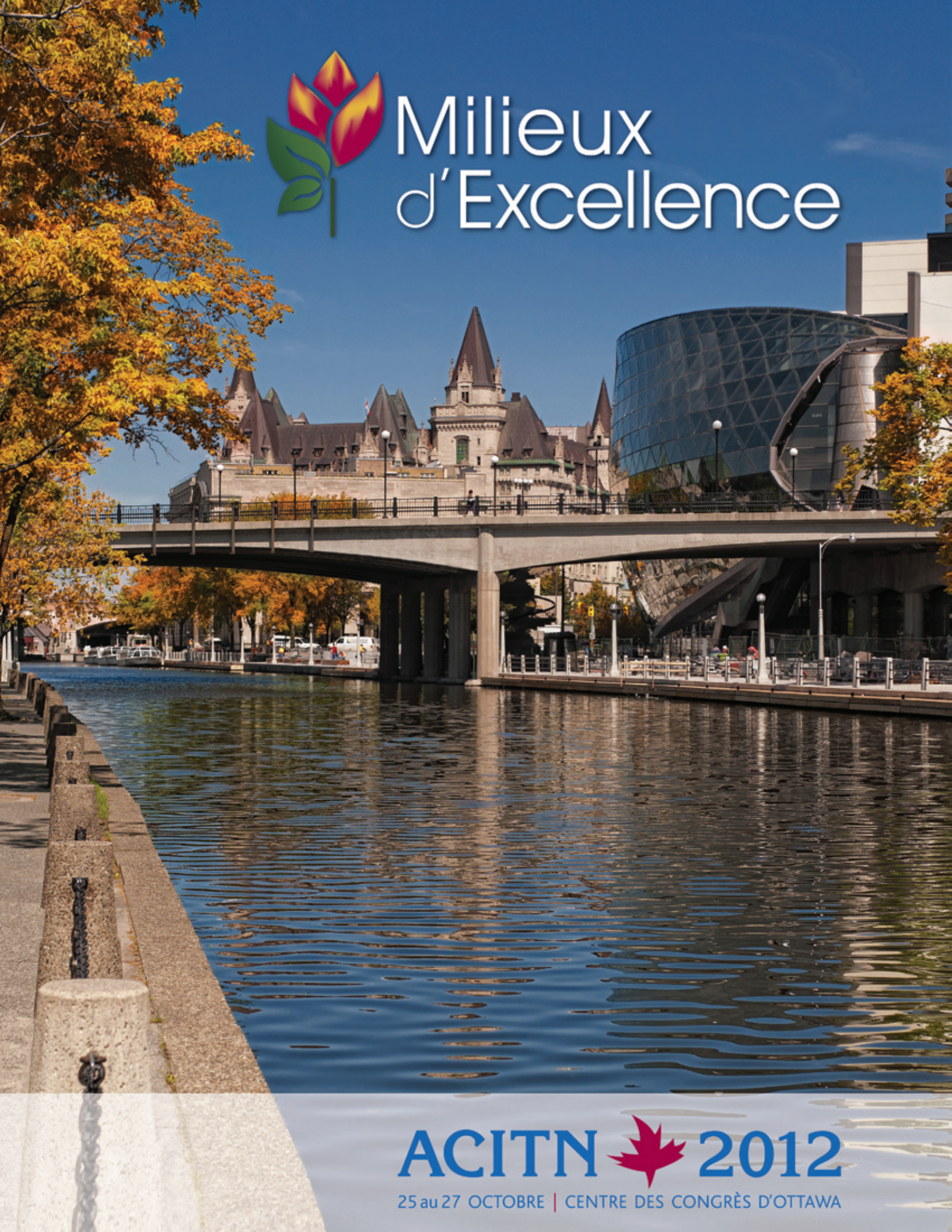
Abstracts not in the required format will be returned to the author for revision.

The language of abstract submission will be the language of presentation, if selected.

## FORWARD ABSTRACTS TO:

MAIL: **CANNT 2012 ABSTRACTS**
**Innovative Conferences & Communications**
**P.O. Box 319**
**59 Millmanor Place**
**Delaware, Ontario, Canada**
**N0L 1E0**

E-MAIL: **hreid@innovcc.ca** *(with file attached)*


Milieux
d'Excellence
ACITN 2012
25 au 27 OCTOBRE | CENTRE DES CONGRÈS D'OTTAWA

# DEMANDE DE COMMUNICATIONS

Nous sommes présentement prêts à recevoir les communications pour les présentations ORALES ou PAR AFFICHES, pour la Conférence ACITN 2012-MILIEUX D'EXCELLENCE. Cette conférence nationale annuelle de l'Association canadienne des infirmières, infirmiers et technologues en néphrologie se tiendra au Centre des congrès d'Ottawa du 25 au 27 octobre 2012, à Ottawa, Ontario. Les sujets d'intérêt peuvent inclure : la recherche clinique, des projets et solutions innovateurs, l'éthique, des présentations de cas et des revues cliniques. Toutes les communications soumises doivent être fondées sur des faits établis.

## LE LIEU DE LA CONFÉRENCE

Le Centre des congrès d'Ottawa, nouvel emblème de la capitale nationale, est un lieu de réunion vert et fait de verre, au style dépouillé, écologiquement sain, dont la vue donne sur le canal Rideau et les édifices du centre-ville d'Ottawa. Construit de façon à satisfaire les exigences de la mention argent de LEED (acronyme anglais de « Leadership en design énergétique et écologique »), le Centre des congrès établit de nouveaux standards en termes de design écologique et pratiques durables. Dans l'esprit de la conférence ACITN 2012-MILIEUX D'EXCELLENCE, les communications devraient présenter des sujets de pointe en néphrologie d'un niveau adéquat pour les novices comme pour les praticiens professionnels avancés. Veuillez consulter les colonnes de droite pour trouver d'éventuels sujets d'intérêt.

## LIGNES DIRECTRICES POUR LA PRÉSENTATION DES COMMUNICATIONS – ÉCHÉANCE: 1er mars 2012

Toutes les communications doivent être présentées par courriel à l'adresse suivante: hreid@innovcc.ca avec pièce jointe en format Word™ ou WordPerfect™.

***Les communications doivent comprendre les éléments suivants :***

**Titre de la communication**
- doit refléter avec exactitude le contenu de la présentation;

**Corps de la communication**
- texte avec un maximum de 250 mots (caractère : Times New Roman, 12 points);
- fournir les renseignements sur l'auteur sur une page séparée;
- doit être le plus informatif possible;
- définir **toutes les abréviations** dans le texte;
- utiliser uniquement les noms **génériques** des médicaments;
- **ne pas identifier de compagnie ou de produit dans le titre ou le contenu de la communication.**

si elle est **axée sur la recherche**:
- l'objet de l'étude;
- la méthodologie;
- les résultats;
- les conclusions;
- les implications pour les soins en néphrologie;

si elle est **axée sur la pratique/l'éducation**, elle doit comprendre:
- but du projet;
- la description;
- l'évaluation/les résultats;
- les implications pour la pratique et l'éducation en néphrologie;

## SUJETS DE POINTE EN:

| | | |
|---|---|---|
| Éthique | Pratique professionnelle | Abords vasculaires |
| Pédiatrie | Maladies rénales chroniques | Pharmacologie |
| Recherche | Aspect psychosocial | Physiopathologie |
| Nutriton | Directives avancées | Transplantation |
| Éducation | Dévelopement professionel | Modalités de traitement |
| Leadership | Contrôle des infections | Les soins de transition |
| Technologie | Les soins de santé et l'environnement | Immunologie |

## RENSEIGNEMENTS SUR LA PRÉSENTATION:

**(fournis sur une page séparée)**

- indiquer le format de présentation privilégié (ORALE ou PAR AFFICHES);
- indiquer le nom et les qualifications professionnelles et académiques des auteurs;
- fournir les renseignements de l'auteur principal: nom complet, adresse de courriel, numéro de télécopieur, adresse postale avec le code postal, numéros de téléphone au domicile et au travail;
- indiquer les exigences audiovisuelles (projecteur LCD, pour présentation PowerPoint™ ou par diapositives).

## REMARQUES IMPORTANTES:

Seules les présentations **RÉPONDANT AUX CRITÈRES ÉNONCÉS** reçues avant le **jeudi 1er mars 2012** seront étudiées.

Toute correspondance sera effectuée exclusivement avec l'auteur principal.

L'acceptation de la communication ne dispense pas des frais de participation (inscription, transport, logement).

Les décisions de sélection seront communiquées avant le vendredi 30 marsl 2012.

Si la communication est retenue aux fins de présentation, le ou les auteurs autorisent la publication de la communication présentée dans le Journal de la CANNT/ACITN.

La présentation ne doit pas comparer des compagnies ou des produits à des fins mercantiles. Les sujets ou les documents utilisés ne doivent en aucun temps faire de discrimination entre compagnies ou produits.

La communication doit indiquer les sources de financement de sociétés, lorsque applicable.

Les communications qui ne rencontrent pas les exigences mentionnées ci-haut ne seront pas retenues et seront retournées à l'auteur principal pour fin de révision.

Si votre communication est choici, la langue de présentation sera celle de la demande de communication.

## FAITES PARVENIR LES COMMUNICATIONS À:

**COURRIER:** **COMMUNICATIONS CANNT/ACITN 2012**
**Innovative Conferences & Communications**
**B.P. 319**
**59, Millmanor Place**
**Delaware (Ontario), Canada**
**N0L 1E0**

**COURRIEL:** **hreid@innovcc.ca** *(avec le fichier joint)*

# Your board in action

*By Rick Luscombe, RN, BN, CNeph(C), CANNT Past President*

The purpose of this article is to keep all members informed of the activities with which the CANNT board of directors is involved. We will update you on what's new within our organization and upcoming activities, as well as important dates to remember.

The 2011 spring CANNT board of directors' meeting was held via teleconference. This year we tried something different. Instead of one eight-hour teleconference we actually had two four-hour teleconferences, one in February and the other in April of this year.

## Membership

- At present, we have approximately 440 members of CANNT. The board is always looking at ways to encourage long-term membership. We no longer include membership with registration to the annual symposium. We found that our numbers fluctuated greatly and memberships were not renewed using this format.
- We encourage everyone to use the website to sign up or renew their membership online, which provides not only a cost savings to the organization, but also saves paper.
- We would also encourage members to maintain a yearly membership versus renewing at conference time. This provides you with copies of the *CANNT Journal* as well as helping to maintain professional development and the long-term viability of the organization.

## Finances

- The board of directors is continuously watching all expenditures, as well as encouraging new revenue streams. For the second year in a row, we've held our spring board meeting via teleconference, greatly reducing our expenditures.
- We are continuously looking at ways to utilize our website as a method of communication in order to decrease the cost associated with snail mail.
- We are forever grateful to our corporate sponsors who, as always, are to be thanked for their ongoing support of CANNT, including the annual symposium and journal awards and bursaries.

## Strategic planning

- The board of directors continues to focus on our present strategic plan, which was constructed in 2007 and will guide activities until 2013. Our main goals continue to focus on the following: communication, membership, education, professional practice, research, partnerships and maintaining the viability of our association. We will be reviewing our process and accomplishments at the fall board of directors' meeting and update all members during the annual CANNT conference and in the *CANNT Journal*.

## Journal

- The *CANNT Journal* is a peer reviewed journal that is published quarterly. It continues to be a resource for nephrology professionals and is indexed through CINAHL, MEDLINE and OVID databases.
- We are always looking for authors to publish articles in both French and English. For first-time authors, information on publishing is available on our website. You can also contact our Editor, Gillian Brunier, at gillianbrunier@sympatico.ca
- This year's winner of the CANNT Journal Award was announced at our annual conference in October 2011.
- In order to be fiscally responsible, regional reports are no longer published in the journal but can now be found on the website instead.

## Website

- The website continues to grow and provide increased opportunities.
- Watch for posted career opportunities as well.
- New this year, we're excited and proud to provide to our membership three new forums for communication: Facebook, Twitter, and Refined Clinical Practice Group discussion forums.

## Communication

- Communication continues to be a priority to the board of directors. We want the channels of communication to be open to all members, so keep using the toll-free number, as well as the CANNT website to contact us with any questions or concerns. We are very open to new ideas from our members regarding ways to improve our service, as well as ideas regarding nephrology activities.
- We have used email blasts to get information out to all members, as well as relying on our unit liaisons and regional VPs. Regional activities are posted online, so stay tuned.
- Last year we signed a professional relationship contract with the American Nephrology Nurses Association (ANNA), similar to the contract that was established with the European Dialysis and Transplant Nurses Association (EDTNA) the previous year.

## CANNT office operations

- The contract with our present conference planner, Heather Reid, was renewed until 2015.

  The Board has devised an evaluation tool for the conference planning committee to get feedback on how the experience was and how can we improve the process.

## Standards of practice

- The Vascular Access Guidelines are under review at present by the Canadian Hemodialysis Access Coordinators. Patty Quinan has taken the lead on this endeavour.

### *Awards of excellence and bursaries*

- Information on all awards and bursaries available through CANNT are found on the website, as well as in the *CANNT Journal*. The deadline for 2011 has passed and those being awarded will be notified and presented at the Calgary CANNT conference.
- I would encourage all members to apply for the available awards. There were awards not applied for in past years and it would be wonderful to hand them all out.

### *Nominations committee*

- The call for nominations went out and information regarding elections was sent to members, as well as posted online. The new board of directors was announced in Calgary at our annual symposium.

### *Canadian Nurses Association (CNA)*

- The numbers of nurses certified in nephrology grow yearly. There are now 1,103 nurses in Canada who are certified, up from 963 in 2005. I think this speaks to the professionalism of all nephrology nurses. Congratulations to all of the nurses who achieved their certification this year.
- I presented a pre-symposium workshop on preparing for and writing the CNA exam. The presentation is also available to members on the CANNT website.
- As the CNA representative for CANNT, I have joined in on all teleconferences where nursing issues across specialties within Canada are discussed. It is a fabulous forum for the sharing of information and solutions. I was also asked to participate in a teleconference with CNA during which issues particular to nephrology nursing were discussed.

### *Nephrology Health Care Professionals Day: September 21, 2011*

- Each year we celebrate in a truly multidisciplinary fashion. CANNT organized and distributed posters to help each unit celebrate this wonderful day in partnership with the Canadian Association of Nephrology Social Workers (CANSW), Canadian Association of Nephrology Dietitians (CAND), the Renal Pharmacists Network (RPN) and, the Canadian Society of Nephrology (CSN).
- This year we held a competition inviting our membership to provide this year's theme, Together Everyone Achieves More (TEAM) (Travailler Ensemble pour Atteindre le Meilleur de soi). Thanks to all who participated.
- We will be sending out information and posters this year, as well. Think of new ways to celebrate our day and let us know at CANNT how you did this.

### *2011 Annual Symposium: October 20–22, 2011, Calgary, Alberta*

- The Calgary organizing committee planned a fantastic conference with topics to meet all needs. The theme was "Blazing New Trails."

  The planning committee decided to continue with last year's format of a full day on the Thursday and dropping the half day Sunday. The board, with the membership's approval, decided in order to be fiscally responsible to our membership, due to location, not to have French translation. French translation will be provided next year. The need for translation will be reviewed on a yearly basis depending on where the annual symposium is being held. I would encourage all presenters to consider publishing in the *CANNT Journal* once they have presented.

It has been a very busy, but productive year for CANNT, and your CANNT board of directors continues to promote and develop CANNT as the voice of nephrology nursing in Canada.

CANNT is your organization and I would encourage you to give us your feedback, as well as possibly becoming involved with the board of directors.

## Renal Access Day Symposium, October 15, 2011, Manitoba

*By Marilyn Muir, RN, CNeph(C), CANNT President*

**Dr. Joshua Koulack, vascular surgeon from the Health Sciences Centre, Winnipeg.**

**Renal pharmacist and nurses from the Health Sciences Centre, Winnipeg.**

The vascular access coordinators from the Manitoba Renal Program (MRP) held a Renal Access Day Symposium on October 15, 2011. The Renal Access Day Symposium was a great success with 154 attendees from all over the province of Manitoba. Topics included everything relating to dialysis access — tissue plasminogen activator (tPA) usage, access issues, and the future of dialysis access. We were fortunate to have a wealth of presenters: our province's own vascular surgeons, radiologists, nephrologists, and nurses who specialize in this area. The feedback from attendees was more than positive, making this a symposium that will return every two to three years. Funding for this symposium was provided by the Manitoba Renal Program and the St. Boniface Hospital Renal Program.

# Votre conseil d'administration en action

*Par Rick Luscombe, inf., B.Sc.inf., CNéphro(C), président sortant de l'ACITN*

Le présent article consiste à informer tous les membres sur les activités de votre conseil d'administration (CA). Nous désirons vous présenter les nouvelles en bref de votre Association, les prochaines activités et les dates importantes à retenir.

La réunion printanière de 2011 du CA de l'Association canadienne des infirmières et infirmiers et des technologues de néphrologie (ACITN) s'est tenue par conférence téléphonique. Cette année, nous avons fait les choses un peu différemment. Au lieu de planifier une téléconférence de 8 heures, nous avons opté pour deux séances de 4 heures, soit la première en février et la seconde en avril.

Voici les points saillants de ces séances:

## Adhésion

- Nous comptons actuellement 440 membres. Le CA est constamment à la recherche de façons nouvelles d'encourager l'adhésion des membres à long terme. Nous n'incluons plus le formulaire d'adhésion à l'inscription pour le congrès annuel. Nous avons constaté que notre effectif variait grandement et que les membres ne renouvelaient pas nécessairement leur adhésion au moyen de ce format.
- Nous invitons toutes les personnes qui s'inscrivent ou tous les membres qui renouvellent leurs cotisations à le faire en ligne, ce qui est non seulement rentable pour l'Association, mais permet aussi d'épargner du papier.
- Nous encourageons aussi les membres à renouveler leur adhésion annuellement au lieu de le faire au moment du congrès. En adhérant à l'ACITN, vous recevrez le *Journal de l'ACITN (CANNT Journal)* et vous aidez ainsi à maintenir le perfectionnement professionnel et la viabilité à long terme de notre organisation.

## Finances

- Le CA assure un suivi serré de toutes les dépenses et est toujours à l'affût de nouvelles sources de revenus. Pour une seconde année consécutive, le CA a tenu sa réunion printanière par conférence téléphonique, ce qui nous a permis de réduire considérablement nos dépenses.
- Nous cherchons constamment à maximiser l'utilisation de notre site Web comme un moyen de communication afin de réduire les coûts associés au courrier ordinaire.
- Nous tenons à remercier très sincèrement nos sociétés commanditaires qui, comme toujours, continuent d'appuyer nos activités, incluant le congrès annuel, le journal ainsi que les différents les prix et bourses.

## Planification stratégique

- Le CA continue d'axer ses efforts sur le plan stratégique qui a été élaboré en 2007 et qui guidera nos activités jusqu'en 2013. Nos principaux objectifs portent notamment sur les secteurs suivants: communication, adhésion, éducation, pratique professionnelle, recherche, partenariat et maintien de la viabilité de notre Association. Nous passerons en revue nos processus et nos réalisations à la réunion automnale du CA et en informerons tous les membres au congrès annuel et dans le *Journal de l'ACITN.*

## Journal

- Le *Journal de l'ACITN (CANNT Journal)* est une publication révisée par des pairs qui est publiée trimestriellement. Cette source d'information est prisée par les professionnels en néphrologie et est indexée dans les bases de données suivantes: CINAHL, MEDLINE et OVID.
- Nous sommes toujours à la recherche d'auteurs qui désirent publier des articles, que ce soit en français ou en anglais. Pour les auteurs qui en sont à leurs débuts, nous tenons à leur rappeler qu'ils peuvent consulter l'information relative à la publication d'un article sur le site Web. Vous pouvez également communiquer avec la rédactrice en chef, Gillian Brunier, à **gillianbrunier@sympatico.ca**
- Le nom de la récipiendaire du Prix d'excellence de 2011 du Journal de l'ACITN sera dévoilé lors du congrès annuel d'octobre 2011.
- Afin d'être responsables sur le plan financier, nous ne publierons plus les rapports régionaux dans le Journal de l'ACITN, mais nous les hébergerons dorénavant sur notre site Web.

## Site Web

- Le site Web continue de croître en popularité et de créer de nouvelles occasions.
- Surveillez aussi les offres d'emploi qui y sont affichées.
- Nouveau! Cette année, nous sommes fiers d'offrir à nos membres trois nouveaux moyens de communication: Facebook, Twitter et les forums de discussions sur la pratique clinique *(RCPG).*

## Communication

- La communication est toujours une priorité pour le CA. Nous désirons que les voies de communication demeurent accessibles à tous les membres. Nous vous invitons à continuer d'utiliser le numéro sans frais (1-877-720-2819) ainsi que le site Web de l'ACITN pour nous joindre afin de transmettre vos questions ou vos commentaires. Nous accordons

une grande importance à vos suggestions pour améliorer notre service ainsi qu'à vos idées pour instaurer de nouvelles activités en néphrologie.

- Pour informer tous les membres, nous avons envoyé maints messages électroniques et avons compté sur le soutien des agent(e)s de liaison et des vice-président(e)s (v.-p.) régionaux(ales).
- L'année dernière, nous avons signé un partenariat avec l'*American Nephrology Nurses Association* (ANNA). Ce contrat était similaire à celui que nous avions conclu l'année précédente avec la *European Dialysis and Transplant Nurses Association* (EDTNA).

### Services administratifs

- Nous avons renouvelé le contrat de la planificatrice d'événements, Heather Reid, jusqu'en 2015.
- Le CA a transmis au comité organisateur du congrès un outil d'évaluation afin d'obtenir une rétroaction de la part des participants sur leur expérience de congrès et sur la manière dont nous pouvons améliorer le processus.

### Normes de la pratique

- Les lignes directrices sur l'accès vasculaire sont en cours de révision par le groupe canadien des coordonnatrices d'accès en hémodialyse *(CHAC),* sous la direction de Patty Quinan.

### Prix d'excellence et bourses

- Vous trouverez toute l'information nécessaire sur les prix et bourses décernés par l'ACITN sur le site Web et dans le Journal de l'ACITN. La période des mises en candidature est maintenant terminée pour 2011. Les récipiendaires en seront informés sous peu et recevront leur prix ou bourse pendant le congrès annuel.
- J'aimerais encourager tous les membres à poser leur candidature pour les prix offerts. Ces dernières années, certaines catégories de prix ou de bourses de l'ACITN n'ont pas reçu de mises en candidature, et ce serait vraiment formidable de pouvoir tous les remettre.

### Comité des mises en candidature

- L'appel des mises en candidature afin de pourvoir les postes au sein du CA est maintenant lancé. L'information relative aux élections sera envoyée aux membres et affichée en ligne.
- Le nouveau CA sera présenté au congrès annuel à Calgary.

### Agrément de l'Association des infirmières et infirmiers du Canada (AIIC)

- Le nombre d'infirmières et d'infirmiers agréés en néphrologie ne cesse d'augmenter d'année en année. On compte maintenant 1 103 infirmières et infirmiers agréés en soins infirmiers en néphrologie au Canada, par rapport à 963 en 2005. Je crois que cela témoigne du professionnalisme des infirmières et infirmiers en néphrologie. Nous tenons à féliciter toutes les infirmières et tous les infirmiers qui ont obtenu leur agrément cette année.
- Une fois de plus, je présenterai un atelier de préparation pour passer l'examen d'agrément CNéph(C) de l'AIIC. Vous trouverez la présentation de cet atelier sur le site Web de l'ACITN.
- En tant que délégué de l'ACITN à l'AIIC, j'ai pris part à toutes les conférences téléphoniques au cours desquelles étaient abordés les enjeux relatifs aux soins infirmiers de toutes les spécialités au Canada. Il s'agit d'un forum incroyable pour échanger de l'information et des solutions. J'ai également participé à une téléconférence de l'AIIC au cours de laquelle nous avons discuté des enjeux propres aux soins infirmiers en néphrologie.

### Journée annuelle des professionnels de la santé en néphrologie : le 21 septembre 2011

- Tous les ans, nous célébrons cette journée d'une manière vraiment multidisciplinaire. Nous continuerons de préparer et de distribuer des affiches afin d'aider chaque unité de dialyse à souligner cette merveilleuse journée en partenariat avec des collègues de la *Canadian Association of Nephrology Social Workers* (CANSW), de la *Canadian Association of Nephrology Dietitians* (CAND), du *Renal Pharmacists Network* (RPN) ainsi que ceux de la Société canadienne de néphrologie (SCN).
- Cette année, nous avons organisé un concours pour trouver le thème de cette Journée. Le thème retenu était : Travailler Ensemble pour Atteindre le Meilleur de soi (TEAM). Merci à toutes les personnes qui ont participé à ce concours!
- Nous enverrons de l'information et des affiches encore cette année. Songez à de nouvelles façons de célébrer cette journée. À l'ACITN, nous aimerions savoir de quelle façon vous avez souligné cette journée.

### Congrès annuel : du 20 au 22 octobre 2011, à Calgary, en Alberta

- Le comité organisateur du congrès annuel, qui aura lieu à Calgary, en Alberta, met beaucoup d'énergie à planifier notre arrivée. Les membres de ce comité ont travaillé d'arrache-pied, non seulement par téléconférence et courriel, mais aussi durant des rencontres en personne qu'ils ont tenues afin de nous organiser un congrès exceptionnel qui, grâce aux différents sujets abordés, répondra aux besoins de tous. Le thème choisi cette année est : « Explorons de nouvelles voies ».
- Le comité organisateur a décidé d'utiliser le même format que le congrès de l'année dernière, soit une journée complète, en laissant tomber la demi-journée du dimanche. Afin d'être responsable sur le plan financier, le CA, avec l'aval des membres, a décidé, en raison du lieu du congrès, de ne pas faire traduire le contenu du congrès. Soulignons que le prochain congrès sera traduit en français. Les besoins en matière de traduction seront révisés tous les ans selon l'endroit où aura lieu le congrès. J'inviterais conférenciers et conférencières à envisager de publier leur présentation dans le *Journal de l'ACITN* qui paraîtra à la suite du congrès.

Ce fut une année de grande activité, mais très productive pour l'ACITN. Votre CA continue de promouvoir et de développer l'ACITN comme la voix des soins infirmiers en néphrologie au Canada. L'ACITN est votre Association. Je vous invite à nous transmettre vos commentaires et à songer à la possibilité de jouer un rôle actif au sein du CA.

*RCPG : Refined Clinical Practice Groups*
*CHAC : Canadian Hemodialysis Access Coordinators*

# CANNT 2011
# Blazing New Trails

## October 20–22, Calgary Telus Convention Centre, Alberta

*By Janice MacKay and Heather Dean, conference co-chairs*

As Heather and I reflect upon the 43rd annual Canadian Association of Nephrology Nurses and Technologists (CANNT) conference in Calgary, Alberta, we feel a sense of accomplishment and are left with a wealth of ideas and encouragement for our day-to-day nephrology practice.

Over this past year, we have learned a lot from each other and our dedicated organizing committee. On behalf of our whole team we would like to thank each of the almost 600 delegates, speakers, and exhibitors who attended our conference in Calgary. We have no doubt that it would not have been a success without your presence.

There were an astounding 48 concurrent sessions and 43 poster sessions, as well as five workshops and five plenary sessions during this three-day conference. In keeping with our conference theme of "Blazing New Trails," we hope that we have met our goal of providing new ideas, information and best practice tools in each of the concurrent streams that attendees will be able to incorporate into their nursing or technological practice.

The feedback we received throughout the conference was positive and reflective of a very supportive group of dedicated nephrology professionals. From the opening "White Hat" ceremony and the branding and roping event at the opening of the exhibit hall, to the very well attended evening of entertainment, "Rockin' in the Rockies"... we hope we captured the essence of Calgary.

We sincerely thank our sponsors for their exceptional level of support this year. We thank them for providing opportunities for informal networking and innovative presentations, and we thank all 31 exhibitors for sharing their product information in our exhibit hall. We also cannot forget to thank all of our speakers and the hard work of those who shared their knowledge in poster presentation format.

As we look forward to CANNT 2012 in Ottawa, we cannot forget to pass along our sincere appreciation to Heather Reid, conference planner, for having demonstrated an exceptional level of support and encouragement to our team from Alberta on the CANNT 2011 conference planning committee: Angie Arcuri, Pediatric Nurse Clinician, Erick Chacon, Educator, Sharon Gulewich, Clinical Research, Lorin Hompton, Technologist, Janice James, Peritoneal Dialysis Nurse Clinician, Tracy Schwartz, Patient Care Manager and Leasa Sulz, Transplant Coordinator.

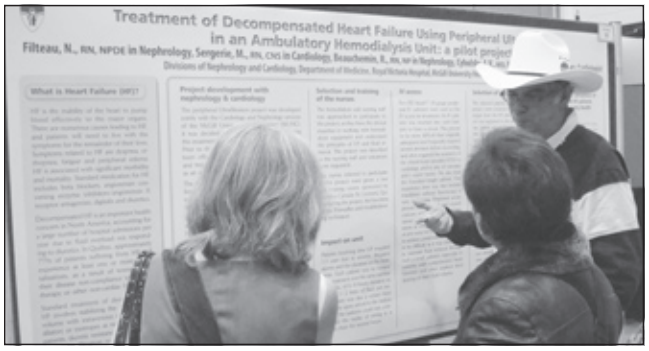
To the CANNT Board of Directors, we also extend out heartfelt thanks for trusting and supporting our vision of "Blazing New Trails" and for assisting us in creating a conference to remember.

**Above, the CANNT 2011 opening ceremonies.**

**The Calgary Stampede Board welcomed our delegates in true Calgary style with corral gates, a roper and branding.**

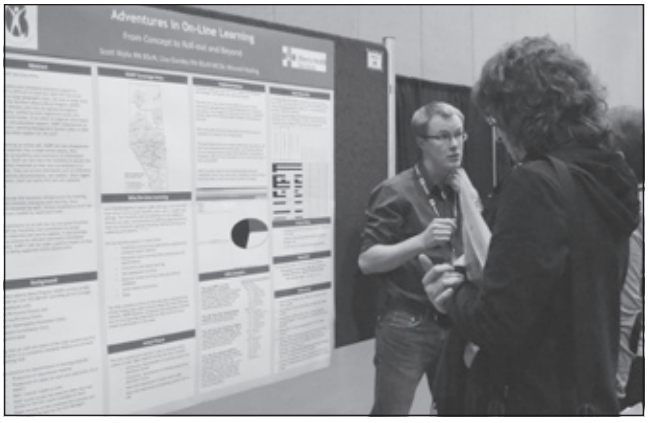
**Keynote speaker Valerie Cade with her book, *Bully Free at Work,* talking to conference attendees.**

Left, CANNT board members, back row: Rejean Quesnelle, VP Technologists; Roch Beauchemin, VP Quebec Region; Bev Watson, Treasurer/Website; Rick Luscombe, Past-President; Gillian Brunier, Journal Editor-in-Chief; Marilyn Muir, President Elect. Front row: Jocelyn Laing, VP Ontario Region; Patty Quinan, President; Heather Dean, VP Western Region, Cathy Ehrhardt, VP Atlantic Region.




Poster presenter Roch Beauchemin with conference attendees.

Above, the CANNT 2011 planning committee. Back row: Lorin Hompton and Erick Chacon. Middle row: Leasa Sulz, Sharon Gulewich, Angie Arcuri and Janice James. Front Row: Janice MacKay, Heather Dean and Tracy Schwartz.




Poster presenter Scott Wylie with conference attendees.

The day started early for some of our delegates with a run/walk at 6:15 a.m. Special thanks to the YMCA and our Southern Alberta Renal Program Kinesiologist who volunteered to lead.

Brian "Hurricane" Smith from Country 105 kept the dance floor full all evening. "Rockin' in the Rockies" was a huge success, complete with a country dancing demonstration followed by line dancing lessons.

# Award winners from CANNT 2011

### *Sponsored by Fresenius Medical Care*

**Frances Boutilier Bursary (Baccalaureate Level):**
Gail Barbour, London, Ontario

**Franca Tantalo Bursary (Graduate Level):**
Jovina Bachynski-Conception, Brampton, Ontario

**CANNT Research Bursary:**
Rajneet Atkar, Calgary, Alberta

**Award of Excellence Clinical Practice:**
Lee Beliveau, Surrey, British Columbia

**Award of Excellence Technical:**
Lorin Hompoth, Calgary, Alberta

**Award of Excellence Administration/Leadership:**
Leslie Holm, Calgary, Alberta

**Award of Excellence Education:**
Judy Deane, Calgary, Alberta

**Award of Excellence Research:**
Janice MacKay, Calgary, Alberta

### *Sponsored by CANNT*

**Certification or Recertification Bursary:**
**Western Region:** Terra Townsend, Drayton Valley, Alberta

**Ontario:** Melanie Wiggins, Orillia, Ontario

CANNT 2011 Journal Award was awarded to Lisa Harley, from Toronto, Ontario, for her article, "Thinking outside the box: An extraordinary woman on home peritoneal dialysis," published in the April–June 2011 issue of the CANNT Journal.

CANNT 2011 Manuscript Award was awarded to Anita Amos, Colleen Johns, Nordia Hines, Tracey Skov and Linda Kloosterman from Toronto, Ontario, for their manuscript "The handwriting on the wall: Program transformations utilizing effective change management strategies," abstract published in the April–June 2011 issue of the CANNT Journal.

**Posters Award Winners:**
**1st Place:** "Redesigning peritoneal dialysis catheter exit-site classification," Patsy Cho, Emelie Exconde, Virginia Sulit, Gillian Brunier, Shirley Drayton, Toronto, Ontario.

**2nd Place:** "Modality education: Does it make a difference?" Renata Marco, Hamilton, Ontario.

**3rd Place:** "Self-management support for peritoneal dialysis patients," Mari Sarian, Montreal, Quebec.

### *Sponsored by Amgen Canada*

**International Nursing Travel Grant:**
Jan Baker, Oakville, Ontario

**Preceptorship/Mentorship Grant—Vascular Access:** Lynn Dufresne, Trois Rivières, Quebec

**Nephrology Research Grant (Experienced):** Rosa Marticorena, Toronto, Ontario

## *CANNT Corporate Sponsors 2010–2011*

### *Platinum*

AMGEN®

Baxter

BHC MEDICAL

Fresenius Medical Care

Roche

### *Gold*

GAMBRO®

### *Silver*

genzyme

JANSSEN-ORTHO

### *Bronze*

LEO

***Please send all submissions, questions or comments to:***

Gillian Brunier, Editor,
CANNT Journal
Fax: (416) 495-0513
email:
gillianbrunier@sympatico.ca

# Kidney Foundation of Canada Allied Health Scientific Committee Annual Report 2011

*By Heather Beanlands, RN, PhD, CANNT Representative to the Allied Health Scientific Committee*

*Copyright © 2011 Canadian Association of Nephrology Nurses and Technologists*

In support of its mission to reduce the burden of kidney disease in Canada, The Kidney Foundation of Canada (KFOC) plays a pivotal role in funding and stimulating kidney research in Canada. Towards this end, the KFOC offers a number of research grants, fellowships, and scholarships to Biomedical and Allied Health Professionals.

*Allied Health Research grants* support research projects relevant to clinical practice. Preference is given to applications on which the principal investigator is an allied health professional (e.g., nurse, dialysis technologist, dietician, social worker, etc.). The *Allied Health Doctoral Fellowships* assist allied health professionals in full-time academic and research preparation at the doctoral level while *Allied Health Scholarships* assist students with a demonstrated interest in nephrology or urology in pursuing their education at the master's level.

In addition, funding opportunities are available to Allied Health professionals through The Kidney Research Scientist Core Education and National Training Program *(KRESCENT)*, a unique training program that supports kidney researchers from a variety of disciplines. The KRESCENT program represents collaborative efforts of KFOC, the Canadian Society of Nephrology (CSN), and the Canadian Institutes of Health Research — Institute of Nutrition, Metabolism and Diabetes (INMD), private sector stakeholders, professional associations such as the Canadian Association of Nephrology Social Workers (CANSW) and the Canadian Association of Nephrology Nurses and Technologists (CANNT), as well as private donors. In addition to funding training awards, such as the Allied Health Doctoral Award, the KRESCENT program offers an opportunity for awardees to participate in a multidisciplinary, national core curriculum that supports collaborative knowledge translation across disciplines.

The KFOC *Allied Health Scientific Committee* reviews funding applications for Allied Health Research Grants, Fellowships, and Scholarships, as well as the KRESCENT Allied Health Doctoral Awards, and makes funding recommendations to the KFOC Research Council. The members of the 2010–2011 Allied Health Scientific Committee were: Dr. David Nicholas (Chair), University Of Calgary; Dr. Martha Horsburgh (Assistant Chair), University of Saskatchewan; Dr. Heather Beanlands, Ryerson University; Dr. Pauline Darling, University of Toronto and Dr. Eleanor Ravenscroft, Toronto.

*Address for correspondence: Heather Beanlands, RN, PhD, Daphne Cockwell School of Nursing, Ryerson University, 350 Victoria St. Toronto, ON.*

*Email: hbeanlan@ryerson.ca*

For the granting period of July 1, 2011, to June 30, 2012, The KFOC funded 57 awards totalling approximately $2.75 million. This includes three Allied Health Research grants and three Allied Health Doctoral Fellowships. In addition, the KRESCENT program funded three Allied Health Doctoral Awards for this granting period. Complete information about these projects and awards can be found in the Kidney Foundation Report: "Supporting Research Excellence: Research Award Recipients July 1, 2011–June 30, 2012." Available at: **www.kidney.ca/document.doc?id=2003**

Applications were accepted until October 15, 2011, for Allied Health Research Grants. Applications for Allied Health Fellowships and Scholarships are due **March 15, 2012.** Information about applications and deadline dates for the KRESCENT program can be found on its website at: **http://www.krescent.ca/Page.aspx?pid=444**. More information about these and other funding opportunities, application forms, and help in preparing your application is available on The Kidney Foundation of Canada website, **www.kidney.ca**, or contact:

Wim Wolfs
National Director of Research
The Kidney Foundation of Canada
300-5165 Sherbrooke St. West
Montreal, QC H4A 1T6
Telephone: 1 800-361-7494, ext. 232
(514) 369-4806, ext. 232
Email: **research@kidney.ca**

• Are you moving? Let us know. In order to ensure undelayed delivery of your CANNT Journal and other communications, please indicate corrections or a change of address as soon as possible and mail to: Debbie Maure, CANNT, Suite 322, 336 Yonge St., Barrie, Ontario, L4N 4C8.

• Déménagez-vous? Avertissez nous. Afin d'assurer la livraison ininterrompue de votre journal de l'ACITN ainsi qu'autre correspondance, veuillez indiquer toute correction ou changement d'adresse à l'association aussitôt que possible en complétant ce formulaire et le poster à: Debbie Maure, ACITN, Suite 322, 336 Yonge St., Barrie, Ontario, L4N 4C8

Name/Nom: _____ Moving Date/Date de déménagement: _____

Address/Adresse: _____
Street No./No. Street/Rue Apt./App

_____
City/Ville Province Postal Code Postal

# Nephrology certification update

*By Colleen Wile, RN, BScN, CNeph(C), Clinical Educator, Community Dialysis, Halifax, NS*

The Canadian Nurses Association (CNA) Certification Program is important to nurses, the nursing profession, employers and the general public. In achieving CNA certification, nurses are committing to a national standard of professional competence that demonstrates they are qualified, competent, and current in their nursing specialty/area of nursing practice. It reaffirms a comprehensive understanding of their specialty and a commitment to continuing competence. Specialty certification is a voluntary recognized credential reserved for registered nurses who meet specific nursing practice criteria, continuous learning and exam-based testing requirements. By renewing this credential every five years, the RN confirms that he/she has met predetermined standards and demonstrated competence in the nursing specialty/area of nursing practice.

Benefits of certification can include: opportunity for career advancement/greater job opportunities, as some employers now seek certification as a preferred qualification; potential for salary differentials; formal recognition in the workplace and, as well, some universities offer it as a credit towards your nursing degree. It will also provide you with an opportunity to participate in exam development activities and/or act as a certification mentor to other nurses seeking certification.

As of December 2010, 1,130 nephrology nurses held a valid CNA certification in nephrology (see Table 1). CANNT would like to congratulate the successful candidates from 2011 who will add to this total. CANNT would also like to congratulate all those nurses who chose to recertify this past year (see Table 2). Maintaining certification shows the commitment that nephrology nurses have to our specialty. Best of luck to those individuals who registered to write the certification exam in 2012. This also displays commitment to nephrology practice.

**Table 1. Number of valid CNA certifications by specialty/area of nursing practice and province/territory, 2010**

| Specialty/area | AB | BC | MB | NB | NL | NS | NT | ON | PE | QC | SK | YT/NU | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cardiovascular | 74 | 137 | 28 | 59 | ** | 62 | 0 | 401 | * | 36 | 37 | 0 | 854 |
| Community health | 71 | 61 | 36 | 11 | 82 | 28 | 9 | 231 | * | 0 | 30 | * | 565 |
| Critical care | 118 | 100 | 27 | 49 | 36 | 44 | * | 677 | ** | 83 | 38 | 0 | 1,185 |
| Critical care pediatrics | 24 | 24 | * | 0 | * | 12 | 0 | 47 | 0 | 10 | * | 0 | 123 |
| Emergency | 97 | 159 | 55 | 102 | 54 | 94 | 20 | 646 | 14 | 33 | 62 | 6 | 1,344 |
| Enterostomal therapy | 9 | 7 | * | * | 0 | * | 0 | 41 | * | * | * | 0 | 75 |
| Gastroenterology | 33 | 41 | 8 | 8 | 5 | ** | 0 | 111 | * | 10 | 11 | 0 | 235 |
| Gerontology | 372 | 609 | 147 | 70 | 49 | 126 | * | 638 | 49 | 32 | 21 | * | 2,118 |
| Hospice palliative care | 150 | 286 | 78 | 34 | ** | 79 | 0 | 548 | 10 | 61 | 21 | * | 1,279 |
| Medical-surgical | 37 | 20 | 24 | 9 | 10 | 10 | * | 56 | * | 11 | 15 | * | 200 |
| **Nephrology** | **124** | **150** | **34** | **35** | **34** | **39** | * | **622** | ** | **51** | **28** | **0** | **1,130** |
| Neuroscience | 36 | 30 | ** | 24 | * | 22 | 0 | 017 | 0 | 47 | 12 | 0 | 291 |
| Occupational health | 96 | 53 | 22 | 20 | 35 | 40 | 0 | 522 | * | 9 | 25 | 0 | 828 |
| Oncology | 111 | 73 | 83 | 48 | 22 | 51 | * | 928 | 12 | 204 | 50 | 0 | 1,591 |
| Orthopaedics | 61 | 20 | 10 | 28 | * | 15 | * | 50 | 0 | * | 6 | 0 | 194 |
| Perinatal | 52 | 97 | 30 | 58 | 19 | 47 | 10 | 372 | 15 | 24 | 15 | * | 744 |
| Perioperative | 240 | 209 | 90 | 73 | 85 | 100 | 9 | 633 | 15 | 54 | 31 | 0 | 1,540 |
| Psychiatric/mental health | 37 | 88 | 13 | 63 | 83 | 109 | 5 | 1,232 | 33 | 21 | * | * | 1,692 |
| Rehabilitation | 14 | 38 | 13 | 11 | * | 15 | 0 | 160 | * | 7 | 7 | 0 | 272 |
| **Total** | **1,756** | **2,202** | **715** | **705** | **546** | **902** | **68** | **8,022** | **178** | **696** | **419** | **20** | **16,260**[1] |

* Information suppressed to protect privacy (one to four records)
** Information suppressed to protect privacy (five or more records)
To prevent calculation of the suppressed number (*) by using other data in the table, another number (usually the next lowest number) is suppressed.
[1] Both the overall total and the total for occupational health (OH) are inclusive of OH nursing reciprocity candidates; however, these candidates are not shown in the distribution across jurisdictions.
*Source: Canadian Nurses Association, Professional Practice & Regulation division*

The Canadian Nurses Association (CNA) will be administering the 2012 CNA Certification Exam on April 21, 2012. The certification credential is part of a respected national certification program, which is developed by Canadian nurses for Canadian nurses.

The initial CNA certification credential in nephrology is valid for a five-year term and then is renewed every five years. Certification renewal can be obtained through continuous learning (CL) activities or by writing the certification exam again. Most nurses choose to renew by CL. It is important to plan and record your CL activities from the start of the five-year term. CNA offers forms and guidelines to assist with tracking CL. These forms and guidelines can be found in the certification section of CNA's website under the **Continuous Learning Activities Guidelines and Forms** section.

## Study aids

To assist with studying, CNA has developed resources for those choosing to write the exam. Eligible candidates will receive an access code to the online prep guide. In addition to the exam blueprint and competencies, this prep guide will also include practice questions, an answer key with rationales and a bibliography.

CNA also offers a document called "Build on What You Know: A Study Group Manual for Nurses Preparing for CNA Certification Exams". This manual includes tips for study group facilitators and participants, suggested references and other information. The link below will take you to this document and other valuable resources to help with the preparation for the exam. **http://cna-aiic.ca/CNA/nursing/certification/apply/studygroups/default_e.aspx**

Many nephrology programs have set up education sessions through their program's educator to assist candidates in preparing for the exam. Also, at the yearly national conference, CANNT hosts a pre-conference workshop to help nurses prepare for the nephrology certification exam. For those not able to attend the national conference, the CNeph(C) prep course PowerPoint presentation is available to CANNT members on the CANNT website.

**Table 2. Number of valid CNA certifications by year and specialty/area, 2006–2010**

| Specialty area | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|---|
| Cardiovascular | 713 | 722 | 774 | 793 | 854 |
| Community health | 148* | 216 | 338 | 460 | 565 |
| Critical care | 1,223 | 1,166 | 1,190 | 1,191 | 1,185 |
| Critical care pediatrics | 94 | 104 | 100 | 113 | 123 |
| Emergency | 1,307 | 1,323 | 1,345 | 1,333 | 1,344 |
| Enterostomal therapy | n/a | n/a | n/a | 66* | 75 |
| Gastroenterology | 171 | 205 | 235 | 231 | 235 |
| Gerontology | 1,937 | 1,988 | 2,104 | 2,073 | 2,118 |
| Hospice palliative care | 916 | 1,103 | 1,247 | 1,232 | 1,279 |
| Medical-surgical | n/a | n/a | n/a | n/a | 200* |
| **Nephrology** | **1,019** | **1,052** | **1,080** | **1,103** | **1,130** |
| Neuroscience | 223 | 237 | 258 | 269 | 291 |
| Occupational health | 926 | 908 | 888 | 879 | 828 |
| Oncology | 1,332 | 1,323 | 1,360 | 1,431 | 1,591 |
| Orthopaedics | 73* | 125 | 153 | 169 | 194 |
| Perinatal | 621 | 642 | 665 | 719 | 744 |
| Perioperative | 1,585 | 1,552 | 1,566 | 1,560 | 1,540 |
| Psychiatric/mental health | 1,729 | 1,734 | 1,750 | 1,765 | 1,692 |
| Rehabilitation | 71* | 121 | 172 | 216 | 272 |
| **Total** | **14,088** | **14,526** | **15,225** | **15,603** | **16,260** |

* First year certification was available in this specialty/area
*Source: Canadian Nurses Association, Professional Practice & Regulation division*

## Mentors

CNA has assembled a distinguished list of certified nurses who are willing to act as mentors for those nurses who wish for support or assistance with certification exams. A list of mentors can be found below or by following the link: **http://cna-aiic.ca/CNA/nursing/certification/apply/mentors/default_e.aspx**

**British Columbia**
Richard Luscombe, RN, BSN, CNeph(C)
Vancouver, BC
Tel.: (604) 682-1525
Email:
**rluscombe@providencehealth.bc.ca**

**Québec**
Rachelle Brisson, inf., CNéph(C)
(Bilingual/Bilingue)
Gatineau, QC
Tel.: Work (819) 966-6200 ext. 5407
Home: (819) 986-9625
Email: **rachellebrisson@live.ca**

Nancy Filteau, RN, CNeph(C)
(Bilingual/Bilingue)
Laval, QC
Tel.: Work (514) 934-1934 ext. 35098
Email: **Nancy.filteau@muhc.mcgill.ca**

**New Brunswick**
Valerie Price, RN, CNeph(C)
Saint John, NB
Tel.: (506) 648-6850

## Financial assistance for 2011 initial and renewal candidates

Financial assistance is offered through most hospitals and/or provincial licensing bodies to help with the cost of writing the exam. The Canadian Nurses Foundation also offers financial awards to two nurses in each specialty area to cover the certification fees. In addition, CANNT offers the ISPD bursary to assist with the cost of certification or re-certification.

Applications for the Canadian Nurses Foundation award can be found at: **http://www.canadiannursesfoundation.com/certification.htm**

Application for the CANNT ISPD bursary can be found at: **http://www.cannt.ca**

For more information on Nephrology Certification through CNA visit its website at: **http://cna-aiic.ca/CNA/nursing/certification/default_e.aspx**

# Perspectives on organ and tissue donation among Chinese Canadians

*By Rosalie Starzomski, RN, PhD, and Beverley Curtis, BHEc*

*Copyright © 2011 Canadian Association of Nephrology Nurses and Technologists*


## Abstract

*Organ and tissue transplantation offers great potential for improving quality of life and reducing health care costs associated with end-stage organ failure. However, substantial and persistent shortages of organs and tissues for transplantation exist in Canada and there is a growing gap between those on transplant waiting lists and the organs available for transplantation. Every Canadian should have the opportunity to consider organ and tissue donation and transplantation in a culturally sensitive and respectful manner. During consultation with the Chinese Canadian community in Toronto, it was found that a clear understanding of the attitudes and values of Chinese Canadians regarding organ and tissue donation could assist health professionals in making ethnoculturally sensitive requests for donation to members of this community.*


**Key words:** organ donation, transplantation, Chinese Canadian, ethnocultural beliefs, culture, diversity

## Background to the consultation

Organ and tissue transplantation offers great potential for improving quality of life and reducing health care costs associated with end-stage organ failure. However, substantial and persistent shortages of organs and tissues for transplantation exist in Canada and there is a growing gap between those on transplant waiting lists and the organs available for transplantation. The gap between the need and the supply for transplantation may be exacerbated within diverse ethnocultural communities, partly because of difficulties in finding compatible organ donors and partly because of an insufficient understanding of ethnocultural perspectives about donation.

Disproportionately high numbers of Chinese people are on dialysis in Canada (Yoshida et al., 1999), and there is some evidence that there may be reluctance within Chinese communities to donate organs for transplantation (Boey, 2001; Lam & McCullough, 2000; Wu, 2008). Therefore, transplantation might be less accessible and successful because of issues relating to genetic compatibility and difficulties obtaining a close tissue match in people of different ethnocultural communities (Plawecki, Freiberg, & Plawecki, 1989).

An understanding of the perspectives of Chinese people living in Canada regarding donation and transplantation could greatly assist health professionals in raising awareness and in making ethnoculturally sensitive requests for donation to members of these communities. To this end, the Canadian Council for Donation and Transplantation (CCDT), using a community engagement process, undertook consultations with Chinese Canadians living in Toronto, Ontario, to explore their perspectives on organ and tissue donation and transplantation (see Endnotes 1, 2). In this paper, we discuss the consultation process and outcomes, and provide recommendations for nurses to improve practice related to the organ and tissue donation process.

## Consultation process

The values that guided the consultation were developed by the CCDT Diverse Communities Steering Committee (see Endnote 3) and included appreciation of diversity, collaboration, integrity, and excellence (see Table 1). The consultation objectives were to identify beliefs and views about donation, to identify processes for engaging ethnocultural communities on the topic of donation and transplantation, and to consider partnerships between ethnocultural groups and their local donation and transplantation program, in this case, Trillium Gift of Life Network (TGLN). The consultative process was based on the principles of respect for the heterogeneity of populations, the individuality of participants, the role of local community representatives, flexibility, and relationships and trust (see Table 2). In keeping with these principles, the consultation planning meetings included representatives of Toronto's Chinese Canadian communities, TGLN and CCDT. Members of the Chinese communities were involved in the consultation process and they helped to make connections with participants and other appropriate organizations. Planning committee members provided ongoing advice on ethnoculturally sensitive practices, and reviewed the consultation process and tools for feedback. Consultation materials for the discussion groups and surveys were reviewed by three ethicists on the CCDT Diverse Communities Steering Committee for ethical considerations, sensitivity of approach, and rigorous application of the consultation principles and values.

## Participants

The consultation involved a number of people from Chinese Canadian communities, living in Toronto, who participated in a number of ways. We used discussion groups and written surveys to explore the attitudes and beliefs about donation and transplantation. Discussion groups were held with 44 people. Two sessions were organized and hosted by the Yee Hong Centre for Geriatric Care, and the third, by the Chinese Cultural Centre of Greater Toronto. A survey was also developed to collect information from other individuals in Toronto's Chinese Canadian community. The survey was available in English, simplified Chinese, and traditional Chinese characters. It was distributed through contacts, word-of-mouth and to the following groups:

*Rosalie Starzomski, RN, PhD, Professor and Associate Director, Research and Scholarship, University of Victoria, School of Nursing, Victoria, BC. Clinical Ethicist, Vancouver Coastal Health Authority, Vancouver, BC.*

*Beverley Curtis, BHEc, Project Manager, Mental Health First Aid, Mental Health Commission of Canada. Former Managing Director, Initiatives, Canadian Council for Donation and Transplantation (CCDT).*

*Address correspondence to: Rosalie Starzomski, RN, PhD, Professor and Associate Director, Research and Scholarship, University of Victoria, School of Nursing, PO Box 1700, Victoria, BC V8W 2Y2. Email: rosestar@uvic.ca*

*Submitted for publication: September 20, 2011.*
*Accepted for publication in revised form: November 14, 2011.*

- meeting of the Scarborough Hospital Chinese Outreach Committee
- participants in recreation programs at the Chinese Cultural Centre of Greater Toronto
- staff, patients and family members at the Scarborough Hospital Hemodialysis Unit
- members of the Chinese Renal Association
- youth group meeting at a Chinese Baptist Church.

In total, 110 surveys were completed.

A survey was also conducted with family physicians who cared for members of the Chinese community in Toronto. In the survey, we asked the physicians about their views on donation and transplantation, as physicians, rather than as individuals. Questions focused on three themes:

- the physicians' roles in advising their patients
- Toronto's Chinese Canadian community
- future opportunities involving their roles in organ and tissue donation.

The survey was distributed at a meeting of members of the Journal Club of Chinatown Physicians and the Uptown Doctors Association. Two presentations on donation and transplantation were made at the meeting, followed by questions. A total of 22 surveys were completed.

Overall, the age range of participants in the consultation was from the mid-twenties to 92 years with the majority born in Hong Kong, and residing in Canada for 20 years or more. A majority of the participants had post high school education.

## Consultation outcomes

**General knowledge**

Most participants believed that few members of their communities had reflected on donation and transplantation. They noted the lack of information and education about the issue and most participants said they knew little about donation. Relatively few participants personally knew someone who had received a transplant or been an organ donor. This was emphasized by one participant who said:

> *I've worked as a volunteer for a senior centre since 1992 and this is the first time I've heard about organ donation and transplantation. Even kidney transplant, I have not heard about it before.*

Participants stressed the importance of educational campaigns in the Chinese communities to promote organ donation. People believed that lack of information was a key reason that individuals did not donate. Religious organizations and physicians were mentioned in the discussions as possibly playing a role in helping educate people about donation. Participants gave examples of promotion elsewhere. For instance, one person said:

> *There was a poster used in Hong Kong that I found useful. It asked, "Do you want your life to be extended?"*

Some people believed they had enough information to make a decision about being a donor. Of the remaining participants, the type of information they required fell into three categories: information about the medical procedure involved, including the operation itself and the impact on one's health; information about the donation process; and information relating to the state of the body, in the case of deceased donation, after the organ(s) have been removed. Printed materials and television were the preferred methods of receiving information about donation. Participants indicated the need for education in the workplace concerning living donation. One individual said:

> *When my colleague donated his kidney to his sister, he had to take sick leave and the boss was not happy… Most of his co-workers accepted it, as it was for his sister, but some people had to do his work, too, and they complain[ed].*

**Views on donation and transplantation**

Most people agreed that they would not accept a donation if they were over the age of 70; that is, it was better that the organ go to someone younger. A strong majority indicated a willingness to accept an organ transplant if they required one.

**Table 1. Steering committee values**

| | |
|---|---|
| Appreciation of diversity | Appreciation of diversity incorporates an approach that seeks to understand, not judge views. It involves genuine admiration for the cultural context and views expressed, and flexibility in response to diversity. |
| Collaboration | Collaboration is a co-operative, not competitive, approach. It allows for situations to develop organically, and builds on existing local activities. Collaboration involves sharing the results with those consulted, and speaks to a commitment to the future of the partnership. |
| Integrity | Integrity is exemplified by trust through open communication about the purpose of the consultation, values, processes used, and application of results. It shows respect for all involved, and their experience, expertise, heritage, and history. |
| Excellence | Excellence is shown by conducting the consultation with a continuous learning approach. The process is based on evidence available and input of local people. Rigour is applied to ensure high-quality information. |

**Table 2. Principles for consulting with diverse communities**

| | |
|---|---|
| Heterogeneity of populations | Considerable variation exists within each ethnocultural community in respect to language, customs, and beliefs, as well as socioeconomic status, gender, and intergenerational and rural–urban differences. The consultation approach must respect the diversity within communities. |
| Individuality of participants | The individuality of each potential participant must be respected. |
| Role of local community representatives | Local community representatives must be invited to participate as partners to help gauge the relevance of topics, find an entry point into the community, recruit participants, and provide space. |
| Flexibility | Flexibility is essential at all stages, from planning the consultation, to working with community partners, to holding the consultation. |
| Relationships and trust | Time is needed to build relationships and trust. Using interviewers and facilitators known to the community helps to gain the trust of participants. |

They noted that the transplant would extend and improve the quality of their life. Dying, and therefore leaving their family, was another important reason for accepting an organ.

Some concerns were expressed about receiving or donating an organ. Some feared the procedure itself, while others questioned the success of transplantation or the appropriateness of the recipient of the donation. For example, one person said:

*…I think everybody here would like their donated body parts to go to a good person, someone who had made a contribution to society. They don't want to donate to a prisoner or somebody who is very bad.*

Many showed concern for the health of the living donor and they were not willing to risk the health of others to receive an organ. One individual said:

*I would not accept, because, even if it doesn't affect their health immediately, it could affect the health of the donor later on in life. Who knows?*

Most indicated that it would be fine for a family member to accept a donation from someone who was not of Chinese descent. Comments reflected the view that it was the compatibility of the donated organ and not the ethnicity of the donor that mattered.

Among those participants who were willing to donate an organ, a few reported that they would place some restrictions on their donation. Some mentioned particular body parts they did not want donated, while the majority who put limits on donation did not want their bodies to be used for experimentation or medical research. About half indicated that they would be willing to make a living donation.

A strongly recurring theme was the significance and value of donating money and time in Chinese communities. Organ and tissue donation were suggested as another form of donating or contributing to others. One participant said:

*You give your time, as a volunteer or you give out money because you have excess that you can share with others. But now you can do something more, which is that a donation can be an organ, can be your living tissue.*

Participants expressed the idea that an individual's actions can bring honour to the family; that is, through donation, a form of giving to others, a family could become honourable. One person expressed it this way:

*Since the family is grieving about their dying relative, maybe one could alleviate the grieving of somebody else waiting for an organ to sustain or prolong life. Would you consider having other families not grieve about a family member dying?*

Some suggested that the family could get a certificate or some sort of recognition when one of their family members donates an organ or tissue. Many liked the Trillium Gift of Life Network approach of honouring the families of donors, but not all agreed that recognition was required. One person said:

*I am against the idea of recognition, either monetarily, which is the worst kind of reward, or even a certificate—because the donor gave voluntarily and there is no need to publicize or advertise about the dead person.*

Another incentive to donating that was raised by some participants was the idea that the family of the person donating could receive a "credit" in the instance that a family member needed a donation in the future. This idea seemed to resonate for many participants, perhaps because it relates to the importance and obligation of family.

A major theme that arose was the belief that the body must be buried whole. This belief was generally associated with the older generation. The view of "wholeness" was based on tradition or on the fear of being dismembered. One participant said:

*It is a traditional Chinese viewpoint that all parts of the body are given by the parents and we are not supposed to hurt any part of it. This is part of filial piety—a very old concept. Your parents have given you a complete body; you should be buried whole and complete.*

On the other hand, some older people did not hold this view. One man said:

*I've been dealing with science and engineering my whole life. So, for me, after death, the body returns to nature. It's part of a natural cycle… It's better to donate, as the body will just disintegrate.*

Another commonly held belief expressed was that of predetermined destiny. One participant used a Chinese proverb, translated in English below, to explain the idea:

*Whether one is rich or poor or dies early or dies old, one cannot control. It's all to do with luck, or God, or heaven.*

Many participants indicated that their decision to donate would not be influenced by any particular faith beliefs. Reinforcing this view, the majority said they would not talk to their religious or spiritual leader about organ and tissue donation and transplantation.

**The decision-making process**

Some participants voiced concerns about the difficulty in making decisions about donation, particularly on behalf of family members. Many indicated that the decision to donate was a personal one to be made by the individual alone. Of those who thought it should involve others, a majority thought that family should be consulted. Some said they most trusted their spouse in helping them make the decision to donate, while others said it was their physician they trusted most.

There was significant concern that a family could override a person's wish to donate after death. Many were very confident that families would respect a family member's decision to donate. It was suggested that it would be important to talk it over with one's family members so they were aware of the prospective donor's wishes. One person said:

*The best way to do it is for the prospective donor to discuss it with his or her family members before signing the donor card and then it would be much easier for the doctor to ask the family if the donor dies. They would be aware of his wishes—it would influence them.*

Participants were asked for their advice on how to respectfully approach a family about donating a deceased family member's organs. People commented that the request could come from a respected person such as a physician, spiritual leader, or nurse. The request should also be in the language most comfortable for the family. One individual said:

*If the family is Cantonese-speaking, you have a person of authority who is Cantonese asking the questions. If the person can explain things in Cantonese it will be much better.*

There were numerous suggestions about the way a request could be made and the types of messages that could be offered. Many of these were about the privilege of helping another and the importance of giving practical and technical information (e.g., success rates of transplantation).

### Discussion of consultation outcomes

Cheng (1997) observed that there is an unspoken tradition of not talking about matters that relate to death and dying in the Chinese community. Despite this, participants in this consultation were quite open with their views. Most indicated that they thought the decision about organ donation was a personal one, citing family as those they would consult. They believed that an individual's decision should be respected and not overridden by family members. However, family members must be informed of an individual's decision, so they would be aware of the perspective donor's wishes. All those consulted were supportive of increased education and promotional efforts among Chinese Canadians. Educating people about the risks to the living donor was suggested as important, as well.

Ethnocultural aspects of decision-making in donation and transplantation for Chinese Canadians are complex. Consistent with previous research findings (Molzahn, Starzomski, McDonald, & O'Loughlin, 2005), participants noted that they would not be prevented from donating by religious beliefs, nor would they consult with a religious or spiritual leader regarding their decision. However, traditional views regarding the sanctity of the body do appear to influence Chinese Canadians. This view relates to the concept of filial piety, respect for the views of one's ancestors, a notion that has a deep-rooted influence on people from Chinese communities (Fung, 1998). Although Yong, Cheng, and Ho (2000) noted that traditional cultural beliefs on keeping the body intact were the most common reason for refusal, evidence from the CCDT consultation shows that this view is associated with the older generation and may be changing. Building on the notion of respect for family, the value of donating organs and tissues emerged as being very significant to Chinese families. The concept of donating time and money might be expanded to bringing honour to a family in which a member had donated an organ.

### Implications for policy and practice

Participants' views on traditional values and beliefs, how these may be changing, and how they influence decision-making may be a factor in addressing donation and transplantation issues in Chinese Canadian communities. Educational messages that address the positive aspects of donation, the generosity of the donor, the honour to the donor family, and the good fortune of the recipient may resonate more widely than messages that simply suggest discussing the prospective donor's wishes with family members.

Culture is a lens through which some individuals consider donation, yet there is extensive variation among individual views, variations contingent on a wide range of contributing factors. The work of Molzahn et al. (2005) highlights the multiplicity of views that exist within diverse communities. In their work with individuals, families and communities, they stressed that nurses and other health professionals need to avoid making assumptions about the beliefs of individuals based solely on their membership in a particular community. Optimal end-of-life care, including the opportunity to consider organ and tissue donation, is predicated on the understanding and respect of complex value systems. The ultimate hope is that every Canadian will have the opportunity to consider donation and that this opportunity is managed in an ethnoculturally sensitive manner.

### Endnotes

1. The mandate of the CCDT was to provide advice to the Federal/Provincial/Territorial Conference of Deputy Ministers of Health. Consultations were key to the background and basis of this advice.
2. Demographic and other details are available in full in the final report and background documents posted at **www.ccdt.ca**.
3. At the time of the consultation, the following people were members of the CCDT Diverse Communities Steering Committee: Dr. Rosalie Starzomski (Committee Chair and Initiative Lead), Rabbi Dr. Reuven P. Bulka, Ms. Diane Craig, Ms. Angela Diano, Ms. Beryl Ferguson, Ms. Sally Greenwood, Dr. Eugene Bereza, Dr. Michael F. McDonald, Dr. Anita Molzahn, Mr. Bernard Tremblay, Ms. Sybil Stokoloff, Dr. Joseph M. Kaufert, Ms. Kimberly Young.

### Acknowledgements

*The participation of the Chinese Canadian community was the fundamental factor for success of the consultation. We are grateful to them for their generous gift of open and thoughtful dialogue. We also acknowledge the invaluable contribution of the Diverse Communities Steering Committee (see Endnote 3), Trillium Gift of Life Network, Dr. Anita Molzahn, the Canadian Council for Donation and Transplantation (CCDT) staff, Christina Rogers (Director, Initiatives for the CCDT), and Sandy Bell (Manager, Communications/Knowledge Transfer for the CCDT). The views expressed herein do not necessarily represent the views of the CCDT and/or the federal, provincial or territorial governments of Canada.*

## References

Boey, K.W. (2001). A cross-validation study of nurses' attitudes and commitment to organ donation in Hong Kong. *International Journal of Nursing Studies*, *39,* 95–104.

Cheng, B.K. (1997). Cultural clash between providers of majority culture and patients of Chinese culture. *Journal of Long Term Home Health Care*, *16*(2), 39–43.

Fung, K.K. (1998). *Understanding Chinese cultures: A handbook for health care and rehabilitation professionals.* Toronto: Yee Hong Centre for Geriatric Care.

Lam, W.A., & McCullough, L.B. (2000). Influence of religious and spiritual values on the willingness of Chinese-Americans to donate organs for transplantation. *Clinical Transplantation*, *14*, 449–456.

Molzahn, A., Starzomski, R., McDonald, M., & O'Loughlin, C. (2005). Chinese Canadian beliefs toward organ donation, *Qualitative Health Research, 15*(1), 82–98.

Plawecki, H.M., Freiberg, G., & Plawecki, J.A. (1989). Increasing organ donation in the Black community. *American Nephrology Nurses Association Journal*, *16,* 321–324.

Wu, A.M.S. (2008). Discussion of posthumous organ donation in Chinese families. *Psychology, Health, & Medicine, 13,* 48–54.

Yong, B.H., Cheng, B., & Ho, S. (2000). Refusal of consent for organ donation: From survey to bedside. *Transplantation Proceedings*, *32,* 1563.

Yoshida, E.M., Partovi, N., Ross, P.L., Landsberg, D.N., Shapiro, R.J., & Chung, S.W. (1999). Racial differences between solid organ transplant donors and recipients in British Columbia. *Transplantation*, *67,* 1324–1329.

Contact hour: 2.0 hrs

# Iron replacement and supplementation in patients with chronic kidney disease

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

*Copyright © 2011 Canadian Association of Nephrology Nurses and Technologists*

## Introduction

There has been renewed interest in iron therapy for the treatment of anemia of chronic kidney disease (CKD), in part due to concerns that high doses of erythropoiesis stimulating agents (ESAs) might contribute to the high cardiovascular morbidity and mortality observed in patients with chronic kidney disease (Szczech et al., 2010; Zhang, Thamer, Kaufman, Cotter, & Hernan, advance online publication June 22, 2011) In addition, judicious use of iron can result in significantly lower doses of ESAs required to increase hemoglobin with much lower cost.

## Current iron guidelines

Table 1 provides the current iron targets from several international guidelines. Targets for transferrin saturation (TSAT) are similar, but there is controversy around the maximum serum ferritin with recommendations differing between guidelines. Serum ferritin is not an ideal laboratory measure of iron status, as it has been shown to be a poor predictor of response to iron due to the fact that it is an acute phase reactant and, therefore, increases in response to infection or inflammation (Spiegel & Chertow, 2009).

## Iron deficiency

There are two types of iron deficiency in patients with CKD. Absolute iron deficiency is defined as both a TSAT and ferritin below the recommended guidelines. Functional iron deficiency occurs when the ferritin is either within target or high, but the patient still responds to iron administration with an increase in hemoglobin. This type of iron deficiency is related to an imbalance between the iron demands of the erythroid marrow and iron delivery by transferrin, the iron carrier protein in the blood. It can be caused by accelerated red blood cell production induced by ESA therapy, low transferrin levels secondary to malnutrition, and/or iron mobilization impairment from stores in the reticuloendothelial system in the setting of inflammation or infection (Wish, 2011).

## Iron administration in patients with elevated serum ferritin

The only randomized controlled trial to address treatment with intravenous (IV) iron in patients with elevated ferritin enrolled patients on hemodialysis receiving high-dose epoetin alfa (> 225 IU/kg/week or > 22,500 IU/week) who had hemoglobin values below target, serum ferritin concentrations of 500 to 1,200 ng/mL, and lower TSATs of less than 25 per cent (Coyne et al., 2007; Kapoian et al., 2008). Patients were stratified by baseline ferritin levels above or below 800 ng/mL and randomized to either no iron or to intravenous ferric gluconate 125 mg given over eight consecutive hemodialysis sessions. The epoetin alfa dose was increased by 25% in both groups. Hemoglobin increased faster and significantly more in the intravenous iron group than in the control group (16 ± 13 versus 11 ± 14 g/L; P = 0.028). The baseline serum ferritin value was not predictive of iron responsiveness. However, this study was not powered to look at safety and was of very short duration (6 to 12 weeks). The 2008 Canadian Society of Nephrology iron management guidelines state that if ferritin is > 800 ng/mL to consider iron administration if the patient is receiving high ESA doses defined as > 20,000 units/week epoetin alfa or > 100 ug/week darbepoetin and still has a hemoglobin below target and the TSAT is less than 25 per cent (Madore et al., 2008). However, this recommendation was only rated as Grade C evidence and clinicians must also weigh the risks of ongoing iron administration in these patients.

## Monitoring of iron

Patients receiving iron or ESA therapy should have their serum ferritin and TSAT checked every one to three months. (KDOQI & National Kidney Foundation, 2006; Madore et al., 2008). The optimal timing between IV iron administration and measurement of iron studies is provided in Table 2. Ferritin and TSAT may be checked at any time during treatment with oral iron.

## Oral or intravenous iron

The use or IV or oral iron in patients with CKD depends on the patient population (hemodialysis, peritoneal dialysis, or nondialysis CKD). The Canadian and international guidelines recommend that IV iron should be used for patients receiving

*Lori D. Wazny, PharmD, Clinical Pharmacist, Winnipeg Regional Health Authority, Manitoba Renal Program, Winnipeg, MB*

*Colette B. Raymond, PharmD, MSc, Clinical Pharmacist, Winnipeg Regional Health Authority, Manitoba Renal Program, Winnipeg, MB*

*Address correspondence to: Lori Wazny, PharmD, Dept. of Pharmaceutical Services, Health Sciences Centre, 820 Sherbrook St., Winnipeg, MB R3A 1R9*

*Email: Lwazny@hsc.mb.ca*

hemodialysis. These patients tend to be iron deficient for several reasons including increased blood losses from the hemodialysis procedure itself and increased blood laboratory testing. IV iron is also easy to administer to these patients, as it may be given any time during the hemodialysis procedure since no IV iron is removed by hemodialysis. A recent meta-analysis found a better hemoglobin response and that lower doses of erythropoietic stimulating agents (ESAs) were required when these patients received IV iron instead of oral iron (Rozen-Zvi et al., 2008). Other studies have also found that IV iron treatment in hemodialysis patients results in lower ESA doses (Fishbane, Frei, & Maesaka, 1995; Kapoian, 2008). This is desirable because a reduction in ESA doses leads to a substantial reduction in drug costs, as IV iron is significantly less expensive than ESAs. More recently there have been concerns raised that high-dose ESAs may exacerbate cardiovascular morbidity and mortality as a result of negative effects on endothelial function and thrombocytosis due to iron deficiency (Dahl, Henry, & Coyne, 2008; Vaziri & Zhou, 2009).

Peritoneal dialysis and non-dialysis patients with CKD typically receive oral iron first-line and IV iron is reserved for patients not meeting the TSAT and ferritin targets or who cannot tolerate oral iron due to adverse effects such as constipation or diarrhea. There are no randomized controlled trials that have examined the use of oral versus IV iron in peritoneal patients and the previous meta-analysis only included 12 patients receiving peritoneal dialysis (Rozen-Zvi et al., 2008). It is more difficult to administer IV iron to peritoneal dialysis and non-dialysis patients with CKD, as these patients are seen in the outpatient renal clinic setting and do not readily have IV access available. In non-dialysis patients with CKD, IV iron had a small but significant difference in increasing hemoglobin level versus oral iron (mean difference 3.1 g/L; 95% confidence interval 0.9–5.3 g/L) (Rozen-Zvi et al., 2008). The target dose of oral iron is 200 mg elemental iron per day (KDOQI & National Kidney Foundation, 2006). The percentage of elemental iron contained in the most common oral iron salts is provided in Table 3.

**Table 1. International iron targets for patients with CKD**

| Lab value | Canada (Madore et al., 2008) | U.S. (KDOQI & National Kidney Foundation, 2006) | Europe (Locatelli et al., 2009) | U.K. (National Institute for Clinical Excellence [NICE], 2011) | Australia (Roger & Caring for Australasians with Renal Impairment [CARI], 2006) |
|---|---|---|---|---|---|
| Ferritin | Nondialysis > 100 ng/mL<br>Dialysis > 200 ng/mL | Same as Canada | Same as Canada | 200–500 ng/mL | Not on ESA >100 ng/mL<br>During ESA therapy: 200–500 ng/mL |
| Maximum ferritin | > 800 ng/mL but consider iron if TSAT< 25%, high ESA dose (> 20,000 units/week epoetin alfa or > 100 ug/week darbepoetin), & Hgb below target | > 500 ng/mL hold iron | > 800 ng/mL | > 800 ng/mL | > 800 ng/mL |
| Transferrin saturation (TSAT) | ≥ 20% | Same as Canada | Same as Canada | > 20% unless ferritin > 800 ng/mL | Not on ESA > 20%<br>During ESA therapy: 30–40% TSAT > 40% hold iron |

*ESA: erythropoiesis stimulating agent*

**Table 2. Timing between IV iron and iron studies** *(KDOQI & National Kidney Foundation, 2006; Schwenk, 2010; Shalansky, Hanko, Pudek, Li, & Jastrzebski, 2011)*

| IV iron | Timing of ferritin and TSAT |
|---|---|
| Iron dextran | 100 mg dose—wait 1 week |
| | ≥ 500 mg dose—wait 2 weeks |
| Iron sucrose | 24–48 hours post dose |
| Sodium ferric gluconate | 24–48 hours post dose, but recent study from Vancouver suggests waiting 1 week |
| Ferumoxytol | 1–2 weeks |

**Table 3. Elemental iron content in oral iron salts**

| Iron salt | Percent elemental iron |
|---|---|
| Ferrous fumarate | 33% (300 mg tablet = 99 mg elemental iron) |
| Ferrous sulfate | 20% (300 mg tablet = 60 mg elemental iron) |
| Ferrous gluconate | 12% (300 mg tablet = 36 mg elemental iron) |
| Iron polysaccharide | 100% (150 mg elemental iron/capsule) |

*Note: IV iron concentrations are provided as elemental iron, therefore no conversion is necessary.*

## Intravenous iron products

There are three IV iron products available in Canada: iron dextran (DexIron®, Infufer®), sodium ferric gluconate (Ferrlecit®), and iron sucrose (Venofer®). Iron dextran requires administration of a 25 mg test dose the first time it is administered. The approved dose for patients receiving hemodialysis is 100 mg during the last hour of dialysis. However, iron dextran can also be administered by IV push over two minutes and also in larger doses of 1 g over one to three hours for non-dialysis CKD and peritoneal dialysis patients (Sandoz, 2011). Adverse reactions are primarily due to antibodies to the dextran component and include arthralgias and myalgias (typically chest and back tightness) in less than one in 200 patients (Auerbach & Al Talib, 2008). These reactions occur near the start of the infusion, abate within minutes, and do not occur upon rechallenge. Methylprednisolone 125 mg IV pre-infusion has been used successfully to treat these reactions (Auerbach & Al Talib, 2008). However, life-threatening and fatal anaphylaxis has occurred and appears to be higher than the nondextran IV irons in spontaneous adverse event reporting to the U.S. Food and Drug Administration (FDA) (see Table 4).

Sodium ferric gluconate and iron sucrose are covalently bound irons and have adverse reactions primarily due to the release of free iron. Typical adverse effects include hypotension, nausea and vomiting, and diarrhea. These reactions are most often seen near the end of the infusion when the concentration of free iron is highest. The approved doses are 125 mg over five to 10 minutes for sodium ferric gluconate and 200 mg over two to five minutes for iron sucrose. Maximum doses are 250 mg for sodium ferric gluconate and 300 mg to 500 mg for iron sucrose (Blaustein et al., 2003; Folkert et al., 2003; Schroder et al., 2004). Post-marketing spontaneous reporting does include the risk of life-threatening reactions such as anaphylactoid and anaphylactic shock, but at lower rates than iron dextran (see Table 4). Based on currently published studies, iron sucrose appears to have the most favourable safety profile (Coppol, Shelly, Cheng, Kaakeh, & Shepler, 2011). However, direct head-to-head comparisons designed to examine the safety of IV iron products in patients receiving hemodialysis are scarce and have serious limitations including small sample sizes, inclusion and exclusion criteria that limit external validity, and the use of retrospective historical control groups that contained patients who received both high (older product associated with more adverse reactions) and low molecular weight iron dextran (Coppol et al., 2011). As a result, others have argued these limitations do not support the viewpoint that nondextran irons are safer and that low molecular weight iron dextran can be used (Auerbach & Al Talib, 2008).

A new IV iron, ferumoxytol (Feraheme®), was approved for use in the United States in June 2009 and is not yet available in Canada. Ferumoxytol is an encapsulated iron and adverse reactions are primarily due to its polysaccharide coating (Wish, 2011). It is administered by a large dose rapid injection (510 mg over 17 seconds) that can be repeated three to eight days later. As a result, ferumoxytol may be useful in the management of patients with non-dialysis CKD or those receiving peritoneal dialysis who require IV iron in the outpatient setting. However, in the hemodialysis population, the use of regular smaller maintenance dosing of IV iron (e.g., 100 mg or 125 mg weekly or every two weeks) has been shown to lower ESA doses versus intermittent large-dose IV iron dosing, so the role of ferumoxytol in this patient population is not as certain (Coppol et al., 2011; Van Wyck, Bailie, & Aronoff, 2002). Interestingly, ferumoxytol is an ultrasmall superparamagnetic iron oxide and can also be used as a contrast agent for magnetic resonance imaging (MRI) in doses of 1 mg/kg to 4 mg/kg (Neuwelt et al., 2009). Administration of ferumoxytol may affect MRI imaging for up to three months (Lu, Cohen, Rieves, & Pazdur, 2010; AMAG Pharmaceuticals Inc., 2011). Ferumoxytol may be an alternative to gadolinium-based contrast agents, which have been associated with nephrogenic systemic fibrosis (NSF) in patients with Stage 4–5 CKD and acute kidney injury (Elmholdt et al., 2011). Head-to-head studies and long-term safety data are not yet available for ferumoxytol (Coppol et al., 2011). The most commonly reported adverse events in the randomized clinical trials included nausea, dizziness, hypotension, and peripheral edema (AMAG Pharmaceuticals Inc., 2011). In post-marketing spontaneous reports life-threatening anaphylactic-type reactions, cardiac/cardiorespiratory arrest, syncope, tachycardia/rhythm abnormalities, angioedema, ischemic myocardial events, congestive heart failure, absent pulse, and cyanosis (AMAG Pharmaceuticals Inc., 2011). Patients must be observed for at least 30 minutes after an infusion of ferumoxytol.

## Safety concerns with iron therapy

There are safety concerns with repeated administration of iron. Iron overload can lead to organ damage due to hemochromatosis. However, these patients tend to have dramatically higher ferritin levels than observed in the dialysis population (Madore et al., 2008). Several observational studies in hemodialysis patients have shown associations between ferritin levels > 500 ng/mL and infections (Boelaert et al., 1990; Hoen, Kessler, Hestin, & Mayeux, 1995; Jurado, 1997; Madore et al., 2008). Experimental studies in animals have suggested that IV iron is harmful in the presence of severe infections and, hence, it should be used with caution or discontinued in patients with an active infection (Madore et al., 2008). Free iron is also linked to oxidative stress and there is some evidence that oxidative stress may be linked to the development of atherosclerosis and cardiovascular disease in patients with CKD (Agarwal,

**Table 4. IV iron adverse reactions reported to the FDA** *(Chertow, Mason, Vaage-Nilsen, & Ahlmen, 2006; Schwenk, 2010)*

| IV iron | Major adverse reactions | Life-threatening adverse reactions |
|---|---|---|
| Dexferrum (iron dextran*) | 12/100,000 | 11.3/million |
| INFeD (iron dextran*) | 4/100,000 | 3.3/million |
| Iron sucrose | 2/100,000 | 0.9/million |
| Sodium ferric gluconate | 2/100,000 | 0.6/million |

* *This brand of iron dextran not available in Canada*

Vasavada, Sachs, & Chase, 2004). The currently available IV iron products differ in their release of free iron with ferumoxytol < iron dextran < iron sucrose < sodium ferric gluconate (Schwenk, 2010).

Despite the widespread use of iron therapy in patients with CKD, no randomized controlled trials have examined the long-term effects of iron therapy with the published trials only lasting two to three months in duration.

### Future agents

Ferric carboxymaltose is another encapsulated IV iron that can be administered as a large-dose rapid injection. This agent is approved in Europe and is undergoing phase 3 trials in the United States: *Evaluation of efficacy and safety of ferric carboxymaltose (FCM) in patients with iron deficiency anemia and impaired renal function (REPAIR-IDA).* NCT00981045 (ClinicalTrials.gov, 2009). Iron pyrophosphate is an iron additive to the hemodialysis dialysate and is also in phase 3 clinical trials: *Dose ranging study of dialysate containing soluble iron to treat subjects with end stage renal disease (ESRD) receiving chronic hemodialysis.* NCT00548249 (ClinicalTrials.gov, 2007). Iron pyrophosphate is effective in iron replete patients in order to maintain iron targets, but it does not provide enough iron to correct an iron deficit (Gupta et al., 1999).

### Interprofessional IV iron management

Interprofessional care of CKD patients has been advocated (Barrett, 2003; Valderrabano, Golper, Muirhead, Ritz, & Levin, 2001). With regards to anemia and iron management, nephrology nurses and clinical pharmacists have demonstrated benefits in cooperative anemia care with nephrologists, including better achievement of iron targets and lower ESA doses through either algorithms or management protocols in patients receiving dialysis and those with non-dialysis CKD (Bacchus, O'Mara, Manley, & Fishbane, 2009; Bayliss, Bhardwaja, Ross, Beck, & Lanese, 2011; Bennett, 1998; Calissi, Pylypchuk, & Stryker, 2004; Curtis et al., 2005; Dixon, Borden, Kaneko, & Schoolwerth, 2011; Goldstein, Yassa, Dacouris, & McFarlane, 2004; Joy et al., 2005; Patterson & Allon, 1998).

### Summary

Interest in optimizing iron management in the treatment of anemia of CKD is growing due to concerns that high doses of ESAs may have deleterious effects and the high cost of ESAs in comparison to iron therapy. International guidelines have defined iron targets for this patient population, but there are some unanswered questions with respect to long-term use of iron, such as the maximum TSAT or ferritin concentration and concerns with oxidative stress. Large head-to-head safety studies of the different IV iron preparations have not been performed to date and current safety data rely on small studies and spontaneous adverse event reporting. Interprofessional management of anemia, including iron therapy, has shown beneficial effects and should be encouraged.

## References


Agarwal, R., Vasavada, N., Sachs, N.G., & Chase, S. (2004). Oxidative stress and renal injury with intravenous iron in patients with chronic kidney disease. *Kidney International, 65*(6), 2279–2289.

AMAG Pharmaceuticals Inc. (2011, June). *Product Information. Feraheme (ferumoxytol injection).* Lexington, MA: AMAG Pharmaceuticals Inc.

Auerbach, M., & Al Talib, K. (2008). Low-molecular weight iron dextran and iron sucrose have similar comparative safety profiles in chronic kidney disease. *Kidney International, 73*(5), 528–530.

Bacchus, S., O'Mara, N., Manley, H., & Fishbane, S. (2009). Meeting new challenges in the management of anemia of chronic kidney disease through collaborative care with pharmacists. *The Annals of Pharmacotherapy, 43*(11), 1857–1866.

Barrett, B.J. (2003). Applying multiple interventions in chronic kidney disease. *Seminars in Dialysis, 16*(2), 157–164.

Bayliss, E.A., Bhardwaja, B., Ross, C., Beck, A., & Lanese, D.M. (2011). Multidisciplinary team care may slow the rate of decline in renal function. *Clinical Journal of the American Society of Nephrology: CJASN, 6*(4), 704–710.

Bennett, L. (1998). The anaemia research nurse in effective multi-disciplinary management of patients on erythropoietin. *EDTNA/ERCA Journal* (English Ed.), *24*(3), 38–39.

Blaustein, D.A., Schwenk, M.H., Chattopadhyay, J., Singh, H., Daoui, R., Gadh, R., et al. (2003). The safety and efficacy of an accelerated iron sucrose dosing regimen in patients with chronic kidney disease. *Kidney International, Supplement, 87*(87), S72–77.

Boelaert, J.R., Daneels, R.F., Schurgers, M.L., Matthys, E.G., Gordts, B.Z., & Van Landuyt, H.W. (1990). Iron overload in haemodialysis patients increases the risk of bacteraemia: A prospective study. *Nephrology, Dialysis, Transplantation, 5*(2), 130–134.

Calissi, P.T., Pylypchuk, G.B., & Stryker, R. (2004). Epoetin alfa resistance: Valuation of a management algorithm. *Canadian Journal of Hospital Pharmacy, 57*, 18–26.

Chertow, G.M., Mason, P.D., Vaage-Nilsen, O., & Ahlmen, J. (2006). Update on adverse drug events associated with parenteral iron. *Nephrology, Dialysis, Transplantation, 21*(2), 378–382.

ClinicalTrials.gov (2009, September). *Evaluation of efficacy and safety of ferric carboxymaltose (FCM) in patients with iron deficiency anemia and impaired renal function (REPAIR-IDA).* NCT00981045. Retrieved from http://clinicaltrials.gov/ct2/results?term=NCT00981045

ClinicalTrials.gov (2007, October). *Dose ranging study of dialysate containing soluble iron to treat subjects with end stage renal disease (ESRD) receiving chronic hemodialysis.* NCT00548249. Retrieved from http://clinicaltrials.gov/ct2/resuts?term=NCT00548249

Coppol, E., Shelly, J., Cheng, S., Kaakeh, Y., & Shepler, B. (2011, February). A comparative look at the safety profiles of intravenous iron products used in the hemodialysis population. *The Annals of Pharmacotherapy, 45*(2), 241–247.

Coyne, D.W., Kapoian, T., Suki, W., Singh, A.K., Moran, J.E., Dahl, N.V., et al. (2007). Ferric gluconate is highly efficacious in anemic hemodialysis patients with high serum ferritin and low transferrin saturation: Results of the dialysis patients' response to IV iron with elevated ferritin (DRIVE) study. *Journal of the American Society of Nephrology, 18*(3), 975–984.

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

Dahl, N.V., Henry, D.H., & Coyne, D.W. (2008). Thrombosis with erythropoietic stimulating agents-does iron-deficient erythropoiesis play a role? *Seminars in Dialysis, 21*(3), 210–211.

Dixon, J., Borden, P., Kaneko, T.M., & Schoolwerth, A.C. (2011). Multidisciplinary CKD care enhances outcomes at dialysis initiation. *Nephrology Nursing Journal, 38*(2), 165–171.

Elmholdt, T.R., Pedersen, M., Jorgensen, B., Sondergaard, K., Jensen, J.D., Ramsing, M., et al. (2011). Nephrogenic systemic fibrosis is only found among gadolinium-exposed kidney-insufficient patients: A case-control study from Denmark. *The British Journal of Dermatology, 165*(4), 828–836.

Fishbane, S., Frei, G.L., & Maesaka, J. (1995). Reduction in recombinant human erythropoietin doses by the use of chronic intravenous iron supplementation. *American Journal of Kidney Diseases, 26*(1), 41–46.

Folkert, V.W., Michael, B., Agarwal, R., Coyne, D.W., Dahl, N., Myirski, P., et al. (2003). Chronic use of sodium ferric gluconate complex in hemodialysis patients: Safety of higher-dose (> or = 250 mg) administration. *American Journal of Kidney Diseases, 41*(3), 651–657.

Goldstein, M., Yassa, T., Dacouris, N., & McFarlane, P. (2004). Multidisciplinary predialysis care and morbidity and mortality of patients on dialysis. *American Journal of Kidney Diseases, 44*(4), 706–714.

Gupta, A., Amin, N.B., Besarab, A., Vogel, S.E., Divine, G.W., Yee, J., et al. (1999). Dialysate iron therapy: Infusion of soluble ferric pyrophosphate via the dialysate during hemodialysis. *Kidney International, 55*(5), 1891–1898.

Hoen, B., Kessler, M., Hestin, D., & Mayeux, D. (1995). Risk factors for bacterial infections in chronic haemodialysis adult patients: A multicentre prospective survey. *Nephrology, Dialysis, Transplantation, 10*(3), 377–381.

Joy, M.S., DeHart, R.M., Gilmartin, C., Hachey, D.M., Hudson, J.Q., Pruchnicki, M., et al. (2005). Clinical pharmacists as multidisciplinary health care providers in the management of CKD: A joint opinion by the nephrology and ambulatory care practice and research networks of the American college of clinical pharmacy. *American Journal of Kidney Diseases, 45*(6), 1105–1118.

Jurado, R.L. (1997). Iron, infections, and anemia of inflammation. *Clinical Infectious Diseases, 25*(4), 888–895.

Kapoian, T. (2008). Challenge of effectively using erythropoiesis-stimulating agents and intravenous iron. *American Journal of Kidney Diseases, 52*(6 Suppl.), S21–8.

Kapoian, T., O'Mara, N.B., Singh, A.K., Moran, J., Rizkala, A.R., Geronemus, R., et al. (2008). Ferric gluconate reduces epoetin requirements in hemodialysis patients with elevated ferritin. *Journal of the American Society of Nephrology, 19*(2), 372–379.

KDOQI, & National Kidney Foundation. (2006). KDOQI clinical practice guidelines and clinical practice recommendations for anemia in chronic kidney disease. *American Journal of Kidney Diseases, 47*(5, Suppl. 3), S11–145.

Locatelli, F., Covic, A., Eckardt, K.U., Wiecek, A., Vanholder, R., & ERA-EDTA ERBP Advisory Board. (2009). Anaemia management in patients with chronic kidney disease: A position statement by the anaemia working group of European renal best practice (ERBP). *Nephrology, Dialysis, Transplantation, 24*(2), 348–354.

Lu, M., Cohen, M.H., Rieves, D., & Pazdur, R. (2010). FDA report: Ferumoxytol for intravenous iron therapy in adult patients with chronic kidney disease. *American Journal of Hematology, 85*(5), 315–319.

Madore, F., White, C.T., Foley, R.N., Barrett, B.J., Moist, L.M., Klarenbach, S.W., et al. (2008). Clinical practice guidelines for assessment and management of iron deficiency. *Kidney International. Supplement*, (110), S7–S11.

National Institute for Clinical Excellence (NICE). (2011, February). Anemia management in people with chronic kidney disease. Clinical guideline 114. Retrieved from http://guidance.nice.org.uk/CG114/NICEGuidance/pdf/English

Neuwelt, E.A., Hamilton, B.E., Varallyay, C.G., Rooney, W.R., Edelman, R.D., Jacobs, P.M., et al. (2009). Ultrasmall superparamagnetic iron oxides (USPIOs): A future alternative magnetic resonance (MR) contrast agent for patients at risk for nephrogenic systemic fibrosis (NSF)? *Kidney International, 75*(5), 465–474.

Patterson, P., & Allon, M. (1998). Prospective evaluation of an anemia treatment algorithm in hemodialysis patients. *American Journal of Kidney Diseases, 32*(4), 635–641.

Roger, S., & Caring for Australasians with Renal Impairment (CARI). (2006). The CARI guidelines. Haematological targets. Iron. *Nephrology (Carlton, Vic.), 11*(Suppl. 1), S217–229.

Rozen-Zvi, B., Gafter-Gvili, A., Paul, M., Leibovici, L., Shpilberg, O., & Gafter, U. (2008). Intravenous versus oral iron supplementation for the treatment of anemia in CKD: Systematic review and meta-analysis. *American Journal of Kidney Diseases, 52*(5), 897–906.

Sandoz. (2011). *Infufer product monograph*. Boucherville, QC: Sandoz.

Schroder, O., Schrott, M., Blumenstein, I., Jahnel, J., Dignass, A.U., & Stein, J. (2004). A study for the evaluation of safety and tolerability of intravenous high-dose iron sucrose in patients with iron deficiency anemia due to gastrointestinal bleeding. *Zeitschrift Fur Gastroenterologie, 42*(8), 663–667.

Schwenk, M.H. (2010). Ferumoxytol: A new intravenous iron preparation for the treatment of iron deficiency anemia in patients with chronic kidney disease. *Pharmacotherapy, 30*(1), 70–79.

Shalansky, K., Hanko, J., Pudek, M., Li, G., & Jastrzebski, J. (2011). Iron indices after administration of sodium ferric gluconate complex in hemodialysis patients. *American Journal of Kidney Diseases, 58*(4), 684–685.

Spiegel, D.M., & Chertow, G.M. (2009). Lost without directions: Lessons from the anemia debate and the drive study. *Clinical Journal of the American Society of Nephrology, 4*(5), 1009–1010.

Szczech, L.A., Barnhart, H.X., Sapp, S., Felker, G.M., Hernandez, A., Reddan, D., et al. (2010). A secondary analysis of the CHOIR trial shows that comorbid conditions differentially affect outcomes during anemia treatment. *Kidney International, 77*(3), 239–246.

Valderrabano, F., Golper, T., Muirhead, N., Ritz, E., & Levin, A. (2001). Chronic kidney disease: Why is current management uncoordinated and suboptimal? *Nephrology, Dialysis, Transplantation, 16*(Suppl. 7), 61–64.

Van Wyck, D.B., Bailie, G., & Aronoff, G. (2002). Just the FAQs: Frequently asked questions about iron and anemia in patients with chronic kidney disease. *American Journal of Kidney Diseases, 39*(2), 426–432.

Vaziri, N.D., & Zhou, X.J. (2009). Potential mechanisms of adverse outcomes in trials of anemia correction with erythropoietin in chronic kidney disease. *Nephrology, Dialysis, Transplantation, 24*(4), 1082–1088.

Wish, J.B. (2011). *Anemia in patients with end-stage renal disease undergoing dialysis: Efficacy and safety of current and investigational treatment options*. Retrieved from www.medscape.org/viewarticle/739595

Zhang, Y., Thamer, M., Kaufman, J.S., Cotter, D.J., & Hernan, M.A. ( 2011). High doses of epoetin do not lower mortality and cardiovascular risk among elderly hemodialysis patients with diabetes. *Kidney International, 80*(6), 663–669.

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

# Iron replacement and supplementation in patients with chronic kidney disease

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

*Copyright © 2011 Canadian Association of Nephrology Nurses and Technologists*

**1. The Canadian guidelines for iron deficiency recommend which target ferritin in patients receiving dialysis?**
(a) > 100 ng/mL
(b) > 200 ng/mL
(c) > 500 ng/mL
(d) > 800 ng/mL

**2. Serum ferritin will increase if a patient has an infection or inflammation present.**
(a) true
(b) false

**3. A patient receives iron sucrose (Venofer®) 100 mg IV on their Wednesday hemodialysis session. On which following day can their transferrin saturation (TSAT) and ferritin be accurately measured?**
(a) Monday
(b) Friday
(c) one week later
(d) two weeks later

**4. Which of the following oral iron preparations contains the highest percentage of elemental iron?**
(a) ferrous gluconate
(b) ferrous sulfate
(c) ferrous fumarate
(d) Apo-ferrous gluconate®

**5. What is the maximum dose of IV sodium ferric gluconate (Ferrlecit®) that can be administered at one time?**
(a) 125 mg
(b) 250 mg
(c) 375 mg
(d) 500 mg

**6. Which of the following iron preparations requires a test dose before administration?**
(a) sodium ferric gluconate (Ferrlecit®)
(b) iron sucrose (Venofer®)
(c) iron dextran (DexIron®)
(d) ferumoxytol (Feraheme®)

**7. Safety concerns with iron therapy include which of the following?**
(a) infections
(b) oxidative stress
(c) atherosclerosis
(d) all of the above

**8. How quickly can 510 mg of ferumoxytol (Feraheme®), an encapsulated IV iron, be administered?**
(a) 17 seconds
(b) 1 minute
(c) 15 minutes
(d) 1 hour

**9. Collaborative management of anemia between nephrology nurses or pharmacists and nephrologists have resulted in better achievement of iron targets and lower erythropoiesis stimulating agent (ESA) doses.**
(a) true
(b) false

**10. Unanswered questions about iron management in patients with chronic kidney disease include which of the following?**
(a) maximum ferritin concentration
(b) role of oxidative stress and repeated IV iron therapy
(c) safety of repeated IV iron administration beyond two to three months of treatment
(d) all of the above

CONTINUING EDUCATION STUDY ANSWER FORM

CE: 2.0 hrs continuing education

# Iron replacement and supplementation in patients with chronic kidney disease

Volume 21, Number 4

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

### 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,
  336 Yonge St., Ste. 322,
  Barrie, ON, L4N 4C8
  or submit online to www.cannt.ca
- Enclose a cheque or money order payable to CANNT.
- Post-tests must be postmarked by December 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.

**CANNT member – $12 + HST ($13.56); Non-member – $15 + HST ($16.95)**

## 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 _____

# *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.

**Checklist for authors**

✓ Cover letter
✓ Article
- Title page to include the following:
  - title of article
  - each author's name (including full first name)
  - professional qualifications
  - position
  - place of employment
  - author to whom correspondence is to be sent, including address, phone, fax number, and email address
- Text of article, with abstract if applicable, **double-spaced, pages numbered**
- References (on a separate sheet)
- Tables (one per page)
- Illustrations (one per page)
- Letters of permission to reproduce previously published material.

# *Lignes directrices à l'intention des auteurs*

**Le Journal de l'Association canadienne des infirmières et infirmiers et des technologues de néphrologie** (**ACITN**) vous invite à faire parvenir articles, textes et manuscrits originaux pour publication dans son journal trimestriel. Nous sommes heureux d'accepter vos documents soumis dans l'une ou l'autre des langues officielles, anglais ou français.

**Quels sont les sujets d'article appropriés ?**
Nous acceptons les articles portant sur des manuscrits récemment publiés, des activités de l'Association ou tout sujet d'intérêt pour les membres de l'ACITN.

**Quels types de manuscrits conviennent à la publication ?**
Nous préférons des manuscrits qui présentent de nouveaux renseignements cliniques ou qui traitent des enjeux propres aux champs d'intérêt des infirmières et infirmiers et des technologues en néphrologie. Nous recherchons plus particulièrement :

- Exposés de recherche originaux
- Articles cliniques pertinents
- Rapports sur des approches innovatrices en matière d'amélioration de la qualité
- Textes narratifs relatant une expérience de pratique infirmière ou technologique
- Textes sous forme de questions et de réponses sur la pratique interdisciplinaire
- Revues d'articles courants, de livres et films
- Articles en éducation continue.

**Comment les manuscrits doivent-ils être présentés ?**
**Forme :** Le manuscrit doit être présenté à double interligne avec une marge de 1 po et une numérotation consécutive des pages dans le coin supérieur droit de la page. Les articles plus formels de recherche ou d'études cliniques doivent compter de 5 à 15 pages. Les articles moins formels, tels que textes narratifs, questions-réponses ou revues, doivent compter moins de 5 pages.
**Style :** Le style du manuscrit doit être conforme au manuel de publication de l'Association américaine de psychologie (AAP), 6e édition (2009), offert dans la plupart des librairies universitaires.
**Page titre :** La page titre doit inclure le titre du manuscrit ainsi que les renseignements suivants : nom de chacun des auteurs (incluant prénoms au complet), titres professionnels (c.-à-d., inf., B.Sc.Inf., CNéph[C]), titre du poste occupé, nom de l'employeur, adresse, numéros de téléphone et de télécopieur et adresse courriel. L'adresse privilégiée de correspondance doit aussi être indiquée.
**Résumé :** Sur une page distincte, les articles formels de recherche ou d'études cliniques doivent être accompagnés d'un résumé de 100 à 150 mots, reprenant brièvement les principaux points du manuscrit.
**Texte :** Les sigles, abréviations ou acronymes doivent être écrits au long la première fois qu'ils apparaissent dans le texte, suivis de l'abréviation entre parenthèses; p. ex., Association canadienne des infirmières et infirmiers et des technologues de néphrologie (ACITN). Les noms génériques des médicaments doivent être employés. Les unités de mesure doivent être indiquées selon le Système international d'unités (SI). Les références doivent être citées dans le texte en utilisant le format de l'AAP. Une liste de références comprenant la bibliographie complète de toutes les références utilisées doit suivre le texte.

**Tableaux/Figures :** Les manuscrits ne doivent inclure que les tableaux et figures (incluant schémas, illustrations, croquis, etc.) visant à clarifier certains détails. Les auteurs qui utilisent des tableaux et des figures qui ont déjà fait l'objet d'une publication doivent fournir l'autorisation écrite de l'éditeur d'origine et la joindre au manuscrit soumis.

**De quelle manière doit-on soumettre les manuscrits ?**
Veuillez envoyer par courriel votre manuscrit à :
**gillianbrunier@sympatico.ca**
Veuillez inclure une lettre de présentation en précisant les coordonnées de l'auteur principal ainsi qu'une notice biographique d'une phrase (incluant titres de compétences, titre du poste actuel et lieu de travail) pour chaque auteur.

**Quel est le processus de sélection des manuscrits pour publication dans le Journal de l'ACITN ?**
À la réception de chaque manuscrit, un accusé de réception est envoyé. Les articles de recherche et d'études cliniques sont envoyés à deux membres du comité de révision du **Journal de l'ACITN** afin d'être révisés suivant un processus à double insu. Tous les articles peuvent être retournés aux auteurs pour révision et nouvelle soumission par la suite. Les manuscrits acceptés pour publication peuvent subir des changements éditoriaux; toutefois, les auteurs pourront approuver ces changements. Les critères d'acceptation pour tous les manuscrits comprennent l'originalité des idées, l'actualité du sujet, la qualité du matériel et l'attrait des lecteurs.
Les auteurs doivent prendre note que les manuscrits seront considérés pour publication à la condition qu'ils ne soient soumis qu'au **Journal de l'ACITN.** Sur acceptation du matériel soumis, les auteurs transfèrent leur droit d'auteur à l'ACITN. Aucune reproduction n'est permise sans l'autorisation écrite du **Journal de l'ACITN.** Les déclarations et opinions émises par les auteurs dans leurs articles, textes ou manuscrits demeurent leur responsabilité. La rédactrice en chef se réserve le droit d'accepter ou de refuser tout manuscrit.

**Aide-mémoire à l'intention des auteurs**

✓ Lettre de présentation
✓ Article
- Page titre incluant les renseignements suivants :
  - Titre de l'article
  - Nom de chaque auteur (incluant prénoms au complet)
  - Titres de compétences
  - Titre du poste actuel
  - Nom et adresse de l'employeur
  - Nom de l'auteur à qui la correspondance doit être envoyée (incluant adresse, numéros de téléphone et de télécopieur et adresse courriel)
- Texte de l'article avec résumé, s'il y a lieu à **double interligne et pages numérotées**
- Références (sur une feuille distincte)
- Tableaux (un par page)
- Figures (une par page)
- Lettre d'autorisation pour tout matériel ayant déjà fait l'objet d'une publication

Protection with a *twist* of orange.™

SwabCap®

Bathes Luer Access Valve top and threads with 70% IPA

Protects Luer Access Valve between line accesses.

Achieve disinfection and protection of all your Luer Access Valves**

How are you ensuring aseptic line access*?

Peel. Twist. Protect.

Distributed by:

chs®
905.825.9300
or 1-800-461-1423
www.chsltd.com

EXCELSIOR MEDICAL

**Corporate Headquarters – Excelsior Medical Corporation**
1933 Heck Avenue, Neptune, NJ 07753
Toll Free 800.487.4276 • Main Phone 732.776.7525 • Fax 732.776.7600
**For more information go to www.asepticaccess.com**

* Aseptic Access is defined as methods used to protect against infection into the line by pathogenic microorganisms.

** Not compatible with Baxter's INTERLINK system.

# DID YOU KNOW...?

***Now it's even easier for you to get hold of the CANNT/ACITN National Office***

1) Call TOLL-FREE from anywhere in Canada/US: 1-877-720-2819 or local dial 705-720-2819
2) email: cannt@cannt.ca
3) Fax: 705-720-1451
4) Mail: 336 Yonge Street, Suite 322, Barrie, ON L4N 4C8

***STAY CONNECTED—WE'RE HERE TO HELP***

Roche

Pr cathflo®
(alteplase) 2 mg

PrCATHFLO® (alteplase, recombinant) is indicated for the restoration of function to central venous access devices.
Product monograph available at www.rochecanada.com

Roche Registered Trade-Mark of Hoffmann-La Roche Limited

CATHFLO® Registered Trade-Mark of Genentech, Inc., used under licence

Hoffmann-La Roche Limited
Mississauga, ON L5N 6L7

PAAB Member R&D

# CANNT Membership

First Name _____

Last Name _____

Home Address _____

City _____

Province _____ Postal Code _____

Telephone (H) (_____) _____ - _____

(W) (_____) _____ - _____

Fax (_____) _____ - _____

Email _____

Employer _____

Employer Address _____

City _____

Province _____ Postal Code _____

Mailing Address Preferred ❏ Home ❏ Work

Do you consent to the use of your name and address on mailing lists that CANNT has considered pertinent and appropriate? ❏ Yes ❏ No

❏ New Member or ❏ Renewal

CANNT # (if renewal): _____

Person who recommended joining CANNT: _____

**Membership Fee** (GST #100759869)
*Membership fee is tax deductible.*
❏ One Year: $70.00 + HST/GST
❏ Two Years: $130.00 + HST/GST
❏ Student Rate: $35.00 + HST/GST*
**Proof of full-time enrolment must accompany application*
BC: 12% HST; AB/SK/MB/PE/NT/NU/QC/YT: 5% GST;
ON/NL: 13% HST; NS: 15% HST

I enclose $ _____
made payable to Canadian Association of Nephrology Nurses and Technologists.

**Method of payment:**
❏ Cheque ❏ Money order ❏ Visa ❏ Mastercard

Cardholder Name: _____

Visa Number: _____

Expiry Date: _____

Signature: _____

❏ I have attained CNeph(C)/cdt designation
Year of designation _____

Professional registration # _____

Date last renewed: _____

❏ I am a member of CNA

**Ontario applicants only**
Do you belong to RNAO?
❏ 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
❏ Hemodialysis
❏ Peritoneal
❏ Pediatrics
❏ Other (Specify) _____

Return to **CANNT**
*Mailing Address:*

Debbie Maure, CANNT,
Suite #322, 336 Yonge St., Barrie, Ontario, L4N 4C8
Telephone (705) 720-2819 Fax (705) 720-1451

# *Demande d'adhésion*

Prénom _____

Nom de famille _____

Adresse à domicile _____

Ville _____

Province _____ Code postal _____

Téléphone (D) (_____) _____ - _____

(T) (_____) _____ - _____

Télécopieur (_____) _____ - _____

Courrier électronique _____

Employeur _____

Adresse de l'employeur _____

Ville _____

Province _____ Code postal _____

Adresse de correspondance ❏ domicile ❏ travail

Acceptez-vous que l'ACITN ajoute votre nom et votre adresse sur des listes d'envois qu'elle juge pertinentes et appropriées? ❏ Yes ❏ No

❏ Nouveau membre ou ❏ Renouvellement

Numéro de l'ACITN # (si renouvellement): _____

Nom de la personne qui vous a recommandé de joindre l'ACITN : _____

**Frais d'adhésion** (TPS #100759869)
*Les frais d'adhésion sont deductibles d'impots.*
❏ Un an : 70,00 $ + TVH/TPS
❏ Deux ans : 130,00 $ + TVH/TPS
❏ Tarif étudiant : 35,00 $ + TVH/TPS*
**La demande doit inclure une preuve d'inscription à plein temps*
BC : 12 % TVH; AB/SK/MB/PE/NT/NU/QC/YT : 5 % TPS; ON/NL : 13 % HST; NS : 15 % TVH

Je joins $ _____
payable à l'ACITN.

**Mode de paiement :**
❏ Chèque ❏ Mandat de poste ou chèque visé
❏ Visa ❏ Mastercard

Nom du titulaire de la carte : _____

Numéro de la carte : _____

Date d'expiration : _____

Signature : _____

❏ J'ai obtenu la désignation CNeph(C)/cdt
Année de désignation _____

Numéro d'enregistrement professionnel : _____

Date du dernier renouvellement : _____

❏ Je suis membre de l'ACI

**Demandeurs de l'Ontario seulement**
Faites vous partie de l'AOIA?
❏ Oui ❏ Non

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

Années d'éxperience en néphrologie _____

**Domaine de responsabilité**
❏ Soins directs
❏ Administration
❏ Technologie
❏ Enseignement
❏ Recherche
❏ Autre (spécifier)
_____

**Milieu de travail**
❏ Soins actifs
❏ Unité d'autosoins
❏ Services de santé indépendants
❏ Secteur privé

**Plus haut niveau d'instruction?**

| *Infirmière(ier)* | *Autres* |
|---|---|
| ❏ Diplôme | ❏ Diplôme |
| ❏ Baccalauréat | ❏ Baccalauréat |
| ❏ Maîtrise | ❏ Maîtrise |
| ❏ Doctorat | ❏ Doctorat |

**Je poursuis présentement des études**

| *Domaine infirmière(ier)* | *Autre domaine* |
|---|---|
| ❏ Certificat | ❏ Certificat |
| ❏ Baccalauréat | ❏ Baccalauréat |
| ❏ Maîtrise | ❏ Maîtrise |
| ❏ Doctorat | ❏ Doctorat |

**Secteur de pratique spécialisé**
❏ Insuffisance rénale progressive (pré-dialyse)
❏ Transplantation
❏ Hémodialyse
❏ Péritonéale
❏ Pédiatrie
❏ Autre (spécifier) _____

Poster à **ACITN**
*Adresse postale :*

Debbie Maure, ACITN,
336 Yonge St., pièce 322, Barrie, Ontario, L4N 4C8
Téléphone (705) 720-2819 Télécopieur (705) 720-1451