Fall 2010
Volume 21,
Number 3

DYNAMICS

The Official Journal of the Canadian Association of Critical Care Nurses

Index:

Canadian Association of Critical Care Nurses

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Volume Twenty-One, Number Three
Fall 2010

DYNAMICS

The Official Journal of the Canadian Association of Critical Care Nurses

DYNAMICS
The Official Journal of the Canadian Association of Critical Care Nurses is the only peer-reviewed critical care journal in Canada, and is published four times annually by Pappin Communications, Pembroke, Ontario.
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Send manuscript enquiries or submissions to Paula Price, ACCN Program, Faculty of Health and Community Studies, Mount Royal University, 4825 Mount Royal Gate S.W., Calgary, Alberta T3E 6K6

DYNAMICS
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Canadian Association of Critical Care Nurses

Vision statement

The voice for excellence in Canadian Critical Care Nursing

Mission statement

The CACCN is a non-profit, specialty organization dedicated to maintaining and enhancing the quality of patient- and family-centred care by meeting educational needs of critical care nurses.

Engages and empowers nurses through education and networking to advocate for the critical care nurse.

Develops current and evidence-informed standards of critical care nursing practice.

Identifies professional and political issues and provides a strong unified national voice through our partnerships.

Facilitates learning opportunities to achieve Canadian Nurses Association's certification in critical care.

Values and beliefs statement

Our core values and beliefs are:

- Excellence and Leadership
  - Collaboration and partnership
  - Pursuing excellence in education, research, and practice
- Dignity & Humanity
  - Respectful, healing and humane critical care environments
  - Combining compassion and technology to advocate and promote excellence
- Integrity & Honesty
  - Accountability and the courage to speak for our beliefs
  - Promoting open and honest relationships

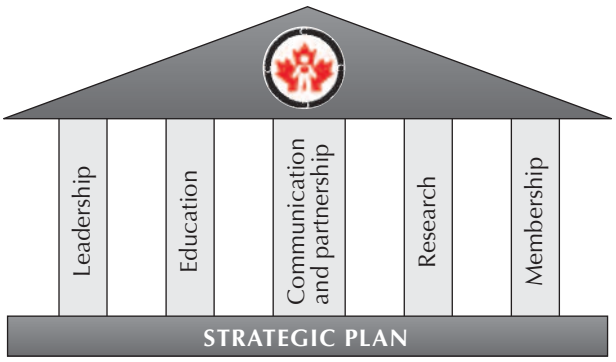
Philosophy statement

Critical care nursing is a specialty that exists to care for patients who are experiencing life-threatening health crises within a patient/family-centred model of care. Nursing the critically ill patient is continuous and intensive, aided by technology. Critical care nurses require advanced problem solving abilities using specialized knowledge regarding the human response to critical illness.

The critical care nurse works collaboratively within the interprofessional team, and is responsible for coordinating patient care using each member's unique talents and scope of practice to meet patient and family needs. Each patient has the right to receive care based on his/her personal preferences. The critically ill patient must be cared for with an appreciation of his or her wholeness, integrity, and relation to family and environment. Critical care nurses plan, coordinate and implement care with the health care team to meet the physical, psychosocial, cultural and spiritual needs of the patient and family. The critical care nurse must balance the need for the highly technological environment with the need for safety, privacy, dignity and comfort.

Critical care nurses are at the forefront of critical care science and technology. Lifelong learning and the spirit of enquiry are essential for the critical care nurse to enhance professional competencies and to advance nursing practice. The critical care nurse's ability to make sound clinical nursing judgments is based on a solid foundation of knowledge and experience.

Strategic plan: Five pillars



1. ***Leadership:***
   - Lead collaborative teams in critical care interprofessional initiatives
   - Develop, revise and evaluate CACCN Standards of Care and Position Statements
   - Develop a political advocacy plan
2. ***Education:***
   - Provision of excellence in education
   - Advocate for critical care certification
3. ***Communication & Partnership:***
   - Networking with our critical care colleagues
   - Enhancement and expansion of communication with our members
4. ***Research:***
   - Encouraging, supporting, facilitating to advance the field of critical care
5. ***Membership***
   - Strive for a steady and continued increase in CACCN membership

Critical Thinking

"From Sea to Sea to Sea"

As I write this column on July 1, Canada Day, I am sitting in my hotel room in Happy Valley-Goose Bay, Labrador, gathered for a family wedding celebration. Although I have been to every province in Canada and have driven across the country several times, this is my first visit to Labrador. As I flew in over the rocky north Atlantic coastline and gazed down at the rugged, densely forested terrain, I marvelled about the diversity of the landscape of Canada from sea to sea to sea. Where we live and work influence our experiences and contribute to the richness of the makeup of the people of Canada and all that it means to be Canadian. The majesty of the landscape, the splendour of the heritage of our country, combined with the diversity of its people are what makes Canada unique. In another way, it is also what gives us unity, as we proudly proclaim, "We are Canadian!" So, although I do not know many people in this community of 7,572 people, I am connected to them because we are all Canadians. As I have had the pleasure to meet some of the people from this area, it is obvious to me the pride they have in being a Labradorian and living in a community accessible only by air or a bumpy drive over 600 kilometres of dusty dirt roads. In such a short time here, we have already shared our stories of where we are from, what it is like to live where we do and described what we love about the kinds of experiences we have and the lifestyles we enjoy. We have learned a little bit about another part of Canada from each other. By sharing this information with one another, we have broadened our knowledge of another area in the country and strengthened our identity as Canadians.

CACCN mirrors that type of diversity, as well, with more than 1,100 members from sea to sea to sea, from a variety of backgrounds, working and practising nursing in a vast range of critical care units. The landscape may be different where we work, but what unites us is our shared interest in advancing critical care nursing practice through membership in our national professional critical care nursing association. As the national board of directors (BOD) speaks to issues on behalf of members, develops position statements on topics of interest or concern, develops our standards of practice for critical care nursing, and shares information on our website (www.caccn.ca), we do so based on the collective wisdom of the members from across the country. Our strength comes from sharing our individual and local knowledge and experience from the units in which we work in order to improve the national standard of care we provide to critically ill patients and their families. Through CACCN's membership on the Council of the World Federation of Critical Care Nurses (WFCCN) we are further able to expand our horizons by our participation in a global forum and network of 37 countries where the Canadian critical care nursing experience contributes to advancing the objectives of WFCCN.

As this journal goes to print for the fall, approximately 450 CACCN members will be making plans to journey to Edmonton September 19–21 to participate in Dynamics 2010. This year's conference theme of *"Changing Lives, Pushing Boundaries, Striving for Excellence: The Power of Critical Care Nursing"* will showcase many examples of exemplary critical care nursing from across the country. Power is defined as the ability, strength and capacity to do something. At Dynamics 2010, the power of critical care nurses will be very evident in the content of the many presentations that have been selected for the program. The range of our members' local experience will be apparent and we will all walk away better off for having had the opportunity to interact, make contacts, exchange ideas, gain new knowledge, meet new people and rekindle past friendships, with the common bond being that we are all critical care nurses. That is what unites us as one voice and advances the vision of CACCN to be *"The voice for excellence in Canadian Critical Care Nursing."*

The national motto of Canada, inscribed on the Coat of Arms in Latin, proclaims: "A mari usque ad mari", which means "From sea to sea." Currently there is a proposal by the three territories to update this to "A mari usque ad mari ad mari" (From sea to sea to sea) to reflect the fact that Canada's shores touch three oceans: the Atlantic, Pacific and Arctic. Likewise, CACCN broadly covers the same geography. Today in Happy Valley-Goose Bay, I gained a new knowledge of Canada by making connections with people who I had never met before. Similarly, being a member of CACCN enables me to be linked to my critical care nursing colleagues across the country by the connections I have made over the years. And it is in that linkage that we grow, as Canadian critical care nurses, and we advance the care we provide to our patients and families during some of the most frightening and vulnerable times in their lives.

So, as all the usual fall activities resume in our lives, I applaud you on being a member of CACCN and I ask you to reach out to a colleague and find your voice and encourage her or him to join and get connected, as you have done. There is strength and power and a stronger voice for CACCN in increasing our membership numbers. Our patients and their families are depending on us from sea to sea to sea!

Kate Mahon, RN, BN, MHS
President, CACCN
(From the Valley of Happiness and the Bay of Geese, Labrador)

From the clinical editor

This issue of **Dynamics** contains several reports from some of CACCN's recent award winners. There are three reports from the winners of Spacelabs Innovative Project Awards and the 2007 Research Grant. It is exciting to read about the innovative projects Canadian critical care nurses are involved in. Our regular ISMP Canada column is also included.

The original article in this issue is a look at disclosure in the critical care/health care setting. In this article, the authors describe their experiences as nurses and students while working in a critical care setting, and using the Canadian Disclosure Guidelines to communicate a harmful incident. The authors present this information using a case study to illustrate the benefits of having a policy and a systematic framework in place to support a critical care environment in disclosing errors and adverse events to affected patients and their families.

Paula Price, RN, PhD
Clinical Editor

Call for Dynamics 2012 conference planning committee members

Dynamics 2012 will be held September 23–25, 2012 at the Westin Bayshore in Vancouver, British Columbia, and will be chaired by Tricia Bray. CACCN members interested in working on the conference planning committee should submit a resume/CV and summary of conference planning experience to the CACCN National Office by March 1, 2011. Planning Committee selection will take place in March 2011. For further information on this exciting opportunity, please contact the CACCN National Office, PO Box 25322, London, ON N6C 6B1; **www.caccn.ca;** e-mail: **caccn@caccn.ca;** phone: (519) 649-5284; fax: (519) 649-1458. *(Planning experience is appreciated, but not a requirement for submission.)*

Website banner advertising

CACCN is now offering the opportunity to have your logo and website link accessible to our members and the general public 24 hours a day, seven days a week.

Why not consider a banner advertisement on the homepage of the CACCN website at **www.caccn.ca**?

If you are interested in taking advantage of this new service, please email CACCN National Office at **caccn@caccn.ca** for more information.

CACCN calendar of events

DATES TO REMEMBER!

August 16, 2010: Dynamics 2010—Early Bird Conference Registration deadline

September 1, 2010: Smiths Educational Award deadline

September 3, 2010: Dynamics 2010—Conference Registration deadline

September 13, 2010: AGM Proxy Forms deadline

September 16 and 17, 2010: CACCN National Board of Directors Fall F-2-F Meeting

September 18, 2010: Chapter Connections Day (Edmonton, AB)

September 19–21, 2010: Dynamics 2010 Conference (Edmonton, AB)

September 19, 2010: CACCN 26th Annual General Meeting (Edmonton, AB)

October 15, 2010: CNA Initial Certification Examination Application deadline

October 15, 2010: Dynamics 2011 Online Abstract Submission available

November 26, 2010: CNA Renewal Certification Application deadline

January 1, 2011–April 30, 2011: "Twin and Win" Membership Program

January 31, 2011: Dynamics 2011 Call for Abstract deadline

January 31, 2011: Smiths Educational Award deadline

February 15, 2011: CACCN Research Grant deadline

March 1, 2011: Dynamics 2012 Planning Committee Application deadline

Annual General Meeting Notice of Meeting

The 26th Annual General Meeting of the CACCN will be held on:

Sunday, September 19, 2010
1630 to 1745 hrs
Salon #4, Shaw Conference Centre
Edmonton, Alberta

Members unable to attend the AGM are reminded they may vote via proxy, by completing the ***Proxy Form*** and submitting to: **CACCN National Office** via facsimile 519-649-1458, e-mail caccn@caccn.ca or mail by no later than **2400 hrs Monday, September 13, 2010**

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Cathy, RN, Oakville

We have exciting full-time and part-time opportunities within our **Emergency** and **ICU** departments for **Critical Care Nurses** who are registered with the College of Nurses of Ontario, and have related experience. With over 53,000 visits annually, Oakville Hospital ER includes a 23-stretcher capacity in the main area, a Fast Track Area and a 4-bed Rapid Assessment Zone, where our health team provides treatment to adult and paediatric patients. Oakville Hospital ICU is a 12-bed unit where our experienced Critical Care nurses provide care to a diverse adult population of critically ill medical, surgical and cardiac patients. Come and contribute your knowledge, skills and insights towards the ongoing advancement of care delivery at Halton Healthcare. For further information, and to apply, please visit our website.

Canadian Association of Critical Care Nurses

Dear CACCN Member:

On behalf of the National Board of Directors of the Canadian Association of Critical Care Nurse, this letter is to provide notice to all members of the proposed revision to the Association Constitution and Bylaws, which will be brought forward for approval at the **Annual General Meeting (AGM)** to be held on September 19, 2010, in Edmonton, Alberta, as part of the annual Dynamics Conference.

Our existing constitution and bylaws were originally approved by the membership in 2003 with the last revision approved September 2009. Following discussion at the annual general meeting and review of the constitution and bylaws at the National Board of Directors' meeting in March 2010, it was determined the revision of September 2009 to ***Article VII, Officers, Section 9, Dynamics***, required further clarification:

9.1 The Chair for Dynamics will be a member of the Board of Directors

The National Board is seeking to revise ***Article VII, Officers, Section 9, Dynamics***, as follows:

9.1 The Chair for Dynamics will be a member of the Board of Directors at the time of appointment.

9.2 The Dynamics Conference for which the Director is responsible will be completed within one year of the end of the Director's term.

9.3 There shall be a Board of Directors' member on the Dynamics Planning Committee, as an ad hoc member.

The National Board of Directors will be seeking your comments and approval of the proposed change at the 2010 Annual General Meeting. Please refer to page 11 of this journal or our website at www.caccn.ca, if you are unable to attend the AGM, but wish to submit a proxy vote. Proxy votes must be received by CACCN National Office by no later than midnight on September 13, 2010.

Kate Mahon

Sincerely,

Kate Mahon
President
CACCN National Board of Directors

WHAT'S HAPPENING at www.caccn.ca

Members' Only Area

The Members' Only area contains a wealth of information such as electronic copies of previous Dynamics journals, opportunities to earn Continuing Education Credits, and the Members' Discussion Forum. Whether you are a seasoned discussion board veteran or new to the process, stop by … look around … post an introduction … answer a question …

Not a CACCN Member?

What are you waiting for? Join the Association and take advantage of the Members' Only benefits.

Dynamics 2011 Online Abstract Submission Process

Look for the online abstract submission process to be up and running by mid-October 2010. Only abstracts submitted through the online system will be accepted for submission.

Visit us today at: www.caccn.ca!

DYNAMIC CAREER CONNECTIONS on www.caccn.ca

CACCN Dynamic Career Connections is the official job site for the Canadian Association of Critical Care Nurses. Our mission is to connect employers with hard-to-fill positions with the brightest, most qualified Critical Care Nurses in Canada.

Job Seekers: This new job site provides you with the opportunity to post your resume confidentially, view and apply for positions from some of the best employers in Canada, set up job alerts to search and notify you when a job matches your criteria and best of all registration for job seekers is always FREE. *You do not need to be a member of CACCN to register with Dynamic Career Connections. Register your resume today!*

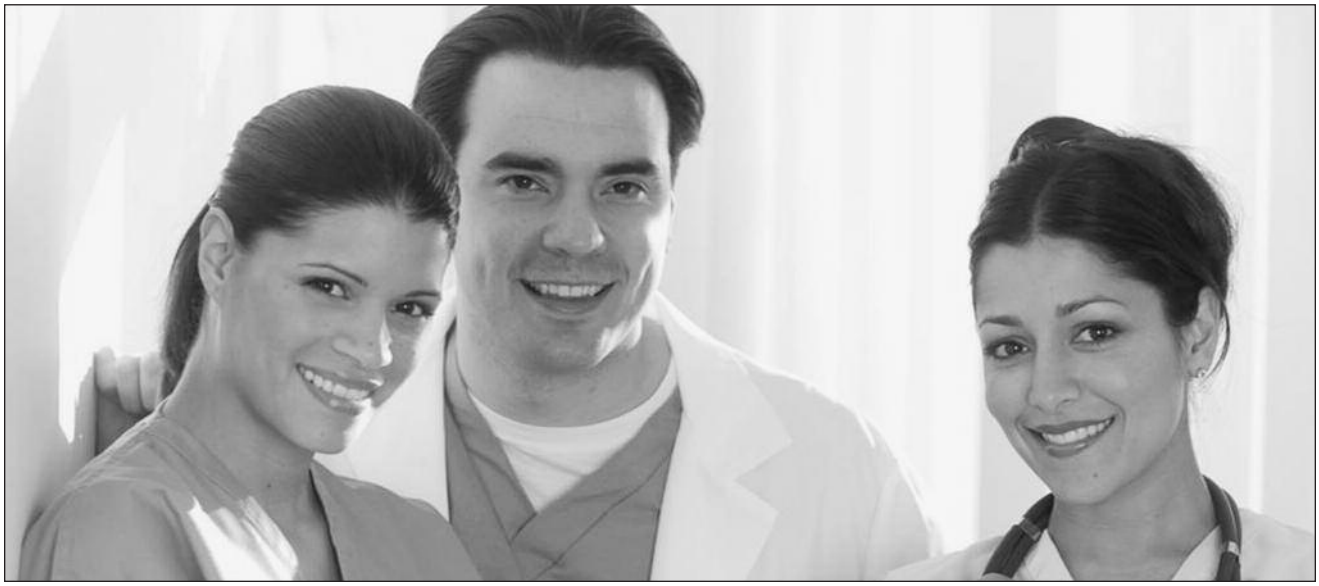
Employers: CACCN knows how important it is for you to find new ways to directly reach Critical Care Nurses. CACCN Dynamic Career Connections provides you with the opportunity to extend your reach to a targeted candidate pool, and post your jobs confidentially. Use the advanced pre-screening tools to automatically filter applicants for easy resume management. *Register to post your jobs!*

If you are interested in taking advantage of this new service, please visit **www.caccn.ca**, click on **CACCN Dynamic Career Connections,** and register to start searching for your new career or team member.

JOB LINKS on www.caccn.ca

JOB LINKS is a simplified web link page on the CACCN website designed to provide immediate links to critical care nursing career opportunities in Canada and around the world.

If your facility is interested in taking advantage of this service, please visit **www.caccn.ca**, click on **JOB LINKS,** and view the PDF contract for more information.



CACCN Board of Directors Nominees

Dear **CACCN Member**:

The National Board of Directors of the Canadian Association of Critical Care Nurses is providing Notice to all members of the nominees for the position(s) of ***Director, CACCN National Board of Directors***.

Central Region: **Karen Dryden Palmer**, RN, BSN, MN(C), CNS, Barrie, ON

Director at Large: **Sandra Goldsworthy**, RN, BScN, CNCC(C), MSc, Oshawa, ON

Céline Pelletier, RN, BScN, CNCC(C), MN-ACNP, NP, Yellowknife, NWT

We are enclosing the personal statements for each nominee for your review and consideration prior to the annual general meeting being held Sunday September 19, 2010, in Edmonton, AB, as part of the annual Dynamics Conference.

If you are unable to attend the AGM, you may submit your vote using the Proxy Vote Form enclosed. Proxy votes must be received by CACCN National Office no later than **midnight, Monday, September 13, 2010**. Forms received after the proxy vote deadline cannot be included, as per the CACCN Constitution and Bylaws.

Sincerely,

Kate Mahon
President

Teddie Tanguay
Vice-President

Nominees: CACCN Board of Directors 2011–2013

Central Region

Karen Dryden Palmer, RN, BSN, MN(C), CNS, Barrie, ON

Position: Advance Practice Nurse Educator

Employer: Hospital for Sick Children

Nominated by: *Ingrid Daley, Mary Ann Nelson and Michelle Cleland*

Critical care experience: 25 years Pediatric Critical Care Bedside Nurse, Resource Nurse Rapid Response Team Member, Bereavement Coordinator, Project Coordinator for Long-Term Care of technologically dependent critically ill children, clinical educator, advanced practice nurse educator, clinical nurse specialist.

I am humbled by the opportunity to take on the challenge and responsibility of membership on the Board of Directors of the Canadian Association of Critical Care Nurses. I will strive to contribute to a professional environment that supports excellence in critical care nursing practice and the advancement of the specialty of critical care nursing in Canada. The role of the critical care nurse is ever evolving. Therefore, I am committed to providing our membership with the tools, information and advocacy that contribute to the development of critical care nursing expertise.

Foundational to my work as pediatric consultant and then president of the Toronto Chapter is my desire to heighten the profile of critical care nursing at local, national and international venues. I will seek to lead in initiatives that advance expertise and best practice in all domains of care. Critical Care nursing is also the provision of mutually participatory patient- and family-centred practice, the recognition of nurse-sensitive outcomes of critical illness and forwarding the voice of the critical care nurse in the creation of health policy and administration of health care resources.

I have been committed to the specialty of critical care for 20 years. I will continue in every capacity to work towards Canadian Association of Critical Care Nurses' objectives and build a foundation for our shared future.

Director at Large (any region)

Sandra Goldsworthy, RN, BScN, CNCC(C), MSc, Oshawa, ON

Position: Nursing Professor and Coordinator eLearning Critical Care Program

Employer: Durham College

Nominated by: *Leslie Graham, Margaret Campkin and Tricia Bray*

Critical care experience: Sandra has worked in critical care in a variety of positions—practice, education and research—since 1986 (24 years). She has held CNCC(C) certification since 2000, and has participated in the exam writing of the critical care exam for CNA.

I have had the privilege of being a critical care nurse in a variety of roles for more than 20 years. Currently, I am the Coordinator of the Critical Care e learning program at Durham College. Throughout my career as a critical care nurse I have had a proven track record of leadership skills and a strong voice advocating for critical care nurses locally, nationally and internationally. I have a passion for mentoring other critical care colleagues, being innovative and having a vision for developing partnerships among critical care nurses in Canada and internationally. More than 10 years ago, I founded the Ontario Critical Care Educator's Network to create a network where educators could share best practices and creative ideas, and have been pleased to see it evolve and grow. At present, I am working on an initiative with the World Federation of Critical Care Nurses (WFCCN) to develop an international collaboration among critical care nurse educators in order to share ideas and best practices globally. I have been an active member of CACCN since becoming a critical care nurse and, as a result of this, I have been able to contribute by participating in planning of national and local CACCN conferences, being a member of the editorial board of Dynamics, a past member of the local chapter executive and an invited member of the CNA item-writing team for the CNCC exam. I am committed to promoting healthy work environments and strategies for retaining critical care nurses and this is the focus of my current research. I look forward to contributing further to critical care nursing through the position of director at large on the CACCN Board of Directors.

Director at Large (any region)

Céline Pelletier, RN, BScN, CNCC(C), MN-ACNP, NP, Yellowknife, NWT

Position: Nurse Practitioner

Employer: Stanton Territorial Health Authority

Nominated by: *Kara Livy, Kirsten Snyder and Teddie Tanguay*

Critical care experience: 26 years of adult critical care experience. Two years in med/surg ICU at the Ottawa General Hospital, four-plus years in SICU at St-Boniface General Hospital, one year outpost nursing and one year in med-flight nursing in the NWT, and 18 years in Yellowknife from RN to clinician to clinical coordinator to nurse practitioner.

I have been a critical care nurse for more than 26 years now, having first obtained by BScN at the University of Ottawa in 1981. During the first 10 years of my practice I took two certificates in critical care nursing to satisfy my thirst for knowledge in the fast-paced world of critical care.

Through various attempts at different nursing positions, I realized that my strength and passion lay at the bedside, providing expert care and compassion to clients immersed in an uncontrolled world of tubes, lines, catheters and noise.

In 1991, I relocated to Yellowknife, NWT, where I helped set up and open a four-bed ICU. I now work as a nurse practitioner in this ICU, a position that I pioneered.

I am very fortunate to always have been surrounded by professionals who have believed in my abilities and I hope to be able to give back to those who are striving to be bigger and better.

Annual General Meeting Proxy Vote 2010

Every active member may, by means of proxy, appoint a person (not necessarily a member of the association), as his/her nominee to attend and act at the annual general meeting in the manner and to the extent and with the power conferred by the proxy. The proxy shall be in writing in the hand of the member or his/her attorney, authorized in writing, and shall cease to be valid after the expiration of one (1) year from the date thereof.

Proxy votes must be received in the national office no later than midnight, Monday, September 13, 2010.

Proxy votes may be mailed/faxed to: Canadian Association of Critical Care Nurses, P.O. Box 25322, London, Ontario N6C 6B1 (Fax) 519-649-1458

The following shall be a sufficient form of proxy:

I, _____, of _____,

an active member of the Canadian Association of Critical Care Nurses hereby appoint

_____ of _____,
or failing her/him,

_____ of _____,

as my proxy to vote for me and on my behalf at the meeting of members of the association to be held on the 19th day of September, 2010, and at any adjournment thereof.

Dated at _____, this _____ day

of _____, 2010.

Signature of Member: _____

CACCN Membership Number: _____

AMI Virtual Learning Collaborative

Supported by the Atlantic Node Safer Healthcare Now! in partnership with the Canadian Patient Safety Institute

The AMI Virtual Learning Collaborative has been designed to address the timeliness of reperfusion therapy. Although timeliness of reperfusion is associated with better outcomes, a substantial portion of patients does not receive fibrinolysis or PPCI within recommended times (Lambert, Brown, Segal, Brophy, Rodes-Cabau & Bogrty, 2010). Over the past year, Safer Healthcare Now! teams have reported that between 44% and 70%, or an average of 62% of AMI patients who received fibrinolysis had this myocardium-saving treatment delivered within 30 minutes of hospital arrival (ISMP Canada). For safer care, we need to improve the timeliness of reperfusion therapy.

Safer Healthcare Now! is offering virtual learning programs through the use of web-based technology. These programs allow individuals and groups the opportunity to come together to learn through the use of web-based technology. The learning programs offer education from the Safer Healthcare Now! intervention leads, safety improvement advisors and the faculty. The goal of the virtual learning programs is to support and guide teams in implementing their patient safety improvement projects without leaving home. **The first learning session will take place October 20, 2010**.

If you are interested in learning more about the collaborative, please join our information session on September 8, 2010.

Topic: WebEx information call

Date: Wednesday, September 8, 2010

Start time: 10–11 am PT / 11–12 pm MT / 12 pm–1 pm CT/1 pm–2 pm ET / 2 pm–3 pm AT / 2:30 pm–3:30 pm NT

WebEx: https://cpsi-icsp.webex.com/cpsi-icsp/j.php?J=962085622

Access code: 962 085 622

Or visit our website at http://www.saferhealthcarenow.ca/EN/events/VirtualPrograms/AMICollaborative/Pages/default.aspx

References

ISMP Canada. *Safer Healthcare Now!* Quarterly Reports. Toronto, ON: Author.

Lambert, L., Brown, K., Segal, E., Brophy, J., Rodes-Cabau, J., & Bogrty, P. (2010). Association between timeliness of reperfusion therapy and clinical outcomes in ST-Elevation Myocardial Infarction. *JAMA, 303*(21), 2148–2155.

DYNAMICS 2011 - CALL FOR ABSTRACTS

Abstracts are currently being accepted for Oral, Oral Poster and Poster Presentations for **Dynamics 2011,** the annual national conference of the Canadian Association of Critical Care Nurses, to be held October 16 to 18, 2011, at the London Convention Centre in London, Ontario. Submissions must be evidence-based and, ideally, address the theme: ***"Critical Care Nursing: Our Kaleidoscope".***

Abstract Submission Guidelines

- Submissions **will only** be accepted through our Online Abstract Submission process at **www.caccn.ca.** Submissions will be reviewed under a blinded review process
- The Abstract Submission Process will be available until 2359 hours EST on January 31, 2011
- All requested information must be included at the time of abstract submission for your abstract presentation to be registered

Abstract Requirements

- Abstract to include a maximum of 400 words
- Include the abstract title, preferred format for presentation (oral or poster) and references with abstract (title, format and references not included in word count)
- Ensure there is no identifying information in the body of the abstract (i.e., author names, hospital names, city, province, acronyms, etc.)

Presenter Information

- Include the following contact information: 1) name, credentials, mailing address, telephone numbers and email for the first author, and 2) a list of the names and credentials for co-authors
- Enter presenter information into the online registration program as instructed

Important Notes

- Only completed submissions received by **January 31, 2011,** will be considered
- Notification regarding selection decisions will be provided by **April 1, 2011**
- All correspondence will be with first author **only**
- One presenter for each accepted abstract will be entitled to discounted tuition at Dynamics 2011; All other expenses are the responsibility of the presenter(s)
- Abstracts accepted for presentation at Dynamics 2011 must not be presented at a national or provincial level for a period of 12 months prior to and/or six months after Dynamics 2011.
- Abstracts are the property of CACCN during this period of time, and may be published in Dynamics, the Official Journal of the Canadian Association of Critical Care Nurses

Questions?

Please contact CACCN National Office, P. O. Box 25322, London, ON, N6C 6B1; www.caccn.ca; e-mail: caccn@caccn.ca; Toll free: 1-866-477-9077; Telephone: (519) 649-5284; Facsimile: (519) 649-1458

Research Review

Ista, E., van Dijk, M., de Hoog, M., Tibboel, D., & Duivenvoorden, H.J. (2009). Construction of the Sophia Observation withdrawal Symptoms-scale (SOS) for critically ill children. *Intensive Care Medicine, 35*, 1075–1081.

Introduction

Although this is a pediatric study, the findings point to important considerations for critically ill adults as well.

Research objective

To construct a reliable and clinically practical instrument for monitoring opioid and benzodiazepine withdrawal symptoms in pediatric critical care patients.

Design

Instrument development.

Setting

Pediatric intensive care unit (PICU) in a university-teaching children's hospital in the Netherlands.

Participants

Seventy-nine patients, up to 16 years of age, receiving intravenous midazolam and/or opioids for five or more days. In addition, an expert panel of 85 physicians and nurses rated the clinical relevance of withdrawal symptoms.

Data collection

Repeated observations were performed during midazolam/opioid weaning with a checklist of 24 withdrawal symptoms documented in the literature.

Findings

Nine hundred and thirty-two observations were obtained within 24 hours after decrease or discontinuation of midazolam or opioids. The most frequent symptoms observed were: tachypnea, agitation, motor disturbance, diarrhea, fever, anxiety, sleep disturbance and hypertension (14.6% to 29.6%). The empirical structure of symptom co-occurrence was examined through multidimensional scaling (MDS). The clinical relevance of each symptom was judged on a four-point scale by an expert panel. Agitation, anxiety, inconsolable crying, increased muscle tension, tremors, tachycardia and sweating were judged relevant by 85% to 95% of the experts. Fifteen symptoms were included in the final instrument on the basis of MDM results and experts' opinions.

Conclusions

The authors report that they are the first to develop a withdrawal symptoms assessment tool for critically ill children on the basis of the underlying empirical structure of symptom co-occurrence and experts' ratings. Future research will need to define clinically relevant measurement thresholds and clarify various psychometric matters.

Commentary

Ongoing advances in the management of sedation and analgesia in critical care are increasingly turning to continuous administration of opioids and benzodiazepines; chiefly midazolam for the latter. Early case reports highlight that this resulted in corresponding increases in withdrawal reactions to the discontinuation of these agents (Ducharme, Carnevale, Clermont, & Shea, 2005). As patients' needs for sedation and analgesia become outweighed by concerns about the adverse effects of opioids and benzodiazepines (e.g., hypoventilation), critical care clinicians need to expediently wean patients from these agents. However, optimal weaning rates for these medications are unclear. Consequently, in the interests of protecting patients from opioid/benzodiazepine adverse effects, these medications are frequently withdrawn too quickly, resulting in withdrawal reactions that are sometimes significantly distressing for patients, families and staff. An important development in the prevention of withdrawal reactions in children is the construction of clinical monitoring tools for the PICU setting. Dr. Erwin Ista, a Dutch nurse, has led a number of studies on the assessment of withdrawal reactions among children. This team has published a number of other impressive studies in this domain, including studies of the ongoing development of this scale. The Sophia Observation withdrawal Symptoms-scale (SOS) offers a reliable, valid and practical tool for bedside monitoring that can enable critical care nurses to detect withdrawal reactions early and institute necessary interventions. The authors` discussion examines the SOS in relation to another important PICU withdrawal reaction scale, The Withdrawal Assessment Tool-1 (WAT-1), developed by another nursing researcher (Franck, Harris, Soetenga, Amling, & Curley, 2008). Ista and associates argue that the SOS measures benzodiazepine withdrawal more sensitively than the WAT-1 and requires less time per observation (i.e., two minutes per SOS observation versus seven minutes per WAT-1 observation). Readers are invited to examine both scales to consider their relative merits and limits. Comparative studies of the two scales will be helpful. Finally, adult critical care nurses can use this research to critically examine the assessment and management of withdrawal reactions for their own populations.

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Kit's journey: Nursing—You can't live without it!

CACCN Nursing Week Contest Winner: Liz Hamblin and her colleagues, ICU #24, Grey Nun's Hospital, Edmonton, AB

I am a registered nurse, working on an 18-bed combined intensive care and coronary care unit at the Grey Nun's Hospital in Edmonton, Alberta. The CACCN invitation to share an experience that would promote the understanding of the vital role of registered nurses in the critical care setting inspired me.

I wish to share a story from our unit, on behalf of the entire team of dedicated health professionals I work with, that I think not only demonstrates the importance and impact of expert caring by RNs, but also that reminded each and every one of us of the privileged contribution we make every day to the lives of those individuals and families in our care.

Kit is a 34-year-old husband, father and pharmacist who, on April 1, 2009, after multiple visits to various emergency rooms for progressive muscle weakness and shortness of breath, was admitted to our intensive care unit diagnosed with Guillain-Barré syndrome (GBS). I was just one of the many team members admitting Kit that evening. An otherwise healthy young man with no significant prior medical history, his paralysis had progressed rapidly requiring rapid intubation and controlled ventilation within hours of his arrival at our hospital. Kit appeared to be anxious and fearful—severe neuropathic pain had started its assault on his body. He was unable to communicate his needs verbally or non-verbally, yet perfectly able to feel and hear everything happening to and around him. Tanya, Kit's wife, was understandably in shock over the events of the last few days. Still without answers about her husband's condition and prognosis, she was now torn between staying and supporting her husband and returning home to care for their two children for the night. And so, our journey with Kit and Tanya began.

GBS proved a challenging condition for both our patient and the care team. The extent of progression of Kit's course of illness was yet to be determined. The severity of his symptoms was ever changing; the length and the degree of his recovery anywhere from months to years. There was no magic medical cure and no timeline. Expert care by a team of critical care RNs was instrumental in meeting the physiological challenges of Kit's disease course including symptom, immune, hemodynamic and respiratory management. The result was that this patient required critical care for a far longer period than most patients. He required the careful and diligent work of expert nursing care to manage severe neuropathic pain and prevent life-threatening complications of paralysis. Yet, what made Kit's story one that illustrates the best of our intensive care unit and, I think, of critical care nursing, is the outstanding level of commitment, cooperation, and creativity demonstrated in caring not just for this patient physically, but for his family, mind and spirit.

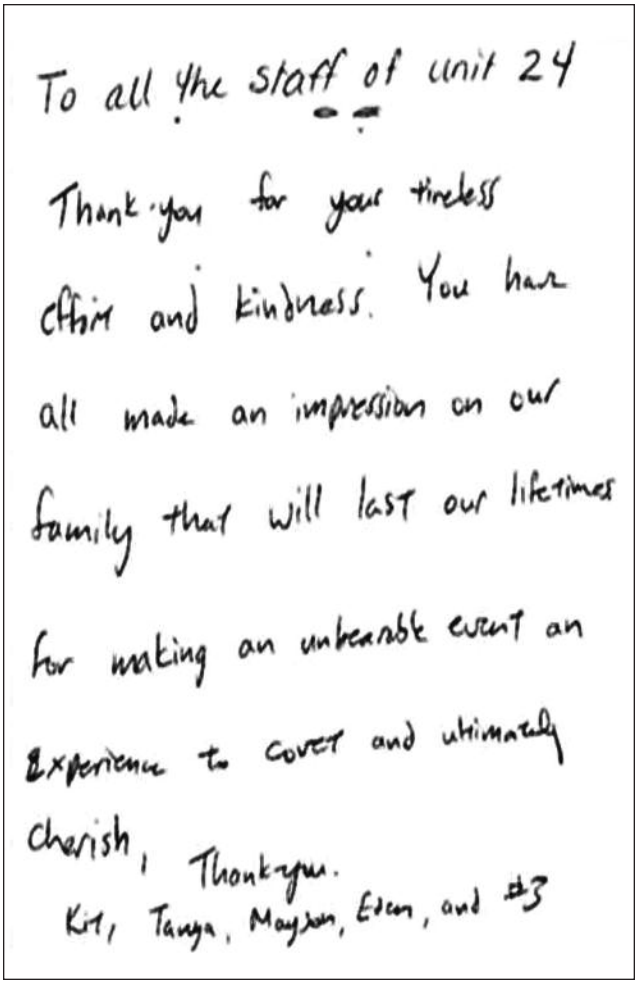
Managing symptoms and preventing complications: Expert nursing assessment, advocacy, intervention and care evaluation were required to manage the severity of pain experienced from GBS. Consultation with Kit and the interdisciplinary team was needed to develop both medicinal and non-medicinal pain management strategies. Medications and dosing schedules were constantly reevaluated so that pain management strategies would facilitate rest and healing, yet still allow Kit to meet self-determined goals for physical therapy. Our team of critical care nurses also worked diligently in preventing complications. Meticulous oral hygiene, a high level of commitment to frequent position changes, excellent skin care, twice to three times daily range of motion exercise sessions and careful management of nutritional status provided excellent results. After 72 days on a ventilator and 14 weeks in hospital, Kit had not a hint of skin breakdown, less than a 10% weight loss, and only one incident of aspiration, which was the unfortunate result of granting a long-awaited wish for a grape popsicle a few days too early during plugging trials.

How can we make that happen? A true interdisciplinary approach: An interdisciplinary approach and a commitment to patient-centred care were key factors in Kit's recovery. Daily rounds were attended by the bedside registered nurse, a nurse practitioner, intensivist, respiratory therapist, pharmacist and a registered dietitian. The ocular effects of GBS coupled with complete paralysis rendered Kit unable to communicate. Physical and occupational therapy were instrumental in working with nursing to develop creative tools to facilitate communication between patient and care team, as well as patient and family. A letter board with an eye patch allowed Kit to work with his care providers and family to spell out requests for pain control, repositioning or fatigue. In consultation with physical therapy, a specialized routine of range-of-motion exercises was developed.

Personal goals were developed in consultation with Kit, and his progress against target tracked. During weaning trials, colourful poster boards were developed and displayed so that Kit could see his progress and plugging trial achievements against targets—targets determined by Kit. Frequent collaboration with respiratory was required to coordinate early mobilization, as well as "road trips" for much needed outside and off-unit time.

When the story of Kit is talked about on our unit, some of the proudest professional moments are of the times we asked, **"How can we make this happen?"** There were no egos—only a unified focus on what was best for this patient and family.

Body, mind and spirit: I feel blessed to work with a most generous and caring team of critical care nurses. Their creativity and planning created some unforgettable nursing and life moments with this family. There was the birthday party for Kit's daughter, Mayson, hosted on our children's hospital patio. I remember hearing about an in-room movie "date night" planned by a group of nurses for Kit and Tanya.


To all the staff of unit 24

Thank you for your tireless effort and kindness. You have all made an impression on our family that will last our lifetimes for making an unbearable event an experience to cover and ultimately cherish, Thank you.

Kit, Tanya, Mayson, Eden, and #3

Another especially touching moment was a very special Mother's Day card carefully "written" by Kit and one of our nurses using his letter board, so that it could truly be a card from Kit to his wife. These special efforts were on top of the hours of time I saw our team providing help with child minding, a shoulder to lean on during hard times, and ears to listen to an incredible family facing an incredible crisis of health.

Kit and Tanya have been very generous in sharing their thanks for our unit's care. But it is we who feel indebted. Thank-you for reminding us why we are critical care nurses. The sense of accomplishment and joy in seeing Kit recover, the value of knowing what it is to have found truly meaningful work, and the privilege to have been part of this journey together with them is such a blessing. Thank you, Kit and Tanya, for humbling us with your tenacious spirits and the gratitude you showed for life and love even in crisis. We are looking forward to sharing in your joy, as you welcome baby number three this May.

** Kit and Tanya welcomed their third daughter on May 25, 2010.*

The winner has received a free tuition to Dynamics 2010 being held in Edmonton, Alberta.

Thank you for all of your submissions to CACCN's Nurse's Week Contest, "Nursing—You Can't Live Without It!". *The selection decision was difficult, as all of the submissions were excellent. Look for our contest next year during Nurse's Week to win a free tuition to Dynamics 2011 being held in London, Ontario.*

Full disclosure of adverse events to patients and families in the ICU: Wouldn't you want to know?

By Elaine Doucette, RN, MScN, Sarina Fazio, BScN student, Vanessa LaSalle, BScN student, Christina Malcius, BScN student, Jaclyn Mills, BScN student, Taunia Rifai Archer, BScN student, and Jocelyne St-Laurent, RN, BScN

Abstract

In the past several years, there has been an increasing focus in our Canadian health care system related to patient safety. The Canadian Disclosure Guidelines, which were released in May 2008, discuss various patient safety initiatives underway across Canada. They emphasize the importance of a clear and consistent approach to disclosure, regardless of the variability in the definitions and interpretations across health care institutions. In addition, they highlight that all patients have the right to be informed about all aspects of their care, and all harm must be communicated to patients regardless of the reason (Disclosure Working Group, 2008).

In this article, the authors describe and share our learning experiences, as nurses and students, while working in critical care settings when these guidelines were needed to communicate a harmful incident. Often, health care practitioners only become aware of specific guidelines regarding the disclosure of an adverse event once the incident has occurred. A case study will be discussed to illustrate the benefits of having a policy and a systematic framework in place to support a critical care environment in disclosing errors and adverse events to affected patients and their families.

In the past decade, research has shown that there is a growing concern about the number of adverse events in our health care system. The 2004 Canadian Adverse Events Study identified adverse events arising from the delivery of health care services as a significant problem in Canadian hospitals (Canadian Patient Safety Institute, 2008). The overall incidence was 7.5% of adverse events in that study, suggesting that of the 2.5 million hospital admissions annually, about 185,000 of those were associated with an adverse event and close to 70,000 of those were potentially preventable. Interestingly, it was noted that most of these took place in teaching hospitals. The study also indicated that the majority of patients who experienced an adverse event recovered without permanent disability. However, a significant number were also noted to have an increased length of hospital stay, as well as a temporary disability after discharge home. Despite the common goals and the best efforts of the health care team, outcomes may differ from what is desired or anticipated (Swiggum & Wallace, 2009).

Errors and adverse events occur more frequently in intensive care units (ICU) than in any other setting (Boyle, O'Connell, Platt, & Albert, 2006). The complexity of illness and trauma exponentially increases the risk of error and subsequent adverse events. In fact, errors and adverse events occur more often in ICUs, as patients frequently suffer from severe, multiple-system illnesses that require numerous interventions involving decision-making and planning from a number of health care providers. In general, patients with co-morbidities require more testing, monitoring and treatment, therefore increasing the risk of overlooking a critical physical finding, an important laboratory test, or a radiographic abnormality. Consequently, the patient has a greater risk of suffering from treatment- or procedure-related complications (Boyle et al., 2006).

All too frequently, the response to an adverse event focuses on identifying and blaming health care providers, with subsequent recommendations for greater vigilance, more training and, in some instances, professional sanctions for the individuals involved. Despite this approach, many adverse events continue to occur, while system failures are often overlooked when the blame is placed on individual providers (Swiggum & Wallace, 2009).

Over the past decade, the Canadian health care institutions have continued to make progress in the reporting of adverse events and disclosing these events to patients. In so doing, we continue to foster a more supportive environment where we can learn from these events and help prevent their recurrence.

In this article the authors share our learning experiences, as nurses and students, while working in critical care settings when disclosure guidelines were needed to communicate a harmful incident. A case study is used to illustrate the benefits of having a policy and a systematic framework in place to support a critical care environment in disclosing errors and adverse events to affected patients and their families.

Definitions

The terms "adverse event" and "sentinel event" are often used interchangeably in the literature. To be clear on the definitions, an adverse event is defined by the Canadian Patient Safety Institute (2008) as "an event that results in unintended harm to the patient, and is related to the care and/or services provided to the patient rather than to the patient's underlying medical condition" (p. 8). A sentinel event, which is also considered an adverse event, is defined as "an unexpected occurrence involving death or serious physical or psychological injury, or risk

thereof. Such events are called 'sentinel' because they signal the need for immediate investigation and response from all levels of the health care team" (Daly, 2006, p. 28).

Consensus on full disclosure

Full disclosure is supported across North America by major health care organizations, such as the Joint Commission for Accreditation of Healthcare Organizations (2006), which requires licensed practitioners to inform patients and families whenever outcomes of care have differed from what was initially anticipated. In addition, the Canadian Council on Health Services Accreditation (CCHSA) requires health care organizations to implement a formal and transparent policy, as well as a process of disclosing adverse events to patients (CCHSA, 2007). This policy includes support mechanisms for patients and families, as well as for the service providers. Moreover, the Canadian Patient Safety Institute (CPSI) encourages and supports the development and implementation of policies, practices and training methods in relation to full disclosure (Boyle et al., 2006).

Nationally, the Canadian Nurses Association (CNA) code of ethics specifically mentions the topic of full disclosure. It states that "Nurses must admit mistakes and take all the necessary actions to prevent or minimize harm arising from an adverse event, […] they work to ensure that health information is given to individuals, families […] in an open, accurate and transparent manner" (CNA, 2008, p. 41). Furthermore, the CNA (2008) code of ethics outlines seven primary values that include "providing safe, compassionate, competent and ethical care," "promoting justice" and "being accountable" (p. 3). These primary values further emphasize the importance of full disclosure of adverse events in providing ethical nursing care to patients and families.

In addition to federal mandates, there is a trend emerging where provincial governments have also created legislation to guide practice regarding full disclosure. In 2006, British Columbia adopted the Apology Law, which aimed at dissolving the associations between disclosure and malpractice suits in order to sustain the movement toward a blame-free environment in health care settings (Levinson & Gallagher, 2007). This law stipulates that saying "I'm sorry" is not considered an admission of fault in a court of law. In 2005, Manitoba amended their Regional Health Authorities Act, as well as the Manitoba Evidence Act, to oblige health care workers to provide full disclosure to patients and families. In addition, these acts also protect their health care professionals from legal action, and following every critical incident, a mandatory internal investigation must be launched (CMAJ, 2009). In Quebec, Bill 113 was put into effect in 2002 and states that a user has the right to be informed of any adverse event and that any person working in an institution is under the obligation to report adverse events, as soon as they become aware of them (National Assembly of Quebec, 2002).

Case study

Patient X was admitted to the hospital with a previous history of coronary artery disease, abdominal cancer and gastroesophageal reflux disease. The patient had also had a Billroth 2 gastrectomy on a previous admission. The most current hospitalization was related to choledocholithiasis, for which the patient underwent an endoscopic retrograde cholangiopancreatography (ERCP). While in the lab, patient X experienced respiratory distress, agitation, vomiting and possible aspiration. The patient was admitted to the ICU in acute respiratory distress with an oxygen saturation of 90% while on 10 L of oxygen. The patient was also found to be tachypneic and tachycardic and was experiencing chest pain. In addition, patient X was noted to be febrile and hypotensive. Subsequently, the patient was intubated and given inotropic support with Levophed®, broad-spectrum antibiotic coverage and was sedated with Propofol®. As well, central and arterial lines were inserted, following which a nasogastric (NG) tube was also placed and verified by the usual method of auscultation.

The following day, a chest and abdominal computerized tomography (CT) scan were ordered to rule out perforation. Gastrografin® was instilled via the NG tube. The results of the CT scan confirmed that there was a perforated viscus, and it also showed that the NG tube was positioned in the left lower lobe of the patient's lung. Both of these events are associated with high morbidity and mortality and, therefore, patient X was in critical condition, causing great distress and anxiety for the family.

The McGill University Health Centre (MUHC) Policy on sentinel events was used as a guide to support the team in disclosing these events to the family.

The MUHC policy on sentinel events

In complex situations such as the preceding case study, a standardized, multidisciplinary framework is needed to help guide health care workers. The case was deemed "sentinel" due to the seriousness and high mortality rate of both adverse events: the contrast infusion in the lungs and the perforated viscus. During this difficult and precarious time, the MUHC policy on sentinel events provided structure in order to fully understand the steps that needed to be taken.

As a forerunner to full disclosure in the past, the MUHC implemented a policy on sentinel events in 2005. The purpose of the policy was to "take proactive steps to reduce and prevent errors in order to improve patient care", and to "promote a culture of safety with an objective process that identifies system issues and does not assign individual blame" (MUHC Quality Management Department, 2005, p. 1).

Policy and procedures

Working in an environment that supports the full disclosure of adverse events within a systematic framework guides the health care unit to collaboratively and cohesively manage sentinel events, facilitate learning and improve patient safety.

Immediate steps outlined by the policy are to stabilize and treat the patient, inform the family of the current situation, provide appropriate support to the family and collect all relevant information. Steps taken within a few hours are to decide whether the event is possibly deemed sentinel, contact all appropriate personnel and devise a long-term care plan. The

following day, a family meeting should be held with the interdisciplinary team where more information is provided to the patient and family, questions by the family are answered and all other concerns are addressed. Within a few weeks, further cause analysis takes place, recommendations for safety and practice improvement are made and any additional follow-up support is provided to the patient and family (MUHC Quality Management Department, 2005). Thus, it is clear that the MUHC policy on sentinel events assumes a process rather than a single conversation.

Throughout the disclosure process, there are certain strategies for communication that can help build and strengthen relationships between health care workers and families. These include using clear, straightforward words and terms; being open, sincere and apologetic; being culturally sensitive; and clarifying and ensuring understanding at a level where families feel comfortable while providing ample time for questions (Canadian Patient Safety Institute, 2008). These communication strategies can save much time and anguish in the long term.

The MUHC policy in practice

After the adverse events took place, the family was informed of the patient's condition. Patient X was then transferred to the operating room to repair the perforated viscus. The following day, a family meeting was held with the interdisciplinary team to review the previous day's events, explain the care plan, avoid speculation, express regret and arrange follow-up meetings. Several weeks later, this particular family found it helpful to have their relative, who was a physician, meet with the interdisciplinary team to gain further insight into the patient's health status, to facilitate a clear understanding of the events that took place and to further reassure the family that everything was being done to care for their loved one. This example shows how the policy is not carved in stone, but needs to be tailored to meet individual family needs.

After a lengthy stay in the ICU, the patient was stabilized and eventually transferred to a medical floor where the patient remained for several weeks before being discharged to a rehabilitation facility. Ongoing communication between the family and the health care team continued through telephone calls, emails and in person. As well, several follow-up disclosure meetings were held. The family admitted to having felt very frightened at the severity of patient X's condition. Over time and as the patient continued to stabilize, the family felt reassured and supported.

Health care professionals' role

"Promoting a culture of safety within organizations includes translating the lessons learned from sentinel events into concrete changes that will improve patient safety" (Daly, 2006, p. 28). In the above case study, the recommended practice for verification of NG tube placement by x-ray for all patients was implemented on the unit, as a safeguard to prevent the recurrence of similar situations. Lessons were learned from the traumatic events that took place and the patient's family was further comforted by the changes that were implemented.

The McGill model of nursing

Nurses play a pivotal role in helping families navigate through uncertain events. Nursing care can often make a difference between whether a family grows or deteriorates in response to these events. While the MUHC uses a policy to guide them in their disclosure of adverse events to patients and families, they also use a model of nursing, called the McGill model of nursing.

The McGill model of nursing is a situation-responsive, collaborative approach in nursing, which involves tailoring the quality and timing of interventions to "fit" clinical situations while working with a client's and family's perceptions (Gottlieb & Gottlieb, 2007). For instance, the health care workers involved in the case tailored the information given to the relative who was a physician differently than they did for the other family members.

By taking a health perspective, as opposed to solely an illness perspective, involvement with families is multidimensional, holistic, broad-based, and it works with the assessment and development of strengths and potentials. The team involved with this case helped the family identify their strengths by involving them in the care plan, thereby giving them a sense of control.

Lastly, nursing care adopts a long-term perspective by taking place over time and across different situations and settings. It involves assessing and promoting a client or family's readiness to engage with the health care professionals.

Implications for practice

Health care teams are currently moving towards a culture of full disclosure. In any health care environment, it is important to have a theoretical background to guide health care professionals in their interactions with patients and families. Specifically in critical care units, a guiding framework becomes paramount, as families are often in crises. In disclosing an adverse event, nurses are confronted with a range of emotions from families. A family-centred nursing model such as the McGill model of nursing provides a foundation for effective communication and collaboration. It is important to remember that disclosure is a process and not a single conversation. It involves mutual respect, compassion, honesty, courage, and patience (Disclosure Working Group, 2008). It also requires a team and not a single individual, and a series of conversations to complete all the steps necessary to understand, disclose, correct, and arrange for appropriate help or compensation for the injured party.

As health care professionals, nurses have a responsibility for and are accountable to the patients and families for whom they care. It is also important that they advocate for, and support the use of a full disclosure policy in their units. By enhancing the quality of practice with open, honest and effective communication, a culture of patient safety can be achieved.

Reflections from the unit

Informal conversations held with nurses revealed some of their thoughts and feelings regarding full disclosure when caring for

patients and families who had experienced an adverse event. They found that it was difficult, but tried to be understanding, and felt that listening was an important aspect of their interventions. Many nurses relied on nonverbal cues to guide their interactions. On full disclosure, in general, nurses believed there must be diplomacy and not blame, and that families have a right to know if something has gone wrong. Most felt that full disclosure must be nonjudgmental and that the team must stay together, and work as one. Generally, the nurses felt supported by the leadership and by their colleagues, especially the medical residents, when it was necessary to disclose an adverse event to patients and families.

Student reflections

Students working with patients and families in the ICU voiced that patients and families often opened up to them. They had more time to offer and, therefore, made excellent listeners. When interacting with any family experiencing a crisis or uncertainty, often the best thing they felt they could do was listen.

Conclusion

"The process of disclosing errors requires courage, composure, communication skills and a belief that the patient is entitled to know the truth" (Healthcare Purchasing News, 2006, p. 8).

Throughout this experience, the authors always found it useful to consider "wouldn't we want to know" if faced with a similar situation. It is hoped that by sharing our experiences and reflections, we will succeed in encouraging nurses to enquire about and adopt their own centre's policy on adverse event disclosure.

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Spacelabs Innovative Project Award Winner—2007

Solar system of safety

By Jannell A. Plouffe, RN, NP, DNP

Abstract

In 2004, the pediatric intensive unit at the Winnipeg Children's Hospital began a journey into space, engaging in the evolving culture of safety emerging in Canada. This process started with the joining of the Canadian ICU Collaborative on Patient Safety, where the first project focused on decreasing catheter-related blood stream infections (CRBSIs). This single project created the impetus for the mission: 2007 Solar system of safety. The solar system analogy was a powerful methodology to engage staff to travel to the different planets (projects) and step outside of their comfort zone into what some perceived as zero gravity. Planets (projects), in addition to CRBSIs, included safety huddles, safety newsletter, ventilator-associated pneumonia reduction, pediatric rapid response team, and executive walk rounds.

In 2007, the pediatric intensive care unit (PICU) safety team's "Solar system of safety" received the Spacelabs Innovative Project Award. This safety initiative gained the attention of the entire PICU multidisciplinary team, as it used the planets as identifiers for the safety projects with the goals, objectives and measures as distinct parts of the mission into space. A project of this magnitude embodied multiple change concepts, with the primary one of having fun through this journey, a principle that made the space travel far more appealing to all. The funds from the award allowed further celebration of the changed culture of safety, as all members of the PICU received a celebratory gift of thanks.

Mission summary: Past, present and future

Catheter-related blood stream infections (CRBSIs): Our goal was to decrease CRBSIs by 50% and sustain these results. We have decreased CRBSIs by 75%, from a rate of 4.4/1000 to 1/1000 line days and maintained this over the past four years (2005 to 2009). The success of this is enormous, as we have twice exceeded a year (365 days) without any CRBSI. Our compliance with the insertion bundle ranges from 90% to 100% and the adherence to the maintenance bundle consistently sits above 75%. This demonstrates the outstanding commitment of the entire team.

Ventilator-associated pneumonia (VAP): Our goal was to decrease the VAP rate by 50% in our patient population, with the baseline rate being 2.9/1000 ventilator days. For the last two years, the data support consistent goal achievement with the VAP rate 1/1000 ventilator days (2006 to 2008).

Safety newsletter: A member of the safety team serves as the editor and compiles information from the rest of the PICU team and publishes this information quarterly. This newsletter includes data, stories, near misses and education, serving as a formal method of information within the PICU and the rest of the children's hospital.

Safety huddles: These are conducted weekly inside the PICU corridors, led by a member of the safety team. All staff present are invited to attend and, although participation is voluntary, the turnout is excellent. Staff can identify clinical experiences they have questions about, or any concerns surrounding safety for themselves, patients or families. Once identification of an issue is complete, solutions are sought and responsibility is assigned to a member of the safety team for completion of the task. The nurse manager attendance at these huddles is highly valued, as support is provided and it is immediately discussed whether this issue extends into a larger forum. Minutes are kept, circulated to the PICU team and subsequently entered into a huddle database to allow tracking of task completion, as well as identifying the individual responsible.

Executive walk rounds: A member of the safety team engages the child health senior management team at the children's hospital to attend walk rounds in the PICU semi-annually. The focus is safety issues for patients, families and staff. This has been evaluated as a powerful means of communication from the frontline and has provided impetus and senior level support for several key improvement opportunities to succeed.

Pediatric rapid response team (PRRT): Beginning as a pilot in 2006, formalized into a program in 2007, this has proved to be the single most important safety initiative that affects the largest patient population. The motto "there is no bad call" and that every encounter is a "learning opportunity" provides the key and foundation for success. It is extremely rare to have a pediatric code on the ward, as the PRRT is activated by any member of the team with no repercussions for calling. There are specific activation criteria that provide direction, but also allow flexibility and open limits of calling. All calls are reviewed by the PRRT leads and, to date, 98% of the calls are evaluated as appropriate. There are 11 to 28 calls per month (180 to 220 annually) with about 25% of the patients requiring transfer to the PICU for continued care and interventions. Evaluations of each call are completed by both the PRRT and the ward service. This provides further opportunity to learn and grow, with the ward service continually rating the PRRT as extremely valuable.

New missions

Severe sepsis screening: Since 2007, we have used a severe sepsis screening tool in the PICU and on pediatric rapid response team calls. All positive severe sepsis screens then have a 'bundled approach' applied to care. This screening has spread to the pediatric wards to improve the recognition of severe sepsis. Currently, there are no missed cases of severe sepsis in the PICU or on the ward (2010 data). Application of the sepsis bundle is currently sitting at about 70%, but ranges monthly from 65% to 90%. Death from severe sepsis at the children's hospital has gone from 10% to 12% of the pediatric deaths to 2.8% after the first year of data (retrospective chart review).

Occurrence report reviews: In 2007, our safety team decided it was not enough to simply fill our occurrence reports and send them off to the 'zone'. It was decided we would use these reports as a learning opportunity, take ownership and explore solutions. The safety team meets regularly to review each and every occurrence report and identify level of risk and develop solutions to prevent or decrease the likelihood of further occurrence. An annual executive summary is developed for the hospital leadership but, more importantly, small sections of data, two months at a time, are shared with the staff in poster format, in the safety newsletter and at the weekly safety huddle. A database is used to organize and compile the data so that change can occur. The learning opportunities from these are significant and the culture of no blame is witnessed, as we focus on solutions, not the individual level of performance. We try to emulate, making it hard to do the wrong thing and easy to do the right thing.

Admission from operating room (OR): Over the last year, examination of the challenges surrounding a safe, efficient transfer from the OR to the PICU has been explored. We are currently entering large-scale testing of a tool, that assists not only in data collection, but also identifying priorities of care prior to leaving the OR theatre.

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Pediatric intensive care unit safety team

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Spacelabs Innovative Project Award Winner—2008

Megacode simulation workshop and education video—*A megatonne of care* and *Code blue: Live and interactive*

By Lynda Loucks, BMR PT, MSc (Rehab), Jessica Leskowski, BSc, and Wendy Fallis, RN, PhD

Abstract

Skill acquisition and knowledge translation of best practices can be successfully facilitated using simulation methods. The 2008 Spacelabs Innovative Project Award was awarded for a unique training workshop that used simulation in the area of cardiac life support and resuscitation to train multiple health care personnel in basic and advanced skills. The megacode simulation workshop and education video was an educational event held in 2007 in Winnipeg, MB, for close to 60 participants and trainers from multiple disciplines across the provinces of Manitoba and Northwestern Ontario. The event included lectures, live simulation of a megacode, and hands-on training in the latest techniques in resuscitation. The goals of this project were to promote efficiency and better outcomes related to resuscitation measures, to foster teamwork, to emphasize the importance of each team member's role, and to improve knowledge and skills in resuscitation. The workshop was filmed to produce a training DVD that could be used for future knowledge enhancement and introductory training of health care personnel. Substantial positive feedback was received and evaluations indicated that participants reported improvement and expansion of their knowledge of advanced cardiac life support. Given their regular participation in cardiac arrest codes and the importance of staying up-to-date on best practice, the workshop was particularly useful to health care staff and nurses working in critical care areas. In addition, those who participate less frequently in cardiac resuscitation will benefit from the educational video for ongoing competency. Through accelerating knowledge translation from the literature to the bedside, it is hoped that this event contributed to improved patient care and outcomes with respect to advanced cardiac life support.

The 2008 Spacelabs Innovative Project Award, provided through the Canadian Association of Critical Care Nurses (CACCN), was awarded to a health care team from the Victoria General Hospital (VGH) in Winnipeg, MB, led by Dr. Wendy Fallis. The successful project was titled, "A megatonne of care" and consisted of a megacode simulation workshop and development of a training video called, "Code blue: Live and interactive". The simulation was held on May 11, 2007, at Victoria General Hospital in Winnipeg, MB, during which participants listened to didactic instruction in the latest techniques in resuscitation with an emphasis on the importance of each team member's role during a cardiac arrest situation. This was followed by a "surprise code blue" scenario (cardiac resuscitation) that occurred during the participants' nutrition break. This simulation was professionally filmed so that an educational DVD could be produced for the purpose of training critical care and non-critical care personnel in resuscitation and Advanced Cardiac Life Support (ACLS) guidelines 2005 (American Heart Association, 2005).

This event was planned and undertaken by an interdisciplinary advisory group with knowledge and expertise in critical care, and was sponsored by the Clinical Institute of Applied Research and Education (CIARE), VGH, and the Winnipeg Regional Health Authority (WRHA), Winnipeg, MB. The event was held following a day of education sessions during which participants learned from experts who presented lectures on topics from healthy lifestyle choices for the prevention of chronic diseases to best practice updates in areas of critical care.

The megacode simulation was open to any health care worker, including non-professional staff such as porters and health care assistants who often serve critical roles in resuscitation. The session was attended by a total of 48 participants and 12 trainers from across the province of Manitoba and from Northwestern Ontario (NWO). Participants ranged from multiple disciplines, including frontline workers, nurse managers, and students.

Until this event, there had been neither simulation training workshops of this nature for health care personnel within Manitoba and NWO, nor other educational videos produced following the release of the updated 2005 ACLS guidelines for handling of a cardiac arrest situation. Thus, this workshop was a unique method of providing resuscitation training and exposure to health care workers in Manitoba.

Purpose

The megacode simulation workshop afforded an opportunity for participants to experience a live running of a cardiac arrest code blue scenario through simulation, whereby they could apply knowledge of the ACLS guidelines in a non-threatening environment. This unique method aimed to produce more efficient responses and better outcomes of resuscitation by providing the opportunity to witness state of the art and best practices in cardiac and respiratory care. The project also endeavoured to expose health care workers to the roles and responsibilities of various team members in the event of a code blue, to raise awareness of the importance of rapid response by all team members, to improve participants' skills in resuscitation, and to generate interest in the field of critical care.

The educational video "Code blue: Live and interactive" resulting from the workshop could be used to train new staff, or as a continuing education support tool for the critical care environment. It includes video footage of megacode procedures, as well as step-by-step narration and chapter summaries of critical information for each section of the megacode, according to 2005 ACLS guidelines. The expectation was that

the video would, ultimately, result in more effective, safe, and consistent care. Use of the video for training also was expected to positively impact staff attitudes and confidence in assisting or participating in resuscitations.

An additional goal of this project was to enhance the skills and knowledge of all team members as an interdisciplinary team. Historically, training for code blue resuscitation occurs on an individual basis, whereas this new approach placed greater emphasis on the effectiveness of teamwork in responding to a cardiac arrest through best practice. In light of the advent of family presence during resuscitations in many ICUs, enhanced knowledge of drugs and procedures that are consistently used in megacode situations provides improved confidence for ICU nurses and other staff who may experience increased anxiety in the presence of a family witness (Halm, 2005; MacLean et al., 2003).

Description of the event

The megacode simulation workshop began with a plenary lecture reviewing key elements of response to a code blue that enhance the chances of survival and also a review of the importance of each team member's role in a resuscitation attempt. Following this presentation, attendees witnessed a surprise cardiopulmonary arrest situation, involving actors and staff from throughout the hospital. The education theatre was set up with state-of-the-art equipment resembling a mock ICU suite, where participants were able to observe firsthand how a resuscitation code is managed. To improve viewing options, participants had both a live view of the event and the ability to view it on a large-screen TV monitor located in the education theatre. The event script, contrived by a critical care nurse and physician, allowed attendees to observe an unexpected (but planned) collapse of an individual and the ensuing response by the code blue team. Attendees were able to get a glimpse of the intensity and energy of a code blue, as the collapsed individual was subsequently transported via stretcher to a simulated ICU setting and treated by critical care nurses, an ICU physician, respiratory therapists, and support staff undertaking CPR. During the brief transport, the real person was unobtrusively switched with a doll simulator (SimMan®, Laerdal Medical, New York).

Throughout the episode, ACLS principles were followed and a critical care physician narrated exactly what was occurring. The narrator described the various cardiac rhythms experienced by the collapsed individual, results of blood gas values, medications that were administered and the need for any other treatments, along with an explanation of the reasoning for each.

Table 1: Comments by participants of the megacode simulation workshop

- "Wonderful learning opportunities"
- "I really learned a lot"
- "Very practical"
- "Excellent teamwork"
- "Megacode extremely interesting"
- "Very useful"
- "Many participants have never seen [an actual code run] and thought it was great"
- "Good review of knowledge"
- "Well done"
- "Very valuable code simulation event"

A unique aspect of the simulation was the inclusion of a family member (actor) who attended the resuscitation and the interaction between the family member and the team. The family member entered the scenario part way through the resuscitation after the team mutually agreed that it was permissible for the family member to be present. The family member was accompanied by a family facilitator—a support person who provided explanations and emotional support to the family member throughout the scenario. The inclusion of this family witness and the use of a family facilitator were based on recent family presence during resuscitation literature (Halm, 2005; MacLean et al., 2003), translating the importance of providing families with this option.

The ending of the mock resuscitation involved the resuscitation team's planning for and transferring of the "patient" to a cardiac specialty unit. This was facilitated by a local emergency medical service.

Following the mock resuscitation, participants spent time at practical, "hands-on" review stations using resuscitation equipment or techniques. The review stations, facilitated by certified ACLS educators, included (1) establishing airways, (2) automated electrical defibrillators (AEDs), (3) compression techniques, (4) code blue documentation (charting), (5) medications, and (6) "mending it all together".

The day following this event, the mock ICU suite was made available to the public during a health fair sponsored by the facility. Members of the public were shown the equipment used in critical care environments, given explanations of its use, and were able to ask questions of health professionals.

Feedback

Feedback from participants, both written and verbal, was very positive (Table 1). Participants completed evaluation forms at the end of each portion of the event (Figure 1). Approximately 90% of participants believed that attending the workshop improved their knowledge of megacodes and 84% would

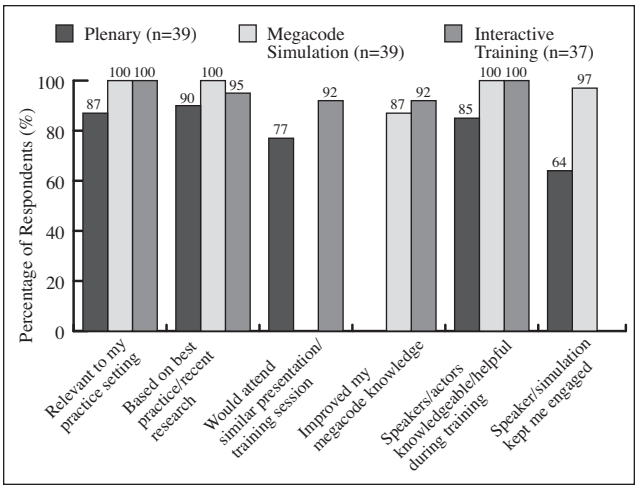

Figure 1: Results of participant evaluation of the megacode simulation workshop

attend another similar event (n = 39). Of those who gave an evaluation of the interactive training sessions (n = 37), 95% stated that the hands-on practice time was useful. Almost all (97%) who evaluated the megacode simulation believed that the presentation was audience-friendly.

Megacode training video

The events of the megacode simulation workshop were professionally filmed and edited to create a 20-minute training video—*Code blue: Live and interactive*. This video serves as an educational tool to train nurses and health care professionals on the 2005 ACLS guidelines for cardiopulmonary resuscitation. The script, written by an experienced ICU nurse educator, a physician, and a physiotherapist, incorporates the narration of the simulation and 2005 ACLS algorithms. Within this video, splices from the original simulation scene are accompanied by narrated dialogue and text highlights of the guidelines. The video was designed to be user-friendly and was divided into the following segments: (a) introduction, (b) rapid response, (c) critical care, (d) defibrillation, (e) intubation, (f) medications, (g) atrial fibrillation, (h) sinus bradycardia, (i) central line, (j) pacing, (k) pneumothorax, and (l) continuing care.

This video has been made available on request to nurses and other health care professionals both within and outside of the critical care environment at health care institutions in Canada and the U.S. It has also been presented at several venues and has been made available for purchase online. The potential educational benefit of this unique educational tool has, thus, been widespread.

Impact on critical care nursing

Approximately 50 nurses at both novice and expert levels, along with several other health care providers (respiratory therapists, spiritual care, social work, managers, nurse educators, program facilitators, and nursing and spiritual care students) have already benefited from this live enactment of a cardiac arrest code. Participants were employed in critical care departments, as well as in rural hospitals where similar critical events are less common, but equally important. These nurses reported an increase in their megacode knowledge after witnessing the simulation and participating in hands-on training.

The topic of a cardiac arrest and the running of a "code blue" resuscitation are extremely relevant to critical care nursing. Although written ACLS guidelines are available, keeping critical care nurses current on this topic and using techniques that enhance adult learning are imperative. The simulation workshop on the running of a resuscitation code with participation by nurses and other health care workers is extremely useful for professional development and enhances knowledge transfer. The production of a video with a focus on up-to-date ACLS guidelines that can be used across North America to assist in training or retraining of nurses or other health care professionals in critical care is a novel educational medium. This project has addressed a gap in the educational process related to cardiopulmonary resuscitations.

For critical care nurses, this topic is of particular importance, as they participate in codes on a regular basis. Both junior and senior critical care nurses may repeatedly watch the video to hone their clinical knowledge of current ACLS guidelines, which includes family-witnessed resuscitation. Nurse educators in ICUs or in critical care education programs can use the video as a teaching tool when the topic of cardiac arrest sessions is being discussed. This enhanced education of critical care nurses relating to cardiopulmonary codes via the video is paramount if the running of a code is to be smooth and successful. In addition, for geographic areas that do not have easy access to experts such as nursing educators to provide education in ACLS, this review will serve as a valuable tool for training. It is also of high value to nurses who work in remote areas where critical cardiac events are less common.

Conclusion

Most resuscitation occurs in the critical care areas of a facility (ER and ICU). Rapid response time and teamwork are critical to the best outcome for the affected patients and their families. We believe that best practice education, megacode simulation, and team training is an ideal way to enhance the ability of team members to work quickly and effectively together. The perceptions and feedback received indicate that this workshop was an effective means of accelerating knowledge translation from the literature to the bedside. This event is hoped to have contributed to improved patient care and outcomes for patients through the dissemination of knowledge regarding best practice for cardiac resuscitation.

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Spacelabs Innovative Project Award Runner-Up—2009

Critical Care Nursing Journal Club—Calgary

By Judy Glowa, RN, BN, Gail Liggett, RN, MN, CNCC(C), and Elaine Rose, RN, MHS

Journal club has been a powerful educational tool for professionals playing an active role in medical education and research utilization for more than a century (Cushing, 1926). In 2001, three critical care nurses wondered if staff nurses in the Calgary ICUs would benefit from meeting and discussing literature pertinent to their daily practice in the forum of a journal club. A meeting was organized with nursing staff from the three adult ICUs with discussion centring on what would the bedside nurse want from a journal club and would nurses be willing to attend journal club meetings.

One of the themes that arose was that in order to provide the best care in ICU, critical care nurses must be able to evaluate and critique research and implement changes to our practice when appropriate. Another identified benefit for nurses was enhancing staff morale and team building, since we often transferred patients between sites and we shared common problems. Often, one site would have found a solution to a problem that another site might be experiencing and the sharing of information would be extremely helpful for all those concerned. There was also discussion regarding interdisciplinary attendance including respiratory, medicine, physiotherapy, dietary and social work to enhance effective communication with other disciplines. We also believed that we would need assistance from expert nurse researchers to guide us in order to critique literature effectively.

We decided to approach pharmaceutical companies for sponsorship for our meals. Initially, we had hoped to meet monthly but, after careful consideration, we decided to meet every seven or eight weeks, with a hiatus in the summer months.

After our initial meeting, posters regarding journal clubs, and information on critiquing research were circulated to the nurses in the three ICUs. We had our first journal club meeting on June 20, 2001. Two staff nurses from the Foothills ICU presented the article *The influence of the composition of the nursing staff on primary bloodstream infection rates in a surgical intensive care unit* (Robert, 2000). We had a lively discussion, but it was felt we needed help in analyzing research. We have been grateful to guest speakers such as Dr. Jeanne Besner, past president of CARNA and Director of the Health Systems and Workforce Research Unit with the Calgary Health Region; Dr. Margaret Edwards, Dean Master's Program, Athabasca University; Dr. Lynda Christie, Nursing Research Co-coordinator, Foothills Hospital; Dr. Jim Rankin, Faculty of Nursing, University of Calgary; Dr. Paula Price, Mount Royal University; Dr. Brenda Paton, Faculty of Nursing, University of Calgary; and Karen Then, Faculty of Nursing, University of Calgary, who have led many discussions and taught us much regarding analyzing research throughout the years.

We generally circulate information regarding journal clubs and hints on critiquing literature every year or two. We have been very fortunate in that our attendance is increasing. When we first began we had anywhere from six to 12 attendees. Our numbers, at present, are around 15 nurses. We have had social workers, physiotherapists and physicians attend. We are grateful to our sponsors who have supported us throughout the years. As well, we have been totally supported throughout the years by nursing management. Many of them attend our meetings regularly.

The nurses will often forward articles that interest them in their practice to the journal club organizers and the notification of the link to the article will be on the journal club poster. In the fall of 2009 we had a very lively discussion regarding provincial pandemic planning led by Dr. Eric Wasylenko. The article was titled *The role and obligation of health-care workers during an outbreak of pandemic influenza* (Upshur, 2006). Many ethical and passionate discussions took place at journal club that night.

We are pleased that our critical care nursing journal club is thriving and growing. Perhaps in the future, we can achieve one of our ambitions, which is to develop a nursing research project involving regular members of our journal club. We would like to thank Spacelabs for this award, and we used the monies received to sponsor our last journal club.

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2007 Research Grant summary

Health care providers' perceptions of family presence during pediatric resuscitation

By Jannell A. Plouffe, RN, NP, DNP, Helen Cooper, RN, Kim Fraser, RN, and Susan Launder, RN

Abstract

***Background**: The Pediatric Intensive Care Unit (PICU) team strives to achieve the family-centred care philosophy consistent with the organization's vision and mission. In 2006, a team of nurses began exploration of the evidence on family presence during pediatric resuscitation with the primary goal to integrate this knowledge into practice. From the literature search, it was apparent there was limited published research, especially in a Canadian pediatric setting. This led to a staged research project to explore and, subsequently, integrate family presence during resuscitation into the culture.*

***Objectives**: 1) To explore health care providers' perceptions of family presence during pediatric resuscitation (2007), 2) Based on these findings, develop and integrate a guideline to best support this practice (2008–2009), and 3) Re-examine health care providers' perceptions post guideline implementation (2010).*

***Methodology:** Following approval from the University of Manitoba nursing and education ethics review board and the site research coordinating committee, survey methodology was used to gather data at baseline (2007) and again post implementation (2010). Data were analyzed independently at each time interval and then in comparison to explore the quantitative and qualitative responses.*

***Findings**: In 2007, data demonstrated sufficient support to move this project forward. In addition, the survey indentified facilitators and barriers to assist in both the development of an evidence-based guideline and the successful integration into practice. In 2010, the post-implementation survey supported the evidenced-based practice guideline had achieved its goal of integration into practice.*

This project was awarded funding from the CACCN research grant in 2007. The following is a summary of the research. The research team will present the full findings at the Dynamics event in London, Ontario, in 2011.

Setting

A 12-bed combined medical surgical PICU in the prairie region of Western Canada. The PICU is part of a children's hospital and adult tertiary care centre serving a population base of 1.2 million.

Research question

There were two main questions: 1)What are health care providers' perceptions of family presence during pediatric resuscitation, and 2) Does the implementation of an evidence-based practice guideline for family presence during resuscitation impact health care provider perceptions?

Research methods

The research question required a quasi-experimental design, performing mixed methods approach on a non-equivalent control group in a pre-test post-test design of health care providers (HCPs) in the PICU. This included a baseline survey measuring qualitative and quantitative components, followed by an intervention (development and implementation of a guideline) and, subsequently, a post-intervention survey to assess knowledge transfer, change in individual perceptions and attitudes related to family presence/participation in pediatric resuscitation. The mixed methods procedure for data collection was a concurrent nested strategy of quantitative date embedded in qualitative.

Limitations

Unforeseen events affected the research. A relocation of the PICU in 2007 with an almost 200% increase in funded/staffed beds and the onset of pandemic H1N1 2009 influenza in the spring of 2009 were not predicted. This translated to a significant increase in number and change in the demographics of HCPs from baseline to post intervention. The time lag between measures combined with the change in health care providers de-emphasizes the individual or group change from pre-test to post-test, but is more of a measure of the climate of change, or reality in practice. It examines "Does the developed guideline and processes in place support the philosophical tenants of family presence in resuscitation, as a part of family-centred care?"

Data analysis

Descriptive and inferential statistics were applied in the two time periods. Qualitative analysis was performed at each time interval, and then analyzed in comparison. Data arising will be detailed at Dynamics 2011.

Results summary

The endorsement of a family-centred care philosophy surrounding family presence during resuscitation was apparent. Baseline data showed strong support for family

presence during pediatric resuscitation. Qualitative data were used in the educational presentations, as part of the guideline introduction in 2008 and 2009. In 2010, the analysis demonstrated validation that family presence during resuscitation was the current approach to care: "The way we do our business".

Conclusion

This research project began as an attempt to explore the current evidence to support family presence during pediatric resuscitation events. This PICU wanted to implement family presence, but acknowledged the necessity of exploration of the science to best facilitate a change of this magnitude, as it affected all members of the health care team. The existing evidence was limited and, thus, we sought our own evidence to 'generate new knowledge'. The research identified HCPs' perception over time and validated the evidence-based guideline, as a suitable methodology to impact change in practice. This project exceeded knowledge generation, as it became a tool to empower frontline nurses to do research, apply the findings and successfully implement a change in practice. This is the ultimate goal for evidence-based nursing practice.

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Future sites of Dynamics conferences

Dynamics 2010	September 19–21, 2010 *Edmonton, Alberta*
Dynamics 2011	October 16–18, 2011 *London, Ontario*
Dynamics 2012	September 23–25, 2012 *Vancouver, BC*
Dynamics 2013	TBD *Halifax, NS*
Dynamics 2014	TBD *Quebec City, QC*
Dynamics 2015	TBD *Winnipeg, MB*

ISMP Canada

Hospitals report on medication safety in Canada

By Julie Greenall, BScPhm, MHSc (Bioethics), Patricia Lefebvre, BPharm, MSc, FCSHP, Sylvia Hyland, BScPhm, MHSc (Bioethics), and Bonnie Salsman

Abstract

Measurement of safety can be difficult. Given that incident reporting systems rely primarily on voluntary reporting and some types of medication incidents may occur rarely, lack of reports about a particular type of incident cannot be interpreted as evidence that the underlying causes are resolved. Proxy measurements, such as the level of implementation of evidence-based practices known to reduce the risk of a particular incident, may provide an indication of progress toward safer systems. This article includes an overview of some proxy measurements influencing medication use systems in patient care areas, including critical care, as reported in the biennial ***Hospital Pharmacy in Canada*** *survey.*

Over the past decade, patient safety has become a strategic priority for all health care sectors. One important component of patient safety is medication safety. Practitioners, working in concert with national safety agencies, including ISMP Canada and the Canadian Patient Safety Institute, and with support from various provincial initiatives and Accreditation Canada, have undertaken collaborative efforts to enhance the safety of medication management. To assess the progressive uptake of these initiatives over time, it is important to develop qualitative and quantitative measurement processes. One valuable source of information collected from across the country is the biennial Hospital Pharmacy in Canada Report (Babich et al., 2008). The 17th report in this series, released in 2009, is available at **http://www.lillyhospitalsurvey.ca/hpc2/content/rep_2008_toc.asp**. Each of the four most recent reports, beginning with the 2001/02 report, has dedicated one section to the topic of medication safety, and these sections provide a useful perspective on changes in medication management processes across Canada. Many of these changes have influenced how medications are provided to and managed by critical care practitioners. This article highlights some achievements in medication system safety, as captured by the most recent Hospital Pharmacy in Canada Annual Report.

The Hospital Pharmacy in Canada 2007/2008 Report (Johnson, 2008) summarized responses from the 166 hospitals (out of 223 hospitals invited to participate) that responded to the survey, a 74% response rate. The responding hospitals consisted of 40 teaching hospitals and 126 nonteaching hospitals. To be eligible to participate, hospitals had to have a minimum of 50 acute care beds. The participating organizations represented 69,212 inpatient beds, of which 49,014 were acute care beds (Johnson, 2008). Of the 166 responding hospitals, 161 completed the medication safety section of the 2007/08 survey, and the data presented in the following sections relate to these 161 respondents (Lefebvre, 2008).

Learning from medication incidents

A key component of a safe medication use system is a system for reporting and analyzing medication-related incidents. All of the 161 respondents indicated that such a reporting system was in place, with 90% reporting that a designated committee was responsible for reviewing the incidents.

Since the 2001/02 report, there has been a steady increase in the proportion of respondents indicating that their hospitals reported medication incidents externally, to regional health authorities, to provincial reporting systems, or to ISMP Canada (see Figure 1) (Harding & Lefebvre, 2002; Lefebvre, 2008). The 2007/08 report notes, "The presence of reporting systems, in all of the hospitals that participated in the 2007/08 survey will hopefully facilitate future participation in the Canadian Medication Incident Reporting and Prevention System (CMIRPS)… CMIRPS is part of the pan-Canadian reporting and learning system being developed to support the capture, analysis and dissemination of information about adverse events, with the goal of insuring that known risks are acted upon in a coordinated and timely manner." (Lefebvre, 2008, p. 53).

Nearly 60% of all respondents indicated that information from published incident reports was broadly disseminated to staff and physicians. Such dissemination supports the CMIRPS goal of shared learning from incident analysis.

Actions to reduce risk

Understanding the underlying system-based weaknesses that contribute to medication-related incidents requires both retrospective analysis of incidents that have occurred and prospective analysis of the potential for error. The 2007/08 report notes that 63% of respondents (90 of 142) reported conducting a retrospective analysis (root cause analysis) of one or more medication incidents in the previous year, and 46% (72 of 157) reported conducting a prospective analysis (e.g., failure mode and effects analysis) related to medication safety in the same time period. Of the respondents who reported conducting a retrospective or prospective medication safety–related analysis, nearly all (94% for each) reported that they had implemented improvements, as a result (Lefebvre, 2008).

Accreditation Canada's Standards for Managing Medications, as well as various required organizational practices (ROPs), address strategies for safe medication management. The medication-related ROPs highlight the importance of safely managing high-alert medications, including concentrated electrolytes, heparin, and opioids (Accreditation Canada, 2010). Several questions in the Hospital Pharmacy in Canada survey collect information relevant to such Accreditation Canada requirements, and Figure 2 highlights some of the

responses related to this from each biennial survey since 2001/02 (Harding & Lefebvre, 2002; Lefebvre, 2004; Lefebvre, 2006; Lefebvre, 2008).

Medication reconciliation, a structured process for preventing medication errors at transitional points in care, is an ROP of Accreditation Canada (Accreditation Canada, 2010) and is among the interventions promoted through the Canadian Patient Safety Institute's Safer Healthcare Now! (SHN) campaign. The SHN medication reconciliation interventions are led by ISMP Canada (Institute for Safe Medication Practices Canada [ISMP Canada], 2010a). Overall, 72% (114 of 159) of respondents to the medication safety section of the 2007/08 Hospital Pharmacy in Canada survey reported that a formal process was in place to obtain a complete list of the patient's current home medications. Of these, 94% reported having a formal process for using this medication list when admission orders were written. These data suggest that there has been considerable uptake of medication reconciliation processes for this transition point.

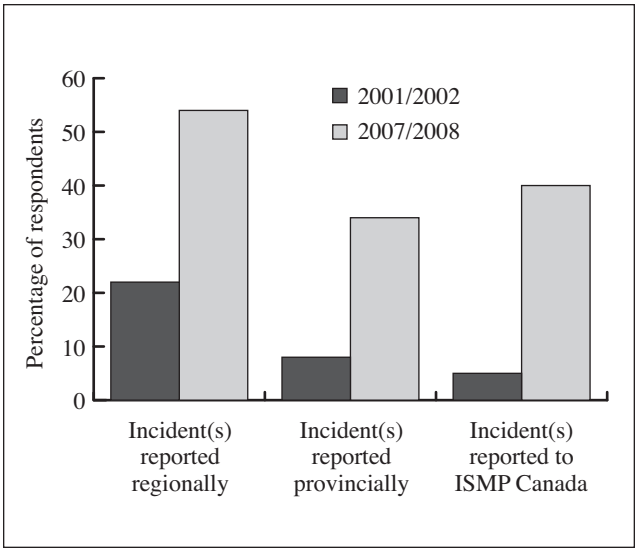

Figure 1: Reporting of medication incidents to external bodies (Harding & Lefebvre, 2002; Lefebvre, 2008)

Nearly two-thirds (99 of 156) of the 2007/08 respondents indicated that they had completed a medication safety self-assessment within the previous two years, and 93% of these reported using the ISMP Canada program (ISMP Canada, 2010b). The report notes that "with the implementation of the new Managing Medications Standards, surveyors from Accreditation Canada now frequently ask if you have conducted a Medication Safety Self-Assessment tool and if you wish to share the results at the time of the survey." (Lefebvre, 2008, p. 55).

Conclusions

Safety can be described as *what doesn't happen*. As such, the measurement of safety can be difficult. However, measurement strategies are necessary to ensure that the various safety initiatives and interventions being implemented across the country are actually having a positive effect on the risk of

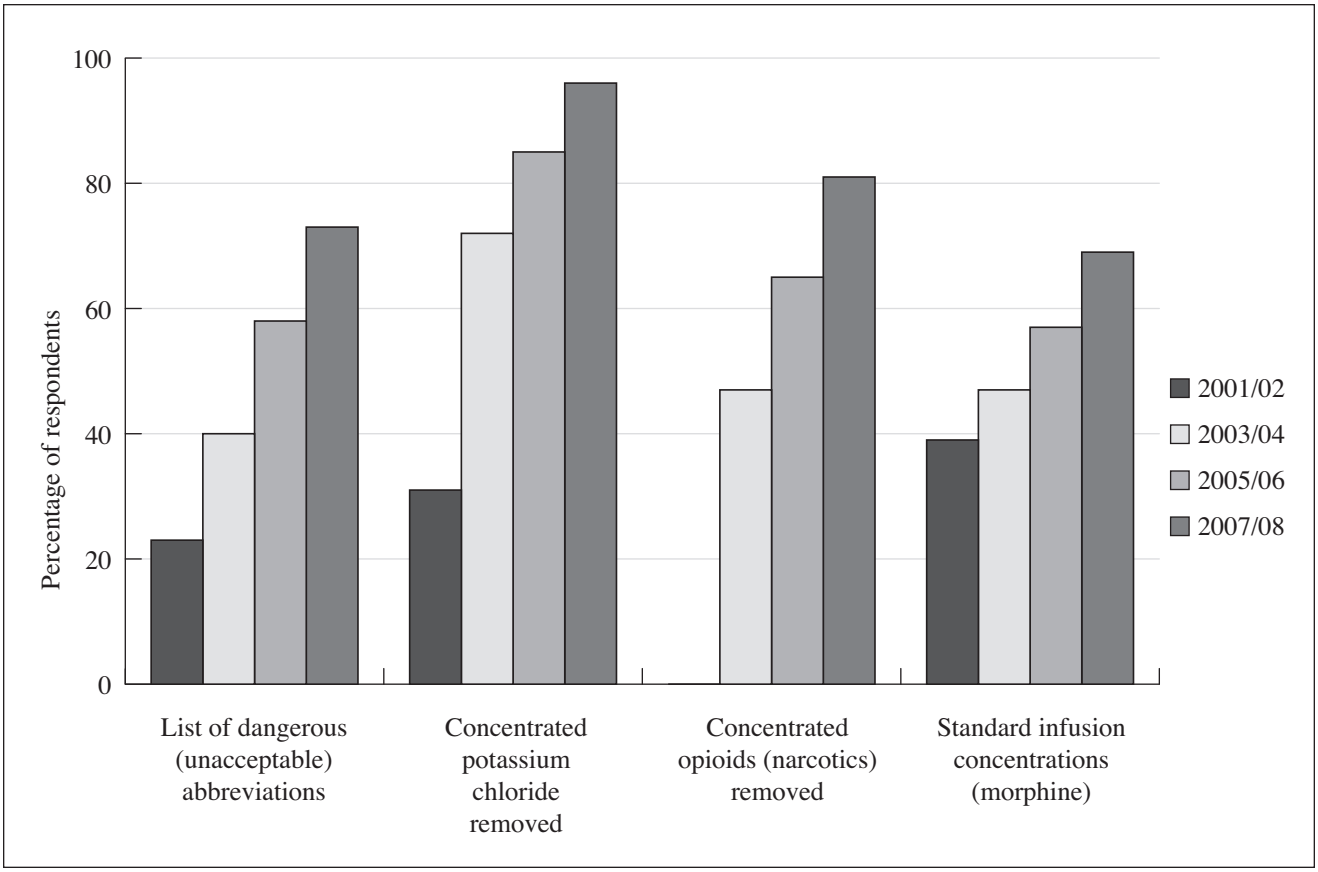

Figure 2: Implementation of selected Accreditation Canada standards and required organizational practices (ROPs) (Harding & Lefebvre, 2002; Lefebvre, 2004; Lefebvre, 2006; Lefebvre, 2008)

preventable harm. Given that medication incidents of a specific type may occur only rarely and that incident reporting systems rely primarily on voluntary reports, lack of reports about a particular type of incident cannot be interpreted as evidence that the underlying causes have been resolved. Thus, a variety of proxy measurements, such as the level of implementation of evidence-based practices that are known to reduce the risk of a particular incident, are needed. For example, a constraint function, such as the removal of concentrated potassium chloride from patient care areas, is known to decrease the potential for its inadvertent administration. Therefore, widespread removal is likely to decrease the risk of incidents across the country.

In addition to specific content on the topic of medication safety, the Hospital Pharmacy in Canada Reports also provide valuable information about progress in other areas of pharmacy practice, such as clinical services, drug distribution, and use of technology, all of which affect patient care processes and safety within the critical care environment. These reports have been a useful resource and benchmarking tool for individual pharmacy departments and hospital leadership for many years. The authors suggest that they can also provide an important longitudinal perspective on the evolution of safe medication management practices in Canadian hospitals and the accomplishments achieved to date.

This article was written using materials from ISMP Canada, with permission (ISMP Canada Safety Bulletin. April 30, 2010; 10(2):1-3. Retrieved from ***http://www.ismp-canada.org/download/safetyBulletins/ISMPCSB2010-02-HospitalReportMedSafety.pdf****)*

ISMP Canada gratefully acknowledges the valuable lessons learned and information reported by professionals in the Canadian healthcare community that can then be shared to enhance medication system safety. All ISMP Canada Safety bulletins are available from **http://www.ismp-canada.org/ISMPCSafetyBulletins.htm**

ISMP Canada is an independent national not-for-profit organization committed to the advancement of medication safety in all health care settings. ISMP Canada maintains a national voluntary medication incident and 'near miss' reporting program founded for the purpose of sharing the learning experiences from medication errors. Our collaborative goal is implementation of preventive strategies and system safeguards to decrease the risk for error-induced injury.

ISMP Canada is a key partner in the Canadian Medication Incident Reporting and Prevention System (CMIRPS).

Medication Incidents (including near misses) can be reported to ISMP Canada:
(i) through the website http://www.ismp-canada.org/err_report.htm or
(ii) by phone: 416-733-3131 or toll free: 1-866-544-7672.

ISMP Canada guarantees confidentiality and security of information received, and respects the wishes of the reporter as to the level of detail to be included in publications.

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Award information

CACCN Chapter of the Year Award Program

Award value: $500.00 plus a plaque.

Deadline: There is no application process, rather the award program will be for the period of April 1–March 31 each year.

Purpose: The Chapter of the Year Award is to recognize the effort, contributions and dedication of a chapter of CACCN in carrying out the purposes and goals of the association.

Criteria for the award program:

1. Chapters may win the award for one year followed by a two-year lapse before entering again.
2. A point system has been developed to evaluate chapter activities during the year. The chapter with the most points will be the winner of the Chapter of the Year Award. CACCN reserves the right to adjust points depending upon supporting materials submitted.
3. The award winner will be announced at Chapter Connections Day and at the annual awards ceremony at Dynamics.

Conditions for the award program:

All chapters of CACCN are eligible to participate provided they have on file at national office all of their financial (quarterly) and activity (annual) reports required for the qualifying period. Chapter website must be current.

If the above conditions are not met, the entry will be disqualified.

Announcement of the winner will be published in CACCN publications.

Categories and their corresponding points that will be used to determine the winning chapter are as follows:

1. Any educational programs that occurred during the fiscal year.
   Programs between:
   1–3 hours .....25 points each
   3–8 hours .....50 points each
   > 8 hours .....100 points each
2. A list of new members recruited during the fiscal year, including national CACCN membership numbers. Calculate your points based on the percentage of new members recruited as compared to the total membership of the previous fiscal year (prior to the qualifying period).
   1–10% .....10 points
   11–20% .....20 points
   21–30% .....30 points
   31–40% .....40 points
   41–50% .....50 points
   51–60% .....60 points
   61–70% .....70 points
   71–80% .....80 points
   81–90% .....90 points
   91–100% .....100 points
3. Evidence of chapter members who have contributed articles to either the chapter newsletter, or had a paper published in **Dynamics, the Official Journal of the Canadian Association of Critical Care Nurses.**
   25 points for each article/paper
4. Projects that provide public education, community service and/or promote the image of critical care nursing. These projects must be presented under the auspices of the CACCN chapter (i.e., participating in blood pressure clinics, teaching CPR to the public, participating in health fairs). Validation must be provided that the event was a CACCN-sponsored project by, for example, submitting a letter from the receiving group or a picture of the event, etc.
   50 points for each project

In the case of a tie, CACCN reserves the right to determine the winner. Good luck in your endeavours!

Sorin Group sponsors this award

CACCN Research Grant

Award value: $2,500.00

Deadline for submission: February 15 of each year.

Grant available: A CACCN research grant has been established to provide funds to support the research activities of a CACCN member that are relevant to the practice of critical care nursing. A grant will be awarded yearly to the investigator of a research study that directly relates to the practice of critical care nursing.

Eligibility: The principal investigator must:

- Be a member of CACCN in good standing for a minimum of one year.
- Be licensed to practise nursing in Canada.
- Conduct the research in Canada.
- Publish an article related to the findings in **Dynamics, the Official Journal of the Canadian Association of Critical Care Nurses.**

CACCN members enrolled in graduate nursing programs may also apply. Members of the CACCN board of directors and the awards committee are not eligible.

Application requirements:

- A completed application form.
- A grant proposal not in excess of five pages exclusive of appendices. Appendices should be limited to essential information, e.g., consent form, instruments and budget.
- A letter of support from the sponsoring agency (hospital, clinical program) or thesis chairperson/adviser (university faculty of nursing).
- Evidence of approval from an established institutional ethical review board for research involving human subjects and/or access to confidential records. Refer to the CNA publication **Ethical Guidelines for Nursing Research Involving Human Subjects**.
- Brief curriculum vitae for the principal investigator and co-investigator(s) describing educational and critical care nursing background, CACCN participation, and research experience. An outline of their specific research responsibilities is to be included.
- Proof of CACCN active membership.

Budget and financial administration:

- Funds are to be issued to support research expenses.
- Funds must be utilized within 12 months from the date of award notification.

Review process:

- A research review committee will review each proposal. Its recommendations are subject to approval by the board of directors of CACCN.
- Proposals are reviewed for potential contribution to the practice of critical care nursing, feasibility, clarity and relevance.
- Deadline for receipt of application in CACCN national office is February 15. The recipient of the research grant will be notified by mail.

Terms and conditions of the award:

- The research award is to be initiated within six months of the receipt of the grant. Any changes to the study timelines require notification in writing to the board of directors of CACCN.
- All publications and presentations arising from the research study must acknowledge CACCN.
- A final report is to be submitted to the board of directors of CACCN within three months of the termination date of the grant.
- An article related to the research study is to be submitted to **Dynamics, the Official Journal of the Canadian Association of Critical Care Nurses,** for publication.

Editorial Awards

Edwards

1st place award value: $750.00 Edwards

Runner-up award value: $500.00 CACCN

Deadline: None. Awards committee selection process.

The Editorial Awards will be presented to the authors of two written papers in **Dynamics, the Official Journal of the Canadian Association of Critical Care Nurses**, which demonstrate the achievement of excellence in the area of critical care nursing. An award, provided by Edwards Lifesciences, will be given to the author(s) of the best article, and another award is given to the author(s) of the runner-up article. It is expected that the money will be used for professional development. More specifically, the recipient must use the funds:

1. Within 12 months following the announcement of the winners, or within a reasonable time;
2. To cover and/or allay costs incurred while attending critical care nursing-related educational courses, seminars, workshops, conferences or special programs or projects approved by the CACCN, and
3. To further one's career development in the area of critical care nursing.

Eligibility:

1. The author is an active member of the Canadian Association of Critical Care Nurses (minimum of one year). Should there be more than one author, at least one has to be an active member of the Canadian Association of Critical Care Nurses (minimum of one year).
2. The author(s) is prepared to present the paper at Dynamics of Critical Care (optional).
3. The paper contains original work, not previously published by the author(s).
4. Members of the CACCN board of directors, awards committee or editorial committee of **Dynamics, the Official Journal of the Canadian Association of Critical Care Nurses** are excluded from participation in these awards.

Criteria for evaluation:

1. The topic is approached from a nursing perspective.
2. The paper demonstrates relevance to critical care nursing.
3. The content is readily applicable to critical care nursing.
4. The topic contains information or ideas that are current, innovative, unique and/or visionary.
5. The author was not the recipient of the award in the previous year.

Style:

The paper is written according to the established guidelines for writing a manuscript for **Dynamics, the Official Journal of the Canadian Association of Critical Care Nurses**.

Selection:

1. The papers are selected by the awards committee in conjunction with the CACCN board of directors.
2. The awards committee reserves the right to withhold the awards if no papers meet the criteria.

Presentation:

Representatives of the sponsoring company or companies will present the awards at the annual awards ceremony during the Dynamics conference. Their names will be published in **Dynamics, the Official Journal of the CACCN**.

The Spacelabs Innovative Project Award

SPACELABS Healthcare

Award Value: $ 1,500.00 (Total)

Deadline: March 1.

The award funds of $1,500.00 will be granted annually:

- $1,000.00 will be granted to the Award winner and $500.00 for the runner up.

Do you have a unique idea?

The Spacelabs Innovative Project Award will be presented to a group of critical care nurses who develop a project that will enhance their professional development.

The primary contact person for the project must be an active member of CACCN (for at least one year).

If the applicant(s) are previous winners of this award, there must be a one-year lapse before submitting again.

Applications will be judged according to the following criteria:
1. the number of nurses who will benefit from the project
2. the uniqueness of the project
3. the relevance to critical care nursing
4. consistency with current research/evidence
5. ethics
6. feasibility
7. timeliness
8. impact on quality improvement.

Within one year, the winning group of nurses is expected to publish a report that outlines their project in **Dynamics, the Official Journal of the Canadian Association of Critical Care Nurses.**

Smiths Medical Canada Ltd. Educational Award

smiths medical
bringing technology to life

Award value: $1,000.00 each (two awards)

Deadlines: January 1 and September 1.

The CACCN Educational Awards have been established to provide funds ($1,000.00 each) to assist critical care nurses to attend continuing education programs at the baccalaureate, masters and doctorate of nursing levels. All critical care nurses in Canada are eligible to apply, except members of the CACCN board of directors.

Criteria for application
1. Be an active member of CACCN in good standing for a minimum of one (1) year.
2. Demonstrate the equivalent of one (1) full year of recent critical care nursing experience in the year of the application.
3. Submit a letter of reference from his/her current employer.
4. Be accepted to an accredited school of nursing or recognized critical care program of direct relevance to the practice, administration, teaching and research of critical care nursing.
5. Has not been the recipient of this award in the past two years.
6. Incomplete applications will not be considered; quality of application will be a factor in selecting recipient.

Application process
1. Submit a completed CACCN educational award application package to National Office (forms package online at **www.caccn.ca**).
2. Preference will be given to applicants with the highest number of merit points.
3. Keep a record of merit points, dating back three (3) years.
4. Submit all required documentation outlined in criteria—candidate will be disqualified if documentation is not submitted with application.
5. Presentations considered for merit points are those that are not prepared as part of your regular role responsibilities.
6. Oral and poster presentations will be considered.

Post-application process
1. All applications will be acknowledged in writing from the awards committee.
2. Unsuccessful applicants will be notified individually by the awards committee.
3. Recipients will be acknowledged at the Dynamics of Critical Care Conference and be published in the official journal.

Chapter Recruitment and Retention Award

This CACCN initiative was established to recognize the chapters for their outstanding achievements with respect to recruitment and retention.

Recruitment Initiative:
This initiative will benefit the chapter if the following requirements are met:
- Minimum of 25% of membership is **new** between April 1 to March 31, the chapter will receive one (1) full Dynamics tuition.
- Minimum of 33% of membership is **new** between April 1 to March 31, the chapter will receive one (1) full Dynamics tuition and one (1) $100.00 Dynamics tuition coupon.

Retention Initiative:
This initiative will benefit the chapter if the following requirements are met:
- If the chapter has greater than 80% renewal of its previous year's members, the chapter will receive three $100.00 coupons to Dynamics of that year.
- If the chapter has greater than 70% renewal of its previous year's members, the chapter will receive two $100.00 coupons to Dynamics of that year.
- If the chapter has greater than 60% renewal of its previous year's members, the chapter will receive one $100.00 coupon to Dynamics of that year.

BBraun Sharing Expertise Award

B|BRAUN

Award value: $1,000.00

Deadline for nominations: June 1 each year.

The **BBraun Sharing Expertise Award** will be presented to an individual who exhibits stellar leadership and mentoring abilities in critical care.

The candidate is an individual who supports, encourages, and teaches colleagues. The candidate must demonstrate a strong commitment to the practice of critical care nursing and the nursing profession. These qualities **may be** demonstrated by continuous learning, professional involvement, and a commitment to guiding novice nurses in critical care.

Each nomination must have the support of another colleague and the individual's manager. It is not necessary for the candidate to be in a formal leadership or education role to qualify for this award.

Criteria:

- Nominee must be a CACCN member.
- The nominee must have at least three (3) years of critical care nursing experience.
- At least one nomination letter must be written by a CACCN member.
- Preference is given to a mentor who has CNA certification.
- The nominee must demonstrate an awareness of, and adherence to, the standards of nursing practice as determined by the provincial nursing body, and the Standards of Critical Care Nursing (2009).
- Members of the CACCN board of directors are not eligible.

Three (3) letters of support are required:

- The nominator must outline the qualities of the candidate, and reasons the candidate should be chosen to receive the award;
- Two additional letters must testify to the eligibility of the candidate, as well as outline his/her attributes (one must be written by the nominee's manager);
- All three letters must be sent by electronic mail by each person on the same day with the subject matter: "BBraun Sharing Expertise Award—Candidate's Name" to the director responsible for awards at National Office (**caccn@caccn.ca**).

Selection process:

- Each nomination will be reviewed by the awards committee in conjunction with the CACCN director of awards and sponsors;
- The successful candidate will be notified by email and regular mail.
- The successful candidate will be recognized at the annual awards ceremony at the Dynamics conference and her/his name will be published in **Dynamics, the Official Journal of the CACCN**;
- The awards committee reserves the right to withhold the award if no candidate meets the criteria;
- The funds may be used to attend educational programs or conferences related to critical care.

The Guardian Scholarship – Baxter Corporation Award for Excellence in Patient Safety

Baxter

Award value: One award of $5,000.00 or two awards of $2,500.00 each

Deadline: June 1 of each year.

The Baxter Corporation Guardian Scholarship will be presented to an individual or an interdisciplinary team who propose to make, or who have made, significant contributions toward patient and/or caregiver safety in the critical care environment. Recipients of this award will identify ideas that encompass safety and improve the quality of care in their practice area.

Eligibility

The applicant must:

- Be an active member of CACCN in good standing for a minimum of one year.
- Be licensed to practise nursing in Canada.
- Members of the award review committee and/or the board of directors are not eligible.

Application Requirements

- The project will describe an innovative approach, to develop new or revised processes, to encompass patient safety and improve the quality of care at the unit, hospital or health care system level.
- The project/proposal will show evidence of collaboration among team members.

A complete application form that includes:

- A proposal of a project, or a description of a completed project, which makes a significant contribution toward patient and caregiver safety in critical care.
- The proposal will include the background perspective, statement of the problem, and intended means to change practice. The proposal should include a timeline by which the project will occur.
- Brief curriculum vitae for the principal applicant and team members describing educational and critical care nursing background and CACCN participation.
- Proof of active CACCN membership
- If this project requires ethics approval, please submit evidence of approval with your application.

Review Process

- Each proposal will be reviewed by the awards review committee and a representative of the Baxter Corporation.
- Proposals are reviewed for their contribution to patient safety, evidence of transferability of the project, innovation, sustainability, and leadership within critical care practice areas.
- Deadline for receipt of applications is **June 1** of each year.
- The successful candidate will be chosen and notified in writing by **July 1.**

Terms and Conditions of the Award

- A proposed project must be initiated within three months of the receipt of the scholarship.
- Any changes to the timelines require written notification to the board of directors of CACCN.
- All publications and presentations must recognize the Baxter Corporation and CACCN.
- An article related to the project is to be submitted to **Dynamics, the Official Journal of CACCN,** for publication.

Budget and Financial Administration

- One half of the awarded funds will be available to support the project expenses immediately.
- The remaining funds will be awarded upon the publication of an article describing the project in **Dynamics, the Official Journal of CACCN.**

The total funds available are $5,000.00.

The award funds may be granted to a maximum of two applicants ($2,500.00 each).

NOTE: *The CACCN Board of Directors & Baxter Corporation retain the right to amend the award criteria.*

Revised March 24, 2010
Board of Directors

The Brenda Morgan Leadership Excellence Award

Award value: $1,000.00

Deadline: June 1 of each year.

The Brenda Morgan Excellence Leadership Award was established in June 2007 by the CACCN Board of Directors to recognize and honour Brenda Morgan, who has made a significant contribution to CACCN and critical care nursing over many years. Brenda is the first recipient. Brenda is highly respected for her efforts in developing, maintaining and sustaining CACCN in past years.

This award for excellence in leadership will be presented to a nurse who, on a consistent basis, demonstrates outstanding performance in the area of leadership in critical care. This leadership may have been expressed as efforts toward clinical advances within an organization, or leadership in the profession of nursing in critical care. The results of this individual's leadership must have empowered people and/or organizations to significantly increase their performance capability in the field of critical care nursing.

This award has been generously sponsored by CACCN in order to recognize and honour a nurse who exemplifies excellence in leadership, in the specialty of critical care.

Eligibility criteria:
Persons who are nominated for this award will have consistently demonstrated qualities of leadership and are considered visionaries and innovators in order to advance the goals of critical care nursing.

The nominee must:

a) Have demonstrated a leadership role or have held a key leadership position in an organization related to the specialty of critical care.
b) Demonstrated volunteerism and significant commitment to CACCN, i.e., have participated in CACCN activities at local or national levels (been a member of provincial executive or national board of directors, helped to plan a workshop or a conference), or indirectly provided support of CACCN activities through management activities—supporting staff to participate in CACCN projects or attend conferences.
c) Have been a member of CACCN for a minimum of five years.
d) Have a minimum of five years of critical care nursing experience.
e) Be registered to practise nursing in Canada.
f) Hold a valid adult or paediatric specialty in critical care certification—Certified Nurse in Critical Care, CNCC(C) or CNCCP(C) from the CNA (preferred).
g) Consistently conducts themselves in a leadership manner.
h) Have effectively engaged others in the specialty of critical care nursing.
i) Have role-modelled commitment to professional self-development and lifelong learning.
j) Have inspired and mentored others to contribute to critical care nursing.
k) On a consistent basis, exemplifies the following qualities/values:
   - pro-active/innovator/takes initiative
   - takes responsibility/accountability for actions
   - imagination/visionary
   - positive communication skills
   - interdependence
   - integrity
   - recognition of new opportunities
   - conflict resolution skills/problem-solving skills
   - committed/passionate/dedicated/motivator
   - advocates for patients and families.

Application process:
The application involves a nomination process. Please submit two letters describing how the nominee has demonstrated the items under the criteria section of this award. Please use as many examples as possible to highlight what this candidate does that makes her/him outstanding. The selection committee depends on the information provided in the nomination letters to select award winners from amongst many deserving candidates.

The winner will be awarded The Brenda Morgan Leadership Excellence Award and honoured during the awards ceremony at the annual Dynamics Conference. The winner's name will be published in **Dynamics, the Official Journal of the CACCN.**

Terms and conditions of the award:
The award winner will be encouraged to write a reflective article for the **Dynamics, Official Journal of the CACCN** sharing their accomplishments and describing their leadership experience. The article will reflect on their passion to move critical care nursing forward, their leadership qualities and how they used these effectively to achieve their outcome.

Selection process:
Each nomination will be reviewed by the award committee in conjunction with the CACCN Director of Awards and Sponsorship. The Brenda Morgan Leadership Excellence Awards committee will consist of two members of the board of directors and Brenda Morgan (when possible).

The awards committee reserves the right to withhold the award if no candidate meets the criteria outlined.

Chasing Excellence Award

Award value: $1,000.00

Deadline: June 1 annually.

This award is presented annually to a **CACCN** member who consistently demonstrates excellence in critical care nursing practice. The *Cardinal Health Chasing Excellence Award* is $1,000 to be used by the recipient for continued professional or leadership development in critical care nursing.

The *Cardinal Health Chasing Excellence Award* is given to a critical care nurse who:
- In critical care, has a primary role in direct patient care.
- Has been a CACCN member in good standing for three or more years.
- Holds a certificate from CNA in critical care CNCC(C) or CNCCP(C) (preferred).
- Note: Current members of national board of directors are not eligible.

The *Cardinal Health Chasing Excellence Award* recipient consistently practises at an expert level as described by Benner (1984). Expert practice is exemplified by most or all of the following criteria:
- Participates in quality improvement and risk management to ensure a safe patient care environment.
- Acts as a change agent to improve the quality of patient care when required.
- Provides high-quality patient care based on experience and evidence.
- Effective clinical decision-making supported by thorough assessments.
- Has developed a clinical knowledge base and readily integrates change and new learning to practice.
- Is able to anticipate risks and changes in patient condition and intervene in a timely manner.
- Sequences and manages rapid multiple therapies in response to a crisis (Benner, Hooper-Kyriakidis & Stannard, 1999).
- Integrates and coordinates daily patient care with other team members.
- Advocates and develops a plan of care that consistently considers the patient and family and ensures they receive the best care possible.
- Provides education, support and comfort to patients and their families to help them cope with the trajectory of illness and injury, to recovery, palliation or death.
- Role models collaborative team skills within the inter-professional health care team.
- Assumes a leadership role as dictated by the dynamically changing needs of the unit.
- Is a role model to new staff and students.
- Shares clinical wisdom as a preceptor to new staff and students.
- Regularly participates in continuing education and professional development.

Nominations:
Two letters describing the nominee's clinical excellence and expertise are required, one of which must be from a **CACCN** member. The nomination letters need to include three concrete clinical examples outlining how the nominee meets the above criteria and demonstrates clinical excellence in practice. In addition, a supporting letter from a supervisor such as a unit manager or team leader is required.

Selection:
Each nomination will be reviewed by the awards committee in conjunction with the **CACCN** director of awards and sponsors. The successful recipient will be notified by mail, recognized at the annual awards ceremony at the Dynamics conference and her/his name will be published in **Dynamics, the Official Journal of the CACCN**. The awards committee reserves the right to withhold the award if no candidate meets the criteria.

References:
Benner, P. (1984). *From novice to expert. Excellence and power in clinical nursing practice*. Menlo Park: Addison-Wesley.

Benner, P., Hooper-Kyriakidis, P., & Stannard, D. (1999). *Clinical Wisdom and Interventions in Critical Care: A Thinking-in-action Approach*. Philadelphia: Saunders.

Precedex™
(Dexmedetomidine Hydrochloride for Injection)

Prescribing Summary

Patient Selection Criteria

THERAPEUTIC CLASSIFICATION: Alpha$_2$-adrenergic agonist

INDICATIONS AND CLINICAL USE:

Intensive Care Unit Sedation

Precedex™ is indicated for sedation of initially intubated and mechanically ventilated postsurgical patients during treatment in an intensive care setting by continuous intravenous infusion. The Precedex™ infusion must not exceed 24 hours.

Precedex™ has been continuously infused in mechanically ventilated patients prior to extubation, during extubation, and post-extubation. It is not necessary to discontinue Precedex™ prior to extubation. After extubation, the dose of Precedex™ should be reduced by half. The mean time of continued infusion is approximately 6.6 hours.

Conscious Sedation

Precedex™ is indicated for sedation of non-intubated patients prior to and/or during surgical and other procedures by continuous intravenous infusion for the following procedures:

- Monitored Anesthesia Care (MAC) with an adequate nerve block and/or local infiltration; and
- Awake Fiberoptic Intubation (AFI) with adequate topical preparation of the upper airway with local lidocaine formulations.

Due to insufficient safety and efficacy data, Precedex™ is not recommended for use in procedures other than the two listed above.

CONTRAINDICATIONS

Patients who are hypersensitive to this drug or to any ingredient in the formulation or component of the container. For a complete listing, see the Dosage Forms, Composition and Packaging section of the product monograph.

SPECIAL POPULATIONS

Pregnant Women: There are no adequate and well-controlled studies in pregnant women. Precedex™ should be used during pregnancy only if the potential benefits justify the potential risk to the fetus.

Labor and Delivery: The safety of Precedex™ during labor and delivery has not been studied. Therefore, Precedex™ is not recommended during labor and delivery including cesarean section deliveries.

Nursing Women: It is not known whether Precedex™ is excreted in human milk. Radio-labeled Precedex™ administered subcutaneously to lactating female rats was excreted in milk. Because many drugs are excreted in human milk, caution should be exercised when Precedex™ is administered to a nursing woman.

Pediatrics: There have been no clinical studies to establish the safety and efficacy of Precedex™ in pediatric patients below 18 years of age. Therefore, Precedex™ should not be used in this population.

Geriatrics: Precedex™ is known to be substantially excreted by the kidney, and the risk of adverse reactions to this drug may be greater in patients with impaired renal function. Because elderly patients are more likely to have decreased renal function, care should be taken in dose selection in elderly patients, and it may be useful to monitor renal function **(see Dosage and Administration).**

Safety Information

WARNINGS AND PRECAUTIONS

General

Precedex™ should be administered only by persons skilled in the management of patients in the intensive care or operating room setting. Due to the known pharmacological effects of Precedex™, patients should be continuously monitored while receiving Precedex™.

Cardiovascular

Hypotension, Bradycardia and Sinus arrest: Clinically significant episodes of bradycardia and sinus arrest have been reported with Precedex™ administration in young, healthy volunteers with high vagal tone or with different routes of administration including rapid intravenous or bolus administration.

Reports of hypotension and bradycardia have been associated with Precedex™ infusion. If medical intervention is required, treatment may include decreasing or stopping the infusion of Precedex™, increasing the rate of intravenous fluid administration, elevation of the lower extremities, and use of pressor agents. Because Precedex™ has the potential to augment bradycardia induced by vagal stimuli; clinicians should be prepared to intervene. The intravenous administration of anticholinergic agents (e.g., glycopyrrolate, atropine) should be considered to modify vagal tone. In clinical trials, glycopyrrolate or atropine were effective in the treatment of most episodes of Precedex™-induced bradycardia. However, in some patients with significant cardiovascular dysfunction, more advanced resuscitative measures were required.

Caution should be exercised when administering Precedex™ to patients with advanced heart block and/or severe ventricular dysfunction. Because Precedex™ decreases sympathetic nervous system activity, hypotension and/or bradycardia may be expected to be more pronounced in patients with hypovolemia, diabetes mellitus, or chronic hypertension and in elderly patients. In situations where other vasodilators or negative chronotropic agents are administered, coadministration of Precedex™ could have an additive pharmacodynamic effect and should be administered with caution.

Transient Hypertension: Transient hypertension has been observed primarily during the loading dose in association with the initial peripheral vasoconstrictive effects of Precedex™.

Treatment of the transient hypertension has generally not been necessary, although reduction of the loading dose infusion rate may be desirable.

Dependence/Tolerance

Precedex™ is not a controlled substance. The dependence potential of Precedex™ has not been studied in humans.

Endocrine and Metabolism

The available evidence is inadequate to confirm if dexmedetomidine is associated with significant adrenocortical suppression. The adequacy of the adrenocortical function should be individually assessed and managed.

Hepatic/Biliary/Pancreatic

Since Precedex™ clearance decreases with severity of hepatic impairment, dose reduction should be considered in patients with impaired hepatic function.

Renal

Precedex™ is known to be substantially excreted by the kidney, and the risk of adverse reactions to this drug may be greater in patients with impaired renal function. **(see Dosage and Administration)**

Peri-Operative Considerations

Arousability: Some patients receiving Precedex™ have been observed to be arousable and alert when stimulated. This alone should not be considered as evidence of lack of efficacy in the absence of other clinical signs and symptoms.

Withdrawal

Intensive Care Unit

Precedex™ is indicated only for sedation of initially intubated and mechanically ventilated postoperative patients recovering in a post-operative care unit or an intensive care unit. During the use of Precedex™ in an intensive care setting, the patients must be monitored continuously, particularly for their cardiovascular safety indicators.

If Precedex™ were to be administered for more than 24 hours and stopped abruptly, withdrawal symptoms similar to those reported for other alpha-2-adrenergic agents may result. These symptoms include nervousness, agitation, and headaches, accompanied or followed by a rapid rise in blood pressure and elevated catecholamine concentrations in the plasma. Precedex™ infusion must not exceed 24 hours.

Conscious Sedation

Withdrawal symptoms were not seen after discontinuation of short term infusion of Precedex™.

Patient Counselling Information

Precedex™ is indicated for short-term intravenous sedation. Dosage must be individualized and titrated to the desired clinical effect. Blood pressure, heart rate and oxygen levels will be monitored both continuously during the infusion of Precedex™ and as clinically appropriate after discontinuation.

- When Precedex™ is infused for more than 6 hours, patients should be informed to report nervousness, agitation, and headaches that may occur for up to 48 hours.
- Additionally, patients should be informed to report symptoms that may occur within 48 hours after the administration of Precedex™ such as: weakness, confusion, excessive sweating, weight loss, abdominal pain, salt cravings, diarrhea, constipation, dizziness or lightheadedness.

Intensive Care Unit Sedation

A total of 849 patients in the clinical studies were 65 years of age and over. A total of 242 patients were 75 years of age and over. In patients greater than 65 years of age, a higher incidence of bradycardia and hypotension was observed following administration of Precedex™. Therefore a dose reduction should be considered in patients over 65 years of age **(see Dosage and Administration).**

Conscious Sedation

A total of 131 patients in the clinical studies were 65 years of age and over. A total of 47 patients were 75 years of age and over. Hypotension occurred in a higher incidence in Precedex™-treated patients 65 years or older (72%) and 75 years or older (74%) as compared to patients <65 years (47%). Pre-specified criteria for the vital signs to be reported as adverse reactions are footnoted below Table 2 **(see Adverse Reactions)**. A reduced loading dose of 0.5 mcg/kg given over 10 minutes is recommended and a reduction in the maintenance infusion should be considered for patients greater than 65 years of age **(see Dosage and Administration)**.

ADVERSE REACTIONS

Adverse Drug Reaction Overview

Use of Precedex™ has been associated with the following serious adverse reactions:

- Hypotension, bradycardia and sinus arrest **(see Warnings and Precautions)**,
- Transient hypertension **(see Warnings and Precautions)**.

Most common treatment-emergent adverse reactions, occurring in greater than 2% of patients in both Intensive Care Unit and conscious sedation studies include hypotension, bradycardia and dry mouth.

Intensive Care Unit Sedation

Adverse event information derived from the placebo-controlled, continuous infusion trials of Precedex™ for sedation in the surgical intensive care unit setting in which 387 patients received Precedex™. Overall, the most frequently observed treatment-emergent adverse events included hypotension, hypertension, nausea, bradycardia, fever, vomiting, hypoxia, tachycardia and anemia **(see Table 1).**

Conscious Sedation

Adverse event information is derived from the two trials for conscious sedation in which 318 patients received Precedex™. Treatment-emergent adverse events occurring at an incidence of >2% are provided in **Table 2**. The most frequent adverse events were hypotension, bradycardia, and dry mouth.

Post-Market Adverse Drug Reactions

Hypotension and bradycardia were the most common adverse reactions associated with the use of Precedex™ during post approval use of the drug.

DRUG INTERACTIONS

Drug-Drug Interactions

Anesthetics, sedatives, hypnotics, opioids

Co-administration of Precedex™ with anesthetics, sedatives, hypnotics, and opioids is likely to lead to an enhancement of effects. Specific studies have confirmed these effects with sevoflurane, isoflurane, propofol, alfentanil, and midazolam. No pharmacokinetic interactions between Precedex™ and isoflurane, propofol, alfentanil and midazolam have been demonstrated. However, due to possible pharmacodynamic interactions, when co-administered with Precedex™, a reduction in dosage of Precedex™ or the concomitant anesthetic, sedative, hypnotic or opioid may be required.

Neuromuscular Blockers

In one study of 10 healthy volunteers, administration of Precedex™ for 45 minutes at a plasma concentration of 1 (one) ng/mL resulted in no clinically meaningful increases in the magnitude of neuromuscular blockade associated with rocuronium administration.

Cytochrome P450

In vitro studies in human liver microsomes demonstrated no evidence of cytochrome P450 mediated drug interactions that are likely to be of clinical relevance.

REPORTING SUSPECTED SIDE EFFECTS

Toll-free telephone: 1-866-234-2345 • Toll-free fax: 1-866-678-6789
Online at: www.healthcanada.gc.ca/medeffect
Regular Mail: Canada Vigilance Program, Health Canada
Postal Locator 0701C, Ottawa, ON K1A 0K9

Administration

Dosing Considerations

- Precedex™ should be used in only facilities adequately staffed and equipped for anesthesia, resuscitation, and cardiovascular monitoring.
- Precedex™ dosing should be individualized and titrated to the desired clinical response.
- Precedex™ is not indicated for infusions lasting longer than 24 hours.
- Precedex™ should be administered using a controlled infusion device with adequate precision.

Recommended Dose and Dosage Adjustment

Intensive Care Unit Sedation

- Precedex™ is indicated for post-surgical patients in an intensive care setting, e.g. in Post Anesthesia Care Unit or Intensive Care Unit.
- An assessment of the level of sedation and the need for Precedex™ should precede the initiation of Precedex™.
- Another intravenous sedative (e.g. midazolam or propofol) may be added if Precedex™ provides inadequate sedation at the highest recommended dose level.
- The need for Precedex™ continuous infusion post-extubation must be assessed individually.

If the continuous infusion is needed post-extubation, the infusion speed should be reduced by half. The mean time of continued infusion is approximately 6.6 hours.

- Precedex™ use should not exceed 24 hours in an ICU setting.

A dose reduction for both the loading and maintenance infusions should be considered in patients with impaired hepatic or renal function and in patients over 65 years of age.

Initiation: For adult patients, Precedex™ is generally initiated with a loading infusion of up to one mcg/kg over 10 to 20 minutes, if needed. For patients being converted from alternate sedative therapy a loading dose may not be required.

Maintenance: Adult patients will generally require a maintenance infusion of 0.2 to 0.7 mcg/kg/hr. The rate of the maintenance infusion should be adjusted to achieve the desired level of sedation.

Conscious Sedation

- Based on the Ramsay and Observer's Assessment of Alertness/Sedation Scales, the loading infusion provides clinically effective onset of sedation 10 to 15 minutes after start of infusion.
- For use in Monitored Anesthesia Care, an adequate nerve block and/or local infiltration should be used.
- For Awake Fiberoptic Intubation, the upper airway should be topicalized with proper lidocaine formulations.

Initiation: For adult patients, Precedex™ is generally initiated with a loading infusion of one mcg/kg over 10 minutes. For patients over 65 years of age or those undergoing less invasive procedures such as ophthalmic surgery, a loading infusion of 0.5 mcg/kg over 10 minutes may be suitable.

Maintenance: The maintenance infusion of Precedex™ is generally initiated at 0.6 mcg/kg/hr and titrated to achieve desired clinical effect with doses ranging from 0.2 to 1 mcg/kg/hr. The rate of the maintenance infusion should be adjusted to achieve the targeted level of sedation. Following the load in awake fiberoptic intubation, a fixed maintenance dose of 0.7 mcg/kg/hr is recommended until the endotracheal tube is secured.

Dosage Adjustment: Due to possible pharmacodynamic interactions, a reduction in dosage of Precedex™ or other concomitant anesthetics, sedatives, hypnotics or opioids may be required when coadministered. A dose reduction for both the loading and maintenance infusions should be considered in patients with impaired hepatic or renal function and in patients over 65 years of age.

Administration

Precedex™ must be diluted in 0.9% sodium chloride solution to achieve required concentration (4 mcg/mL) prior to administration. Preparation of solutions is the same, whether for the loading dose or maintenance infusion.

Strict aseptic technique must always be maintained during handling of Precedex™.

To prepare the infusion, withdraw 2 mL of Precedex™ and add to 48 mL of 0.9% sodium chloride injection to a total of 50 mL. Shake gently to mix well. Parenteral drug products should be inspected visually for particulate matter and discoloration prior to administration, whenever solution and container permit.

Study References

1. hPRECEDEX™ (Dexmedetomidine Hydrochloride for Injection) Product Monograph, December 8, 2009, Hospira Healthcare Corporation.

Supplemental Product Information

Clinical Trial Adverse Drug Reactions: *Because clinical trials are conducted under very specific conditions, the adverse reaction rates observed in the clinical trials may not reflect the rates observed in practice and should not be compared to the rates in the clinical trials of another drug. Adverse drug reaction information from clinical trials is useful for identifying drug-related adverse events and for approximating rates.* **Intensive Care Unit Sedation** Adverse event information derived from the placebo-controlled, continuous infusion trials of Precedex™ for sedation in the surgical intensive care unit setting in which 387 patients received Precedex™. In these studies, the mean total dose was 7.06 mcg/kg (SD = 2.86), mean dose per hour was 0.51 mcg/kg/hr (SD = 0.39) and the mean duration of infusion of 15.6 hours (range: 0.17 to 29.08). Midazolam or propofol was used as the rescue medication for patients on Precedex™ or placebo. The population was between 19 to 83 years of age, 43% > 65 years of age, 73% male and 97% Caucasian. Treatment-emergent adverse events occurring at an incidence of >1% are provided in Table 1.

Table 1: Treatment-Emergent Adverse Events Occurring in >1% Of All Dexmedetomidine-Treated Patients in the Randomized Placebo-controlled Continuous Infusion Short-Term Intensive Care Unit Sedation Studies

Adverse Event	Randomized Dexmedetomidine*	Placebo with Midazolam Rescue	Placebo with Propofol Rescue
	(N=387)	(N=181)	(N=198)
Hypotension	28%	15%	10%
Hypertension	16%	13%	23%
Nausea	11%	9%	10%
Bradycardia	7%	3%	2%
Fever	5%	6%	4%
Vomiting	4%	6%	6%
Atrial Fibrillation	4%	4%	3%
Hypoxia	4%	5%	3%
Tachycardia	3%	7%	3%
Hemorrhage	3%	6%	4%
Anemia	3%	4%	1%
Dry Mouth	3%	2%	<1%
Rigors	2%	3%	4%
Agitation	2%	3%	3%
Hyperpyrexia	2%	3%	2%
Pain	2%	3%	1%
Hyperglycemia	2%	3%	1%
Acidosis	2%	<1%	3%
Pleural Effusion	2%	<1%	2%
Oliguria	2%	1%	<1%
Thirst	2%	<1%	<1%

*Data combined from studies conducted in post-surgical patients recovering in an ICU setting.

Conscious Sedation event information is derived from the two trials for conscious sedation in which 318 patients received Precedex™. Midazolam was used as the rescue medication for patients on Precedex™ or placebo. The mean total dose was 1.6 mcg/kg (range: 0.5 to 6.7), mean dose per hour was 1.3 mcg/kg/hr (range: 0.3 to 6.1) and the mean duration of infusion of 1.5 hours (range: 0.1 to 6.2). The population was between 18 to 93 years of age, 30% > 65 years of age, 52% male and 61% Caucasian. Treatment-emergent adverse events occurring at an incidence of >2% are provided in Table 2. Pre-specified criteria for the vital signs to be reported as adverse reactions are footnoted below the table. The decrease in respiratory rate and hypoxia was similar between Precedex™ and comparator groups in both studies.

Table 2: Adverse Events with an Incidence >2% – Conscious Sedation Population

Body System/Adverse Event	Precedex™ N = 318 n (%)	Placebo N = 113 n (%)
Vascular disorders		
Hypotension[1]	173 (54%)	34 (30%)
Hypertension[2]	41 (13%)	27 (24%)
Respiratory, thoracic and mediastinal disorders		
Respiratory depression[5]	117 (37%)	36 (32%)
Hypoxia[6]	7 (2%)	3 (3%)
Bradypnea	5 (2%)	5 (4%)
Cardiac disorders		
Bradycardia[3]	45 (14%)	4 (4%)
Tachycardia[4]	17 (5%)	19 (17%)
Gastrointestinal disorders		
Nausea	10 (3%)	2 (2%)
Dry mouth	8 (3%)	1 (1%)

1 Hypotension was defined in absolute and relative terms as Systolic blood pressure of <80 mmHg or <30% lower than pre-study drug infusion value, or Diastolic blood pressure of <50 mmHg **2** Hypertension was defined in absolute and relative terms as Systolic blood pressure >180 mmHg or >30% higher than pre-study drug infusion value or Diastolic blood pressure of >100 mmHg. **3** Bradycardia was defined in absolute and relative terms as <40 bpm or <30% lower than pre-study drug infusion value. **4** Tachycardia was defined in absolute and relative terms as >120 bpm or >30% greater than pre-study drug infusion value. **5** Respiratory Depression was defined in absolute and relative terms as respiratory rate (RR) <8 bpm or >25% decrease from baseline **6** Hypoxia was defined in absolute and relative terms as SpO_2 < 90% or 10% decrease from baseline

Post-Market Adverse Drug Reactions *The following adverse reactions have been identified during post approval use of Precedex™. Because these reactions are reported voluntarily from a population of uncertain size, it is not always possible to reliably estimate their frequency or establish a causal relationship to drug exposure.*

Table 3: Adverse Events Experienced During Post approval Use of Precedex™

Body System	Preferred Term
Body as a Whole	Fever, hyperpyrexia, hypovolemia, light anesthesia, pain, rigors
Cardiovascular Disorders, General	Blood pressure fluctuation, heart disorder, hypertension, hypotension, myocardial infarction
Central and Peripheral Nervous System Disorders	Dizziness, headache, neuralgia, neuritis, speech disorder, convulsion
Gastrointestinal System Disorders	Abdominal pain, diarrhea, vomiting, nausea
Heart Rate and Rhythm Disorders	Arrhythmia, ventricular arrhythmia, bradycardia, hypoxia, atrioventricular block, cardiac arrest, extrasystoles, atrial fibrillation, heart block, t wave inversion, tachycardia, supraventricular tachycardia, ventricular tachycardia
Metabolic and Nutritional Disorders	Acidosis, respiratory acidosis, hyperkalemia, increased alkaline phosphatase, thirst, hypoglycemia
Psychiatric Disorders	Agitation, confusion, delirium, hallucination, illusion
Red Blood Cell Disorders	Anemia
Renal disorders	Blood urea nitrogen increased, oliguria
Respiratory System Disorders	Apnea, bronchospasm, dyspnea, hypercapnia, hypoventilation, hypoxia, pulmonary congestion
Skin and Appendages Disorders	Increased sweating
Vascular disorders	Hemorrhage
Vision Disorders	Photopsia, abnormal vision

Compatibility with Other Fluids Precedex™ has been shown to be compatible when administered with the following intravenous fluids: Lactated Ringers, 5% Glucose in Water, 0.9% Sodium Chloride in Water, 20% Mannitol in Water. Dexmedetomidine has been found to be compatible with water solutions of the following drugs when administered via Y-site injections: thiopental sodium, vecuronium bromide, pancuronium bromide, glycopyrrolate bromide, phenylephrine hydrochloride. **Compatibility with Natural Rubber** Compatibility studies have demonstrated the potential for absorption of Precedex™ to some types of natural rubber. Although Precedex™ is dosed to effect, it is advisable to use administration components made with synthetic or coated natural rubber gaskets. **Incompatibilities** Precedex™ infusion should not be co-administered through the same IV catheter with blood, serum, or plasma because physical compatibility has not been established. Precedex™ has been shown to be incompatible when administered with the following drugs: amphotericin B, diazepam. **OVERDOSAGE** The tolerability of Precedex™ was studied in one study in which healthy subjects were administered doses at and above the recommended dose of 0.2 to 0.7 mcg/kg/hr. The maximum blood concentration achieved in this study was approximately 13 times the upper boundary of the therapeutic range. The most notable effects observed in two subjects who achieved the highest doses were first degree atrioventricular block and second degree heart block. No hemodynamic compromise was noted with the atrioventricular block and the heart block resolved spontaneously within one minute. Five patients received an overdose of Precedex™ in the intensive care unit sedation studies. Two of these patients had no symptoms reported; one patient received a 2 mcg/kg loading dose over 10 minutes (twice the recommended loading dose) and one patient received a maintenance infusion of 0.8 mcg/kg/hr. Two other patients who received a 2 mcg/kg loading dose over 10 minutes, experienced bradycardia and/or hypotension. One patient who received a loading bolus dose of undiluted Precedex™ (19.4 mcg/kg), had cardiac arrest from which he was successfully resuscitated. **STORAGE AND STABILITY** Store at controlled room temperature, 25°C (77°F) with excursions allowed from 15 to 30°C (59 to 86°F). (See USP.) **DOSAGE FORMS, COMPOSITION AND PACKAGING** Precedex™ (dexmedetomidine hydrochloride for Injection) is a sterile, nonpyrogenic solution suitable for intravenous infusion following dilution. Each 1 mL of Precedex™ contains 118 mcg of dexmedetomidine hydrochloride equivalent to 100 mcg dexmedetomidine and 9 mg of sodium chloride in water. The solution is preservative-free and contains no additives or chemical stabilizers. Precedex™ (Dexmedetomidine Hydrochloride for Injection), 100 mcg/mL as the base is available in 2 mL clear glass vials (200 mcg/2 mL). Vials are intended for single use only.

Product Monograph available upon request at 1-866-488-6088 or at www.hospira.ca

This leaflet was prepared by Hospira Healthcare Corporation. December 8, 2009
Hospira Healthcare Corporation
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Hospira

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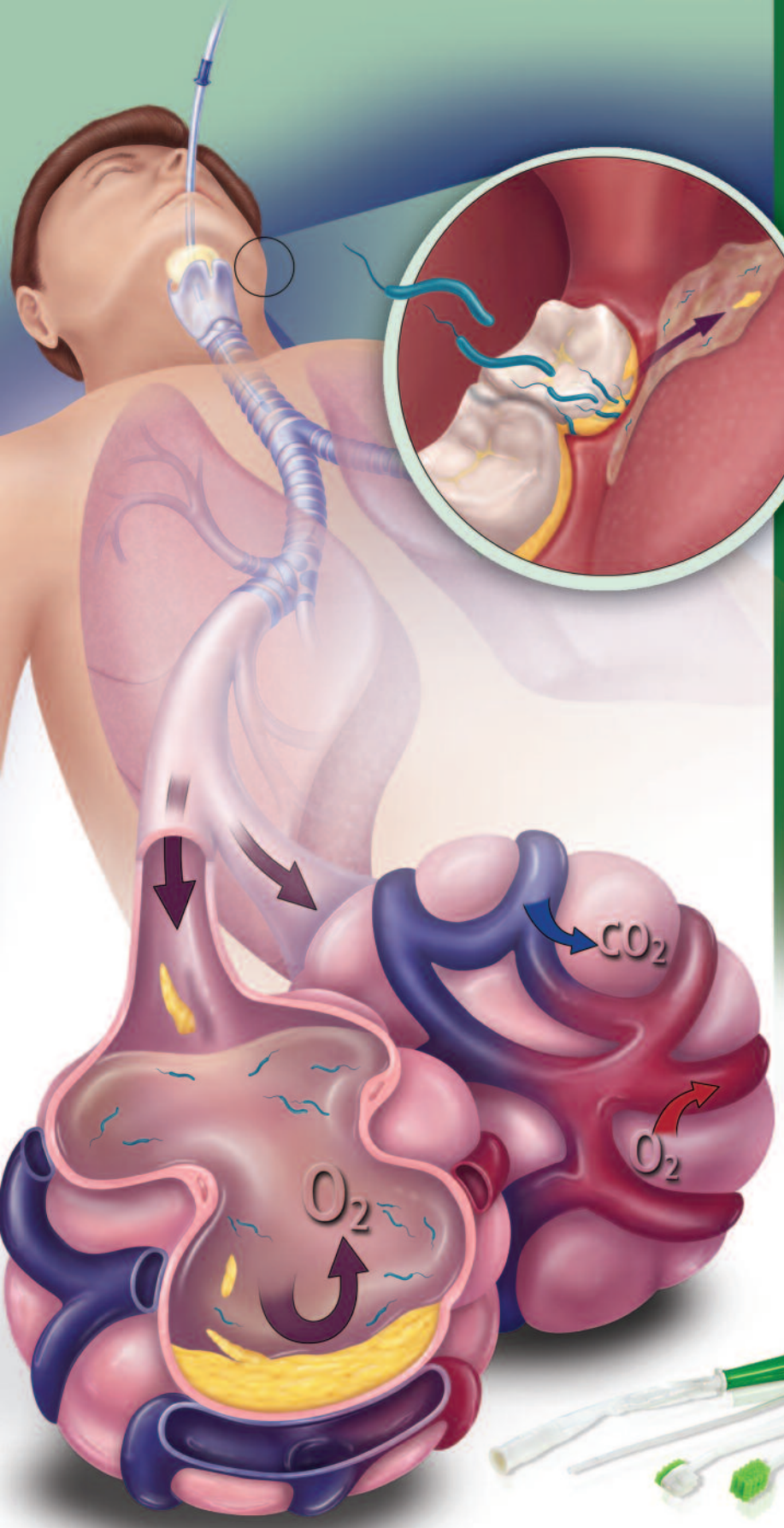

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1. GHX Trend Report (Dollars), 4th Qtr, 2009 Hosp; Annualized markets based on last 4 quarters data.

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Precedex™–*Now available in Canada*

[Pr]**Precedex™ (dexmedetomidine hydrochloride for injection) is indicated for sedation of initially intubated** and mechanically ventilated postsurgical patients during treatment in an intensive care setting by continuous intravenous infusion. The Precedex™ infusion must not exceed 24 hours.

Precedex™ has been continuously infused in mechanically ventilated patients prior to extubation, during extubation, and post-extubation. It is not necessary to discontinue Precedex™ prior to extubation. After extubation, the dose of Precedex™ should be reduced by half. The mean time of continued infusion is approximately 6.6 hours. **Precedex™ is indicated for sedation of non-intubated** patients prior to and/or during surgical and other procedures by continuous intravenous infusion for the following procedures:

- Monitored Anesthesia Care (MAC) with an adequate nerve block and/or local infiltration and
- Awake Fiberoptic Intubation (AFI) with adequate topical preparation of the upper airway with local lidocaine formulations.

Due to insufficient safety and efficacy data, Precedex™ is not recommended for use in procedures other than the two listed above.

Patients should be continuously monitored while receiving Precedex™. Caution should be exercised when administering Precedex™ to patients with advanced heart block and/or severe ventricular dysfunction. Because Precedex™ decreases sympathetic nervous system activity, hypotension and/or bradycardia may be expected to be more pronounced in patients with hypovolemia, diabetes mellitus, or chronic hypertension and in elderly patients. In situations where other vasodilators or negative chronotropic agents are administered, coadministration of Precedex™ could have an additive pharmacodynamic effect and should be administered with caution. Because Precedex™ has the potential to augment bradycardia induced by vagal stimuli; clinicians should be prepared to intervene. Precedex™ is known to be substantially excreted by the kidney, and the risk of adverse reactions to this drug may be greater in patients with impaired renal function. Precedex™ is indicated only for sedation of initially intubated and mechanically ventilated postoperative patients recovering in a post-operative care unit or an intensive care unit. During the use of Precedex™ in an intensive care setting, the patients must be monitored continuously, particularly for their cardiovascular safety indicators. If Precedex™ were to be administered for more than 24 hours and stopped abruptly, withdrawal symptoms similar to those reported for other alpha-2-adrenergic agents may result. These symptoms include nervousness, agitation, and headaches, accompanied or followed by a rapid rise in blood pressure and elevated catecholamine concentrations in the plasma. Precedex™ infusion must not exceed 24 hours.

Hospira

www.hospira.ca
For more information, please call
Hospira Clinical Support at 1-866-488-6088, Option 4

[Pr] Precedex™
(Dexmedetomidine Hydrochloride for Injection)
PAAB

See prescribing summary on page 53

W H Y C A C C N ?

Vision: The voice for excellence in Canadian Critical Care Nursing

CACCN Mission Statement

The CACCN is a non-profit, specialty organization dedicated to maintaining and enhancing the quality of patient- and family-centred care by meeting educational needs of critical care nurses.

Engages and empowers nurses through education and networking to advocate for the critical care nurse.

Develops current and evidence informed standards of critical care nursing practice.

Identifies professional and political issues and provides a strong unified national voice through our partnerships.

Facilitates learning opportunities to achieve Canadian Nurses Association's certification in critical care

CACCN Values Statement

Our core values are:

Excellence and Leadership
- Collaboration and Partnership
- Pursuing excellence in education, research, and practice

Dignity & Humanity
- Respectful, healing and humane critical care environments
- Combining of compassion and technology to advocate and promote excellence

Integrity & Honesty
- Accountability and the courage to speak for our beliefs
- Promoting open and honest relationships

Revised April 2010

Application for membership

Name: _____

Address: _____
(Street)

_____
(City) (Province) (Postal Code)

W (____) ____ - _____ H (____) ____ - _____ F (____) ____ - _____

E-mail: _____

Employer/School: _____

Position: _____

Area of Employment: _____

Nursing Registration No.: _____ Province: _____

Chapter Affiliation (if known): _____

Sponsor's Name: _____
(If applicable)

Type of membership:
Please review types of membership noted below and check one (All include GST):

❑ New Member—one year $75.00 ❑ New Member—two years $140.00
❑ Renewal—one year $75.00 ❑ Renewal—two years $140.00
CACCN Number _____
❑ Student Member—one year $50.00

Are you a CNA member? ❑ Yes ❑ No

Signature: _____

Date: _____

Please Note: This application is for both national and chapter membership.

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Mail to: CACCN, P.O. Box 25322, London, ON N6C 6B1
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Types of Membership

Active Member: Any registered nurse who possesses a current and valid licence or certificate in the province, territory or country in which the registered nurse practises.

Student Member: Any student in an accredited professional nursing program, who is currently not licensed as a registered/graduate nurse.

Associate Member: Any person with an interest in critical care, but who does not meet the requirements for an Active Member.

DYNAMICS
The Official Journal of the Canadian Association of Critical Care Nurses

Information for Authors

Dynamics: The Official Journal of the Canadian Association of Critical Care Nurses (CACCN) is distributed to members of the CACCN, to individuals, and to institutions interested in critical care nursing. The editorial board invites submissions on any of the following: clinical, education, management, research and professional issues in critical care nursing. Critical care encompasses a diverse field of clinical situations, which are characterized by the nursing care of patients and their families with complex, acute and life-threatening biopsychosocial risk. While the patient's problems are primarily physiological in nature, the psychosocial impact of the health problem on the patient and family is of equal and sometimes lasting intensity. Articles on any aspect of critical care nursing are welcome.

The manuscripts are reviewed through a blind, peer review process.

Manuscripts submitted for publication must follow the following format:

1. Title page with the following information:

- Author(s) name and credentials, position
- Place of employment
- If there is more than one author, the names should be listed in the order that they should appear in the published article
- Indicate the primary person to contact and address for correspondence

2. A brief abstract of the article on a separate page.

3. Body of manuscript:

- Length: a maximum of 15 pages including tables, figures, and references
- Format: double spaced, one-inch margins on all sides. Pages should be numbered sequentially including tables, and figures. Prepare the manuscript in the style as outlined in the American Psychological Association's (APA) Publication Manual 6th Edition.
- Tables, figures, illustrations and photographs must be submitted each on a separate page after the references.
- References: the author is responsible for ensuring that the work of other individuals is acknowledged accordingly. Direct or indirect quotes must be acknowledged according to APA guidelines
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5. Submission:

- Please submit the manuscript electronically as a Word attachment to the editorial office as printed in the journal. Hard copy manuscripts may also be submitted through the national office. Accepted manuscripts are subject to copy editing.

October 2009