VOLUME 23, NUMBER 2, SUMMER 2012

DYNAMICS

IN THIS ISSUE:

DYNAMICS OF CRITICAL CARE 2012

VOICES OF CONVICTION FROM SEA TO SKY

Speak Up Speak Out

BE HEARD

Journal of the Canadian Association of Critical Care Nurses

DYNAMICS

Journal of the Canadian Association of Critical Care Nurses

Volume 23, Number 2, Summer 2012

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CANADIAN ASSOCIATION OF CRITICAL CARE NURSES

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 and Humanity
  - Respectful, healing and humane critical care environments
  - Combining compassion and technology to advocate and promote excellence
- Integrity and 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.

Pathways to success: 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

It is not what you leave behind... it is what you take with you that counts!

As I begin my two-year term as the national president of CACCN, I bid goodbye to our Past-President, my mentor and friend, Kate Mahon, who finished her term on March 31, 2012. Kate's leadership and vibrancy was evident in her theme "**Find your Voice**", as CACCN certainly found its voice during her term.

Kate was instrumental in encouraging the board to raise the profile of the CACCN with critical care nurses across the country and the public through a media action and awareness strategy. Included in this strategy were:

- increased partnership participation with a number of associations including ISMP, Canadian Blood Services, the Critical Care Canada Forum and the American Association of Critical Care Nurses;
- building ties with a number of critical care nursing programs across the country by providing congratulatory letters to graduating critical care nurses along with information regarding our association and member benefits;
- introduction of the President's Blog, Facebook page and Twitter to share information with members and non-members;
- adding additional structure to the Dynamics of Critical Care Conference to ensure the conference was firmly linked and identified as a CACCN conference;
- newly updated/refreshed CACCN logos.

In addition to the above items, the board completed two excellent Chapter Connection Day programs with our chapters, French translation on the website, introduced a year-round membership recruitment strategy and completed succession planning to ensure the future of CACCN is viable.

At this time, we also say farewell to Joanne Baird, our other departing member of the board of directors. Joanne has been the national board treasurer for the last four years. During her term, Joanne streamlined the accounting practices of the association, ensured our financial health through wise investments and mentored our incoming treasurer to ensure smooth transition to the role in April 2012.

CACCN has had many great leaders over the years; leaders who have led us to the position that we are in today, a recognized national voice for critical care nursing in Canada.

During my term as president, I plan to build on the previous president's theme and begin to strengthen CACCN's voice through my theme for 2012–2014, "**Speak with Conviction**."

SPEAK with CONVICTION!

To be the voice for excellence in Canadian critical care nursing, we must speak up on the issues that affect critical care nurses and patients in this country. As critical care nurses, we are positioned to speak on many topics, as we have the kind of knowledge and experience that provides a unique perspective on issues impacting patient care. As critical care nurses, we have so much knowledge to share. If we don't speak up, others will speak for us and their point of view may not always be ours.

During my term as president, you will see CACCN speaking "into" issues where we believe the independent voice of critical care nurses should be heard. Sometimes this will take courage, not because we do not have enough to say, but only because we do not get enough practice in doing this. One of the first issues that CACCN will be *Speaking with Conviction* on is End-of-Life care and Care of Patients in Persistent Vegetative States. We have applied for Intervenor Status in the Rasouli case being heard by the Supreme Court of Canada. CACCN, if granted Intervenor Status, will draw from our position statements and Standards for Critical Care Nursing Practice to speak to the critical care nursing perspective on end-of-life care. We will speak with conviction to ensure that critical care nurses' voices are heard, as we advocate for excellent care for our patients.

If you feel there is an issue that the national board should be speaking to, then we want to hear from you.

The board of directors feels strongly that it is in our ability to speak about what we do and the knowledge we possess that we can articulate the role that critical care nurses play in a balanced way, a role that focuses both on care and cure. We believe that critical care nurses should take every opportunity that you have in your area of the country to find your voice and to "**Speak with Conviction**!"

Teddie Tanguay
President

RESEARCH REVIEW

Ames, K.E., Rennick, J.E., & Baillargeon, S. (2011). A qualitative interpretive study exploring parents' perception of the parental role in the paediatric intensive care unit. *Intensive and Critical Care Nursing, 27,* 143–150.

Research purpose and questions

To gain an in-depth understanding of parents' perceptions of their role when their child is critically ill and admitted to a pediatric intensive care unit (PICU), the researchers posed three research questions:

1. What are parents' perceptions of their role in the PICU?
2. How do parents perceive their role to have been altered in the PICU?
3. What can nurses do to facilitate parenting in the PICU?

Research design

Qualitative study: descriptive and interpretive inquiry.

Setting

Pediatric intensive care unit in a tertiary care, Canadian university-affiliated pediatric hospital.

Participants

Seven (7) parents—five mothers and two fathers—who had a child hospitalized in the PICU and whose child was being prepared for discharge from the PICU. Children had a variety of medical and surgical diagnoses and ranged in age from 13 days to 16 years. Five children had unplanned admissions to the critical care unit.

Method

Each parent participated in a semi-structured, audiotaped interview lasting between 25 and 60 minutes. The interview tool, composed of eight open-ended questions, was designed to ensure that various dimensions of the parenting experience were explored. Transcribed audiotapes and field notes were analyzed to reveal comments or statements describing the parental role and facilitators of that role. Data were coded and these codes were combined and clustered into themes.

Main findings

Participant narratives revealed that their overall parental role was to ensure that their child was well cared for and that they were doing something important for their child. Three dimensions to this parental role, each with sub roles, emerged from the data. Specifically identified are the parental roles of (1) being present and participating in care by (a) just being there and providing comfort, (b) active caring, and (c) providing explanations and reassurance to their child; (2) forming a partnership of trust with the PICU health care team by (a) sharing their expertise as a parent, (b) building trust with the team, and (c) taking care of themselves; and (3) being informed of their child's progress and treatment plan as the person who knows the child best by (a) knowing their child's status, (b) understanding the care provided to their child, and (c) knowing what to expect next.

Conclusions

This study brings forward the parents' voices to describe their role when their child is critically ill. The study participants have shared meaningful ways in which the PICU team can facilitate parenting a critically ill child as a means to effectively support parents at this most stressful time. Suggested interventions include having nurses coach them on how to interact and connect with their child, how to reassure and comfort their child, and how to provide physical care such as holding, bathing or diapering their child. Parents identified ways in which their expertise could be valued, acknowledged and elicited by staff such as being included in the assessment of their child's condition, and being asked for suggestions as to their child's unique likes and dislikes. Parents felt cared for by nurses and, in turn, could take care of themselves when they were encouraged to get respite, when someone was available to answer their questions, when they were reassured of the normalcy of their child's responses to treatment, and when they were provided with explanations of procedures and interpretations of test results. Parents identified several ways in which nurses can enhance the parental role of being informed such as providing anticipatory guidance on what to expect regarding their child's recovery, sharing information to help them understand the team goals that would enable them to see that recovery was taking place, and providing information tailored to their specific needs on an ongoing and continuing basis.

Commentary

The alteration of parental role has been a focus of pediatric critical care nursing research since Miles (1979) and Carter and Miles (1982) first published their work on the Parental Stressor Scale: PICU (PSS:PICU) more than 30 years ago. This area of inquiry and discussion continues to be of interest today (Aldridge, 2005; Gillis & Rennick, 2006; Hagan & Harmon, 2008; Just, 2005; Melnyk et al., 2004; Smith, Hefley, & Anand, 2007). We know that parents play a fundamental role in providing for their child's needs, but we continue to note discrepancies between what nurses and parents identify as their involvement in caring for the critically ill child.

This report of a qualitative study that explored the concept of parental role from the parent's perspective has revealed three dimensions of parental role that are congruent with the underlying principles of family-centred care (Harrison, 2010; Kuo et al., 2012), reflect the recommendations of practice guidelines (Davidson et al., 2007; RNAO, 2006), resonate with the findings of a recent systematic review on parent participation in care of their hospitalized child (Power & Franck, 2008), and can lend direction to pediatric critical care teams working to facilitate parental involvement in care activities in the PICU.

The research design fits well with the research question, data collection, and analysis processes. The researchers have shared the interview questions to enable the reader to develop an understanding of the research process. By sharing parents' words directly, the reader can follow the analysis and concur with the insights proposed by the authors.

As a pediatric critical care nurse, I have noted the many different ways in which nurses and other members of the health care team can not only promote, but also present barriers and challenges to parental participation in the care of their critically ill child. The tenets of

family-centred care cannot be an option in our units, but must be a day-to-day reality and expectation of professional practice. We make critical differences in the family responses and involvement in care through our daily interactions and engagement with parents. We need to create environments that support the development of collaborative nurse/parent relationships in order to increase the visibility and valuing of the nursing role with family members and to alter the balance of control for family roles in the PICU such that parents identify that they have increasing control over where, what, when, and how they parent their critically ill child.

In summary, this study highlights the parental perspective on their parenting role when their child is experiencing a life-threatening illness. The authors have shared the voice of parents to identify potential nursing strategies that can improve our care of parents in the PICU.

Margot Thomas, RN, MScN, CNCCP(C), Advanced Practice Nurse, Children's Hospital of Eastern Ontario, Ottawa, Ontario.

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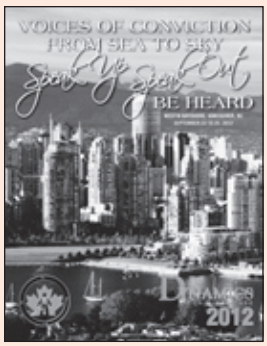
Dynamics of Critical Care 2012
Voices of Conviction from Sea to Sky
Speak Up, Speak Out, Be Heard
September 23–25, 2012
Westin Bayshore, Vancouver, BC



The Dynamics 2012 Planning Committee and the CACCN Board of Directors invite you to view the conference flyer enclosed with this Dynamics Journal. For more information regarding the conference sessions, please visit the *online* conference brochure located on the CACCN website at **www.caccn.ca**. We are looking forward to seeing you at Dynamics 2012.

CACCN Merit Award
Call for Committee Members

CACCN is creating a CACCN Merit Award for Intensive Care Units in Canada.

Over the past couple of months, the Board of Directors has been working on a framework for the proposed award with the intent of striking a committee to take the framework and create the criteria for the award. The committee will utilize the CACCN Members-Only Discussion Forum, teleconference and/or Skype for communication.

The CACCN Board of Directors is inviting you to consider participating on the CACCN Merit Award Committee.

If you are interested, please submit your name and CV/resume to CACCN National Office ***no later than June 15, 2012****. Submissions may be sent by email to caccn@caccn.ca or facsimile to 519-649-1458.*

The board is very excited about the proposed CACCN Merit Award and looks forward to your participation.

CACCN Board of Directors 2012–2013

Teddie Tanguay
President

I am very excited to begin my term as president on the Board of Directors of CACCN.

I obtained my nursing diploma from the Royal Alexandra Hospital School of Nursing in 1982. I began my career by working in orthopedics. In 1983, my interest in critical care was born when I accepted a position in general systems ICU. There, I worked in many different capacities including staff nurse, educator and management. In 1993, I graduated from the University of Alberta with a bachelor of science in nursing. In 1994, I helped write the Canadian critical care certification exam and obtained my certification in 1995. Following writing the certification exam I was a member of the examination committee until 2008. Eventually, my passion for critical care and thirst for new knowledge led to a return to the University of Alberta where I obtained a Master's degree in nursing. I then began working as a nurse practitioner in critical care. As a direct caregiver to critically ill adults, I see, daily, the impact critical care nurses have on their patients' and families' lives. The combination of expert knowledge and caring is what makes a difference.

As part of my interest and drive for furthering critical care nursing, I became involved in the Canadian Association of Critical Care Nurses. I am a founding member of the Greater Edmonton Chapter and have held many executive positions at the chapter level. Over the years, I have been involved in organizing and presenting at various Dynamics conferences and was the Dynamics Conference Chair for Dynamics 2010 in Edmonton, AB.

Being a member of CACCN is extremely rewarding. CACCN membership provides an opportunity to be a voice for critical care nursing to policy makers and other professional organizations and also provides the opportunity to network with colleagues across the country. The ability to network with critical care nurses from coast to coast has assisted in implementing best practice in my work environment. More importantly, I have made many life-long friends through CACCN.

I look forward to working with the board and our members, as we continue to increase awareness of critical care nursing in Canada and start to "**Speak with Conviction**".

Karen Dryden-Palmer
Vice-President (Dynamics Liaison)

I am very excited to enter into my second year as a member of the CACCN Board of Directors. Our work as a board this past year has been fulfilling and productive. I look forward to the insights and creativity our newest members will bring. Welcome Barb and Kirk to our team. I am happy to add that at our March 2012 board meeting, I gratefully accepted the challenge and responsibility of representing our membership as vice-president for the 2012–2014 term.

Over the next year, I will continue to work towards establishing professional environments for critical care nurses to support 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.

Seated in front: Teddie Tanguay and Tricia Bray. Standing: Karen Dryden-Palmer, Ruth Trinier, Kirk Dawe, Barbara Fagan, Céline Pelletier and Christine Halfkenny-Zellas.

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 to build a foundation for our shared future.

Ruth Trinier
Treasurer

It with great pleasure that I begin my third year serving on the Board of Directors as one of the directors from the Central Region, taking responsibility for the portfolio of national board treasurer. I will miss the awards and corporate sponsorship portfolio. However, I am confident that Barb will do an excellent job working with the awards committee members to recognize some of the truly amazing work that our members provide on a daily basis.

With both Barb and Kirk coming in as new board members from the Eastern Region, they have kindly accepted responsibility as liaison for our chapters in New Brunswick and Nova Scotia. Although I will miss the friends and contacts I have established with these chapters over the last two years, I believe that a connection with a board member from the same region of the country will greatly facilitate communication and service. I am looking forward to getting to know the London Regional and Montreal chapters as their new board liaison.

I continue to care, as I have done for the past 13 years, for the children and families admitted to the Pediatric Intensive Care Unit at the Hospital for Sick Children in Toronto, as a direct care provider. I have worked at SickKids since 1984, originally as a clerk in the emergency department. It was my exposure there to nursing that inspired my return to school. While continuing my work at SickKids, I have continued to refine my knowledge in nursing through pursuit of a diploma, followed by a bachelor of science and, currently, through the pursuit of a Master's in Nursing.

In addition to patient care, I have had the advantage of being exposed to numerous opportunities for growth in the profession including conference planning, education, preceptorships, research and more. Many of these opportunities have come as a result of my association with CACCN and its members; compassionate, dedicated, incredible nurses from across Canada who provide care to the critically ill.

I can say with all honesty that I love my work. Every day I witness the impact of the care that a nurse can provide. Nurses just like you.

Céline Pelletier
Secretary/Communications/Partnership Director-at-Large

I have been a critical care nurse for approximately 28 years, having first obtained my 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, NT, where I helped open and set up 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, as I enter my second year on the Board of Directors of CACCN, I hope to be able to continue to give back to those who are striving to be bigger and better.

Tricia Bray
Director (Publications) (Western Region)

I am pleased to extend my term on the board for a year so that another election for the western representative can take place. I look forward to working with new board members Kirk and Barb, as well as continuing to work with Teddie, Karen, Céline and Ruth.

It is a bit of a relief to have another year to complete the projects I have in process: position statement on Healthy Work Environments along with Marie Edwards, John Balcom and Sandra Goldsworthy; development of a CACCN recognition program for critical care orientation to recognize the work that critical care educators and managers across Canada put into developing orientation programs that align with the standards and vision of CACCN; and last, but by no means least, planning Dynamics 2012 in Vancouver with the support of a great planning committee: Cecilia Baylon, Judy Fraser, Michelle House-Kokan, Dale Kastanis, Laurel Kathlow, Karen Lecomte, and Christine Halfkenny-Zellas, CACCN COO. We are all excited about the program planned and look forward to seeing many CACCN members in Vancouver in September.

Barb Fagan
Director (Awards and Corporate Sponsorship) (Eastern Region)

I am honoured to represent the voice of critical care nursing in the Eastern Region, as a member of the CACCN Board of Directors. I have accepted the portfolio of Awards and Corporate Sponsorship and I look forward to recognizing the wonderful talented nurses we have in our association. I am also looking forward to working with the Nova Scotia and Ottawa Region Chapters as their national board liaison.

I graduated from Dalhousie University with my Baccalaureate in Nursing in 1991. After two years of great medical surgical experience, my thirst for knowledge called me to enrol in the Critical Care Nursing Program at the Post RN programs in Nova Scotia. Critical care nursing has become my passion ever since and I have not looked back. I was blessed with 15 years of amazing intensive care experience—as a staff member, preceptor and charge nurse. Twenty years later, with a wonderful husband and three fabulous children, I am even more called to our profession. For the past three years, I have had the privilege of being an instructor for the Critical Care Nursing Program with the Registered Nurses Professional Development Centre (RN-PDC), formerly part of the post RN program in Nova Scotia. It is funny how things come full circle in life.

I am currently enrolled in the Master's of nursing program at Athabasca University. I have been an active CACCN member and have had the privilege to present at the 2009 and 2010 Dynamics conferences. My colleagues and I were the fortunate recipients of the 2009 Spacelabs Innovation Award for our work on *Creating Life-Long Critical Care Thinkers*. We presented our findings of implementing a progressive teaching methodology called team-based learning in our programming. In 2010, we presented our innovative interprofessional simulation lab team training. Working together with all members of the health care team to our full scopes of practice is another passion of mine. I am a member of our local Nova Scotia chapter and have participated in local meetings and education sessions. I am looking forward to our province hosting Dynamics in 2013.

Kirk Dawe
Director (Website) (Eastern Region)

I would like to thank everyone for my nomination and acclamation to the CACCN Board of Directors. As some of you already know, I am a critical care nurse practitioner in St. John's, Newfoundland. I completed my Master of Nursing at the University of Toronto.

I decided to pursue membership on the CACCN Board of Directors to help further the agenda of critical care nurses across Canada. I believe the CACCN is poised to address many of the issues facing critical care nurses today—be they legislative, social, practical, or otherwise. We are a collective "Voice" that "Speaks with Conviction"—I believe this represents a powerful notion—there is no problem, big or small, that we cannot address if we do it together. In the spirit of this belief, I request that members take a moment of time to peruse the bulletin board on the CACCN website—post a question, answer someone else's, or comment on the President's blog. Let's foster a sense of online community where we engage one another and bring our issues to the forefront. I look forward to seeing you online!

CACCN calendar of events

DATES TO REMEMBER!

June 1: Spacelabs Innovative Project Award deadline

June 1: Braun Sharing Expertise Award deadline

June 1: The Guardian Scholarship—The Baxter Corporation Award for Excellence in Patient Safety deadline

June 1: The Brenda Morgan Leadership Excellence Award deadline

June 1: Cardinal Health Chasing Excellence Award deadline

July 5: CACCN Board of Director Nomination deadline

August 16: Dynamics 2012 Early Bird Registration deadline

September 1: Smiths Medical Canada Ltd. Educational Award deadline

September 7: Dynamics 2012 Conference Registration final deadline

September 20–21: BOD F2F Meeting, Vancouver, BC

September 22: Chapter Connections Day, Vancouver, BC

September 23–25: Dynamics 2012 Conference, Vancouver, BC

September 30: Chapter Quarterly Reports (July–Oct 2012) deadline

November 14: CNA Certification Initial Application deadline

December 3: CNA Certification Renewal Application deadline

December 31: Chapter Quarterly Reports (Oct–Dec 2012) deadline

January 31: Smiths Medical Canada Ltd. Educational Award

January 31: Call for Abstracts, Dynamics 2013 deadline

February 15: CACCN Research Grant deadline

March 1: Dynamics 2014 Planning Committee Application deadline

Awards available to CACCN members

Criteria for awards available to members of the Canadian Association of Critical Care Nurses are published on pages 53–58 of this issue of Dynamics.

Annual General Meeting Proxy Vote 2012

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 by CACCN National Office before Friday, September 14, 2012, at 2359 EST.

The following shall be a sufficient form of proxy:

I, _____, of _____,
Name of CACCN Member (please print) City, Province

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

_____ of _____,
Name of Proxy (please print) City, Province

or failing her/him,

_____ of _____,
Name of Proxy (please print) City, Province

as my proxy to vote for me and on my behalf at the meeting of members of the association to be held on the 23rd day of September, 2012, and at any adjournment thereof.

Dated at _____, this _____ day

of _____, 2012.

Signature of Member*: _____

CACCN Membership Number: _____

Chapter:_____

**Electronic signatures accepted. Must be a replica of the actual signature. Typed names cannot be accepted.*

Return completed proxy forms to:
Canadian Association of Critical Care Nurses
P.O. Box 25322, London, ON N6C 6B1
Fax: 519-649-1458
Scanned/emailed to: **caccn@caccn.ca**

CACCN

CACCN Board of Directors Call for Nominations

The election of directors to the Canadian Association of Critical Care Nurses (CACCN) National Board of Directors will take place at the CACCN annual general meeting on September 23, 2012, for a two-year term commencing April 1, 2013 and running to March 31, 2015.

There are three positions available:

- Central Region, one (1) position: Ontario and Quebec
- Western Region, one (1) position: British Columbia, Alberta, Saskatchewan, Manitoba, Northwest Territories, Nunavut and the Yukon
- Director-at-Large, one (1) position: Any region

CACCN members interested in letting their names stand for election to the board of directors may visit the CACCN website at **www.caccn.ca/aboutCACCN** or contact CACCN National Office at 1-866-477-9077 or **caccn@caccn.ca** to obtain nomination forms.

Deadline for nomination application submission: no later than **July 5, 2012,** at **2359 hours.**

Notification of Nominees:
The Association will notify members of nominations to the Board in the following manner:

- In order to receive the nominees' bios and photos into the hands of the members in the most expedient manner, all information will be posted on the CACCN website in the Members Only area after the close of the Call for Nominations.
- If the open position has one nomination at the close of the Call for Nominations, the nominee will be acclaimed to the open position at the next Annual General Meeting.
- If the open position has two or more nominees at the close of the Call for Nominations, an election by secret ballot at the next Annual General Meeting will take place.
- If no nominations have been received at the close of the Call for Nominations, a call from the floor will occur at the next Annual General Meeting.

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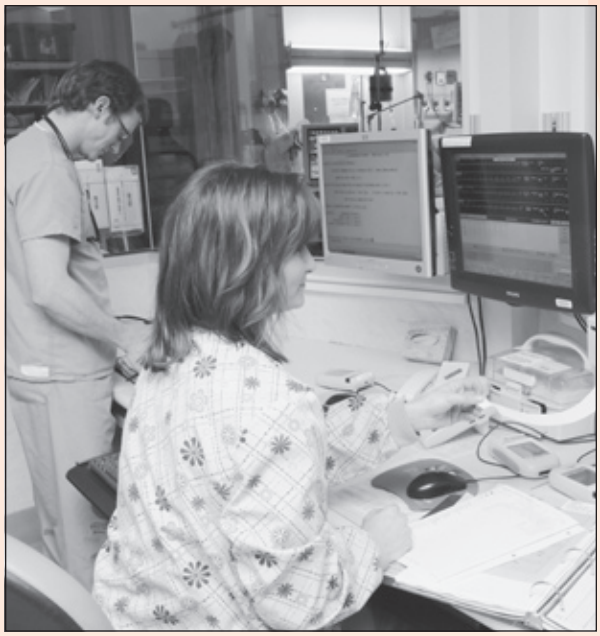

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Criteria:

1. Current/active CACCN members may participate.
2. Applicable on **NEW** member applications only.
   a. A **new** member is one who has not been a CACCN member previously or has not been a CACCN member for a minimum of 12 months.
3. To qualify, **your name must be included** on the new member's application form or included in the online application submission as the **"sponsor"** or **"person who recommended joining CACCN"**. Coupons cannot be awarded if the sponsor/recommending information is not included when the membership application is processed.
4. Members may receive a maximum of **seven (7) coupons** towards their next renewal.
5. Coupons expire on the member's renewal date.

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The Dynamics 2013 conference planning committee has been selected, as follows:

Chair: Kate Mahon, Halifax, NS

Planning committee members:
Joanne Baird, Grand Falls-Windsor, NL
Valerie Banfield, Dartmouth, NS
Laurel MacIsaac, Musquodoboit Harbour, NS
Sandra Matheson, Halifax, NS
Patricia Rodgers, Portugal Cove-St. Philips, NL
Erin Sarrazin, Lower Sackville, NS
Christine Halfkenny-Zellas, CACCN COO

The committee looks forward to planning an exciting conference from September 22 to 24, 2013, at the World Trade and Convention Centre in Halifax, Nova Scotia. Thank you to all members who showed interest in the Dynamics 2013 planning committee.

Notice of Annual General Meeting

The National Board of Directors of the Canadian Association of Critical Care Nurses extends an invitation to the membership to attend the 28th Annual General Meeting. The meeting will be held:

Sunday, September 23, 2012, at 1645 hrs,
Westin Bayshore Vancouver, Vancouver, BC,
in conjunction with Dynamics 2012.

All CACCN Members and interested parties are invited to attend. **Please note:** Associate and Student Members do not hold voting rights and are ineligible to vote. If you are unable to attend the meeting, you may participate by completing the CACCN Proxy form.

CANADIAN ASSOCIATION OF CRITICAL CARE NURSES

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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 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. *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.

Website banner advertising

CACCN is 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.

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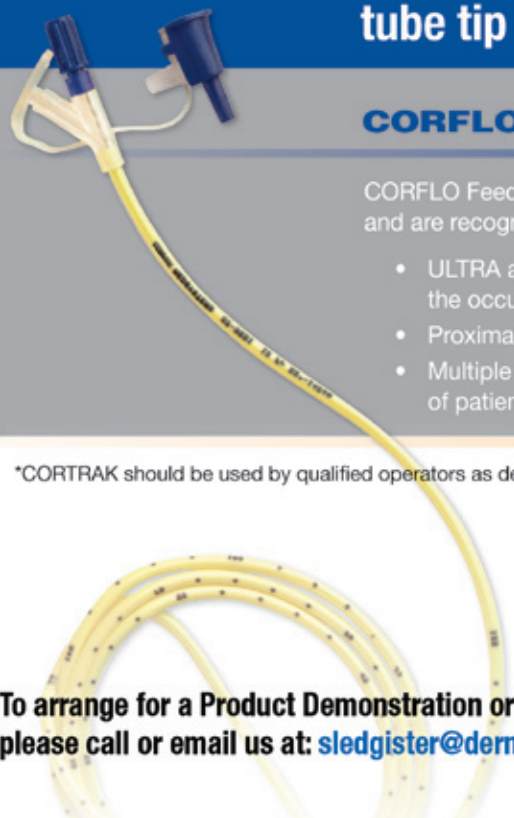

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CRITICAL CARE NURSING ABSTRACTS

Four of the strategic goals of CACCN are: 1) to provide educational opportunities for critical care nurses; 2) to optimize quality of critical care nursing practice; 3) to provide varied opportunities to profile critical care nursing research; and 4) to provide opportunities for nursing colleagues to network.

CACCN's national conference, Dynamics of Critical Care, provides an excellent venue for accomplishing all of these goals. However, only a portion of CACCN members are able to attend a Dynamics conference annually. Cognizant of this, CACCN is pleased to be printing its 12th annual "Special Dynamics of Critical Care Issue", which includes the abstracts from Dynamics of Critical Care 2012.

The following abstracts represent the concurrent session and poster abstracts being presented during Dynamics of Critical Care 2012 being held in Vancouver, British Columbia, September 23–25, 2012.

It is our hope that CACCN members interested in pursuing a profiled topic will contact our national office at (519) 649-5284 or e-mail caccn@caccn.ca to receive information regarding how to contact the author about the work.

We hope you will carefully consider the critical care nursing topics currently being investigated and discussed in various centres across Canada!

DYNAMICS OF CRITICAL CARE 2012

VOICES OF CONVICTION FROM SEA TO SKY

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ORAL PRESENTATIONS

Moving from Surviving ICU to Thriving

Marlene Ash, RN, and James Danell, BN, RN, CNCC(C), Winnipeg, MB

The current health care situation reveals a population living longer with chronic illness. Advances in therapies have assisted more individuals survive previously catastrophic events. Critical care has seen a shift towards increasing numbers of persons surviving their critical illness. ICU survivors have been identified as displaying reduced functional capacity for activities of daily living. Immobility is far from inconsequential. The challenge is moving ICU patients from surviving to thriving.

The consequences of immobility in the critically ill link to increased length of ventilator days, increased length of hospitalization, and increased length of ICU days (Needham et al., 2009). Reviewed literature identified several factors that promote neuromuscular weakness: hyperglycemia, steroids, neuromuscular blockers, systemic inflammation, long-term

sedation and immobility. Quality improvements from Safer Healthcare Now! have seen bedside best practices change to goal-directed therapies. Mobility has been inconsistently practised by ICU health care providers.

An early mobility protocol was tailored from literature and contextual experience, and identified barriers to implementation with the ultimate goal being improved functional status and quality of life. Early mobility needs to become inclusive in our daily practice to reduce the impact of critical illness and immobility.

This multidisciplinary protocol is a structured progression that guides holistic and functional therapies. The notion is "Wake up and Breathe", "Get up and Go", and change survive to thrive. In conclusion, a larger prospective assessment focused on functional status of the ICU population would quantify the extent of functional compromise. Accurate information would assist with identification of fragmentation in care and the extent of follow-up required for this population post ICU discharge.

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Some Like it Hot. Revelations in Managing Fever in the ICU

Vininder Bains, BSN, Richmond, BC

Fever is a recognized sign of inflammation and is a common occurrence in the ICU. Decades of research have resulted in good understanding of the various costs and benefits of fever. We know fever to be very costly, increasing metabolic demand by 10 to 13 per cent for every degree Celsius increase in temperature. To meet these demands, heart rate increases by approximately 10 beats per minute for every degree increase in temperature. We also know that the brain temperature is often up to two degrees higher than core temperatures.

Fever is also recognized to be a highly effective adaptive response with many benefits, such as inhibition of microbial replication, and enhanced immune response. Also, recent discoveries in the role of heat shock proteins in systemic inflammatory response syndrome (SIRS) have sparked the possibility of novel new treatments for acute respiratory distress syndrome (ARDS) and multiple organ dysfunction syndrome (MODS).

In clinical practice, health care professionals still consider treating fever with antipyretics and or external cooling relatively innocuous. It is common practice to routinely administer antipyretics, include antipyretics in emergency room sepsis protocols or apply external cooling to reduce fever, even though there is little literature to support this practice.

New evidence now suggests that in some patient populations, antipyretic treatment can be harmful. Administration of antipyretics in ICU patients has been associated with hypotension. The mechanism of this response is still being debated. A likely theory is that since ICU patients have limited compensatory mechanisms the normal thermoregulatory response of vasodilation and sweating to decrease core body temperature induces hypotension. A recent study on the effect of antipyretic therapy in ICU revealed an increased mortality when patients were aggressively treated.

In light of this new research, it is time to reevaluate when and how to treat fever. It is also time we looked into investigating when treating fever is of benefit and when it is not.

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The 12-Lead ECG and STEMI Identification

Christopher Carleton, Paramedic—ACLS Regional Faculty, Bellingham, WA

Purpose: To identify the presence of ST-segment elevation myocardial infarction (STEMI) in patients with cardiac etiology within medical practice.

Method: Multiple 12-lead ECGs will be reviewed allowing the participants to engage in identifying the presence of STEMI.

ABSTRACTS

Results: Students will have gained the knowledge of STEMI identification while ruling out STEMI imitators by using reciprocal changes to further validate the identification, thus improving patient outcomes.

Conclusion: Cardiac emergencies are a leading cause of mortality and morbidity. Providing immediate identification and streamlining treatment activation for patients within this category is changing the approach in medical facilities.

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Does your Critical Care Patient Have a Newly Inserted Ventricular Assist Device? A Critical Care Nurse's Perspective

Nicolle Choquette, MN, RN, East St. Paul, MB

Heart failure (HF) is a serious progressive medical condition resulting in congestive heart failure, tissue fluid congestion and multi-organ failure. It is estimated that there are approximately 500,000 Canadians living with heart failure and 50,000 new cases each year. Since more people survive ischemic heart disease and other acute heart conditions, heart failure is on the rise and expected to double within the next 20 years.

Medical management includes treating the underlying cause of the heart failure with medicine or surgery. However, if all else fails, the literature indicates that heart transplantation is the therapy of choice for patients with sustained end stage class IV heart failure. Unfortunately, a shortage of heart donor organs combined with increasing numbers of eligible HF patients has resulted in extended heart transplant wait periods and increased mortality rates. These circumstances have, therefore, encouraged the development of enhanced treatment options such as the mechanical heart circulatory support—specifically the left ventricular assist device (VAD). The VAD is now considered a suitable medical bridge strategy for heart transplant, recovery, or destination therapy.

Medical care for the postoperative patient with a newly inserted VAD is very complicated, and requires nurses with expert knowledge who can recognize and provide appropriate care that meets the patient's urgent or long-term medical needs. It is, therefore, the critical care nurses' legal and ethical responsibility to provide current evidence-based care for effective patient recovery. Consequently, this poster will attempt to briefly define and summarize how the VAD will assist the patient suffering from end stage class IV heart failure, as a foundational understanding that critical care nurses can utilize to comprehend the patient's whole rehabilitation needs.

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Building an Acute Care Facility Using a Lean Approach

Lynn Coolen, MBA, BScN, RN, CNCCP(C), David Waller, MSC, BA, RN, and Caroline Kohlberg, RN, North Vancouver, BC

Recently, this organization embarked on a journey that included applying lean philosophy and principles, as set out by the Toyota Production Model, to further the commitment to continuously improve quality of care. Due to the foundation of lean within the organization, it is fitting that these principles have been relied upon as the campus is proceeding to build a new acute care tower that will support inpatient care including care that is offered in the pediatric intensive care unit.

To date, a number of processes have been utilized in preparation for this exciting new facility. Most notably, the creation of area planning teams to support a 3P approach (production preparation, process) and test fitting (process to ensure that building will fit within a given budget and timeline). Recently, the organization has been guided towards a new approach called Integrated Facility Design (IFD). IFD allows teams to create future processes and systems to inform the new

building design. The IFD process will build upon the work of Test Fit and lead the way to a future design. Integrated Facility Design differs from a traditional approach in many ways and has the focus of creating a structure that considers all the flows of medicine (flow of patients, families, care providers, supplies, equipment, etc.). Integrated Facilities Design is a systematic design approach that embraces the principles of lean thinking and integrates the expertise of all stakeholders in a concurrent, simultaneous manner through data driven qualitative/quantitative analysis (e.g., process examination, computer modelling, physical mockups, scenario testing, rapid user feedback) to increase value and facilitate a positive impact to design, fabrication, construction and lifecycle ownership.

This presentation will offer an overview of the journey that has occurred to date in creating a new facility that utilizes these leading edge and innovative techniques.

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A Critical Care Nursing Transfer of Accountability Tool for Patient Transfers from ICU: A Quality Practice Change Initiative

Ingrid Daley, MScN, BA, RN, CNCC(C), Mary Muhic, BScN, RN, CNCC(C), Clare Fielding, BScN, RN, and Karen Bennett, BScN, RN, Toronto, ON

Every day patients are transferred out of intensive care units. Some patients have a simple course of treatment; others have been in the unit for months. Colleges and governing bodies now recommend having a structure or system in place to organize and standardize hand-offs between clinicians, but no specific tools exist that specify content, organization of content, mechanisms or workflow to address safe transfers (WHO, 2007). An urban teaching hospital set about addressing Accreditation Canada's Patient Safety ROP Transfer of Information working with all the critical care units engaged across the multiple sites. One content standardized communication tool was designed, implemented and evaluated for use with all critical care transfers to inpatient units.

Transfer of accountability (TOA) addresses the entire practice of transferring patients, incorporating the tools, processes, clinicians and recommendations for ensuring patient information is not lost during patient transitions in care (Patterson & Wears, 2010). A review of nursing workflow, patient flow and anecdotal and formal incident reports was conducted to determine the content, issues and barriers to be addressed. Content was defined and agreed upon by the critical care representatives, validated with inpatient nurses and reorganized on a paper tool to maximize information flow.

The goals were to accurately reflect the patient's status, document relevant concerns, address ongoing issues, and convey the plan of care; all at time of transfer in a concise manner for the receiving nurse. This process was new to critical care and receiving nurses, historically accustomed to rushed and/or interrupted verbal reports. Education, pilot programs and implementation training were all planned steps to overcome barriers. Post-implementation audits showed 91% to 99% compliance rates. Evaluation is currently underway and preliminary findings have identified opportunities for further growth.

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Implementation of a DNAR Form in PICU: Towards Clear Guidance for Teams and Families

Linda Dart, BSN, RN, CCCNP(C), and Rosella Jefferson, MSN, RN, CCCNP(C), Vancouver, BC

It is a Canadian cultural expectation that the death of a child is rare. Although it may not be a statistically significant event for those working in pediatric health care, it is a reality at pediatric quaternary centres. We have learned that there is a great need to improve how we care for dying children and their families, which includes a discussion with families regarding end-of-life decision making; specifically, the interventions in which a family wishes to be included in their child's end-of-life care. Inconsistencies in or absence of specifics of the family's wishes in the physician's notes combined with a Do Not Attempt Resuscitation (DNAR) order have resulted in situations where teams and/or families are uncertain on how to proceed with care when the status of a dying child shifts. The adult world has been successful in designing clear DNAR orders specific

to the patient's/family's wishes that align with a structured review process. Acknowledging that we did not have a similar tool or process in place, the pediatric intensive care unit (PICU) end-of-life care committee, composed of physicians, nurses, ethicist, allied health professionals, spiritual care and parent advisors, developed and tested a DNAR form for use in the PICU and neonatal intensive care unit (NICU). Over the past two years, the PICU and NICU trialed the form, which was approved for distribution in December 2011. Creation of this DNAR order set is a positive step towards providing clear guidance for teams and families when discussing pediatric end-of-life care directives. A communication and implementation plan was made and executed in January 2012 to successfully support staff and families to utilize the DNAR form and move towards providing quality end-of-life care for the children and families served.

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Technology at the Bedside: The Evolution of Patient Communication in Critical Care

Elaine Doucette, MScN, RN, Sarina Fazio, BScN, RN, Shane Anzovino, U2 Student (BScN), Ahsan Bandeali, U2 Student (BScN), Virginie Constantin, U2 Student (BScN), Laureanne Khouri, U2 Student (BScN), Carol Kwon, U2 Student (BScN), and Fannie Painchaud, U2 Student (BScN), Montreal, QC

The advancement of technology in health care settings has had a dramatic impact on our ability to care for patients and families in intensive care units. While most of this technology has focused primarily on physiological monitoring and data collection, it has not yet succeeded in enhancing the patient's ability to effectively communicate their needs (Miglietta et al., 2004). As the majority of patients in an ICU setting are mechanically ventilated, optimizing nurse-patient communication with the use of innovative and current technologies can only serve to enhance the quality of patient care and patient outcomes. In fact, research has shown that patients have reported feelings of frustration, lack of control and self-determination, as well as physical discomfort when unable to communicate with their nurses, which can ultimately impact overall recovery (Finke et al., 2008). Hence, nurses bear a unique responsibility to engage non-speaking patients in communication and enable the patients' messages to be effectively transmitted and understood (Happ et al., 2011).

The goal of this presentation will be to highlight current technology that can be utilized to improve communication with ICU patients who are unable to effectively communicate for themselves. We will discuss and demonstrate the various software and hardware that have been developed for this purpose. The topic will be presented from a student nurse's perspective, drawing upon clinical experiences and reflections on the use of technology in the ICU. In addressing this challenge we succeed, as advocates, in supporting our patients to "speak up, speak out, and be heard."

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Speak Out: Critical Care Nurses Lead the Way in Pressure Ulcer Prophylaxis

Barb Duncan, RN, Heather Harrington, BScN, RN, CCNC(C), and Louanne Rich-vanderBij, MSc, BScN, RN, CWOCN-CWCN, Maple, ON

Pressure ulcers (PU) are areas of localized damage to the skin and underlying tissue from external forces such as pressure, friction and shear. Significant morbidity and mortality can be attributed to PU. In Canada, it is estimated that the prevalence of PU in hospitalized patients is up to 10% (RNAO, 2011). For patients admitted to the intensive care unit, the incidence increases dramatically to 30% to 60% (Chronakos & Nierman, 2003), making critically ill patients one of the highest risk groups. Early identification of patients at risk for PU and prompt intervention are key factors in preventing pressure ulcers.

Nurses have the capacity to impact patient outcomes by instituting measures to decrease the risk of patients developing PU. Annual prevalence screening has demonstrated that our critical care patient population is high risk with a Braden score of less than 15, which clearly supports the need for early PU prophylaxis.

The development and implementation of a critical care PU prophylaxis guideline for these-high risk patients were undertaken. Building on research focused on PU prophylaxis (Brindle, 2010), our protocol was modified to reflect those risk factors specific to our patient population.

Selection criteria were developed to aid nurses in identifying which patients would be candidates for the intervention. Additional educational resources were provided outlining the correct utilization of the item to ensure best practice related to the application, maintenance and removal of each component. Dissemination of information to nursing staff occurred through in-services.

Audits were conducted prior to the implementation of the intervention at two-week intervals over a six-week period. Further data were collected three months after the implementation of the project. Audits will be repeated at the six-month mark and, along with an examination of recent literature, will provide direction for the development of a sustainable protocol.

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Learning Partnerships: An International Nursing Education Project

Karen Dryden-Palmer, MSN, RN, and Ruth Trinier, BScN, RN, CNCCP(C), Toronto, ON

For more than four decades, nurses from the developed world have engaged in international education programs and professional networks in order to contribute to nursing education, practice and research in developing countries. Scholars and nurse educators have identified one of the ways to strengthen international nursing standards of care is through international exchanges of nurse learners and nursing faculty. In 2010–2011, our critical care education team was privileged to participate in the critical care component of an organizational partnership between our Canadian hospital and a large health care organization in the Middle East. The purpose of our project was to develop and implement a critical care nursing education curriculum driven by the host organization's needs and priorities. The curriculum utilized local frameworks and resources for practice and was grounded in CACCN's Standards for Critical Care Nursing Practice. The program was collaboratively created with the host team with the intent of enhancing current knowledge and practice while developing local nursing educational capacity and organizational practice priorities.

This presentation will chronicle the process of curriculum development including preliminary site visits, relationship development, ongoing collaborative efforts between project, practice and education leadership teams, and the implementation of phase one educational interventions. We will discuss efforts to identify common interests between Canadian and the local critical care nurses and share our early outcomes. The strengths of this programming and future enhancements for the next project phase will be discussed. We will highlight the complex ethical considerations and opportunities made visible through the unique and distinct nursing and learning cultures of the faculty and the learners. The universality of critical care nursing will be highlighted, as well as the uniqueness of each culture's realization of caring in nursing.

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Intensive Care Nurses' Assessment of Pain in Patients Who are Mechanically Ventilated: A Pilot Study

Frances Fothergill Bourbonnais, PhD, RN, Sue Malone-Tucker, BScN, RN, and Debbie Dalton-Kischel, BScN, RN, Ottawa, ON

Pain is common in patients in intensive care units (ICU) due to the surgical and medical procedures that they undergo, as well as pain from nursing interventions such as turning and positioning to prevent pressure sores. Assessment is an essential first step in managing pain. Difficulties can arise when the

clinician attempts to interpret its severity and work towards effective pain management. Many patients in ICUs have difficulty communicating their pain because of, for example, artificial ventilation, neurological conditions or decreased consciousness, as their condition deteriorates, and, therefore, may not be able to provide this information. The use of a behavioural measure for pain is required for non-communicative critically ill patients (Gelinas & Johnston, 2007). Gelinas et al. (2006) developed the Critical Care Pain Observation Tool (a bilingual instrument).

Objectives of this study: To determine the suitability of the Critical Care Pain Observation Tool (CPOT) as a tool to be used by nursing staff to assess pain in non-communicative patients in an adult intensive care unit.

Methods: Nurses assessed pain in patients who were mechanically ventilated using the CPOT several times for each patient. Short-answer questions and a Likert scale allowed the nurses participating in the study to provide feedback on ease of use of the tool and appropriateness in assessing pain in these patients.

Results: Preliminary results revealed that nurses found the tool easy to use and that it would be helpful to them.

The authors would like to thank the staff nurses who participated in this study. Acknowledgement needs to be made to Anneke Ayer, research assistant, and to the University of Ottawa, Undergraduate Research Opportunities program.

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Wound Care: What Do You Do With What You See...

Nancy Giles-McIntosh, RN, CNCC(C), IIWCC, London, ON

Critical care continues to be an environment that demands constant attention to the changing needs of the patient. In the critical care environment, the nurse is responsible for providing total patient care. The integumentary system is only one of the many systems the critical care nurse needs to repeatedly assess.

There are times in the critical care setting when patients may experience the development of a wound or impaired wound healing due to their compromised status. This often occurs in the presence of inadequate perfusion, sustained inflammation, moisture imbalance, deficient growth factors, poor glycemic control and bacterial infection. This impairment can only add to the multitude of problems the patient is already facing.

Many health care centres have access to a wide variety of advanced wound care products that can effectively treat the different wounds seen. A lack of knowledge related to wound care, the complications associated with it and how to treat these wounds properly continue to challenge the health care professional and their desire to treat wounds appropriately. This inappropriate use creates expense, both in terms of the dressing themselves and in nursing time, as well as leading to frustration for the patient, staff and administrators, as this knowledge/practice gap can contribute to a delayed recovery.

This presentation will review the basics of moist wound healing based on current best practice guidelines. Relevant case studies will be featured with treatment that demonstrates evidence-based practice and will highlight wounds often encountered by nurses in the pediatric or adult critical care environment. Advanced wound care products will be featured when presenting the different wounds. Audience participation will be encouraged and information shared to assist nurses in further developing their learning related to wounds so they can work towards effectively advocating for their patients when dealing with wound care issues.

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Using the Oxygen Supply and Demand Framework to Support Effective Clinical Decision-Making in Critical Care Nursing Practice

Mary Gillespie, MSN, RN, CCNC(C), and Eileen Shackell, MSN, RN, CCNC(C), North Vancouver, BC

Traditionally in nursing education, physiological and pathophysiological theory has been examined within a body systems framework. However, in our experience, learners are often challenged in applying this theoretical knowledge in an integrated, holistic and functional way during critical care clinical nursing practice. In response, educators in a critical care nursing program envisioned a fresh approach. Beginning from the premise that adequate cellular oxygenation is essential for effective physiological function, and taking direction from integrative learning theory, the metaconcept of oxygen supply and demand was adopted as a curricular construct that guides development of learners' knowledge of physiological and pathophysiological concepts across the program. In addition, a unique conceptual framework "the Oxygen Supply and Demand" framework, was developed. This framework supports nurses' learning by making explicit the interrelationships between relevant concepts and by guiding thinking processes integral to application of this theory in critical care nursing practice. During clinical learning, the framework is used to guide patient assessment of critically ill patients, link patient assessment data to physiologic concepts, draw conclusions about physiological function, and select and understand rationale for patient care interventions. In short, this innovative approach helps nurses learn to "think like a critical care nurse", and supports them in making sound clinical decisions during care of critically ill patients.

This presentation introduces the Oxygen Supply and Demand framework and describes its practical application to critical care nursing education and practice. By working through a patient case example, participants will experience the utility of the framework in analyzing oxygen supply and demand balance, and understand the significance of this process for effective clinical decision-making and individualized care of critically ill patients.

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Using the Situated Clinical Decision-Making Framework to Support Development of Nurses' Clinical Decision-Making Processes

Mary Gillespie, MSN, RN, CCNC(C), North Vancouver, BC

Nurses' clinical decision-making is a complex process that occurs in a dynamic environment. Nurses' capacity to make effective decisions will influence the quality of nursing care provided and patient outcomes. Nursing literature describes numerous strategies and approaches intended to support development of nurses' clinical decision-making, with significantly less consideration given to the process of assessing nurses' clinical decision-making. In spite of this literature, clinical nurse educators and preceptors are often challenged with knowing how to best support nurses and nursing students in developing their clinical decision-making capacity in clinical settings.

In this presentation, participants will be introduced to the Situated Clinical Decision-Making framework and explore its usefulness in assessing nurses' decision-making processes in clinical nursing practice. The framework and an accompanying series of guiding questions provide nurse educators with a structured approach to analyzing nurses' clinical decision-making, thus helping them identify areas of strength and specific issues within nurses' decision-making processes. With this understanding, educators are then well positioned to select relevant strategies to support development of clinical decision-making. Following the structure of the framework, the presenter will outline key considerations related to assessing nurses' decision-making, including common sources of challenge and errors. A case exemplar will provide an opportunity for participants to use the framework to analyze nurses' clinical decision-making.

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DYNAMICS OF CRITICAL CARE 2012

VOICES OF CONVICTION FROM SEA TO SKY

Speak Up Speak Out BE HEARD

Anabolic Steroids in Critical Care: Oxandrolone

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Anabolic steroids, such as oxandrolone, have been in use for more than 50 years, both for legitimate and illicit purposes. As anabolic steroids promote anabolism and prevent catabolism, it is easy to see where the critical care patient population would benefit from such therapies. The use of anabolic steroids in critical care is not a novel idea; the use of oxandrolone has been in place since the 1970s in the United States, much less so in Canada. Most of the established uses are for halting catabolic processes due to wasting illnesses such as HIV and acute trauma and burns. However, literature and practice also suggest that other chronic conditions such as chronic obstructive pulmonary disease (COPD), anemia and even osteoporosis are potential targets for such therapies.

This oral presentation will explore the issues surrounding the use of anabolic steroids, such as oxandrolone. Assessment of available literature will be conducted to identify evidence-based, legitimate uses for the critically ill patient population. In addition, basic physiology, pharmacology and legal issues, as well as adverse effects of such therapies will be reviewed. Finally, an examination of the difficulties of ordering such "special release" therapies will take place both at the local critical care pharmacy level and globally, involving Health Canada.

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The Changing Face of Post-Arrest Care: Therapeutic Hypothermia

Heather Harrington, BScN, RN, Ajax, ON

The induction of mild hypothermia as part of a comprehensive post-cardiac arrest care protocol has been integrated into the 2010 *American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care*. These strategies were introduced to improve the patient's chances of survival and neurological recovery.

In my cardiovascular intensive care unit in a large academic, tertiary/quaternary care facility, we frequently care for patients post cardiac arrest. Although we have had therapeutic hypothermia guidelines and protocols since 2008, there was inconsistent delivery of this intervention. Discussion with the nursing staff revealed a knowledge gap around this intervention and an educational plan was developed and implemented.

A presentation was developed with these objectives: define therapeutic hypothermia, explain the rationale, patient selection criteria and the goals of therapeutic hypothermia post cardiac arrest, explain the mechanisms of heat loss, describe the three phases of the therapeutic hypothermia protocol and the nursing responsibilities during each phase and discuss the family education and support provided during the therapy.

The guidelines and orders are routinely reviewed with the nurses caring for patients receiving therapeutic hypothermia to ensure knowledge gaps are quickly identified and that relevant information and support are provided to augment their ability to care for these patients. We are currently updating our orders and protocols to reflect the 2010 guidelines and, as we continue to move forward, this education will be integrated into the orientation of new staff.

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The Movement Behind the Move: Envisioning, Designing and Implementing a 36-Bed Intensive Care Unit

Joan Harris, MSc, BSc, RN, Pamela Hruska, BN, RN, CNCC(C), Lana McFadden, MSc, RN, Joy Teppler, BN, RN, and Laura Robinson, BScN, RN, CNCC(C), Calgary, AB

Our ever-increasing health care and, more specifically, intensive care needs mean that it is not going to be uncommon for hospital expansion and need for moving into new units. This is often an excellent opportunity to explore new designs and equipment, and implement research-based innovations. Despite the fact that moving into a new unit is not a new phenomenon there is a paucity of research or guidance on how best to navigate these changes. We will attempt to fill that gap by presenting our experience with relocating to a 36-bed adult intensive care unit.

A unit design and move process involves many factors such as thorough planning, an interdisciplinary approach and good communication among everyone involved (Silverton, Schneider, & Krpan, 1990). Our experience started with a vision to prioritize philosophical underpinnings of patient- and family-centred care to guide the design. Studies have shown that design of a facility can influence negatively or positively how patients, families and health care providers communicate amongst each other (IPFCC, n.d.). To keep the project aligned with these goals, our patient- and family-centred care committee, on which there is family representation, was integral in the design and planning process.

Other key stakeholders involved were staff nurses, respiratory therapists, allied health professionals, educators, management, physicians, biomedical technologists and housekeeping. Synchronizing these groups to ensure smooth and timely communication on multiple fronts was crucial. Details and practical supports for how this was approached will be shared, so anyone attending this session will come away with tools and a better understanding of how they might take these learnings and apply them to their own move or expansion projects.

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Enhanced *P*rotein-*E*nergy *P*rovision via the Enteral Ro*u*te Feeding *P*rotocol in Critically Ill Patients (The PEP uP Protocol): Results of a Multicentre, Cluster Randomized Trial

Daren K. Heyland, MSc, MD, Lauren Murch, MSc, Naomi Cahill, MSc, RD, Michele McCall, MSc, RD, John Muscedere, MD, Tom Stelfox, PhD, MD, Tricia Bray, MN, RN, CNCC(C), Teddie Tanguay, MN, NP, RN, CNCC(C), Xuran Jiang, MSc, and Andrew G. Day, MSc

Feeding protocols use a standard approach to provide enteral nutrition to critically ill patients and are associated with improved nutritional intake compared to approaches that do not use protocols. Current feeding protocols, however, may still result in significant iatrogenic malnutrition in critically ill patients.

The objective of the study was to determine the effect of a new innovative feeding protocol, the Enhanced *P*rotein-*E*nergy *P*rovision via the Enteral Ro*u*te Feeding *P*rotocol (PEP uP protocol), combined with an education package targeted to bedside nurses, on nutritional intake as compared to usual care.

A prospective cluster-randomized trial was completed in 18 ICUs from United States and Canada that enrolled 1,059 mechanically ventilated, critically ill patients. The two primary outcomes of this study measured the proportion of the protein and energy prescriptions that were received over the first 12 days in the ICU via the enteral route. Incidence of vomiting, witnessed aspiration and ICU-acquired pneumonia were secondary outcomes followed in both groups.

The presentation will include the main outcome measures, which found that patients in the intervention group received significantly more total protein (47% vs. 34%, p=0.005) and calories (44% vs. 32%, p=0.001) from enteral nutrition than baseline measurements. No changes were seen in the control group.

The presenters will discuss the development and implementation of the nursing education package along with recommendations for future practice.

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Establishing a Collaborative Partnership with Families in the ICU: Addressing Informational Needs on Admission

Jasmine Hill, BScN, RN, Louise Fullerton, MSc(A) Nursing, RN, Bita Danechi, BScN, RN, Ruth Guselle, BScN, RN, Colleen Stone, MN, RN, and Sylvie Ampleman, BScN, RN, Kirkland, QC

Family-centred care has become an imperative in health care organizations, as patients and families are considered to be one unit. Accreditation Canada (2011) standards indicate the need to strengthen health care professionals' interactions with families. One time when family members' needs are often overlooked is on admission of a loved one to the ICU, as the patient is the central focus of care. It is at this time that families experience the greatest degree of uncertainty and anxiety (Siddiqui et al., 2011). Research shows that if the family's needs are neglected on admission, the establishment of a therapeutic relationship could be compromised. It is widely acknowledged that the primary need of families on admission to the ICU is information (Bailey et al., 2010; Soltner et al., 2009).

A unit-based quality improvement project was initiated in two adult ICUs to critically examine the current methods of providing information to families at the time of admission. There was no standardized approach, as each unit used a different method that was based upon the staff's perception of the families' informational needs. The experience-based design framework created by the National Health Services Institute for Innovation and Improvement (2011) states that it is important for families to be collaborators and co-designers of information if it is to be relevant. Six family interviews from each site were conducted to understand and gain insight into family informational needs. A semi-structured interview format lasting 30 to 45 minutes was administered by the author. The recruitment process was voluntary and interviews took place once the patient had left the ICU.

Interviews were analyzed using a deductive content approach to simultaneously evaluate the content of the interviews and the information retrieved from the literature review.

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Nursing Leadership in the Canadian Forces

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Leadership may sometimes seem to be a nebulous attribute that seems part art and part science, but, in fact, it is a measureable quality consisting of both skills and knowledge that can be taught. The old notion that leadership is an innate quality one is born with has gone by the wayside. The Canadian Forces (CF) defines leadership as directly or indirectly influencing others, by means of formal authority or personal attributes, to act in accordance with one's intent or a shared purpose. The CF teaches all its members various types of leadership, some common to all and some unique to specific military situations. From the front lines of war, in the face of complex, volatile and continuously challenging environments, Canadian soldiers, sailors, airmen and women have provided excellent examples of leadership of which all Canadians can be proud. The CF Health Services (CFHS) is one area of the military where it is expected that leadership will be provided not only under extreme conditions, but with a wide variety of partners including other militaries, foreign civilians, governments and non-governmental agencies. Nursing is no exception and all

nursing officers (NOs) are given various opportunities for learning in both formal and informal environments. CF leadership core concepts and the profession of arms will both be discussed. Specifically, career progression for nursing officers will be explained, with descriptions of courses and training in which you might expect to be involved. Canadian NOs have not only served with distinction, but have gone from new grads to commanders of large organizations.

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Encouraging the Voice of Families in Care: Standardizing the Orientation/Education Process

Rosella Jefferson, MSN, RN, CNCCP(C), Lisa Kwong, BSN, RN, and Angie Assalone, BSN, RN, Vancouver, BC

Evidence indicates that families and health care professionals may differ on aspects of care they consider necessary to contribute successfully to a child's PICU stay. Given this difference in opinion, one of the tools we use to encourage the family voice to be heard and actively applied in care is the Family Experience Survey. Analysis of our results from these surveys over the past year indicates that improvement in the areas of comfort and involvement are desired by families. In order to develop a viable plan to address these results, we approached our unit's performance improvement process (PIP) committee. This committee exists to analyze measures of the success of our practice in the PICU. Each month, every member of staff is invited to be involved to discuss current PIP projects. Each project must have evaluation measures to assess whether we have made an improvement.

To improve our performance in listening to the voices of families regarding their care, we struck a team that includes nurses, parents, educators and support staff. We identified what we are trying to improve and how we will know we have made an improvement. Overall project goals are standardization of information for families regarding their ICU stay and an orientation that meets accreditation standards. Changes tested in the PIP for this project will be addressed in this presentation. These changes are aimed at involving both families and professionals in the improvement process.

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Walking with the Complex Child and Family: A Journey of Humility and Wonder

Rosella Jefferson, MSN, RN, CNCCP(C), Fran Starr, BSN, RN, and Lisa Kwong, BSN, RN, Vancouver, BC

Every so often, a patient comes along who is different from the hundreds of others you and your colleagues have seen. You find yourself trying to follow the usual paths that have led to best care for the PICU child and family. At each step, unexpected responses occur. You find yourself doing things you haven't done before and, in fact, you didn't ever think you would do many of these things in the course of your work. Unsurprisingly, you discover that the child's family is not following a predicted path either. In fact, members of the whole team discover they are breaking new territory.

In this presentation, a five-year journey with one particular child and family will be described; actual practice will be compared to evidence-based practice; and a story that required bedside nurses to lead from a place of conviction will be shared. The authors hope to investigate this question: how many other critical care nurses have lived stories like this in our practice?

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ABSTRACTS

DYNAMICS OF CRITICAL CARE 2012

VOICES OF CONVICTION FROM SEA TO SKY

Speak Up Speak Out BE HEARD

Strategies to Engage Critical Care Nurses in the Patient Family Experience

Angie Jeffs, MN, RN, Linda Nusdorfer, MN, RN, CNCC(C), Craig Dale, PhD(c), MN, RN, Karen McCormick, MN, RN, and Pamela Meyer, MN, RN, Markham, ON

In today's health care environment, front-line critical care nurses are often caught up in continuous monitoring and technological advances, ready to intervene at the slightest change in physiological status. Nurse's constant presence at the bedside places them in a unique position to interact with patients and families as partners and integrate their perspective into the plan of care. In order to build upon the nurse patient/family therapeutic relationship, we have introduced a number of initiatives to assist staff in their comfort level acknowledging the lived experience of patients and families as partners in the plan of care.

Over the past two years, we have introduced family presence at daily bedside clinical rounds, as well as weekly quality of life interprofessional team rounds focusing on the specific needs of long-stay patients and their families. The introduction of a "Get to Know Me" poster has assisted staff in reaching out and communicating to those families who wish to share more information of a personal nature of their family member to the team. Funding through various government initiatives has also enabled us to support the role of a critical care family liaison nurse whose sole purpose is to communicate information and support family members in crisis, allowing the bedside nurse time to coordinate the more acute aspects of care.

We have also introduced a monthly "Ask the Ethicist" advice column where staff are encouraged to submit questions anonymously. This column has introduced and fostered dialogue among staff specifically that around patient/family communication, moral distress and general coaching techniques. Last, in an effort to provide ongoing support to staff, we have also introduced a monthly "Last Rights Rounds" as part of critical care medicine rounds, where the interprofessional team is encouraged to discuss and debrief any issues of moral distress in a safe non-judgmental environment.

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Santiago, C., & Abdool, S. (2011). Conversations about challenging end-of-life cases: Ethics debriefing in the medical surgical intensive care unit. *Dynamics*, *22*(4), 26–30.

Can you Improve the Performance of your Code Team?

Karen LeComte, MSN, RN, CNCCP(C), Heather Brasset, BSN, RN, Vena Camenzuli, BSN, RN, Gordon Krahn, RRT, Mark Chalmers, RRT, Sandy Pitfield, MD, and Mona Singal, MD, Vancouver, BC

High-performing teams are essential to achieve the best outcomes in emergency situations. The quality and speed of care delivered in resuscitation contribute to overall patient outcomes. Unfortunately, teams are vulnerable to error, fatigue and distraction, and teamwork is a skill that requires practice. Rates and depths of compression decay over time and lack of role clarity contributes to unnecessary diversion and stress amongst team members.

Performance improvement is a quality initiative active in the pediatric intensive care unit to identify, advance and track process improvements within the area. Analysis of resuscitation procedures within the pediatric intensive care unit indicated improvements in code team organization were required to optimize the outcomes for patients and to improve the experience for care providers. Execution of roles, task coordination, communication and decision-making were key areas identified for process improvement. This presentation will describe the performance improvement journey and the adoption of processes and practices to address the desire to improve the code team performance in pediatric critical care.

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From ECLS to Home—The 2009 H1N1 Experience

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We knew it was coming soon, but when and how many, and would they survive? Strategic planning for the H1N1 anticipated pandemic started in August 2009, following the Australia and Winnipeg experiences. On October 22, 2009, the H1N1 influenza pandemic became reality in the cardiovascular intensive care unit (CVICU), when our first H1N1 patient requiring extracorporeal life support (ECLS) was admitted.

Subsequently, in the span of four weeks, seven patients with H1N1 between 16 and 38 years old were placed on ECLS. All these patients deteriorated rapidly, often in a matter of hours, from relatively young, healthy individuals to some of the most challenging and complex patients requiring the most extensive life-sustaining measures possible. Not only did they need ECLS to survive, but also they required extremely high, never-before-seen doses of narcotics and sedation, multiple chest tubes, continuous renal replacement therapy (CRRT), unconventional ventilator strategies, and more. Due to this rapid deterioration, a number of the patients required the mobilization of the ECLS team. This team travelled to the other hospital sites, placed the patients on ECLS, and transported them back to the designated ECLS hospital. Planning for the worst, and keeping the high-intensity resource utilization in mind, a contingency plan was made to cohort if there were multiple patients requiring the ECLS service at one time. Four patients were cohorted, bringing a myriad of unforeseen challenges.

The ultimate key to success was the amazing multidisciplinary team, with its planning, dedication, hard work and perseverance in extreme working conditions, resulting in the survival of six of the seven patients. In this presentation, we would like to provide answers to the following questions: What was it like to work in the CVICU during that time period? How did they plan? What were the challenges the team faced and overcame? What were the perspectives from the patients and families?

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What Do You Do When the Bleeding Won't Stop?

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The arrival of the exsanguinating patient requiring massive transfusion to stabilize requires a highly functioning expert multidisciplinary team to ensure a positive outcome. Even once the source of hemorrhage has been surgically controlled, the patient does not always stop bleeding. The clotting cascade is affected by many extrinsic factors making massive resuscitations such as this very challenging. The care of these patients requires a high level of precision, keen assessments and maybe even a little divine intervention to stop the bleeding. A case presentation of a 26-year-old mother who was admitted to our intensive care unit hemorrhaging uncontrollably is outlined to examine the challenges of massive transfusions and coagulopathy. This case illustrates how the skills of the critical care nurse can mitigate some of the consequences and how, by speaking with conviction, they can ensure that evidence-based nursing care is implemented when bleeding just won't stop.

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Blood, Barf, and Broken Bones: Resuscitation of the Multisystem Trauma Patient

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The admission of a multisystem trauma patient to emergency or critical care can be both challenging and overwhelming, requiring a sound knowledge base, astute clinical assessment skills and the ability to make split-second decisions. The purpose of this presentation is to review the overall approach to assessment and management of the unstable adult trauma patient. A review of the physiology of various shock states, essential components of both primary and secondary assessments, and a discussion of key trauma resuscitation concepts, including future directions for trauma care, will be presented.

ABSTRACTS

Several interactive case scenarios will be utilized to facilitate application of advanced trauma life support (ATLS) core principles and evidence-based trauma knowledge to clinical situations.

The target audience for this presentation is emergency and critical care nurses who wish to enhance their knowledge of care of the adult multisystem trauma patient.

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Striking the Right Balance: Perspectives about Death and Dying in the ICU

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The primary focus of critical care is to manage and assist patients in overcoming life-threatening illnesses and/or injuries. However, not all patients who enter ICU will survive, and achieving a "dignified death" in the critical care unit may be difficult for many reasons. The focus of this presentation is to identify and describe relevant end-of-life (EOL) issues for the patient, family and health care team in critical care. Specifically, this session will examine the challenges and concerns faced by critical care nurses and the multidimensional, complex issues surrounding care of the dying patient in the adult ICU. Establishing goals of care and addressing inconsistencies between professional practice and personal attitudes, values and beliefs will be discussed. The role of the critical care nurse in enhancing communication and facilitating EOL discussion and decision-making with patients, families and the ICU team will be emphasized. By increasing awareness of the multiple co-existing issues surrounding death in this highly technological environment, it is hoped that a "dignified death" in the ICU will be achievable.

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Do you see what I see? The Use of Ultrasound in Critical Care

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Technology in the critical care arena is continually evolving. Practice changes are based on the development of new equipment and the application of the pre-existing technologies into new frontiers. Ultrasound is a technology that fits both of these criteria. Equipment is becoming smaller and more portable with an easy end-user interface. Within critical care, ultrasound is evolving from a static bedside test performed by technicians to a dynamic test being performed by clinicians in search of immediate answers to clinical questions.

The application of ultrasound as a bedside rapid assessment tool has seeped into critical care through a variety of pathways, including the use of limited ultrasound in trauma during the Focused Assessment with Sonography for Trauma (FAST) exam and the use of echocardiography during the perioperative cardiac surgery period. Trauma physicians and anesthesiologists are educated in the use of ultrasound technology for bedside decision-making. This practice is not limited to the emergency department and operating room. Ultrasound of the lungs has also begun to emerge in recent critical care literature.

This presentation will explore the potential uses of ultrasound within critical care and compare it to current diagnostic modalities. It will describe strengths, as well as limitations of the technology.

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Incorporating a Delirium Tool to Standardize Care in the Assessment and Early Detection of Delirium. A Bottom Up Approach

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Delirium is an acute and fluctuating brain dysfunction that affects consciousness and cognition. Patients who develop delirium are: three times more likely to die, have increased hospital stay, increased ventilation requirements, and may have cognitive dysfunction. The prevalence of delirium is reported in up to 80% of mechanically ventilated patients. Despite the prevalence, it is still largely unrecognized by clinicians. Hyperactive delirium occurs in 5% to 22% of patients. The majority of critically ill patients have either a hypoactive or mixed type of delirium. Current nursing documentation does not reflect delirium based on accepted psychiatric indicators. Therefore, it is important to introduce a reliable and validated assessment tool, to detect delirium in a consistent manner. Intensive care unit nurses involved in the education practice council were introduced to two reliable and validated delirium assessment tools. Nurses trialed both the CAM-ICU and Intensive Care Delirium Screening Checklist (ICDSC), and feedback on their preferred tool was obtained. A multipronged approach was used to emphasize the importance of assessment. In 22 per cent of patients, nurses incorrectly identified delirium prior to using the tool. Nurses have adopted the ICDSC with an 85 per cent consensus in completing the tool on a Q4H and as needed basis to capture hypoactive and mixed forms of delirium. Nurses shared their appreciation in the selection process and having input into their practice. The tool takes less than a minute to complete. Engaging the nurses, as part of the practice change, contributed to the success to date. One-on-one sessions allowed for questioning, engagement and ability to utilize the tool in a real setting. Sustainability has comprised regular auditing and leadership reinforcement. A post-implementation survey revealed 80 per cent of nurses felt the assessment was important, has minimal impact on workload and could be completed every four hours.

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Making a Move on Early Mobilization, One Step at a Time in a Neurotrauma Intensive Care Unit

Linda Nusdorfer, MN, RN, CNCC(C), Angie Jeffs, MN, RN, Karen Montgomery, PT, Nicola Farrow, BScN, RN, and Anita Au, MN, RN, Mississauga, ON

Early mobilization is intended to reduce post-intensive care morbidities, such as muscle atrophy and neuropathic disorders. Muscle, nerve and brain dysfunction have the greatest impact on function and quality of life outcomes. There is growing evidence that early mobilization in the ICU is safe, feasible and beneficial to improving physical functioning. The benefits associated with early mobilization include: blood sugar hemostasis, improved cardiovascular function, reduced depression or neurocognitive impairment and reduced use of sedative agents. Early mobilization is described as physical activity started within the first 48 hours of admission, or once a patient's underlying condition stabilizes. It is a progression from passive range of motion to daily active physical therapy. An increasing number of our patients requiring mechanical ventilation have comorbid diseases that contribute as barriers to mobility. This presentation addresses the notion that has prevailed for decades in support of immobilization and sedation of patients to the newer standard of care. Creating the mind-shift is one thing; then again, mobilizing with your current resources is another. Tackling barriers is the first step. What is the level of evidence? Whose role is it to mobilize? What should be included in a protocol? What do we mean when we talk about early mobilization? What training and expertise is needed? When is the best time to mobilize? Who or how many people are needed to mobilize? These are among

the questions needing to be addressed when confronting change in culture. A tertiary neuro-trauma centre is mobilizing patients within their restrictions. Despite the challenges linked with this population, a committed interprofessional team is promoting a culture of early mobilization. Through vignettes, this presentation will demonstrate how one unit changed its culture from immobilized to mobilized.

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Creating and Maintaining Effective Resuscitation Teams Throughout the Healthcare Spectrum

Laura Padron, BSN, RN, CCRN, CSC, TNS, ECRN, Loves Park, IL

In today's fast-paced health care arena, we are challenged to provide optimal care 24/7. When our patients suffer a near or actual cardiopulmonary arrest we are called to provide time-sensitive life-saving interventions and care. Have you ever been involved in a resuscitation that left you feeling as if you just stepped away from an out-of-control war zone because it was unorganized, unmanageable and overcrowded? If your answer is yes, this lecture is for you.

We will discuss how to create and maintain highly effective, codified and competent resuscitation teams. There are six key roles that must be assigned daily. These roles can be paired if need be. We must build unit teams, as well as house-wide teams. We must prepare and plan for how our units are managed during a code. We must dialogue and plan for codes that occur in waiting rooms and coffee shops inside our clinical campus. In conclusion, we will review how to bring groups together to effectively critique and debrief in order to keep our newly created resuscitation teams moving forever forward.

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Implementation of a Family Presence During Resuscitation Program in Critical Care: Exploring Attitudes, Convictions and Challenges

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Today, health care professionals strive to meet the demands and needs of patients and their families. A significant issue impacting health care is the fundamental shift in the delivery of care from the traditional medical model to family-centred care embracing holistic care practices. Family presence during resuscitation (FPDR) has transpired as a crucial practice issue igniting controversy in the critical care setting worldwide. Through research and government initiatives in critical care, families conveyed lack of support, fear, uncertainty of events and inappropriate interventions for their loved ones during crisis. Profoundly, families stated feeling disconnected not only from their loved one, but also from the entire resuscitation experience. The need to be kept informed and remain present during resuscitation was clearly identified as problematic.

This presentation's aim is to explore attitudes, convictions and challenges of implementing an FPDR program in critical care. The option of FPDR is at the forefront of discussions in numerous critical care professional organizations that are implementing mission statements formally supporting this decision. This stance encourages the development of a family-centred care philosophy, and implementation of an FPDR program through integration of education and organizational support of FPDR practices. A brief overview of our experiences and the evolution of the FPDR program within our critical care setting will be highlighted.

The presentation synopsis will acknowledge several major conclusions: rationale for an FPDR program, benefits for practice, outcomes and future endeavours. The benefits include increased quality of interactions between the critical care team and families and facilitation of family coping. Conclusively, the opportunity of FPDR increased communication and acceptance by families that everything possible was done for their loved one during resuscitation, no matter the patient outcome.

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Update on Sedation in Critically Ill Adults. Dexmede—What?

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The provision of care for critically ill adults often requires that patients be sedated. Reasons include protection of invasive devices, maintenance of ventilator synchrony, reduction of oxygen demand, provision of amnesia and control of elevated intracranial pressure.

Multiple agents spread across a number of therapeutic classes can be used, with differences in pharmacology and pharmacokinetics driving selection based on patient-specific factors and anticipated efficacy and adverse effects. Sedation contributes both directly and indirectly to complications of critical care that last both through and after each patient's stay in the intensive care unit (ICU).

Current best practices in sedation include the use of standardized sedation scales to communicate sedation goals amongst the multidisciplinary ICU team and the application of targeted daily sedation vacations to determine minimum effective doses.

Dexmedetomidine, with its pharmacologically distinct mechanism of action, is becoming an increasingly important option for providing sedation, despite its relatively high acquisition cost. The evidence for its use in adult ICUs is mixed, with certain patient subpopulations appearing to derive the greatest benefits.

Ultimately, it is the responsibility of the whole ICU team to ensure that our patients receive individually optimized sedation. While many different team members are involved in directing patient's sedation, the bedside nurse, as the closest care provider, is optimally situated to advocate on his or her patient's behalf for the provision of effective and safe sedation.

This presentation will include the following information:

- Describe:
  - common indications for sedation in adult critically ill patients
  - the complications of sedation in adult critically ill patients
  - the process for assessing efficacy of sedation using common sedation scales
  - evidence-based sedation practices and their benefits on care
  - the ICU team members' roles in managing sedation in critically ill adult patients.
- Name the common classes of medications (and examples of agents within each) that are used for sedation in adult critically ill patients.
- Appreciate the differences in pharmacology and pharmacokinetics between the various agents in these classes.
- Become familiar with the most current sedation clinical practice guidelines.
- Become familiar with the evidence describing the use of dexmedetomidine in critically ill adult patients.

References will be provided concurrently during presentation as subscripts on each slide or at the end of presentation.

How Sweet it Isn't: Diabetic Ketoacidosis in Adult Critical Care

Sara Pretzlaff, BScN, RN, CNCC(C), and Sandra Statt, BScN, RN, CNCC(C), Edmonton, AB

Endocrine emergencies in adult critical care can evoke both apprehension and uncertainty amongst critical care nurses. Diabetic ketoacidosis (DKA), a potentially life-threatening condition, presents itself often in critical care units across the country. Almost 2.4 million Canadians are currently living with diabetes, an increase in prevalence of 70% in the last 10 years. It is estimated that about 20 per cent of diabetes cases remain undiagnosed. With a greater knowledge and understanding of the disease process, critical care nurses across Canada will lead the way in providing high-quality care to patients in diabetic crisis.

The focus of this presentation is to facilitate greater understanding of the pathophysiological changes, epidemiology and both medical and nursing management of the adult critical care patient with diabetic ketoacidosis. The physiology of insulin secretion and blood glucose regulation will be briefly reviewed to aid in identifying the primary issues in DKA. The presentation will also differentiate between DKA and other similar endocrine disorders that can lead to severe, unwanted outcomes.

A case study will be presented involving a 21-year-old female patient with newly diagnosed insulin-dependent diabetes. Her case will be followed from admission to discharge in adult ICU with a focus on signs and symptoms, diagnostic

tools, medical management and nursing care. A comparison case study of a middle-aged female patient admitted to a critical care unit with hyperosmolar hyperglycemic syndrome will also be presented to aid in the broader understanding of endocrine disorders.

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Peer-to-Peer Competency Validation at the Bedside

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Competency validation to ensure nursing staff is proficient, skilled and knowledgeable in providing quality care is an ongoing challenge in pediatric critical care. Additional challenges following validation include the maintenance of the achieved competencies.

In response to the above challenges, using the Rapid Process Improvement Workshop and the lean approach, more than 50 skills validation tools have been developed by our unit to measure the competencies in the clinical area. The skills validation tools incorporate the Competence Assessment, Planning Evaluation tools and align with the Canadian Nurses' Association competencies for the critical care pediatrics exam. These tools were developed and are utilized by expert clinical nurses to validate nurse competencies in essential pediatric critical care skills and allow feedback in real time using actual clinical scenarios. Validation by a colleague can reduce anxiety in the validation process, and encourages feedback and learning amongst peers. The validators' mastery of skills is confirmed by discussing the skills validation tool with the nurse being validated. Thus, validation by the front-line staff is mutually beneficial. This presentation describes the process of developing and implementing a peer-to-peer validation culture within the pediatric critical care unit.

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Spinal Cord Injury: Managing the First 72 Hours

Leanna Ritchie, RN, CNCC(C), Delta, BC

Acute traumatic spinal cord injury occurs approximately 1,500 times per year in Canada. Providing care for patients and families experiencing a new traumatic spinal cord injury presents unique challenges for the critical care nurse. Given the relatively small population of new injuries, it is very difficult to know and understand spinal cord injury. The critical care nurse has the ability to be a leader in the management of this specialized patient population.

The level and completeness of spinal cord injury paints a predictable clinical picture. Knowing the level and completeness of injury, the critical care nurse can easily identify the patient at risk for complications common in the first 72 hours post injury.

Often, the critical care nurse is faced with the dilemma of a patient with an unstable spine. Not only does this incite fear in clinicians—it can also, unfortunately, lead to devastating complications.

Complications such as respiratory failure and neurogenic shock can be immediate and are easily recognized. In the case of a specialized injury like central cord, even experienced clinicians may not recognize the risk for respiratory failure that is often delayed.

Other complications may be delayed in appearing, but can result from the lack of immediate action in the first critical hours post injury. It is, therefore, essential that the critical care nurse be a leader in managing these patients.

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Continuity of Care Rounds: A Novel Approach for Long-Term Stay ICU Patients

Teresa Robitaille, BScN, RN, CNCC(C), Ingrid Daley, MScN, BA, RN, CNCC(C), and Laura Hawryluck, MD, FRCPC, Mississauga, ON

As the complexity of critically ill patients increases, they require a prolonged intensive care unit stay. Such patients pose particular challenges to the ICU team, as communication is often fragmented, comprehensive care plans become unstructured, and opportunities are missed to formulate and discuss a realistic and appropriate goal-directed plan of care. Continuity of care is crucial to ensure these patients' values and beliefs are understood, that short- and long-term treatment goals are clearly defined and their quality of life enhanced. An innovative nurse-led interprofessional weekly continuity of care rounds was initiated in a medical-surgical 22-bed intensive care unit at a tertiary care teaching centre in Toronto for all patients whose length of stay was greater than 30 days. The goal of these rounds was to provide a 360-degree perspective of the patient as a person in order to bridge the gap in meeting needs of such chronic patients. They are often considered stable and, hence, may not receive either the attention they require to identify and meet their ongoing care needs, as they strive to recover, and/or those needed to improve their quality of life. This oral presentation will describe the continuity of care process, the issues it helped highlight in the care of longer stay patients, the successes, challenges and generalizability of such an approach in an acute critical care environment.

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Being a Leader Involves More Than a Title. Examining Qualities that Enhance Nursing Leadership and Professional Practice

Kara Sealock, BN, RN, CNCC(C), Okotoks, AB

Leadership development has been available for managers, educators, advanced practitioners and clinicians, but what about the untapped leadership resources of front-line health care staff? Nurses day in and day out provide exemplary care to their patients and families without necessarily realizing that they demonstrate leadership. Transformational leadership (Kouzes & Posner, 2007) is a style of leadership used to inspire, motivate and support others for individual and organizational benefit. Implementation of inspired leadership could be extremely beneficial in the workplace to promote positive relationship development, increase job satisfaction and improve the efficacy of any team.

Multiple leadership contexts will be presented to demonstrate the effectiveness of transformational leadership in nursing and how this can improve the critical care environment. Front-line practitioners will learn how to identify individual leadership qualities based on an evidence base (i.e., research, theory and practice) applicable to the nursing profession and how to implement these qualities into practice and inspire not only themselves, but others also.

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ABSTRACTS

DYNAMICS OF CRITICAL CARE 2012

VOICES OF CONVICTION FROM SEA TO SKY

Speak Up Speak Out BE HEARD

Creating Dynamic Teams—The Power of Working Together, Stronger, Bolder!

Mary Stahl, MSN, ACNS-BC, CCNS-CMC, CCRN, RN, Past President, AACN, Parkville, MO

Our daily practice and our health care environments are complex and rapidly changing. Navigating these environments, identifying areas for improvement and developing the approaches to achieve optimal patient outcomes require teams of collaborators. This presentation focuses us on how our important work isn't accomplished in isolation, but in collaboration with others. Finding the right mix of people with the necessary skills is just the beginning of the work. Working together, each bringing our gifts and not only valuing, but seeking those of others enables us to create the best possible solutions. This collaboration not only allows us to accomplish much more than could be accomplished alone, it also amplifies the results of our efforts and helps us challenge our limits, resulting in stronger and bolder outcomes. This session will illustrate the power of teams and highlight how acute and critical care nurses optimize their contributions by focusing on these concepts. Content will include considerations in team composition and how to enhance team functioning. Participants will consider their own strengths and unique contributions, and will evaluate one of their own teams and its potential. Participants at any point along their professional journey will take home additional concepts to apply in their work to optimize the achievements of their teams.

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Change Leadership: Hearing Their Voices in the Change Process

Michelle White, MN, RN, and Lisa Buttazzoni, RN, Waterloo, ON

Leaders are challenged to effectively engage front-line staff when assisting them with change. Change leadership is complex in health care organizations, encompassing interdependent processes and variables. Effective change leadership occurs when leaders of change provide direction, guidance and support to those implementing the change in addition to those requiring adaptation to the change (Longworth, 2011). It is associated with large-scale changes, a number of stakeholders, broad visions and empowering masses of people (Kotter, 2011). Laying out a comprehensive plan in advance is a difficult task and leaders should prepare for the anticipated problems and attempt to foresee unanticipated events.

After a decade of project planning, leadership was challenged with occupying a newly constructed intensive care unit. The importance of leadership in this project was vital, but promoting teamwork was also fundamental to ensure success. Staff involvement is critical to the success of new initiatives and promotes healthy work environments (Grawitch, Ledford, Ballard, & Barber, 2009). Leadership acknowledged the valuable insight from front-line staff and encouraged ideas that would lead to improved job satisfaction.

Front-line staff was recruited by leadership to examine current work processes with a focus on patient safety. Challenging the status quo, easing the transition and reinforcing future states are key elements of effective change leadership (Longworth, 2011). The current processes were compared with the potential processes in the new environment, exploring the impact on patient, nurse and family safety. The purpose of sharing this learning experience is to present the importance of leadership in shared governance when vast and complex changes are expected to occur and the vital role of leadership when encountering setbacks and challenges.

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From the Line to the Lab: Improving Practice in Blood Collection through Vascular Access Devices

Susan Csatari, RN, Mississauga, ON

Best practice in blood collection from vascular access devices will improve laboratory test result accuracy, increase patient safety and decrease time lost to re-draws. This presentation addresses the key issues pertaining to specimen quality and promotes understanding of the factors that contribute to hemolysis, contamination and other common problems.

It is vital to patient outcomes that nurses have this knowledge, to ensure optimal specimen quality. Between 70% and 85% of all clinical decisions are based on laboratory results; studies have shown that 68% of all specimen errors occur in the pre-analytical phase before the blood is analyzed in the lab. Nurses now routinely collect blood samples, yet little formal training is available to them on how they can deliver the highest quality specimen possible. A specimen that is an accurate reflection of the patient's "in vivo" status should be the goal every time blood is drawn.

Central vascular access devices have an increasing presence in many practice settings: critical care, acute, sub-acute long-term care, ambulatory clinics, and community and home care. It is essential for best patient outcomes, therefore, to provide nurses with the knowledge that will reduce errors in the pre-analytical phase of specimen collection.

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The Challenges of Off-Service Patients: Exploring Patterns of Utilization of Critical Care Response Teams

Ingrid Daley, MScN, BA, RN, CNCC(C), Laura Hawryluck, MD, and Alan Doyle, BScN, RN, Mississauga, ON

Critical Care Response Teams (CCRT) play a pivotal role in working collaboratively with ward partners to stabilize and prevent severely ill patients from deteriorating. In a large tertiary teaching facility with very specialized units and budgeted bed capacities, increasingly patients with very complex disease processes are having to be cared for outside of their admitting services ward due to unavailability of a specialized bed. This practice mandates that such off-service patients are being cared for by nurses who may not feel comfortable or have the appropriate skill set to identify patients at risk. The purpose of this novel quality improvement study was to determine the frequency and timing of CCRT consults on such off-service patients, the underlying reasons, the challenges and knowledge gaps of nurses and other health care team members in identifying early warning signs of deterioration in patient status when less familiar with admitting disease processes, treatment plans and courses of illness. Off-service patients were identified over a one-year period with data exported from Critical Care Response Team logbooks and Critical Care Information System (CCIS). This quality improvement study also identified gaps in education of ward nurses and other members of the health care team and will help in meeting their future educational needs. This presentation will discuss the results including the number of CCRT consults on off-service patients, detail the reasons of such calls per specialty ward, explore when calling criteria was met versus recognized, disposition of the patients and their length of stay. The poster will explore resources required by CCRT teams in helping meet the needs and improve the quality of care of off-service patients.

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POSTER PRESENTATIONS

Stop the Noise... A Quiet Environment Promotes Healing

Mai Nguyen, BScN, RN, CCRN, CNRN, CNCC(C), Julie Kinnon, MSN, RN, CCNC(C), Martin Darbouze, BScN, RN, Josie Delcampo, RN, CNCC(C), and Winsome Wright, BScN, RN, Montreal, QC

Sleep deprivation is common in critically ill patients and may have long-term effects on health outcomes and patient morbidity. Numerous studies have shown that one of the causes of sleep loss in the intensive care unit (ICU) is the patient's environment, namely the noise, the lighting, monitoring alarms and frequent nocturnal interactions for monitoring treatment and medications. On a physiological level, noise exposure may trigger the sympathetic nervous system, thereby increasing cardiac work load, may have adverse effects on respiratory muscle function and may also impair secretion of melatonin, a key circadian regulatory hormone. Excessive noise may result in profound clinical consequences, including increased predisposition to infections due to impaired immune function, and increased difficulty in weaning mechanical ventilation due to increased sedation requirements. Loud noise undoubtedly contributes to hearing loss, which is itself a significant risk factor for the development of delirium.

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Speak up, Speak out: Watch that Sodium

Marie Aue, RN, Markham, ON

The human body will always alert you when something is not right. Fatigue, pain, fever, aches and chills are some warnings. As critical care nurses, we are always monitoring for signs and symptoms of sepsis, electrolyte imbalances, hypoxemia and more. That is the nature of the role of critical care nurses. What if the signs and symptoms were associated with a medical condition and medications? Hyponatremia can be a puzzling and common electrolyte disorder that would fall into this category. Hyponatremia refers to a low level of sodium in the blood. Treatment involves the use of fluids and electrolytes. In most cases, medications are needed to treat the cause of the hyponatremia, as well as to treat the symptoms. The focus of this presentation is to provide experienced and novice nurses with the knowledge needed to recognize and care for a patient with hyponatremia.

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Journal Club in a Critical Care Unit: A Leadership Story to Promote Learning through Reading and Dialogue

Isabelle Bilodeau, MScN, RN, CNCC(C), Jacinthe Pepin, PhD, RN, and Lyne St-Louis, MScN, RN, CNCC(C), Montreal, QC

Reading scientific literature from various disciplines is an inexpensive and accessible activity. However, researchers report conflicting data on how much nurses integrate reading into their busy schedules (Estabrooks, Chong, Brigidear, & Profetto-McGrath, 2005) and how well that activity translates into their clinical setting. Apart from time constraints, another barrier nurses encounter when trying to incorporate reading into their practice may be that they prefer to acquire knowledge through interpersonal interactions, as opposed to reading scientific journals (O'Brien, 2008). The purpose of this presentation is to describe an innovative intervention to promote reading among nurses using a pedagogical approach from nursing education. In particular, the authors will present the implementation of a journal club (JC) focusing on postoperative cardiac surgery care, designed by and for critical care nurses, that aims to facilitate knowledge acquisition through reading and personal interaction.

This implementation of this JC took place in a 22-bed intensive care unit (ICU) in a teaching hospital. The implementation of the JC within this ICU was designed as a 12-week project. The first weeks were dedicated to the co-development of the journal club. It was decided that JC meetings would begin with a summary of the article. A review of the main physiological and

pathophysiological processes involved in the article would then follow. Subsequently, it was determined that the scientific findings of the articles would be compared to the practice within the ICU. Finally, if the researchers of the article discussed a specific procedure, the equipment needed in order to review this procedure was provided and manipulated on site. Narrative pedagogy, as described by Diekelmann and Diekelmann (2009), was used to guide the planning of each JC session. After eight weeks of JC, a survey was developed and completed by ICU nurses in order to evaluate the journal club.

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Intramural Checklist for Safe and Efficient Transport of Critically Ill Patients

John Balcom, BScN, RN, Nancy Breen, RN, Cecilia Hyslop, MEd, BScN, RN, CNCCP(C), Karen Dryden-Palmer, MN, RN, Debbie Machado, RN, Lisa Mak, RN, Kim Streitenberger, RN, Joan Schuermer, RN, and The Cardiac Interprofessional Practice Council, Toronto, ON

Background: The safe and efficient transport of complex critically ill children with their unique needs, coupled with the unique testing requirements of each diagnostic area, presents a significant knowledge challenge to all critical care staff. For new staff, the challenge of knowing what to bring when, for what test, and remembering the specifics of each area is not a nominal one. Critical care staff identified a need for the development of a bedside tool that would support safely transporting critically ill patients for tests/procedures in a timely manner, to various diagnostic settings throughout the hospital. This tool would also support new staff during transport, thus reducing delays and enhancing patient, family and caregiver satisfaction around the transport process.

Objective: The purpose of the Intramural Checklist is to: improve support to all nursing staff; prevent potential adverse events from happening; decrease overall staff stress level; and to provide a safe environment for transporting patients. This checklist will also increase confidence in new and senior nursing staff in the area of transporting patients while also identifying trends in transporting patients that may require practice changes.

Methods: In collaboration with the interprofessional Cardiac Critical Care Unit Practice Council, the Intramural Checklist was developed, continuously evaluated and, finally, implemented to support bedside staff and to improve overall patient safety. The checklist was trialed for six months in the critical care setting with feedback given after each use by survey. The checklist was presented in all educational days for staff working in the critical care environment.

Results: Feedback from the surveys and educational days indicated that the Intramural Checklist is a valuable tool used in the safe transport of critically ill patients. Feedback also indicated that the checklist would need to be revised and re-evaluated on a yearly basis.

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Sleep Deprivation in Your ICU Patient: The Physiologic Consequences

Alanna Chau, BScN, RN, Winnipeg, MB

Sleep deprivation (SD) is an ever-present concern in the intensive care unit (ICU). Numerous factors including environmental stimuli, the patient's disease process and various medications lead to both acute sleep loss and sleep restriction, resulting in numerous significant side effects. These alterations range from short-term changes to long-term consequences and have multisystem consequences. The purpose of this poster is to visually depict the neurologic, cardiac, respiratory, immunologic and metabolic effects of sleep loss in the ICU and to describe potential sleep-promoting practices.

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ABSTRACTS

DYNAMICS OF CRITICAL CARE 2012

VOICES OF CONVICTION FROM SEA TO SKY

Speak Up Speak Out BE HEARD

Hot Topics: A Pediatric Rapid Response Team Gives Support to Acute Care Nurses and Decreases the Number ICU Admissions

Louise Comden, BSN, CCRN, Jennifer Sorenson, BSN, and Wendy Murchie, MS, CNS, Lake Forest Park, WA

Purpose: A pediatric critical care rapid response team identifies educational need to reduce the number of rapid response calls in fragile infants with cardiac disease.

Description: After the institution of an ICU RN RT-led pediatric RRT, we recognized an educational need for the acute care surgical staff nurses in the differential assessment recognition and treatment of fever versus sepsis versus cardiac failure in fragile infants with cardiac disease.

ICU RRT responders noted that in the post op acute care cardiac unit, many of the calls were for poorly perfused, mottled patients with increased work of breathing and oxygen demand. After checking the patients' rectal temperatures, RRT responders often noted that the cause of the poor perfusion was due to an elevated temperature. RRT nurses would treat the patients with acetaminophen and cooling measures, which often led to complete resolution of the poor perfusion. The majority of the patients would improve dramatically with this treatment and avoid a transfer to the intensive care unit. What began as an opportunity for the ICU RRT nurses to educate the acute care nurse on improved recognition of fevers and treatment of patients led to the development of a fever learning module by the surgical floor CNS.

Evaluation and outcome: There has been a significant decrease in the number of RRTs called on the surgical floor due to fever. Nurses have learned to assess accurate temperatures in post op cardiac surgical patients who become tachycardic, have increased work of breathing and who may appear mottled with cool extremities. There were 23 fever-related RRT calls between January and July 2010 and only nine from August to December after the education and implementation of the Fever Management Module. Early detection of fever and immediate treatment by giving acetaminophen and possibly providing other cooling measures has resulted in a significant decrease in the number of RRTs called and admissions to the CICU.

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Standard Nursing Care: Isn't that What it is All About?

Lynn Coolen, MBA, BScN, RN, CNCCP(C), and Kris Thibault, BScN, RN, CNCCP(C), North Vancouver, BC

Common to all patients who are cared for in pediatric intensive care units is that they receive care by the assigned nursing staff during their hospital stay. This care is driven by a number of guidelines including national and local policies, safety checks and standard care plans. Many care events impact the prevention of infection and patients are at higher risk of complications if basic care is omitted or not performed as per guidelines.

There is a staff perception at this institution that standard patient care may not be routinely completed for a variety of reasons, as identified and validated by staff questionnaires. This is exacerbated by a number of factors including:

1. Frequency and quality of basic care is deemed to be practitioner dependent.
2. There is a lack of standard work for standard patient care.
3. Several sources exist that staff can reference.
4. A significant number of documentation forms are used to capture care events.

The impact on the patient of omitted or non-standard care varies, but may result in increased risk of severe patient complications including ventilator-acquired pneumonia, central line-associated blood stream infections and catheter-related urinary tract infections, as well as various skin care conditions, which, ultimately, may delay discharge of patient from PICU.

In light of this information, a Rapid Process Improvement Workshop (a Lean approach) was conducted June 6–11, 2011, by an interdisciplinary team to address these issues and provide improvements in standard care. The presentation will cover the process of how the team created changes that have ultimately led to improvements.

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Making a Case for "CASE"—Clinical Assistant Safety Education

Maria Teresa Diston, BScN, RN, CNCC(C), Karen Wannamaker, BSc, RN, CNCC(C), and Stephen Manning, RN, Toronto, ON

With the recent emphasis on interprofessional education and team building, it is apparent that each member of the health care team plays a vital role in the care and safety of our patients. From the volunteer to the environmental assistant to the regulated health disciplines, all who come in contact with the patient require support and education to ensure patient safety.

The medical surgical intensive care unit (MSICU) nurses have participated in clinical education days, Practice Advancing through Continuing Education (PACE), every two years since 2008. Evaluation results of these days indicated this was a positive learning experience for attendees. Clinical assistants (CAs) in the MSICU are integral members of the interdisciplinary team. As such, the MSICU leadership team determined that the CAs would also benefit from educational opportunities.

Our Clinical Assistant Safety Education (CASE) days were launched. The objectives of the days were to build upon knowledge and experience and to review clinical application related to personal, environmental and patient safety.

A needs assessment survey was circulated to the CAs to rate the importance of various topics in meeting their learning needs. Mandatory sessions related to equipment recertification were clearly identified. Suggestions for additional topics were also encouraged. The results of the survey informed the agenda for the day.

The MSICU leadership team partnered with members of the interprofessional team to share their expertise. An infection control practitioner, kinesiologist, physiotherapist and basic life support instructor each led an education session. Ten out of 11 CAs attended CASE with an evaluation response rate of 90%. Analysis of the evaluations indicated that all sessions were relevant to their learning needs. Improved understanding of their role and responsibility, as a member of the care team, was identified by 100% of respondents.

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Providing Family-Centred Care in the PICU and NICU: Where Does a Nursing Student's Voice Fit In?

Elaine Doucette, MScN, RN, Sarina Fazio, BScN, RN, Stephanie Gourdeau, U2 Student (BScN), Brooke Latulippe, U2 Student (BScN), Vanessa Lauzon, U2 Student (BScN), Kayla Sliskovic, U2 Student (BScN), Vanessa Lavergne, U2 Student (BScN), and Maggie Wong, U2 Student (BScN)

Nurses play an essential role in delivering care and providing support to families throughout a child's hospitalization. Developing a collaborative relationship between health care professionals and families is paramount, where both parties contribute to the health and well-being of the child (Griffin, 2006). Despite differing backgrounds and expertise, the principal goal of both parents and health care professionals is to provide the child with the care needed to return to their previous state of health (Miceli et al., 2005).

Research has demonstrated that a family-centred approach is the most comprehensive way of addressing the needs of patients and their families (Tomlinson et al., 2002). As students placed in pediatric and neonatal intensive care units for our clinical rotation, we were guided by the concepts and theories from our own framework of nursing care, which incorporates a family-centred, strengths-based, goal-oriented nursing approach. By engaging the family, as major contributors to the health and well being of the child, we were able to incorporate the family's defined priorities into our care and evaluate outcomes based on the family's responses.

As student nurses, our vision of family-centred care is a holistic approach that promotes positive outcomes for the *parents*, as they feel they can better respond to their child's needs; the *child*, as he or she receives the emotional support from family that is vital to his or her recovery; and, finally, the *nurse-family* partnership, which will work in collaboration toward strengthening the child's healthy functioning (Griffin, 2006).

By acknowledging the differing priorities between nurses and parents in the care of a child, the goal of this presentation will be to explore and understand, from a nursing student's perspective, the essence of parental involvement in a child's hospitalization and the barriers to the implementation of family-centred care approach in the NICU and PICU.

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ABSTRACTS

Evaluation of Luer-Activated Intravenous Administration Sets

Crystal Edwards, MN, NP-Adult, RN, and Chad Johnson, RN, CNCC(C), Thunder Bay, ON

Needlestick and other sharps-related injuries are largely preventable with proper education, training and the use of safety-engineered devices. In 2009, a review of clinical practice was completed at a large teaching hospital in Ontario. The review revealed that nurses and physicians continued to use needles when accessing IV tubing to administer medication despite having safety engineered devices that could be accessed without the use of needles. Due to the behaviour of continued needle use, needle-related injuries were still occurring. Despite needle-free legislation, numerous years of education on the dangers of using needles and the importance of using safety devices, staff continued to use needles.

Luer-activated intravenous administration sets were introduced to replace split septum intravenous administration sets in 2010. The new luer-activated system eliminated the capability of clinical staff to use needles. Therefore, the hypothesized incidence of needlestick injuries would be decreased resulting in a safer working environment.

Implementation of the luer-activated system was expected to:

- Decrease needlestick injuries
- Positively impact nursing practice
- Demonstrate a commitment to a safe working environment.

A retrospective, descriptive evaluation study was conducted. The first data collection method reviewed all needlestick injuries from 2009 to 2011 that were reported to Occupational Health and Safety, as well as those reported via an electronic incident reporting system. The second method of data collection was through a survey distributed to all hospital nursing staff. This poster will discuss and review study results.

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Critical Care Nurses' Roles in Family Conferences

Marie Edwards, PhD, RN, Karen Throndson, MN, RN, and Julie Girardin, BN, RN, Winnipeg, MB

Much has been written about communication in the intensive care unit (ICU), with the family conference acknowledged as a key mechanism for promoting quality care. It has been suggested that critical care nurses are not always active participants in the family meeting process (Gay, Pronovost, Bassett, & Nelson, 2009, p. 629.e7), but few studies have examined nurses' roles in these meetings. As part of a survey on conflict in ICUs, members of the Canadian Association of Critical Care Nurses were asked to identify what prompts the convening of a family conference, whether or not nurses generally attend, and the roles nurses assume when present. In total, 241 critical care nurses participated in the survey. The mean age of respondents was 43 years, with 66.4% working in medical/surgical ICUs and 67.2% in tertiary hospitals. Approximately 90% indicated that bedside nurses in their unit usually attend family conferences for the patients in their care. The reasons for convening a family conference varied, including routine practice after a period of time, when the plan of care changes, or at the request of a family, nurse, or physician. A total of 206 nurses answered an open-ended question on nurses' roles in family conferences. Close to 60% of those who responded described an active role in the meeting (e.g., providing an update on the patient's condition, responding to family or physician requests for information, clarifying information for the family). In this presentation, our findings related to these questions on family conferences will be presented and, given nurses' "in-between" position on the health care team (Bishop & Scudder, 1996, p. 30), the implications for nursing practice will be explored.

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Illness is a Family Affair: Creating a Partnership Between Families and Staff

Louise Fullerton, MSc(A), BN, RN, Sylvie Ampleman, MSc(A), BScN, RN, Bita Danechi, BScN, RN, Ruth Guselle, BScN, RN, and Colleen Stone, MN, RN, Mont-Royal, QC

Having a relative admitted to the ICU affects all family members. The admission may result in high levels of stress, significant emotional turmoil and conflict among family members (Reider 1994; Wright, Watson, & Bell, 1996). Although families have developed great skill at managing chronic illness in the home, the complex world of the critically ill is more challenging and may leave families feeling alone and unsupported. In recognition of the need for a more focused patient/family-centred approach, the American College of Critical Care published guidelines that highlighted the need for ICU professionals to provide significantly more family support (Davidson et al., 2007).

Observations by the clinical nurse specialists in two adult ICUs noted increasing demands by families for regular contact with a consistent health care professional. The complexity of decision-making taking place over weeks/months and across changing treating teams also necessitated that someone with a comprehensive knowledge of both the family and team perspectives be involved over time. At the same time, nurses were experiencing moral distress related to lack of consistent care planning and their inability to meet family needs.

One of the strategies used to help address some of these concerns was the development of a new role—the ICU Nurse Clinician for Family Support. These nurses work with the health care teams and the families creating a partnership to ensure that families have access to information and can play an active role in decision-making. They support continuity of approach over time and across teams. In addition, they support nursing and medical staff in strengthening their abilities in therapeutic family interactions.

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Improving Compliance of a Daily Goals Assessment (DGA) Worksheet: A Multipronged Strategy Towards Safety Improvement in the ICU

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Background: Safety is the concern of every health professional and, yet, a comprehensive tool design to engage a multidisciplinary team in assuring that ICU patients' daily needs are addressed has not had everlasting satisfying compliance rates. The worksheet completed during rounds includes such safety features as a ventilator bundle package, central venous catheter bundle package, VTE and PPI prophylaxis and many others. In late December 2011, a retrospective examination of seven consecutive days put compliance rates at a troublesome 5%. These low rates prompted the collaborators on this project to examine and understand the reasons for non-compliance, as well as establishing a strategy for sustainability.

Objectives: Evaluate a multipronged strategy comprising a medical, administrative and clinical, as well as collegial approach supporting the benefits and usage of the DGA worksheet as a significant tool for reducing patient risks and improving rates of compliance of the DGA tool as an outcome.

Methods: A blitz using staff's email and verbal reminders were initiated four days prior to the initial examination period. This examination captured forms submitted for a period of seven days proximal to the blitz. Informal one-on-one sessions between nursing staff and project collaborator yielded interesting data and provided guidance on doable modification to the DGA tool. Clerical support was sought to ensure patient-specific forms were available daily to nurses. Second and third examination periods will take place respectively at one and three months from the initial examination with results pending.

Results: Twenty-four of 61 (39%) forms were completed during the initial examination. We observed an improvement of 34% in compliance.

Conclusion: Increased awareness and multidisciplinary support to disseminate an evidence-based safety statement has resulted in meaningful return of completed forms. Sustainability is part of the study limitation. The subsequent examinations took place respectively in February and April 2012.

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Critical Care in the Air: Aeromedical Transport

Peter Godor, MN, NP, RN, and Howard Koch, BSc, EMT-P, Edmonton, AB

The Canadian geography, and population distribution through it, requires at times that critical care patients be transported great distances to tertiary care. The transport of these critically ill patients has evolved over the last several decades to a sub-specialty in pre-hospital care. Nurses and paramedics often enter their careers with plans of becoming "flight nurses" and "flight paramedics". Aeromedical transport by critical care nurses and paramedics is a well recognized, and highly sought-after career choice. The work environment is physically and mentally demanding, but also exceedingly rewarding. This oral presentation explores the challenges and rewards of rotary-winged aeromedical critical care patient

transfer from small centres to tertiary care facilities. Attention will be aimed at the specifics of the work environment, aircrafts, medical equipment used and educational preparedness of air medical crew. In addition some interesting facts will be shared about one of Canada's leading aeromedical transport organizations.

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Standardized Nursing Uniforms: Past, Present and Future

Laurel MacIsaac, BScN(Hon), RN, Ashley Mowatt, BScN, RN, CNCCP(C), and Jessica MacLellan, BScN, RN, Musquodoboit Harbour, NS

The nursing uniform plays a significant role in pediatric nursing. Institutions across the country are mandating a certain type of dress for the nurse. The impact on patient care and the development of therapeutic relationships must be considered.

For pediatrics, Campbell, O'Malley, Watson, Charlwood and Lowson (2000) showed families wanted nurses to be easily identifiable and for the uniform to promote a relaxed atmosphere. Families also preferred more casual uniforms that enhanced nurse approachability, defined as coloured polo shirts differentiating staff by role. Wocial et al. (2010) found that pediatric patients prefer a bold printed top and pressed white pant first and a bold printed top with a pressed blue pant, as a close second. Meyer (1992) has proven that pediatric patients fear nurses wearing all-white uniforms. In the same study, children rated their preference for solid white and solid blue uniforms alike. This confirms that printed style uniforms may be the hallmark for pediatric patients and their families. Lehna et al. (1999) found that being neat, clean and dressed professionally in a manner that was appropriate for their role is essential. However, nametags were used as the primary means of identification. They found that children preferred a solid pant and a printed top. Children saw no relationship between the colour of the uniform and nurses performing their job in a professional manner. Festini et al. (2009) confirmed previous findings and added the parental perspective. Their study found that both parents and children preferred nurses in brightly coloured, non-conventional uniforms. Further, they found that children felt more positive about the nurse wearing this uniform, parents did not feel the new uniforms were less professional and increased their positive perceptions of the nurse.

The nurse can have a positive role in these changes. Become active. Participate in discussions. Be an advocate.

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Reducing Blood Culture Contamination Rates in the Medical-Surgical Intensive Care Unit (MSICU) with the Introduction of a Blood Culture Bundle

Steve Manning, RN, Walter Cariazo, RN, and Fergus Cubbage, RN, Toronto, ON

Blood cultures (BC) are the most important diagnostic test to diagnose potentially life-threatening bacteremias. However, the interpretation of a positive culture can be difficult owing to false positive cultures, which can account for up to 50% (Weinstein, 1997) of all positive blood cultures. This can lead to unnecessary hospitalization, increased length of stay, administration of unnecessary antibiotics, additional cultures and investigations, increased workload of laboratory technologists and overall increased hospital costs. The estimated cost of a contaminated blood culture has been reported to be ~$5,700 (Bates, 1991).

False positive BC are most often due to organisms that are inadvertently introduced into blood culture bottles at the time of inoculation. The goal of this project is to determine whether introducing a blood culture bundle (BCB) that consists of standardized re-education, techniques and supplies by using a kit, in addition to routine audit-and-feedback, can reduce blood culture contamination rates in an adult medical surgical intensive care unit to below the benchmark of <3% (Schifman, 1998). The BCB was introduced in July 2011. Blood culture contamination rates fell from a monthly average of 5.2% to an average of 2% from October 2011 to January 2012. RNs were highly satisfied with the education and the BC kit. Because of this success, spread to other areas to reduce BC contamination rates is underway.

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100% in 100 Days: Using Influencer Methodology to Improve Hand Hygiene and Create a Culture of Safety

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Hand hygiene is well known as one of the best ways to reduce transmission of organisms and prevent hospital-acquired infections. The Center for Disease Control describes hand hygiene as hand washing, antiseptic hand rubs, or surgical hand antisepsis. Compliance with hand hygiene protocols remains a challenge in hospitals despite mandatory education and the abundance of hand rubs. In January 2012, our critical care unit launched a project to improve hand hygiene compliance and create a culture of safety. A safety culture is one where staff is devoted to patient/staff safety and feels safe to speak up about breaches in protocol. This project was modelled on the "influencer" methodology used by Spectrum Health to achieve and maintain 100% compliance with hand hygiene protocols.

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Implementing Routine Delirium Screening (ICDSC) and Initial Management in a Critical Care Setting

Jean Morrow, MScN(c), RN, CNCC(C), and Eleanor Marris Rogers, BScN, RN, CNCC(C), London, ON

Background: Routine delirium screening is vital to optimal management and outcomes of critically ill patients. Delirium screening tools are effective and recommended by the Society of Critical Care Medicine. Our critical care program created an interdisciplinary working group to improve management of ICU delirium.

Objective: The purpose of this project was to adopt twice-daily delirium screening with the ICDSC and introduce a delirium treatment guideline in our ICUs. Nurses were surveyed twice to understand their perceptions.

Methods: A baseline survey determined existing knowledge of delirium assessment and treatment. Education on delirium, the ICDSC, and delirium guideline was delivered. Chart audits assessed compliance with screening. Re-education was undertaken, with a follow-up audit and second survey at 12 months.

Results: Nurses had identified delirious patients through observation of speech and behaviour, but now reported using a screening tool and feeling more confident in identifying these patients. Barriers to screening included forgetting to use the ICDSC, being too busy to screen, high patient acuity, and frustration with the lack of impact the ICDSC score had on management of the delirious patient. Nurses reported the score was infrequently or never discussed during twice-daily rounds and felt that physicians did not use the ICDSC score or delirium guideline when making decisions.

Conclusions: Delirium identification and management are complex issues. This project sought to improve delirium identification and provide a tool to guide management. Clinical practice is challenging to change. Ongoing education and front-line RN engagement contributed to the success of this initiative. Nurses readily adapted to routine use of the tool, and felt more confident in their abilities to identify delirium, yet they had less confidence that screening would help them to provide better care. Next steps will target communication between practitioners.

ABSTRACTS

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The Bridge to and from Invasive Intubations: High-Flow Nasal Cannula and its Use in the PICU

Ashley Mowatt, BScN, RN, CNCCP(C), Jessica MacLellan, BScN, RN, and Laurel MacIsaac, BScN, RN, Halifax, NS

In creating this poster presentation, our goal is to engage intensive care professionals in conversations regarding the benefits of using new respiratory therapies on patients in the PICU. Spentzas, Minarik, Patters et al. (2009) conclude that high-flow nasal cannula (HFNC) decreases patients' respiratory distress and increases their comfort. The mechanism of its action is application of mild positive airway pressure and lung volume recruitment. Likewise Schibler et al. (2011) agree that the introduction of HFNC therapy in the pediatric intensive care unit decreased the need for intubation and mechanical ventilation in infants with bronchiolitis significantly over a five-year period. The benefits of introducing HFNC in the world of pediatric intensive care medicine is exciting and encouraging to practitioners. Lawry (2011) found a significant decrease in the number of initial intubations and avoided re-intubation from the use of HFNC. Lawry (2011) proved that HFNC often becomes the bridge to avoiding intubation, which will enable a child to soar into the recovery phase post extubation or prevent that initial traumatic intubation all together. By implementing such treatment we can improve patient outcomes and the health of all children.

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A Checklist for Dynamic, Real-time Change Management

Mary Mustard, MN, RN(EC), CCN(C), CNCC(C), Ellen Lewis, RN, Richard Bowry, MB, BS, FRCA, FRCPC, and Janice Glen, RN, Toronto, ON

Although health care practice strives to improve patient outcome, errors occur at a staggering rate. According to the Institute of Medicine, medical errors result in as many as 98,000 preventable deaths per year in the United States. The critical care environment is especially vulnerable given the complexity and high acuity of the patient: fast-paced decisions and actions are mandatory. Rothschild et al. (2005) reported an average of 149.7 serious errors/1,000 patient days and 36.2 preventable adverse effects/1,000 patient days in an ICU at a university-affiliated hospital. Errors of omission are associated with failure to implement "routine" ICU evidence-based practices. To address these safety concerns, many hospitals have developed tools to reduce errors and promote evidence-based care.

Standardization of "routine" critical care activities in the CVICU first occurred during the 1990s through the development of preprinted order sets and protocols. In 2004, nurses adopted the mnemonic "FAST HUG" as a nursing-driven quality assurance protocol. Since then, staff has been educated in each of the components and a "FAST HUG" has been implemented as part of the daily, multidisciplinary rounds.

With the implementation of "safety bundles" to reduce the incidence of central line-associated infections, ventilator-associated pneumonia and surgical site infections, it became evident that many components of the "bundles" did not fall into the FAST HUG. An online daily checklist was developed to facilitate data collection during rounds and allow regular analysis. Discussions at the bedside helped improve compliance with best-practice guidelines.

The use of a website format storage allows iterative change and the ability to adapt to practice changes. Over time, this tool has evolved from a quality implementation checklist to a daily knowledge translation tool to assist the rapid implementation of practice change.

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Getting to the Bottom of the Problem: Weekly Pressure Ulcer Surveillance to Improve Patient Outcomes

Linda Nusdorfer, MN, RN, CNCC(C), and Craig Dale, PhD(c), MN, RN, Mississauga, ON

Critical care patients are at high risk for developing pressure ulcers due to immobility, decreased sensory perception, altered nutrition status and medications. Reported incidence of decubitus ulcers ranges from 30% to 60%. As a preventable problem, pressure ulcers are a publicly reported hospital metric reflecting quality and safety. However, development of nursing best practice in wound care remains a challenge. Conducting skin and wound rounds as a strategy to address this gap is recommended.

Purpose: To enhance understanding of contributing factors and prevalence of pressure ulcers through point-of-care education and surveillance in one critical care unit.

Method: Weekly rounds audited compliance with best practice guidelines. Data included: demographics, APACHE II scores, Braden score, activity level, medical interventions and treatment surface. The Ontario Ministry of Health and Long-Term Care Late Career Initiative helped support a resource nurse to collect data and provide in-the-moment education where knowledge in the area of wound care management was shared. A needs assessment determined what nurses felt would benefit them most in gaining or supplementing their knowledge.

Results: Nurses preferred bedside education as a strategy (61.5%) over less personal methods such as email or newsletters. This supported a "just-in-time" approach to knowledge exchange. Nurse participants received assistance with skin assessment, dressing changes and repositioning patients. Bedside education was interactive, informative and collaborative. Documentation audits were conducted at the time of the rounds. Prevalence and incidence results were posted within the unit and presented at a quality committee.

Conclusion: Greater awareness and vigilance in the management of pressure ulcers may be enhanced through bedside dialogue about contributing factors, prevention and treatment. This may help critical care nurses get to the bottom of a key nursing sensitive outcome.

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Sowing the Seeds of Leadership in Undergraduate Nursing Education: An Evidence-Informed Approach Towards a Successful Experience

Elaine Rose, MHS, BN, RN, and Mohamed Toufic El Hussein, MN, RN, Calgary, AB

Registered nurses (RN) fill a plethora of roles in health care systems. Health care leadership is in crisis: nurse leaders and managers throughout health care organizations must be better prepared (Heller et al., 2004). Taking leadership roles is expected of nurses upon graduation. Leadership skills such as communication, conflict resolution, team building, planning and innovation are some skills for nurses to develop regardless of their role. Regardless of leadership style, speaking up and being heard requires skill development. Student nurses need to begin developing leadership skills prior to graduation. Reinforcing leadership in undergraduate education supports nurses to work to full scope of practice. At one university, leadership is put into practice by the fourth-year nursing students in their clinical practicum. Students take on leadership roles such as charge, transition planning and leading post-conference. Hear how this is working and what else is on the horizon.

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Bereavement Follow-Up Pilot Program in the Medical Surgical Intensive Care Unit

Cecilia Santiago, MN, RN, CNCC (C), Christine Lee, MSW, RSW, Colette Deveau, MSW, RSW, Maria Teresa Diston, BScN, RN, CNCC(C), Rose Piacentino, BSW, RSW, and Jamie Villeneuve, BA, MTS, Toronto, ON

Approximately 19% to 20% of deaths follow admission to an ICU in the United States and Canada. Sixteen per cent of the 1,163 admissions in MSICU died in 2009, as a result of organ failure or following withdrawal of aggressive therapies. The death of a patient in an ICU is often unexpected and has strong impact on family members. Although 80% to 90% of bereaved individuals experience uncomplicated grief, a minority suffers from adjustment difficulties putting them at high risk for severe anxiety, depression and post traumatic stress disorder. Bereavement follow-up service could enhance family members' adaptation to a life without their loved one and improve negative physical and emotional reactions to complicated grief. Our internal and external environmental scan of ICUs and other services reveals that formal bereavement programs are rare if any. Like many critical care areas, our ICU does not have a formal bereavement follow-up program. Formalized hospital-based bereavement program is not a standard of care; nevertheless, there is an evident need for it. The objectives of this quality improvement (QI) initiative are: 1) to establish an evidence-informed formal bereavement follow-up pilot program available for identifiable next of kin (NOK) of patients who died in the MSICU, and 2) to determine if the bereavement follow-up program will sufficiently meet family needs related to their bereavement process. Our sampling frame will include 30 identifiable next of kin of patients who died in the MSICU. Identifiable NOK are bereaved family members with contact numbers. The components of the pilot program will include: 1) bereavement brochure, 2) sympathy card, 3) telephone follow-up, and 4) invitation to memorial service. This poster describes the process measures and next steps of this REB-approved quality improvement initiative.

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Interprofessional Collaboration Towards Improving the Quality of Life of Long-Term Mechanically Ventilated Patients in the MSICU

Cecilia Santiago, MN, RN, CNCC (C), Pamela Greco, RRT, BA, BEd, Katey Knott, MSPT, and Fatma Rajwani, MSPT, Toronto, ON

Although mechanical ventilation remains a primary indication for ICU admission, Canadian and international epidemiologic trends show a rising number of patients at risk for, or requiring, long-term ventilation (LTV). LTV patients are those suffering from a severe respiratory impairment who require ventilatory support for >6 hours per day for 21 days, but who do not require additional services provided by a critical care unit (MOHLTC Chronic Vent Strategy Task Force, 2006). In Ontario, LTV patients account for up to 10% of all mechanically ventilated patients in ICUs and 40% of ICU bed days. Their average ICU length of stay is 195 days. Canada has a limited specialized centre to look after LTV patients. There are only two centres for a large metropolitan city in our region that are geared towards meeting the needs of LTV patients. Both centres have long waiting lists. Like many adult ICUs in Canada, some MSICU beds are occupied by LTV, but medically stable patients. Because of the long waiting list at the specialized centres, MSICU LTV patients have long ICU stays. Consequently, the focus for the care of LTVs shifts to improving their quality of life while waiting to be transitioned

to facilities that can best meet their special requirements. The objectives of this poster are: 1) to describe the experience of MSICU in improving the quality of life of LTV patients, and 2) to illustrate the interprofessional collaboration of team members in caring for the LTV patients through their MSICU trajectory. Our experience shows that, similar to many adult Canadian ICUs, LTV patients stay in the MSICU until they are transitioned to a more appropriate place that can best meet their needs. The MSICU team collaborates with our specialized LTV community partners to ensure that we implement best practices to care for LTV patients while they are awaiting placement. Our interprofessional team members work collaboratively in implementing innovative and creative strategies to promote their quality of life.

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Leading Service Excellence Through Walkabout Rounds

Cecilia Santiago, MN, RN, CNCC (C), and Elizabeth Butorac, MN, RN, Toronto, ON

Our corporate strategic plan focuses on fostering a culture of safety. This culture embodies the philosophy of senior management and influences the behaviours of bedside clinicians. As an organization, we promote an environment where senior and middle management facilitate the translation of safety culture to front-line workers. To further cultivate this safety culture, walkabout rounds by clinical leader managers (CLMs) were initiated. The medical surgical intensive care unit (MSICU) was chosen as a pilot unit. Aligning with this corporate initiative, the MSICU CLM commits to making regular rounds to discuss safety issues with staff and patients/families. During these walkabout rounds, communication extends both ways—from leaders to staff and patients/families, and from staff and patients/families to leaders. These rounds enabled the MSICU CLM to identify safety issues, review the trends and respond to them in a timely manner, lending the walkabout an opportunity to discover quality improvement initiatives. Built into the process is a feedback mechanism where the CLM reports the results of the walkabouts through a stoplight report posted on the CLM board. She also reports about trends of issues during staff meetings. These rounds also engage team members to highlight the exemplary contributions of their colleagues. The CLM acknowledges a team member's contributions by giving her/him a certificate of recognition for a job well done. As part of the critical care department (CCD) Quality First Committee scorecard, the CLM also reports on two indicators from these walkabout rounds: 1) rate of completion of walkabout rounds, and 2) number of safety initiatives implemented in response to safety issues identified through walkabout rounds. This poster describes the MSICU experience of walkabout rounds as a tangible example of committing to the corporate and CCD quality agenda.

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Operationalizing the Quality Improvement Plan Across CCD

Cecilia Santiago, MN, RN, CNCC (C), Anjum Khan, Infection Control Practitioner, Naureen Siddiqui, Infection Control Practitioner, Elizabeth Butorac, MN, RN, Joyce Fenuta, BScN, MHS, RN, Maria Teresa Diston, BScN, RN, CNCC(C), and Ellen Lewis, BScN, RN, Toronto, ON

Critically ill patients are at risk of developing central line infection (CLI) and ventilator-acquired pneumonia (VAP). Current evidence in the literature shows that implementing strategies such as the central line maintenance bundle (CLMB) and VAP bundle results in better patient outcomes. While VAP bundle has been implemented across CCD since 2009, CLMB is in its initial phase of implementation. Though CLMB is widely recommended, compliance data are not readily available at our organization. To help meet this gap, the Excellent Care for All Act, provincial legislation to improve the quality of patient care, was passed in 2010. To align with this legislation, our Quality Improvement Plan (QIP) incorporates initiatives to enhance our performance on publicly reported patient safety indicators. Outcome measures, indicators and change processes were set to meet the objectives of the QIP. The priority areas of QIP include reducing the rates of: 1) CLI per 1,000 central line days through CLMB compliance, and 2) VAP per 1,000 ventilator days through VAP bundle compliance. The QIP establishes targets on CLMB and VAP bundle components. This poster describes how the areas across CCD collaborated to develop process measures to capture data and sustain bundle compliance.

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Current Trends in Management of Acute Fecal Incontinence in Canada: Results of the FIRST* Study

Victoria Schafer, MSN, RN, CWON, Skillman, NJ

AFI is common among critical care patients and creates major challenges for health care providers due to association with skin breakdown and potential for infection. Reported prevalence rates for AFI are 18% to 33% (Beitz, 2006). An observational study conducted via a cross-sectional descriptive survey was conducted in Canada.

Surveys were completed by critical care nurses. Data were collected on unit and patient demographics, AFI prevalence rates, epidemiology, current practices and challenges associated with patient management. Data from Canada were a subset of global data, beginning evaluation of worldwide trends.

Participants represented 224 critical care units across Canada. An estimated spot prevalence of AFI was 24.5%. This was calculated based upon the reported mean number of unit beds as 21, mean occupancy rate of 86.5% and mean number of patients with AFI on surveillance day of 3.5. Reported complication rates of pressure ulcer, moisture associated dermatitis or perineal dermatitis ranged from 25% to 36%. A majority (66%) of survey respondents were not aware of C. difficile infections reported on their unit over the past year. The remaining 34% reported a mean of 8.8 nosocomial cases of C. difficile. Of note, 59% of units reported having a protocol of care in place for management of the patient with AFI, 36% did not have a protocol of care in place and the remaining 5% were unaware of any such protocol. Patient care procedures, products utilized and estimated economic impact of managing AFI, including time and resources required were reported. Additional questions were directed specifically towards use of indwelling fecal management systems.

The results of this study suggest there is an opportunity for clinicians to review current facility trends and share best practices for the management of the patient with AFI. Education that supports policy development and implementation could aid in the reduction of complications associated with AFI.

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Implementation of an Observational Care Unit Within a Surgical Unit

Erlene Seaborne, MSc, RN, ONC(C), and Karen Robinson, MEd, BScN, RN, GNC(C), ONC(C), Hamilton, ON

Realignment and convergence of hepatobilary, general surgery, colorectal services, and physicians to one hospital site, from three, provided the opportunity to review models of patient care delivery.

Model review was driven by variation in surgeon expectations and practices related to the disposition of their patients in the post-operative phase. Depending on the surgeon and their previous site, similar postoperative patients were either admitted to critical care, step down or ward.

A multifaceted approach was used to develop a patient care delivery model for the surgical unit. A literature review of various patient care models appropriate to meet the needs of this population was conducted, in addition to a review of current services at all sites. Site visits and a working group comprising the critical care advanced practice nurse, internists and a surgeon was convened. A summary report, with model recommendations, was completed and disseminated to stakeholders.

As a result, a three-bed close observational care unit was established on an inpatient surgical ward. The observational care unit supports patients with enhanced nursing care requirements including: patients with sleep apnea, patients requiring frequent vital sign monitoring, remote telemetry, manual CVP measurement and continuous oxygen saturation monitoring. Many of these patients would have previously been admitted to critical care. Therefore, the observational care unit has diverted appropriate patients from critical care.

The preliminary data suggest that of patients admitted to the observation room, 52% were from OR, 20% from critical care, 15% from the ward and 13% from other areas. Sixty-one per cent of the patients were admitted for telemetry monitoring, 34% for continuous SP02 monitoring and 5% for closer nursing observation.

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Development of a Program of Multidisciplinary Care for the Chronically Critically Ill

Judith Sellick, MHScN, RN, Elaine Vandenberg, BScN, RN, Crystal Jones, RN, Dave Dafoe, RRT, and Elena Bedoya, BScPT, Ottawa, ON

Although advances in critical care have enabled more patients to survive a catastrophic illness, they have also created a large and growing population of chronically critically ill patients. These patients, usually reliant on mechanical ventilation and other intensive care therapies, depend on the whole multidisciplinary team to work together to provide the care they require. We decided to take a look at how the team in our 19-bed cardiac surgery intensive care unit provided care to this patient population and, in doing so, recognized that improvements could be made in how we worked together to provide best practice to the chronically critically patients and their families.

A team, made up of the leadership of the unit along with different members of the health care team such as nurses, physiotherapy, nutrition and respiratory therapy, came together as a focus group to discuss key aspects of care of long-term critically ill patients. Our current care practices were reviewed and compared with what was considered "best practice" in the literature. Strategies were developed in order to enhance the care that is provided by all the groups that make up the multidisciplinary team. This poster presentation will outline the program that was developed in our cardiac surgery intensive care unit discussing our challenges and successes along with our strategies, as we go forward caring for this patient group. Key changes in our practice that will be explored are ventilator liberation strategies, the benefits of progressive mobilization, daily leadership rounding and weekly multidisciplinary rounding that have improved continuity of care and goal setting. We hope this poster will lead to a discussion with other intensive care unit representatives related to their strategies when dealing with this patient population so that we can share experiences.

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Information for Health Care Workers to Protect Canadians from the Health Impacts of Extreme Heat

Christina Simpson, MSc, and Fiona Frappier, PhD, Ottawa, ON

As the frequency, duration and intensity of extreme heat events rise, specific populations are at increased risk of mortality and injury due to susceptibility to heat. These vulnerable groups include individuals within the community, but also those residing in hospitals and in long-term care. To educate and provide information to health care workers, research is ongoing to understand the health burden from extreme heat.

A technical guide intended for health care workers regarding the health impacts from extreme heat has been developed to provide information on recognizing, treating and preventing heat-related illnesses. The practical information found in the guidelines for critical care nursing will be presented, including risk assessment, identification of signs and symptoms, clinical recommendations for heat-related illnesses and disaster preparedness during extreme heat events.

To further understand the burden of illness from extreme heat in hospitals, a heat monitoring network has been linked to an emergency department surveillance system (EDSS). This study was designed to investigate the potential increase in emergency room (ER) volume, which may be attributable to heat-related illness and to encourage the recognition of heat-related illness by nurses and doctors.

A heat monitoring network was established to collect the environmental parameters important for the physiological response to increased heat. An EDSS monitored the activity across 11 area hospitals, in real time, for triage chief complaint containing keywords associated with heat-related illness. It was found that 187 and 205 ER visits in the summer of 2010 and 2011 respectively were related to heat exposure. Through an additional analysis of 80 hospitals, it was found that many admissions to the ER may not be directly triaged as heat-related, such as cardiovascular and respiratory conditions, but may be indirectly related to exposure to extreme heat.

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The Second Victim

Jacquette Ward, BSN, RN, CCRN, Santa Clara, CA

When a patient is victim of medical error, there is a second victim: the nurse who made the error.

In spite of scanners, computerized charting and bar codes, errors occur. Headlines read, "Woman who died may be victim of medical error." She died after receiving nutrient solution (glucerna) in her IV. But what happened to her nurse?

In 2011, a pediatric nurse of 27 years committed suicide seven months after her error led to an infant's death. Although we can see ourselves in the other's shoes and are grateful the mistake was not ours, we seldom support the nurse.

The ISMP says that neither nurses nor health care institutions help the second victim. We isolate them or gossip about them. Hospitals treat them punitively.

After making an error, nurses experience disbelief, panic and fear. Blood pressure and pulse rate increase. They breathe rapidly and cannot think. These are symptoms of PTSD. They face an investigation and live in fear of being branded "incompetent" and losing others' respect. They might lose their jobs, face lawsuits or lose their nursing licences. They are alone.

This is not how it should be. Denham (2007) of TMIT lists five rights for such nurses: just Treatment, Respect, compassionate Understanding, Supportive care and Transparency. The nurse must have open support from leadership to participate in learning from the error and to share this knowledge. This is TRUST.

The American Association of Critical-Care Nurses (AACN) has healthy work environment standards: skilled communication, true collaboration, effective decision-making, appropriate staffing, meaningful recognition and authentic leadership. Nurses and leadership must work together to reach effective decisions and change our environment. We fail our coworkers when we do not live by these standards. We harm our profession when we don't support each other. When, despite our best efforts, errors happen, we must learn from them. We can do this with caring communication and collaboration among nurses, managers, pharmacists and nursing leaders.

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Future sites of Dynamics conferences

Dynamics 2012
September 23–25, Vancouver, BC

Dynamics 2013
September 22–24, Halifax, NS

Dynamics 2014
September 21–23, Quebec City, QC

Dynamics 2015
October 4–6, Winnipeg, MB

AWARD INFORMATION

The Draeger Medical Canada Inc. "Chapter of the Year" Award

The Draeger Medical Canada Inc. "Chapter of the Year" Award is presented to recognize the effort, contributions and dedication of a CACCN chapter in carrying out the purposes and goals of the association.

Award funds available: $500.00 plus a plaque

Deadline for consideration: End of current fiscal year (March 31)

Application process: Eligible chapters are automatically included

Criteria for the award program

- All chapters of CACCN are eligible for consideration for the Chapter of the Year Award provided all quarterly and annual financial/activity reports are on file with CACCN National Office for the qualifying period. If the above conditions are not met, the chapter will not be eligible for consideration
- The award program will be for the period of April 1 to March 31 of each year
- Chapters may win the award for one year followed by a two-year lapse before winning again.

Conditions for the award program

- A point system has been developed to evaluate chapter activities during the year
- **Chapters will be responsible for ensuring National Office receives all required documentation to validate accumulated points**
- The chapter with the most points will be the successful recipient of the Chapter of the Year Award
- CACCN reserves the right to adjust points depending upon supporting materials submitted
- In the case of a tie, CACCN reserves the right to determine the recipient of the award
- The award winner will be announced at Chapter Connections Day and at the annual awards ceremony at Dynamics
- Announcement of the successful chapter will be published in CACCN publications
- The successful chapter will be profiled at Chapter Connections Day and Dynamics.

Categories and their corresponding points

- Educational programming—please provide an accompanying brochure/advertisement of events that occurred in the award year:
  Programs between:
  1–3 hours: 25 points each
  3–8 hours: 50 points each
  > 8 hours: 100 points each

- Recruitment: Points are calculated based on the percentage of new members recruited, as compared to the total membership of the previous year:

01–10%:	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

Points will be calculated for chapter members who have contributed presentations at local, provincial and national CACCN activities. Points will only be awarded once for a presentation, regardless of the number of times or venues at which it is presented.
Each presentation: 25 points

Points will be calculated for chapter members who have contributed articles to the chapter newsletter, or who have had a paper published in *Dynamics*. Please provide a copy of the associated chapter newsletter.
Each article or paper: 25 points

Projects that provide public education, community service and/or promote the image of critical care nursing or CACCN. 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, recruitment booths, etc.).
Each project: 50 points

Good luck in your endeavours! The CACCN Board of Directors retains the right to amend the award criteria as required.

CACCN Research Grant

The 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.

Award funds available: $2,500.00

Deadline for submission: February 15

Send applications to CACCN National Office at **caccn@caccn.ca** or fax to 519-649-1458 or mail to: CACCN, PO Box 25322, London, ON N6C 6B1. Mailed applications must be postmarked on or before February 15.

Eligibility:
The principal investigator must:

- Be a member of CACCN in good standing for a minimum of one year
- Note: where a student is submitting the research grant application and is ineligible to act as the principal investigator, the student 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 research study in *Dynamics*

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

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:
- Each proposal will be reviewed by a research review committee
- 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
- The recipient of the research grant will be notified in writing.

Terms and conditions of the award:
- The research 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
- The research study is to be submitted to the *Dynamics* Journal for review and possible publication.

Application requirements:
- A completed application form
- A grant proposal not in excess of five single-spaced pages exclusive of appendices and application form
- Appendices should be limited to essential information, e.g., consent form, instruments, budget
- A letter of support from the sponsoring agency (hospital, clinical program) or thesis chairperson/advisor (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 CNA publication *Ethical Guidelines for Nursing Research Involving Human Subjects*
- A 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
- Proof of CACCN active membership and Canadian citizenship
- Facility approval for commencement of study

CACCN Research Grant Application located at **http://www.caccn.ca/en/awards/index.html** or via CACCN National Office at **caccn@caccn.ca**.

The CACCN Board of Directors retains the right to amend the award criteria.

Editorial Awards

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,* 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* 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.*

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 Spacelabs Innovative Project Award

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.

Award funds available: $1,500.00 total
- $1,000.00 will be granted to the Award winner
- $500.00 will be granted for the runner up
- A discretionary decision by the review committee may be made, for the award to be divided between two equally deserving submissions for the sum of $750.00 each.

Deadline for submission: June 1 each year

Send applications to CACCN National Office at
caccn@caccn.ca or fax to 519-649-1458 or
Mail to: CACCN, PO Box 25322, London, ON N6C 6B1

Mailed applications must be postmarked on or before June 1

Do you have a unique idea?

Award criteria:
- The primary contact person for the project must be a CACCN member in good standing for a minimum of one year
- Applications will be judged according to the following criteria:
  - the number of nurses who will benefit from the project
  - the uniqueness of the project
  - the relevance to critical care nursing
  - consistency with current research/evidence
  - ethics
  - feasibility
  - timeliness
  - impact on quality improvement.
- If the applicant(s) are previous recipients of this award, there must be a one-year lapse before submitting an application
- Members of the CACCN board of directors and the awards committee are not eligible.

Award requirements:
- Within one year, the winning group of nurses is expected to publish a report that outlines their project in *Dynamics.*

The CACCN Board of Directors and Spacelabs Healthcare retains the right to amend the award criteria.

Smiths Medical Canada Ltd. Educational Award

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

Deadlines: January 31 and September 1 of each year

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, master's 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 and 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 journal.

CACCN Chapter Recruitment and Retention Awards

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

Award funds available: $ 1,000.00

Deadline for submission: 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.

Send applications to CACCN National Office at caccn@caccn.ca or fax to 519-649-1458 or

Mail to: CACCN, PO Box 25322, London, ON N6C 6B1

Mailed applications must be postmarked on or before June 1

Eligibility criteria:
- Nominee must be a CACCN member for a minimum of one (1) year
- 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)
- CACCN board of directors are not eligible to apply for the award.

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 & 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 funds may be used to attend educational programs or conferences related to critical care
- The Awards Committee reserves the right to withhold the award if no candidate meets the criteria outlined.

The CACCN Board of Directors & BBraun Medical retain the right to amend the award criteria.

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

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 proposes to make, or who has 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* 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 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.*

The Brenda Morgan Leadership Excellence Award

Award funds available: $1,000.00 plus award trophy

Deadline for submission: June 1

The Brenda Morgan 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 was the first recipient of the award. 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.

The Brenda Morgan Leadership Excellence 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.

Send applications to CACCN National Office at
caccn@caccn.ca or fax to 519-649-1458 or
Mail to: CACCN, PO Box 25322, London, ON N6C 6B1
Mailed applications must be postmarked on or before June 1

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:

- Have been a member of CACCN for a minimum of five (5) years
- Have a minimum of five (5) years of critical care nursing experience
- Be registered to practise nursing in Canada
- Have demonstrated volunteerism and significant commitment to CACCN
- Have participated in CACCN activities at local or national levels
- Been a member of the CACCN Chapter executive or National Board of Directors
- Have 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
- Hold a valid adult or pediatric specialty in critical care certification—Certified Nurse in Critical Care—CNCC(C) or CNCCP(C) from the CNA (preferred)
- Have demonstrated a leadership role or have held a key leadership position in an organization related to the specialty of critical care
- Consistently conducts themselves in a leadership manner
- Have effectively engaged others in the specialty of critical care nursing
- Have role modelled commitment to professional self development and lifelong learning
- 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.

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
- Members of the CACCN board of directors and the awards committee are not eligible
- Award recipients will be notified in writing of their selection for the award
- Recipients will be honoured during the awards ceremony, at the annual Dynamics Conference
- Recipient names and possibly a photo will be published in *Dynamics.*

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 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.

Terms and conditions of the award:

- The award recipient will be encouraged to write a reflective article for *Dynamics,* sharing their accomplishments and describing their leadership experience. The article should reflect on the recipient's passion to move critical care nursing forward, their leadership qualities and how they used these effectively to achieve their outcome.

The CACCN Board of Directors retains the right to amend the award criteria.

Cardinal Health 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 $1,000.00 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 the 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 interprofessional 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 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. [a]PRECEDEX™ (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 Occuring 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, 36% > 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, 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

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DYNAMICS

Information for Authors

Dynamics: The 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 physiologic 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, 1-inch margins on all sides. Pages should be numbered sequentially including tables, and figures. Prepare the manuscript in the style outlined in the American Psychological Association's (APA) Publication Manual 6th Edition
- Use only generic names for products and drugs
- 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
- Permission to use copyrighted material must be obtained by the author and included as a letter from the original publisher when used in the manuscript

4. Copyright:

- Manuscripts submitted and published in *Dynamics* become the property of CACCN. Authors submitting to *Dynamics* are asked to enclose a letter stating that the article has not been previously published and is not under consideration by another journal.

5. Submission:

- Please submit the manuscript electronically as a Word attachment to the editorial office as printed in the journal. Accepted manuscripts are subject to copy editing.
- All authors must declare any conflicts of interest and acknowledge that they have made substantial contributions to the work and/or contributed substantially to the manuscript at the time of acceptance.

Revised November 2011

WHY CACCN?

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 November 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 applicable GST/HST):

❏ 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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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.

See prescribing summary on page 59