The Canadian Journal of Critical Care Nursing

Volume 27, Number 2, Summer 2016

ISSN: 2368-8653

IN THIS ISSUE:

DYNAMICS OF CRITICAL CARE 2016

The Canadian Journal *of* Critical Care Nursing

Volume 27, Number 2, Summer 2016

The *Canadian Journal of Critical Care Nursing* is the only peer-reviewed critical care journal in Canada, and is published four times annually by Pappin Communications, Pembroke, Ontario. Printed in Canada. ISSN: 2368-8653 (Print).

Advertising information: For advertising enquiries, contact Heather Coughlin, Pappin Communications, The Victoria Centre, 84 Isabella St., Unit 2, Pembroke, Ontario K8A 5S5, telephone: 613-735-0952, fax: 613-735-7983, email: heather@pappin.com, website: www.pappin.com

Author enquiries: Send manuscript enquiries or submissions to Paula Price, ACCN Program, Faculty of Health and Community Studies, Mount Royal University, 4825 Mount Royal Gate S.W., Calgary, Alberta T3E 6K6, email: pprice@mtroyal.ca

Subscription Rates for 2016: The *Canadian Journal of Critical Care Nursing* is published four times annually, Spring, Summer, Fall and Winter—Four Issues: $75 / eight issues: $150 (plus GST/HST as applicable). International and institutional subscription rate is four issues: $100 / eight issues: $200 (plus GST/HST, as applicable). To order subscriptions, please contact CACCN National Office, P.O. Box 25322, London, Ontario N6C 6B1 or caccn@caccn.ca

Article reprints: Photocopies of articles appearing in the *Canadian Journal of Critical Care Nursing* are available from the CACCN National Office, P.O. Box 25322, London, Ontario N6C 6B1, at a cost of $15 (plus GST/HST, as applicable) per article. Back issues can be purchased for $18 (plus GST/HST, as applicable).

 The *Canadian Journal of Critical Care Nursing* is indexed in the Cumulative Index to Nursing and Allied Health Literature, EBSCO, the International Nursing Index, MEDLINE, and RNdex Top 100: Silver Platter.

The Canadian Journal of Critical Care Nursing is printed on recycled paper.

CANADIAN ASSOCIATION OF CRITICAL CARE NURSES

Canadian Association of Critical Care Nurses

Vision statement

All critical care nurses provide the highest standard of patient and family centred care through an engaging, vibrant, educated and research driven specialized community.

Mission statement

We engage and inform Canadian Critical Care nurses through education and networking and provide a strong unified national identity.

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

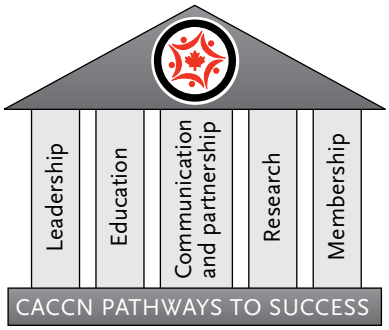
Critical care nursing is a specialty that exists to care for patients who are experiencing life-threatening health crises within a patient/family-centred model of care. Nursing the critically ill patient is continuous and intensive, aided by technology. Critical care nurses require advanced problem solving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

Critical Reflections

I am so excited to begin my two-year term as president of the Canadian Association of Critical Care Nurses. I enjoy working with such a dynamic group of individuals who are passionate about critical care nursing.

Speaking of dynamic people, with the changeover of leadership on the Board of Directors effective April 1, 2016, we bid farewell to Karen Dryden-Palmer, President (Central Region) and Barbara Fagan, Director, Chair of the Professional Development Committee (Eastern Region). Karen and Barb were instrumental in advancing processes through the development of committees to support the association's Vision, Mission and Strategic Plan. They were also instrumental in advancing educational opportunities for our members and critical care nurses across the country with the rollout of our certification webinars in 2015 and our webinar program for 2016. Their valuable contributions, leadership and dedication to the association have facilitated the forward movement of opportunities for our members to be engaged with the CACCN.

I am very pleased to announce Kathy Bouwmeester, Director (Western Region), has accepted the position of vice-president for the next two years ending March 31, 2018. Following this, Kathy will move into the position of president of the association.

I would also like to take a moment to welcome Shirley Marr, Director (Central Region), and Mélanie Gauthier, Director (Eastern Region), to the Board of Directors. Shirley has accepted the role of Chair for the CACCN Communications Committee and Mélanie has accepted the role of Chair for the CACCN Professional Development Committee. Welcome back, as well, to Robert Mazur, Director (Central Region), National Treasurer and Chair of the CACCN Finance Committee, for another two-year term.

Over the years, we have been encouraged to speak up! The evidence confirms that "finding our voice", "speaking with conviction" and "together we can" not only improve safety outcomes for our patients, but empowers us to be better advocates for ourselves and our work environments. It's as though there should be a warning label with the speaking up challenge to ensure the communication is helpful. We have all worked in an ICU where we check our patient assignment and scan for who is working with us that day. Heaven forbid I should be close to "the negative nurse" or the one who never seems to reach out to help others. This dynamic can often suck the life out of the day. I well remember attending a presentation at a Dynamics of Critical Care™ conference where the speaker challenged the audience to be positive 90% of the time and negative 10% of the time. I have to confess the ratio for me is a little off. I partly blame myself, as I sometimes feel helpless with our current health care situation where we are caring for more acutely ill critical care patients, more advanced technology, more complex family situations, with the same resources we were working with 10 years ago. We are encouraged to work smarter, not harder and, yes, I agree that "together we can". Yet, what do we do when the people we are working with are in pure survival mode whether due to personal situations, workload or morale distress? Critical care nursing should inspire us, not zap our energy so that at the end of the day we have nothing left for ourselves or our families.

My greatest moments experienced at the bedside were when I felt synergy with my critical care team and when I dared to do something different for my patient, such as invite an opera singer to soothe my former symphony orchestra patient's intolerable pain through classical music and song. She truly does have a voice of an angel. When "Sebastian" told the opera singer that this was the first time in a long time he did not feel pain, I cried.

Whatever you are experiencing in your unit, in your work environment, in your research, in your management role, in your leadership role, think about how you want to be different? Because you can make a difference. You can be 90% positive and 10% negative, if that resonates with you. You can inspire your team to speak up, find their voice or accomplish anything amazing together. It is our wish to encourage you to make a difference. It starts with me. It begins with you. Dr. Wayne Dyer famously said, "If we change the way we look at things, then the things we look at begin to change." How powerful is that message?! How do we do that? How do we make a difference? How can I be special when I am an employee number to Human Resources, or I never see my manager unless there is a problem? How can I make a difference when the unit is surging for the umpteenth time this week?

I have found recently at the annual Dynamics conference more references to improvement terminology, LEAN, and KAIZEN

from the presenters, as witnessed in Winnipeg 2015. As an improvement facilitator, this pleases me. Within my employment organization, I see and hear how the processes and tools for continuous process improvement are having a positive impact in our intensive care unit. I chuckled when the closing speaker at the last Dynamics conference projected the word KAIZEN on the screen, as she touched on the essence of the meaning in her wrap-up and, if you are anything like the people who were sitting on my left and sitting on my right at the conference, you are probably "Googling" the word on your mobile right now.

I think KAIZEN is a fun word. When I say it, I want to break out into a judo chop! Kaizen literally means change "KAI" and to become good "ZEN." Essentially, through a process of continuous improvement and engagement of the team, small changes have as much of an impact to our work as large ones. "It's a philosophy that assumes that every aspect of our life deserves to be constantly improved".

According to Valuedbasemanagement.net, there are five founding elements to the KAIZEN philosophy:

- Teamwork
- Personal discipline
- Improve morale
- Quality circles
- Suggestions for improvement.

So, while it is not my intention of this reflection to convert masses to process improvement, as we are challenged with physician-assisted dying, end-of-life, workload, surging, morale distress, lack of resources, lack of education, lack of funding for education, it is our goal at the CACCN to **Be the Difference**.

Your Board of Directors is committed to making improvements to the association in response to what we are hearing from you. We welcome your feedback and help to feed forward and make the good change. Let's make it better.

Thank you for the opportunity to serve as your association president.

Sincerely,
Renée Chauvin
President, CACCN

REFERENCES

Dyer, W.W. (2010). *The power of intention: Learning to co-create your world your way.* Carlsbad, CA: Hay House.

Value Based Management.net. (n.d.). *Continuous incremental improvement: Summary of Kaizen philosophy and method.* Retrieved from http://www.valuebasedmanagement.net/methods_kaizen.html

Profiling

CACCN Board of Directors

Renée Chauvin
President

I am so excited and grateful for the opportunity to serve as your president of the Canadian Association of Critical Care Nurses (CACCN). I have always been passionate about critical care and being involved with the CACCN.

My involvement has been at a provincial level serving as the Montréal Chapter President for five years and the planning committee for the Dynamics of Critical Care Conference 2008 held in Montréal, QC, for our 25th Anniversary. I joined the National Board of Directors in 2013 as secretary, then vice-president, and had the pleasure of serving as chair of the Dynamics of Critical Care™ Conference 2014 held in Québec City, QC.

My critical care career began in 1987 at the McGill University Health Centre as a clinical nurse, mentor, Assistant Head Nurse, Professional Development Educator and Practice Consultant. I left Montréal in 2009 to work as Nurse Manager for a level three ICU at a community hospital in Ottawa for five years.

I am currently an Improvement Facilitator with the Centre for Continuous Performance Improvement. I find my job rewarding and valuable. I like to say I spent 27 years working in health care. Now, I am working on health care.

The CACCN is implementing new structures to strategically align with our vision: "All critical care nurses provide the highest standard of patient and family centred care through an engaging, vibrant, educated and research driven specialized community."

It is a privilege to work with such a passionate and dedicated group of professionals, as we continue the journey of promoting healthy and healing work environments.

Carla MacDonald
Director, Eastern Region
Chair, Conference Advisory Committee

I am honoured to begin the second year of my term on the Board of Directors for the Canadian Association of Critical Care Nurses. Over the past year, the work of the Board of Directors has included the implementation of a new strategic plan/direction and the implementation of national committees. It is my pleasure to chair the National Conference Committee working with many of our critical care members to rejuvenate our annual conference, Dynamics of Critical Care™.

Critical care nursing has been my passion for the past 20 years and I have been fortunate to have many career opportunities along the way. My career has primarily been in adult critical care nursing where I have had the opportunity to provide excellent bedside care to patients and families, as well as interact with a strong intraprofessional team. As faculty with the Nova Scotia Critical Care nursing program, I was able to stay connected to clinical practice throughout the province and be influential in the development of future nurses.

In 2010, my colleagues and I were recipients of the Spacelabs Innovative Project Award for Team-Based Learning. I have had the opportunity to present at national conferences and enjoy the opportunity to engage with colleagues.

I am driven about maintaining and advancing education, obtaining my critical care certification and master's degree in 2011 from Athabasca University, and embarked on obtaining my nurse practitioner degree in September 2014.

At present, I am a Clinical Nurse Specialist and am excited to be directly involved in advancing nursing practice. I am fortunate enough to still work clinically in intensive care. It has been very exciting to bring my passion and experience for critical care nursing to a national level.

CACCN Board of Directors 2016–2017: Left to right: front row: Carla MacDonald, Director (Eastern Region), Kathy Bouwmeester, Vice-President, Director (Western Region), Shirley Marr, Director (Central Region).

Back row: Rob Mazur, Treasurer (Central Region), Renée Chauvin, President (Director at Large), Lara Parker, Director (Western Region), Mélanie Gauthier, Director (Eastern Region), Christine Halfkenny-Zellas, Chief Operating Officer.

Kathy Bouwmeester
Vice-President, Director, Western Region, Chair, Partners Committee

As a proud registered nurse (RN) working in the intensive care unit (ICU) of the Peter Lougheed Centre in Calgary, Alberta, I am very excited to start the second year of my term on the National Board of Directors.

I have been a registered nurse since graduating from the University of Alberta Hospitals Nursing Program in 1980. I have worked in several settings including an isolation unit, general medicine, orthopedics and intensive care. I hold a Certificate in Critical Care Nursing and Studies in Aging (Gerontology).

I started working in the ICU in 2001 after completing my Advance Critical Care Nursing through Mount Royal University in December 2000. I have held several positions within the ICU, as a bedside clinician, outreach RN, and nurse clinician in both the cardiac care unit and, recently, in the ICU.

As an active member of the Southern Alberta Chapter since 2006, I was elected into the role of president-elect, where my involvement included revising the chapter constitution and bylaws. I served a two-year term as president and have been involved in the development of the chapter's spring conference for several years.

The profession of nursing and the role of the registered nurse is being challenged daily. Despite the challenges, the critical care registered nurse faces the ongoing complexities between patient and family advocacy, goals of care and coordinating the health team to provide the best outcomes for our patients.

With the new strategic plan and direction at the national level, I sit as vice-president for the association as well as chair of the Partners Committee working with CACCN members and our association partners, sponsors and exhibitors to enhance education, awards and other opportunities for our members. As a board member of the Canadian Association of Critical Care Nurses, I have, over the past year, brought my passion of advocacy for the patient, the registered nurse and affiliated critical care health care providers to the national table. I am looking forward to the coming year!

Lara Parker
Director, Western Region
Chair, Member Relations Committee

I have had the pleasure of being a critical care nurse since 2000, after graduating with my RN in 1998 from the University of Victoria. I began my critical care career in the ICU at Vancouver General Hospital (VGH), working with an amazing team. During this time, I recognized my passion for teaching and began to teach clinical nursing for the University of British Columbia (UBC) undergraduate program, and for the British Columbia Institute of Technology, (BCIT) Critical Care Program. I have since completed my master's in nursing at UBC in 2006, with a focus in family-centred care in the adult ICU, and I am now a full-time faculty member in BCIT's critical care nursing program. I remain at VGH ICU on a casual basis, as I thoroughly enjoy bedside critical care nursing.

I have had the opportunity to be involved with the CACCN on three occasions and I look forward to many more. My first introduction was at the Dynamics of Critical Care™ Conference 2011, with a poster presentation on family clinical nurse specialist (FCNS). The second was at Dynamics Conference 2014, where I was privileged to present two oral presentations: one on the BCIT iPad–iBooks curriculum, and another on Family-Centred Care in the Adult ICU. I have also had the privilege of speaking at a British Columbia Chapter Education Day.

I am passionate about critical care nursing and the great community we work within. Critical care nursing is challenging, evolving, rewarding and inspirational. I am committed to critical care specialty nursing and I am excited to begin the second year of my term on the National Board of Directors. This role has provided the opportunity for me to engage others and myself at a national level. With the implementation of the CACCN Strategic Plan and the committee structure over the past year, I have had the pleasure of sitting as chair of the Member Relations Committee working with our critical care members on membership recruitment and retention. I am a motivated and hardworking individual who balances work with my family, including my three beautiful children.

Rob Mazur
Director, Central Region
National Treasurer
Chair, Finance Committee

I am a registered nurse residing in Winnipeg, Manitoba. I graduated in 1999 with a BN from the University of Manitoba. Since 1999, I have worked as a nurse in psychiatry, acute medicine, Northern MB Nursing Stations, aero-medical transport, critical care, acquired brain injury and stroke rehabilitation.

From 2004 to 2015, I worked as a flight nurse and CRN/Nurse Manager with Keewatin Air/Nunavut Lifeline. During this time, I successfully completed the Winnipeg Critical Care Nurses Education Program (WCCNEP) and wrote the Canadian Nurses Association Certified Nurse in Critical Care – CNCC(C) certification examination. Following completion of the WCCNEP, I worked in the intensive care units at the Health Sciences Centre and at the Victoria Hospital in Winnipeg, Manitoba.

I am currently the Manager of Clinical Support and Relief Teams and Interim Manager for Acquired Brain Injury and Stroke Rehabilitation at Riverview Health Centre. My current and previous positions have allowed me to expand my leadership skills through management, logistical/medical on-call, and the education and training of registered nurses.

I feel my experience in caring for critical care patients in intensive care units,

nursing stations and in aero-medical transport is of benefit to the association. These environments require critical thinking, and an ability to think "outside the box". I believe these qualities benefit in helping shape unique approaches to the management of critically ill patients. As I commence my second two-year term on the National Board of Directors, I believe that my participation as a member of the board will have an effect that is beneficial to critical care nurses and their patients everywhere. For my second term, I remain in the role of National Board Treasurer and Chair of the National Finance Committee. In these roles I will continue to work with an external bookkeeper and auditor, as well as CACCN members to ensure the association remains financially healthy and viable.

Shirley Marr
Director, Central Region
Chair, Communications Committee

I am excited to begin my term as a member of the Board of Directors. I started working in the intensive care/critical care unit in 1991 at Wellesley Hospital in Toronto and in 2003 moved into the role of educator. I have worked at William Osler since 2011.

In 1989, I immigrated to Canada with a diploma in nursing and have since gained a nursing degree and two master's degrees—one in health education and one in health science in nursing. I have held my Certified Nurse in Critical Care—CNCC(C)—for 15 years, and also hold certificates in gerontology and critical care from Ryerson University. I attended my first Dynamics of Critical Care™ conference in 1992. This conference was an important milestone in my journey in critical care.

I joined the CACCN Board of Directors as I am passionate about excellence in critical care nursing and the CACCN is an important vehicle to achieving this goal. With the new strategic plan and direction of the association, I will be chairing the Communications Committee working with CACCN Members to streamline our communications with members, partners and others.

Mélanie Gauthier
Director, Eastern Region
Chair, Professional Development Committee

I cannot begin to explain how excited I am to begin my term on the National Board of Directors. I have been actively involved in CACCN as the president of the Montréal Chapter since April 2015, and was co-president from January 2013–March 2015. Since my involvement, the Montréal Chapter membership has grown from less than 100 members to more than 200 by providing a variety of educational and networking activities.

I am currently a CNCC(C) Certified Nurse Clinician in a quaternary care ICU, where I have practised for more than seven years. I hold a Bachelor of Science in Nursing from McGill University and a Master's in Intensive Care Nursing from the University of Sydney, Australia.

For the past two years I have been a clinical instructor, course coordinator and co-teacher for McGill University nursing students at the undergraduate level. I am actively involved in several professional development initiatives at my workplace, such as co-chair of the orientation committee, active preceptor and mentor to new nurses, member of the ICU skin care team, and the quality improvement committee.

With the implementation of the national strategic plan and committees, I am Chair of the Professional Development Committee working with a knowledgeable group of CACCN members to provide enhanced educational opportunities through a variety of delivery methods.

As a younger nurse, I feel I can provide a voice to the newest generation of nurses and help bridge the gap between care and compassion by empowering and inspiring them to take an active role in their own development, the nursing profession and their professional nursing association. Sustainability and recruitment have been long-standing challenges of the CACCN and I am looking forward to assisting in the growth of the association by advocating for the educational needs of our members.

Annual General Meeting Notice

CACCN 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 **32nd Annual General Meeting**. The Annual General Meeting of the CACCN will be held Sunday September 25, 2016, at the Delta Prince Edward Convention Centre, Charlottetown, PE, in conjunction with Dynamics of Critical Care™ 2016.

FEATURED JOBS

Are you a Critical Care Nurse looking for growth and adventure?

Work and live in the inspiring Greater Vancouver Area. Fraser Health is one of Canada's largest and fastest growing health authorities. Over 1.6 million people — 1/3 of BC's population is served by 33,000 dedicated professionals in our 12 hospitals and other facilities, including Surrey Memorial Hospital — second largest hospital in the province with the new state-of-the-art critical care tower, opened in 2014.

Make a change with one of BC's Top Employers! Learn more at careers.fraserhealth.ca

---

Embrace Critical Care Nursing!

Enjoy a lifestyle that offers small town warmth, big city amenities, affordable living, and some of the shortest commutes in the province. Work with a multidisciplinary team in an environment that allows you to work full scope and utilize your skills. Enjoy a generous relocation package, great benefits and professional development.

To find out how you can ExpectMore and apply online, check our website at: expectmore.northernhealth.ca

---

Critical Care Nurses needed at Providence Health Care!

We are a Vancouver and Catholic faith-based non-profit organization that emphasizes compassionate care and commitment to our patients. As one of BC's Top Employers (2016) we provide exceptional benefits, opportunities to enhance your career, and the ability to make a meaningful impact in the lives' of others.

If you are interested in learning more about Providence Health Care and our current opportunities, please visit providencehealthcare.org/careers

---

BC Children's Hospital and BC Women's Hospital + Health Centre

Full-Time Opportunities available for nurses in our Labour & Delivery, NICU, PICU, OR and PACU where you will deliver quality care to patients and their families.

We offer careers from bedside nursing to leadership roles with ongoing professional development support!

Please forward your resume to Kuldish Chatha, Nurse Recruitment Advisor

Email: kuldish.chatha@phsa.ca Tel: 604-875-7291. To learn more about joining one of Canada's Top 100 Employers, visit http://jobs.phsa.ca/nursing

---

Join one of our Dynamic Critical Care Nursing teams!

Vancouver Coastal Health (VCH) is world renowned for innovation and a focus on quality care and outcomes, delivering services to more than one million BC residents. VCH is at the forefront of career destinations for Nurses and health care professionals.

We're hiring RNs who have completed an advanced certificate program in Critical Care Nursing, or have two (2) years' recent critical care nursing experience.

To explore our rewarding opportunities and apply, please visit careers.vch.ca

MEET WITH HEALTH MATCH BC

Learn more about moving to BC at our free information sessions in Charlottetown, Saint John and other major centres. Email nurses@healthmatchbc.org to register!

Canadian Association of Critical Care Nurses (CACCN) Conference

September 25 – 27, 2016
CHARLOTTETOWN, PEI

Photo: Destination BC/Blake Jorgenson

CANADIAN ASSOCIATION OF CRITICAL CARE NURSES

Annual General Meeting Proxy Vote Form 2016

I, _____, a **voting member** in good standing of the Canadian Association of Critical Care Nurses (CACCN), hereby give my proxy to:

1. Renée Chauvin, President, Board of Directors, failing her, to
2. Lara Parker, Director, Chair—Member Relations Committee, Board of Directors.

OR (complete only if you wish to name someone other than the above, who will be in attendance at the AGM)

_____

as my proxy to attend, act, and vote on my behalf at the Annual General Meeting of members to be held Sunday, September 25, 2016, at the Dynamics of Critical Care™ Conference 2016, in Charlottetown, PE (including adjournments thereof).

(please print)

Name: _____ Date:_____

Signature:_____

It is the responsibility of the member to determine whether the person to whom they assign the proxy is an active member who will be in attendance at the AGM and is able and agrees to act in the manner described.

Please ensure delivery of the completed proxy to CACCN by no later than 2359 ET on September 5, 2016:
by e-mail: caccn@caccn.ca
by fax: (519) 649-1458
by mail: Canadian Association of Critical Care Nurses
P. O. Box #25322
London, ON N6C 6B1

Certification update

Specialty Nursing Examination—Critical Care Nursing
Canadian Nurses Association (CNA)
CNA has announced changes to the certification program. Join the growing network of more than 18,000 CNA-certified RNs at the leading edge of health care. Being CNA certified shows that you're committed to an advanced standard of professional competence and have a comprehensive understanding of your nursing specialty. Become CNA certified! Show that you **Care to Be the Best**.

Registration and exam information

- The next CNA certification exams will be offered September 19 to October 7, 2016.
- The online application process to apply for the 2016 exams will be open April 11 to July 1, 2016.

Visit Get Certified at: **www.nurseone.ca/en/certification**

Looking for study resources? CACCN offers a Certification Study Guide to CACCN members in the members-only area!

CACCN Facebook Page

Visit us on Facebook for updated information!

Follow us on Twitter: @CACCN1

Future sites of Dynamics conferences

Dynamics 2017: September 24–26, 2017, Toronto, ON

Dynamics 2018: September 23–25, 2018, Saskatoon, SK

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. CACCN is pleased to be printing its 16th annual "Special Dynamics of Critical Care Issue", which includes the abstracts from Dynamics of Critical Care™ 2016.

The following abstracts represent the concurrent session and poster abstracts being presented during Dynamics of Critical Care™ 2016 being held in Charlottetown, PE, September 25–27, 2016.

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!

Oral Presentations

Finding Equilibrium in the Chaos: Patient and Family Perspectives on Acute Illness

Karine Allard, BScN, RN, CNCC(C), and Mélanie Gauthier, BScN, RN, CNCC(C), McGill University Health Centre, Montréal, Québec

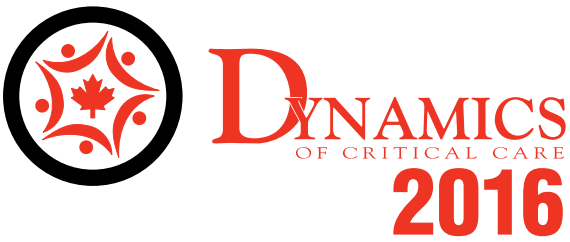
Key words: family perspectives, isolation, acute illness, patient experience, Acute Lymphoblastic Leukemia, CD19 CAR T trial

In summer 2014, shortly after returning home from his honeymoon, a young man was diagnosed with Acute Lymphoblastic Leukemia. Despite three rounds of induction chemotherapy and participating in a Canadian clinical trial, his condition rapidly deteriorated. His physicians suggested a transition to palliative care. As a last resort, the couple travelled to the United States to participate in a clinical trial for a novel experimental treatment with a promising success rate. After completion of the trial and subsequent complications, the young man was declared cancer-free in early 2015. He has since undergone a successful stem cell transplant and, as of late 2015, is well on his way to recovery.

Qualitative studies have shown that cancer survivors, particularly adolescent and young adults, suffer from cancer-related distress. This primarily includes the consequences of living with heightened awareness of the uncertainties in life—worry about recurrence, hypervigilance about symptoms, concerns about family and finances, and the stress of managing health needs, changes in self-perceptions, body image, and feelings of vulnerability. While reflecting on their experience with life-threatening illness, we will share via video recordings the obstacles this newlywed couple has been faced with over the past 18 months. Based on their experience, they will identify both the positive and negative behaviours of health care professionals they interacted with along their journey. Simple suggestions are made to critical care nurses on how they may improve their practice while caring for the critically ill and their families.

This mixed-media presentation aims to provide participants with an intimate insight into critical illness from the perspective

ABSTRACTS



of both the patient and their family. A basic review of hematologic malignancies, CAR T clinical trials, and hematopoietic stem cell transplant will provide participants with context and a better understanding of this patient's lived experience.

REFERENCES

Cohen, M.Z., Ley, C., & Tarzian, A.J. (2001) Isolation in blood and marrow transplantation. *Western Journal of Nursing Research, 23,* 592–609.

Curran, K.J., & Brentjens, R.J. (2015). Chimeric antigen receptor T cells for cancer immunotherapy. *Journal of Clinical Oncology, 33,* 5.

Jun, H.X., Zhixiang, S., Chun, W., Reksodiputro, A.H., Ranuhardy, D., Tamura, K., … Picazo, J.J. (2005). Clinical guidelines for the management of cancer patients with neutropenia and unexplained fever. *International Journal of Antimicrobial Agents, 26*(Suppl. 2), S128.

Persson, L., Hallberg, I.R., & Ohlsson, O. (1995). Acute leukaemia and malignant patients' experience of disease, treatment and nursing care during the active treatment phase: An explorative study. *European Journal of Cancer Care, 4,* 133–142.

Thacker, D., & Wagner, K.D. (2014). Solid organ and hematopoietic stem cell transplantation. In K.D. Wagner & M.G. Hardin-Pierce (Eds.), *High-Acuity Nursing* (6th ed., pp. 907–910). New Jersey, N.Y.: Pearson Education.

I.C.U. M.O.V.E.S: Intensive Care Unit Mobility, Optimizing a Very Early Start

Marlene Ash, BSc, RN, Elinor Kelly, BsN,BA,RN, Tara Mercier, PT, Giselle Davis, PT, Marie-Helene Renault, PT, Patricia Daley, RN, Cynthia Isenor, MScN, RN, and Karen Webb-Anderson, BSc, MN, RN, Nova Scotia Health Authority, Halifax, Nova Scotia

Key words: early mobility, delirium, long term outcomes, front line involvement, culture shift, collaboration

Today, more critically ill patients are surviving and leaving the intensive care unit (ICU). However, patients with a critical illness can experience a myriad of complications. They are at risk for complications such as physical deconditioning with profound muscle weakness, delirium and skin breakdown. Recognizing the impact on long-term outcomes requires a culture shift in health care teams. No longer are we just "keeping alive"; we are helping patients get back the life they want.

The evidence supports that early mobility reduces ICU-acquired weakness, decreases the incidence of ventilator-associated pneumonia, and reduces skin complications. Furthermore, early mobilization of adult ICU patients is the intervention most strongly recommended to reduce the incidence and duration of one of the most deleterious effects of critical illness—delirium. Delirium is estimated to occur in up to 80% of adult ventilated patients. It is associated with prolonged ICU and hospital lengths of stay and the development of post-ICU cognitive impairment. The impact on patients and families is profound.

In this presentation, we will share our experience of shifting our culture from "keeping alive" to optimizing long-term outcomes by implementing an early mobility program in two of our ICUs. The processes undertaken and protocol developed will be shared. Recognizing the importance of frontline knowledge and capacity, the implementation phase and evaluation of our early mobility program has been led by a team of frontline nurses and physiotherapists. This frontline involvement has been key in supporting the culture shift. We will explore how the planning and implementation of early mobility program, and a commitment to evidence-informed practice have enhanced collaboration in our multidisciplinary ICU team, helping patients get back the life they want.

REFERENCES

Bailey, P.P., Miller, R.R., & Clemmer, T.P. (2009). Culture of early mobility in mechanically ventilated patients. *Critical Care Medicine, 37,* S429–S435.

Barr, J., Fraser, G.I., Puntillo, K., Ely, E.W.,Gelinas, C., Dasta, J.F., … Jaeschke, R. (2013). Clinical practice guidelines for the management of pain, agitation, and delirium in adult patients in the intensive care unit. *Critical Care Medicine, 41,* 263–306.

Bassett, R.D., Vollman, K.M., Brandwene, L., & Murray, T. (2012). Integrating a multidisciplinary mobility programme into intensive care practice (IMMPT): A multicentre collaborative. *Intensive and Critical Care Nursing, 28,* 88–97.

Dean, E., Reid, D., Chung, F., Grueing, S., Jones, R., Ross, J., & Hoens, A. (2009). *Safe prescription of mobilizing patients in acute care settings: What to assess, what to monitor, when not to mobilize and how to mobilize and progress.* SAFEMOB Task Force, Fraser Health Authority. Retrieved from http://med-fom-clone-pt.sites.olt.ubc.ca/files/2012/05/SAFEMOB_Final18673.pdf

Teamwork Competency Development: How and What We Should Be Teaching Nurses About Teamwork

Glenn Barton, MSN(Ed), RN, Royal College of Physicians and Surgeons of Canada, Ottawa, Ontario

Key words: nursing, teamwork, competency based education, constructivism, leadership, simulation, integrative literature review

Aims: To present research describing nursing teamwork competency development and illustrate how these findings can inform best teaching practices that promote the evolution of competent nursing teamwork.

Background: Since the Institute of Medicine recommended enhancing the coordination and communication abilities of health care teams, many educational initiatives targeting teamwork competency development have surfaced. Registered nursing teams comprise the primary human resource structure for patient care delivery, and individual nurses are central figures within interprofessional health care teams. Nurses heavily influence overall team coordination and outcomes, yet little is known about the team training they receive, and, furthermore, what educational components best enhance teamwork performance in nursing personnel.

Design: Whittemore and Knafl's revised integrative review framework guided all stages.

Data sources: CINAHL, Web of Science, Academic Search Complete, and ERIC were searched, and detailed inclusion-exclusion criteria applied. Studies (n=19) published (2001–2014) were selected for review.

Review methods: Studies were appraised using established qualitative-quantitative evaluation tools. A systematic iterative approach was used to extract and filter data used for drawing conclusions.

Results: Nursing teamwork epistemology is derived from High Reliability Teams theory and Crew Resource Management training sources. Effective pedagogical approaches include high-fidelity simulation and reflective discussion in order for students to acquire, practise, and refine these skills. Evaluating teamwork competency is a complex task involving contextually based assessments of knowledge, skills, and attitudes.

Conclusion: Nursing teamwork competency-based curricula should emphasize leadership and skilled communication knowledge, as learned, practised and assessed in practice-based constructivist teaching environments.

REFERENCES

Canadian Nurses Association. (2012). *A nursing call to action: The health of our nation, the future of our health system.* Retrieved from https://www.cna-aiic.ca/~/media/cna/files/en/nec_report_e.pdf

Institute of Medicine (US). Committee on the Robert Wood Johnson Foundation Initiative on the Future of Nursing. (2011). *The future of nursing: Leading change, advancing health.* Washington, DC: National Academies Press.

Kalisch, B.J., Weaver, S.J., & Salas, E. (2009). What does nursing teamwork look like? A qualitative study. *Journal of Nursing Care Quality, 24,* 298–307. doi:10.1097/NCQ.0b013e3181a001c0; 10.1097/NCQ.0b013e3181a001c0

Vertino, K.A. (2014). Evaluation of a TeamSTEPPS© initiative on staff attitudes toward teamwork. *Journal of Nursing Administration, 44,* 97–102. doi:10.1097/NNA.0000000000000032

Weaver, S.J., Lyons, R., Diaz Granados, D., Rosen, M.A., Salas, E., Oglesby, J., ... King, H.B. (2010). The anatomy of health care team training and the state of practice: A critical review. *Academic Medicine, 85,* 1746–1760.

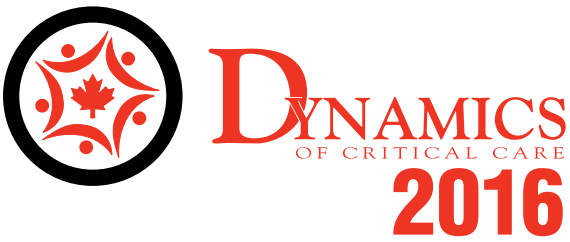
Whittemore, R., & Knafl, K. (2005). The integrative review: Updated methodology. *Journal of Advanced Nursing, 52,* 546–553.

The Consequence of Caring—Moral Distress Re-examined

Debbi Beukes, RN, Victoria General Hospital, Victoria, British Columbia

Key words: moral distress, ethical dilemmas, nursing, ICU, critical care, retention, workforce, burnout

Critical care nursing is entering an era of great transformation that is driven by many changes. Amid increased violence, an aging population, increasing complexity of needs, budget cuts, and the staffing crisis, health care can ill afford the consequences of experienced mentors and novice intensive care unit (ICU) nurses leaving critical care. Yet, such issues present daily challenges to the provision of quality care and the longevity of the nursing workforce. Nurses are particularly vulnerable because they are simultaneously equipped with knowledge that may impact patient care, but have very little decision-making power. Insults on the moral integrity of individuals are associated with burnout and intention to leave the workforce. Therefore, it has become necessary to re-examine the concept of moral distress and the effects of moral residue, as nurses struggle to "do the right thing". Because quality care depends on patient advocacy, nurses should be encouraged to recognize moral distress and be provided with the necessary tools and skills to minimize moral residue and develop moral courage.



REFERENCES

Browning, A.M. (2013). Moral distress and psychological empowerment in critical care nurses caring for adults at end of life. *American Journal of Critical Care, 22,* 143–151. doi: http://dx.doi.org/10.4037/ajcc2013437

Burston A.S., & Tuckett A.G. (2013). Moral distress in nursing: Contributing factors, outcomes and interventions. *Nursing Ethics, 3,* 312–324. doi:10.1177/0969733012462049

McLeod, A. (2014). Nurses' views of the causes of ethical dilemmas during treatment cessation in the ICU: A qualitative study. *British Journal of Neuroscience Nursing, 10*(2), 5. doi: http://dx.doi.org/10.12968/bjnn.2014.10.3.131

Shoorideh, F.A., Ashktorab, T., Yaghmaei, F., & Alavi, M.H. (2015). Relationship between ICU nurses' moral distress with burnout and anticipated turnover. *Nursing Ethics, 22*(1), 64–76. doi: 10.1177/0969733014534874

Whitehead, P.B., Herbertson, R.K., Hamric, A.B., Epstein, E.G., & Fisher, J.M. (2015). Distress among healthcare professionals: Report of an institution-wide survey. *Journal of Nursing Scholarship, 47,* 117–125. doi:10.1111/jnu.12115

Critical Care Visiting Guidelines

Tina Breckenridge, BN, RN, CNCC(C), and Adam Gagnon, BN, RN, CNCC(C), Bathhurst, New Brunswick

Key words: intensive care units, visitation, leadership, perceptions

The purpose of this project was to develop evidence-based guidelines for visiting within an adult intensive care unit (ICU). One of the most stressful times for families and nurses is when someone is admitted to the ICU. The need for both communication and close proximity is important to families. While nurses play a significant role in collaborating with families to meet their needs, few studies have explored strategies that might be incorporated into daily care to achieve family-centred care. As families want to be close to their loved one, nurses try to balance the complexity of care within this dynamic environment. Although families and nurses may have varying perceptions of visiting within the ICU, recent evidence suggests that families and nurses both see the patient as their priority. In order to enhance the collaboration between families and nurses, there is a need for nursing leadership and supportive resources within the adult ICU. First, a systematic literature review was conducted of studies that included key words of "intensive care unit", "families' perception", "nurses' perceptions", and "visitation". Next, a team of dedicated staff nurses who were leaders among their peers was assembled to assist with this project. A framework was selected to help guide our implementation of evidence-based practice in the clinical setting. Change is always a challenge. However, creating awareness and interest, building knowledge and commitment, promoting action and adoption, and pursuing integration and sustained use are effective strategies that were used in this project (Cullen & Adams, 2012). Finally, a collaborative action evaluation (CAE) framework will be used to evaluate the ongoing implementation of evidence-based practice within the ICU.

REFERENCES

Cullen, L., & Adams, S. L. (2012). Planning for implementation of evidence-based practice. Journal of Nursing Administration, 42, 222-230.

Farrell, M.E., Joseph, D.H., & Schwartz-Barcott, D. (2005). Visiting hours in the ICU: Finding the balance among patient, visitor and staff needs. *Nursing Forum, 40*(1), 18–28.

Fulton, J.S., Lyons, B.L., & Goudreau, K.A. (2014). *Foundations of clinical nurse specialist practice.* New York: NY.: Springer Publishing Company.

Hinkle, J.L., Fitzpatrick, E., & Oskrochi, R. (2009). Identifying the perception of needs of family members visiting and nurses working in the intensive care unit. *Journal of Neuroscience Nursing, 41*(2), 85–91.

Livesay, S., Gilliam, A., Mokracek, M., Sebastian, S., & Hickey, J.V. (2005). Nurses' perceptions of open visiting hours in neuroscience intensive care unit. *Journal of Nursing Care Quality, 20,* 182–189.

Mitchell, M., Chaboyer, W.K., Burmeister, E., & Foster, M. (2009). Positive effects of a nursing intervention on family-centered care in adult critical care. *American Journal of Critical Care, 18,* 543–552. doi:10.4037/ajcc2009226

Hearing Silent Voices: Augmentative Communication for Patients in Critical Care

Colleen Breen, BScN, RN, CNCCP(C), and Jane Houghton, RN, London Health Sciences Centre, London, Ontario

Key words: communication, patient care, family centred care

When patients are experiencing the most powerful, painful and personal moments in their lives, communication is often hindered by ventilation, medication, weakness, and treatment. Nurses witness the impact of patients' inability to share concerns, needs and emotions; often resulting in frustration, fear, and sadness. Often, medications are required to create a calmness that is conducive to patient treatment and healing. Nurses feel helpless and ineffective when they are unable to understand the needs of their patients and provide appropriate support. Improved patient communication leads to better quality of care, improved outcomes, and decreased morbidity and enhances job satisfaction for nurses. Technology enhances the physical care of patients and can provide communication methods to improve their emotional care, as well.

Based on lived experience, this interactive presentation describes and demonstrates an augmentative communication program for children in critical care, focusing on the benefits to patients, families, care providers, and health care organizations.

REFERENCES

Boyles, L.M., Tate, J.A., & Happ, M.B. (2012). Use of augmentative and assistive communication strategies by family members in the ICU. *American Journal of Critical Care, 21,* e21–e32. doi:10.4037/ajcc2012752

Costello, J.M., Patak, L., & Pritchard, J. (2010). Communication vulnerable patients in the paediatric ICU: Enhancing care through augmentative and alternative communication. *Journal of Paediatric Rehabilitation Medicine, 3,* 289–301. doi:10.3233/PRM-2010-0140

Hemsley, B., Balandin, S., & Worrall, L. (2011). Nursing the patient with complex communication needs: Time as a barrier and a facilitator to successful communication in hospital. *Journal of Advanced Nursing, 68,* 116–126. doi:10.1111/j.1365-2648.2011.05722.x

Karlsson, V., Forsberg, A., & Bergbom, I. (2012). Communication when patients are conscious during respirator treatment—A hermeneutic observation study. *Intensive Critical Care Nursing, 28,* 197–207. doi:10.1016/j.iccn.2011.12.007

Radtke, J.V., Baumann, B.M., Garrett, K.L., & Happ. M.B. (2011). Listening to the voiceless patient: Case reports in assisted communication in the intensive care unit. *Journal of Palliative Medicine, 14,* 791–795. doi:10.1089/jpm.2010.0313

Navigating the Transition of Critical Care to End-of-Life Care Using a Strengths-Based Nursing Approach

Annie Chevrier, MSc(A), RN, CMSN(C), Elaine Doucette, MScN, RN, Sophie Bastarache, BSc(N) student, Valerie Duff-Murdoch, BSc(N) student, Julie Marceau, BN (I) student, and Cecilia Marti, BN (I) student, McGill University Health Centre, Montréal, Québec

Key words: critical care, transitions, end-of-life, palliative care, families, strength-based approach

Nurses working in critical care environments are often challenged with the difficulty of transitioning patients and families from aggressive and curative treatments to a palliative, end-of-life focus. Current research addressing the role of nurses during this pivotal transition is sparse and reveals the need to explore the ways in which nurses can facilitate this emotional experience for families.

Nurses play a pivotal role in patient care, as they spend more time with patients and their families at the end of life than any other health care professional. As a result, critical care nurses are often confronted with the challenges of supporting patients and families through painful transitions, complicated ethical dilemmas, and the agonizing decision-making process surrounding this shift to a palliative approach to care. In an intensive care unit (ICU) setting there may be the perception that little can be done for patients receiving palliative care. However, palliative patients often have complex medical needs and are typically suffering from multiple disease processes. The goals of palliative care are meant to support the multidimensional needs of patients and family members before, during, and after death.

Using a strengths-based approach to care, which is collaborative and multidisciplinary and embodies values of holism, patient-centredness and the creation of a healing environment can be useful in the support of families experiencing the difficulty of accompanying a loved one at the end of life. And in so doing, it allows nurses to provide support and advocate for families in complicated and emotionally challenging situations.

The role of the nursing student is also important in helping patients and their families during this critical stage of their particular illness trajectory. The presenters will explore the complexities associated with these transitions and the impact on families through the lens of a strengths-based nursing (SBN) approach, and propose interventions

REFERENCES

Carnevale, F.A. (2009). A conceptual and moral analysis of suffering, *Nursing Ethics, 16,* 173–183. doi:10.1177/0969733008100076

Drazen, J.M. (2003). Decisions at the end of life. *New England Journal of Medicine, 349,* 1109–1110. doi:10.1056/NEJMp038146

Doucette, E., Brandys, D., Canapi, K.B., Davis, A., DiNardo, J., & Imame Djian, I. (2011). The intensive care unit as an untapped learning resource: A student perspective. *Dynamics, 22*(1), 19–23.

Fowler, R., & Hammer, M. (2013). End-of-life care in Canada. *Clinical & investigative medicine, 36,* 127–32. Retrieved from http://cimonline.ca/index.php/cim/article/view/19723

Gottlieb, N.L. (2013). *Strengths-Based Nursing Care: Health and healing for person and family.* New York, N.Y.: Pearson.

Stepping It Up: Transitioning to Proficient Critical Care Nurses, Does It Work?

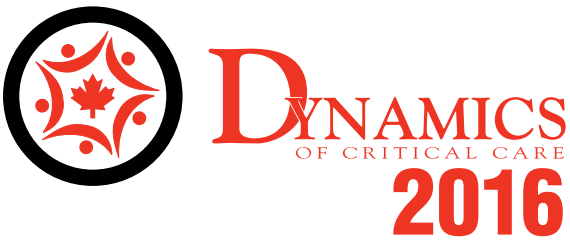
Ingrid Daley, MScN, RN, CNCC(C), and Elizabeth Gordon, BN, BEd, RN, University Health Network, Toronto, Ontario

Key words: learning, experiences, knowledge, step-up guidelines

Five years ago, the medical surgical intensive care unit (MSICU) at one of Canada's largest academic quaternary care centres developed formalized step-up guidelines (SUG), a tool outlining a novice to expert critical care pathway. The goal of the SUG is to provide novice critical care nurses with a guide to their learning and experiences. It is also a tool to aid patient assignments for novice critical care nurses during their first year of practice in the MSICU. The tool fosters optimal learning experiences for successful skill and knowledge acquisition structured around critical care competencies. This results in the development of confident and competent practitioners.

An evaluation of the SUG was conducted in the MSICU; surveying nurses from both the MSICU and the Critical Care Nursing Resource Team (NRT) to understand their experiences. The goal of this survey was to evaluate satisfaction with the tool.

ABSTRACTS



A total of 68 nurses were recruited from two ICU nursing cluster groups; 20 nurses from the NRT pool and 48 nurses from the MSICU. These critical care nurses started in the MSICU from January 2013 to October 2015.

The findings will assist in determining the need to re-evaluate the stages in the SUG. This evaluation will include learning trajectory, appropriate skill building, knowledge development, sustainability and adaptability across ICUs in our organization.

In this presentation, we will report our results of the evaluation and explore the future of the SUG for critical care nursing competency development.

REFERENCES

Currey, J., Oldland, E., Considine, J., Glanville, D., & Story, I. (2015). Evaluation of postgraduate critical care nursing students' attitudes to, and engagement with, Team-Based Learning: A descriptive study. *Intensive and Critical Care Nursing, 31,* 19–28.

Curry, J., Eustace, P., Oldland, E., Glanville, D., & Story, I. (2015). Developing professional attributes in critical care nurses using team-based learning. *Nurse Education in Practice, 15,* 5.

Gundrosen, S., Solligård, E., & Aadahl, P. (2014). Team competence among nurses in an intensive care unit: The feasibility of in situ simulation and assessing non-technical skills. *Intensive and Critical Care Nursing, 30,* 312–317.

Marzlin, K. (2011). Structuring continuing education to change practice. *Dimensions of Critical Care Nursing, 30,* 41–52.

Stewart, L.F., & Rae, A.M. (2012). Critical care nurses' understanding of the NHS Knowledge and Skills Framework. An Interpretative Phenomenological Analysis. *Nurs Crit Care Nursing in Critical Care, 18,* 23–31.

Tobin, B. (2007). Development of a postbasic critical care program for registered nurses: A collaborative venture between education and practice. *J Contin Educ Nurs The Journal of Continuing Education in Nursing, 38,* 258–261.

Pushing the Boundaries of Critical Care Nursing Education: The Experience of Operationalizing a Complex High-Fidelity Simulation

Sarah Desrosiers, BScN, RN, Lara Parker, MSN, RN, CNCC(C), Cecilia Baylon, MN, RN, CNCC, Robert Kruger, MEd, RN, CNCC(C), and Andrea Ford, MSN, RN, CNCC(C), British Columbia Institute of Technology, Surrey, British Columbia

Key words: high-fidelity simulation, education, complex scenarios

High-fidelity simulation is foundational to nursing students' educational experiences and for decreasing the theory to practice gap. High-fidelity simulation uses lifelike mannequins that simulate patients, including heart and lung sounds, and can have invasive hemodynamic lines attached and monitored. High-fidelity simulation creates a learning environment for students to advance their skills in comprehensive assessment, complex clinical decision-making, communication and performing skilled interventions prior to entering clinical practice.

High-fidelity simulators can be programmed to run simple patient scenarios, with minimal changes, to more complex scenarios that have multiple hemodynamic fluctuations. For example, simulating a deteriorating critically ill patient and potential side effects of student chosen interventions.

In our critical care program, we use simulation from basic scenarios to complex scenarios. These complex scenarios support students to make more complex clinical decisions and perform skilled interventions aligning with our program's learning intentions to solidify students' theory into practice, without the pressure of a real, deteriorating patient.

The process and experience of creating and running these advanced simulations has provided areas of growth and learning for both students and faculty. In this engaging presentation we would like to share what has been learned over the past 18 months of developing and delivering complex evolving simulations. We will discuss the processes and practice of our current advanced simulation and what the future might hold for our continued growth, as we continue preparing critical care nurses for the complex and acute nature of critically ill patients.

REFERENCE

Benner, P.E., Sutphen, M., Leonard, V., & Day, L. (2010) *Educating nurses: A call for radical transformation* (1st ed.). San Francisco, CA: Jossey-Bass.

Navigating the Challenges of Delirium Management in the PICU: A Nursing Student's Perspective in Providing a Strengths-Based Approach

Elaine Doucette, MScN, RN, Annie Chevrier, MScN, RN, Catherine Bigras, RN, Vanessa D'Aquila, BScN Student, Jodi Kalubi, BScN Student, Palmina Montenaro, BScN Student, and Teodora Riglea, BScN Student, McGill University Health Centre, Montréal, Québec

Key words: PICU, delirium, critical care nursing, pCAM-ICU, strengths based approach to family-centred care

Delirium is a phenomenon that occurs in all critical care settings, including pediatric intensive care units (PICU). One in three children admitted to the PICU will experience signs and symptoms comparable to adults experiencing delirium. A diagnosis of delirium in the PICU is significant, related to the fact that children diagnosed with this disorder have increased morbidity and mortality rate.

Screening and assessing for delirium in adult intensive care settings are part of established best practices. However, in the PICU settings this practice is not widely seen as part of usual care. The Paediatric Confusion Assessment Method (pCAM-ICU) is a valid and reliable tool to diagnose this syndrome in critically ill children. The inability to systematically recognize, screen, and assess for delirium is often due to a lack of understanding of the clinical significance of this diagnosis, and the necessary interventions that are required for treatment.

Health care professionals with limited experience with this condition may perceive the subtle, early symptoms of pediatric delirium to be behavioural changes associated with hospitalization. Symptoms of pediatric delirium can be unexpected and frightening for the family, especially if it has not been encountered before, or if the parents have not been informed or prepared for this possible development. Therefore, education about the early recognition and treatment of pediatric delirium in the PICU is crucial. With a strengths-based nursing approach to care, we can more adequately address the stress that pediatric delirium can cause to the patient and their families. Our goal is to propose evidence-based nursing interventions that are strengths-based and family-centred in order to properly assess, intervene, and prevent the incidence of delirium in the pediatric critical care setting.

REFERENCES

American Thoracic Society. (2008, May 1). Haunted by hallucinations: Children in the pediatric ICU traumatized by delusions. *Science Daily.* Retrieved from www.sciencedaily.com/releases/2008/05/080501062745.htm

Chestnut, M.H., & Smith, H.A.B. (2013). *Pediatric delirium.* Retrieved from http://www.icudelirium.org/pediatric.html

Gottlieb, L.N. (2013). *Strengths-based nursing care: Health and healing for person and family.* New York: Springer Pub.

Smith, H.A., Boyd, J., Fuchs, D.C., Melvin, K., Berry, P., Ayumi, S., … Ely, E.W. (2011). Diagnosing delirium in critically ill children: Validity and reliability of the pediatric confusion assessment method for the intensive care unit. *Critical Care Medicine, 39,* 150–157. doi:10.1097/CCM.0b013e3181feb489

Smith, H.A., Fuchs, D.C., Pandharipande, P.P., Barr, F.E., & Ely, E.W. (2009). Delirium: An emerging frontier in the management of critically ill children. *Critical Care Clinics, 25*(3), 593–614. doi:http://doi.org/10.1016/j.ccc.2009.05.002

The Role of Technology in Enhancing a Family-Centred Approach to Care

Elaine Doucette, MScN,RN, Annie Chevrier, MScN, RN, Gianni Santella, BScN Student, William De Luca, BScN Student, Amir Albahouth, BScN Student, and Yi (Karen) Wang, BScN Student, McGill University, Montréal, Québec

Key words: communication, family, technology, ICU

Families of patients admitted to the intensive care unit often experience high levels of stress and uncertainty, which can be exacerbated by poor communication, unclear information about patient status, and a lack of guidance and support. Harnessing the power of modern communication technologies using smart phone and tablet applications is a new and exciting area of development within critical care settings. These devices have been shown to help alleviate the communication gaps between families and caregivers by allowing family members to express concerns, and have more timely access to information regarding their loved ones. Critical care settings are distinct in that the nurse is the main source for the psychosocial and informational support that families so often require during a critical illness. Implementing alternative methods of communication with the family may be an innovative approach to providing timely information to family members. Harnessing the power of modern communication technologies is a new and exciting area of development within critical care settings. Accessibility to resources such as a downloadable smartphone or tablet application can enhance the flow of communication between the family members and the health care professionals.

The goal of this presentation is to demonstrate some of the technological alternatives that can improve communication and promote a strengths-based approach to care that can, ultimately, enhance the patient-family experience in these settings.

REFERENCES

Boulos, M., Wheeler, S., Jones, R., & Tavares, C. (2011). How smart phones are changing the face of mobile and participatory healthcare: An overview, with example from eCAALYX. *Biomedical Engineering Online, 10,* 1–14.

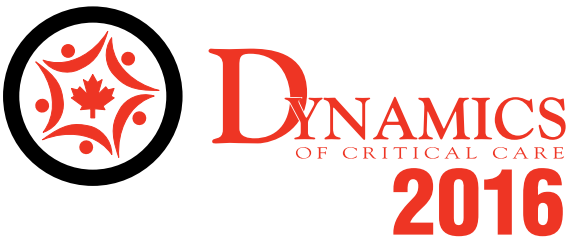
Dingley, C., Daugherty,K., Derieg, M.K., & Persing, R. (n.d.). Improving patient safety through provider communication strategy enhancements. In: Henriksen,K., Battles, J.B., Keyes, M.B., & Grady, M.L. *Advances in patient safety: New directions and alternative approaches* (Vol. 3: Performance and Tools). Rockville (MD): Agency for Healthcare Research and Quality (US); 2008 Aug. Retrieved from: http://www.ncbi.nlm.nih.gov/books/NBK43663/

Gaddi, A., Capello, F., & Manca, M. (2014). *Ehealth, care and quality of life.* Italia: Springer-Verlag.

Gordon, J.E., Deland, E., & Kelly, R.E. (2015). Let's talk about improving communication in healthcare. *Columbia Medical Review, 1,* 23–27. doi:10.7916/D8RF5T5D

Gottlieb, L. (2013). *Strengths-based nursing care: Health and healing for person and family.* New York: Springer Pub.

ABSTRACTS



Cardiac Critical Care in Developing Nations: Improvise, Innovate, Empower

Kate Earley, BScN, RN, London Health Sciences Centre, London, Ontario

Key words: cardiac surgery, international nursing, humanitarian relief, cardiac critical care nursing

This presentation will illustrate the profound contrasts and surprising similarities that exist between nursing in North America and nursing in some of the most perilous and impoverished countries in the world. Leadership, adaptation and resilience are both tested and developed when working in unfamiliar environments. These skills and experiences have extensive benefits for patients, nurses, and organizations in Canada and beyond. Through video footage, personal narrative, and interactive discussion, this informative and thought-provoking presentation will appeal to those interested in global health, nursing opportunities abroad, and lessons learned from critical care nursing in some of the most challenging and inspiring countries in the world.

REFERENCES

Bernier, P., Stefanescu, A., Samoukovic, G., & Tchervenkov, G.I. (2010). The challenge of congenital heart disease worldwide: Epidemiologic and demographic facts. *Seminars in Thoracic and Cardiac Surgery: Pediatric Cardiac Surgery Annual, 13*(1), 2634.

Dearani, J.A., Neirotti, R., Kohnke, E.J., Sinha, K.K., Cabalka, A.K., Barnes, R.D., … Cushing, J.C. (2010). Improving pediatric cardiac surgical care in developing countries: Matching resources to needs. *Seminars in Thoracic and Cardiovascular Surgery: Pediatric Cardiac Surgery Annual, 13*(1), 35–43.

Rao, S. (2007). Pediatric cardiac surgery in developing countries. *Pediatric Cardiology, 29*(2), 144–148.

Physician-Assisted Death and Conscientious Objection: Implications for Critical Care Nurses

Marie Edwards, PhD, RN, University of Manitoba, Winnipeg, Manitoba

Key words: physician-assisted death, conscientious objection, law, ethics

As a result of the landmark 2015 Supreme Court of Canada decision in Carter v. Canada (Attorney General), revisions to the federal Criminal Code and a legislative framework for physician-assisted death (PAD) are anticipated in Canada by June 2016. The Supreme Court of Canada recognized that participation in PAD is a matter of conscience for physicians and identified that, as legislators and regulators develop laws, practice guidelines, and policies, there is a need to reconcile the rights of both patients and physicians in relation to PAD. The same can be said for other health care providers, including critical care nurses, asked to assume roles in the process of PAD. In this presentation, the law related to PAD in Canada will be examined, with a particular focus on the balancing of patients' right to request PAD when certain criteria are met and health care providers' right to declare a conflict of conscience. The critical care experience with PAD in jurisdictions where euthanasia or assisted suicide is legal (e.g., Belgium, the Netherlands) will be explored, with attention paid to nurses' roles in the process and the approach taken to conscientious objection in those countries. Finally, the guidance provided to nurses regarding PAD and conscientious objection by federal and provincial legislation, the Canadian Nurses Association Code of Ethics for Registered Nurses, and nurses' regulatory bodies in Canada will be discussed.

REFERENCES

Canadian Nurses Association. (2008). *Code of ethics for registered nurses.* Retrieved from https://www.cna-aiic.ca/~/media/cna/files/en/codeofethics.pdf

Carter v. Canada (Attorney General), Supreme Court of Canada. (2015). Retrieved from https://scc-csc.lexum.com/scc-csc/scc-csc/en/item/14637/index.do

Landry, J., Foreman, T., & Kekewich, M. (2015). Ethical considerations in the regulation of euthanasia and physician-assisted death in Canada. *Health Policy, 119,* 1490–1498. doi:10.1016/j.healthpol.2015.10.002

Shaw, J., & Downie, J. (2014). Welcome to the wild, wild north: Conscientious objection policies governing Canada's medical, nursing, pharmacy, and dental professions. *Bioethics, 28*(1), 33–6. doi:10.1111/bioe.12057

Family Presence in the Adult Intensive Care Unit During Daily Rounds Discussions: Riding the Waves of Change!

Basil Evan, BN, BA, RN, Jodi Walker-Tweed, MHS, BN, RN, Bojan Paunovic, MD, FRCPC, Kendiss Olafson, MD, FRCPC, MPH, and Dave Easton, MD, FRCPC, Winnipeg Regional Health Authority, Winnipeg, Manitoba

Key words: collaboration, communication, culture change, engagement, experience of care

Several professional associations and health care organizations including the Canadian Association of Critical Care Nurses support the presence and participation of family members in the intensive care unit (ICU). Cultural change, however, is a dynamic process and supporting family presence in the ICU poses several challenges for the critical care team. In 2014, the outcomes improvement team (OIT) tasked eight Critical Care Quality Circles with implementing family presence during daily rounds discussions. Team members were encouraged to develop site-/unit-specific best practices that would promote unrestricted visitation hours in the ICU. These fundamental changes in practice led towards a paradigm shift in how critical care teams communicate with families. Positive feedback replaced initial staff resistance and families who were previously asked to leave the ICU during daily rounds are currently informed that it is okay to remain at bedside. In addition, team members are more comfortable with family presence and some units have begun inviting families to participate in rounds discussions.

Family satisfaction surveys performed prior to and after the implementation of family presence in the ICU supported the proposition that family presence can improve communication with the health care team and may also improve specific elements of satisfaction with care. Qualitative analysis of the results provided insight into the two areas that families reported they valued the most; access to their loved ones in ICU and good communication with members of the critical care team. Although overall scores using the Family Satisfaction (FS-24) tool improved from 84% to 86%, further education and future research aimed at better understanding the family's role in the ICU is required. In this presentation, participants will explore a variety of best practices that were developed to promote family presence in the ICU, encourage stakeholder engagement and improve the patient/family experience of care.

REFERENCES

Berwick, D. & Kotagal, M. (2004). Restricted visiting hours in ICUs: Time to change. *Journal of the American Medical Association, 292,* 736–737.

Canadian Association of Critical Care Nurses. (2005). Position Statement: Family Presence During Resuscitation. *Dynamics, 16*(4), 8–9. Retrieved from http://dev.caccn.ca/en/publications/position_statements/family_presence_during_resuscitation_2005.html

Giannini, A., Garrouste-Orgeas, M., & Latour, J.M. (2014). What's new in ICU visiting policies: Can we continue to keep the doors closed? *Intensive Care Medicine, 40,* 730–733.

Jacobowski, N.L., Girard, T.D., Mulder, J.A., Ely, E.W. (2010). Communication in critical care: Family rounds in the intensive care unit. *American Journal of Critical Care, 19,* 421–430.

Muething, S.E., Kotagal, U.R., Schoettker, P.J., Gonzalez del Rey, J., & DeWitt, T.G. (2007). Family-centred bedside rounds: A new approach to patient care and teaching. *Pediatrics, 119,* 829–832.

Coping with Moral Distress in Critical Care Nursing

Dana Forozeiya, BScN, RN, University of Ottawa, Ottawa, Ontario

Key words: moral distress, coping, critical care nursing

Moral distress is a significant issue in critical care nursing that hinders the provision of quality patient care. It arises when individuals perceive that they are constrained from pursuing what is ethically correct. Moral distress is problematic, as it can cause nurses to experience negative emotions (such as anger, sadness, frustration, and guilt) and influences them to leave positions and, in some circumstances, even the profession (Gutierrez, 2005). It has also been noted to negatively influence patient care, as it can cause nurses to avoid patients and/or their families, emotionally withdraw from them, and minimize interactions with them (Gutierrez, 2005).

Moral distress frequently affects nurses employed within the intensive care unit due to circumstances where life-sustaining therapies are implemented that are perceived to prolong a patient's suffering and death (King & Thomas, 2013). Critical care nurses can also experience it due to conflicts with physicians, conflicts with institutional policies, unsafe/inadequate staffing, and inappropriate use of health care resources (Gutierrez, 2005).

Though sources of moral distress have been well researched within the nursing discipline, there is seldom focus on how critical care nurses cope with it. Studies that have explored this phenomenon have revealed that critical care nurses often use evasive coping strategies to physically and mentally distance themselves from sources of moral distress (Gutierrez, 2005; McClendon & Buckner, 2007). This presentation will reference Lazarus and Folkman's (1984) stress and coping theory to explore how critical care nurses can use proactive strategies such as seeking social support, accepting responsibility, planful problem-solving, and positive reappraisal to cope with their moral distress.

REFERENCES

Epstein, E.G., & Hamric, A.B. (2009). Moral distress, moral residue, and the crescendo effect. *The Journal of Clinical Ethics, 20,* 330–342.

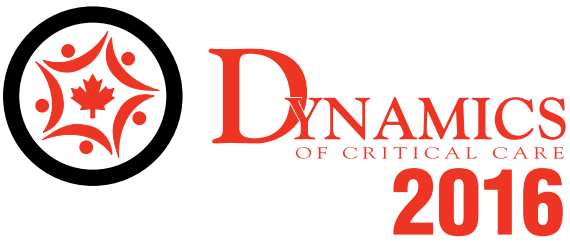
Gutierrez, K. (2005). Critical care nurses' perceptions of and responses to moral distress. *Dimensions of Critical Care Nursing, 24,* 229–41. doi:10.1097/00003465-200509000-00011

King, P., & Thomas, S. (2013). Phenomenological study of ICU nurses' experiences caring for dying patients. *Western Journal of Nursing Research, 35,* 1292–308. doi:10.0193945913492571

Lazarus, R.S., & Folkman, S. (1984). *Stress, appraisal, and coping.* New York, NY: Springer.

McClendon, H., & Buckner, E. (2007). Distressing situations in the intensive care unit: A descriptive study of nurses' responses. *Dimensions of Critical Care Nursing, 26,* 199–206. doi:10.1097/01.DCC.0000286824.11861.74

ABSTRACTS



Frailty in Critical Care: Understanding Risks, Identifying Patients, and Examining Implications for Current Clinical Practices

Jennifer A. Gibson, MSN, RN, CCN(C), Providence Health Authority, Vancouver, British Columbia

Key words: frailty, older adults, end-of-life

Understanding frailty is essential for the delivery of excellent care to older adults in critical care. Frailty is a complex state of impairment that results from multisystem physiologic and cognitive losses. Affecting up to 40% of patients admitted to intensive care, frail patients experience an increased risk of adverse outcomes when exposed to stressors such as illness and hospitalization compared to people the same age. Such adverse outcomes can be severe and include a higher likelihood of procedural complications, delirium, significant functional decline and disability, prolonged length of stay, extended recovery periods, and death.

Frailty prevalence rises with age. In Canada, frailty affects approximately half of people older than 85. As our population ages, frailty in critical care will become increasingly common. All health care professionals involved in direct clinical practice and leadership of critical care environments need to understand how to identify frailty and be familiar with related clinical practice implications. Such knowledge underpins effective organization and delivery of patient-centred care strategies that may be implemented to minimize harm and maximize favourable outcomes for frail older adults and their families.

Drawing from recent literature that has examined frailty in critical care, this session will highlight risks associated with frailty in critically ill populations and provide an overview of commonly used approaches to identify frailty including the frailty phenotype, Clinical Frailty Scale, Frailty Index, and single-item physical tests. Relationships between frailty and end of life will be discussed and related to practice recommendations including early clarification of treatment goals and care planning. Practices that may maximize outcomes, such as minimization of sedation, delirium screening and prevention, and early physical rehabilitation, will also be explained.

REFERENCES

Afilalo, J., Alexander, K.P., Mack, M.J., Maurer, M.S., Green, P., Allen, L.A., … Forman, D.E. (2014). Frailty assessment in the cardiovascular care of older adults. *Journal of the American College of Cardiology, 63,* 747–762. doi:10.1016/j.jacc.2013.09.070

Bagshaw, S.M., Stelfox, H.T., Mcdermid, R.C., Rolfson, D.B., Tsuyuki, R.T., Baig, N., … Majumdar, S.R. (2013). Association between frailty and short- and long-term outcomes among critically ill patients: A multicentre prospective cohort study. *Canadian Medical Association Journal, 186*(2). doi:10.1503/cmaj.130639

Le Maguet, P., Roquilly, A., Lasocki, S., Asehnoune, K., Carise, E., Saint Martin, M., … Seguin, P. (2014). Prevalence and impact of frailty on mortality in elderly ICU patients: A prospective, multicenter, observational study. *Intensive Care Medicine, 40,* 674–682. doi:10.1007/s00134-014-3253-4

McDermid, R., & Bagshaw, S. (2014). Scratching the surface: The burden of frailty in critical care. *Intensive Care Medicine, 40,* 740–742. doi:10.1007/s00134-014-3246-3

van Kan, G.A., Rolland, Y., Houles, M., Gillette-Guyonnet, S., Soto, M., & Vellas, B. (2010). The assessment of frailty in older adults. *Clinics in Geriatric Medicine, 26,* 275–286. doi:10.1016/j.cger.2010.02.002

2015 ACLS Guidelines: What's New?

Sandra Goldsworthy, PhD, MSc, RN, CNCC(C), CMSN(C), University of Calgary, Calgary, Alberta

Key words: ACLS, guidelines, clinical practice

The guidelines for Advanced Cardiac Life Support (ACLS) have recently been updated based on the current state of resuscitation science. This presentation is aimed at outlining the new changes in the guidelines, the rationale for these changes and how they will impact practice for critical care nurses. New and emerging research in the area of adult resuscitation will be discussed. In addition, tips and resources for instructors will be included in the presentation.

REFERENCES

Kleinman, M.E., Brennan, E.E., Goldberger, Z.D., Swor, R.A., Terry, M., Bobrow, B.J., … Rea, T. (2015). Part 5: Adult Basic Life Support and Cardiopulmonary Resuscitation Quality. *Circulation, 132*(18, Suppl. 2).

Link, M.S., Berkow, L.C., Kudenchuk, P.J., Halperin, H.R., Hess, E.P., Moitra, V.K., … Donnino, M.W. (2015). Part 7: Adult Advanced Cardiovascular Life Support. *Circulation, 132*(18, Suppl. 2). doi:10.1161/CIR.0000000000000259

Neumar, R.W., Shuster, M., Callaway, C.W., Gent, L.M., Atkins, D.L., Bhanji, F., … Hazinski, M.F. (2015). Part 1: Executive Summary. *Circulation, 132*(18, Suppl. 2). doi:10.1161/CIR.0000000000000259.

How Healthy is Your Work Environment?

Sandra Goldsworthy, PhD, MSc, RN, CNCC(C), CMSN(C), University of Calgary, Calgary, Alberta

Key words: critical care, nurse work environments, recruitment and retention

How healthy is your work environment? This interactive presentation is aimed at discussing the current state of critical care nursing work environments in Canada and globally. Current literature will be explored and results from a doctoral study among Canadian nurses will be presented. Challenges and opportunities in changing the environment we work in will be discussed. Improving work environment conditions will help stabilize the critical care nurse workforce across Canada. Global innovations will be shared along with potential solutions for future consideration.

REFERENCES

Aiken, L., Sloane, D., Bruyneel, L., VandenHeede, K., & Sermeus, W. (2013). Nurses' reports of working conditions and hospital quality of care in 12 countries in Europe. *International Journal of Nursing Studies, 50,* 143–153. doi:10.1016/j.ijnurstu.2012.11.009

Cowden, T., & Cummings, G. (2014). Testing a theoretical model of clinical nurses' intent to stay. *Health Care Management Review,* epub. doi:10.1097/HMR.0000000000000008

Duffield, C., Roche, M., Blay, N., & Stasa, H. (2011). Nursing unit managers, staff retention and the work environment. *Journal of Clinical Nursing, 20*(1–2), 23–33.

Heinen, M., van Achterberg, L., Schwendimann, R., Zander, B., Matthews, A., Kozka, M., … Schoonhoven, T. (2013). Nurses' intention to leave their profession: A cross sectional observational study in 10 European countries. *International Journal of Nursing Studies, 50,* 174–184. http://dx.doi.org/10.1016/j.ijnurstu.2012.09.019

O'Brien-Pallas, L., Tomblin-Murphy, G., Shamian, J., Li., X., & Hayes, L. (2010). Impact and determinants of nurse turnover: A pan-Canadian study. *The Journal of Nursing Management, 18,* 1073–1076.

The Influence of Professional Development on Intent to Stay Among Critical Care Nurses

Sandra Goldsworthy, PhD, MSc, RN, CNCC(C), CMSN(C), University of Calgary, Calgary, Alberta

Key words: nurse retention, work environment, professional development

The intensive care unit has the highest turnover rates among nurses in the country. Factors affecting nurse turnover include nurse manager leadership ability, work environment, the availability of professional development opportunities, nurse-physician collaboration, feeling valued and recognized and workload. Results of a doctoral study that examined the influence of professional development opportunities on intent to stay among critical care nurses will be presented, along with their implications for nurses, managers, educators and policy.

REFERENCES

Cant, R., & Cooper, S. (2010). Simulation-based learning in nurse education: Systematic review. *Journal of Advanced Nursing, 66*(1), 3–15.doi:10.1111/j.1365-2648.2009.05240.x

Cowden, T., & Cummings, G. (2012). Nursing theory and concept development: A theoretical model of clinical nurses' intentions to stay in their current positions. *Journal of Advanced Nursing, 68,* 1646–1657. doi:10.1111/j.1365-2648.2011.05927.x

Cowden, T., & Cummings, G. (2014). Testing a theoretical model of clinical nurses' intent to stay. *Health Care Management Review,* epub. doi:10.1097/HMR.0000000000000008

Goldsworthy, S., & Graham, L. (2013). *Simulation simplified: A handbook for nurse educators.* Philadelphia, PA: Lippincott..

O'Brien-Pallas, L., Tomblin-Murphy, G., Shamian, J., Li., X., & Hayes, L. (2010). Impact and determinants of nurse turnover: A pan-Canadian study. *The Journal of Nursing Management, 18,* 1073–1076.

Lightening Up and Spreading It Around: A Successful Implementation of the ABCDE Bundle Using Change Management and Lean Strategies

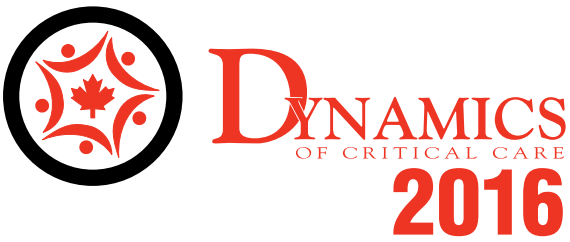
Sarah Grin, MN, RN, CNCC(C), Melanie Gillison, RPh, BScPhm, ACPR, Lorna McLellan, BScN, RN, CNCC (C), Mary Miller-Lynch, RN, Laura Ocolisan, BNSc, RN, and Amber Wagler, BScN, RN, St. Mary's General Hospital, Kitchener, Ontario

Key words: sedation, delirium, change management, lean methodology, culture

Background: The Society for Critical Care Medicine published guidelines in 2013 for pain, agitation and delirium. A preliminary survey of a 14-bed medical-surgical intensive and cardiac care unit showed cyclical sedation, infrequent sedation awakenings and no systematic delirium assessment. Given the immense impact of delirium on patients, families, and the health care system, this standard of care was not sustainable as the norm.

Project: In 2014–15, using the ABCDE framework, the clinical team implemented elements of the guidelines. To ensure integration into daily unit operations, various stakeholders were involved. We created a simple framework to assess and manage complex patients that optimized the skills of the entire clinical team. While successful implementation is a source of pride for the unit, there were challenges that needed to be addressed, such as questions of safety, and a steep learning curve of using the Lean management strategies.

Results: Through pre and post chart audits and daily tracking, we recognize improvements. Physician prescribing practice is now directed by scales and the use of benzodiazepine infusions has almost been eliminated. The total time patients receive sedation and/or analgesia has decreased by 17%. Average patient time on propofol was 3.1d and fentanyl was 6.4d.



Propofol infusion duration has decreased by 22% while fentanyl increased by 28%. Initial treatment of pain has improved, with evidence of bolus dosing and optimizing fentanyl infusions. On average, fentanyl infusions continue for almost three days longer than propofol.

Nurses are consistently using pain, agitation and assessment scales. With a nurse driven protocol, sedation awakening trials are being completed 80% of the time versus 46% previously. Average ventilator days per patient are also trending lower.

Integrating new practices can be overwhelming despite a team approach. The bundle is a work-in progress, a transformative change to our practice of caring.

REFERENCES

American Association of Critical Care Nurses. (2013). *Assessing pain in the critically ill adult.* Retrieved from http://www.aacn.org/wd/practice/docs/practicealerts/assessing-pain-critically-ill-adult.pdf

Barr, J., Fraser, G., Puntillo, K., Ely, W., Gélinas, C., Dasta, J., … Sessler, C. (2013). Clinical practice guidelines for the management of pain, agitation, and delirium in adult patients in the intensive care unit. *Critical Care Medicine, 41,* 263–306.

Nebraska Medical Centre. (2011). *Clinical protocol for awakening and breathing coordination, delirium monitoring/management and early mobility ABCDE bundle.* Retrieved from http://www.icudelirium.org/docs/ABCDEF_protocol.pdf

Vanderbilt University Medical Centre. (2013). *ICU delirium and cognitive impairment study group.* Retrieved from http://icudelirium.org/medicalprofessionals.html

Expanding the Donor Pool: Increasing Lung Transplantation through Ex-Vivo Lung Perfusion

Diana Heng, BScN, RN, Toronto General Hospital, Toronto, Ontario

Despite the high demand, about 80% of donor lungs are rejected because they are not suitable for transplantation. Many lungs are considered unusable because of the injury that occurs with brain death and intensive care unit (ICU) complications, such as barotrauma, lung edema, aspirations, and pneumonia. This is what led to the development of ex-vivo lung perfusion. With all of the solid organs, typically they are retrieved, put on ice and transported to the transplanting facility. By putting lungs on ice, it prevents cell death. It slows down the dying process by stopping all cell metabolism from occurring and this method has been widely accepted for preserving organ viability. But this strategy is non-selective, so vital enzymes and cell processes also stop working, which leads to cell edema and injury. By putting organs on ice, health care teams are essentially racing against time because the organ is dying and we are just slowing the dying process with the ice. The organ needs to get into a human body so it can be perfused. But ex-vivo lung perfusion is different because it allows lungs to be kept at normal body temperature, just like they would be in a human body. They can stay in this sterile bubble for hours and, in this time, we are able to see how the lung functions and if it can improve. So, with this technology, lungs that are questionable, lungs that normally would never be transplanted, such as those from cardiac death, can be taken and assessed for a few hours to see if they are any good instead of rejecting them right away. This technology also allows the re-expansion of areas that have collapsed, clearing of secretions, the sampling of blood gases, etc. Current research is looking at ways to heal lungs after aspiration, treating infections with high-dose antibiotics, using gene therapy to alter lungs, and regenerating gas exchange tissue—all prior to the lungs being transplanted into a recipient.

REFERENCES

Cypel, M., & Keshavjee, S. (2015). Extending the donor pool: Rehabilitation of poor organs. *Thoracic Surgery Clinics, 25,* 27–33. doi:10.1016/j.thorsurg.2014.09.002

Cypel, M., Yeung, J., Liu, M., Anraku, M., Chen, F., Karolak, W., … Keshavjee, S. (2011). Normothermic ex vivo lung perfusion in clinical transplantation. *New England Journal of Medicine, 364,* 1431–1440.

Machuca, T., Cypel, M., & Keshavjee, S. (2013). Advances in lung preservation. *Surgical Clinics of North America, 93,* 1373–1194.

Improving Interdisciplinary Delirium Management in the ICU: Riding the Waves of Change

Sharon Hickin, BSc, RN, CNCC(C), and Sandy White, BSN, RN, Fraser Health, Surrey, British Columbia

Key words: delirium, ICU, interdisciplinary management

Delirium is a frequent complication experienced by patients in the intensive care unit (ICU). Untreated, it significantly impacts patient morbidity and mortality, families, the health care system, and society. Even with accelerating research on delirium in critical care, it remains poorly understood and managed. The link between delirium and patient morbidity/mortality led the Society of Critical Care Medicine to update its clinical practice guidelines for pain, agitation, and delirium (PAD). The guidelines highlight the importance of an interdisciplinary approach. Royal Columbian Hospital's interdisciplinary team implemented a long-term quality improvement initiative within its mixed ICU to create and implement a cohesive patient delirium mitigation strategy. A dual pronged approach involving the development of an interdisciplinary Clinical Practice Guideline (CPG) and delivery of a delirium education program including

use of the Intensive Care Delirium Screening Checklist (ICDSC) was used. The multifaceted delirium education approach, initially nursing focused, reintroduced the ICDSC, disseminated current delirium knowledge and supported the adoption of non-pharmacological management interventions. The team experienced many "a ha" moments along the way influencing the direction of the initiative. Success was assessed using three questionnaires administered at pre, post and long-term follow-up periods along with data from the provincial Critical Care Database. The team observed an initial improvement in both knowledge and screening frequency, with a subsequent decline in knowledge retention. However, screening frequency has continued to improve over time with greater acceptance and improved regard for the ICDSC. The observed knowledge retention decline has highlighted the need for regular review of the significance of delirium and its sequelae. It also highlighted the need to engage new team members to maintain enthusiasm and project momentum.

REFERENCES

Barr, J., Fraser, J., Puntillo, K., Ely, E., Gélinas, C., Dasta, J., … Jaeschke, R. (2013). Clinical practice guidelines for the management of pain, agitation, and delirium in adult patients in the intensive care unit. *Critical Care Medicine, 41*(1), 263–306.

Brummel, N., Vasilevskis, E., Han, J., Boehm, L., Pun, B., & Ely, E. (2013). Implementing delirium screening in the ICU: Secrets to success. *Critical Care Medicine, 41*(9), 2196–2208.

Gesin, G., Russell, B., Lin, A., Evans, S., & Devlin, J. (2012). Impact of a delirium screening tool and multifaceted education on nurses' knowledge of delirium and ability to evaluate it correctly. *American Journal of Critical Care, 21*(1), e1–e11.

Law, T., Leistikow, N., Hoofring, L., Krumm, S., Neufeld, K., & Needham, D. (2012). A survey of nurses' perceptions of the intensive care delirium screening checklist. *Dynamics: Journal of the Canadian Association of Critical Care Nurses, 23*(4), 18–24.

Pandharipande, P., Girard, T., Jackson, J., Morandi, A., Thompson, J., Pun, B., … Ely, E. (2013). Long-term cognitive impairment after critical illness. *New England Journal of Medicine, 369,* 1306–1316.

Simulation by Distance: Leading the Waves of Change in Critical Care Education

Michelle House-Kokan, MSN, RN, CNCC(C), and Rob Kruger, MEd, RN, CNCC(C), British Columbia Institute of Technology, Burnaby, British Columbia

Key words: distance education, simulation, clinical decision making

High-fidelity simulation is a significant component of teaching and learning in both academic and clinical contexts within critical care programs. Designed to expose novice critical care nurses to the intensive care environment and prepare them to manage acute situations independently, simulation provides an active learning environment for students to experience authentic situations and develop and practise critical thinking, clinical decision-making, and clinical judgment. It is well-documented that didactic knowledge used during simulation is retained for a longer period of time than knowledge gained through lecture format, especially when debriefing with faculty is incorporated as a component of the simulation experience. As well, student self-confidence, competency, and satisfaction with learning are increased when simulation is used. However, it is challenging to provide quality simulation experiences outside the context of a physical teaching and learning centre, such as a college or hospital. While our onsite facilities allow us to offer high-fidelity simulation for students who can travel to campus, we were challenged to provide the same experience for distance students, in a way that was fiscally possible and educationally sound.

In this presentation, we will share how we have developed a non-high-fidelity, distance simulation learning experience specifically for distance students that uses videos, iPads, and principles of debriefing to develop critical thinking, clinical decision-making, and clinical judgment. Participants will be invited to explore the simulation experience, and consider how it may be used in their work environment. We will also share our iterative process for future development towards virtualized simulation, as well as the capacity building necessary for teaching in this type of simulation.

REFERENCES

Dreifuerst, K.T. (2009). The essentials of debriefing in simulation learning: A concept analysis. *Nursing Education Perspectives, 30,* 109–114.

Forneris, S.G. (2015). Enhancing clinical reasoning through simulation debriefing: A multisite study. *Nursing Education Perspectives, 36,* 304–310. doi:10.5480/15-1672

Fuszard, R. (1995). *Innovative teaching strategies in nursing* (2nd ed). Gaithesburg, MD: Aspen.

Jeffries, P. (2005). A framework for designing, implementing and evaluating simulations used as teaching strategies in nursing. *Nursing Education Perspectives, 26,* 96–103.

Stefanski, R.R., & Rossler, K.L. (2009). Preparing the novice critical care nurse: A community wide collaboration using the benefits of simulation. *The Journal of Continuing Education in Nursing, 40,* 443–453.

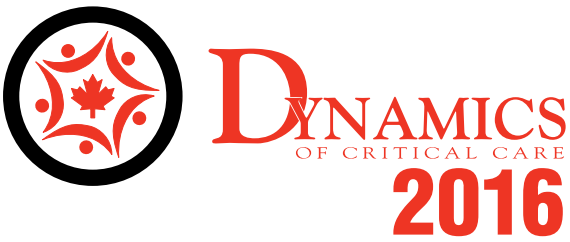
Why Is It Always Beeping? Smart Pump Alarms: An Interactive Experience on Why and When They Occur

Timothy Kavanagh, BScN, RN, CRNI, and Jennifer Lehr, BA, RN, BBraun of Canada, Montréal, Québec

Key words: alerts, alarms, alert reduction, alarm reduction, infusion pumps

Reducing alarms and associated fatigue is a priority based on the Joint Commission's 2016 National Patient Safety Goals. Participants will take part in a question-and-answer game show regarding infusion pump alarms and why they are a patient safety priority. Based on information collected from more than 25 hospitals and greater than 10,000 infusion pumps, participants will learn which infusion therapies are associated with the greatest number of alarms in the ICU.

ABSTRACTS



REFERENCES

ECRI Institute. (2014). *Top 10 health technology hazards for 2015.* Retrieved from www.ecri.org/press/Pages/ECRI-Institute-AnnouncesTop-10-Health-Technology- Hazards-for-2015.aspx

Joint Commission. (2013). *Joint Commission announces 2014 National Patient Safety Goal.* Retrieved from www.jointcommission.org/assets/1/18/jcp0713_announce_new_npsg.pdf

Joint Commission. (2013). *Sentinel event alert: medical device alarm safety in hospitals.* Retrieved from www.jointcommission.org/assets/1/18/sea_50_alarms_4_5_13_final1.Pdf

Sowan A.K., Tarriela, A.F., Gomez, T.M., Reed, C.C., & Rapp, K.M. Nurses' perceptions and practises toward clinical alarms in a transplant cardiac intensive care unit: Exploring key issues leading to alarm fatigue. *Journal of Medical Internet Research Human Factors, 2*(1), e3.

Defragmenting Care: Nurse-Led, Multidisciplinary Team Approach to Transitions of Care in Complex Intensive Care Unit Patients

Kelly Lehmann, RN, and Michael Metzger, MN, RN, ACCN, Red Deer Regional Hospital, Red Deer, Alberta

Key words: collaborative communication with family, patient and health care team

Fragmentation of care in managing a long-term, complex patient in the intensive care unit (ICU) presents a challenge to the patient, family, and the health care team. Care becomes more challenging in transitions of care between care areas and handover from shift to shift. A coordinated multidisciplinary approach led by a nurse case manager is the best practice for involving the family and patient in care and for moving the patient successfully through the continuum of the health care system. This level of consistent involvement and communication with patient and family reduces their anxiety and helps to make transitions successful.

Collaborative communication is the cornerstone of optimizing care and a smooth transition for long-term, complex patients. This communication involves patient, family and the health care team meeting in regular conferences to discuss progress, and plan mutually agreed upon goals. Clearly recorded outcomes of these meetings needs to be available and communicated in a consistent way to the rest of the health care team to ensure continuity of care and achievement of care and planning goals.

This case-based presentation will review the methods used in organizing a multidisciplinary team approach to caring for a young, ventilator-dependent, spinal cord injured patient in a regional centre that does not commonly care for spinal cord injury patients during the acute phase of the injury. As a result, the health care disciplines worked together to innovate and create the best delivery of care for this patient through research of best practice, collaboration, and a shared commitment to excellence in providing patient- and family-centred care. The experience impacted all involved and the results showed in the patient's daily progress, outcomes and successful transition out of ICU.

REFERENCES

Berube, M., Gelinas,C., Bernard, F., Gagne, A., Laizner, A., & Lefebvre, H. (2013). Evaluation of the feasibility and acceptability of a nursing intervention program to facilitate the transition of adult SCI patients and their family from the ICU to trauma Unit. *International Journal of Orthopaedic and Trauma Nursing, 18,* 214–226. doi:10.1016/j.ijotn.2013.12.003

Green, A., & Edmonds, L. (2004). Bridging the gap between the intensive care unit and general wards—The ICU liaison nurse. *Intensive and Critical Care Nursing, 20,* 133–143. doi:10.1016/j.iccn.2004.02.007

Simmons, F. (2011). Transitioning complex patients from the ICU: Tools, tips, and strategies for the team. *Case in Point, 9*(1), 20–23. Retrieved from http://web.a.ebscohost.com.ezproxy.lib.ucalgary.ca/

Smaggus, A., & Weinerman, A.S. (2015). Handover: The fragile lines of communication. *Canadian Journal of General Internal Medicine, 10*(4), 15–18. Retrieved from http://web.b.ebscohost.com.ezproxy.lib.ucalgary.ca/

St-Louis, L., & Brault, D. (2011). A clinical nurse specialist intervention to facilitate safe transfer from ICU. *Clinical Nurse Specialist, 25,* 321–326. doi:10.1097/NUR.0b013e318233eaab

Changing from Rate-Based to Volume-Based Enteral Feeding for Critically Ill Patients—It Takes Team Work

Shirley Marr, MScN, MHed, RN, CNCC(C), and Stefani Morra, BASc, RD, William Osler Health System, Brampton, Ontario

Key words: volume based feeds, team approach, research based, nurse empowerment

Enteral feeds are often stopped in the intensive care unit (ICU) setting for a variety of reasons, including tests, medication administration and perceived "high" gastric residuals. In order to optimize delivery of enteral nutrition, a decision was made in 2012 to move to a volume-based feeding approach. This protocol includes volume-based feeding guidelines, high rate limit, a bowel routine, a specified gastric residual volume threshold and orders for treatment of high residuals with the use of promotility agents. With this feeding protocol in place, nurses are empowered to initiate enteral nutrition support when the dietitian is not present. The protocol does specify that a dietitian consult is required for any patient being started on volume-based feeds. The dietitian assesses each patient and makes individual recommendations accordingly, when available. Implementation of the protocol required intensive education for nurses and physicians. With the use of this protocol in our ICU, enteral feeds

are being initiated early, interruptions in enteral feeds because of "high" gastric residuals have decreased, and target energy and protein requirements are being more closely met. Research in 2009 in our unit showed that, on average, our patients were receiving 64% of the protein and 67 % of the calorie requirements. A survey of our enterally fed patients in 2013 showed that our patients were achieving 79% of protein and 80% of calorie requirements. With this protocol, paired with our early mobility protocol, we are enhancing and standardizing patient care, which is leading to fewer concerns on ICU transfer to floors. Changing to volume-based feeding strategy in our ICU was a successful initiative that required a full team approach and even now requires ongoing education and support in order to overcome long-held beliefs such as residual issues and concerns regarding feeding too much too fast.

REFERENCES

Heyland, D.K., Dhaliwal, R., Lemieux, M., Wang, M., & Day, A.G. (2014). Implementing the PEPuP protocol in critical care units in Canada: Results of a multicenter, quality improvement study. *Journal of Parenteral and Enteral Nutrition, 39*(6), 698–706. doi:10.1177/0148607114531787

Heyland, D.K., Murch, L., Cahill, N., Mccall, M., Muscedere, J., Stelfox, H.T., … Day, A.G. (2013). Enhanced protein-energy provision via the enteral route feeding protocol in critically ill patients. *Critical Care Medicine, 41*(12), 2743–2753. doi:10.1097/ccm.0b013e31829efef5

Mcclave, S.A., Saad, M.A., Esterle, M., Anderson, M., Jotautas, A.E., Franklin, G.A., … Hurt, R.T. (2014). Volume-based feeding in the critically ill patient. *Journal of Parenteral and Enteral Nutrition, 39*(6), 707–712. doi:10.1177/0148607114540004

Transitioning a Chronically Ventilator-Dependent Patient Home From a Community Hospital: An Interdisciplinary Approach

Shirley Marr, MScN, MHed, RN, CNCC(C), Robyn Klages, BSc, RRT, and Domenico Capolongo, BSc, RRT, William Osler Health System, Brampton, Ontario

Key words: home ventilator, interdisciplinary care, patient wishes

Our community hospital serves a population of more than 1.3 million in one of the fastest growing and most culturally diverse regions of Canada. We have 36 intensive care unit (ICU) beds with a 90% occupancy rate. We will describe our experience with transitioning a chronically ventilated patient from hospital to home.

The patient is a 46-year-old male recently diagnosed with Amyotrophic Lateral Sclerosis. Home management consisted of infrequent use of non-invasive ventilation and a cough assist device; respiratory failure ensued necessitating hospitalization and subsequent ventilation, as per family wishes. Once stabilized he was transferred to the ICU and, considering his diagnosis, tracheostomy and percutaneous endoscopic gastrostomy tubes were inserted. The patient and family expressed a desire to return home. A referral to the home ventilator training centre was organized. Unfortunately, he did not meet criteria for entry into this program, but family insisted on pursuing options for discharge home.

A hospital interdisciplinary team with outside stakeholders developed a business case and presented it to the community health care funding agency. Following financial approval, patient needs were identified and resources outlined to cover equipment, patient care, education/training and other miscellaneous costs. A targeted discharge date was proposed and a training schedule for the home care nurses and the family was developed. Weekly interdisciplinary meetings were held to update and review plans. Home visits were completed to examine elements of the home environment.

Before discharge, the patient was transitioned to home equipment including the ventilator and various devices to mimic the home environment. Family then provided 48 hours of continuous care, which was observed by nursing and respiratory staff. Any concerns were addressed in real time.

The patient was transported home via ambulance in July 2015. Since discharge weekly teleconference meetings continue involving home and hospital stakeholders to monitor ongoing care.

REFERENCES

Dybwik, K., Nielsen, E.W., & Brinchmann, B.S. (2011). Home mechanical ventilation and specialised health care in the community: Between a rock and a hard place. *BMC Health Services Research, 11,* 1–8.

McKim, D.A., Road, J., Avendano, M., Abdool, S., Cote, F., Duguid, N., … Skomro, R., MD, FRCPC DABSM. (2011). Home mechanical ventilation: A Canadian Thoracic Society clinical practice guideline. *Canadian Repiratory Journal, 18,* 197–215.

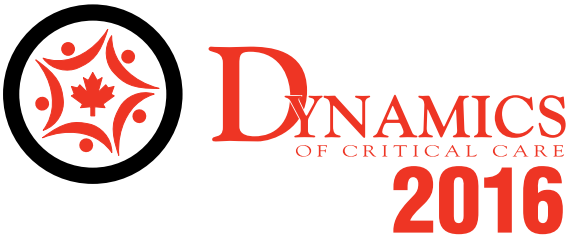
Warren, M.L., Jarrett, C., Senegal, R., Parker, A., Kraus, J., & Hartgraves, D. (2004). An interdisciplinary approach to transitioning ventilator-dependent patients to home. *Journal of Nursing Care Quality, 19*(1), 67–73. doi:10.1097/00001786-200401000-00012

An Innovative and Collaborative Approach to Managing Patients Requiring Renal Replacement Therapy in the Intensive Care Unit

Catherine McIntyre, BN, RN, Nancy Waite, RN, and Kari Taylor, MN, RN, CNCC(C), Alberta Health Services, Calgary, Alberta

Key words: collaborative, renal replacement therapy

The occurrence of acute kidney injuries in critically ill patients is 1–25% with a mortality of 15–60%. In two centres in Calgary, Alberta, South Health Campus (SHC) and Rockyview General Hospital (RGH), a patient population was identified in which conventional 72-hour continuous renal replacement therapy (CRRT) was not appropriate or ischemic hemodyalsis was unavailable. A collaborative nursing process identified this as



an area for improvement based on a lack of IHD availability; challenges with ICU delirium surrounding day/night cycle and mobilization, and to negate a need for inter-facility transport of patients between sites for therapy. Based on these factors, a new "modified" renal replacement therapy was developed.

The purpose of this presentation is to explain how this new dialysis therapy mode was developed including the use of accurate dosing, the challenges that were faced, the overall benefits and, finally, where we are at today with this new renal replacement therapy mode. The nursing teams from SHC and RGH worked in consultation with experts to develop a mode of CRRT that offered a 12-hour run with our current equipment. In addition, the physician groups at both sites assisted in the order set planning, making this truly an interdisciplinary approach to therapy development. Patient safety was of the utmost importance and inclusion criteria were developed on which patients would be most appropriate for this type of therapy.

The initial group of patients receiving the therapy was approximately 25 to 30, with the goal for six unique patients. It should also be noted that this was the first instance that dosing was introduced into the Calgary region, and this new therapy highlighted the impact of achieving the proper dose for a patient. The results of the first initial runs were positive with some instances of patients' creatinine being halved after 12 hours of therapy. Since its inception, this modified run with dosing method has been requested both within Canada and abroad for use at various sites.

REFERENCES

Singbartl, K., & Kellum, J. (2012) AKI in the ICU: Definition, epidemiology and risk stratification, and outcomes. *Kidney International, 81,* 819–825. doi:10.1038/ki.2011.339

Courageous Care

Karen McQuillan, MS, RN, CNS-BC, CCRN, CNRN, FAAN, Aliso Viejo, California

Nursing care can make a lasting difference in the lives of patients and families. It is powerful and bold, at times difficult, and takes tremendous courage to deliver. Courageous Care — reminds us that what courage really means is that we face our fears to do what we know is right, even when it's not easy. For us as nurses, it means doing what is necessary to provide the best possible care for our patients and their families. Courageous care requires critical care nurses to care with compassion, renew themselves, maintain a sound knowledge base, and serve as leaders. While patients and family members generally assume they will be provided safe care they desire care that is compassionate. Compassionate care occurs when the nurse acknowledges the suffering of another and attempts to alleviate that suffering. Simple interventions can be incorporated in the care nurses provide to foster compassionate care. While providing care, critical care nurses are vulnerable to compassion fatigue, moral distress, burnout and change fatigue. Although still in need of additional research, there are interventions that may help nurses develop resilience that assists in overcoming these phenomenon. Critical care nurses working with complex patients often requiring sophisticated technology to support organ dysfunction must build and maintain a strong knowledge base. Nurses need to be courageous in questioning how to best care for patients and in helping other nurses develop so they can make their optimal contributions to patients and families. With all of the dynamic changes in healthcare who better to lead that change than nurses? Nurses must be courageous in leading practice changes that improve outcomes making it imperative for nurses to learn leadership and to be seen by others as effective change agents. Developing courage is imperative for nurses to provide courageous care—care that contributes to a legacy of making a difference in the lives of others.

REFERENCES

American Association of Critical Care Nurses. (2015). *Clinical Scene Investigator Academy.* Retrieved December 28, 2015, from http://www.aacn.org/wd/csi/content/csi-landing.content?menu=csi&sidebar=none

Lee, G. (2006). *Courage the backbone of leadership.* San Francisco: Jossey-Bass.

Miller, M. (2013). *The heart of leadership Becoming a leader people want to follow.* San Francisco: Berrett-Koehler Publishers, Inc.

Sinek, S. (2009). *Start with why How great leaders inspire everyone to take action.* New York: Penguin Group.

Ulrich, B.T., Lavandero, R., Woods, D., & Early, S. (2014). Critical care nurse work environments 2013: A status report. *Critical Care Nurse, 34*(4), 64-79.

The Meaning of the Breastfeeding Experience for Mothers in Critical Care

Michele McShane, BScN, RN, CCN(C), Faith Wight Moffatt, PhD, RN, Marilyn Macdonald, PhD, RN, Glenda Carson, PhD, RN, PNC(C), IBCLC, and Maureen White, MN, RN, Dalhousie University, Halifax, Nova Scotia

Key words: breastfeeding, phenomenology, maternal critical care, women's experience

A small percentage of women will require hospitalization in a critical care unit during the postpartum period, and breastfeeding is a goal for many of these mothers. However, the breastfeeding experience of postpartum mothers in critical care is poorly understood. The purpose of this interpretive phenomenology study was to discover the meaning of the mother's experience of breastfeeding when admitted to a critical care unit in the first six weeks of the postpartum period. Seven women, with intent to breastfeed, admitted to a critical care unit for over 24 hours, during the years 2009–2014, were

interviewed about their experience. Their babies ranged from 31 to 37 weeks gestation. After analyzing and interpreting the data, the following themes were developed: separation from my baby, with sub-themes, planning helps with separation and creative connections; breastfeeding, an afterthought in the ICU; and surviving pre-empts breastfeeding. This study provides insights on how to improve practice by acknowledging the woman as a new mother separated from her baby, knowing her breastfeeding goals and priorities, and improving communication between acute care and obstetric personnel. Additional suggestions include improvements to services by facilitating visits between mother and baby, minimizing separation periods, considering if these mothers could be safely cared for in a maternity centre with upskilled staff, as in other centres, identifying breastfeeding mothers, and providing education and resources for staff support of breastfeeding women. Education around medication safety in breastfeeding, physiology of lactation, milk expression and becoming a mother might help staff feel more comfortable caring for postpartum mothers. Finally, study findings support the need for research with critical care staff to explore what barriers exist for them and what they need to feel competent and confident to provide breastfeeding support to mothers.

REFERENCES

Baskett, T., & O'Connell, C. (2009). Maternal critical care in obstetrics. *Journal of Obstetrics and Gynaecology Canada, 31,* 218–221.

Breastfeeding Committee for Canada. (2012). *Integrated 10 steps & WHO outcome practice indicators for hospitals and community health services: Summary.* Retrieved from http://breastfeedingcanada.ca/documents/2012-05-14_BCC_BFI_Ten_Steps_Integrated_Indicators_Summary.pdf

Hinton, L., Locock, L., & Knight, M. (2015). Maternal critical care: What can we learn from patient experience? A qualitative study. *BMJ Open, 5,* e006676. doi:10.1136/bmjopen-2014-006676

Mercer, R.T. (2006). Nursing support of the process of becoming a mother. *Journal of Obstetric, Gynecologic, & Neonatal Nursing, 35,* 649–651. doi:10.1111/j.1552-6909.2006.00086.x

Sweet, L. (2008). Expressed breast milk as 'connection' and its influence on the construction of 'motherhood' for mothers of preterm infants: A qualitative study. *International Breastfeeding Journal, 3.* doi:10.1186/1746-4358-3-30

Explicit Recalls: What ICU Nurses Need to Know

Mylène Suzie Michaud, RN, and Marilou Gagnon, PhD, RN, University of Ottawa, Ottawa, Ontario

Key words: explicit recalls, mechanical ventilation, sedation and analgesia

Sedation and analgesia used during mechanical ventilation in the intensive care unit (ICU) enable hypnosis, pain relief, amnesia, comfort, and reduced anxiety. Yet, it is not uncommon for patients to remember events, sensory perceptions, and emotions that occurred when they were mechanically ventilated in the ICU—this is known as explicit recalls. Explicit recalls can be related to voices, discomfort, anxiety or fear, the endotracheal tube, invasive treatments, hallucinations, pain, physical restraints, and the inability to communicate. Some patients still experience explicit recalls years after their admission in the ICU, up to 10 years and sometimes even longer. Explicit recalls can take the form of frequent nightmares directly related to the experience of being mechanically ventilated. They can also lead to serious psychological problems, such as post-traumatic stress disorder. Lack of knowledge on this phenomenon can possibly explain the minimal prevention, management and support from health care professionals to patients who are at risk or suffer post-mechanical ventilation. To provide a better understanding of explicit recalls, a literature review of the etiology, risk factors and psychological consequences will be presented. Specific nursing interventions in the ICU for the management of explicit recalls will also be discussed. It is clear that this presentation is important to improve quality of care, more precisely towards mechanically ventilated patients in the ICU.

REFERENCES

Guttormson, J.L. (2011). *Patients' recall and evaluation of mechanical ventilation: Impact of sedation.* University of Minnesota. Retrieved from http://web.b.ebscohost.com.proxy.bib.uottawa.ca/ehost/detail/detail?sid=0068ee4c-a443-466a-b454-4cfdd692dead%40sessionmgr111&vid=0&hid=106&bdata=Jmxhbmc9ZnImc2l0ZT1laG9zdC1saXZl#AN=109860886&db=cin20

Hamada, S., Trouiller, P., & Mantz, J. (2010). Évaluation et monitorage de la sedation (échelles de sédation et monitorage de la profondeur de sédation). In F. Bonnet & T. Lescot, *Analgésie et sédation en réanimation.* Paris, France: Springer Verlang France.

Kent, C.D., Mashour, G.A., Metzger, N.A., Posner, K.L., & Domino, K.B. (2013). Psychological impact of unexpected explicit recall of events occurring during surgery performed under sedation, regional anaesthesia, and general anaesthesia: data from the Anesthesia Awareness Registry. *British Journal of Anaesthesia, 110,* 381–387. doi:10.1093/bja/aes386

Myhren, H., Ekeberg, O., Tøien, K., Karlsson, S., & Stokland, O. (2010). Posttraumatic stress, anxiety and depression symptoms in patients during the first year post intensive care unit discharge. *Critical Care, 14*(1), 1–10.

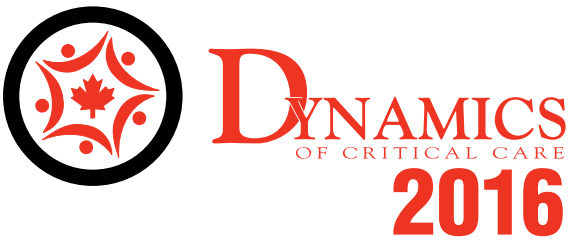
Storli, L.S., Lindseth A., & Asplund, K. (2008). A journey in quest of meaning: A hermeneutic-phenomenological study on living with memories from intensive care. *Nursing in Critical Care, 13*(2), 86–96.

Cerebral Microdialysis: Micro-analysis of Tissue Metabolic Markers Post Traumatic Brain Injury

Laura Robinson, BScN, RN, CNCC(C), Joan Harris, MBE, RN and Sandy Manuel, BN, RN, Foothills Medical Centre, Calgary, Alberta

Key words: cerebral microdialysis, traumatic brain injury, metabolic markers

Traumatic brain injury is a key cause of death and disability. Following traumatic brain injury, the intensive care unit focuses on preventing secondary insults, which can lead to poor neurologic outcomes and irreversible brain damage. Microdialysis



analyzes local brain biochemistry, providing information related to secondary injury. Ongoing insult to brain cells is manifested in dramatic changes of metabolic markers related to the production of adenosine triphosphate. Microdialysis focuses on biochemical markers of ischemia and cell damage such as pyruvate, glucose, glycerol, glutamate and lactate in the brain's extracellular fluid. It is used to evaluate the success of therapeutic interventions and ongoing secondary injury. The presentation will focus on the principles of microdialysis, including brain metabolism and biochemical markers that identify ischemia and cell damage in traumatic brain injured patients.

REFERENCES

Cecil, S., Chen, P.M., Callaway, S.E., Rowland, S.M., Adler, D.E., & Chen, J.W. (2011). Traumatic brain injury advanced multimodal neuromonitoring from theory to clinical practice. *Critical Care Nurse, 31*(2), 25–36.

Chew, J.W., Rogers, S.L., Gombart, Z.J., Adler, D.E., & Cecil, S. (2013). Implementation of cerebral microdialysis at a community-based hospital: A 5-year retrospective analysis. *Surgical Neurology International, 3*(1), 57–69.

Hutchinson, P.J., Jalloh, I., Helmy, A., Carpenter, K.L., Rostami, E., Bellander, B.M., …, Ungerstedt, U. (2015). Consensus statement from the 2014 international microdialysis forum. *Intensive Care Medicine, 41,*1517–1528.

Mahajan, C., & Rath, G. (2015). Cerebral microdialysis review article. *Journal of Neuroanaesthesiology and Critical Care, 2,* 232–239.

Timofeev, I., Carpenter, K.L., Nortje, J., Al-Rawi, P.G., O'connell, M.T., Czosnyka, M., … Hutchinson, P.J. (2011). Cerebral extracellular chemistry and outcome following traumatic brain injury: A microdialysis study of 223 patients. *Brain, 134*(2), 484–494. doi:http://dx.doi.org/10.1093/brain/awq353

Exploring Age-Related Strategies to Enhance Child Visitation in the Adult Intensive Care Unit

Rachel Schofield, BScN, RN, Hamilton Health Sciences Centre, Hamilton, Ontario

Key words: child visitation, adult intensive care unit, age related strategies

While caring for a critically ill patient in the adult intensive care unit (ICU) prior to the withdrawal of care, it was apparent to the interdisciplinary team that there were gaps in the resources available to support the vision of family-centred care and the patient experience, as a whole, specifically in the form of child visitation in the adult intensive care environment. These concerns led to a review of the environment and literature, as well as an exploration of critical care best practice standards. Restrictive child access themes or barriers presented in the literature correlated with those that presented in the needs assessment and environmental review within this adult ICU. These barriers included nurse bias and perception, physiologic stress, increased infection, mental exhaustion for both patient and families and interference of care, as well as personal thoughts that the child would be harmed. These themes were not rooted in evidence. Review of the literature suggests that children have the same needs as adults, just expressed differently. Evidence in the literature illustrated the benefits of child visitation, which included the ability of the child to feel involved and not excluded which, therefore, could help the child to understand why other family members show sorrow, tears and despair. Further benefits of child visitation included increased understanding and involvement in the family group, reduced fears of helplessness, guilt, separation, self-blame and abandonment, reassurance a family member has not left them, a reduction of hospital misconceptions, as well as the opportunity to express and share feelings. With well prepared and supported visitation, the child can show an increased understanding, reduced fears of helplessness and guilt, as well as intense emotions. Resources for staff, children and families were developed and obtained to facilitate child visitation and enhance best practice, and staff engagement and awareness became apparent.

REFERENCES

Clarke, C., & Harrison, D. (2001). The needs of children visiting on adult intensive care units: A review of the literature and recommendations for practice. *Journal of Advanced Nursing, 34,* 61–68.

Hanley, J.B., & Piazza, J. (2012). A visit to the Intensive Care Unit: A family centered culture change to facilitate pediatric visitation in an adult intensive care unit. *Critical Care Nursing, 35*(1), 113–122. doi:10.1097/CNQ.0b013e31823b1ecd

Kean, S. (2010). Children and young people visiting an adult intensive care unit. *Journal of Advanced Nursing, 66,* 868–877. doi:10.1111/j.1365-2648.2009.05252.x

Knutsson, S., & Bergbom, I. (2007). Nurses' and physicians' viewpoints regarding children visiting/not visiting adult ICUs. *Nursing in Critical Care, 12,* 63–73. doi:10.1111/j.1365-2702.2005.01517.x

Knutsson, S., & Bergbom, I.L. (2007). Custodians' viewpoints and experiences from their child's visit to an ill or injured nearest being cared for at an adult intensive care unit. *Journal of Clinical Nursing, 16,* 362–371. doi:10.111/j.1365-2702.2005.01517.x

Alcohol Withdrawal Syndrome

Tom Scullard, RN, MSN, CCRN, Hennepin County Medical Center, Minneapolis, Minnesota

Key words: alcohol withdrawal, delirium tremens, alcohol withdrawal delirium.

Alcoholism is one of the most prevalent addictive diseases in the United States. Any individual admitted to the hospital may be at risk for developing alcohol withdrawal syndrome. There are many physiologic changes that occur in the brain with chronic alcohol abuse. This presentation examines the changes that occur to the primary inhibitory neurotransmitters, gamma-aminobutyric acid and the primary excitatory neurotransmitter glutamate. Upregulation and downregulation of these neuro-transmitters and their role in developing a tolerance are explained. These changes and cessation of alcohol are what leads to alcohol withdrawal syndrome. Alcohol withdrawal syndrome has a 2–10% mortality rate. Alcohol affects almost every body system. Alcohol withdrawal syndrome can be divided into four phases: autonomic hyperactivity, hallucinations, seizures, and delirium tremens. The treatment goals according to the American Society of Addiction Medicine include a safe and humane withdrawal that prepares the individual for ongoing treatment of his or her dependence of alcohol. The Clinical Institute Withdrawal Assessment of Alcohol scale is one of the tools that is used to help assess the severity of withdrawal. Multiple medications have been used. Medication can be given on a fixed schedule regimen or as a symptom-triggered regimen. Assessing for alcohol abuse and dependency on admission can help the bedside nurse identify those patients at risk for alcohol withdrawal syndrome. The CAGE Screening Tool is one of may tools that can be used. Case studies will be used to help the bedside nurse apply the information from this session into practice.

REFERENCES

Awissi, D., Lebrun, G., Coursin, D.B., Riker, R.R., & Skrobik, Y. (2012). Alcohol withdrawal and delirium tremens in the critically ill: A systematic review and commentary. *Intensive Care Medicine, 39,* 16–30.

Carlson, R.W., Wong-Mckinstry, E., Puri, N., & Shashikumar, S. (2012). Alcohol withdrawal syndrome. *Critical Care Clinics, 28,* 549–585.

Frazee, E.N., Personett, H.A., Leung, J.G., Nelson, S., Dierkhising, R.A., & Bauer, P.R. (2014). Influence of dexmedetomidine therapy on the management of severe alcohol withdrawal syndrome in critically ill patients. *Journal of Critical Care, 29,* 298–302.

Longo, D.L., & Schuckit, M.A. (2014). Recognition and management of withdrawal delirium (delirium tremens). *New England Journal of Medicine, 371,* 2109–2113.

Prone Positioning and Acute Respiratory Distress Syndrome

Tom Scullard, RN, MSN, CCRN, Hennepin County Medical Center, Minneapolis, Minnesota

Key words: prone positioning, acute respiratory distress syndrome, ventilator induced lung injury, respiratory failure

It is estimated that acute respiratory distress syndrome (ARDS) accounts for up to 75,000 deaths annually and 3.6 million hospital days a year. Mortality rates from ARDS and acute lung injury remain high, ranging from 35% to 45%. Protective lung ventilation using a low tidal volume is currently a proven and accepted treatment option for ARDS and acute lung injury. Multiple other ventilation and treatment strategies have been studied including high-frequency oscillatory ventilation, extracorporeal membrane oxygenation, high positive end-expiratory pressure, airway pressure release ventilation, nitric oxide, steroids and prone positioning. Prone positioning has been used since 1997 to increase oxygenation in patients with ARDS. Recent studies have shown that early and prolonged prone positioning along with low tidal volumes in moderate to severe ARDS reduces mortality. The physiologic effects include improving ventilation-perfusion mismatch, recruitment of dependent lung regions, optimizing chest wall mechanics, increases drainage of tracheobronchial secretions, and increases lung volume and alveolar recruitment. Prone positioning should be considered for patients in moderate to severe ARDS, with the inability to maintain adequate oxygen saturations despite receiving high oxygen levels and high positive end expiratory pressures.

REFERENCES

Drahnak, D.M., & Custer, N. (2015). Prone positioning of patients with acute respiratory distress syndrome. *Critical Care Nurse, 35*(6), 29–37.

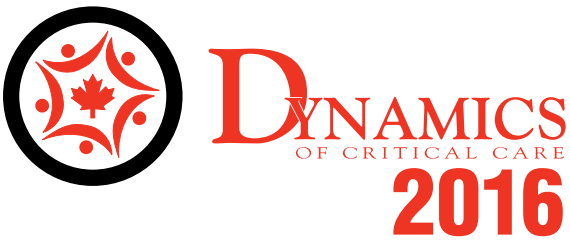
Guérin, C., Reignier, J., Richard, J., Beuret, P., Gacouin, A., Boulain, T., … Ayzac, L. (2013). Prone positioning in severe acute respiratory distress. *The New England Journal of Medicine, 368,* 2159–2167.

Pelosi, P., Brazzi, L., & Gattinoni, L. (2002). Prone position in acute respiratory distress syndrome. *European Respiratory Journal, 20,* 1017–1028.

Pierrakos, P., Karanikolas, M., Scolletta, S., Karamouzos, V., & Velissaris, D. (2012). Acute respiratory distress syndrome: Pathophysiology and therapeutic options. *Journal of Clinical Medicine Research, 4*(1), 7–16.

Sud, S., Friedrich, J.O., Adhikari, N.K., Taccone, P., Mancebo, J., Polli, F., … Guerin, C. (2014). Effect of prone positioning during mechanical ventilation on mortality among patients with acute respiratory distress syndrome: A systematic review and meta-analysis. *Canadian Medical Association Journal, 186*(10). doi:10.1503/cmaj.140081

ABSTRACTS



Brain Under Attack—Anti NMDA Receptor Encephalitis

Colleen Shepherd, RN, CNCC(C), and Rhonda Thorkelsson, RN, CNCC(C), Health Sciences Centre, Winnipeg, Manitoba

Key words: anti-NMDA receptor encephalitis, case study

Anti-N-methyl D-aspartate (NMDA) receptor encephalitis is an autoimmune disorder that attacks the NMDA receptors in the brain. NMDA receptors are proteins that control electrical impulses and are responsible for autonomic functions, memory, judgment and reality perception. This disorder has only been known since 2007. Throughout history it has most likely been misdiagnosed with patients being sent to psychiatric wards or having undergone exorcisms for presumed demonic possessions. Patients initially present with flu-like symptoms, which quickly progress to a psychotic stage and then require intensive care admission for ventilatory support for autonomic dysfunction, decreased level of consciousness and seizures. This condition affects mostly women and is associated with a tumour, particularly a teratoma of the ovaries. Treatment consists of removal of the tumour, steroids, immunotherapy and symptomatic control. With this case presentation we will share our experience of a patient's admission and course of treatment of this newly characterized, highly lethal, but treatable autoimmune disorder.

REFERENCES

Azizyan, A., Albrektson, J., Maya, M., Pressman, B., & Moser, F. (2014). Anti-NMDA encephalitis: An uncommon, autoimmune mediated form of encephalitis. *Journal of Radiology Case Reports, 8*(8), 1–6. http://dx.doi.org/10.3941/jrcr.v8i8.1566

Dalmau, J., Lancaster, E., Martinez-Hernandez, E., Rosenfeld, M., & Balice-Gordon, R. (2011). Clinical experience and laboratory investigations in patients with anti-NMDAR encephalitis. *The Lancet Neurology, 10,* 63–74. http://dx.doi.org/10.1016/s1474-4422(10)70253-2

Power, L., James, J., Masoud, I., & Altman, A. (2014). Tubal teratoma causing anti-NMDAR encephalitis. *Journal of Obstetrics and Gynaecology Canada, 36,* 1093–1096. http://dx.doi.org/10.1016/s1701-2163(15)30387-x

Continuous Renal Replacement Therapy in the Critically Ill Child

Ruth Trinier, BScN, RN, CNCCP(C), and Cecilia St. George-Hyslop, BScN, RN, MEd, CNCC(C), The Hospital for Sick Children, Toronto, Ontario

Key words: acute kidney injury (AKI), continuous renal replacement therapy (CRRT), critical care pediatrics

Acute kidney injury (AKI) is a common occurrence in critical illness, including the critical illness seen in children. It is frequently seen as a result of complications arising from other diseases, treatments or processes and, increasingly, the children requiring treatment for AKI have multiple comorbidities. Children who require intensive care as a result of sepsis, cardiopulmonary bypass, acute respiratory distress syndrome or inborn errors of metabolism may develop AKI requiring prompt intervention to prevent further deterioration. With the gradual removal of fluids and toxins minimizing the hemodynamic instability seen in more rapid methods of fluid removal, continuous renal replacement therapy is often considered the treatment of choice. Recent developments in equipment have facilitated use in lower body weights, however, morbidity and mortality remain high, and complications of therapy are frequent.

Although the treatment plan is initiated and guided by the direction of a physician, the addition of a highly invasive therapy to the nursing care of a critically ill child requires a solid understanding of the critically ill child, continuous renal replacement therapy and the potential for complications. An expert nurse clinician will anticipate, monitor, assess and intervene appropriately to positively impact patient outcomes and minimize complications. Frequent skill review is necessary to maintain competency and confidence.

This presentation will include a case-based approach to the nursing care of the critically ill child requiring continuous renal replacement therapy. Scenarios will review indications, access, filters, blood flow rates, anticoagulation, dosing, extracorporeal membrane oxygenation and continuous renal replacement therapy outcomes. Techniques to assist in learning and maintaining competence will also be reviewed.

REFERENCES

Askenazi, D.J., Goldstein, S.L., Koralkar, R., Fortenberry, J., Baum, M., Hackbarth, R., … Somers, M.J.G. (2013). Continous renal replacement therapy for children < 10 kg: A report from the prospective pediatric continuous renal replacement therapy registry. *The Journal of Pediatrics, 162,* 587–592. http://dx.doi.org/10.1016/j.peds.2012.08.044

Boschee, E.D., Cave, D.A., Garros, D., Lequier, L., Granoski, D.A., Guerra, G.G., & Ryerson, L.M. (2014). Indications and outcomes in children receiving renal replacement therapy in pediatric intensive care. *Journal of Critical Care, 29,* 37–42. http://dx.doi.org/10.1016/j.jcrc.2013.09.008

Modem, V., Thompson, M., Gollhofer, D., Dhar, A., & Quigley, R. (2014). Timing of continuous renal replacement therapy and mortality in critically ill children. *Critical Care Medicine, 42,* 943–953. http://dx.doi.org/10.1097/CCM.0000000000000039

Sutherland, S.M., & Alexander, S.R. (2012). Continuous renal replacement therapy in children. *Pediatric Nephrology, 27,* 2007–2016. http://dx.doi.org/10.1007/s00467-011-2080-x

Windt, K. (2016). Development of online learning modules as an adjunct to skills fairs and lectures to maintain nurses' competency and comfort level when caring for pediatric patients requiring continuous renal replacement therapy (CRRT). *Continuing Nursing Education, 43*(1), 39–46.

Navigating Rough Seas—Keeping Our Head Above Water in a Flood and its Aftermath

Karen Webb-Anderson, BSc BScN RN MN CCN(c), Marlene Ash, BSc, RN, Shashi Bangera, BScN, RN, Catherine Bent, BScN, RN, Patricia Daley, RN, Audrey Gallant, RN, Pam Hughes, RN, CNCC(C), Cynthia Isenor, MScN,RN, Ken Oates, RN, Walter Somers, MN, RN, Shannon Stride, RN, Andrew Watson, BScN, RN, and Debrah White, RN, Nova Scotia Health Authority, Halifax, Nova Scotia

Key words: flood, evacuation, resilience, critical care

What happens when the only intensive care unit (ICU) in a high-acuity hospital needs to be resuscitated? Picture your average evening in the ICU. Nurses are just finishing their assessments. Families are at bedsides. Many of the allied health team have gone home for the day. You notice a trickle of water coming from the ceiling ... just in time to see a gush!

This is the story of the flood and its aftermath. We will share our experiences of evacuating patients, families and equipment. We will describe how a sister unit a few city blocks away responded to make patients and staff welcome in difficult times. In the weeks that followed, the staff of the flooded unit was temporarily displaced in order to provide care for patients relocated to a number of temporary ICU locations, as well as providing emergency onsite care at the primary hospital site, where many high acuity services remained post-flood.

There are lessons to be learned by sharing our individual and collective experiences that evening and in the days that followed. This story will demonstrate the capacity of ICU nurses to respond swiftly, appropriately and creatively. It will also reveal the importance of camaraderie in our profession, and how central our work family is to our well-being and resilience. It will show the challenges to providing evidence-based, family-centred care in temporary ICU spaces, and our commitment to advocating for patients and families.

How do you resuscitate an ICU? The same way you do a patient—with skilled, compassionate and determined teamwork!

REFERENCES

Manion, P., & Golden, I.J. (2004). Vertical evacuation drill of an intensive care unit: Design, implementation, and evaluation. *Disaster Management & Response, 2*(1), 14–19.

Mealer, M., Jones, J., & Moss, M. (2012). A qualitative study of resilience and posttraumatic stress disorder in United States ICU nurses. *Intensive Care Medicine, 38,* 1445–1451.

Murphy, G.R.F & Foot, C. (2011). ICU fire evacuation preparedness in London: A cross-sectional study. *British Journal of Anaesthesia, 106,* 695–698.

Closing Speaker

Suffering: A Gift or a Burden

Colleen Breen, BScN, RN, CNCCP(C), London Health Sciences Centre, London, Ontario

Suffering is woven into the tapestry of life. Within the fibres of each unique tapestry, suffering leaves jewels of hope, understanding, and meaning. At times, these gifts are woven so deeply within the fabric that years may pass before the gifts shine through. There are also times when suffering shreds the fabric, leaving ragged edges and loose threads that damage the material of life beyond repair.

Suffering is a complex, subjective, and multi-dimensional concept. Many factors may impact the experience of suffering, creating or diminishing opportunities to find new meaning. In this presentation, based on lived experiences, the meaning of suffering will be explored. The presence of the burden and the gifts of suffering will be debated, with examples to support the discussion. Factors that influence the discovery of the gifts of suffering will be discussed. Participants will be encouraged to explore their personal and professional experiences of journeying with the suffering, through reflective and creative activities. Conclusions about the merit of suffering, as a burden and a gift will be summarized.

REFERENCES

Cassell, E.J. (1991). *The nature of suffering.* New York: Oxford University Press.

Johnston, N.E. (2007). Finding meaning in adversity. In N.E. Johnson, & A. Scholler-Jaquish, *Meaning in suffering: Caring practices in the health professions* (pp. 98–143). Madison: University of Wisconsin Press.

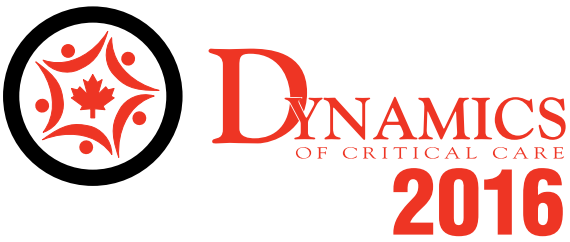
Oreopoulos, D.G. (2005). Is there meaning in suffering. *Human Medicine Health Care, 5*(2). Retrieved from http://www.humanehealthcare.com/Article.asp?art_id=830

Rodgers, B.L., & Cowles, K.V. (1997). A conceptual foundation for human suffering in nursing care and research. *Journal of Advanced Nursing, 25,* 1048–1053. doi:10.1046/j.1365-2648.1997.19970251048.x

Skaggs, B.G., & Barron, C.R. (2006). Searching for meaning in negative events: concept analysis. *Journal of Advanced Nursing, 53*(5), 559–570. doi:10.1111/j.1365-2648.2006.03761.x

Wright, L.M. (2008). Softening suffering through spiritual care practices: One possibility for healing families. *Journal of Family Nursing, 14*(4), 394–411. doi:10.1177/1074840708326493

ABSTRACTS



Mastery Sessions

Traumatic Brain Injury: Putting All the Pieces Together

Tricia Bray, MN, RN, CNCC(C), Pam Hruska, MSc, BN, RN, CNCC(C), and Joan Harris, MSc, BSc, RN, Foothills Medical Centre, Calgary, Alberta

Severe traumatic brain injury (TBI) is the most common primary diagnosis for patients who are neurologically injured within critical care. These patients require health care providers to have an understanding of the underlying pathophysiology of this disease process, and as well as skills and knowledge for effective management. Patients with severe TBI are cared for within many different types of units ranging from general intensive care units to specialized neurocritical care units. Monitoring technology or management approaches used within these different types of units may vary drastically.

Use of standardized care protocols for TBI has assisted the critical care team to identify common goals for the treatments and interventions for different acuities of TBI injuries. These protocols give the bedside nurse cognitive tools for decision-making and treatment options within each level of the protocol. Integrating data from advanced multi-modal neurological care monitoring along with protocol use have shown benefits in a Western Canadian tertiary referral centre. The benefits shown include decreased hospital mortality and increased discharge to home after severe injury.

Despite variation in how different critical care teams care for TBI patients, it is proposed that a facilitated education session with clinicians who have expertise in neuro specialized care can help spread development of more in-depth understanding of the rationale for interventions and management strategies of the TBI patient. By sharing learnings from the use of advanced neurocritical care monitoring devices and data obtained, clinicians from any critical care unit can gain a more in-depth understanding for how the TBI patient is progressing. With this expanded knowledge, nuances of how to care for TBI patients and concepts from experienced specialty units can arguably be applied within any care setting.

REFERENCES

Kramer, A., Zygun, D., Doig, C., & Zuege, D. (2013). Incidence of neurologic death among patients with brain injury: A cohort study in a Canadian health region. *Canadian Medical Association Journal, 185,* E838–845. http://dx.doi.org/10.1503/cmaj.130271

Le Roux, P., Menon, D., Citerio, G., Vespa, P., Bader, M., Brophy, G., … Taccone, F. (2014). Consensus summary statement of the international multidisciplinary consensus conference on multimodality monitoring in neurocritical care. *Neurocritical Care, 21,* S1–S26. http://dx.doi.org/10.1007/s12028-0041-5

Livesay, S. (2016). The bedside nurse: The foundation of multimodal monitoring. *Critical Care Nursing Clinics of North America, 28,* 1–6.

Mahdavi, Z., Pierre-Louis, N., Ho, T., Figueroa, S., & Olson, W. (2015). Advances in cerebral monitoring for the patient with traumatic brain injury. *Critical Care Nursing Clinics of North America, 27,* 213–223.

Vespa, P. (2005). Multimodality monitoring and telemonitoring in neurocritical care: From microdialysis to robotic telepresence. *Current Opinion in Critical Care, 11,* 133–138.

Understanding Shock States Using PAC: Pulmonary Artery Catheter or Preload, Afterload, Contractility

Lara Parker, MSN, RN, and El Ladha, RN, British Columbia Institute of Technology, Burnaby, British Columbia

Critical care nurses are at the forefront of patient care. Our expertise in comprehensive assessment, hemodynamic monitoring and initiating interventions while working collaboratively and providing family-centred care are just a few of our outstanding strengths. Numerous patients who critical care nurses will be caring for experience shock. Shock is a complex and life-threatening syndrome. It is vital for today's critical care nurse to be able to recognize, comprehend and manage shock, as it is foundational to patient survival.

Within this engaging and interactive presentation, the three most common states of shock will be explored: hypovolemic, cardiogenic, and septic. Each will be presented in relation to the three components of stroke volume (preload, afterload and contractility), and further related to the overall understanding of the impact on cardiac output. Furthermore, all three types of shock will be presented and analyzed using pulmonary artery catheter numbers. While the debate of pulmonary artery catheter utilization continues, pulmonary artery catheters are still in practice and critical care nurses must be able to understand and analyze the data and provide interventions associated to the numbers. Lastly, common inotropic support provided during shock states will be reviewed.

During this presentation many blended learning techniques will be used. In our critical care nursing program, we have been challenging the boundaries of nursing education by having all of our curriculum as iBooks on iPads. The participants attending this presentation will have the opportunity to explore iBooks, as our presentation will be delivered on iPads using many multimedia methods from animations to interactive keynotes, and finishing with a participant case study application.

It's Time to Turn Over... Way Over! Pronation Therapy... How one MICU Triumphed in Manual Therapy

Anita White, MSN, RN, ACNS-BC, CCRN, and Christina Canfield, MSN, RN, ACNS-BC, CCRN, The Cleveland Clinic, Cleveland, Ohio

Pronation therapy has increased in popularity since Guérin et al. (2013) demonstrated decreased mortality when the therapy was employed. The current strategy of employing commercially available rotational bed therapy was limited by the demand of increased volume. Our medical intensive care unit (MICU) was challenged to integrate manual pronation therapy while maintaining safe patient monitoring and safe patient handling. Although manual pronation therapy is not new, nursing staff were unfamiliar with the techniques, safety mechanisms and patient care practices necessary to achieve and sustain therapy.

Manual pronation was taught and practised in a safe simulation environment. Nurses, trained as super users, acted as resources for their peers on the nursing unit. Two Clinical Nurse Specialists who covered the MICU collaborated with a vendor to create customized foam wedges for positioning proned patients. Following education, manual pronation became the norm, rather than the exception. Commercially available beds were rarely used. The MICU's unit-acquired pressure ulcer rate was 4.61% prior to implementing a pronation therapy program. Positive clinical outcomes include a dramatic reduction of pronation-related pressure ulcers from 13.21% (with commercially available pronation bed) to 3.41% (with manual pronation therapy with pillows). Currently, MICU unit-acquired pressure ulcer rate with manual pronation therapy with wedges for all patients is 6.48%, which is below the The National Database of Nursing Quality Indicators™ rate of 6.49%. Cost reduction was achieved by standardizing manual pronation and eliminating the bed rental cost of $1,500 USD per day. Pronation wedges cost $400 USD and may be used through the duration of the patient's hospitalization. There have been no reported injuries incurred to nurses or allied health staff during manual pronation therapy.

REFERENCES

Guérin, C., Reignier, J., Richard, J., Bueret, P., Gacouin, A., Boulain, T., … Ayzac, L. (2013). Prone positioning in severe acute respiratory distress syndrome. *The New England Journal of Medicine, 368,* 2159–2168.

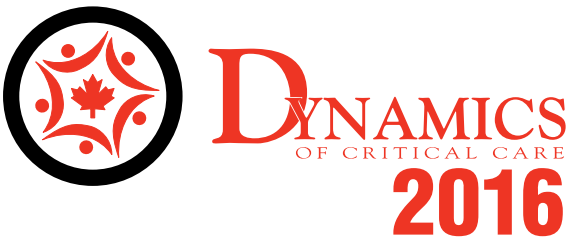
Murray, T.A., & Patterson, L.A. (2002). Prone positioning of trauma patients with acute respiratory distress syndrome and open abdominal incisions. *Critical Care Nurse, 22,* 52–56.

Reignier J., Thenoz-Jost, N., Fiancette, M., Legendre, E., Lebert, C., Bontemps, F., … Martin-Lefevre, L. (2004). Early enteral nutrition in mechanically ventilated patients in prone position. *Critical Care Medicine, 32,* 94–99.

Vollman, K.M. (2004). Prone positioning in the ARDS patient: The art and science. *Critical Care Nursing Clinics of North America, 16,* 319–336.

Wiegand, D.L. (2011). *AACN procedure manual for critical care* (6th ed.). St. Louis, MO: Elsevier/Saunders.

ABSTRACTS



Printed Posters

Utilizing Frontline Intensive Care Unit (ICU) Nurses as Super Users to Assist Nurses Transition to a New Digital ICU

Francis Cacao, MN, RN, CNCC(C), Maria Diego, RN, CNCC(C), Mamta Modgil, RN, Thanusah Sanmugavadivel, RN, Manpreet Kainth, RN, Patricia Collantes, RN, Sarah Luckhardt, RN, CNCC(C), Yemi Adebayo, RN, Jane Cornelius, RN, Marisa Vaglica, MN, RN, and Cecile Marville-Williams, MA, RN, CHE, Humber River Hospital, Toronto, Ontario

Key words: super users, train-the-trainer, transition, orientation

Background: The Humber River Hospital (HRH) is Canada's first fully digital hospital upon moving to the new facility on October 18, 2015. Two Intensive Care Units (ICUs) from HRH's legacy sites were combined to become the new 48-bed Intensive Care Unit (ICU). The anticipated change in work environment has known impacts on nurses (Berry & Parish, 2008), and supporting them is imperative for transition success. The use of Super Users has been valuable in successful implementation of identified projects (Boffa & Pawola, 2006; Yuan, Bradley, & Nembhard, 2015).

Purpose: To evaluate the use of frontline ICU Super Users in facilitating transition orientation and in providing support post-move through mentorship.

Methods: A team of ICU Super Users completed the train-the-trainer program developed and facilitated by educators from HRH and George Brown College (Bull et al., 2015). The ICU Super Users facilitated all sessions using a combination of different teaching techniques and educational materials over a period of three months. They trained additional ICU staff to build capacity for Super User support after the move.

Results: A total of 130 nurses completed the evaluation, and 89% "Agree" and "Strongly Agree" on over-all satisfaction of the training sessions. Staff's pre-and post-assessments (1-No, 5-A lot) of equipment knowledge have increased after the training (Mean: 1 to 4). Two months after the move, 135 staff self-assessed their levels of proficiency (Benner, 1982): (1) more than 80% were "Competent/Proficient/Expert" on the majority of new equipment used regularly, and (2) approximately 60% were "Novice/Advanced Beginner" on equipment not used regularly.

Conclusion: The use of frontline ICU Super Users was an effective model during HRH's ICU transition orientation and in providing post-move support. Expanding this program would be beneficial for future projects. Staff's self-assessment of their equipment proficiency can guide ICU leadership to plan, support, and meet the identified needs.

REFERENCES

Benner, P. (1982). From novice to expert. *The American Journal of Nursing, 82*(3), 402–407.

Berry, L.L., & Parish, J.T. (2008). The impact of facility improvement on nurses. *Health Environments Research Design Journal, 1*(2), 5–13.

Boffa, D.P., & Pawola, L.M. (2006). Identification and conceptualization of nurse super users. *Journal of Health Information and Management, 20*(4), 60–68.

Bull, E., Astrop, M., Barnaby, J., Clark, W., Mastrilli, P., Mazzotta, P., …Vaglica, M. (2015, November). *Supporting nurses transitioning to a new hospital.* Poster session presented at the meeting of Quality and Safety Summit: Leveraging Nursing Leadership.

Yuan, C.T., Bradley, E.H., & Nembhard, I.M. (2015) A mixed methods study of how clinician 'super users' influence others during the implementation of electronic health records. *BMC Medical Informatics and Decision Making, 15*(26), 1–10.

Implementation of a Follow-up Program: Extending the Walls of the Intensive Care Unit

Merica Chase, RN, and Gwen Stevenson, RN, CNCC(C), Horizon Health Network, Fredericton, New Brunswick

Key words: follow up, support, transfer of care

In June of 2014, a Rapid Response Team (RRT) based in the Intensive Care Unit (ICU) called the Advanced Care Team (ACT) was implemented in our facility. Developed using various models including recommendations from Safer Healthcare Now!, the Advanced Care Team responds to calls to inpatient adult units within the facility to assist nursing and medical staff with advanced assessment and treatment. The ACT Registered Nurse (RN) is also responsible for "follow-up" assessments. This is a form of critical care outreach. Each patient transferred from ICU to the med/surg nursing units has a follow-up visit done within 24 hours of transfer. The goal of this visit is two-fold: 1) to ensure that the transfer of care was adequate and all relevant information has been relayed to the receiving unit; and 2) to ensure the patient has remained stable and there have been no issues or changes in the patient's condition since the transfer from intensive care. An added benefit of this resource is that we are able to transition long-term ICU patients to the nursing units more quickly and with less pre-planning, helping to ensure staff on the receiving unit are comfortable caring for these complicated patients. In the 12 months prior to the implementation of the follow-up visits the re-admission rate

to our ICU was 4.4%. In the year since implementation that rate has decreased to 3.9%. The ability to identify and mitigate an impending threat to a patient's health is the cornerstone of ICU nursing. With the follow-up visits, communication of any concerns can occur between the ICU RN, the floor RN and the primary physician, hopefully avoiding any further clinical deterioration. In a few instances, a follow-up visit resulted in an ACT call. While the benefit to the patient is the ultimate goal, an unforeseen benefit is the improvement in relations between ICU and the nursing units. The ICU has created a culture of support, mentorship and collaboration through the Advanced Care Team and follow-ups!

REFERENCES

Accreditation Canada. (2012). *Standards Critical Care (Ver. 7) ROP 12.6* p. 37

Kramer, A. A., Higgins, T. L., & Zimmerman, J. E. (2013). The association between ICU readmission rate and patient outcomes*. *Critical Care Medicine, 41*(1), 24–33.

Muchoki, N. (2015). Impact of extended critical care outreach service with consultant input at Queens Hospital. *Intensive Care Medicine Experimental, 3*(Suppl. 1), A142.

The Effect of a Preceptor's Attitude on a New Graduate's Transition into the Intensive Care Unit

Rebecca Chudyk, RN, Kristy Klein, RN, Robin Mummery, RN, and Christine Keba, RN, Norfolk General Hospital, Simcoe, Ontario

Key words: nursing, new graduates, transition into ICU, change to mentor practice

As the nursing profession continues to grow, it is important to provide a supportive and positive learning environment for new graduate registered nurses (RNs). This is especially important in a fast-paced and critical thinking area, such as the Intensive Care Unit (ICU), where nurses need to feel part of a team and be able to rely on their co-workers during critical events to save lives. We need to bring attention to how the work of caring impacts new nurses (Hodges, 2015). New RNs are looking for guidance and a positive learning environment, so they can grow and adapt with new learning experiences and become a skilled RN and part of a team. There is often a high turnover rate to new graduates; one reason may be that preceptors spend little time with preceptees on a daily basis or provide them with insufficient feedback and guidance (Horton, DePaoli, Hertach, & Bower, 2012; Marks-Maran et al., 2013; Muir et al., 2013).

We will explore the role of the preceptor and how it affects the new graduate's learning experience, abilities and overall attitudes toward nursing and other staff members. Surveys will be completed by six new graduate RNs currently practising in a six-bed ICU/eight-bed stepdown unit in a rural community. The poster and project summary will outline the results of the survey, sharing how we can learn and grow from this experience, enhancing a supportive and caring learning environment for new RNs. It will provide insights regarding how a positive or negative attitude can shape the attitude and perception of a new graduate nurse towards their patients and team members and influence retention and recruitment of new graduate nurses to acute care settings.

REFERENCES

Hodges, C. (2015). Emotional challenges of nurses. *Vermont Nurse Connection, 18,* 1.

Horton, C., DePaoli, S., Hertach, M., & Bower, M. (2012). Enhancing the effectiveness of nurse preceptors. *Journal for Nurses in Professional Development, 28*(4), E1-7.

Hu, Y.-C., Chen, S.-R., Chen, l.-H., Shen, H.-C., Lin, Y.-K., & Chang, W.-Y. (2015). Evaluation of work stress, turnover intention, work experience, and satisfaction with preceptors of new graduate nurses using a 10-minute preceptor model. *Journal of Continuing Education in Nursing, 46,* 261–271.

Marks-Maran, D., Ooms, A., Tapping, J., Muir, J., Phillips, S., & Burke, L. (2013). A preceptorship programme for newly qualified nurses: A study of preceptees' perceptions. *Nurse Education Today, 33*(11), 1428–1434.

Muir, J., Ooms, M., Tapping, J., Marks-Maran, D., Phillips, S., & Burke, L. (2013). Preceptors' perceptions of a preceptorship programme for newly qualified nurses. *Nurse Education Today, 33*(6), 633–638.

O'Kane, C. (2012). Newly qualified nurses' experiences in the intensive care unit. *Nursing in Critical Care, 17,* 44–51.

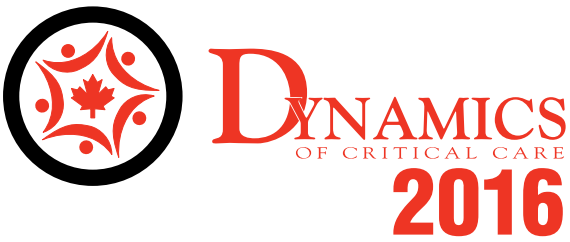
A Personal Handprint: Making a Difference in a Patient's Intensive Care Unit Stay

Rebecca Chudyk, RN, Kristy Klein, RN, Robin Mummery, RN, and Christine Keba, RN, Norfolk General Hospital, Simcoe, Ontario

Key words: personal handprint, patient experience, therapeutic relationship, patient-nurse relationship

An Intensive Care Unit (ICU) can be an overwhelming, frightening and traumatic experience for both patients and their families. It is important, as part of our nursing care, to address a patient's and family's holistic care needs. It has been discovered that patients' memories of frightening ICU experiences may be a threat to later psychological recovery (Ahlström et al., 2008). Patients and families need to understand that the appropriate care measures will take place and that they will be a part of the care circle throughout the entire ICU stay.

For this abstract, we will explore the effect a "Personal Handprint" handout will play in their comfort and meeting holistic needs. The "Personal Handprint" was created by hospital staff as a way to learn about what is important to the patient and family during their stay and in their everyday life. It is a handout that is created at the time of admission, asking patients to list important things in their life and what is important to them during their hospital stay. This form stays at the bedside, so each professional interacting with the patient will have access to it. We will review the compliance of staff using this tool upon admission, a survey to assess how staff feel this aids in their care



to their patients and will review a survey completed by previous patients. Our goal for this abstract and survey is to gain knowledge of how this tool affects care towards the patients and if it has a positive effect on their ICU stay, and share our findings with critical care professionals.

REFERENCES

Ahlström, G., Berggren, L., & Löf, L. (2008). ICU patients' recall of emotional reactions in the trajectory from falling critically ill to hospital discharge: Follow-ups after 3 and 12 months. *Intensive & Critical Care Nursing, 24,* 108–21.

Balasubramanian, N. (2013). A study to assess level of anxiety among intensive care unit (ICU), patients in a selected hospital, Salem, Tamilnadu. *Asian Journal of Nursing Education and Research, 3*(2), 89–92.

Deacon, K. (2012). Re-building life after ICU: A qualitative study of the patients' perspective. *Intensive and Critical Care Nursing, 28,* 114–122.

Haynes, N. (2007). *A phenomenological study of family members of long-term critically ill adult patients and their perceived needs.* University of Missouri - Kansas City, ProQuest Dissertations Publishing.

Koch, S., Liamputtong, P., Rawson, H., & Wong, P. (2015). Families' experiences of their interactions with staff in an Australian intensive care unit (ICU): A qualitative study. *Intensive and Critical Care Nursing, 31,* 51–63.

Pryzby, B.J. (2005). Effects of nurse caring behaviors on family stress responses in critical care. *Intensive and Critical Care Nursing, 21,* 16–23.

Introducing Bedside Continuous Electroencephalography Monitoring in a Non-Neuro Intensive Care Unit

Sarah Crowe, MN, RN, CNCC(C), Caroline Penner, RN, CNCC(C), and Judith Mehregani, BScN, RN, Fraser Health Authority, Surrey, British Columbia

Key words: electroencephalography, EEG, bedside use, technology, quality patient care

Technology in critical care is constantly changing and evolving. The use of bedside continuous electroencephalography (EEG) is one example of evolving technology that can have a considerable impact on critical care patients. Bedside continuous EEG monitoring can be used to provide information on the status of the brain in real time. This enables critical care nurses to assess their patients' level of consciousness, and to monitor the effects of therapy, such as sedatives. Bedside continuous EEG monitoring can also be used by the interdisciplinary team to detect and manage seizures, and to provide additional data for prognostication when planning goals of care for patients with brain injuries (e.g., post-cardiac arrest, anoxic brain injuries, etc.).

Although continuous EEG is traditionally implemented in intensive care units that specialize in neurology, this technology was implemented in our 20-bed medical–surgical intensive care unit (MSICU) in order to provide our clinicians with tools to improve patient care. We utilized a four-channel bedside EEG module with a sub-hairline montage to accomplish this in partnership with GE Healthcare and clinical experts from across Canada. The purpose of this presentation is to describe the process undertaken to implement this technology including planning and implementation, as well as lessons learned for the future.

REFERENCES

Harris, C. (2014). Neuromonitoring indications and utility in the intensive care unit. *Critical Care Nurse, 34*(3), 30–40.

Hirsch, L.J. (2004). Continuous EEG monitoring in the intensive care unit: An overview. *Journal of Clinical Neurophysiology, 21*(5), 332–340.

Rossetti, A.O, Urbano, L.A., Delodder, F., Kaplan, P.W., & Odder, M. (2010).Prognostic value of continuous EEG monitoring during therapeutic hypothermia after cardiac arrest. *Critical Care, 14*(5), R173.

Vespa, P.M., Nenov, V., & Nuwer, M.R. (1999). Continuous EEG monitoring in the intensive care unit: Early findings and clinical efficacy. *Journal of Neurophysiology, 16*(1), 1–13.

Young, G.B., Sharpe, M.D., Savard, M., Thenayan, E.A., Norton, L., & Davies-Schinkel, C. (2009). Seizure detection with a commercially available bedside EEG monitor and the subhairline montage. *Neurocritical Care, 11,* 411–416. https://dx.doi.org/10.1007/s12028-009-9248-2

Development of an Early Mobility Protocol for Critical Care

Melissa Guiyab, MN, RN, Christine Leger, PT, Orla Smith, PhD, RN, Mary Mustard, NP-adult, MN, CCN(C), CNCC(C), Vasuki Paramalingam, RN, Prafulla Savedra, RN, and Shannon Swift, RN, St. Michael's Hospital, Toronto, Ontario

Key words: early mobility, adult, mobilization protocol, interprofessional

Background: Immobility in the intensive care unit (ICU) negatively impacts patient outcomes. In our four ICUs, patients are mobilized inconsistently due to gaps in staff knowledge and experience as evidenced by staff surveys and clinical practice.

Objective: To develop and implement an inter-professional critical care early mobility protocol that promotes the initiation of safe mobilization of medically stable patients within 24 to 48 hours of ICU admission. The mobility protocol will also guide mobility progression during the patient's ICU stay and facilitate communication among clinicians with regard to patient mobility.

Method: To develop and implement the protocol, a quality improvement approach using plan-do-study-act (PDSA) cycles was taken with the following steps:

1. Create an inter-professional early mobility working group

with representatives from four ICUs
2. Scan current state of patient mobility and staff perceptions
3. Review literature
4. Develop protocol
5. Pilot protocol in all ICUs
6. Use a multipronged approach to engage staff and educate
7. Implement the protocol in all ICUs.

Results: An evidence-based protocol was created to guide clinicians through a mobility assessment linked to appropriate exercises and activities of daily living. Mobility progress is tracked through the use of a mobility scale. To determine usability and engage staff, the protocol was piloted. Ten registered nurses completed a formal evaluation of the protocol and 80% agreed that the tool is practical and realistic to implement into practice.

Conclusion and next steps: Based on feedback received from the pilot, adjustments have been made to the protocol and accompanying staff education. General implementation of the protocol will begin in June 2016. Audits will be conducted to evaluate the success of implementation and a staff survey will be conducted at six months post implementation.

REFERENCES

Bassett, R.D., Vollman, K.M., Brandwene, L., & Murray, T. (2012). Integrating a multidisciplinary mobility programme into intensive care practice (IMMPTP): A multicenter collaborative. *Intensive and Critical Care Nursing, 28,* 88–97.

Engel, H.J., Needham, D.M., Morris, P.E., & Gropper, M.A. (2013). ICU early mobilization: From recommendation to implementation at three medical centers. *Critical Care Medicine, 41,* S69–S80.

Hodgson, C., Needham, D., Bailey, M., Young, P., Buhr, H., Higgins, A., … Berney, S. (2014). Feasibility and inter-rater reliability of the ICU mobility scale. *Heart & Lung, 43,* 19–24.

Schweickert, W.D., Pohlman, M.C., Pohlman, A.S., Nigos, C., Pawlik, A.J., Esbrook, C., … Kress, J.P. (2009). Early physical and occupational therapy in mechanically ventilated, critically ill patients: A randomised controlled trial. *Lancet, 373,* 1874–1882.

Transfer of Accountability among the Operating Room, Post Anesthesia Care Unit, and Intensive Care Units

Melissa Guiyab, MN, RN, Nancy Rudyk, RN, Mary Mustard, NP-adult, MN, CCN(C), CNCC(C), Joyce Grandy, RN, Debbie Snatenchuk, RN, and Pamela McLachlan, RRT, St. Michael's Hospital, Toronto, Ontario

Key words: care transitions, transfer of accountability, interprofessional, surgery

Background: The transitions of care for critically ill patients are complex, involving interaction and communication between health care professionals from different departments and disciplines. Gaps in the transfer of patient information have been highlighted by staff, and may be a source of patient safety breach in the transitions of patients among the operating room (OR), post anesthesia care unit (PACU), and intensive care units (ICUs).

Objective: To utilize a quality improvement framework to develop and implement an interdisciplinary standardized transfer of accountability (TOA) process among these units.

Method: We used a quality improvement framework to develop a standardized TOA process between the perioperative and critical care departments. We created a multi-departmental interdisciplinary committee to lead the project. To understand the current state of patient transfers between departments, we conducted a literature review and surveyed the staff. Based on these results we developed an interdisciplinary TOA procedure consisting of three components: 1) pre-transfer communication, 2) a "pause" upon transfer to the receiving unit, and 3) a checklist to guide the information given during handover.

Results: This process will be piloted in April among the perioperative and critical care departments and the evaluations from this trial will be presented.

Conclusion: There is a large amount of important, pertinent information that must be relayed between the care providers of critically ill patients who have undergone surgical procedures to ensure safe continuity of care. Once the standardized TOA process has been implemented, tests of compliance will include audits, staff feedback, and a review of adverse events related to TOA among the OR, PACU, and ICUs. Through interdisciplinary collaboration across departments, these patients will experience a smooth, safe, and efficient transition, as they journey from one care area to another.

REFERENCES

Gardiner, T.M., Marshall, A.P., & Gillespie, B.M. (2015). Clinical handover of the critically ill postoperative patient: An integrative review. *Australian Critical Care, 28,* 226–234.

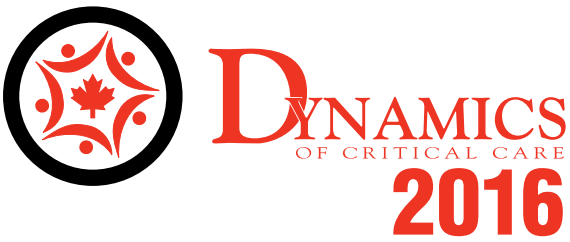
Lane-Fall, M.B., Beidas, R.S., Pascual, J.L., Collard, M.L., Peifer, H.G., Chavez, T.J., … Barg, F.K. (2014). Handoffs and transitions in critical care (HATRICC): Protocol for a mixed methods study of operating room to intensive care unit handoffs. *BMC Surgery, 14*(96). Retrieved from: http://bmcsurg.biomedcentral.com/articles/10.1186/1471-2482-14-96

McMullan, A., Parush, A., & Momtaban, K. (2015). Transferring patient care: Patterns of synchronous bidisciplinary communication between physicians and nurses during handoffs in a critical care unit. *Journal of PeriAnesthesia Nursing, 30*(2), 92–104.

Salzwedel, C., Bartz, H., Kuhnelt, I., Appel, D., Haupt, O., Maisch, S., & Schmidt, G. N. (2013). The effect of a checklist on the quality of post-anesthesia patient handover: A randomized controlled trial. *International Journal for Quality in Health Care, 25*(2), 176–181.

Segall, N., Bonifacio, A.S., Shroeder, R.A., Barbeito, A., Rogers, D., Thornlow, D.K., … Mark. J.B. (2012). Can we make postoperative patient handovers safer? A systematic review of the literature. *Anesthesia Analgesia, 115,* 102–115.

ABSTRACTS



Riding the Wave Together from Beginning to End: A Review on Cognitive Function after Critical Illness

Esperanza Malubay, BSN, RN, and Sarah Louise Gyorfi, RN, Providence Health Care, Vancouver, British Columbia

Key words: cognitive impairment, critical illness, PICS, therapy, peer review

Purpose: Bedside critical care clinicians often wonder about the health and well-being of patients after they are discharged from hospital. Research has proven that many critical illness survivors can acquire substantial psychological, cognitive, and physical impairments post-discharge ranging from mild to severe, persisting months to years after critical illness (Hopkins, 2013). This literary collective will focus on the effects of cognitive impairment on critical illness survivors and their families.

Method: Search criteria included keywords: PICS, cognitive impairment, critical illness, therapy, peer review.

Results: It is believed several factors may play an important role in cause and effect of cognitive impairment after critical illness. Such factors discussed include: inadequate brain oxygenation, delirium, sedation, systemic inflammatory response, glucose dysregulation, medications, and specific illnesses, which may have direct effects on the brain. Physical and cognitive exercises, social support networks, early psychological evaluation and treatment, promoting personal well-being, encouraging independence with ADLs, and educating and supporting patients' families on their role in critical illness have all proven to aid in healthy cognitive outcomes (Brummel et al., 2012; Davidson et al., 2013; Hopkins, 2013).

Conclusion: There are a myriad of obstacles critically ill patients and their families' face that can start acutely and end chronically. Cognitive decline is only one of many of these obstacles. It is a bedside clinician's role to care for the patient to improve both acute and chronic health outcomes by incorporating daily evaluation and screening, and implementing proven cognitive activities. Further research of post-discharge cognitive outcomes and their impact on patient well-being can allow clinicians to recognize these issues earlier on and mitigate potential destruction of a patient's cognition to improve healthy outcomes for the future.

REFERENCES

Brummel, N., Jackson, J., Girard, T., Pandharipande, P., Schiro, E., Work, B., … Ely, E. (2012). A combined early cognitive and physical rehabilitation program for people who are critically ill: The Activity and Cognitive Therapy in the Intensive Care Unit (ACT-ICU) Trial. *Journal of the American Physical Therapy Association, 92,* 1580–1592. Retrieved from http://ptjournal.apta.org/content/92/12/1580.long

Davidson, J., Harvey, M., Schuller, J., & Black, G. (2013). *American Nurse Today.* Retrieved from http://www.americannursetoday.com/assets/0/434/436/440/10226/10228/10232/10278/02ba438f-5b12-484e-8165-df5d365354f5.pdf

Hopkins, R. (2013). Strategies to ensure long-term quality of life in ICU survivors. *Society of Critical Care Medicine.* Retrieved from http://www.sccm.org/Communications/Critical-Connections/Archives/Pages/Strategies-Ensure-Quality-Life-Survivors.aspx

Pandharipande, P., Girard, T., Jackson, J., Morandi, A., Thompson, J., Pun, B., … Ely, E. (2013). Long term cognitive impairment after critical illness. *New England Journal of Medicine, 369,* 1306–1316. Retrieved from http://www.nejm.org/doi/full/10.1056/NEJMoa1301372

Society of Critical Care Medicine. (2013). *Strategies to ensure long-term quality of life in ICU survivors.* Retrieved from http://www.sccm.org/Communications/Critical-Connections/Archives/Pages/Strategies-Ensure-Quality-Life-Survivors.aspx

Influence of a Delirium Education Program on Intensive Care Nurses' Knowledge Regarding Delirium Identification and Mitigation

Shirley Marr, MHEd, MHScM, BScN, RN, William Osler Health System, Brampton, Ontario

Key words: delirium, education, research, change

The issue of delirium is frequently observed in the intensive care unit (ICU) and is a distressing medical syndrome for patients and family members, as well as hospital staff. Even when diagnosed, the treatment options are varied and there is evidence that even with treatment, the patient is still left with long lasting effects. At present, this condition cannot be prevented or treated well with every patient, therefore, early identification of delirium and promotion of practices to mitigate and treat the syndrome is necessary.

Research was planned in one ICU and completed with the following aims: 1. assess if the introduction of delirium education will improve ICU nurses' knowledge of delirium after a two-month period of time, 2. assess if any knowledge change brought about by the introduction of education is influenced by the nurse having a nursing degree versus a diploma, and 3. assess if any knowledge change brought about is influenced by a nurse's years of experience (less than three years or greater).

This research used four-hour educational sessions with the nurses in the unit with a pre test and a six-week post test. The results were analyzed using a Wilcoxon signed-rank test. A

mean and mode for each group will be reported and the percentage of each group that obtained the right question pre/post will be reported. The results showed that education and/or experience did not influence knowledge uptake and that the main knowledge of delirium was low at both testing points, thus indicating that education alone is not enough to influence knowledge of this multi-factorial syndrome.

REFERENCES

Pun, B.T., & Ely, E.W. (2007). The importance of diagnosing and managing ICU delirium. *Recent Advances in Chest Medicine*, *132*, 624–636. http://dx.doi.org/10.1378/chest.06-1795

Skrobik, Y. (2009). Delirium prevention and treatment. *Critical Care Clinics*, *25*, 585–591. http://dx.doi.org/10.1016/j.ccc.2009.05.003

Tomasi, C.D., Grandi, C., Salluh, J., Soares, M., Giombelli, V.R., Cascaes, S., ... Dal Pizzol, F. (2012). Comparison of CAM-ICU and ICDSC for the detection of delirium in critically ill patients focusing on relevant clinical outcomes. *Journal of Critical Care*, *27*, 212–217. http://dx.doi.org/10.1016/j.jcrc.2011.05.015

Van den Boogaard, M., Peters, S.A., Van der Hoeven, J.G., Dagnelie, P.C., Leffers, P., Pickkers, P., & Schoonhoven, L. (2010). The impact of delirium on the predication of in-hospital mortality in intensive care patients. *Critical Care*, *14*(R146). Retrieved from http://ccforum.com/content/14/4/R146

Vasilevskis, E.E., Ely, E.W., Speroff, T., Pun, B.T., Boehm, L., & Dittus, R.S. (2010). Reducing iatrogenic risks: ICU-acquired delirium and weakness- crossing the quality chasm. *Chest*, *138*, 1224–1233. http://dx.doi.org/10.1378/chest.10-0466

Nursing Processes Related to Unplanned Intensive Care Unit Admissions

Jennifer Martin, RN, St. Michael's Hospital, Toronto, Ontario

Key words: Communication, documentation, recognition of patient deterioration, unplanned intensive care unit admissions

Background: Patients who require admission to the Intensive Care Unit (ICU) during their hospitalization have a higher rate of mortality, longer length of stay and a prolonged recovery post discharge (Johns, 2014). In Canada, 11% of persons hospitalized require a critical care environment; of those 19% will die during their ICU stay (Garland, Olafson, Ramsey, Yogendran, & Randall, 2013). It is, therefore, desirable to identify issues that can contribute to the prevention of unplanned ICU admissions.

Purpose: The purpose of this study was to explore the nursing processes that are related to an unplanned intensive care unit admission. Communication, documentation and recognition of patient deterioration are complex issues that could impact patient outcomes, specifically unplanned intensive care unit admissions.

Design: This study was a descriptive retrospective cohort research design that utilized chart audit analysis to obtain data.

Method: A chart auditing tool was created based on the literature that was reviewed. The sample was collected retrospectively from 140 charts of patients who had been admitted to the intensive care unit from the general wards of the hospital.

Findings: In the 12 hours prior to ICU admission vital signs were collected 3.4 times. The most common reason for unplanned intensive care unit admission was respiratory distress (52.7%), even though the respiratory rate was the least documented vital sign. Prior to ICU admission communication with the most responsible physician was documented 82.6% of the time and with the critical care response team 67.4% of the time.

Conclusion: Communication, documentation and recognition of patient deterioration are key components of nursing practice where we can improve patient care outcomes. Strengthening these aspects of nursing care will improve patient outcomes and in turn help to prevent the need for unplanned intensive care unit admissions.

REFERENCES

Garland, A., Olafson, K., Ramsey, C., Yogendran, M., & Randall, F. (2013). Epidemiology of critically ill patients in intensive care units: A population based observational study. *Critical Care, 17*(5). http://dx.doi.org/10.1186/cc13026

Johns, T. (2014). Characteristics and risk factors of trauma patients readmitted to the ICU within the same hospitalization. *Journal of Trauma Nursing, 21*(1), 14–21. http://dx.doi.org/10.1097/JTN.0000000000000023

Harnessing Nursing Expertise and LEAN Methodology to Champion Change to Arterial Blood Pressure Monitoring

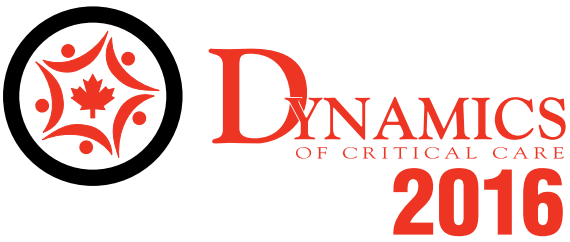
Lorna McLellan, BScN, RN, CNCC(C), and Sarah Grin, MN, RN, CNCC(C), St. Mary's General Hospital, Kitchener, Ontario

Key words: nursing, LEAN, expertise, arterial blood pressure monitoring, change principles

In spring of 2014, a physician questioned the accuracy of the Intensive Care Unit (ICU) arterial blood pressure monitoring set-up. The concern was that the transducer did not consistently provide accurate blood pressure monitoring. The transducer did not lie in the phlebostatic axis when the patient's position changed due to its position on the lower forearm. This practice had been in place for many years. A literature review enabled the identification of evidence to guide knowledge mobilization.

The ICU nursing staff championed a practice change across the organization, one that aligns with the hospital's goal to be the safest and most effective hospital in Canada. Careful attention was paid to change principles. In addition, LEAN methodology was enlisted to achieve success with this practice change. Through their knowledge of arterial blood pressure monitoring and careful attention to the issue, nurses identified that the change would not only improve accuracy of readings but would also promote blood conservation strategies, decrease risk of infection for patients and protect staff from blood exposure, concerns nursing had for a considerable time. Nursing championed change to a vital area of practice.

ABSTRACTS



REFERENCES

Chant, C., Wilson, G., & Friedrich, J.O. (2006). Anemia, transfusion, and phlebotomy practices in critically ill patients with prolonged ICU length of stay: A cohort study. *Critical Care, 10*(5), 1–9.

Kuruvilla, S. (2010). Occupational exposure to bloodborne pathogens: Prevention and management. *Med-Surg Matters, 19*(4), 13-16.

Mitchell, G. (2013). Selecting the best theory to implement planned change. *Nursing Management, 20*(1), 32–37.

Retter, A., Wyncoll, D., Pearse, R., Carson, D., McKechnie, S., Stanworth, S., … British Committee for Standards in Haematology. (2012). Guidelines on the management of anaemia and red cell transfusion in adult critically ill patients. *British Journal of Haematology, 160,* 445–464.

Toussaint, J., Gerard, R.A., & Adams, E. (2010). *On the mend: Revolutionizing healthcare to save lives and transform the industry.* Cambridge, MA: LEAN Enterprise Institute.

Time to Change: From Families As Visitors to Families as Partners in Care

Catherine Rodriguez, RN, and Sherly Mathew, RN, CCRN, St. Paul's Hospital, Vancouver, British Columbia

Key words: family visitors, partners in care, change, ICU visitation

Berwick (2004) believes that it is rational, humane and evidence-based to do away with visiting restrictions in critical care units entirely. Recently, many Canadian hospitals are beginning to do away with traditional, restricted visiting hours in favour of more flexible, patient and family-friendly policies.

Critical illness not only affects Intensive Care Unit (ICU) patients, it also impacts patients' families (Davidson, 2009). The importance of people special to the patient in the healing process needs to be considered given the focus on improving patient experience within the Canadian health care system. Family-centred care in the ICU is associated with improvements in the long-term psychiatric sequelae of critical illness, the trust between hospital staff and family members and overall satisfaction with medical care. However, according to Valerie Johnson, Project Manager for Critical Care at the Institute for Healthcare Improvement, the most common barrier to open visiting in ICUs is staff resistance—doctors for the most part, and nurses too. They worry that it will interfere with their ability to get things done. Health care staff also said that families would camp out in the ICU—they were sometimes in the way. The Institute for Healthcare Improvement (n.d.) also states that "sometimes what's best for patients and family members is hard for staff. But that doesn't mean it shouldn't be done" (para. 1). Recent data suggest that open visitation does not adversely impact patient outcomes and represents only a moderate and acceptable intrusion on patient care (Kleinpell, 2008).

With the positive impact that unrestricted visitation has to patient's and family's health, our ICU had started implementing unrestricted and flexible visiting in October 2015. Findings from patient and family satisfaction surveys carried out after its implementation were concurrent with the findings of other hospitals that had adapted unrestricted visiting, including a decrease in anxiety, confusion and agitation for the patient.

REFERENCES

Berwick, D.M., & Kotagal, M. (2004). Restricted visiting hours in ICUs: Time to change. *JAMA, 292,* 736–737.

Davidson, J. (2009). Family-centered care: Meeting the needs of patients' families and helping families adapt to critical illness. *Critical Care Nurse, 29,* 28–34. http://dx.doi.org/10.4037/ccn2009611

Institute for Healthcare Improvement. (n.d.). *A challenge accepted: Open visiting in the ICU at Geisinger.* Retrieved from http://www.ihi.org/resources/Pages/ImprovementStories/AChallengeAcceptedOpenVisitingintheICUatGeisinger.aspx

Kleinpell, R. (2008). Visiting hours in the intensive care unit: More evidence that open visitation is beneficial. Critical Care Medicine, 36(1), 334–335.

Nurse Satisfaction with Medication Management Before and After Introduction of an Electronic Medication System in the Intensive Care Unit

Orla Smith, PhD, RN, Cecilia Santiago, MN, RN, Elizabeth Butorac, MN, RN, Kathryn Bell, MN, RN, Maria Teresa Diston, BScN, RN, Ellen Lewis RN, Norine Meleca, MN, RN, Mary Mustard, NP-Adult, Lisa Poon, Prafulla Savedra, RN, Karen Wannamaker, BSc, RN, and Gail Wilson, MN, RN, St. Michael's Hospital, Toronto, Ontario

Key words: ICU, nurses, pharmacy, medication systems

Medication errors are common in the Intensive Care Unit (ICU) and can result in adverse events. Computer-based systems may reduce errors. Nurses' experiences with medication systems are important to understand. We surveyed ICU nurses in a large, academic, urban hospital before and after introducing an e-system using the Medication Administration System – Nurses' Assessment of Satisfaction scale. Each item was scored on six-point scale (strongly agree – strongly disagree) with higher scores indicating greater satisfaction. Overall satisfaction was reported on a 0 – 10 scale (0 = completely dissatisfied; 10 = completely satisfied). Three hundred and twenty-eight surveys were distributed. Response rate was 37% (n=120) before and 35% (n=115) after. Overall satisfaction was significant with the new system (6.2 versus 7.0, $p < 0.01$). There were also significantly higher scores on all items related to safety ($p<0.05$) and two of six items related to access [access to systems that support medication administration (4.4 versus 4.9, $p<0.01$) and availability of information to manage bad reactions (3.1 versus 3.8, $p<0.01$)]. Nurses reported the system

was effective in reducing and preventing medication errors (3.2 versus 4.5, p<0.001). However, there was no difference in perceptions of system efficiency (4.2 versus 4.4, p=0.25) or the proportion who agreed the system was user-friendly (68 versus 71%, p=0.70). At both time points, a large proportion of nurses (45 versus 49%, p=0.25) agreed they stashed medication for patient care. The introduction of an e-medication system was associated with ICU nurses' perceptions of greater safety and increased overall satisfaction with medication processes. Nurses did not perceive the e-system as more efficient or user-friendly than the paper-based system.

REFERENCE

Hurley, A.C., Lancaster, D., Hayes, J., Wilson-Chase, C., Bane, A., Griffin, M., … Gandhi, T.K. (2006). The Medication Administration System-Nurses Assessment of Satisfaction (MAS-NAS) scale. *Journal of Nursing Scholarship, 38,* 293–300.

Medication Safety Huddles in the Intensive Care Unit: A Patient Safety Initiative Led by Our Critical Care Pharmacists and Nurses

Karen Webb-Anderson, MN, BSc, CCN(c), Nova Scotia Health Authority, Halifax, Nova Scotia

Key words: medication, safety, critical

The literature identifies that Intensive Care Unit (ICU) patients experience on average 1.7 errors per day and 78% of these are medication related. Given the medical complexity of critically ill patients and their limited ability to compensate for these errors, life-threatening consequences are probable. It is estimated that 50% to 96% of mediation errors are not reported, presenting a challenge to improving patient safety. Barriers to reporting are many and include fear, workload and staffing levels. In addition to the threat to patient safety, the psychological repercussions of errors in ICU threaten the well-being of care providers.

In our ICUs, we have implemented weekly Medication Safety Huddles, led by our pharmacists and charge nurses. These weekly interdisciplinary short briefings create an opportunity to share information about actual or potential medication safety issues on a regular basis. Huddles identify and address contributors to medication errors, educate staff and foster a safe environment for communication and quality patient care.

Medication Safety Huddles are helping to foster positive relationships within the team, contributing to a positive patient safety culture. They are becoming one of our key avenues to understand problems, share information, both within a unit and between our ICUs. Each quarter, topics are summarized and reviewed by our team of pharmacists, charge nurses and leadership to ensure appropriate action has been taken.

Medication Safety Huddles are helping to change the conversation from problems to solutions.

REFERENCES

Hartnell, N., MacKinnon, N., Sketris, I., & Fleming, M. (2012). Identifying, understanding and overcoming barriers to medication error reporting in hospitals: A focus group study. *BMJ Quality & Safety, 21*(5), 361–368.

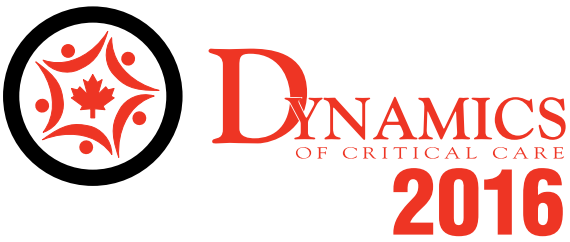
Kiekkas, P., Karga, M., Lemonidou, C., Aretha, D., & Karanikolas, M. (2011). Medication errors in critically ill adults: A review of direct observation evidence. *American Journal of Critical Care, 20*(1), 36–44.

Laurent, A., Aubert, L., Chahraoui, K., Bioy, A., Mariage, A., Quenot, J., & Capellier, G. (2014). Error in intensive care: Psychological repercussions and defense mechanisms among health professionals. *Critical Care Medicine, 42*(11), 2370–2378.

Moyen E, Camire, E., & Stelfox, H.T. (2008). Clinical review: Medication errors in critical care. *Critical Care, 12,* 208.

Wilbur, K., & Scarborough, K. (2005). Medication safety huddles: Teaming up to improve patient safety. *The Canadian Journal of Hospital Pharmacy, 58*(3), 151–54.

ABSTRACTS



Electronic Posters

Behind the Collar: Prevention Strategies of Occipital Pressure Ulcers in Trauma Intensive Care Unit Patients

Aisha Abdalla, RN, Viksit Bali, BScN, RN, Nicola Farrow, BScN, RN, Orest Kornetsky, BScN, BA, RN, MHI, Jennifer Lovering, BScN, RN, and Grace Walter, RN BScN, CNCC(C), Sunnybrook Health Sciences Centre, Toronto, Ontario

Key words: occipital pressure ulcer prevention, trauma, intensive care unit, Aspen collars

Recently a significant increase in occipital pressure ulcers was noted in our Intensive Care Unit (ICU) patient population. Anecdotally one to two occipital ulcers were typically seen on a per annum basis. However, in 2015 we identified six pressure ulcers over a six-month period. Our Education & Practice Council led a quality improvement initiative to advance the quality of care related to prevention of occipital pressure ulcers. A literature review affirmed our assumption that cervical spine collars may be a major contributor to occipital pressure ulcers. Although the occurrence of occipital pressure ulcers is low, Jacobson et al. (2008) reported the incidence of 23.9%–44% in patients wearing a cervical collar. When staff were surveyed regarding routine removal of cervical collar back panel and assessment of patients' occipital area, only 36% of staff "always" or "often" performed this assessment. Additionally, staff identified variations in practice related to occipital pressure ulcer prevention and lack of knowledge and education related to care of patient in long-term cervical spine immobilizers. Following the quality improvement initiative, an extensive chart review was performed to explore other possible contributors. We found that in our most recent cases, all patients were Level III ICU traumas who were intubated at the time of identification. All occipital pressure ulcers reviewed were first noted by day 10 to 14 of ICU stay and were already deemed unstageable, as per the National Pressure Ulcer Advisory Panel Clinical Practice Guidelines (2014). The majority of patients had a Glasgow Coma Scale score of three for the seven-day period prior to identification and experienced operation times greater than two hours and/or neuromuscular blockade. Based on the results of relevant evidence, chart investigations, and staff feedback, a comprehensive prevention and treatment plan was developed.

REFERENCES

Apold, J. (2012). Prevention device-related pressure ulcer: Using data to guide statewide change. *Journal of Nursing Quality, 27*(1), 28–34.

Cooper, L.K. (2013). Evidence-based prevention of pressure ulcers in the intensive care unit. *Critical Care Nurse, 33*(6), 56–65.

Jacobson, T., Tescher, A., Miers, A., & Downer, L. (2008). Improving practice efforts to reduce occipital pressure ulcers. *Journal of Nursing Care Quality, 23*(3), 283–288.

National Pressure Ulcer Advisory Panel, European Pressure Ulcer Advisory Panel and Pan Pacific Pressure Injury Alliance. (2014). *Prevention and treatment of pressure ulcers: Quick reference guide*. Retrieved from http://www.npuap.org/wp-content/uploads/2014/08/Quick-Reference-Guide-DIGITAL-NPUAP-EPUAP-PPPIA-Jan2016.pdf

Advanced Practice Partners Transforming Healthcare Delivery in Critical Care with a Nurse Practitioners Fellowship: Inspiration to Implementation

Sarah Crowe, MN, RN, CNCC(C), and Wendy Bowles, MN, NP F, CCN(c), Fraser Health Authority, Surrey, British Columbia

Key words: Nurse practitioner, collaboration, patient care, advance practice nurses, fellowship

The way patient care is delivered in today's ever-changing health care system is requiring new and imaginative ideas to ensure all patients have access to comprehensive, appropriate, universal care. In the Fraser Health Authority (FHA), we are changing the way our critical care population is being cared for by integrating Nurse Practitioners (NPs) into our interdisciplinary Intensive Care Unit (ICU) team. In order to accomplish this, the Nurse Practitioner Lead and the Clinical Nurse Specialist for Critical Care, two advanced practice nurses, worked together to create a Critical Care Fellowship Program for NPs entering critical care. The goal of the fellowship program is to ensure the NPs were prepared with the necessary advanced skills and knowledge to be an alternative care provider able to deliver efficient, safe, high-quality, cost–effective care to critical care patients and their families. The aim of this presentation is to share the process undertaken, including the planning and implementation process, evaluation plan, and lessons learned.

REFERENCES

Becker, D., Kaplow, R., Muenzen, P.M., & Hartigan, C. (2006). Activities performed by acute and critical care advanced practice nurses: American Association of Critical Care Nurses study of practice. *American Journal of Critical Care, 15*(2), 130–148.

Crowe, S. (2014). A role for nurse practitioners in the ICU: Advocating for change. *Dynamics, 25*(3), 26–29.

DiCenso, A., Martin-Misener, R., Bryant-Lukosius, D., Bourgeault, I., Kilpatrick, K., Donald, F., … Charbonneau-Smith, R. (2010). Advanced practice nursing in Canada: Overview of a decision support synthesis. *Nursing Leadership, 23,* 15–34.

Fry, M. (2011). Literature review of the impact of nurse practitioners in critical care services. *Nursing in Critical Care, 16*(2), 58–66.

Kapu, A.N., Thomson–Smith, C., & Jones, P. (2012). NPs in the ICU: The Vanderbilt initiative. *The Nurse Practitioner, 37*(8), 46–52.

Message Given and Received: Developing a standardized Tool for Shift-to-Shift Transfer of Accountability (TOA) in an Intensive Care Unit

Janice Glen, RN, Alana Harrington, HBSc, MSc, PhD/Dip (ABD), and Ellen Lewis, RN, St. Michael's Hospital, Toronto, Ontario

Key words: transfer of accountability (TOA), standardization, ICU, intensive care unit

Background: Clinical handover is an important area to target for improvement, given that nearly 70% of sentinel events are caused by a breakdown in communication. Often, what is lacking is a common structure that standardizes the information that is handed over. As such, Transfer of Accountability (TOA) tools have the potential to aid in the provision of consistent and relevant information and, in doing so, can improve the quality of patient care.

Objective: To develop a tool that aids in standardizing and providing structure to the verbal handover between Intensive Care Unit (ICU) registered nurses (RNs) at change of shift.

Methods: In order to develop a standardized tool, handover practice was observed and chart reviews were done to identify current practices. Additionally, expectations for handover were determined through conversation with both nursing and management teams and used in concert with the collected information to develop a checklist tool. These tools were then rolled out for trial to standardize the information that was communicated at handover. A post survey will be done to determine the effectiveness and usability of the tool.

Results: Chart reviews and observations identified gaps in documentation and inconsistencies and led to the development of a simple checklist tool. The checklist that was developed included: Head-to-Toe, a review of orders and medications, patient specific checklists (pain scores, SAS, delirium, etc.), as well as the proper disposal of narcotics. After three months of use, a post survey will be done to determine the usability of the tool. Chart reviews and observations of handover time will verify the effectiveness of the tool and any necessary revisions will be made prior to its finalization.

Conclusions: Preliminary data identified a lack of structure for handover between critical care RNs. To that end a checklist tool was developed. Ideally, the standardization of handover will reduce communication breakdowns and, ultimately, improve the quality of patient care.

REFERENCES

Alvardo, K. Et al. (2006). Transfer of accountability: Transforming shift handover to enhance patient safety. *Healthcare Quarterly, 9,* 75–59.

Benson, E., Rippin-Sisler, C., Jabusch, K., & Keast, S. (2007). Improving nursing shift-to-shift report. *Journal of Nursing Care Quality, 22,* 80–84.

Petersen, L.A., Brennan, T.A., O'Neil, A.C., Cook, E.F., & Lee, T.H. (1994). Does house staff discontinuity of care increase the risk for preventable adverse events? *Annals of Internal Medicine, 121,* 866–872. http://dx.doi.org/10.7326/0003-4819-121-11-199412010-00008

Riesenberg, L.A., Leitzsch, J., & Cunningham, J. M. (2010). Nursing handoffs: A systematic review of the literature. *American Journal of Nursing, 110,* 24–34.

Scovell, S. (2010). Role of the nurse-to-nurse handover in patient care. *Nursing Standard, 24,* 35–39.

Yee, K.C., Wong, M.C., & Turner, P. (2009). "Hand me an ISOBAR": A pilot study of an evidence based approach to improving shift-to-shift clinical handover. *Medical Journal of Australia, 190,* S121–124.

"Every Patient Must Have a Destination": Transitioning Care within the Intensive Care Unit

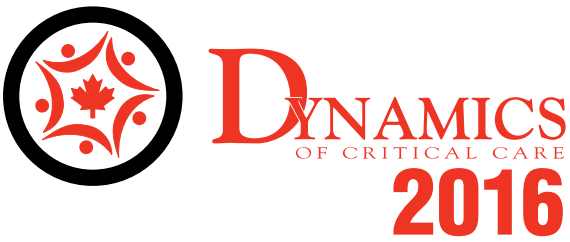
Mary Mustard, NP-adult, MN, CCN(C), CNCC(C), Darren Day, RN, and Ellen Lewis, RN, St. Michael's Hospital, Toronto, Ontario

Key words: chronic ventilation, interprofessional, checklist, transition of care

In a surgical intensive care unit, patient turn-over is frequent. In our Cardiovascular Intensive Care Unit (CVICU), 96.3% of patients stay less than 24 hours. Patients who require prolonged mechanical ventilation fall outside of the routine care process and often require more complex interventions and longer time in the Intensive Care Unit (ICU). In 2011, interprofessional, long-term care rounds were developed to discuss all patients residing in the CVICU for more than seven days. The intent was to: identify and understand patient/family issues; improve the coordination of care between nursing, health disciplines and medicine; and develop a more holistic approach to the care of patients receiving prolonged intensive care.

In early 2012, CVICU adopted "My Story" from our Medical Surgical Intensive Care Unit (MSICU) colleagues. This tool was originally developed in California by a family member whose husband was involved in a trauma. The tool was further refined for use at St. Michael's Hospital to humanize the patient's experience while in the hospital. The aim of the tool is to facilitate families sharing important information that is not traditionally captured in hospital documents, and provide a conversation starter between caregivers and family.

More recently, attention has been given to a fundamental tenant in our unit: "every patient must have a destination". There is a recognition that patients need to transition to other areas, including the ward, ventilation weaning units, or referring hospitals. With this in mind for long-term ICU patients, care needs to be re-focused and both short- and long-term goals need to be set. To that end, we have created a guideline/checklist to use proactively at weekly long-term care rounds, which addresses issues such as de-medicalization of the patient, development of written weaning and mobility plans, increasing patient/family



involvement in care, and initiating communication with future care facilities/units. Future evaluation will assess the impact this tool has had on our long-term ICU patients.

REFERENCES

Critical Care Services Ontario. (2013). *Long-term mechanical ventilation: Toolkit for adult acute care providers.* Retrieved from https://www.criticalcareontario.ca/EN/Toolbox/LongTerm%20Mechanical%20Ventilation/Long-Term%20Mechanical%20Ventilation%20Toolkit%20for%20Adult%20Acute%20Care%20Providers.pdf

Ely, E., Meade, M., Haponik, E., Kollef, M., Cook, D., Guyatt, G., & Stoller, J. (2001). Mechanical ventilator weaning protocols driven by non-physician health-care professionals: Evidence-based clinical practice guidelines, *Chest, 120,* 454S–463S.

Weled, B., Adzhigirey, L., Hodgman, T., Brilli, R., Spevetz, A., Kline, A., … Wheeler, D. (2015). Critical care delivery: The importance of process of care and ICU structure to improved outcomes: An update from the American College of Critical Care Medicine Task Force on Models of Critical Care. *Critical Care Medicine, 43,* 1520–1525.

The ICU-CARES Initiative: ICU Collection, Analysis, and Response to Evaluations of Satisfaction

Orla Smith, PhD, RN, Elizabeth Butorac, MN, RN, Melissa Guiyab, MN, RN, Ellen Lewis, RN, Nikki Marks, NP, MN, Mary Mustard, NP-adult, MN, CCN(C), CNCC(C), Karen Wannamaker, BSc, RN, Lisa Poon, Jan Friedrich, MD, and Andrew Baker, MD, St. Michael's Hospital, Toronto, Ontario

Key words: ICU, patient experience, family experience, satisfaction, data

Background: Excelling in the care of the critically ill requires a systematic approach to soliciting and utilizing patient and family feedback. The purpose of ICU-CARES is to capture data to identify areas of excellence and targets for improvement.

Methods: Our inter-professional team designed a survey based on existing literature with additional questions to address local issues using scaled and categorical response options and open-text fields for additional feedback. Patients and families in each of four ICUs (coronary care, cardiovascular, medical-surgical, and trauma-neurosurgical) are invited to complete the survey in paper or electronic form at discharge.

Results: During the first four months of data collection, 102 surveys were submitted. Patients completed a minority (13%; n=12/91) and spouses were the most frequent responders (48%; n=44/91) with the majority responding as the designated decision-maker (68%; n=68/92). The majority reported complete satisfaction with care (84%; n=81/97) and decision-making (75%; n=73/97). The proportion of excellent ratings was highest for nursing care (77%; n=76/99) and lowest for waiting room comfort (22%; n=22/98). Few reported visiting flexibility as excellent (36%; n=35/98). Consistency and frequency of information from nurses was rated as excellent more often than consistency and frequency of information from physicians [59% versus 45%, p=0.08; 59% versus 39%, p=0.03]. Teamwork was rated excellent by the majority (71%; n=71/99). Most (68%; n=52/77) reported being well informed about ICU discharge. A scorecard has been created to report and trend indicators in the domains of: presence; care and needs met; communication and information; and decision-making.

Conclusion: Systematic collection, analysis, and interpretation of patient and family feedback support our organizational commitment to excellence and help ensure improvement activities and resources are targeted to provide the best possible experience.

REFERENCES

Olding, M., McMillan, S.E., Reeves, S., Schmitt, M., Puntillo, K., & Kitto, S. (2015). Patient and family involvement in adult critical and intensive care settings: A scoping review. *Health Expectations.* http://dx.doi.org/10.111/hex.12402

Wall, R.J., Engelberg, R., Downey, L., Heyland, D.K., & Curtis, J. R. (2007). Refinement, scoring, and validation of the Family Satisfaction in the Intensive Care Unit (FS-ICU) survey. *Critical Care Medicine, 35,* 271–279.

Development of an Interprofessional Education Curriculum for a Study of Low-Flow Extracorporeal CO_2 Removal in the Intensive Care Unit

Orla Smith, PhD, RN, Michael Sklar, MD, Hilary Every, RRT, Pamela Greco, RRT, Kurtis Salway, RRT, MSc, Carolyn Campbell, BSc, Melissa Guiyab, MN, RN, Margaret Oddi, RRT Gyan Sandhu, BScN, RN, Prafulla Savedra, RN, Shannon Swift, MN, RN, Karen Wannamaker, BA, RN, and Laurent Brochard, MD, St. Michael's Hospital, Toronto, Ontario

Key words: ARDS, research, extracorporeal carbon dioxide removal, interprofessional practice, education

Current evidence suggests patients with Acute Respiratory Distress Syndrome (ARDS) be managed with a lung protective strategy incorporating low tidal volumes (~6 mls/kg) and plateau pressures less than 30 cmH2O. Achieving even lower tidal volumes may provide incremental benefit. However, reducing tidal volumes can induce severe hypercapnia with adverse effects. Treatment with an extracorporeal carbon dioxide removal (ECCO2R) device may facilitate ventilation with tidal volumes less than 6 mls/kg and reduced plateau pressures (Terragni et al., 2009). In the context of the international

SUPERNOVA study (NCT02282657), the role of ECCO2R in reducing tidal volumes will be assessed. In the study, ECCO2R will occur through a veno-venous circuit using the ALung Hemolung®-RAS system. Venous blood will be removed from the circulation using a dual-lumen catheter and pumped through a circuit to remove CO2 while tidal volume is incrementally reduced.

The purpose of this presentation is to introduce ECCO2R and describe development of an education curriculum to support the study in our intensive care unit. An interprofessional team of registered nurses (RNs), respiratory therapists (RTs), and physicians designed a four-hour workshop to train experienced front-line RNs and RTs on the system, in collaboration with the device manufacturer (ALung®). During training, roles and responsibilities for each health care professional involved in the care of study participants receiving ECCO2R are defined. In addition to training on the study protocol and ventilation algorithm, the workshop provides participants with didactic and hands-on training on: circuit priming and management including anticoagulation, catheter insertion, weaning and decannulation. A competency checklist outlines acquired skills at workshop completion. A start-of-shift checklist, incorporating two-person checks of the alarms, anticoagulation, catheter, circuit, and safety equipment supports the safe implementation and monitoring of the treatment for study participants.

REFERENCES

Acute Respiratory Distress Syndrome Network. (2000). Ventilation with lower tidal volumes as compared with traditional tidal volumes for acute lung injury and the acute respiratory distress syndrome. *New England Journal of Medicine, 342,* 1301–1308.

Hager, D.N., Krishnan, J.A., Hayden, D.L., & Brower, R.G. (2005). Tidal volume reduction in patients with acute lung injury when plateau pressures are not high. *American Journal of Respiratory Critical Care Medicine, 172,* 1241–1245.

Meade, M.O., Cook, D.J., Guyatt, G.H., Slutsky, A.S., Arabi, Y.M., Cooper, D.J., … Stewart, T.E. (2008). Ventilation strategy using low tidal volumes, recruitment maneuvers, and high positive end-expiratory pressure for acute lung injury and acute respiratory distress syndrome: A randomized controlled trial. *Journal of the American Medical Association, 299,* 637–45.

Mercat, A., Richard, J.C., Vielle, B., Jaber, S., Osman, D., Diehl, J.L., … Brochard, L. (2008). Expiratory Pressure (Express) Study Group. Positive end-expiratory pressure setting in adults with acute lung injury and acute respiratory distress syndrome: A randomized controlled trial. *Journal of the American Medical Association, 299,* 646–55.

Terragni, P.P., Del Sorbo, L., Mascia, L., Urbino, R., Martin, E.L., Birocco, A., … Ranieri, V.M. (2009). Tidal volume lower than 6 ml/kg enhances lung protection: Role of extracorporeal carbon dioxide removal. *Anesthesiology, 111,* 826–835.

Understanding moral distress experienced by critical care nurses

Ila Vargas Will, BN, RN, and Karen Then, PhD ACNP, Alberta Health Services, Calgary, Alberta

Key words: moral distress, nurses

Moral distress negatively impacts nurses and their patients (Meltzer & Huckabay, 2004). Moral distress is a conflict between knowing the right course of action believed to be morally correct and the inability to follow that course of action (Corley, Elswick, Gorman, & Clor, 2001; Pendry, 2007). For example, Intensive Care Unit (ICU) Registered Nurses (RNs) often provide aggressive and invasive treatments aimed at saving lives, notwithstanding the human costs nor the expressed wishes of the patient and family. Advancements in technology, ageing populations, and the ability to sustain patients with complex diseases longer all influence the experience of moral distress (Gutierrez, 2005). Adding to the distress, such treatments can, contrary to some nursing practices, adversely affect a patient's quality of life. Nurses can remain unaware of their moral distress (Gutierrez, 2005; Pendry, 2007). A clear, consistent understanding of moral distress by RNs would assist in managing and decreasing this phenomenon.

This presentation reports on a project aimed at understanding moral distress experienced by critical care nurses in a trauma centre. The project included interviews with key stakeholders, an ICU RN on-line survey and focus groups with ICU RNs. Causes, symptoms, effects, and potential solutions to moral distress underwent analysis. By increasing understanding of moral distress among RNs in ICUs, available resources and supportive interventions suitable to the nursing staff in critical care units will be presented. This work has the potential to impact ethical patient and family collaborative care across critical care settings while exploring expected outcomes, goals, and the QOL of critically ill patients.

REFERENCES

Corley, M.C., Elswick, R.K., Gorman, M., & Clor, T. (2001). Development and evaluation of a moral distress scale. *Journal of Advanced Nursing, 33*(2), 250–256. http://dx.doi.org/10.1111/j.1365-2648.2001.01658.x10.1046/j.1365-2648.2001.01658.x

Gutierrez, K.M. (2005). Critical care nurses' perceptions of and responses to moral distress. *Dimensions of Critical Care Nursing, 24*(5), 229–241.

Meltzer, L.S., & Huckabay, L.M. (2004). Critical care nurses' perceptions of futile care and its effect on burnout. *American Journal of Critical Care, 13*(3), 202–208.

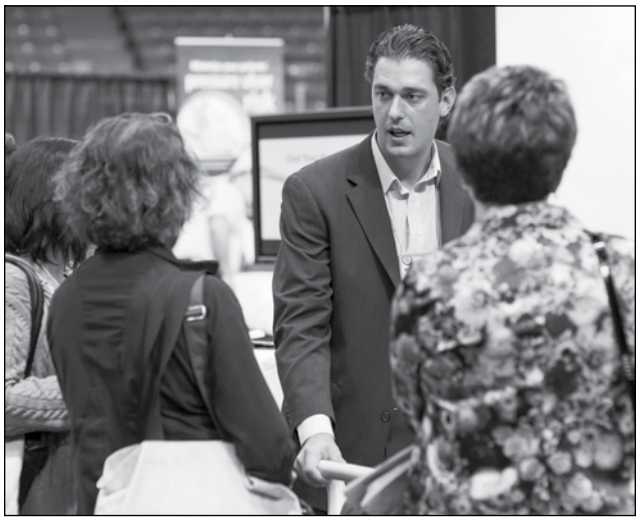
Pendry, P.S. (2007). Moral distress: Recognizing it to retain nurses. *Nursing Economic$, 25*(4), 217–221.

ABSTRACTS

Membership Recruitment

Are you a critical care nurse or interested in critical care nursing? Join your National Association!

Visit www.caccn.ca and join today!



Enter NEWMBR2016 at the time of registration to receive $10.00 off CACCN one- and two-year membership fees. Membership must be completed online and the discount code must be entered at the time of registration. *Discount code is valid on new memberships only until June 30, 2016.*

Current CACCN members are eligible to be entered into a quarterly draw to receive a complimentary one year CACCN membership (value $75) for new members referred to CACCN

Criteria:

- Current / Active CACCN Members may participate.
- Applicable on NEW member applications only. 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.
- 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".
- Names cannot be entered into the draw if the sponsor / recommending information is not included when the member application is processed.
- Members may be entered to win a complimentary membership for each referral once per quarter.

www.caccn.ca

CACCN calendar of events

DATES TO REMEMBER!

April 11–July 1: Canadian Nurses Association Certification Registration open

May 9–16: National Nursing Week

May 31: Draeger Medical Canada Chapter of the Year Award deadline

June 1: Brenda Morgan Leadership Excellence Award deadline

June 1: BBraun "Sharing Expertise" Award deadline

June 1: CACCN Life Member Award deadline

June 1: CACCN "Chasing Excellence" Award deadline

June 1: Spacelabs Healthcare Innovative Project Award deadline

June 5: Dynamics 2016 conference brochure/online registration available

July 5: Board of Director Nominations deadline

August 15: CACCN Canadian Intensive Care Week Spotlight Challenge Award deadline

August 22: Dynamics 2016 Early Bird Registration deadline

September 1: CACCN Educational Award deadline

September 5: Dynamics 2016 Registration deadline

September 19–October 7: Canadian Nurses Association Certification Examinations

September 22–23: CACCN Board of Director Meetings

September 24: Chapter Connections Day

September 25–27: Dynamics of Critical Care™ Conference 2016

Awards available to CACCN members

Criteria for awards are published on pages 45–55 of this issue of Canadian Journal of Critical Care Nursing.

ADVERTISING OPPORTUNITIES

CACCN Dynamic Career Connections

CACCN is offering the opportunity to post individual employment opportunities on the CACCN website. If you are interested in taking advantage of this advertising opportunity, please visit CACCN Advertising Opportunities on the CACCN website at **www.caccn.ca** for rates and information.

JobLINKS on www.caccn.ca

JobLINKS 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**.

Reach your audience directly on our website

Together with our publishing partner, MultiView, we are bringing you closer to your audience and connecting your business with the buyers you need.

If you have any questions or are interested in learning more about how to feature your company on the CACCN website, please call Jon Smith, Display Advertising Manager, at 972-402-7023. For more information about this opportunity, please request a media kit via **jsmith@multiview.com**.

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.

The Chapter of the Year criteria is founded on the CACCN Mission Statement and recognizes the activities of the Chapter with specific emphasis on service to members and promotion of the specialty of Critical Care Nursing including, but not limited to publications, presentations, and certification activities.

Note: this award application process is complementary to the Annual Chapter Report. We recommend completion of the Annual Chapter Report prior to proceeding with calculating the Chapter of the Year score.

Award funds available: $500.00
Recognition plaque

Submission deadline: May 31 annually

Application process: Mandatory submission for all Chapters

Criteria for the award program

- Eligible chapter activities for the period of April 1 to March 31 each year
- The chapter awarded the most points will be the successful recipient of the Chapter of the Year Award
- In the case of a tie, CACCN BOD will determine the final recipient of the award
- The successful chapter will be announced at Chapter Connections Day
- Plaque and cheque will be presented at the annual awards ceremony at Dynamics by the Chapter of the Year recipients for the previous year.

Conditions for the award program

- All chapters of CACCN are eligible for Chapter of the Year Award
- Chapters that have not submitted their annual report and quarterly financials by the required deadline quarterly/annually to National Office will not be eligible for the award
- Chapters will be responsible for ensuring that National Office receives all required documentation to be considered for the award
- Points will be awarded for only chapter activities that have been validated with supporting documentation
- The successful Chapter will be announced at the annual CACCN Awards Ceremony and in CACCN publications
- *All Chapter reports/and individual chapter scores will be available for review at Chapter Connections Day/Dynamics.*

Points system

Points are accumulated in each of six activity categories:

Section	Category
1	Member education
2	Promotion of critical care specialty
3	New member recruitment
4	Sustained membership
5	Academic activity
6	Certification activity

Instructions:

1. Complete the Chapter Annual Report
2. Gather validation documents for each of the categories of activities in the past year
3. Calculate scores for sections 1 thru 6
4. Add section scores for total Chapter of the Year score
5. Submit the application with documentation to CACCN National Office by May 31 annually.

Section instructions

Section 1: Member education

- Any educational event coordinated and hosted by the local chapter is eligible
- The total number of hours for an educational session are considered (excluding meal breaks and social events)
- Concurrent sessions are not cumulatively totalled. It is presumed that the session participants would be split between the concurrent session, therefore, hours of education for participant is not altered
  - For example: an eight-hour educational day that includes six concurrent sessions would be counted as eight hours for a total of six CL hours
- Please contact CACCN head office if your delivery model is different than reflected in this section
- **Suggested validation documents:**
  - Brochure, advertising or pamphlet
  - Copy of agenda (including hours of education)
  - Attendee numbers
  - Evaluation forms or report from each event.

Formula:

- *To create the member education score, the total number of hours of education provided in the year is divided by the total number of Chapter members, this number is then multiplied by 1,000 in order to establish a score that is not dependent on the size of the individual chapter.*

<u>Total hours of education offered in the year</u>
Total number of Chapter members x 1000 = member education

Example:

Chapter A

- Donation after Cardiac Death educational meeting – 3 hours
- Total Chapter Membership number 26
- 3 hours divided by 26 members = 0.115 multiplied by 1000 = 115
- therefore the membership education innovation score is 115

Chapter B

- Neuro education and bioethics education session offered
- Total education hours – 28 hours
- Membership number 310
- Formula: 28 hours divided by 310 members = 0.090 multiplied by 1000 = 90
- Therefore, the member membership education score is 90

Section 2: Promotion of critical care specialty

Total hours of any public or community service event coordinated and hosted by the local chapter are eligible.

- Concurrent sessions are calculated as per member education hours. For example: an eight-hour event that includes six concurrent sessions would be counted as eight hours
- Eligible event must be clearly indicated as sponsored/hosted by CACCN. Event examples: participating in blood pressure clinics, teaching CPR to the public, participation in health fairs.

Validation documents:

- Documents to identify event as CACCN sponsored
  - For example, submitting a letter from the receiving group or a picture of the event, etc.

Formula:

To create the Promotion of Critical Care Specialty *score, the total number of hours of promotional event hours provided in the year is divided by the total number of Chapter members. This number is then multiplied by 1,000 in order to establish a score that is not dependent on the size of the individual chapter.*

Total hours of events offered

Total number of chapter members x 1000 = Promotion of Critical Care Specialty

Chapter A

- Total specialty promotion hours – 4 hours
- Membership number 38
- Formula: 4 hours divided by 38 members = 0.105 multiplied by 1000 = 105
- Therefore the **Promotion of Critical Care Specialty** score is 105

Chapter B

- Total specialty promotion hours – 2 hours
- Membership number 110
- Formula: 2 hours divided by 110 members = 0.018 multiplied by 1000 = 18
- Therefore the **Promotion of Critical Care Specialty** score is 18

Section 3: New Member Recruitment

- Calculated based on the percentage of new members recruited up to March 31 of the award year
- Any member with a membership lapse of 12 months or more will be considered a new member
  - i.e., a membership expires April 2011 and is renewed February 2012. This member would be considered a **renewing** member, as 10 months have passed since the membership expired
  - i.e., a membership expires April 2011 and is renewed June 2012. This member would be considered a new member due to the lapse in membership of 14 months
- Use the Membership Recruitment/Retention spreadsheet from the CACCN National Office to obtain the number of new members.

Formula:

To create the recruitment score, the total number of recruited members is divided by the total number of chapter members as of March 31 of the award year. This number is then multiplied by 100 to give you the percentage of new members. The points awarded are noted on the chart based on the percentage of new members.

Total new members

Total number of chapter members x 100 = percentage of new members

Percentage	Points	Percentage	Points
01–10%	10	51–60%	60
11–20%	20	61–70%	70
21–30%	30	71–80%	80
31–40%	40	81–90%	90
41–50%	50	91–100%	100

Chapter A

- Total number of new members 23
- Total number of chapter members 110
- Formula: 23 new members divided by 110 members = 0.209 multiplied by 100 = 20.9 % - rounded up to 21%
- 21% corresponds with the 21-30% level on the chart. Therefore 30 points will be awarded.

Chapter B

- Total number of new members – 12
- Total number of chapter members – 38
- Formula: 12 new members divided by 38 members = 0.315 multiplied by 100 = 31.5 % - rounded up to 32%
- 32% corresponds with the 31-40% level. Therefore 40 points will be awarded.

Section 4: Sustained members

- Calculated based on the percentage of renewing members up to March 31 of the award year
- Any member with a membership lapse of less than 12 months will be considered a renewed member
  - i.e., a membership expired April 2013 and is renewed February 2014. This member would be considered a **renewing** member as the renewal is within less than 12 months of the expiry
  - i.e., a membership expires April 2013 and is renewed June 2014. This member would be considered a new member as the "renewal" is more than 12 months of the expiry
- Use the Membership Recruitment/Retention spreadsheet from the CACCN national office to obtain the number of new members

Formula:
To create the sustained members score, the total number of renewed members is divided by the total number of chapter members as of March 31 of the award year. This number is then multiplied by 100 to give you the percentage of sustained members. The points awarded are noted on the chart based on the percentage of new members.

Total new members
Total number of chapter members x 100 = percentage of new members

Percentage	Points	Percentage	Points
01–10%	5	51–60%	30
11–20%	10	61–70%	35
21–30%	15	71–80%	40
31–40%	20	81–90%	45
41–50%	25	91–100%	50

Example:
Chapter A
- Chapter A renewed 70 members this past year
- They have 250 total chapter members
- 70 divided by 250 = 0.28 multiplied by 100 = 28%
- 28% corresponds with the 21–30% category therefore 15 points are awarded.

Section 5: Academic activity
- This section accounts for the activity of each chapter related to contribution to the science and specialty of critical care nursing. This can include publications and presentations in local, national and international journals, and presentation delivered by chapter members
- Participation in national position statements, standards work and other committees is also scored.

Formula:
Publications
- Points will be calculated for chapter members who have contributed articles to:
  - The chapter newsletter
  - Canadian Journal of Critical Care Nursing (excluding the Summer Abstract Journal)
  - Any other peer reviewed journal where the author is affiliated with CACCN
- Chapters are responsible for providing:
  - list of member contributions, together with a copy of the chapter newsletter
  - list of member contributions to the journal or publication (full reference).

Each article = 25 points

Presentations
- Points will be calculated for chapter members who have contributed presentations at local, provincial and national CACCN activities
- Points will be awarded only once for the presentation, regardless of the number of times/venues, at which it is presented
- Chapters are responsible for providing:
  - list of member contributions, together with a copy of the brochure or flyer listing the chapter member as a presenter.

Each Presentation = 25 points

Committee work
- Points will be calculated for chapter members who have contributed to committee work on behalf of CACCN at the local, provincial and national CACCN activities
- Points will be awarded only once for each member on each committee, regardless of the number of meetings or level of participation of the member
- Chapters are responsible for providing: list of member contributions.

Total points from all three areas:

Example
Chapter A
- An article was published by a member in the chapter's newsletter = 25 points
- One article from a chapter member was published in Canadian Journal of Critical Care Nursing = 25 points
- One chapter member presented at the local education day = 25 points
- Three members presented separate presentations at a Dynamics conference = 75 points

Total points = 150

Section 6: Critical care certification—CNCC(C) and CNCC(P)
- Points will be calculated for chapter members who have successfully completed and/or renewed the CNA Certification Examination in the award year
- Validation of certification status of submitted members will be obtained via the Canadian Nurses Association.

Formula initial certification
To create the certification score, the total number of certified members of the chapter in the award year is divided by the total number of chapter members. This number is then multiplied by 100 to give you the percentage of certified members. Multiply this number by 10 to give you the number of points awarded.

Number of members certified/renewed
Total number of chapter members x 100 = Percentage
10 points for each percentage of the total number of chapter members who are new certifications in the award year.

Percentage x 10 = certification points

Example
Chapter A
- Initial certification = 3 members
- 250 chapter members
- 3 divided by 250 = 0.012 multiplied by 100 = 1.2%
- multiplied by 10 = 12 points

Formula renewal certification
To create the renewal certification score, the total number of renewed certifications of the chapter in the award year is divided by the total number of chapter members. This number is then multiplied by 100 to give you the percentage of certified members. Multiply this number by 5 to give you the number of points awarded.

Number of members renewed

Total number of chapter members x 100 = Percentage

5 points for each percentage of the total number of chapter members who are new certifications in the award year.

Percentage x 5 = certification points

Example

Chapter A

- Renewed certification = 11 members
- 250 chapter members
- 11 divided by 250 = 0.044 multiplied by 100 = 4.4%
- multiplied by 5 = 22 points
- Add initial certification total with renewal total for points awarded in certification category
- Initial certification points + renewal certification points= total certification score for chapter
- Example Chapter A: 12 + 22= 34 certification points

Submission: Tally the points from all categories on the calculation form, complete the application form and forward all to National Office with supporting documentation.

Draeger Medical Canada and the CACCN Board of Directors look forward to receiving your application. Good luck in your endeavours!

The CACCN Board of Directors & Draeger Medical Canada retain the right to amend the award criteria

Criteria Revisions: October 2014
CACCN Document: Award Criteria Revised March 2011
Form Design Revision Date: January 2011
The Draeger Medical Canada Inc. Chapter of the Year Award

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 *Canadian Journal of Critical Care Nursing*
- 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 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 *Canadian Journal of Critical Care Nursing* 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.

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 the *Canadian Journal of Critical Care Nursing.*

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

CACCN Educational Awards

The CACCN Educational Awards have been established to provide funds ($1,000.00 each) to assist critical care nurses to attend continuing education programs at the baccalaureate, masters and doctorate levels.

Award funds available: Two awards - $1,000.00

Deadline for submission: January 31 and September 1

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

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

Mailed applications must be postmarked on or before January 31 or September 1

Eligibility criteria
The applicant must:
- be an active member of the Canadian Association of Critical Care Nurses for a minimum of one (1) year
- be accepted to an accredited continuing education program relevant to the practice, administration, teaching and research of critical care nursing
- not have been the recipient of this award in the past two years.

Application process
- submit a completed CACCN Educational Award application including all required documentation. Submit a letter of reference from his/her current employer
- incomplete applications will not be considered
- presentations considered for merit points are those that are **not** prepared as part of your regular employment role/responsibilities — oral and poster presentations will be considered.

Selection process
- CACCN reserves the right to withhold the award if no candidate meets the criteria
- The successful candidate will be notified via email and regular mail
- The successful candidate will be recognized at the Awards Ceremony at the Dynamics of Critical Care Conference (annually in September)
- The successful candidate's name/photograph will be published in *The Canadian Journal of Critical Care Nursing* (Winter edition)
- Current members of the National Board of Directors are not eligible.

The Board of Directors of the Canadian Association of Critical Care Nurses retains the right to amend the award criteria.

CACCN Recruitment and Retention Awards

The Canadian Association of Critical Care Nurses Recruitment and Retention Awards were established to recognize chapters for their outstanding achievements with respect to recruiting and retaining membership.

Award funds available:
Full Dynamics Conference Tuition Coupons
Partial Dynamics Conference Tuition Coupons

Deadline: Fiscal year end – March 31

The CACCN Office will track chapter recruitment and retention for the fiscal year.

Chapters will receive a copy of the Recruitment and Retention Report annually in April with coupon allotment noted.

Coupons will be issued electronically to all chapters.

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) – Dynamics of Critical Care Conference three-day early bird** tuition coupon
- **Minimum of 33%** of membership is "**NEW**" between April 1 to March 31, the chapter will receive **one (1) – Dynamics of Critical Care Conference three-day early bird** tuition coupon and **one (1) – Dynamics of Critical Care Conference partial** tuition coupon.

Partial coupons are equal to one-day early bird members tuition.

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 **one (1)—Dynamics of Critical Care Conference three-day early bird** tuition coupon and **two (2)**—Dynamics of Critical Care Conference partial tuition coupons
- If the chapter has **greater than 70% renewal** of its previous year's members, the chapter will receive **two (2)—Dynamics of Critical Care Conference partial** tuition coupons
- If the chapter has **greater than 60% renewa**l of its previous year's members, the chapter will receive **one (1)—Dynamics of Critical Care Conference partial** tuition coupon.

Partial coupons are equal to one-day early bird members tuition

Tuition coupon policy

- Tuition coupons are for full or partial tuition
- Tuition coupons may only be used by active members of the Canadian Association of Critical Care Nurses
- Coupons are issued to chapters annually in May
- Coupons are valid on early bird tuition only
- Coupons must be redeemed by the early bird tuition deadline
- Coupon codes may be used only once
- Tuition coupon values are determined annually by the CACCN National Board of Directors
- Coupons may not be used for dinner, tour, hotel or other conference activities
- Coupons are not redeemable for cash
- Tuition coupons cannot be carried over to the next fiscal year
- Tuition coupons are non-transferable
- Exceptions to this policy must be approved by the CACCN National Board of Directors.

For additional information, please refer to the Canadian Association of Critical Care Nurses Tuition Coupon Policy.

The Board of Directors of the Canadian Association of Critical Care Nurses retains the right to amend the award criteria.

CACCN Document: Award Criteria
Content Revision Date: March 2014
Form Design Revision Date: January 2011
Content Revision Date: April 2008
Chapter Recruitment and Retention Awards

BBraun Sharing Expertise Award

The BBraun Sharing Expertise Award is a peer-nominated award and will be presented to an individual who exhibits stellar leadership and mentoring abilities in critical care.

The nominee for this award is an individual who supports, encourages, and teaches colleagues. The nominee 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. It is not necessary for the candidate to be in a formal leadership or education role to qualify for this award.

The award funds may be used to attend educational programs or conferences related to critical care.

Award funds available: $1,000.00

Deadline for submission: June 1

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

- The nominee must be an active CACCN member for a minimum of one (1) year
- The nominee must have a minimum of three (3) years of critical care nursing experience
- Preference is given to a nominee who has CNA Certification [CNCC(C) or CNCCP(C)]
- The nominee practises to the CACCN Standards of Critical Care Nursing Practice (4th ed., 2009)
- Each nomination must have the support of a critical care nursing colleague and the nominee's manager
- Members of the CACCN Board of Directors are not eligible for consideration of the BBraun Sharing Expertise Award.

Nomination process

- Three letters in support of the nominee are required and must be sent to the CACCN
- The nomination letter must provide information outlining the qualities of the nominee and the reasons the nominee should be selected for the award
- One letter of support must be written by a CACCN member
- The other two letters must include one written by the nominee's manager—must testify to the eligibility
- Incomplete nomination packages will not be considered.

Selection process

- Each nomination will be reviewed by the CACCN Award Review Committee
- The awards committee reserves the right to withhold the award if no candidate meets the criteria
- The successful candidate will be notified by the CACCN Director of Awards and Corporate Sponsorship via email and regular mail
- The successful candidate will be recognized at the Awards Ceremony at the Dynamics of Critical Care Conference (annually in September)
- The successful candidate's name/photograph will be published in *Canadian Journal of Critical Care Nursing* (Winter edition).

The Board of Directors of the Canadian Association of Critical Care Nurses and BBraun Medical retain the right to amend the award criteria.

CACCN Document: Award Criteria
Content Revision Date: March 2014
Form Revision Date: April 2012
Form Design Revision Date: January 2011
Content Revision Date: January 2010
BBraun Sharing Expertise Award

The Brenda Morgan Leadership Excellence Award

The Brenda Morgan Leadership Excellence Award is a peer-nominated award. The award was established to recognize Brenda Morgan's contribution and leadership to CACCN.

The Brenda Morgan Leadership Excellence Award 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 the nominee'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 the Canadian Association of Critical Care Nurses to recognize and honour a nurse who exemplifies excellence in leadership, in the specialty of Critical Care.

Award funds available: $1,000.00 plus award trophy

Deadline for submission: June 1

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

Critical care nurses who are nominated for this award will have consistently demonstrated qualities of leadership and are considered a visionary and an innovator in order to advance the goals of critical care nursing.

The nominee must:

- be an active 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
- hold a valid adult or pediatric specialty in critical care certification from CNA (preferred)
- demonstrate leadership in the specialty of critical care
- engage others in the specialty of critical care nursing
- role model and facilitate professional self-development and lifelong learning
- exemplify the following qualities and values:
  - Innovation
  - Accountability
  - Visionary
  - Teamwork and Collaboration
  - Respect/Integrity
- contributes or has contributed to the Canadian Association of Critical Care Nurses at the regional and/or national levels.

Application process

- the application involves a nomination process
- submit two (2) letters describing how the nominee has met the requirements under the Eligibility Criteria:
  - Use as many examples as possible to highlight why the nominee should be considered for the award and what this nominee does that makes her/him outstanding
  - The nomination letters should be as detailed as possible, as the CACCN Award Committee depends on this information to select the award recipient from amongst many deserving candidates.

Selection process

- each nomination will be reviewed by the CACCN Director of Awards and Corporate Sponsorship and the CACCN Award Review Committee
- The Brenda Morgan Leadership Award Review Committee will consist of:
  - Two members of the Board of Directors
  - Brenda Morgan (when possible)
- the Awards Review Committee reserves the right to withhold the award if no candidate meets the eligibility criteria
- the successful candidate will be notified by the CACCN Director of Awards and Corporate Sponsorship via email and regular mail
- the successful candidate will be recognized at the Awards Ceremony at the Dynamics of Critical Care Conference (annually in September) conference
- the successful candidate's name/photograph will be published in *Canadian Journal of Critical Care Nursing* (Winter edition).

Terms and conditions of the Award:

- the award recipient will be encouraged to write a reflective article for *Canadian Journal of Critical Care Nursing* sharing their accomplishments and describing their leadership experience
- the article should reflect on their passion for critical care nursing, their leadership qualities and how they used these effectively to achieve their outcome.

The Board of Directors of the Canadian Association of Critical Care Nurses retains the right to amend the award criteria.

CACCN Document: Award Criteria
Content Revision: March 2014
Form Design Revision Date: January 2011
Content Revision Date: January 2010
The Brenda Morgan Leadership Excellence Award

The CACCN "Chasing Excellence" Award

The CACCN "Chasing Excellence" Award is presented annually to a member of the Canadian Association of Critical Care Nurses who consistently demonstrates excellence in critical care nursing practice.

The CACCN Chasing Excellence Award is to be used by the recipient for continued professional or leadership development in critical care nursing.

Award Funds Available: $ 1,000.00
Deadline for Submission: June 1

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

Mailed applications must be postmarked on or before June 1.

The CACCN Chasing Excellence Award is a peer nominated award. The CACCN Chasing Excellence Award is awarded to a critical care nurse who:

- is an active member of the Canadian Association of Critical Care Nurses for a minimum of one (1) years
- has a primary role in direct patient care in critical care
- holds Canadian Nurses Association certification in critical care [CNCC(C) or CNCCP (C)] *(preferred)*
- 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 and Stannard, 1999)
  - integrates and coordinates daily patient care with other team members
  - advocates, and develops a plan of care that consistently considers the patient and family and ensures they receive the best care possible
  - provides education, support and comfort to patients and their families to help them cope with the trajectory of illness and injury, to recovery, palliation or death
  - role models collaborative team skills within the inter-professional health care team
  - assumes a leadership role as dictated by the dynamically changing needs of the unit
  - is a role model to new staff and students
  - shares clinical wisdom as a preceptor to new staff and students
  - regularly participates in continuing education and professional development

Nomination Process:

- **Three** letters in support of the nominee must be sent to CACCN by the deadline
- One letter of support must be written by a CACCN member. A supporting letter from a **supervisor** such as a unit manager or team leader is also required.
  - The nomination letters must describe three clinical examples outlining the nominee's clinical excellence and expertise
- Incomplete nomination packages will not be considered.

Selection Process

- each nomination will be reviewed by the Canadian Association of Critical Care Nurses Awards Review Committee
- The awards committee reserves the right to withhold the award if no candidate meets the criteria
- The successful candidate will be notified by the CACCN Director of Awards and Corporate Sponsorship via email and regular mail
- The successful candidate will be recognized at the Awards Ceremony at the Dynamics of Critical Care Conference (annually in September)
- The successful candidate's name/photograph will be published in *Canadian Journal of Critical Care Nursing* (Winter edition)
- Current members of the National Board of Directors are not eligible.

The Board of Directors of the Canadian Association of Critical Care Nurses retains the right to amend the award criteria.

Reference

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

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

The CACCN "Chasing Excellence" Award
Revision: January 2015
Content Revision: March 2014
Logo Revision: 2012
Form Design Revision Date: January 2011

Canadian Intensive Care Week "Spotlight" Challenge

The Canadian Association of Critical Care Nurses Canadian Intensive Care Week "Spotlight" Challenge will be presented to a group of critical care nurses who develop an activity and/or event that will profile their local Critical Care Team during Canadian Intensive Care Week (annually in October/November).

Award funds available: $500.00 total

Deadline for submission: August 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 June 1.

Award criteria

- the primary contact person must be an active member of the Canadian Association of Critical Care Nurses for a minimum of one (1) year
- a completed Canadian Association of Critical Care Nurses application form must be submitted.

Award requirements

- the event/activity must be held during Canadian Intensive Care Week
- following the event/activity, a report must be submitted for publication, with photographs*, for publication on the Canadian Association of Critical Care Nurses website and/or in *Canadian Journal of Critical Care Nursing*
- Canadian Association of Critical Care Nurses photographic consent forms must accompany all submitted photographs
- all submissions become the property of the Canadian Association of Critical Care Nurses and may be used in current/future publications (print and electronic).

Award review

- applications will be judged by blind review
- applications will be considered based on the following criteria:
  - increase the visibility of critical care services in your local community
  - uniqueness/creativity of the activity/event
  - relevance to the objectives of Canadian Intensive Care Week
  - feasibility of activity/event.

The Board of Directors of the Canadian Association of Critical Care Nurses retains the right to amend the award criteria.

Canadian Intensive Care Week "Spotlight" Challenge
Criteria Revision: March 2014
Criteria Revision: December 2013
Approved: March 2013

CACCN Life Member Award

CACCN Life Member status is awarded to individuals who have demonstrated sustained support and exceptional contributions to the Canadian Association of Critical Care Nurses and its Mission and Vision. Life members have contributed to the advancement of the art and science of critical care nursing through practice, education, research leadership and advocacy for the specialty.

This award is conferred by the Canadian Association of Critical Care Nurses.

As a Life Member, the recipient will be provided a complimentary annual CACCN membership. The recipient will retain CACCN voting privileges until such time as they actively retire from registered nursing and/or cease to hold an active practising nursing licence, at which time the complimentary membership will revert to an affiliate membership.

Awards available

- Award of choice
- Funding for travel, tuition and hotel accommodation to Dynamics to accept the award

Deadline for submission: June 1 annually

Send nominations to
CACCN National Office at **caccn@caccn.ca** or fax to 519-649-1458 or
Mail to: CACCN, P. O. Box # 25322, London, ON, N6C 6B1

Eligibility criteria

- The candidate must be a CACCN member in good standing for a minimum of 10 years (with no lapse of membership)
- The candidate has contributed to the Mission and Vision of CACCN in two or more of the following ways:
  - Providing leadership in direct patient care practice, education, research and advocacy with a focus on critical care
  - Assuming CACCN leadership roles within the organization through national or chapter executive/project work or contributions to the *Canadian Journal of Critical Care Nursing* (editorial board, columnist)
  - Contributing to the advancement of the science of critical care nursing via evidence generation, education or quality assurance activities on behalf of the CACCN at local, regional and national levels
  - Demonstrating the values of CACCN in their practice
  - Acting as a resource/expert in a domain of critical care nursing (practice, education, research and leadership)
  - Advocating for the practice of critical care nursing at the regional, provincial or national level.

Exclusion criteria

- The candidate is not a member of CACCN
- The candidate does not hold a registered nursing licence
- Self-nominations will not be accepted
- Nominations of elected officers at the national or chapter level of the CACCN will not be accepted during an active term of office.

Nomination procedure

The primary nominator is required to provide the following for consideration:

- Candidate Personal Information:
  - Curriculum Vitae; **or**
  - Resume, **or**
  - Name
  - Address
  - Educational history
  - Employment history including number of years of practice
- Candidate's CACCN activities including:
  - Positions and terms of office with the CACCN (local and/or national)
  - Relevant contributions, for example, committee work (local and/or national), guideline development, educational contributions certification exam support.

Nominators (two CACCN members) must each provide a written statement as the candidate's eligibility for a lifetime member award:

- Candidate statements cannot exceed one page
- The statement should highlight the impact the candidate has had on the growth of the association and the achievement of the association's mission
- The statement should also provide examples of outstanding contributions to CACCN and/or critical care nursing practice.

Consideration/selection

- Candidates must be nominated by a current CACCN Member
- Only candidates meeting the award criteria will be considered
- Selection shall be made by candidate review and Life time membership will be awarded by the National Board of Directors of the Canadian Association of Critical Care Nurses
- Successful recipients will be notified of their selection via email and regular mail
- Successful recipients will be:
  - announced at the Annual General Meeting (AGM)
  - acknowledged at the CACCN Awards ceremony at Dynamics of Critical Care
  - in the *Canadian Journal of Critical Care Nursing* (Winter); and
  - posting on the CACCN website.
- The award will be presented in person wherever possible
  - If the recipient is not in attendance at Dynamics, a National Board of Director or Chapter President will present the award in person
  - In circumstances where a personal presentation is not possible, the Chief Operating Officer shall mail the award to the recipient in a timely manner following the announcement
- The CACCN Board of Directors are not eligible to submit nominations
- The CACCN Board of Directors has the right to forego a designation in a given year
- The CACCN Board of Directors has the right to alter the award criteria as required.

Terms of Reference

- At the time of the award, CACCN shall provide recipients with the following:
  - Complimentary CACCN Membership for life
  - A commemorative certificate
  - A commemorative gift (recipient's choice)
  - Dynamics Conference tuition for the day of the Awards ceremony
  - Travel expenses of up to $500 to be used to attend the Awards Ceremony at the Dynamics of Critical Care Conference; Travel expenses must be used in the year the award is presented
  - Hotel accommodation for two nights at the conference host hotel.

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

CACCN/Sage Products Poster Bursary

The CACCN/Sage Products Poster Bursary provides a $500 award to eligible applicants to attend the Dynamics of Critical Care Conference to present a poster with a focus on the prevention of complications or deleterious impacts of critical illness hospitalization. Maximum of ten (10) recipients may be selected annually.

Award funds available: $500/each
Ten (10) bursaries available (annually)

Application year: Dynamics of Critical Care Conference Call for Abstracts (annually)

Deadline for submission: January 31 (annually)

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

Eligibility

- First/presenting poster author is an active CACCN member
- **First-time** poster submission to CACCN Dynamics conference
- Focus of the poster is on the prevention of complications or deleterious impacts of critical illness hospitalization for example (but not limited to): prevention of hospital acquired infection, including; pressure injury reduction; and early mobility)
- Completed **CACCN/Sage Products Poster Bursary** application
- Poster is reviewed through the abstract submission system and is accepted for presentation at CACCN's Dynamics of Critical Care conference.

Note:

- No branding of the poster for Sage Products is required
- The poster does not need to address prevention using products provided by Sage Products.

Application process

- Applicants must submit a poster abstract online at www.caccn.ca as per the CACCN Dynamics abstract submission process by no later than 2359 ET – January 31 annually
- Applicants complete and submit the **CACCN/Sage Products Poster Bursary** application to CACCN National Office (caccn@caccn.ca) at the time of abstract submission or by no later than 2359 ET – January 31 annually
- The poster abstract will be blind reviewed according to CACCN's abstract review policies
- Following review, eligible abstracts will be listed based on review scores
- The first ten (10) eligible abstracts with the highest review scores will receive a bursary of $500/each;
- Successful poster presenters will be notified via email and regular mail
- Acceptance of the Sage Products – CACCN Bursary indicates a commitment by the presenter to attend the Dynamics conference to present the poster
- A letter of acceptance must be signed by the recipient prior to the distribution of the funds
- **CACCN/Sage Products Poster Bursary** may only be used to offset conference expenses: registration, travel, accommodation, meals, poster preparation/printing, etc.
- **CACCN/Sage Products Poster Bursary** recipients will be acknowledged by CACCN and Sage Representatives at the CACCN Awards Ceremony
- Recipients are required to attend the CACCN awards ceremony and the Sage Products Exhibit Booth at the conference for photographs
- The successful applicant will forfeit the bursary if they fail to attend the Dynamics of Critical Care Conference, the CACCN Awards Ceremony and the Sage Products Booth.

THE CANADIAN JOURNAL OF CRITICAL CARE NURSING

Information for Authors

The Canadian Journal of Critical Care Nursing (CJCCN) 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 *The Canadian Journal of Critical Care Nursing* 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

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.

Vision Statement

All critical care nurses provide the highest standard of patient- and family-centred care through an engaging, vibrant, educated and research driven specialized community.

Mission Statement

We engage and inform Canadian Critical Care nurses through education and networking and provide a strong unified national identity.

Benefits of Membership

- A strong, unified voice for critical care nursing in Canada
- A subscription to the Canadian Journal of Critical Care Nursing
- CACCN Standards for Critical Care Nursing Practice (4th Ed.)
- Annual Report
- Position Statements
- Awards, Grants and Bursaries
- CNCC(C) Certification Study Guide
- Opportunities for nurses to present at local and national levels
- Educational opportunities to accumulate continuing learning hours
- Opportunities to network with peers
- Reduced tuition fees

Become a member of your professional association today!

Revised April 2016

Application for membership

Name: _____

Address: _____
(Street)

_____ _____ _____
(City) (Province) (Postal code)

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

Email: _____

Employer: _____

Position: _____

Area of Employment: _____

Nursing Registration No.: _____ Province: _____

Chapter Affiliation (if known): _____

Sponsor's Name: _____
(If applicable)

Type of membership:

❏ New Member—one year $75.00 + taxes ❏ New Member—two years $140.00 + taxes
❏ Renewal—one year $75.00 + taxes ❏ Renewal—two years $140.00 + taxes
CACCN # _____
❏ Student Member—one year $50.00 + taxes

Membership fees: add GST/HST based on province of residence

Are you a CNA/RNAO member? ❏ Yes ❏ No

Signature: _____

Date: _____

This application is for both national and chapter membership.

Make cheque or money order payable to:
Canadian Association of Critical Care Nurses (CACCN)
Mail to: CACCN, P.O. Box 25322, London, ON N6C 6B1
Or fax with Visa/MasterCard number, expiry date to: 519-649-1458
Telephone: 519-649-5284; Fax: 519-649-1458; Toll-free: 1-866-477-9077
email: **caccn@caccn.ca**; website: **www.caccn.ca**

Visa/Mastercard: _____ Exp.: ____/____ CVV (back of card):_____

Continuous renewal

Continuous renewal: We have made it easier to maintain your membership. By providing a credit card number, your membership will automatically renew on the next membership expiry date, so you will no longer have to worry about remembering to renew! Depending on the month and type of membership selected (one or two years), one or two years later, CACCN will charge your credit card for membership dues based on your membership at the time of renewal. Following automatic renewal, CACCN will mail your membership card/receipt. For FAQs on automatic renewal, visit www.caccn.ca/JOINUS

How to complete your Membership Application / Renewal with CACCN

- **New Members:** Online at www.caccn.ca – select **JoinUs**
- **Renewals:** select **JoinUS/Renewals** – Sign in with your User Name and Password; Forget your user name and password? Select **Forgot Password** under the sign in boxes.
- **Fax** the membership form with credit card information (Visa/MasterCard) to 519-649-1458
- **Mail** membership form with a cheque, money order or credit card information to CACCN National Office

CACCN Membership Information:

- **Active member**: Any registered nurse, with an interest in critical care, who possesses a current and valid licence or certificate in the province, territory or country in which the registered nurse practises.

- **Affiliates:**
  - **Student:** Any student nurse in an accredited professional nursing program, who is ***currently NOT licensed*** as a registered nurse or graduate nurse. *If you hold a registered nursing license, affiliate-student application does not apply.*
  - **Associate:** Any person with an interest in critical care, who does not meet the requirements for an Active Member.

Active / Affiliate Province of Residence	Taxation Rate	Base Member Fee	Tax Rate	Total Incl. Taxes
Alberta, British Columbia, Manitoba, Northwest Territories, Nunavut, Quebec, Saskatchewan, Yukon	5% GST	$ 75.00	$ 3.75	$ 78.75
		$ 140.00	$ 7.00	$ 147.00
New Brunswick, Newfoundland/Labrador, Ontario	13 % HST	$ 75.00	$ 9.75	$ 84.75
		$ 140.00	$ 18.20	$ 158.20
Nova Scotia	15 % HST	$ 75.00	$ 11.25	$ 86.25
		$ 140.00	$ 21.00	$ 161.00
Prince Edward Island	14% HST	$ 75.00	$ 10.50	$ 85.50
		$ 140.00	$ 19.60	$ 159.60
International (outside of Canada)	N/A	$ 75.00	$ 0.00	$ 75.00
		$ 140.00	$ 0.00	$ 140.00
Student Affiliate	5 % GST	$ 50.00	$ 2.50	$ 52.50
	13% HST	$ 50.00	$ 6.50	$ 56.50
	14% HST	$ 50.00	$ 7.00	$ 57.00
	15% HST	$ 50.00	$ 7.50	$ 57.50

Canadian Association of Critical Care Nurses
P. O. Box # 25322, London, ON, N6C 6B1
Toll Free: 1-866-477-9077 • Telephone: 519-649-5284 • Facsimile: 519-649-1458
Email: caccn@caccn.ca Website: www.caccn.ca