Hello to all new and returning members. I am honored to be returning to the CACCN Executive for another year. As an Executive we wanted our membership to get to know its executive so have elected to introduce ourselves. I completed my RN Diploma program at St. Boniface General Hospital (SBGH) in 1987 and found myself in a hiring freeze and began my nursing career in Creston, British Columbia. I gained a variety of experiences from air ambulance to LD. I returned to SBGH to a position on an acute surgical unit and found myself wanting to know more, so I embarked on my career as an ICU nurse. I graduated from the Adult Intensive Care Nursing Program in 1990 and worked in the SICU (now ICCS) at SBGH for 12 years while raising my family and obtaining my BN. In 2002, I started my journey as a Critical Care Educator at Concordia General Hospital and am currently with the Winnipeg Critical Care Nursing Education Program. I look forward to another productive year and meeting many of you at our upcoming educational events. Keep checking the CACCN Manitoba Chapter Webpage for more information on events, meetings and resource information. Feel free to contact me at lcurrie@sbgh.mb.ca.

I'm excited to be back on CACCN Executive for another year. In this newsletter we have decided it is important for members to feel that you know your executive representatives. So, here’s my story…After I graduated from the University of Manitoba, I started working at SBGH in medicine. I later worked in oncology, surgery, cardiac step-down and emergency. A friend encouraged me to take the Adult ICU program and I have worked in both adult ICUs at SBGH as well as the Surgical ICU at Health Sciences Centre (HSC). As my career continued I moved into ICU education, both at the unit level and now with the Winnipeg Critical Care Nursing Education Program. I'm certain CACCN Manitoba Chapter will have another great year full of education opportunities for everyone! Feel free to contact me @ tsidloski@sbgh.mb.ca

I am excited to begin the year as Treasurer of the Manitoba Chapter of CACCN. I presently work in the post anesthesia recovery room (PARR) at St. Boniface Hospital. Previously I have floated to all areas of the hospital. I've been an ICU Float for 10 years and nursing since 1996. I look forward to meeting the Manitoba Chapter Members this upcoming year at many of the educational events.

I find it fascinating how many different roles an ICU nurse can have! On our Executive alone, we represent educators and bedside nurses in various areas; medical/surgical ICU, cardiac intensive care, post anesthesia & cardiology. As for myself, I work a 0.8 in the medical/surgical ICU at SBGH. I completed my Master of Nursing from the University of Manitoba last year & have since enjoyed researching, teaching at the University and presenting at conferences. I obtained my CNA Certification in 2006. I sit on several committees at SBGH including the VAP Committee. One of my passions is traveling, which led me to Kenya to do volunteer nurse work in 2006. I look forward to another great year on the executive as secretary.

I am looking forward to serving on the Manitoba Chapter Executive Board this year as membership chair. I currently work in MICU at Health Sciences Centre, with previous experience in ER and ICU at Grace Hospital. I obtained my critical care CNA certification and ACLS instructor certificate in 2008. I currently also serve on the Critical Care Education Committee and Critical Care Practice Committee, both at HSC.
Hello to all CACCN members. As this is my first time on the executive committee, please allow me to introduce myself. I graduated from the RN Diploma program of the Misericordia General Hospital in 1989. I started my career on the Urology ward at Misericordia. In 1991, I applied for a coveted position in the ICU and to my surprise, got it. Unlike Chris, I received a generous orientation - 4 weeks of theory and 2 weeks of buddied clinical. Thanks to the patience and encouragement of my preceptors, I grew confident in critical care and eventually came to realize I wouldn't want to work anywhere else. I took the Adult Intensive Care Nursing course in 1997 through HSC and spent a short while working in their SICU. After my first maternity leave in 2000 I went to MICU/CCU at SBGH, spending 8 years working weekend nights in that department while raising my children and continuing my education. I graduated with my BN from the University of Manitoba BPRN program in 1997. In 2008 I became the Nursing Educator for the ICU at Victoria General Hospital. I also presently hold casual positions in ICMS at SBGH and as a research nurse with Patient Quality and Safety at HSC. I am thrilled to have the opportunity to act as co-program chair with Chris this year. I am looking forward to the opportunity to serve on the CACCN Manitoba Chapter Executive Committee and getting to know CACCN members.

Margaret Augusto

Program Co-Chair

Introduce myself. I started my Nursing career as a Graduate of the University of Calgary Conjoint Nursing Program in 1997. My early beginnings were as a staff nurse on a Vascular/General Surgery ward and then a brief stint in Home Care. Being an avid learner, I, as many critical care nurses before me, wanted to learn more and became an ICU nurse in 1999. My ICU career in Calgary began at the Foothills Trauma ICU. I can recall vividly my conversation with the manager as she told me I would have 1 week of classroom time and 1 week of buddy shifts. What was I thinking! But I survived. Eventually I moved to the Peter Lougheed ICU/CCU until moving back to Manitoba in 2003. Since moving to Manitoba I have worked at SBGH. I worked as a staff nurse in the Medical ICU/CCU (now known as ICMS or Intensive Care Medical Surgical) until January 2007. As of that time, I have been a Continuing Educator Instructor for the Cardiac Sciences Program and successfully completed my ICU challenge at SBGH in December of 2007. Currently, I am the Educator for the Cardiology area of Cardiac Sciences at SBGH, which includes the cardiology inpatient area, CCU, cardiac procedures and clinic areas.

I look forward to another year of exciting programming and working with a new partner, Margaret. Hope to see you at our events this year!  

ckutttnig@sbgh.mb.ca

Chris Kutttnig

Program Co-Chair

Greetings to all new and returning members. I would like this chance to introduce myself. I started my Nursing career as a Graduate of the University of Manitoba BPRN program in 1997. My early beginnings were as a staff nurse on a Vascular/General Surgery ward and then a brief stint in Home Care. Being an avid learner, I, as many critical care nurses before me, wanted to learn more and became an ICU nurse in 1999. My ICU career in Calgary began at the Foothills Trauma ICU. I can recall vividly my conversation with the manager as she told me I would have 1 week of classroom time and 1 week of buddy shifts. What was I thinking! But I survived. Eventually I moved to the Peter Lougheed ICU/CCU until moving back to Manitoba in 2003. Since moving to Manitoba I have worked at SBGH. I worked as a staff nurse in the Medical ICU/CCU (now known as ICMS or Intensive Care Medical Surgical) until January 2007. As of that time, I have been a Continuing Educator Instructor for the Cardiac Sciences Program and successfully completed my ICU challenge at SBGH in December of 2007. Currently, I am the Educator for the Cardiology area of Cardiac Sciences at SBGH, which includes the cardiology inpatient area, CCU, cardiac procedures and clinic areas.

I look forward to another year of exciting programming and working with a new partner, Margaret. Hope to see you at our events this year!

ckutttnig@sbgh.mb.ca

Sara Unrau

Publicity Newsletter

Now that summer has finally arrived, fall is just around the corner. The leaves are changing colours and we are gearing up for another H1N1 outbreak. I am new to the Executive and would like to share a little about myself. I began my nursing career in early 1996, after completing a Nursing Diploma at Thunder Bay's Confederation College. Of course, at the time of my graduation, over 200 hundred nurses were laid off in Thunder Bay, which left very little opportunity for a new grad nurse. Many of my colleagues traveled south to find gainful employment. I, on the other hand managed to snag a term position in Winkler, Manitoba. There I became a “jack of all trades, master of none”. Then... I saw an add for the Adult Intensive Care Nursing Program (AICNP) in the Winnipeg Free Press. After completing the AICNP, I worked in SICU (now ICCS), at SBGH for 8 years, completed my Baccalaureate in Nursing at the University of Manitoba in 2006 and recently assumed the position of Critical Care Clinical Educator in the new WCCNEP. I am looking forward to the opportunity to serve on the CACCN Manitoba Chapter Executive Committee and getting to know CACCN members.

sunrau@sbgh.mb.ca

Joy Mintenko

Member at Large

I am very excited to be a new member of the MB Executive. This will be a great opportunity to catch up with old friends and meet up with new ones. As a St. B grad of '77, I still see many familiar faces in the Critical Care units that I have been a part of since 1984. I am currently working as a casual (with full time- plus hours!) at several sites since returning in January. I have spent the last 9 years working at different ICU's in Regina, SK. I have been involved with CACCN since 1986. I have served on both the MB and SK executives in the past. Last year, I finished an action packed four year term on the National CACCN Board of Directors. I will be MB Chapter's first ever "Member At Large". (MAL) A MAL brings attention to questions and concerns from the general membership. Other duties include working on projects to further the goals of the organization and to develop services for the membership. As the majority of our Chapter's members work in direct patient care areas, I feel that I would be a good representative. So next time I see you at the bedside, let me know what MB Chapter can do for you as a Critical Care nurse to make your life better. Thanks, Joy
Edge of Excellence
Winnipeg, MB
Conference Report

Edge of Excellence 2009 held on May 11, 2009 was a success with 82 attendees. The day conference kicked off with a presentation on ‘Colloids: The good, The bad & the Kidney’ by Dr. Duane J Funk, followed by the concurrent sessions of Calcium Channel Blocker OD by Marlene Ash and Adrenal Insufficiency by Michelle Rivet and Shelley Munro. Dr. Kumar captivated us with his statistics from the Manitoba Septic Shock Database, which discussed local epidemiologic and treatment trends. The afternoon capped off with 3 stimulating topics. A Case Study of Bitten by a Gaboon Viper by Rhonda Matheson, CSI ’09 by Hazel Rona & Laura Hansen and Moral Distress in ICU Nurses by Marie Edwards. Thank you to all the speakers.

A special thanks to the Edge of Excellence 2009 Planning Committee for all of their hard work and support for this event. Plans for next years’ conference are already under way. Hope to see you all there!

Rhonda Matheson/Rose Grant

CACCN Website –
Your online resource
www.caccn.ca

Website offers many resources
• CACCN Events
• CACCN Chapters – with information on how to join
• Publications
• Education & Resources
• Job Links
• Awards & Recognition
• Surveys
• Links to Canadian & International Critical Care Links

Manitoba
Chapter
CACCN

11" W x 7.5" H insulated lunch bags are available for $10.00. Please contact Lissa Currie at lcurrie@sbgh.mb.ca if you would like to purchase one.

Congratulations to MB Chapter CACCN on receiving the CACCN Chapter of the Year Award for 2008-2009.

Dynamics of Critical Care 2009:
Navigating The Future:
Sailing the River of Knowledge

Dynamics was an exciting conference in the beautiful city of Fredericton, New Brunswick. Chapter Connections was a day full of linking with other chapters, sharing ideas and brainstorming on common issues. We also had two great presentations on efficiently running an Annual General Meeting and talking with the Media. For the Manitoba delegates attending, the day ended on a high note when Manitoba was announced as Chapter of the Year!

The conference had excellent plenary speakers on attitudes on health, stress, ethics, hemodynamics, post war trauma and the military Afghanistan experience. There were a wide variety of presentations to attend. They were grouped into the categories of: Interpersonal Practice and Collaboration, Technology and Innovation, Globalization, Client Centered Care and Patient Safety, End of Life and the Nursing Work Environment. Of course, Dynamics is also known for its fun and entertainment. This year was no exception with plenty of fun to be had with the many available tours, hikes, Baxter’s evening reception and of course at the Annual Dinner.

We’re looking forward to seeing you all next year at Dynamics in Edmonton.
Winnipeg Critical Care Nursing Education Program
Graduates Ten Nurses

CACCN Manitoba Chapter would like to extend a heartfelt congratulations and best wishes to the January 2009 graduating class of the Winnipeg Critical Care Nursing Education Program. On July 31, 2009, ten hardworking nurses graduated from the second WCCNEP. These students were additionally challenged as they completed their Specialized Orientation during the H1N1 outbreak and have taken positions in both community and tertiary hospitals. Please welcome these new critical care nurses as they embark on a new career path.

If you know of any nurses expressing an interest in becoming a critical care nurse, please encourage them to take the program. More information on the WCCNEP can be found on the WRHA website: www.wrha.mb.ca/prog/criticalcare

Manitoba Chapter –
Canadian Association of Critical Care Nurse
Critical Care Nurse of the Year Award 2009
Helga Borchert

Helga completed the Adult Intensive Care Nursing Program in April, 1994 and started her career in critical care in the Surgical Intensive Care Unit now known as the Intensive Care Cardiac Sciences (ICCS) at SBGH since that time. Helga’s high standard of care is evident to everyone who meets her. She acts as an example, teacher and mentor for new staff and students coming into ICCS. Her years of experience being a preceptor, charge nurse, CRRT super user are just a few examples of the leadership skills she’s developed over the years. She shows her ongoing commitment to ICCS through her involvement in numerous hospital committees and union positions. Helga often organizes fun group activities which improves staff morale, which is especially important during these times of heightened acuity and limited resources in critical care. Helga has been actively involved with the CACCN over the last 12 years. She has held many positions on the Executive of CACCN, MB Chapter including membership, conference planning and has been the MB Chapter President. She served as an excellent resource when attending Chapter Connection Day as Chapter President where many of her ideas were utilized by other chapters throughout Canada.

Helga successfully received her CNA Certification in Critical Care in 2001 and was recertified in 2008. She is an ongoing supporter of critical care education and maintains her knowledge on critical issues by attending many in-services, local and national conferences. Helga is skilled in all aspects of critical care from the basic to the most advanced and always willing to help trouble shoot problems and be a resource for others who are still developing their skills. Helga is a great mentor, colleague and a great nurse to work with. Please join me recognizing Helga Borchert’s achievements as Critical Care Nurse of the Year 2009.

Dates to remember . . .

October 16, 2009 – deadline to apply for CNA certification
Details at www.cna-aiic.ca

November 18, 2009 – Evening education session
“A Night at the Sim Lab” at HSC with Dr. F. Siddiqui & Dr. J. Ross
Contact ckuttnig@sbgh.mb.ca

January 31, 2010 – deadline for abstract submissions for CACCN Dynamics Conference in Edmonton Alberta
Details at www.caccn.ca

February 11, 2010 – Evening education session
Interpretation of Lab Results with Sandra Christie
Contact ckuttnig@sbgh.mb.ca

May 10, 2010 – Edge of Excellence
Norwood Hotel, Winnipeg, Manitoba
Contact sunrau@sbgh.mb.ca

September 19-21, 2010 – CACCN Dynamics Conference
Edmonton, Alberta
Details at www.caccn.ca

Please send notice of educational opportunities to sunrau@sbgh.mb.ca
Spotlight on Seven Oaks General Hospital, ICU

Seven Oaks welcomes you to the North End! The team in Seven Oaks ICU has cared for patients from the core/downtown area of Winnipeg to the fields and wetlands north to Selkirk and Gimli. Twenty nine years ago the hospital was surrounded by farmer’s fields and had an ethnically dense population of eastern European/ Jewish families. Today, the area surrounding the hospital is vibrant with retail and residential development. The north end is a great mixture of first and second generation Canadians of multicultural and ethnic diversity, as well as those first families who settled here.

SOGH, ICU is a seven bed unit that when fully open and staffed, can look after up to five ventilated patients. The nurses working in ICU have recently expanded their care to include patient’s requiring intermittent hemodialysis, who are experiencing a critical illness. Intermittent hemodialysis can be given in the closely monitored ICU area, in collaboration with the renal program. A true team initiative.

In recent years, patient acuity has risen as a result of fewer MI’s treated on site, an increase in the ER visit volumes (the most visits in the city) and the exponential expansion of the renal program in our facility. This has made our ICU a busy and complex area! The nurses and respiratory therapists are well versed in successfully managing ALI/ARDS and respiratory failure and weaning and preventing ventilator associated pneumonia.

SOGH ICU is a member of the Canadian ICU Collaborative to decrease hospital associated illness (VAP, CLI). Other quality of life initiatives are nurse driven, such as nursing care planning rounds for our long term ventilated patient. The Nurses and NA’s in ICU are also Bariatric champions for the hospital; they provide their problem solving expertise to care for these challenging clients. Our ICU clinical expertise is also well represented throughout the hospital as ICU nurses have found new niches in Pain service, the wellness institute and hemodialysis.

The ICU team is similar to other WRHA ICU’s: Our rounds team has recently added a dedicated pharmacist, dietician, social work and spiritual care members to ensure excellent patient care. CACC has always been prominent SOGH ICU, many members support, attend and contribute to Manitoba’s Chapter’s success. Dynamics in Fredericton will have 6 representatives from our staff; not bad considering that is about 15% of our nurses!
It May Look Good but is it really?  Check the pulse!

Pulseless Electrical Activity-PEA

You patient is resting comfortably with a nice sinus rhythm on their monitor…Great! Hmmm…Where did their artline waveform go? PEA refers to a heart rhythm observed on the electrocardiogram that we believe would produce a pulse, but is not. What we see on the monitor is electrical activity but there is no mechanical activity/contraction of the heart.

What should you do?

Assess for responsiveness: Does your patient respond to you? Start with your ABCs.

Primary Survey

Airway: open airway (or detach from ventilator) & begin manually bagging patient
Breathing: Is chest expanding? Bagging easy?
Circulation: CPR hard & fast 100/min
Defibrillation: not applicable here as the problem lies in the response of the myocardial tissue to electrical impulses.

Secondary Survey

Airway: Is it adequate? Insert oral airway. Do you need an advanced airway?
Breathing: Is there air movement? Bagging easy? Confirm placement of advanced airway if applicable
Circulation: IV/IO access, start rhythm appropriate drugs (see below)

The letters “P-E-A” direct your actions.

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Comments/Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Problem</strong></td>
<td>Search for the probable cause and treat (H's &amp; T's)</td>
</tr>
<tr>
<td><strong>Epinephrine</strong></td>
<td>1 mg IV/IO q3-5 min. or Vasopressin 40 U IV/IO to replace 1st or 2nd dose of epinephrine.</td>
</tr>
<tr>
<td><strong>Atropine</strong></td>
<td>For bradycardic PEA, 1 mg IV q3-5 min.</td>
</tr>
</tbody>
</table>

**Differential Diagnosis:**
The possible causes are remembered as the 6 Hs and 5 Ts.

*Hypovolemia and Hypoxia are common cause of PEAs.  The patient should be assessed and treated with volume boluses and hypoxia should be corrected ASAP.*
A focused history of events and thorough assessment are essential for finding the cause and instituting appropriate treatment.

<table>
<thead>
<tr>
<th>Condition</th>
<th>Features of electrical activity</th>
<th>History/physical exam</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Hypovolemia</td>
<td>Narrow complex, Rapid rate</td>
<td>History, flat neck veins</td>
<td>Volume infusion</td>
</tr>
<tr>
<td>*Hypoxia</td>
<td>Slow rate</td>
<td>Cyanosis, ABGs, airway problems</td>
<td>Oxygenation, ventilation</td>
</tr>
<tr>
<td>Hydrogen ions (Acidosis)</td>
<td>Smaller amplitude QRS complexes</td>
<td>History of DM, bicarbonate responsive pre-existing acidosis, renal failure</td>
<td>Hyperventilation, Sodium bicarbonate</td>
</tr>
<tr>
<td>Hyperkalemia or Hypokalemia</td>
<td></td>
<td>History of renal failure, DM, recent dialysis &amp; medications.</td>
<td>Glucose &amp; insulin, Calcium Chloride</td>
</tr>
<tr>
<td>Hyperkalemia</td>
<td>Peaked, tall T waves</td>
<td>Abnormal loss of potassium, diuretics</td>
<td>Rapid but controlled infusion of potassium, add magnesium if cardiac arrest</td>
</tr>
<tr>
<td></td>
<td>• Smaller p waves</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Wide QRS</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Sine wave PEA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hypokalemia</td>
<td>Flat T waves</td>
<td>Abnormal loss of potassium, diuretics</td>
<td>Rapid but controlled infusion of potassium, add magnesium if cardiac arrest</td>
</tr>
<tr>
<td></td>
<td>• Prominent U waves</td>
<td></td>
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<tr>
<td></td>
<td>• QRS widens</td>
<td></td>
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<tr>
<td></td>
<td>• QT prolongs</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Wide complex tachycardia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hypothermia</td>
<td>J or Osborne waves</td>
<td>History of exposure to cold, central body temperature</td>
<td>Hypothermia treatment</td>
</tr>
<tr>
<td>Hypoglycemia</td>
<td></td>
<td>Check bedside glucose level, had insulin</td>
<td>Glucose IV</td>
</tr>
<tr>
<td>Tablets or Toxins (Drug overdose) TCA, Digoxin, B Blockers, Calcium channel blockers</td>
<td>Various effects, many prolonged QT</td>
<td>History of ingestion, bradycardia, bottles at scene, neuro exam</td>
<td>Drug screens, ETT, lavage, activated charcoal, specific antidotes</td>
</tr>
<tr>
<td>Tamponade cardiac</td>
<td>Narrow complex, rapid rate</td>
<td>History, no pulse with CPR, distended neck veins</td>
<td>pericardiocentesis</td>
</tr>
<tr>
<td>Tension pneumothorax</td>
<td>Narrow complex, slow rate (hypoxia)</td>
<td>History, no pulse with CPR, distended neck veins, unequal breath sounds, tracheal deviation, difficulty ventilating patient</td>
<td>Needle decompression</td>
</tr>
<tr>
<td>Thrombosis (MI)</td>
<td>Abnormal 12 lead ECG, Q waves, ST segment &amp; T wave changes</td>
<td>History, ECG, enzymes</td>
<td>Primary Percutaneous intervention, Thrombolytic agents</td>
</tr>
<tr>
<td>Thrombosis (PE)</td>
<td>Narrow complex, rapid rate</td>
<td>History, no pulse with CPR, distended neck veins</td>
<td>Thrombolitics</td>
</tr>
<tr>
<td>Trauma (Hypovolemia from blood loss)</td>
<td>Narrow complex, Rapid rate</td>
<td>History, flat neck veins</td>
<td>Volume infusion</td>
</tr>
</tbody>
</table>

Despite the knowledge that patients with PEA have poor outcomes, prompt determination and correction of a reversible problem is crucial for a successful resuscitation.


_Tannis Sidloski, June 2009._
H1N1

I am writing this article in September 2009 in a period which may be “the calm before the storm.” We faced an outbreak of novel Influenza A, H1N1 from May to July 2009 in Manitoba; an outbreak that stretched our Intensive Care Units to extraordinary limits and we are being warned that a second wave of influenza is likely to occur this coming Fall. Now to prepare, we are trying to plan for the worst case scenario and hoping for best case scenario. There are many unknowns. Will the virus mutate to become more virulent? Will it become resistant to antiviral agents? Will the second wave hit before the H1N1 vaccine is available? The medical community and epidemiologists are looking closely at who became ill in the last wave, the progression of symptoms and effective support and treatment modalities so that the most effective measures can be initiated promptly next time around. Manitoba Health and Healthy Living will be releasing detailed analysis of Manitoba cases in the near future. Here is a brief review of some pertinent aspects of influenza H1N1.

What is H1N1 and where did it come from?

Significant influenza-like illness began spreading among young people in Mexico in April 2009. The National Microbiology Lab in Winnipeg was sent samples on April 22 and soon identified the virus as a novel Influenza A H1N1. It was designated as novel because it was unlike the seasonal H1N1 which was circulating at the time and from its components it appeared to have originated from pigs. In late April reports were received of cases in the southern United States and then shortly from all across the USA, Canada, Europe and Asia as travelers to Mexico carried the virus back to their home countries. On June 11, 2009 the World Health Organization declared the outbreak a pandemic because of its intercontinental spread.

How many cases did we see in Manitoba and in intensive care units?

The first H1N1 positive specimen in Manitoba was May 2. The outbreak peaked in mid June and tapered off in July. As of August 31, a total of 889 cases were reported in Manitoba and 7 deaths were associated with the disease. Forty-four patients with confirmed H1N1 were cared for in Intensive Care Units as well as a number of other probable though unconfirmed cases.

How is H1N1 transmitted?

It appears that H1N1 is transmitted in the same manner as seasonal influenza i.e. by droplet transmission. The virus may be coughed or sneezed directly onto the mucous membrane of the susceptible host (within a 2 meter range) or the environment is contaminated and persons pick up the virus onto their hands and inadvertently inoculate themselves. With hospitalized patients, aerosol generating medical procedures such as endotracheal intubation, open airway suctioning and sputum induction are considered risky because of the small particles produced.

What precautions are recommended?

Enhanced Droplet/Contact Precautions are recommended by Manitoba Health and Healthy Living. These precautions include gown, glove, surgical or procedure mask and eye protection for all persons who come within 2 meters of a patient with H1N1 influenza. N95 respirators are required when aerosol generating medical procedures are planned or the health care provider anticipates a risk of an aerosol generating event occurring.

How is H1N1 different from seasonal influenza?

The attack rate for this illness appears to be higher in children and young adults and lower in older people compared to seasonal influenza. Pregnant women and first nation persons became ill in numbers disproportionate to the general population. Dr. Anand Kumar has reported that most of the patients requiring intensive care admission, presented with bilateral diffuse viral pneumonitis. Some of the patients had severe COPD or asthma exacerbation, some experienced destabilization of underlying chronic diseases such as CHF, CRF cardiopulmonary disease, coronary syndromes and diabetes. The patients were on ventilators for extended periods of time and required a lot of sedation. Some patients developed secondary bacterial pneumonia.

Was H1N1 transmitted from patients to health care workers?

SBGH monitored staff illness during the outbreak period in the Spring. Cases of influenza like illness were reported from our employees throughout the hospital, however many of these staff members did not have patient contact and so were likely infected in the community. The nursing units that had patients on precautions for H1N1 did not have higher rates of illness than the nursing units who did not have flu patients. In fact, when we interviewed some ICU staff who were ill, they were able to identify that their exposure had been to an ill family member or friend. The Morbidity and
Mortality Weekly Report, Vol. 58 No. 23 reviewed influenza infection in health care providers in April and May of 2009. This CDC publication concluded that most of the probable or possible patient to health care provider transmission in the cases they reviewed had occurred in situations where the use of personal protective equipment had not been in accordance with CDC recommendations.

What are some specific risks in the ICU setting?

High Speed Frequency Oscillation was utilized for some of the H1N1 patients with severe ARDS. Although special filters were sourced and used with this ventilator, it is recommended that N95 respirators be used when caring for patients on this type of ventilator.

When are antivirals recommended?

Treatment with antiviral medication (oseltamivir or zanamirivir) is not suggested for most healthy children, adolescents and adults with uncomplicated influenza like illness. However early evaluation and treatment of persons at high risk of influenza – associated complications is recommended and early treatment of all persons with severe illness from suspected or confirmed influenza is also recommended. Delayed antiviral therapy may have contributed to the serious outcomes for some of the early patients in the spring.

General prophylaxis (prevention before the onset of symptoms) with antivirals is not recommended because of the concern about promoting resistance to the drug. Respiratory etiquette, hand hygiene and social distancing (asking that people remain at home when ill) are public health measures that will be essential for the containment of this epidemic. Within health care institutions, the focus will be on using appropriate personal protective equipment and infection control precautions to protect staff and patients from ill patients. Screening of visitors and staff will be initiated to protect against unrecognized introduction of the virus into the facility.

Nila MacFarlane BN CIC

Manitoba Chapter

CANADIAN ASSOCIATION OF CRITICAL CARE NURSES
Box 2236 Winnipeg, Manitoba R3C 3R5