



Saskatchewan Chapter of the Canadian Association of Critical Care Nurses

President's Message- Angela Kubiak RN, BSN

*Issue 3
Spring 2008*

**Special Points
of Interest in
this Issue**

**Get involved
with the
Chapter!!!**

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I would like to take this opportunity to say that I am very excited and fortunate to have the pleasure of assuming the position of President for the Saskatchewan Chapter of the Canadian Association of Critical Care Nurses. Although this is new to me, I am not new to the CACCN. I am prepared to show great leadership skills where it is needed to maintain the SK Chapter's involvement with the critical care nurses across the province and on a National level as well. I believe that in order to keep the SK Chapter going strong and steady we must have the involvement of all the critical care nurses across the province. So my goal as president of this chapter this year is to somehow bring this province together. We need more involvement to recruit, retain and maintain our critical care nurses on a provincial level and foremost, on a health region level through knowledge and education. So thank you again and I look forward to an exciting year.

This spring we held our annual Spring Conference on March 10th and 11th, at the Travelodge South in Regina. The two days were attended by a variety of nurses from every area. The topics again that were presented at this conference were diverse and interesting. To go along with attending the conference we as a chapter provided a chance for any critical care nurse to win either a member reimbursement or new membership for the CACCN. I would like to take this opportunity to congratulate the winners of the draw. Noreen Edmonson was awarded a membership reimbursement. Laurie Kostiuik, Deb Mancuso and Courtney Dingle were all awarded new memberships to the CACCN. This was all done in relation to the Silver Anniversary Challenge from National to increase membership by 25 percent.

Our chapter recently held a Steak Night which again was a great success, thanks to all who came out to support our local chapter. Upcoming events include a Father's Day Basket raffle along with a summer long raffle of a donated abstract art piece by local renowned artist Louise Fedirko, draw to be made in early September, tickets are available from any executive member.

This year only, the Sask Chapter is offering a reimbursement for achieving certification or recertification with the CNA in Critical Care Nursing. Anyone who had recertified or taken their certification this year please email myself with confirmation of same. One reimbursement for each will be awarded.

Vice President's Message- Sarah Sidebottom RN, BSN

It is a delight to be touching base with you again this spring. I cannot believe how fast the past year has gone. And now, as an executive, we are looking forward with anticipation the rewards and the challenges that this next year brings.

As many of you know, in September Dynamics is being hosted in Montreal. Fundraising plans are already in motion in order for us to send as many members as we can to Dynamics. Not only will you get invaluable education and latest practice research from fellow colleagues, you will also network with people across the country and be refreshed as an individual and professional. Keep your eyes open for information about applying to come to Dynamics and talk to your manager about funding for education.

The National board for CACCN has challenged each chapter to increase their membership numbers by 25%. This will be an easy goal if each of us tells just one other nurse about CACCN and gets them to sign their membership. Remember that membership has great benefits – great national and provincial education days, the Dynamics journal, discounts on education days, and funding for certification. So go out and tell people.

Many of you know that we are looking for individuals who would be a contact person on your unit for CACCN. If you are interested in posting information and notices for us on your unit, please let us know. Thank you to all those who responded to this search; it's wonderful to have members getting involved in CACCN where you work.

The Sask Chapter is putting out a call for applications from members for a chance for 2 members to attend Dynamics in Montreal Sept 28-30. All you need to do prior to July 11, 2008 is email myself a write up explaining a couple of things. First, in order to be fully funded you must agree to attend all the educational sessions, provide a write up on one of the sessions you attended for the chapter newsletter, and attend the AGM in Montreal. Second, include why you wish to attend Dynamics, how it would impact you, and what it do for your working practice, as well as any CACCN national or provincial level contributions. Winners will be notified in late July.

I hope your summer is relaxing.

Till next time – Sarah Sidebottom – sarahleebettycrocker@hotmail.com

Synopsis of CACCN Dynamics 2007 Sessions

The Experience of Intensive Care Nurses: Caring for Patients for Whom Life Sustaining Treatment is Being Withdrawn

Presented By Brandi Vanderspank

Ms Vanderspank presented on her Master's study on this topic, which intrigues me as I have worked in Intensive Care Unit (ICU) settings where the ending of life is a common and sometimes difficult occurrence. The objectives of the study were to understand the experience of ICU nurses caring for patients and their families through the process of withdrawal life sustaining treatment, and to identify factors to facilitate this process. This was a phenomenological study, where the real lived experiences of the nurses were sought. A total of 6 registered nurses, with a wide range of experience (0.5 – 26 years in critical care) were interviewed about their experiences in caring for ICU patients while withdrawing life sustaining measures.

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Themes evolved around the efforts to create comfort, and also the professional 'angst' involved. The nurses described their feelings, sometimes coming on shift to find that the process was in progress or was about to occur. Other times the process was underway, with patient and family members having been prepared for the withdrawing of treatment, when a new physician arrived on shift and disagreed with the decisions that had been made. This caused the process to be delayed or halted, to the emotional trauma of all concerned.

I appreciated Ms Vanderspank's candid and open presenting style on this topic. She reminded us that in ICU settings, nurses are often not educated in palliative care, and so may not be prepared to give the most appropriate care for the patient and family in the end of life situation. However, the fact is that not every patient survives in ICU, and nurses must be prepared to assist those involved to cope with this type of death.

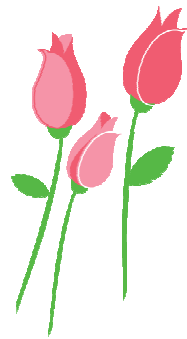
Thanks again to the Saskatchewan Chapter of the CACCN for assisting me to attend a full day of the Dynamics 2007 conference.

Sincerely,

Marg Olfert, RN, MN, CNCC(C)

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TO TREAT OR NOT TO TREAT FEVER IN CRITICALLY ILL PATIENTS

Based on a presentation by Rhonda Matheson, Graduate Student, University of Manitoba

This presentation discussed aspects of fever in critically ill patients including physiology, historical perspective, treatments and controversies. Fever is an abnormally high controlled body temperature that occurs as a host response to pyrogens.

The definition of fever varies in the literature:

- 38.3 considered a fever, requires investigation
- there is no “absolute” temperature at which fever is defined
- 2 consecutive temperatures > 38.3

Prevalence of fever:

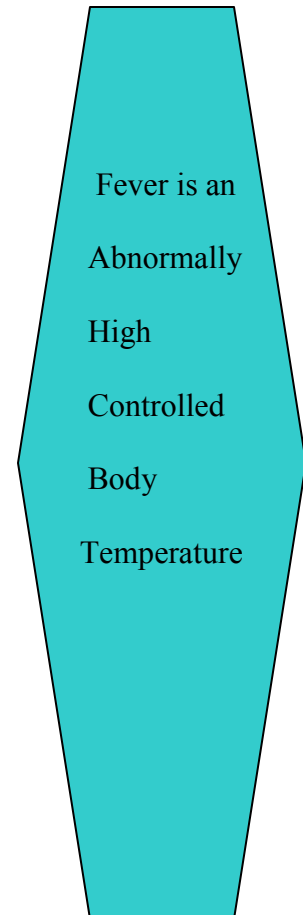
- occurs in 29 – 36 % of medical inpatients
- occurs in 28 % of ICU patients
- 30 % due to bacterial infections
- 90 % in ICU patients with sepsis

Non infectious causes of fever:

- CNS – hemorrhage, infarction, seizures, ETOH/Drug withdrawal
- GI – cholecystitis, IBD, pancreatitis, nonviral hepatitis
- CVS – dissected aortic aneurysm, MI, pericarditis
- MISC – bronchoscopy, burns, drugs, colonoscopy, IV placement, surgery, transfusion
- Hematologic – DVT, hemorrhage, PE

Infectious causes of fever:

- CNS – encephalitis, meningitis
- GI – acute cholecystitis, bacterial contamination of feeds, diverticulitis, viral hepatitis
- CVS – endocarditis, intravascular devices, pacemaker infections
- Renal – UTI, perinephric abscess, pyelonephritis
- Skin & soft tissue – cellulites, decubitus ulcer, fasciitis
- Procedure related – wound infections
- Pulmonary – empyema, pneumonia, sinusitis
- Miscellaneous – toxic shock syndrome, sepsis syndrome, septic arthritis



When measuring temperature, consistency of site is important. Most accurate is intravenous or bladder measurement. Oral temperatures are accurate to core temperature when taken at left or right posterior sublingual pocket. Axillary temperatures are not accurate.

The historical perspective, that fever was a sign of disease and often death and that immediate intervention was required, still influences our beliefs of treating fever today. The stages of fever include chill phase, plateau phase and defervescence.

The effects of fever in Revhaug, Michie, Manson et al., 1988 study:

- increased temperature to 38.5
- oxygen consumption increased from 306 ml/min to 870 ml/min
- HR increased from 74 BPM to 104 BPM
- Catecholamine levels increased

Benefits of fever were found to be:

- Self limiting & usually requires no treatment
- Enhances host defences & curtails virus replication
- Antibiotics work better at higher temperature

Implications of fever in critically ill patients:

- Chills & shivering – increase oxygen consumption 100-200% above baseline levels
- HR, BP and CO – all increase to increase oxygen delivery and meet tissue needs
- Oxygenation – for each 1 degree Celsius increase = 13% increase in oxygen consumption
- RR – can double or triple

Some study findings:

- Aggressively treating fever in critically ill patients may lead to a higher mortality rate
- Survival rates of febrile patients treated with ibuprofen were no higher than those that were not treated with ibuprofen
- Patients treated with antipyretics (aspirin, acetaminophen or ibuprofen) had an extended period of viral shedding indicating prolonged illness with treatment
- In a study with 218 patients who had bacteraemia, fever correlated positively with survival

Circadian variation on fever:

- Alters core body temp by approximately .5 degrees Celsius each day
- Lowest average body temp found @ 6 am
- Highest body temp found @ 4 pm

Antipyretic therapy including Tylenol, aspirin, NSAID's and cyclooxygenase inhibitors:

- Will prevent prostaglandin synthesis and shift the set point back toward normal
- Will relieve discomfort (inflammation & pain) and decrease metabolic rate
- Intermittent administration may cause waves of diaphoresis leading to increased discomfort

TREATMENT STUDIES

- 1) Propacetamol, metamizol & cooling
 - all decreased temp, but propacetamol recommended
 - metamizol had undesirable hemodynamic effects
 - cooling increased metabolic demand and may not be tolerated by critically ill
- 2) Acetaminophen, cooling and combined therapy
 - cooling alone minimally effective in decreasing temp
 - acetaminophen only = an increase in temp
 - combination therapy = minimally effective
- 3) Cooling
 - found that cooling with an airflow blanket is more effective and preferred than a water flow blanket

Recommendations for treating fever:

- should be based on patient's clinical status
- febrile patients not at risk or discomfort should be monitored
- fevers > 41 degrees C need to be treated, especially in patients with organ impairment
- research recommendations are low due to the need for additional research

Submitted by Maureen Sapara

Aortic Valve Surgery

Presented by Peg Holt

First off I would like to thank you again for sponsoring me to attend Dynamics 2007 in our home province. It was an honour and privilege to attend all three days. It was very hard for me to come up with one session that I enjoyed the most. The session I found most interesting was "Aortic Valve Surgery" presented by Peg Holt on Tuesday October 23, 2007. Her presentation was interesting and easy to understand. Because I work in Yorkton I can auscultate implanted heart valves but I never see one. Peg brought different types of mechanical valves so that I could see and touch them. Her explanation and slide show was excellent!

Peg started her presentation with anatomy of the normal aortic heart valve. The definition of aortic stenosis (AS) is the obstruction of flow at the level of the aortic valve with restricted systolic opening of the valve leaflet. The causes are calculus, rheumatic arteriosclerosis, congenital, radiation and lupus. The most common cause of isolated aortic stenosis is congenital. The most severe symptom is exertional syncope or transient ventricular arrhythmias. Other symptoms are angina, hypertrophic left ventricle requiring increased coronary blood flow and exertional dyspnea.

There are four categories which range from mild to critical. Peg described the recommendations for aortic valve replacement in each category.

- Class I – include symptomatic patients with severe AS, patients with severe AS undergoing CABG, and patients with severe AS undergoing surgery on the aorta or other heart valve.
- Class IIa – include patient with moderate AS undergoing CABG or surgery on the aorta or other heart valves and asymptomatic patients with severe AS and LV systolic dysfunction with abnormal hypotensive response to exercise.
- Class IIb – include asymptomatic patients with severe AS and ventricular tachycardia and marked excessive LV hypertrophy.
- Class III – include prevention of sudden death in asymptomatic patients with none of the indications described previous.

The survival statistics for the uncorrected valves in patients with AS is: 1 year 50%, 2 years 30% and 3 years 20%.

Aortic regurgitation is the incompetence of the valve where a portion for the LV forward stroke volume returns to the chamber during diastole. There are two categories. Primary valvular disease includes rheumatic aortic incompetence, native valve endocarditis and congenitally abnormal bicuspid valve. The second category is aortic root disease which include idiopathic dilatation of aortic root, annuloarotic ectasia, ascending aortic aneurysm, aortitis and acute or chronic aortic dissection.

The pathological progression of aortic insufficiency is acute or chronic. Acute include dissection or endocarditis with the regurgitant blood and normal inflow from the LA cannot be accommodated in a normal size ventricle and the total stroke volume cannot rise accordingly. Chronic include systolic function will decrease, LV dilatation which occurs to accommodate the regurgitant volume will increase LV wall stress and LV eccentric hypertrophy occurs.

Recommendations for aortic valve replacement in aortic regurgitation include 4 classes:

- Class I – symptomatic patients with preserved LV systolic function; asymptomatic patients with mild to moderate LV dysfunction and patients undergoing CABG or surgery on the aorta or other heart valves.
- Class IIa – include asymptomatic patient with normal LV systolic function but severe LV dilatation.
- Class IIb – include patients with severe LV dysfunction and asymptomatic patients with normal systolic function at rest and progressive LV dilatation when the degree of dilatation is moderately severe.

Class III - Asymptomatic patients with normal systolic function at rest and LV dilatation when the degree of dilatation is not severe.

The rationale for device selection depends on factors like age, desire to be free from long term anticoagulation, compliance, future pregnancy and concomitant valve replacement.

The survival for uncorrected valve replacement in patients the LV function and the onset of CHF is within 2 yrs.

- There are 3 valve surgery options –
- 1) Mechanical Device
 - 2) Bioprosthesis of tissue
 - 3) Homograph

There are several complications of AVR – structural valve dysfunction or deterioration

- hemolysis
- atrial and ventricular dysrhythmias
- coronary ostial obstruction
- sternal wound infection
- complete heart block
- postcardiotomy syndrome or pericarditis
- thromboembolism
- anticoagulant related hemorrhage
- prosthetic valve endocarditis
- periprosthetic leak
- stroke
- low cardiac output syndrome
- postoperative bleeding

Submitted by Donna Lazaruko

Importance of Focusing on the Positives within Yourself and Others

Presented by Darcy Lang

At Dynamics 2007, I had the opportunity to listen to Darcy Lang speak on a topic which not only changed the way I view myself but also the way I view my life and the people around me. Darcy shared with us her one main idea - focusing on the positive 90% in our work and personal lives. First and foremost she pointed out that the change has to start with ourselves and how we view our lives, then can we only begin to change the way we view our workplace and co-workers. Within her inspirational and motivational session she pointed out great ideas and suggestions that made me and I know others take a minute to examine our own lives. I can truly say that I have changed immensely after attending this session.

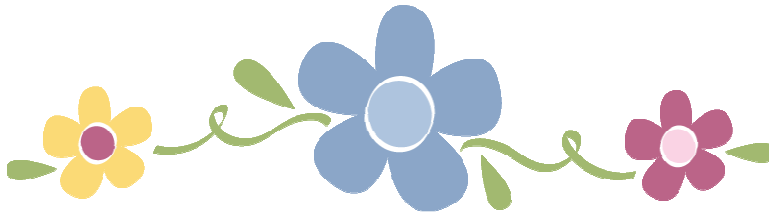
How many times have you sat back and regretted something you said, did, or should have done? Maybe you said or thought something about yourself or others that maybe wasn't positive. While I was sitting there listening to Darcy talk, I found myself examining how I treat myself and others. How I focus 90% on the negatives and only 10% on the positives in my life and that was astonishing. Darcy stated that there are many lessons in life that a person can learn if only they take the time to realize it and then are willing to change it.

Darcy mentioned that there are two ways to view your life through a magnifying glass. You can choose to focus on the 90% of things that work in your life (positives) or you can choose to focus on the 10% that does not work (negatives). Whichever you choose directly correlates with how you live your life.

It starts with you. Darcy stated that how we feel about ourselves related to how we interact with others. If you are unhappy with yourself, then you tend to be unhappy towards others. So wouldn't it be a much easier and calmer life if everyone just focused on the 90% that was positive in their lives.

Darcy mentioned many ways in which to improve so we are all looking at life in the 90% positive. I truly believe that if we all take the time to truly examine how we view ourselves it would tremendously change how we interact with others. Positive and happy is way better than negative and unhappy. Just remember if we all do our own part to focus on the 90% positive in our lives the world would be a happier place.

Submitted by Angela Kubiak



Get Involved with the Saskatchewan Chapter

Your local chapter is interested in providing services that meet your needs. Are there educational topics that you would like us to include at our next conference? Email us or better yet join us at one of our monthly executive meetings. Monthly meeting date, location and time will be sent to chapter members.

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in joining CACCN
can contact a
member of the
executive or access
the online
registration forms
at
[CACCN National](#)

*The executive members of the Saskatchewan
CACCN Chapter wish you all safe and enjoyable
summer!!*