Canadian Journal of
Cardiovascular Nursing
Revue canadienne de
nursing cardiovasculaire

Volume 13 ■ No.4 2003

Sunnybrook Ad
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“Extra Initiative” Ad
to come

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nursing cardiovasculaire

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Canadian Journal of Cardiovascular Nursing is published by the Canadian Council of Cardiovascular Nurses (CCCN).

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Editorial

Sharing what you know

Congratulations to all of you who submitted abstracts to this year's scientific sessions. The purpose of research (reviews, quantitative and qualitative) is to generate knowledge, but that knowledge is of little value if you don't share it. It is important for us to communicate what we have learned if this new knowledge is to be used by nurses and other health care providers. Dissemination of research findings and knowledge transfer have been hot topics in research for many years, and we have become aware that it is important to go beyond the traditional approaches to dissemination in order to reach decision-makers and improve uptake and practice. Knowledge transfer is "the exchange, synthesis and ethically-sound application of knowledge within a complex system of relationships among researchers and users" (**www.cihr-irsc.gc.ca/e/about/7518.shtml**).

Having said this, the traditional approaches, conference presentations and publication, are not obsolete – they should still be part of any dissemination plan. Presenting your research (I use the term in a broad sense here to include literature reviews, case studies, etc.) at professional conferences is not only a good way to share what you have learned with colleagues, but the feedback you get from your audience can help you improve and further your research as well as help you in preparing a manuscript for submission.

Presentation at conferences is to a limited group of listeners, so the next step, journal publication, is a crucial one to take in order to reach a larger audience. Not only do you reach all the journals' subscribers when you are published, but the contents and abstracts of many journals, including **CJCN**, are listed in databases such as CINAHL and MEDLINE and can be searched by a larger and multidisciplinary audience. Whether or not your abstract was accepted for presentation at this conference, take the leap and consider preparing a manuscript for submission to a journal (preferably **CJCN**!).

CCCN leaders and members were forward-thinking when they started the bulletin and then made the bold move to producing a refereed journal of their own. We have now streamlined the peer review process for manuscripts, so you can expect to hear back within about three months of submitting your manuscript. Each manuscript is sent to at least two peer reviewers who have four weeks to review it and return their comments. The reviewers' comments are then reviewed by the editor who decides whether the manuscript will be accepted for publication with no changes, minor, or major changes, or whether it is unsuitable for publication in the **CJCN**. One of the journal's associate editors is available to assist authors in revising manuscripts if they require major change. When articles requiring major changes are resubmitted, they are reread by the original peer reviewers to determine whether the authors have satisfactorily addressed the reviewers' original concerns.

If you are nervous about starting to write a paper for the journal, or uncertain about whether one you have written is suitable, you are welcome to contact the editor or any of the associate editors. We would be pleased to assist you or to refer you to someone who can help you with preparing your manuscript. Information for authors is available in this issue of **CJCN** and on the CCCN website (**www.cardiovascularnurse.ca**).

The journal is always looking for new talent – and not just authors. **CJCN** peer reviewers play an important role in deciding whether cardiovascular nursing and nurses are better served by publishing or not publishing an article. What are the qualifications for being a peer reviewer? Most important are experience in writing, especially in writing journal articles, and expertise within one or more areas of cardiovascular nursing. Previous experience with doing peer reviews is not necessary, so if you are interested in having your name in our database of peer reviewers, please contact the editor.

So much for presenting and writing papers - let's not forget that conferences like this one are about more than just disseminating knowledge; they are also a great opportunity to link up with old and new colleagues. I hope you have a great conference and come away from it with lots of new ideas, friends, and energy to put into cardiovascular nursing over the coming year... and, not least, have a great time! ♥

Kirsten Woodend,
Editor, CJCN

President's message

Welcome cardiovascular nurses!

Another exciting scientific program has been established for you to enjoy. The CCCN board and planning committee believe that you will benefit from the variety of expertise presented with this program that is being held in one of the major Canadian centres, Toronto.

Judy Costello, the chair for the local planning committee, and her enthusiastic volunteers are to be commended on a job well done. This year, they were faced with the additional challenge of planning a nursing program that will also be relevant and valuable to any of the InterAmerican Congress participants. A record number of abstracts were submitted. The review committee is pleased with the final selection. The planning and review committees are to be acknowledged for their efforts. They not only had the planning and abstract selection to manage, but also had to deal with the SARS outbreak. The combination of responsibilities created significant demands on our volunteers; thank you for your efforts. I would also like to acknowledge the efforts of the national professional education and research chairs for their guidance and efforts to work with the local planning committee for another successful meeting.

I invite you to attend all the sessions that are relevant to your practice. However, I hope that you go outside your expertise and attend sessions that reveal other aspects of cardiovascular nursing. SARS is in the past and scientific sessions are our future; enjoy yourself! ♥

Sandy Barabé
CCCN President

Local planning committee welcome

We are pleased to invite you to the Canadian Council of Cardiovascular Nurses Annual Meeting and Scientific Session to be held in conjunction with the Canadian Cardiovascular Congress and the InterAmerican Congress of Cardiology in Toronto, Ontario, October 24-29, 2003.

The local planning committee has worked collaboratively with the board of directors and the national professional education and health promotion committees to offer an outstanding scientific program. At the conference, you will find a wide variety of clinical and research sessions focused on a number of diverse topics that include: patient safety, cardiovascular surgery, acute coronary syndromes, pediatrics, patient education, culture care and much more. This year, we offer a series of workshops that focus on the key content areas that comprise the certification exam for cardiovascular nursing.

In addition to advancing your knowledge at the conference, there is a great deal of opportunity for fun and entertainment in Toronto – one of the most diverse cities in the world. Although this has been a challenging year for the citizens of Toronto, in particular health care workers, the energy and vitality that reflect the city remain as strong as ever.

We hope you will join us for a stimulating program and a great deal of fun! ♥

Judy Costello and Jennifer Price
Co-chairs, CCCN Local Planning Committee 2003

Local planning committee members

- Judy Costello - Toronto
- Jennifer Price - Toronto
- Wendy Vlasic - London
- Monica Parry - Kingston
- Jane MacIver - Toronto
- Vaska Micevski - Toronto
- Nicole Cortese - Toronto
- Marion Ryujin - Toronto
- Kathleen Einarson - Toronto
- Jennifer Kilburn - Toronto
- Julie Kim - Toronto
- Sarah Telfer - Mississauga
- Sylvia van Eijk - Mississauga
- Tammy Cosman - Kitchener
- Kathy Bally - Kingston
- Wynne DeJong - Scarborough

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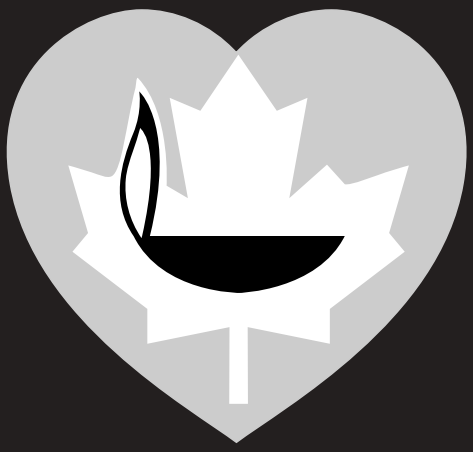

The *Canadian Journal of Cardiovascular Nursing* is available on line to CCCN members

La *Revue canadienne de nursing cardiovasculaire* est disponible en ligne pour les membres de CCINC

CCCN's leaders and award winners 1973-2004

Presidents

Year	President	AGM Location
1973 / 1974	Valerie Shannon (Montreal, PQ)	Halifax, NS
1974 / 1975	Joan Breakey (Toronto, ON)	Winnipeg, MN
1975 / 1976	Carolyn Stockwell (Windsor, ON)	Montreal, PQ
1976 / 1977	Carolyn Stockwell (Windsor, ON)	Edmonton, AB
1977 / 1978	Jean Petrie (Halifax, NS)	Toronto, ON
1978 / 1979	Glenys Whelan (St. John's, NF)	Vancouver, BC
1979 / 1980	Glenys Whelan (St. John's, NF)	Quebec, PQ
1980 / 1981	Glenys Whelan (St. John's, NF)	Winnipeg, MN
1981 / 1982	Lee Doryk (Regina, SK)	Montreal, PQ
1982 / 1983	Lee Doryk (Regina, SK)	Calgary, AB
1983 / 1984	Marcia Mason (Vancouver, BC)	Toronto, ON
1984 / 1985	Marcia Mason (Vancouver, BC)	Quebec, PQ
1985 / 1986	Connie Cloutier (Montreal, PQ)	Halifax, NS
1986 / 1987	Connie Cloutier (Montreal, PQ)	Ottawa, ON
1987 / 1988	Carole Earle (Woodstock, NB)	Edmonton, AB
1988 / 1989	Carole Earle (Woodstock, NB)	Montreal, PQ
1989 / 1990	Ellen Rukholm (Sudbury, ON)	Vancouver, BC
1990 / 1991	Ellen Rukholm (Sudbury, ON)	Halifax, NS
1991 / 1992	Carol Jillings (Vancouver, BC)	Calgary, AB
1992 / 1993	Carol Jillings (Vancouver, BC)	Ottawa, ON
1993 / 1994	Carol Szarga (Toronto, ON)	Vancouver, BC
1994 / 1995	Carol Szarga (Toronto, ON)	Edmonton, AB
1995 / 1996	Lynne Young (Vancouver, BC)	Toronto, ON
1996 / 1997	Lynne Young (Vancouver, BC)	Montreal, PQ
1997 / 1998	Howard Brunt (Victoria, BC)	Winnipeg, MN
1998 / 1999	Howard Brunt (Victoria, BC)	Ottawa, ON
1999 / 2000	Darlene Dawson (Calgary, AB)	Quebec, PQ
2000 / 2001	Darlene Dawson (Calgary, AB)	Vancouver, BC
2001 / 2002	Sandy Barabé (Port Coquitlam, BC)	Halifax, NS
2002 / 2003	Sandy Barabé (Port Coquitlam, BC)	Edmonton, AB
2003 / 2004	Lorna Estabrooks (Calgary, AB)	Toronto, ON

Clinical excellence award

Year	Name	City/Province
1993 / 1994	Jean Petrie	Halifax, NS
1994 / 1995	Karen Then	Calgary, AB
1995 / 1996	Moya Taylor	Brandon, MN
1996 / 1997	Marlene Adam	Ottawa, ON
1997 / 1998	Cleo Cyr	Saint John, NB
1998 / 1999	Wendy Vlassic	London, ON
1999 / 2000	Francine Daigle	Saint John, NB
2000 / 2001	Francine Girard	Calgary, AB
2001 / 2002	Anna Svendsen	Halifax, NS
2002 / 2003	Susan Bengivingo	Calgary, AB
2003 / 2004	Jocelyn Reimer-Kent	Vancouver, BC

Baxter Leadership Award

Year	Name	City/Province
2001 / 2002	Francine Girard	Calgary, AB
2002 / 2003	Heather Sherrard	Ottawa, ON
2003 / 2004	No nominee	

Cardiovascular research excellence award

2003	Kathryn King (first time awarded)

CCCN 2003 Award Recipients

Clinical excellence award winner – Jocelyn Reimer-Kent

Jocelyn is a clinical nurse specialist in cardiac services at the Royal Columbian Hospital (RCH), Fraser Valley Health Authority, New Westminster, BC. She also holds an affiliate faculty position in the School of Nursing at the University of BC, Vancouver. Jocelyn has been active in her local CCCN chapter developing educational presentations and she has been a regular presenter at the CCCN annual scientific sessions. She has also been instrumental in encouraging colleagues to become active in CCCN.

Jocelyn was pivotal in gathering a multidisciplinary team of health professionals together to develop, implement, and evaluate the critical pathway which is now the standard of care for patients in the open heart surgery program at RCH. From this clinical pathway, Jocelyn developed a "Wellness Model" which is a philosophy of patient management embodying proactive post-operative symptom treatment. Her vision and leadership have been instrumental in improving patient pain management, opioid-related post-operative nausea and diminished bowel function, leading to increased patient comfort, reduced post-operative complications, and shorter hospital lengths of stay.

Jocelyn has presented her "Wellness Model" at St. Paul's Hospital, Vancouver, Vancouver General and the Victoria General Hospital. In 2002, Jocelyn presented in Copenhagen, Denmark at the International Council of Nurses. The plan of care and supporting data for the "Wellness Model" have been purchased nationally and internationally, presented at numerous conferences and were also published in the March 2003 issue of the **American Journal of Critical Care**.

Jocelyn is an outstanding role model and mentor, having mentored many BSN and MSN students over the years. She also consistently takes the time to explain, teach, and work with staff members who are new to the cardiac surgery specialty. She has been actively involved in the support of patients and their families and has fostered a true team approach to patient care. Jocelyn uses her compassion and strength in working with patients and families in crisis and endeavours to promote an environment which ensures that patient autonomy and dignity are preserved regardless of the outcome. ♥

Cardiovascular research excellence award winner – Kathryn King

Dr. Kathryn King is an associate professor in the Faculty of Nursing and also holds a joint appointment with the Department of Community Health Sciences at the University of Calgary. In addition to her primary appointments, Kathryn is a scientific officer with the Health Research in the Centre for Advancement of Health (University of Calgary and the Calgary Health Region), a professional nursing associate in the Heart Health Program (Calgary Health Region), and a research associate of the EPICORE Centre (Division of Cardiology, Faculty of Medicine, University of Alberta).

Kathryn has conducted and published high quality cardiovascular nursing research for many years, with specific research interests in the areas of women's recovery from cardiac surgery, cardiovascular risk factors, and ethnocultural affiliation and sex differences in cardiovascular disease management. She has been the principle investigator for six studies since completing her doctoral and master of nursing theses and she currently holds $661,000 in grants for her research. Dr. King has also received a heritage population health investigator award from the Alberta Heritage Foundation for medical research at the University of Calgary for a three-year term.

Dr. King has been widely published in respected, refereed journals and she has also had many columns, commentaries and editorials published on the topic of nursing research. She has also shared her research locally, nationally and internationally through peer-reviewed presentations and invited presentations at conferences as well as through classroom teaching, the media, and consultations with other researchers and clinical organizations. Kathryn has also been a position role model for other nurses in her passion for cardiovascular nursing and cardiovascular nursing research.

In addition to her research and teaching, Kathryn has been a very active member of the CCCN. Among other activities, she has served as the national research chair since 1998, and was CCCN's representative to the Cardiovascular-Cerebrovascular Research Advisory Council of the Heart and Stroke Foundation of Canada. Dr. King is an exemplary nurse researcher whose work in cardiovascular nursing research is internationally recognized. ♥

CCCN Annual Scientific Sessions

Metro Toronto Convention Centre, Toronto, Ontario
Sunday, October 26 to Wednesday, October 29, 2003

CCCN would like to recognize the following organizations for their generous support of our 2003 scientific sessions: **Major Sponsors:** Health Canada, Aventis, Astra Zeneca. **Patron Sponsors:** Pharmacia, Wyeth, Boston Scientific. **Contributor:** General Mills.

The information contained within this section of the journal is current as of September 17, 2003. All changes since publication of the preliminary program are noted. Changes occurring after September 17, 2003 will be announced at the beginning of the meeting.

The content of each abstract submission has been prepared for inclusion, as submitted by the author(s), without editing by CCCN. A standard format has been adopted by the editor to facilitate presentation.

Saturday, October 25, 2003

Welcome Reception & Opening of the Exhibits, Exhibit Hall	Saturday 1800 – 1930

Sunday, October 26, 2003

CCCN Committee Meetings	
National Research Committee	Sunday 0900 - 1100
Canadian Journal of Cardiovascular Nursing	Sunday 0900 - 1100
Professional Education	Sunday 0900 - 1100
Health Promotion	Sunday 0900 - 1100
Provincial Directors' Meeting	Sunday 1100 - 1300

CCC Opening Ceremonies & HSFC Lecture	Sunday 1400-1600
CCCN Annual General Meeting	Sunday 1600 – 1800
Joint Awards Reception, The Ballroom, Fairmont Royal York	Sunday 1800-1930

Monday, October 27, 2003

Opening Remarks	Monday 0745-0815
Opening Plenary Speaker, Patient Safety , Dyanne Affonso, RN, PhD	Monday 0815-0915
Concurrent workshops *(abstracts below)*	Monday 0930-1020

Preparing for certification

**Vlasic, Wendy, RN, MScN, CCN(C),
Southeastern Representative,
CCCN Ontario and CCCN National Health Promotion Committee**

The key objectives of this workshop include:

1. Understand the complementary roles of CCCN and CNA in offering cardiovascular nursing specialty certification in Canada

2. Briefly review the current CCCN standards for cardiovascular nursing in Canada

3. Understand the current process of applying to write, and writing the certification exam

4. Discuss preparation strategies for writing the exam, including an overview of content that may be included and available supports

5. Discuss financial options for funding the examination process

6. Life after the certification exam... or how to keep your certification current.

Diabetes and cardiovascular disease

**Jones, Helen, RN, MSN, CDE, Clinical Nurse Specialist / Manager,
Mount Sinai Hospital, Toronto, Ontario**

This workshop will focus on the 2003 Clinical Practice Guidelines for Diabetes and implications for cardiovascular nursing practice. In particular, the speaker will focus on intensive insulin therapy post-MI, anti-hypertensives and glycemic control targets for cardiovascular disease prevention.

Vascular surgery

**DeVries, Sue, RN, MScN, CCN(C), Clinical Nurse Specialist,
Vascular Surgery, Toronto General Hospital, Toronto, Ontario**

This presentation will provide nurses with a brief overview of vascular diseases including arterial and venous disease. Also discussed will be an overview of physical assessment, current management options for patients with vascular diseases and implications for nursing care.

Writing for publication

**Woodend, Kirsten, RN, PhD, Editor,
Canadian Journal of Cardiovascular Nursing**

Become a published author. Meet members of the **CJCN** editorial board and learn how to get your articles published. We will talk about how articles are chosen for publication in **CJCN** and briefly touch on: how to choose a topic for your article, making authorship decisions, organizing content, following the journal format, references, charts and figures, obtaining permissions, submitting your manuscript and analyzing rejection and considering options, as well as how to make requested revisions.

Arrhythmia challenge

**Foggett, Ruth, RN, BScN, CCN(C), Manager, CCU & Cardiology,
Trillium Health Centre, Mississauga, Ontario**

This practical, interactive workshop will provide participants with an opportunity to challenge their knowledge and skill in the interpretation of a variety of cardiac arrhythmias. Discussion will include “clues” to assist participants in refining their analysis of both common and complex rhythm disturbances.

Break and Posters, Exhibit Hall *(poster abstracts begin on page 35)* Monday 1030-1100

Please note that all posters will be on display for the entire CCCN program.
The authors will be available on the assigned day from 1300-1400 hours to discuss their posters.

Concurrent sessions *(abstracts below)* Monday 1100-1235

- Acute Coronary Syndrome
- Heart Failure
- Patient Education
- Pediatrics
- Surgery

ACUTE CORONARY SYNDROME

1100-1120

Cardiac Emergency Liaison Clinic: A Safe and Effective Alternative to a Chest Pain Evaluation Unit for Management of Low-Risk Patients Referred From the Emergency Department

Yates, Gillian, Clarke, Adam, Josephson, Bruce, Johnstone, David, & Bata, Iqbal, QE II Health Sciences Centre, Halifax, Nova Scotia

Chest pain evaluation units (CPEU) have been found to be safe in managing low-risk cardiac patients. With increasing demands and limited resources, a nurse-managed cardiac emergency liaison clinic (ERLC) which would coordinate early investigations and follow-up, may prove to be a safe and efficient alternative to a CPEU. The purpose of this study is to evaluate the safety and efficacy of an emergency liaison clinic as an alternative to a CPEU in managing low-risk cardiac patients referred from the emergency department (ED). Clinical characteristics of two cohorts, patients admitted to the CPEU, and those discharged with ERLC follow-up, were collected via chart review. Cardiovascular outcomes, including return visits to ED with chest pain, admissions, myocardial infarctions, deaths, and cardiac interventions were gathered for a six–month period following the initial ED visits. From January 1, 2001 to June 30, 2001, 135 patients were admitted to the CPEU and 128 were discharged from the ED with ERLC follow-up. The cardiac risk profile was similar between cohorts. Six months after the initial ED visit, there were no significant differences in cardiac outcomes between the two groups, including return ED visits with chest pain, cardiac catheterizations, revascularization procedures, myocardial infarctions, and deaths. The nursing role in both settings will be discussed, focusing on primary and secondary prevention.

In conclusion, patients who were referred to the nurse-managed ERLC had a similar cardiac risk profile and cardiac outcomes at six months to those admitted to the CPEU. The ERLC was a safe, effective alternative to a CPEU that should be explored prospectively.

1125-1145

Percutaneous Transluminal Coronary Angioplasty Outpatient Program: Organization and Nursing Implications

Whelan, Anne Marie, Health Care Corporation of St. John's, St. John's, Newfoundland

The wait list for patients awaiting percutaneous transluminal coronary angioplasty (PTCA) has been growing extensively over the last several years. As a result, our cardiac care program team decided to make changes in the delivery of our care.

In the year 2000, we began an outpatient PTCA service. Eligible outpatients are screened by our cardiologists by evaluating the probability of the patient requiring admission to hospital post-procedure.

This allows us to address the problem of patients waiting for very long periods of time to have their procedures performed. This has very positive financial ramifications for the hospital system. Previously, post-PTCA patients required a coronary care unit bed for at least one overnight stay.

To supplement the program, we also opened our own pre-admission clinic (PAC) which is staffed by a cardiac catheterization lab (CCL) nurse. The patient is given an appointment time for PAC to coincide with the day before his appointment for PTCA.

Also, to allow for more expedient patient discharges from the CCL recovery area, we now often use the radial artery approach to the procedure, rather than the more common femoral route. This route allows patients much more independence and satisfaction post-procedure.

We are presently beginning a retrospective study to evaluate the effectiveness and safety of our program. During this presentation, I will give an overview of our outpatient CCL PTCA program, and nursing implications regarding post-procedure care of these patients. I will also report any results obtained to date from our retrospective study.

1150-1210

An Early Warning System - The Pre-Admission Clinic for Interventional Cardiology

Ridley, Brenda, & Adarna, Eleanor, University Health Network, Toronto General Hospital, Toronto, Ontario

University Health Network's (UHN) interventional cardiology program provides care to clients from a large geographical catchment area. Over 2,500 clients come for interventional congenital, electrophysiology, and angioplasty procedures each year, of which approximately 50% are electively booked and are admitted to the cardiac short-stay unit. To promote continuity along the continuum of care, a decision was made to have the nurses from the cardiac short-stay unit assess the elective patients in the pre-admission clinic and provide patient education. This gives clients the opportunity to meet and interact with nursing staff who will care for them during their admission, receive education that offsets anxiety prior to procedures, and gives nursing staff an early warning system for potential issues. This increases efficiency, as issues can be dealt with in a proactive manner to prevent procedure cancellations and optimize use of cardiac short-stay beds. Links to appropriate members of the multidisciplinary team can be made before the admission.

The purpose of our presentation will be to discuss how inclusion of the short-stay nurses into the clinic visit impacted patient satisfaction, how it achieved improvement in nurses' satisfaction on the cardiac short-stay unit, and to provide examples of early warnings that prevented patient morbidity.

1215-1235

Meeting the Challenges of Access to Advanced Cardiac Services: An Innovative Team Approach

Flanagan, Silvana, Foggett, Ruth, Rinaldi, Lina, & Duesburry, June, Trillium Health Centre, Mississauga, Ontario

The introduction of a tertiary cardiac program in a community hospital presents many challenges as community and regional patients compete for access to advanced cardiac services. Increased patient care demands and limited resources may result in prolonged emergency room wait times, increased diagnostic and intervention wait times, and decreased patient and staff satisfaction.

In response to these challenges, the cardiology & cardiac surgery teams developed a multifaceted approach to analyze and redevelop patient care processes to improve patient access and outcomes. The initiatives identified are:

- Admission criteria revisions
- Cardiac diagnostic testing process improvements
- Protocol and pathway revisions utilizing best practice
- ACNP outpatient clinic expansion.

Outcomes of this initiative include improved access to tertiary cardiac diagnostics and interventions for community and regional patients, as well as improved patient care processes utilizing best practice. The criteria to measure success was identified as improvements in emergency room wait times, diagnostic and intervention wait times, length of stay, and patient and staff satisfaction.

HEART FAILURE

1100-1120

Septal Ablation: A New Treatment for Hypertrophic Obstructive Cardiomyopathy

Spencer, Marleen & Meade-Corkum, Carol, Queen Elizabeth II Health Sciences Centre, Halifax, Nova Scotia

Hypertrophic cardiomyopathy is a congenital disorder that is known to cause sudden death in children, adolescents and athletes. Less dramatic, this syndrome can have a profound effect on exercise tolerance, severely limiting the lifestyle of this patient population. Recently, a new alternative to surgical myectomy has been developed: percutaneous transluminal septal myocardial ablation. This procedure is performed in the cardiac catheterization lab and the patient is then admitted to the coronary care unit (CCU). This presentation will provide a brief overview of the pathophysiology of the syndrome, a description of the procedure and, utilizing a case study, will discuss the unique nursing care that is necessary for this population as their induced myocardial infarction is managed.

1125-1145

Peripartum Cardiomyopathy: A Case Study

Bally, K., Kingston General Hospital, Staples, P., Hotel Dieu Hospital, Kingston, Ontario

Peripartum cardiomyopathy is a rare condition associated with pregnancy. The incidence is somewhere between 1:3,000 to 1:15,000 pregnancies. It is heart failure that manifests in the last month of pregnancy or the first five months following pregnancy where there is absence of a determinable cause for the heart failure. It is more prevalent in multiparous women over the age of 30. The cause of peripartum cardiomyopathy has been postulated to be related to a viral process or an autoimmune response during pregnancy.

Our case concerns a 34-year-old woman who presented to the emergency department with a one-month history of worsening shortness of breath, orthopnea, and palpitations. In the week prior to admission, she also experienced nausea and dull chest pain radiating to her left arm. She was six months postpartum at the time. Her history was complicated by a positive family history with her father and grandfather having had myocardial infarctions in their 40s.

On echocardiogram, she was found to have a dilated cardiomyopathy involving both ventricles. Her left ventricle was measured to be 73 mm during systole and 83 mm during diastole. Her left ventricular ejection fraction was estimated to be 15%. Coronary angiography was normal. She was initiated on an ACE inhibitor, beta blocker and warfarin during hospitalization and referred to the heart failure clinic for follow-up care.

This presentation will further discuss peripartum cardiomyopathy and the management of patients diagnosed with this disease. The case study will be used to highlight salient points in the presentation, diagnosis, and patient management.

1150-1210

B-Type Natriuretic Peptide - What Does This Mean for Nurses?

Svendsen, Anna, Queen Elizabeth II Health Sciences Centre, Halifax, Nova Scotia

Heart failure affects over 350,000 Canadians. It continues to "enjoy" the distinction of being the most frequent discharge diagnosis in North America. However, many of the symptoms of heart failure are similar to other disease entities, especially in patients with multiple co-morbidities. Thus, it may sometimes be very difficult to differentiate the current cause of symptoms. Fortunately, there is a new blood test available which allows us to assess the degree of pressure overload.

B-type natriuretic peptide (BNP) is a neurohormone which is secreted primarily by left ventricular myocytes in response to volume overload. Research has demonstrated that BNP closely correlates with New York Heart Association Functional Class, left ventricular end-diastolic pressures, pulmonary capillary wedge pressure. In addition to its diagnostic benefit, BNP can be used to predict patients at risk for re-admission for heart failure within a month, to risk-stratify patients with acute coronary syndromes, or to help screen for rejection post cardiac transplantation.

This session will discuss the pathophysiology of BNP, its clinical implications as well as the nursing implications.

1215-1235

A Nurse-Managed Heart Failure Clinic: A Review of the First Two Years

Staples, P., Hotel Dieu Hospital, Kingston, Ontario

A heart failure clinic was opened at our centre to provide a comprehensive follow-up program for patients with heart failure. The program consisted of ensuring correct medications for heart failure were ordered, education about self-management was given, and telephone follow-up and management was available for patients. It was predicted that such a program would decrease emergency room visits and hospitalizations for heart failure.

A retrospective chart audit was performed on the first two years of the heart failure clinic operation. A total of 200 patients were seen with 123 patients still actively being followed at the end of the two-year period. Twenty-five patients had died, 26 were discharged, seven withdrew, and 15 were lost to follow-up (13 were known to be alive).

The clinical nurse specialist/nurse practitioner made or received 1,000 telephone calls during the first two-year period. All patients received one-on-one education about heart failure self-management and/or attended a multidisciplinary class on managing their heart failure. In comparing initial visit with final visit, beta blocker use increased from 62% to 92%, and angiotension antagonist use increased from 82% to 95%. The dose of beta blockers patients were receiving also increased significantly ($p < .001$). When the year prior to clinic enrolment was compared to the time following enrolment (average 11-month follow-up), emergency room visits and hospitalizations for heart failure decreased by 80% and 83% respectively. The clinic has been successful in achieving its goal of providing a comprehensive follow-up program for heart failure.

1100-1120

Mapping New Territory: Developing a Patient Education Program for Patients With Ventricular Assist Devices

Dickson, Cindy, Jamieson, Nancy, Groe, Silvi, Slattery, Judy, & MacIver, Jane, Toronto General Hospital, Toronto, Ontario

Ventricular assist devices (VADs) are the accepted standard of care for patients at risk of imminent death due to advanced heart failure that is unresponsive to conservative medical and surgical strategies. The overall goal of ventricular assistance is to stabilize hemodynamics and allow for recovery of the heart and / or other organs. The Heartmate LVAS© is the system for long-term ventricular assistance currently in use at our institution. It is portable and patients are able to go home on the device while waiting for their new heart.

Developing a discharge program for this patient population is challenging. Information needs and patient education needs of VAD patients have not been documented in the literature. Also, many patients with end stage heart failure experience cognitive impairments ranging from decreased attention span to memory deficits. Couple this with the highly technical nature of the equipment, and the task of educating patients and families seems impossible. Existing methods are insufficient to adequately prepare these patients. We need to map new territory to help patients and families manage the transition from hospital to home.

This presentation will review the literature related to the information needs of patients and families with heart failure, recovering from heart surgery, and waiting for heart transplantation. The teaching methods used to accommodate for potential cognitive impairments will be highlighted. Discussion will include evaluation of patient and family satisfaction, discharge and readmission rates, complications and patient outcome. Future areas for nursing practice and research will be identified.

1125-1145

Women With Heart Disease: Focused Teaching and Follow-up to Improve Outcomes

Stolarik, A., Adam, M., Caves, W., Harkness, C., Harper, L., Kearns, S.A., Middleton, P., Momtahan, K., & Taylor, A., University of Ottawa Heart Institute, Ottawa, Ontario

The purpose of this pilot study was to determine whether discharge teaching and follow-up specifically for women would improve their post-discharge quality of life and decrease their use of health care resources. A randomized controlled trial was conducted which involved specialized discharge teaching and follow-up targeting needs of women. This intervention consisted of the standard discharge teaching and follow-up phone call given to all patients as well as specific teaching for women. In addition to the standard discharge teaching and follow-up phone calls given to all our patients, the intervention group received (a) teaching specifically designed for women, (b) weekly phone calls for four weeks and, (c) they participated in a share-and-compare session at the institute.

Forty patients were recruited and 28 completed the study. Outcome measures included the illness intrusiveness rating scale (IIRS), quality of life assessment (QLAP), and a health resource use questionnaire. Descriptive statistics, Chi-square tests, t-tests and repeated measures analysis of variance were used to analyze the data. The results of this analysis will be presented and the key themes that emerged from the share-and-compare sessions, such as burden to others, setting limits, and looking after self will be discussed.

1150-1210

Identifying Perceptions, Learning, Lifestyle, and Follow-up Needs of Patients Discharged from CCU Following PCI Treatment of an Acute MI

Holt, Paula, Hodgson, Elizabeth, Wilson, Cathy, Patey, Faith, Yates, Gillian, & Matheson, Sandra, Queen Elizabeth II Health Sciences Centre, Halifax, Nova Scotia

Patients admitted to the CCU with an acute MI may be referred for PCI. If treatment is successful, the patient may be discharged from the CCU within three or four days. CCU nurses within our institution identified concerns that this short-stay patient population was not being adequately prepared for discharge. Specifically, patients did not have time to accept their diagnosis and understand the implications of the necessary lifestyle changes. Patients initially received the message that they were very ill, and then, within a few days, were fine to go home. The literature supports the concern that patients discharged after PCI do not tend to appreciate the seriousness of their disease and make the necessary lifestyle changes.

A convenience sample of 10 patients discharged from the CCU following PCI participated in a phone survey to talk about their perceptions of their hospital stay and early discharge. Data was collected using a structured

questionnaire focusing on patient and family perceived needs, and how these needs were met (or not); the impact that cardiac disease has had on their life, and if they have attempted any lifestyle adjustments. Participants were encouraged to comment fully on their perceptions and concerns. Data were analyzed qualitatively identifying key words and themes. The outcomes that the study had on revising and improving the discharge process, educational materials, and discharge follow-up will be shared.

1215-1235

A Patient-Focused Cardiac Teaching Program

Telfer, Sarah D., Trillium Health Centre, Mississauga, Ontario

This presentation will describe a patient-focused approach to cardiac teaching at a large suburban community hospital. Patients in hospital may not be ready to learn about risk factors for heart disease and lifestyle changes that need to be made. The teaching session conducted by a clinical nurse specialist in cardiology starts the class by asking patients to tell their story. The teaching is allowed to flow from the stories of the patients and the questions patients have about their illness and hospital stay.

Some questions used to promote open discussion are: "Tell me about your heart attack." "What brought you to hospital?" "What has this experience been like?"

This approach to patient teaching is founded in Parse's Theory of Human Becoming, and modern adult educational principles that support the idea of flexibility in patient learning, and research into what patients want to learn about their condition while in hospital. The approach is a patient-centred one, allowing the patient to direct the teaching and discussion. This method of teaching understands that describing how the blood flows through the chambers of the heart and related anatomy and physiology may be of no interest to the cardiac patient.

PEDIATRICS

1100-1120

A Healthy Partnership, A Healthy Life: A Pilot Project to Promote Increased Activity in School-Aged Children

MacRury-Sweet, Karen, Capital Health, Halifax, Nova Scotia

The District Health Authority provides primary health care to 395,000 people. The Heart Health Program provides quaternary and tertiary cardiac care to approximately one million citizens. A strategic goal for the district is to promote health by increasing public and provider awareness of factors that influence health, and developing partnerships and strategies that improve the health of our communities.

The Heart Health Program took on a physical challenge in conjunction with the Community Health Board and Regional School Board. A physical activity challenge for all grade levels entitled, "Be Active for Fun, Be Active for Life" was piloted in May 2003. This project was initiated partly because of the startling statistics in our province. By grade three, 44.6% of girls and 37% of boys are overweight or at risk of being overweight. The goal of the project was to promote healthy habits like physical activity that will help to lower the risk of cardiac disease, as well as focusing on diabetes.

A week was designated to track and increase physical activity. Activity had to be 10 minutes in length to be included.

The project was evaluated on three levels: student participation, teacher feedback, and community health nurse feedback. The evaluation feedback will be incorporated into future population health projects in conjunction with acute care services to promote a healthy community and healthy partnerships.

As a result of this collaboration between the health district and community, we continue to achieve our vision of a healthy community.

1125-1145

Managing Children With Hypertrophic Cardiomyopathy Using a Collaborative Approach in the Cardiac Ambulatory Clinic

Aiello, Sandra C., & Eianarson, Kathleen D., The Hospital for Sick Children, Toronto, Ontario

Hypertrophic cardiomyopathy (HCM) is more commonly thought to affect adults. As understanding of the molecular basis of HCM increases and the different familial patterns of the disease manifest, it is apparent that HCM affects individuals of all ages. The Hospital for Sick Children has seen an increase in the number of children referred for evaluation and management of HCM. In many cases, children are screened for indicators of disease because a strong family history exists and/or disease is present. This poster will profile a family with two young children both newly-diagnosed with HCM, and the pivotal role of the ambulatory nurse in assessing, planning, implementing, and evaluating the management strategies for these children.

Currently, the nurses in the cardiac ambulatory setting are responsible for completing a nursing history and physical assessment. They participate in the diagnostic disclosure discussion with the patient and family during which the treatment plan is determined. The clinic nurse is the family's contact person and provides ongoing assessment of family stress and coping, and coordinates consultation with other members of the interdisciplinary team. As the number of children with HCM increases, future development should focus on 1) coaching adolescents with HCM to develop self-confidence and independence in managing their health care needs, and 2) facilitating their transition to adult cardiac centres.

1150-1210

Appraisal of Health Status and Quality of Life in Children After Repair of Transposition of the Great Arteries

Cullen-Dean, Geraldine, Ashburn, David A., Culbert, Erin, McCrindle, Brian W., Joseph, Jay, & Williams, William G., Hospital for Sick Children, Toronto, Ontario

Advances in medical and surgical treatment have resulted in many children with complex congenital heart defects living into adulthood. Traditional outcome measures are of limited value when assessing the quality of life (QL) and health status of children and their families. We sought to assess health status and QL in children after surgery for transposition of the great arteries (TGA) using the Child Health Questionnaire (CHQ).

Children enrolled as neonates in a prospective study by the Congenital Heart Surgeon's Society between 1985 and 1989 were eligible. Of 704 survivors, CHQs were returned by 306 (44%) children of mean age 13±1 years. Surgical repair was by arterial switch (n=189, 62%), atrial switch (n=105, 34%), or Rastelli (n=12, 4%).

Overall, QL scores were higher than normal control population (e.g. physical functioning= 93.2 versus 88.8 out of 100, $p<0.01$). For most CHQ categories, arterial switch group scored significantly higher than the atrial repair group (e.g. physical functioning= 95.7 versus 91.2 out of 100, $p<0.001$). Multivariable analysis confirmed that arterial repair is associated with better perception of physical and general health, while emotional, behavioural, and social scores were associated with female gender and perfusion parameters.

Childhood perception of QL after TGA repair is better with arterial switch. Improving intra- and peri-operative care may maximize QL and health status outcomes in children with CHD.

1215-1235

The Fate of the Single Ventricle: Where We Have Been and What the Future May Hold

Einarson, Kathleen D., The Hospital for Sick Children, Toronto, Ontario

Hypoplastic left heart syndrome (HLHS) remains one of the most common congenital cardiac lesions resulting in death within the first year of life. The unique challenges posed by infants with single ventricle physiology continue to keep them at the centre of attention as new strategies designed to improve outcomes of reconstructive surgery are developed. Early results of the Norwood Stage 1 procedure reported mortality to be 40% to 60%. The past decade has seen dramatic reduction in mortality following the Norwood Stage 1 to less than 20% in most experienced centres. Other modifications such as the addition of an intermediate stage, the bidirectional cavo-pulmonary shunt (BCPS), between the Norwood 1 and the Fontan, have also contributed to improved outcomes. The greatest risk of death continues to be between the Stage 1 and Stage 2 procedures. Using data from the cardiovascular database at the Hospital for Sick Children, this presentation will review the challenges presented by infants with single ventricle physiology, the progress in palliative surgery, and what the future may hold for this unique group of infants.

Nurses' knowledge and understanding of the intricacies of single ventricle physiology are crucial in contributing to improved outcomes following palliative surgery. Infants who continue to struggle on the cardiac ward following the Norwood Stage 1 palliation often require continued administration of hypoxic gas mix, used to help manage pulmonary over-circulation. Expert assessment of these fragile infants and early intervention, often based on very subtle clues, is an essential skill for pediatric cardiology nurses.

1100-1120

The Pain Experience of Post-Surgical Patients Following the Implementation of an Evidence-Based Approach

Bédard, Denise, Purden, Margaret, Sauve-Larose, Nicole, Certosini, Cynthia, & Schein, Cynthia, Sir Mortimer B. Davis – Jewish General Hospital and School of Nursing, McGill University, Montreal, Quebec

Effective pain management has been found to result in earlier mobilization, adequate rest, and reduced hospital stays, post-operative complications, and costs. A multidisciplinary quality improvement team collaborated to develop and implement an evidence-based (EB) guideline for post-operative pain management. The purpose was to assess the pain status and care satisfaction of surgical patients (including cardiac patients) prior to (Phase I, n=76) and following the implementation of the EB guideline (Phase II, n=71). A quasi-experimental design guided the evaluation of the post-operative pain management intervention. On post-op day two, patients rated their pain and its impact on their activity, and answered questions about pain management and their satisfaction with pain treatment.

Significant differences were found between Phase I and II patients. More patients in Phase II (83%) received EB orders compared to patients in Phase I (35%) ($p<.001$). Patients in Phase II were found to have lower average and worst pain scores ($ps=.05$) and experienced fewer disturbances in sleep ($p<.01$) and general activities ($p<.01$), which remained significant after adjustment for covariates. Patients in Phase II were less likely to believe that good patients avoid talking about pain ($p=.09$). The results suggest that addressing pain management by using a variety of strategies targeted at key players may lead to desired changes in practice and better outcomes for patients. These findings provide initial support for the intervention model proposed in this project. Central to the model is the recognition that a fundamental change in practice occurs through an ongoing process of education, mentoring, and support that must be initiated and sustained at the levels of the institution, the professional, and the patient/family.

1125-1145

No Pain - Great Gain

Reimer-Kent, Jocelyn, Duffield-Harding, Pam, Martin, Kate, & Lagace, Celine, Royal Columbian Hospital, New Westminster, British Columbia

Effective pain relief is an important clinical goal after cardiac surgery. Unrelieved pain has numerous negative effects on both the patient and the health care system. Patients, although they fear unrelieved pain, believe the health care team will alleviate their pain. This is no less so for the patient with a history of chemical addiction. These patients challenge us to seek ways of ensuring that this important goal can and will be achieved.

This presentation will describe a clinical practice guideline for preventing pain after cardiac surgery (Reimer-Kent, 2003), and how it was applied in the case of a patient with a history of drug addiction who required double valve replacement for the third time. The memories of the pain associated with the previous surgeries were still so vivid that this patient feared this more than the potential for morbidity/mortality. Pre-operative care planning included an agreement from the patient to be drug-free for a minimum of three months along with a review of the pain management plan. Should this plan be ineffective, there would be consultation with the clinical pharmacist, acute pain service, and/or drug addiction specialist.

Pain, which had been such a fear pre-surgery, was never an issue post-surgery. Regular doses of non-opioids were administered around-the-clock and, although the opioid order remained active throughout the post-operative stay, no drug-seeking behaviour was noted and no doses were administered after the first post-operative day. No pain had resulted in great gain.

1150-1210

Coming to Terms With a First-Time, Unplanned Cardiac Surgery

Burney, Meera, & Purden, Margaret, Sir Mortimer B. Davis – Jewish General Hospital and School of Nursing, McGill University, Montreal, Quebec

Approximately 23,000 Canadians undergo coronary artery bypass graft surgery (CABG) every year (Health Canada, 1996). While most of these surgeries are planned, with patients waiting at home for their elective surgery, 25% of patients at one Montreal-area hospital were found to undergo unplanned surgeries. Little is known about the experience of hospitalized cardiac patients waiting for an unplanned surgery. The suddenness of the event and the increased level of acuity may make the wait quite different. Therefore, it is important to understand the experience of hospitalized cardiac patients waiting for urgent surgery in order to better address their needs and to improve their post-operative recovery. This descriptive study used unstructured and semi-structured interviews to explore the various ways nine cardiac patients managed and prepared for this stressful event.

The findings suggest that patients engage in a process of "coming to terms with surgery" that includes two phases. First, patients make sense of the need for surgery by confronting their fear of death and weighing the risks and benefits of surgery. Their ability to do so is accomplished by keeping fear and anxiety in its place through the use of distraction. As surgery becomes imminent, patients move into the second phase of preparation by creating a protective environment. Patients increase their use of distraction in order to face the upcoming event calmly and in a positive frame of mind. Post-operatively, patients focused on surviving the surgery, monitoring their recovery, and planning for discharge. These results suggest that patients wait for surgery by preparing themselves psychologically for the event and use distraction for emotional respite from this process. Nurses may support patients in their preparation by being cognizant of the phases patients may go through, by providing opportunities for them to talk about their issues, and by creating the conditions that allow patients to retreat to a protective environment just prior to surgery.

1215-1235

Uncertainty and Its Impact on Functional Outcomes Post-CABG Surgery

Burke, Cathy, LeFort, Sandra, & Webber, Karen,
Health Care Corporation of St. John's and School of Nursing,
Memorial University of Newfoundland, St. John's, Newfoundland

The early recovery period following CABG surgery may be characterized as a stressful and uncertain time for patients. Few studies have specifically addressed uncertainty in the early post-op period and no studies have investigated the in-hospital factors that may influence uncertainty in cardiac surgery patients. A repeated measures correlational design was used to examine four factors (symptom distress, coordination of care, patient participation in care with the ACNP, and education level) and their relationship to uncertainty and functional outcomes in a group of 58 post-CABG surgery patients at three time periods (in hospital, one week and six weeks post-discharge). The theoretical framework for the study was Mishel's (1988) Uncertainty in Illness Model.

Results indicated that participants had: less symptom distress at one and six weeks compared to in-hospital scores ($p=.000$), improved scores in six scales of the SF-36 from one to six weeks ($p < .01$), and reduced scores in the ambiguity component of uncertainty at one and six weeks compared to in-hospital scores ($p=.01$). Uncertainty or its subscales were significantly correlated with symptom distress at T2 (r_s =.51) and T3 (r_s =.60), perceived coordination of care at T2 (r_s = -.55) and T3 (r_s = -.33), and patient participation in care with the ACNP at T2 (r_s = -.34) and T3 (r_s = -.31). Patient participation was also significantly correlated to coordination of care (r_s = .51). Uncertainty was significantly correlated with four scales of the SF-36 at T2 (r_s = -.29 to -.54) and with six scales at T3 (r_s = -.33 to -.62). Overall results of this study supported the hypothesized relationships in Mishel's model and highlighted the role of the ACNP in influencing uncertainty in post-CABG surgery patients.

Lunch and Posters, Exhibit Hall *(poster abstracts begin on page 35)* Monday 1235-1400

Please note that all posters will be on display for the entire CCCN program.
The authors will be available on the assigned day from 1300-1400 hours to discuss their posters.

Concurrent sessions *(abstracts below)* Monday 1400-1535

- Culture Care & Family
- Medical
- Professional Practice
- Surgery I
- Surgery II

1400-1420

Cardiovascular Disease and Aboriginal Peoples - A Comprehensive Review of the Literature

Sanguins, Julianne, University of Calgary, Calgary, Alberta

Rates of cardiovascular disease (CVD) in aboriginal people began to increase in the 1980s until, currently, they have surpassed the rates for the rest of the Canadian population. While there have been a number of studies done addressing different aspects of this issue, no systematic review of the literature exists to assist health care providers in developing and delivering services to this group. An intensive literature search was undertaken to review CVD in aboriginal people. This search included using a variety of search engines and search terms in order to be as inclusive as possible.

Findings from the literature review revealed the following. Heart disease and diabetes are the two most common diseases in aboriginal people living on a reserve. Rates of CVD are increased in the 45 to 64-year-old cohort, but have been shown to be lower in those > 64 years. Several risk factors for development of CVD within the aboriginal population include "conventional" risk factors of hypertension, blood glucose and lipid disorders, abdominal obesity, smoking, and alcohol ingestion. Other unique risk factors include increased rates of carotid atherosclerosis and clotting disorders. Low income has been significantly correlated with higher rates of CVD. Prevention programs using community-based workers have proven effective in reducing rates of CVD.

This review of the literature suggests that there needs to be a greater emphasis on screening for CVD in this population. Addressing poverty and lack of education may be helpful in decreasing rates of CVD in this group. Developing capacity by supporting community-based workers and community-based programs offers opportunities to prevent the development of CVD in aboriginal people.

1425-1445

Challenges to Undertaking Research With People From Non-Dominant Ethno-Cultural Groups

King, Kathryn M., Sanguins, Julianne, Taylor, Liam, & LeBlanc, Pamela, University of Calgary, Calgary, Alberta

Empirical information about members of non-dominant ethno-cultural groups is limited. Health care practitioners require an evidential basis for their practice with all patients, not just those in the ethno-cultural majority. Study samples are either not described in such a way to critique the applicability of findings to other groups, or the non-dominant groups are not sampled at all — largely because of the challenges faced in reaching these groups.

We are currently undertaking an investigation of the influence that ethno-cultural affiliation and gender have on the decisions that people make about managing their cardiovascular disease risk. People from seven ethno-cultural groups (rural / urban Euro-Celtic, French Canadians, Aboriginal Canadians, newly immigrated Sikh from India, and Chinese from Hong Kong) are being studied. Traditional recruitment strategies are generally not ethno-culturally sensitive. We will highlight the challenges and useful strategies encountered in identifying, accessing, and recruiting people for this study. The challenges included: less volunteerism for study participation, suspicion or lack of understanding of the research process, and language barriers. The useful strategies included, but were not limited to: face-to-face recruitment, engaging like ethno-cultural team members, producing appealing / familiar print media.

Challenges remain in developing research findings applicable to our evolving North American society. Health care researchers have yet to appropriately address the issue that in a multi-ethno-cultural society, research findings are being produced that do not necessarily apply to important and / or growing groups in our society. Our group is hoping to make a contribution to this end.

1450-1510

Uncovering Family Nursing Practices in Cardiac Medical-Surgical Settings

Tapp, Dianne, Moules, Nancy, Fraser, Janet, & Joyce, Kerri, University of Calgary, Marks, Jean, & Wong, Michael, Calgary Health Region

Family members are increasingly compelled to be involved in the care of ill family members during and following hospitalization. However, health care systems are organized around diagnosis and treatment of individuals. Hospital nursing units are workplaces where nurses are incredibly pressured by time and competing demands. In an effort to understand how health care encounters between nurses and families occur, the family nursing practice study is exploring and describing family nursing practices which: (a) support involvement of family members in health care encounters, and (b) address the concerns and difficulties of families with a member hospitalized with cardiac health problems. This qualitative study is

guided by a hermeneutic approach (Gadamer, 1989). This paper reports the findings from the first phase of this study which generated text through non-participant observation.

Fifteen nurses working on three cardiac medical-surgical hospital inpatient units were job-shadowed to enable researchers to directly observe the nature of their practice with families in the midst of their usual work routines. Field notes were interpreted by a research team that consisted of two faculty members, two nursing students (graduate and undergraduate), and two staff nurses who worked on the participating units. The findings suggest that, although family presence in these settings has become accepted as routine, family engagement and assessment of family concerns are not consistently considered as part of routine care except in the instance of discharge planning. Possibilities for increasing nurses' efforts and opportunities to address family concerns and needs will be discussed.

1515-1535

Family-Centred Cardiac Care: How Does the Cardiac Team Measure Up? Patients and Family Members Share Their Perspectives

Matheson, Sandra, Chisholm, Karen, Harrietha, Carol, Hay, Cheryl, Heckel, Bonnie, Holt, Paula & Robertson, Lorraine, Queen Elizabeth II Health Sciences Centre, Halifax, Nova Scotia

Family-centred care has been a foundation within our cardiac program, however, a formal evaluation of our current practice in providing family-centred care for our cardiac clients had never been completed. As a result, two questions were posed by staff: How does our current practice in caring for cardiac patients and their families measure up? Do patients and their families perceive that the cardiac team provides family-centred care?

Cardiac patients and family members were surveyed using a family-centred satisfaction questionnaire that was developed by staff. Data was analyzed and provided patient and family perceptions of the extent to which they felt key elements of family-centred care were present and practised within our cardiac program.

The presentation will outline the development, implementation and results of the satisfaction questionnaire. In addition, the outcomes that were achieved and initiatives that have been introduced within our cardiac program to improve and foster a family-centred environment will be shared.

MEDICAL

1400-1420

The Challenges of Ischemic Mitral Regurgitation: What Are the Treatment Options?

Kim, Julie, St. Michael's Hospital, Toronto, Ontario

Mitral regurgitation (MR) is a common complication of myocardial infarction (MI), and is an independent predictor of cardiovascular mortality. The incidence of MR post-MI is approximately 20 to 39%, and even when mild, is associated with adverse outcomes, with one-year mortality ranging from 18% to 52% (Lamas et al., 1997; Tcheng et al., 1992). Ischemic MR poses a challenge for clinicians, as MR ranges in severity from being detected only as an incidental finding on echocardiography or catheterization to being clinically overt, resulting in hemodynamic instability. Using a case study of a patient who presented to hospital with an inferior MI complicated by ischemic MR, this presentation will: 1) describe the mechanisms and pathophysiology of ischemic MR; 2) discuss various diagnostic strategies; 3) review the treatment options based on the current evidence and; 4) discuss nursing assessment of these patients.

Previously, ischemic MR was thought to be caused solely by papillary muscle dysfunction. However, the development of three-dimensional-echo studies has shown the real culprit to be ventricular remodelling, leading to papillary muscle displacement (Otsuji & Levine et al., 2001). Despite a better understanding of the mechanism behind ischemic MR, there are no consensus guidelines outlining clear management strategies. As a result, positive patient outcomes depend on early diagnosis and individualized treatment. Since the presentation of ischemic MR can be subtle, it is important that nurses have a high index of clinical suspicion for this condition in order to effectively monitor and manage this high-risk group.

1425-1445

Outcomes of an Intensive Lifestyle Modification Program: The Atherosclerosis Reversal Clinic

Burns, Susanne L., Chan, Sammy Y., Johnson, Francis F., Brozic, Anka, & Kingsbury, Kori J., St. Paul's Hospital, Vancouver, British Columbia

Cardiovascular risk reduction in secondary prevention presents ongoing challenges for both patients and practitioners in successfully targeting lifestyle modification and lipids. To optimize clinical care of individuals with coronary artery disease (CAD), we developed the atherosclerosis reversal clinic (ARC) – to target risk reduction with an intensive integrated approach beyond standard therapy. ARC is an innovative program designed to promote regression of atherosclerosis and normalization of endothelial function. We enrolled 157 participants with known CAD. Duration of participation was over two years with 15 visits; at each visit, the participant saw a nurse, dietitian and exercise specialist with consultation by a cardiologist as necessary. Measures at baseline, one and two years include high-resolution ultrasound to determine endothelial and smooth muscle response, B-mode ultrasound of carotid intima-media thickness to assess atherosclerotic burden, and exercise stress testing. Laboratory and anthropometric measures were evaluated at three- to six-month intervals. These results suggest benefits in lipids and functional capacity over a two-year period. Results include:

	Chol	LDL	HDL	Trig	sBP	dBP	Met	wt	waist
base	4.67	2.72	1.17	1.69	128	80	11.7	83.8	94.1
1 yr	4.30	2.37	1.23	1.56	120	74	13.7	81.8	92.0
2 yr	4.25	2.32	1.27	1.43	119	74	14.1	82.1	92.1
p	<.01	<.01	.02	.03	.07	.07	<.01	NS	NS

Aggressive management of both lipids and lifestyle factors coupled with intensive follow-up through the ARC offers an effective method in achieving targets and the normalization of atherosclerosis and endothelial function.

1450-1510

Infective Endocarditis: A Challenging Patient for the Cardiovascular Nurse

Lester, Charlene E.M, & Ytsma, Anita R.J, Sunnybrook and Women's College Health Sciences Centre, Toronto, Ontario

Infective endocarditis is a serious diagnosis that carries a potentially high mortality rate despite antibiotic therapy (De Walt, 2000). Cardiac nurses infrequently care for patients suffering with endocarditis. When faced with such a patient, the knowledge, skills, and expertise of the cardiac nurse in understanding this disease process are of utmost importance. Nurses must be attuned to populations at high risk of developing infective endocarditis to ensure appropriate preventative education and interventions are implemented.

A presentation on infective endocarditis will be presented using a case study format which will be incorporated throughout the presentation. The case study will include the patient's presentation, physical assessment, and the diagnostic tests that led to the diagnosis of endocarditis in an intravenous drug user. "Dukes Criteria" for diagnosing infective endocarditis will be applied to the case. The pathophysiology, clinical manifestations, and populations at risk for endocarditis will also be discussed. Nursing management, patient education, and various treatment modalities will be explored and applied to the case study.

Nursing a patient with infective endocarditis can be both challenging and rewarding. In the acute setting, the astute cardiovascular nurse's assessment skills are vital in managing the patient to identify changes that need prompt intervention. Nursing also plays a major role in patient education. The cardiovascular nurse must not only educate the endocarditis patient to prevent further episodes, but must recognize patients at high risk of developing this serious disease.

1515-1535

The Dangers of Cardiac Myxomas: A Case Presentation

Roschkov, Sylvia, Rebeyka, Darlene M., Mah, Jean, & Urquhart, Gayle L., University of Alberta Hospital, Edmonton, Alberta

A variety of cardiac tumours have been acknowledged in the literature since the sixteenth century as rare forms of cardiac disease. Of the primary tumours, myxomas account for at least 30 to 50 per cent of benign tumours. Despite significant advances in cardiac diagnostics leading to early recognition of myxomas, the potential for deleterious effects secondary to embolic complications remains high. Moreover, the mortality / morbidity rates of 8% have been associated with these cardiac tumours.

The purpose of this presentation is to provide the nurse with an understanding of the epidemiology, pathology, clinical presentation, and assessment of individuals with cardiac myxomas. A case presentation will be

used to illustrate how the misdiagnosis of cardiac myxoma led to a delay in patient treatment. Subsequently, the physiological and psychosocial consequences had a negative impact on the quality of life for the patient and his family.

Prompt recognition, diagnosis, and treatment are important in improving patient outcomes and quality of life, thereby reducing morbidity and mortality. Due to the infrequency of cardiac myxomas, nursing knowledge and skill in caring for these patients may be incomplete. Therefore, with the information provided in this presentation, pre-operative and post-operative nursing care will facilitate caring for patients with cardiac myxomas.

PROFESSIONAL PRACTICE

1400-1420

Can We Care Too Much? A Review of Professional Boundaries for Nurses

Brown, Jacalyn, Kupperman, Anna, Bergin, Christina, Kaan, Annemarie, & Mackay, Martha, Heart Centre, St. Paul's Hospital, Vancouver, British Columbia

Patients with heart failure (HF) can experience acute exacerbations that may require prolonged hospitalization. Caring for hospitalized patients with HF may cause some blurring of professional boundaries which provides a unique opportunity to explore this issue and develop recommendations for practice. A case study of a 59-year-old patient admitted to a cardiology ward with HF symptoms requiring long-term inotrope therapy will be presented. The patient originally presented with HF related to valvular disease. After corrective surgery and an extended post-operative recovery, he developed nosocomial endocarditis which necessitated listing for heart transplant. The long, complicated hospitalization and subsequent close relationship that developed between the patient and nurses presented challenges for staff in defining and maintaining a professional boundary when caring for this patient. In order to maintain professional integrity, nurses must carefully balance the need to provide support and hope to such patients with the emotional impact of providing this care. A review of the literature related to professional boundaries will be presented. As well, a discussion of the lessons learned in caring for this patient, and recommendations for nursing care of such long-term patients in the future will be offered.

1425-1445

Understanding Autonomy in Cardiovascular Nursing Practice

Stewart, J., Tapp, D.M., & Stansfield, K., Calgary Health Region, & University of Calgary

Nursing autonomy consistently appears as a quality worklife indicator that is related to job satisfaction and nursing retention. A focus group study was done with 43 nurses working in heart health departments of a major Canadian health region to follow up a worklife satisfaction survey that indicated that nurses had high expectations for autonomy, yet were only moderately satisfied with autonomy in their worklife. The purpose of the focus groups was to engage nurses in discussions of examples that illustrated clinical practice situations where nurses were either satisfied or dissatisfied with autonomy in their worklife, and to discuss nurses' suggestions for changes that would enhance autonomy in their practice. The project findings are intended to assist nurse managers to work with staff nurses to enhance autonomy in clinical practice.

The stories generated through the focus group discussions were audiotaped, transcribed, and interpreted through a qualitative hermeneutic approach (Gadamer, 1989). This paper will report on differences in nursing autonomy that were described by cardiovascular nurses working in distinct practice settings including critical care, outpatient clinics, and cardiac medical-surgical units. The findings highlight differences in nurses' relationships with physicians, and differing concepts about nursing roles and scope of practice that influence nurses' understanding of autonomy within the various practice settings. The paper will report on beginning attempts and plans within the health region to implement measures that enhance nurses' clinical autonomy based on the unique features of these different practice contexts.

1450-1510

Withdrawn

1515-1535

Herbal Use: Knowledge and Attitudes of Health Care Providers Within a Heart Health Program

Then, Karen, L., Donahue, Marlene, Stewart, Janice, Virani, Riyaz, Duff, Hank MD, & Westman, Debbie, Faculty of Nursing, University of Calgary & Calgary Health Region, Alberta

The use of herbal therapies is widespread throughout North America, and many herbal therapies may cause serious complications for patients with cardiac disease. In Canada, accurate estimates regarding use of herbs are not available, but estimates in other countries are 37% (Brevort, 1999). In order to provide meaningful, appropriate, and targeted educational interventions for

patients with cardiac disease regarding the use of herbs, health care providers (HCPs) need an accurate foundational knowledge and understanding of herbs and potential interactions with cardiac conditions and medications. The purpose of this study was to understand the extent of herbal use, knowledge and attitudes of HCPs working in a heart health program.

This descriptive study incorporated a 29-item self-report questionnaire to gather information regarding knowledge, attitudes, and use of herbal medications of health care professionals working in heart health. The sample was divided into five discrete HCP groups: registered nurses, physicians (cardiologists and surgeons), unit clerks, allied health professionals, and allied health technician staff. The total sample was 852 with a margin of error of $\pm$ 3% and a response rate of 70%. Analysis consisted of computing descriptive statistics of the demographic data, such as age, gender, marital status, work status and education. Stratified tables were used to further explore patterns of responses across care providers.

The presentation will provide the specific results of the study regarding the beliefs, knowledge, and attitudes of health care providers, as they are important factors that impact our practice. It was clear that specific implementation of strategies and education programs related to herbal therapies and future cardiovascular health projects are needed. Implications for ongoing research, evaluation, and interdisciplinary work will also be discussed.

SURGERY I

1400-1420

The Trauma and Triumphs of Caring for a Complicated Heart Transplant Patient

Wilson, Cathy, Smith, Jill, Albert, Michelle, Grant, Lynn, Matheson, Sandra, & Robertson, Lorraine, Queen Elizabeth II Health Sciences Centre, Halifax, Nova Scotia

Patients and their family members face uncertainty while awaiting cardiac transplantation. Following the transplant, the challenges of the recovery phase and long-term follow-up become a daily part of life.

Through a case study, we will share the extraordinary journey of one of our transplant recipients. Pre-transplant care included the need for rhythm control requiring a pacemaker, extracorporeal membrane oxygenation (ECMO) for four days, followed by maximum inotropic support until a heart became available 14 days later. Post-transplant care was complicated by multi-system involvement. The presentation will share the journey of the patient, family, and staff to successfully overcome the odds.

Critical incidents will be presented focusing on the pathophysiology of complications as well as the advanced skills that the cardiac team required to meet the physical, emotional, and spiritual needs of the patient and family as well as team members themselves.

1425-1445

Ventricular Remodelling - Surgical Treatment for a Medical Condition

Holland, Marg, & Maitland, Andrew, Foothills Medical Centre, Calgary, Alberta

Extensive anterior transmural myocardial infarction can lead to the development of left ventricular aneurysm and subsequent heart failure. Heart failure can occur when 17 to 20 per cent of the left ventricle becomes nonfunctional. As the left ventricular cavity enlarges, wall stress is increased and so is the demand for oxygen (O_2). Since most patients with ventricular aneurysms also have coronary artery disease, this increased O_2 requirement cannot be met, resulting in further ischemic dysfunction of normal myocardium, worsening angina, increasing heart failure, and increasing Canadian Cardiovascular Society (CCS) class.

Since 2000, 15 patients at this urban cardiac referral centre have received a surgical ventricular restoration (SVR) procedure in conjunction with coronary artery bypass grafting (CABG). This presentation will discuss: 1) the basic concepts of ventricular remodelling, 2) how SVR coupled with CABG treats the "cause" of heart failure by correcting the geometry and ischemic dysfunction of the ventricle and mitral valve, and 3) evolving surgical techniques for repair of ventricular aneurysms, including linear repair with felt strips, D'Or procedure, and patch repair with bovine pericardium. These techniques are now being used not only in the setting of ventricular aneurysm repair, but also for patients who demonstrate significant anterior and inferior akinesia. Improvement in cardiac function as measured by pre- and post-operative ejection fraction will be demonstrated. Intra-operative digital photographs and transesophogeal echocardiogram video clips will be used to illustrate the magnitude of this operative procedure, and the cardiovascular nurse will gain a better understanding of the associated complex post-operative care.

1450-1510

Same-Day Transfer for Urgent Cardiac Surgery: A Successful Regional Partnership

Walsh, Cathy, Sammut, Lynn, & McDonald Karcz, Eileen,
Trillium Health Centre, Mississauga, Ontario
and Halton Healthcare Services, Oakville, Ontario

Trillium Health Centre provides advanced cardiac services, including cardiac surgery, for patients in the Halton and Peel regions of Ontario. The cardiac program has been operational for two years during which there has been consistent pressure to provide equal and timely access to cardiac surgery for patients within Trillium and from the regional hospitals. A major initiative to improve access is the transferring of urgent patients to Trillium on the morning of cardiac surgery. Traditionally, these patients have been transferred on the day prior to surgery which has led to duplication of the pre-operative work, increased cost, and additional stress for patients.

This presentation will describe a pilot project between Trillium Health Centre and Halton Healthcare Services, Oakville Trafalgar Memorial Hospital. We will discuss the process involved in changing practice at Trillium, including the rationale for change, implications, and challenges to the process. Also, we will provide the Halton Healthcare perspective; how and why they became partners in the new initiative and their experience in preparing patients for transfer on the day of surgery. Lastly, we will present data from the 10 patients in the pilot, the lessons we learned from them, their experiences, as well as modifications to Trillium's same-day transfer process and implications for other cardiac centres.

1515-1535

V.A.C.® Therapy Can Heal Those Stubborn Sternal Wounds: A Case Presentation

Marville-Williams, Cecile, Walsh, Cathy, & Diduck, Brenda,
Trillium Health Centre, Mississauga, Ontario

Deep sternal wound infection is a rare but devastating complication of cardiac surgery with sternotomy. Conventional treatment of deep sternal wound infection may involve open wound packing, debridement, and reconstruction using pectoral flap closure. At Trillium Health Centre, we instituted vacuum assisted closure (V.A.C.®) for a deep sternal wound infection that had been resistant to conventional therapy. V.A.C.® therapy is used to apply controlled localized sub-atmospheric pressure to the wound site to promote healing.

This case study presentation will describe one patient's experience after debridement and attempted pectoral flap closure of the sternal wound. The newest technology of V.A.C.® therapy, called the therapeutic regulated accurate pressure (T.R.A.C.™) pad, was then initiated to complete wound closure. Related literature and best practice in wound management will be reviewed as well as the outcomes of treatment. In addition, a cost analysis of V.A.C.® therapy versus conventional treatment for deep sternal wounds will be addressed.

SURGERY II

1400-1420

Home Monitoring of INR Levels and Oral Anticoagulation Dose Adjustment in Cardiac Valve Surgery Patients

Donahue, Marlene A., & Dowey, Helen M.,
Calgary Health Region, Calgary, Alberta

Cardiac valve surgery patients requiring oral anticoagulation with Coumadin (warfarin) must often stay in hospital while awaiting therapeutic anticoagulation levels, when they are otherwise ready and anxious for discharge. Daily international normalized ratio (INR) level testing is required to adjust Coumadin doses in order that individualized therapeutic anticoagulation levels are achieved and maintained. Once at home, INR monitoring at an outpatient laboratory must continue, as fluctuations in dietary intake and overall physical recovery may alter anticoagulation levels that were stabilized in hospital. Well-controlled therapeutic anticoagulation levels prevent potentially life-threatening events and reduce incidences of major anticoagulation fluctuations that are known to have serious consequences. To improve continuity of individual patient care in a cost-effective manner, our institution expanded our current cardiac surgery home care program into a home INR monitoring and oral anticoagulation adjustment project for cardiac valve surgery patients. This presentation will detail the steps taken to establish this project, including the validation of the portable INR device, the development of an anticoagulation adjustment scale, and staff and patient education. In addition, program evaluation, including issues and concerns, will be presented along with future plans to expand into a self-INR monitoring stream.

1425-1445

The Meaning of "Customer Service" After Cardiac Surgery

Reimer-Kent, Jocelyn, Royal Columbian Hospital, New Westminster, British Columbia

Six years ago, a rapid recovery program was created at one Canadian cardiac surgery centre that brought meaning to the term "customer service". Developed by a multidisciplinary team, this program embraced the primary health care concepts of disease/illness prevention and health promotion and applied them directly to the care of patients recovering from cardiac surgery. Post-operative care was transformed from reactive and illness-focused, to preventative and wellness-focused. The result has been a wellness model that utilizes a preventative approach in managing post-operative pain, nausea, constipation, immobility, and respiratory problems. Patients who experience this model of care feel remarkably well soon after heart surgery, and have a more rapid and uncomplicated recovery.

Proof of the program's success has been demonstrated. Two separate evaluations revealed that desired outcomes are attainable and sustainable (i.e. patients experienced <1% post-operative delirium, 95% effective pain relief, 88% free of nausea, 100% were free of constipation, 34% of CABG patients home within four days, 57% of valve patients home within six days, and 10% re-admission rate). As this is an evolving model of care, changes have been made to the various clinical practice guidelines based on recommendations in the literature and research evidence.

This presentation will detail the wellness model and use program evaluation data to illustrate how this approach to care after cardiac surgery has brought meaning to the phrase "customer service".

1450-1510

When VADs Go Bad: A New Technical Frontier

Fournier, Beverly, Kaan, Annemarie, LeSage, Marianne, & Young-Strilets, Gillian, Heart Centre, St. Paul's Hospital, Vancouver, British Columbia

The ventricular assist device (VAD) is used as a "bridge" to heart transplantation (HTx) for patients with severe end stage heart failure. This presentation will examine some unique ethical challenges faced in caring for VAD patients by means of an exemplary case, a patient who subsequently became unsuitable for HTx.

The first thoratec ventricular assist device (VAD) in Canada was implanted in 1990 at the Ottawa Civic Hospital. Since then, over 65 VADs have been implanted in Canada. The patient in question underwent VAD implantation in May 2002. Following the implant, he suffered numerous serious complications including stroke, renal failure, respiratory failure, sepsis and the effects of prolonged immobility. Throughout the patient's care, one prevalent ethical theme emerged: the fine line between active treatment and palliative care.

Implications for nursing practice to be discussed within this theme include the use of advance directives and the complexity of "do not resuscitate" orders in these patients. The exceptional challenges outlined in this case will provide useful information for future protocol development and review.

1515-1535

The Lived Experience of Patients at Home with Ventricular Assist Devices: Changes Over Time

Sauvé-Larose, Nicole, Rose, Patricia, & Chartier, Roxane, Royal Victoria Hospital, McGill University Health Centre, Montreal, Quebec

Ventricular assist devices (VADs) are an accepted treatment for patients with end stage cardiac failure. The literature related to VADs has focused primarily on the technology itself, program development and, more recently, on quality of life issues. Little has been reported regarding the emotional response of these patients or the impact of discharge home. Over the last four years, our program has cared for 27 patients ranging in age from 13 to 69 years, supported by three different types of VAD. Clinical observations highlighted the inadequacies of a standardized multidisciplinary approach and prompted a more indepth exploration of the impact of this complex and innovative technology on patients. Of 11 patients discharged home, six were available for a home interview. These interviews consisted of a series of open-ended questions, for example: "What have you found the hardest/easiest since your return home?"

Needs, concerns, and responses of patients have shown change over time. Safe management of equipment, scarcity of donor organs, fear of infection, and lifestyle questions are among those. Despite the fact that patients have similar pathologies and are supported on the same technology, each situation has its uniqueness. As a result, there is no one way to care for these individuals and their families. This presentation will describe the experience of VAD patients at home, highlight the themes that emerged from home interviews, and conclude with some avenues to improve future (VAD) program development.

Concurrent workshops *(abstracts below)* Monday 1535-1630

Arrhythmia Challenge

**Foggett, Ruth, Manager, CCU & Cardiology,
Trillium Health Centre, Mississauga, Ontario**

This practical, interactive workshop will provide participants with an opportunity to challenge their knowledge and skill in the interpretation of a variety of cardiac arrhythmias. Discussion will include "clues" to assist the participant in refining their analysis of both common and complex rhythm disturbances.

Looking To The Future: Emerging Ethical Issues In Cardiovascular Care

**Walton, Nancy, RN, PhD(cand)(Bioethics, Nursing),
Associate Professor, School of Nursing,
Faculty of Community Services, Ryerson University**

Today, more than ever, there are new ethical challenges in the management and care of cardiovascular patients. Nurses encounter these kinds of issues and dilemmas on a daily basis, yet there are few opportunities for discussion of the impact on nursing morale and their abilities to provide optimal care and act as patient advocates. Many of the most important emerging ethical issues in cardiovascular care are issues relating to resource allocation, also known as rationing or priority-setting. Many priority-setting decisions are made at institutional and governmental levels. Nurses, in a variety of roles, find themselves dealing on a day-to-day basis with the consequences of meso level priority-setting decisions, such as long waiting lists for procedures, resource utilization constraints and barriers to providing care for critically ill cardiac patients. Three issues in the management of cardiovascular patients will be discussed:

1. Issues of scarcity in cardiac transplantation

2. Ethical issues in the use and allocation of mechanical circulatory support devices and biventricular pacing

3. The overarching effect of a technological imperative on the management of cardiovascular patients.

Within these issues, topics such as informed consent, advanced care directives, the withdrawal of life-sustaining therapy and the sanctity of life will be touched upon. Finally, in light of these emerging ethical issues, the challenging and dynamic role of the nurse/clinician as rationing agent, patient advocate and educator will be addressed.

Working Effectively With Parents with a Personality Disorder and Their Children

**Niedra, Ruta, RSW, and Citron, Ken, MD,
Hospital for Sick Children, Toronto, Ontario**

Successful adaptation to pediatric chronic illness requires strength of personality, resiliency and a range of adaptive coping skills by children, their parents and other involved family members. Parents diagnosed with personality disorders, or who experience ongoing difficulties relating to others, do not always possess these attributes. The numerous behavioural and management problems associated with these conditions pose challenges for health care providers and complicate the recovery process for the child, achievement of normal life goals and the meeting of development milestones. This presentation deals with problems that may arise in the management of medically ill children whose parents present with personality difficulties. Drawing from case-based material, which includes the 'threatening parent', the 'non-compliant parent' and the 'parent who splits', this presentation will provide a basis for delineating an approach for working with these families. This series of interventions aims to minimize disruption to care and to optimize health and recovery for the child and family members, within a model of collaborative family-centred care practice.

Endocarditis

**Adam, Marlene, BSc(N), Advanced Practice Nurse, Cardiology,
Ottawa Heart Institute**

During this workshop, a comprehensive review of native valve endocarditis, prosthetic valve endocarditis and endocarditis related to drug use will be presented. Common etiologies, diagnostics, treatments and complications will be discussed. Nursing care will include patient teaching for prevention.

Hemodynamics

**Cleland, Michele, RN, CCN(C),
Acute Care Education, Inc., Toronto, Ontario**

This session will focus on the evaluation of common hemodynamic waveforms such as arterial and pulmonary lines as well as right arterial and wedge tracings. We will review how to recognize potentially dangerous V waves and what to do about them. Static, as well as dynamic, examples will be used to present the concepts in lecture and case study style.

Congress Fun Night: An Evening at La Cirque! Monday 1830-2300

Metro Toronto Convention Centre, South Building, Hall G

Tuesday, October 28, 2003

Health Promotion Breakfast Tuesday 0730-0900

Smoking Cessation

Speaker: Elinor Wilson, RN, PhD, Sponsored by Health Canada & Pharmacia

Opening Remarks Tuesday 0900-0915

Plenary Session Tuesday 0915-1020

The State of Cardiovascular Nursing Research in Canada

Heather M. Arthur, RN, PhD

Nurse-scientists are ideally suited to lead research that focuses on such areas as health promotion, determinants of health, the impact of interventions to reduce heart hazards, novel approaches to health service delivery and understanding cardiovascular disease from the patient and family perspectives. Currently, cardiovascular nurse-scientists in Canada are conducting research in a number of disciplines including nursing, physiology, health promotion, health psychology, health services and health administration. Further, these nurses are leading the way in health-related knowledge development by blending both qualitative and quantitative approaches.

At the present time, approximately 250 nurses in Canada (0.1%) have doctoral level education, the basic training required for independent investigators. A recent position paper notes that "of those with formal (PhD) research training, only a small percentage identifies research as a major component of their role". Clearly, few nurses with PhDs are actively engaged in peer-reviewed, competitively funded research, a recognized benchmark of research success. Still fewer (an estimated 15 to 20 in Canada) have successful, funded programs of research specializing in the cardiovascular area. This human resource capacity averages less than two cardiovascular nurse-scientists per province.

The goal of this presentation will be to discuss the benefits to nursing in general, and cardiovascular nursing in particular, of valuing, promoting and conducting nurse-led research projects. Examples of cardiovascular research that has been conducted and published by Canadian nurses will be highlighted to illustrate the breadth of expertise that currently exists. Finally, the presentation will highlight a recently funded training program for cardiovascular nurse-scientists and the opportunities it will provide.

Break and Posters, Exhibit Hall *(poster abstracts begin on page 41)* Tuesday 1020-1100

Please note that all posters will be on display for the entire CCCN program.
The authors will be available on the assigned day from 1300-1400 hours to discuss their posters.

Concurrent sessions *(abstracts below)* Tuesday 1100-1235

- Acute Coronary Syndrome
- Heart Failure
- Pediatrics
- Professional Practice
- Surgery

ACUTE CORONARY SYNDROME

1100-1120

Retroperitoneal and Soft Tissue Hemorrhage as a Complication of Anticoagulation in the Management of Acute Coronary Syndrome

Hodgson, Elizabeth, McLevey, Rosemary, & Heckel, Bonnie, Queen Elizabeth II Health Sciences Centre, Halifax, Nova Scotia

The incidence of major bleeding complications resulting from anticoagulation therapy in coronary patients is not well-recognized and requires further research. Anticoagulation with either unfractionated or low molecular weight heparin is accepted practice for patients with acute coronary syndrome. Although not common, soft tissue bleeding does occur in this group of patients as a result of anticoagulation therapy. Severity of the bleeding ranges from localized subcutaneous hematomas at the injection sites to massive gastrointestinal or retroperitoneal hemorrhages resulting in loss of life. The incidence of these bleeding complications has not been well-documented. As well, factors such as patient age, length of anticoagulation, and difficulty in achieving therapeutic PTT levels have not been documented in relation to the incidence of major hemorrhage. In an attempt to identify patients at increased risk of hemorrhage with anticoagulant therapy, a retrospective chart review and literature search was completed. Comparisons were made between the incidence of major bleeding with fractionated and unfractionated heparin; demographic factors including age and co-morbidities were examined, as well as descriptions of the presenting symptoms of the bleed, therapy required, and resulting morbidity and mortality. Descriptive statistics were applied to the results in an attempt to develop a profile of patients at risk for anticoagulant-induced bleeding complications.

1125-1145

The Spinal Cord Stimulator: Stimulating New Hope for Patients with Intractable Angina

Pugliese, Carolyn M., Harkness, Carol, Park, Yang Ja, & Sell, Diane, University of Ottawa Heart Institute, Ottawa, Ontario

Effective pain management for intractable angina pectoris is a challenge for all health care providers. Patients with intractable angina are refractory to current medical, interventional and surgical therapies. This often results in frequent visits to overcrowded emergency rooms and re-admission to hospital. In addition, the patients' quality of life is compromised as the angina becomes the controlling factor in their daily living.

The increasing numbers of patients with intractable angina have stimulated health care professionals to research and develop a variety of beneficial procedures and therapies. Spinal cord stimulation and neuraxial blockade are simple techniques with anti-ischemic and anti-anginal effects. In 2002, our institution initiated a program to offer the spinal cord stimulator (SCS) option to this patient population.

This presentation will discuss the literature in this area, our experience with patient selection, the multidisciplinary team approach taken, the patients' role in the functioning of the SCS, nursing implications and follow-up. A case presentation will follow.

1150-1210

Nursing Care of the Patient Undergoing Induced Hypothermia Following Cardiac Arrest: A Descriptive Study

Lauck, Sandra & Mackay, Martha, St. Paul's Hospital, Vancouver, British Columbia

Recent medical research suggests that patients who have been successfully resuscitated after a

ventricular fibrillation arrest and who remain unresponsive following return of spontaneous circulation may benefit from short-term induction of mild hypothermia (32° to 34°C). In a 2001 study of 271 patients, this therapy improved patients' neurological outcome and reduced mortality. This new medical strategy compounds the challenges of post-arrest nursing care and, as such, requires additional educational support for intensive and coronary care unit nurses.

To prepare for this, we have undertaken an observational study to describe the nursing care needs of this patient population in a tertiary care CCU. A retrospective review of health records of all patients receiving induced hypothermia following cardiac arrest is underway, using a structured data collection tool. We will present data detailing the demographic and clinical features of this sample, their clinical course following arrest, the process for induction of hypothermia, the use of neuromuscular blockade and other agents, and nursing assessment and interventions during the period of induced hypothermia. Recognizing that caring for such patients is a new area of practice, we will also present the results of a brief semi-structured interview conducted to assess nurses' perceived level of competence in providing nursing care to this patient population. Implications for CCU nursing staff development and support will be outlined.

1215-1235

Hearts at Risk: Processes for Co-Managing the Obstetric Patient with Cardiac Disease

Mackay, Martha H., Fofonoff, Doreen A., & Kiess, Marla C., Heart Centre, St. Paul's Hospital, Vancouver, British Columbia

With improvements in the care of congenital heart disease patients over the last several decades, many affected women reach childbearing age. Also, women may acquire heart disease during the childbearing years. This is a potentially life-threatening combination, since the circulatory changes normally associated with pregnancy may result in gradual or sudden hemodynamic decompensation in the woman with heart disease. Not only is the clinical care intricate, but it must involve the combined expertise of cardiac and obstetric nurses and physicians, as well as support from allied health professionals. This adds a dimension of complexity, as two groups of nurses must co-manage care. An objective means of predicting the likelihood of complications is needed to increase the success of care planning efforts.

To improve care and outcomes for pregnant cardiac patients giving birth at our cardiac referral centre, we developed a research-based risk stratification tool to predict the level of care the pregnant cardiac patient will likely need. A nursing protocol specifically outlining the respective roles and responsibilities of the coronary care and obstetrics nurses was also developed and introduced to staff. These very practical tools, as well as the process for coordinating interdisciplinary care of these multifaceted patients through such a high-risk event, and overall patient outcomes will be presented.

HEART FAILURE

1100-1120

ICU Nursing Management of a Cardiogenic Shock: A Review

Ginsburg, Marc, So, Wendy, & Hynes-Gay, Patricia, Mount Sinai Hospital, Toronto, Ontario

Cardiogenic shock is an aberrant condition that is most commonly seen in association with acute coronary syndromes (ACS), mechanical sequelae, or congestive heart failure (CHF). In spite of recent advances in pharmacological and supportive therapies, reported mortality rates continue to be as high as 80%. It serves to follow that there is an incumbency upon critical care nurses to acquire and maintain a thorough command of the assessment skills necessary to identify impending cardiogenic shock as well as knowledge of appropriate treatment modalities.

The purpose of this presentation is to review the etiology, clinical presentation, and nursing management of patients with cardiogenic shock. A case example will highlight the hemodynamic profile of an atypical patient who, although clearly in cardiogenic shock, has a normal cardiac output. A greater understanding of the etiology, treatment, and management of cardiogenic shock by nurses may impact on patient outcomes, owing to early identification of a deteriorating patient and more timely initiation of treatment modalities. As nurses are uniquely poised in both patient assessment and delivery of care, it can be concluded that those with a strong command of the hemodynamics of cardiogenic shock will most astutely serve this patient population.

1125-1145

LVEDP as a Measurement of LVEDV in the Chronic Congestive Heart Failure Population: Is PCWP an Accurate Clinical Predictor of LV Preload?

Parker, Karen L., & Semeniuk, Lisa, Foothills Hospital, Calgary, Alberta

According to the Frank Starling Law, the left ventricle (LV) contractility is dependent on the previous left ventricular end diastolic volume (LVEDV). Clinically, the LVEDV is approximated with the left ventricular end diastolic pressure (LVEDP), a measurement determined through the use of a pulmonary artery (PA) catheter as a pulmonary capillary wedge pressure (PCWP). Current research suggests that the LVEDV is also influenced by the effect of transmural left ventricular end diastolic pressure (TrP) [determined by LVEDP minus both right ventricular end diastolic pressure (RVEDP) and pericardial pressure]. Under many clinical presentations, the influences of the RVEDP and the pericardial pressure are minimal, in which case the LVEDP satisfactorily predicts the LVEDV.

In the chronic congestive heart failure population, a volume overloaded RV may result into a septal shift towards the LV. Due to the constriction of the LV from the associated increase in both TrP and pericardial pressure from this right to left septal shift, an overall reduction in the LVEDV may result without a similar reduction in the LVEDP. In the clinical setting, it is appropriate to appreciate the constricting forces acting upon the LVEDP as a means to better predict LV preload. Adjusting for these constricting forces on the actual LVEDV may support a change in current practice when determining appropriate PA catheter guided therapies for chronic congestive heart failure patients.

1150-1210

Self-Management and Heart Failure: Emergency Nurses' Knowledge

Earle, W., Providence Continuing Care Cardiac Rehabilitation Centre, Staples, P., Hotel Dieu Hospital, & Reid, J., Kingston General Hospital, Kingston, Ontario

Heart failure (HF) is characterized by episodic exacerbations that often result in an emergency room (ER) admission. Non-adherence to dietary sodium restrictions and medication regimens are often the cause of these exacerbations. Emergency room nurses are in a unique position to help patients self-manage their HF. Reinforcing teaching that directly links symptoms with behaviour, and behaviour to consequences, can help patients learn to self-manage their HF (Riegal et al., 2002). In order for ER nurses to educate patients about HF self-management, nurses must have knowledge on the subject.

Nurses at two ERs were surveyed for their knowledge of self-management of HF symptoms using the survey designed by Albert et al. (2002). The average score on the survey was 14.2 out of a possible 20, with a range of three to 18. The most poorly answered questions (less than half of the nurses were correct) concerned the use of non-steroidal anti-inflammatory drugs for pain, how patients should assess their weight, and asymptomatic hypotension or symptoms of postural hypotension that disappeared fairly quickly. Twenty-five to 30 per cent of nurses were unaware that coughing, nausea / poor appetite, and swelling of the abdomen were symptoms of HF. They also were unaware that potassium-based salt substitutes and lean deli meats are not an acceptable part of a diet for HF.

Emergency room nurses are in a position to provide self-management education or reinforce this information for heart failure patients. It is important for nurses to be well-informed to provide the necessary education to help patients link their behaviours to symptoms and consequences.

1215-1235

A Qualitative Case Study of the Experience of Men and Women with Congestive Heart Failure

Costello, Jo-Anne E., St Mary's General Hospital, Kitchener, Ontario

Congestive heart failure (CHF) is increasing in incidence and prevalence in both men and women in Canada. Research findings to date have been inconsistent with respect to whether gender differences influence quality of life, treatment, and survival. There is a paucity of qualitative research describing the experience of patients with CHF. This qualitative case study included women and men with New York Heart Association (NYHA) class three or four CHF who were referred to a CHF clinic. Through semi-structured interviews of patients and their families, administration of quality of life measures, and data collection related to medical history, medical management, and NYHA scores, a thorough description of their experience of CHF is presented. Thirteen themes emerged from the data, generating three hypotheses. First, the psychosocial impact of CHF outweighs the physical; second, sex differences exist in relation to living with CHF, with men being more accepting of CHF and more likely to experience social isolation and loss than women, while women are more likely to describe fear; and third, the experience of CHF

is influenced by age, with physical experiences and depression mentioned more frequently in younger age groups. Findings from this study have generated nursing implications and recommendations for further research. There are six nursing interventions generated based on the analyses: a) patient education, b) self-care, c) telephone/electronic support, d) exercise and cardiac rehabilitation, e) group support, and f) pharmacological management.

PEDIATRICS

1100-1120

Plastic Bronchitis Following the Fontan Procedure

Wilson, Judith, The Hospital for Sick Children, Toronto, Ontario

Plastic bronchitis is a potentially life-threatening complication which can occur following the Fontan procedure. Although the condition is rare, recognition and treatment of plastic bronchitis impacts significantly on morbidity and mortality. The following case presentation describes a five-year-old girl who underwent extracardiac fenestrated Fontan procedure as part of staged palliative surgery for tricuspid atresia. Six weeks following the surgery, she was admitted to hospital on three occasions with respiratory distress, cough, decreased oxygen saturation, and lung consolidation. A diagnosis of plastic bronchitis was suspected, and then confirmed, with expectoration of a bronchial cast. Therapies to optimize heart function and prevent the formation of bronchial casts were initiated. During the immediate follow-up period, there has been no recurrence of bronchial casts.

Plastic bronchitis is a condition in which large bronchial casts can occlude the bronchial tree and result in life-threatening pulmonary failure. The literature on plastic bronchitis will be reviewed in relation to pathophysiology, investigations, and treatment modalities, and these will be related to the case presentation.

1125-1145

Predictors of Oral Feeding Difficulty in Cardiac Surgical Infants

Einarson, Kathleen D., & Arthur, Heather M., The Hospital for Sick Children, Toronto, Ontario

Changes in technology and cardiac surgical procedures over the past decade have led to an increase in the number of neonates undergoing cardiac surgery. Feeding difficulties after cardiac surgery in the neonate can prolong hospital stay and complicate post-operative care. The purpose of this study was to identify independent predictors of post-operative feeding difficulties. A retrospective chart audit of 101 consecutive infants who underwent cardiac surgery was conducted. Infants with significant structural or functional defects that would affect oral feeding were excluded. Ten variables were analyzed as possible predictors of post-operative feeding difficulties including: diagnosis, demographics, details of surgery, and post-operative course.

At hospital discharge, 72 (73.1%) infants were orally feeding and 29 (28.7%) were not. Overall, mean hospital length of stay was 17.73 $\pm$ 16.40 days. Infants with feeding difficulties were more likely to undergo operations involving the aortic arch (35% versus 15%, Chi-Square = 4.63, $p = 0.03$). Infants not feeding orally at discharge had significantly longer intubation times than those who fed (13 $\pm$ 18 versus 5.2 $\pm$ 4.8 days, $p < 0.03$). They also had a higher incidence of vocal cord injury (24.1% versus 1.4%, Fisher's Exact Test $p = 0.001$). Multivariate logistic regression analysis revealed vocal cord injury (odds ratio 11.80), length of post-operative intubation (odds ratio 1.10 per day), and weight at surgery (odds ratio 0.34) as independent predictors of failure to feed orally at discharge from hospital. Early identification of neonates at risk for feeding difficulties may lead to a reduction in morbidity, improved patient care, and better resource utilization.

1150-1210

Getting Ready for Adult Cardiac Care: A Collaborative Approach to Transition

Cullen-Dean, Geraldine, Allen, Jeanine, Kilburn, Jennifer, & Mosolanczki, Erica, Hospital for Sick Children, Toronto, Ontario, University Health Network, Toronto, Ontario

Advances in technology and medical treatment have resulted in many children with chronic illness surviving into adulthood. For the first time, the number of adults who have congenital heart disease equals the number of affected children. High rates of survival account for an increasing number of adolescents confronting the challenges of transitional care. Despite these advances, little attention has been paid to an essential aspect of care delivery; preparation for transition to the adult world of care.

Recognizing the importance of adolescent transition support, yet facing the reality of limited resources, this presentation will focus on the collaborative efforts between a pediatric cardiac centre and an adult congenital cardiac program. Highlights will include the

challenges of establishing a professional working group and creation of a strategic plan. A description of the teaching materials and components of a formal education evening for patients, families, and health professionals will be shared. Evaluation of these initiatives has been positive and influenced the evolution of subsequent education sessions. Recognizing the importance of earlier transition education, strategies to meet these needs are currently being developed.

1215-1235

Uncertainty in Adolescents and Young Adults with Congenital Heart Disease Before the Transfer of Care from a Pediatric to an Adult Care Centre

Sergerie, Michel, & Reidy, Mary, Nursing Faculty, Université de Montreal, Dore, Annie, Montreal Heart Institute, & Bigras, Jean-Luc, Ste-Justine Hospital

On reaching the age of 18, most patients with congenital heart diseases (CHD) must transfer from a pediatric to an adult care centre. To evaluate the level of uncertainty in these young patients with CHD, the Mishel Uncertainty in Illness Scale (MUIS-C) questionnaire (translated into French and validated by reverse translation) was administered as part of a larger research studying the relationship between uncertainty and knowledge about heart condition. The sample, composed of 50 patients (29 male, 21 female, mean age 18.8 years, range from 16 to 30), was recruited at a cardiology outpatient clinic of a pediatric hospital between November 1, 2002 and January 13, 2003. Inclusion criteria were: 16 years and older, previously diagnosed with CHD, able to read French and give informed consent. The MUIS-C is a 23-item, Likert-format scale (each item score ranges from 1 to 5). Total scores range from 23, indicating a low level of uncertainty, to 115, indicating a high level. Preliminary results indicate that the total uncertainty scores ranged from 26 to 75 with a mean of 54.9. Those items showing the greater level of uncertainty were: *The purpose of each treatment is clear to me* (M= 4.08), *I understand everything explained to me* (M= 3.94), *My treatment has a known probability of success* (M= 3.6), *The seriousness of my illness has been determined* (M= 3.9), *Doctors and nurses use everyday language so I can understand* (M= 4.0). Young patients with CHD suffer uncertainty about the severity of their condition, their treatment, and the information given to them. Education regarding symptoms and complications may reduce uncertainty and should begin early in adolescence. The implementation of transition clinics may help patients with high levels of uncertainty to ease their transition to the adult care system.

PROFESSIONAL PRACTICE

1100-1120

New Zealand Health Reforms, Implications on Nursing, and Opportunities for Canadian Advancement in Cardiovascular Nursing

Paton, Brenda I., University of Calgary, Alberta, & Martin, Sue, Waikato Hospital, New Zealand

In the early 1990s, the national government in New Zealand introduced the *Employment Contracts Act* (ECA), with the main objective of promoting an efficient and cost-conscious labour market by "empowering" employees to negotiate their own work-life conditions. Collective bargaining and professional unions were marginalized. This, coupled with the announcement of a budget that focused primarily on reducing costs and increasing competitiveness within the health sector, had significant consequences on the profession of nursing. The organizations that purchased health care services were separated from those that provided such services. Registered nurses were viewed as costly, and members of the profession were challenged to validate their contributions to patient outcomes. This was a difficult time for all registered nurses in New Zealand and resulted in high attrition in specialty areas.

In response to this growing concern, a nurse clinician and nurse educator with similar clinical backgrounds developed a specialty course focusing on nursing in cardiac care. This cardiac specialty nursing course has been successful in recruiting and supporting registered nurses to critically analyze and reflect on their practice and articulate relevant expertise and clinical skills. The success of this course was seen in the high student enrolment, the financial support by health organizations for registered nurses to enrol, and the staff retention and satisfaction in cardiac care. The cardiac specialty nursing course has been extended to WebCt and distance access in modular form, and registered nurses have received funding from the government through the Clinical Training Agency, which was established in 1999 by the Labour government. Considering the current health climate and the inevitability of health reforms in Canada, the New Zealand experience provides insight and potential for innovative strategies to support and extend expertise in nursing practice.

1125-1145

A Unit-Based Practice Structure for Advanced Practice Nursing: One Year Later

Deane, Mary Lou, Young-Fraleigh, Cynthia, & Van Eijk, Sylvia, Trillium Health Centre, Mississauga, Ontario

The Trillium Health Centre is a community hospital that implemented the acute care nurse practitioner (ACNP) role in its cardiology service three years ago. The role quickly evolved into a system-based practice structure, whereby the ACNPs collaboratively managed the care of cardiac patients from a patient's presentation in the emergency department (ED) to discharge home. Patients and staff were surveyed to assess their satisfaction with this ACNP practice structure. Overall, the feedback was tremendously positive, particularly with regard to continuity of care, patient satisfaction with the role, and the ACNPs' clinical expertise. One main concern was identified. Since the ACNPs' clinical focus was divided between the ED, CCU, and the cardiology units, it was felt that they were not always readily available for the needs of the cardiology units. The ACNPs felt that this structure also led to inefficiencies in time management.

Numerous discussions with key stakeholders led to the development of a unit-based practice structure, whereby the ACNPs have assigned themselves to a specific cardiology unit. It is hypothesized that this new structure will continue to provide continuity of care and maintain or even improve patient satisfaction while ensuring that the ACNPs are readily available to the cardiology units. At the end of this pilot project, patients and staff will be surveyed to evaluate their satisfaction with this new structure.

This presentation will review the successes and challenges of implementing a unit-based structure. It will also discuss its impact on key issues, including patient flow, the ACNP workload, and satisfaction with this new practice structure.

1150-1210

Cardiac Electrophysiology Nursing Competency Checklist: A Guideline for EP Nurses to Assess and Set Standards of Practice from Novice to Expert Levels

Kim, Salin & Duncan, Wendy, University Health Network, Toronto General Division, Toronto, Ontario

Advancement in technology and expansion of the electrophysiology (EP) program at Toronto General Hospital (TGH) led to the need for increased nursing staff. TGH now has a dedicated EP procedure lab running cases five days a week. Orientees to the EP lab found learning complex and highly specialized skills challenging. Lack of a formal learning program for EP meant that orientation was inconsistent and made it difficult to recruit, orientate and retain nursing staff. A formalized, cohesive orientation program was the goal set to ensure a fully operational EP program. The consensus of the electrophysiologists, EP nurse clinicians, unit manager and EP nursing staff was to develop a competency checklist to achieve this goal. The competency checklist could be an effective tool to assess current nursing EP knowledge and allow for a consistent method of orientation. Development of the competency checklist gave us the opportunity to integrate and internalize theoretical knowledge into clinical expertise.

Our presentation will summarize the development, implementation, and evaluation of our competency checklist. Utilizing best practice guidelines based on Benner's model of novice to expert, along with NASPE guidelines, has given us an effective tool that can be used as a model for other areas of interventional cardiology.

1215-1235

Creative Solutions to Continuing Education

Li-James, Sandra, Elgie-Watson, Jeanne, & Ridley, Brenda, University Health Network, Toronto, Ontario

As the acuity of patients increases, it is critical that nurses maintain competency and lifelong learning. The CNO reflective practice requirement ensures that nurses pursue lifelong learning based on the learners' needs. Mandatory education is an institutional requirement dependent upon the availability of educators. Maintaining standards, valuing education, and professional development of nurses are identified as characteristics of a "magnet" hospital. These are important considerations for retaining our nurses, especially during a nursing shortage. As well, these are key components in preparing nurses to provide care to patients with increasing acuity. Attending mandatory education is a challenge for the nurses – it is difficult for them to leave their patients and focus instead on education.

At our institution, we provide an annual update where core competencies are reviewed and new content is introduced. The objective of the session is application of knowledge and critical thinking. Given the limited amount of time available to educate the nurses, the cardiac educators have developed creative solutions. The educational sessions are based on adult learning principles and use the standards for cardiovascular

nursing as outlined by CCCN. It is a two-step process: step one, the nurses are asked to complete pre-work that requires them to apply their knowledge and critical thinking; step two, attend the educational session. The educational session is set up using stations. Participant evaluations have been very positive. It behooves educators to provide education in an effective, efficient, and creative manner during times of fiscal constraints and nursing shortage. In this discussion, we will present these resourceful solutions to providing mandatory education – from implementation to evaluation.

SURGERY

1100-1120

Comparing the Post-Operative Nursing Care of Patients Experiencing Beating-Heart Surgery Versus Conventional On-Pump Surgery

Buchok, Slavka, Walsh, Cathy, & Everson, Elizabeth,
Trillium Health Centre, Mississauga, Ontario

Trillium Health Centre (THC) is the highest volume beating-heart surgery centre in the country. Approximately 90% of elective coronary artery bypass graft (CABG) surgeries at THC are performed on a beating heart. The literature suggests that high-risk patients such as octogenarians, and those with increased acuity and co-morbid conditions (e.g., renal failure, COPD) have less post-operative complications and better outcomes with beating-heart surgery.

This presentation will compare outcome data for two groups of CABG patients at THC. Patient co-morbidities, demographics, post-operative complications, lengths of stay, and case costing data will be compared for beating-heart and on-pump bypass patients. In addition, implications for nursing care and discharge planning will be addressed.

1125-1145

Benefits of a Successful Continuous Renal Replacement Therapy Program in the Cardiovascular Intensive Care Unit

Knechtel, Leasa, Macdonald, Julie, & Jeffs, Angie, Sunnybrook and Women's College Health Sciences Centre, Toronto, Ontario

This presentation will outline the benefits of a successfully designed and implemented continuous renal replacement therapy (CRRT) program in the cardiovascular intensive care unit (CVICU). CRRT has recently increased in popularity as a treatment of choice among critically ill cardiovascular intensive care patients who present with and/or develop renal failure post-operatively. The introduction of this therapy has proven advantageous for hemodynamically unstable patients in the CVICU when standard dialysis therapies are contra-indicated or not available.

Patients are presenting in the CVICU with significantly higher risk for post-operative morbidity and mortality. Patients with increased incidence of pre-operative co-morbidities, including renal failure, require more complex and intensive care. Post-operative renal support is paramount in ensuring optimal patient recovery.

The successful implementation of our nurse-driven, unit-based CRRT program has provided considerable benefit to our patient population. Using evidence-based standardized orders and protocols, CVICU nurses have the knowledge and ability to immediately respond to changes in patient condition, thereby maximizing the benefits of CRRT therapy.

This oral presentation will explore the benefits of a successfully implemented CRRT program in our CVICU. Identified successes and obstacles have led to program changes which further address the clinical needs of our patients. Staff satisfaction and competency in caring for CRRT patients have also been enhanced. The evolution of our program, with an emphasis on protocol design and implementation, will be discussed.

1150-1210

Incorporating Principles of Elder-Friendly Care Into Cardiac Surgery Practice

Morris, Dorothy, & Cameron, Nancy,
Vancouver Island Health Authority, Victoria, British Columbia

The numbers of elderly patients undergoing cardiac surgical procedures are on the rise across the country. Increasing age is associated with inherent intra-operative and post-operative risks, including a higher incidence of post-op delirium. At the Royal Jubilee Hospital site of the Vancouver Island Health Authority (VIHA) in Victoria, BC, the average age of patients undergoing cardiac surgery is 65.9 years, and 24.3% of the patients are 75 years of age or older.

The purpose of this presentation is to share information related to our interdisciplinary experience in developing, implementing and subsequently evaluating innovative elder-friendly strategies. Our interdisciplinary approach incorporates a large network of initiatives underway throughout the VIHA region to combine gerontological principles into acute

and critical care nursing practice. This process has resulted in clear and consistent interdisciplinary care planning in the provision of care tailored to an increasingly elderly population. Examples include: (a) pre-admission telephone screening for risk factors known to predict adverse outcomes, including delirium, and subsequent alterations to the care plan, (b) elder "alerts" on all IV drug monographs, pre-prepared physician orders and operating room booking cards/slates, and (c) interdisciplinary care standards and protocols for the prevention, early intervention, and timely management of delirium when it occurs.

This presentation will highlight the benefits of working together to improve cardiac surgical care for the older individual.

1215-1235

Post-Operative Atrial Fibrillation in Cardiac Surgical Patients: A Retrospective Cohort Study

Scherr, Kimberly, Jensen, Louise, & Smith, Heather, University of Alberta Hospital, Edmonton, Alberta

Atrial fibrillation (AF) is a common post-operative complication of cardiac surgery, yet prevention and treatment remain controversial. The purpose of this retrospective cohort study was to identify the incidence and onset of post-operative AF, identify the factors implicated in post-operative AF, and examine relationships among risk factors and treatment implemented for post-operative AF and patient outcomes. A health record review was conducted on 1,229 adults who had cardiac surgery at the University of Alberta Hospital from May 1999 to May 2000. Data on documented episodes of AF and demographic pre-, peri-, and post-operative risk factors for AF were recorded. Descriptive statistics were calculated for incidence, onset, risk factors, and outcomes of post-operative AF. Logistic regression was used to identify a risk prediction model. Preliminary analysis of 652 health records demonstrated a post-operative AF incidence of 35.5% (n=259). AF occurred on the second post-operative day (32.5%) with 35.9% (n=92) having recurrent episode/s. Age (OR=1.067, p=.000) and pre-operative beta blocker (OR=2.376, p=.000) were predictive of post-operative AF, while pre-operative digoxin (OR=.296, p=.005) was protective. Valve/s replacement had a 2.95 times greater risk than coronary artery bypass graft for post-operative AF (p=.000). Further analysis will document the effectiveness of treatments implemented for AF on patient outcomes. Identifying factors that predispose to post-operative AF allows high-risk patients to be targeted for prophylactic therapy, and low-risk patients to be spared from potentially harmful pharmacologic therapy.

Lunch and Posters, Exhibit Hall *(psoter abstracts begin on page 41)* Tuesday 1235-1400

Please note that all posters will be on display for the entire CCCN program.
The authors will be available on the assigned day from 1300-1400 hours to discuss their posters.

CCS 2003 Consensus Conference Report: Assessment of the Cardiac Patient for Fitness to Drive and Fly Tuesday 1400-1500

Break & Posters, Exhibit Hall Tuesday 1500-1530

Plenary Session Tuesday 1530-1630

Delivering Your Message to the Media
Jane Hawtin
We have all read or heard news items about our profession that bear no resemblance to reality. Find out why it happens and how it can be fixed. Journalist and producer Jane Hawtin has over 25 years of experience in print, radio and television. She will explain how the media works and what we need to do to make sure the stories about our profession are accurate and presented in a way that will make the public and policy-makers sit up and take notice. Come prepared with your success stories and challenges about dealing with the media. There will be time for questions and answers following the presentation.
Sponsored by AstraZeneca Canada Inc.

Closing Remarks & Door Prizes Tuesday 1630-1700

Wednesday, October 29, 2003

Board Meeting Wednesday 0900–1600

CCCN Annual Scientific Sessions

Poster Abstracts

Please note that all posters will be on display for the entire CCCN program.
The authors will be available on the assigned day from 1300-1400 hours to discuss their posters.

Monday Posters

Helping Nurses Recognize and Understand Metabolic Syndrome as a Major Risk Factor for Coronary Artery Disease

Patey, Faith & Robertson, Lorraine, Queen Elizabeth II Health Sciences Centre, Halifax, Nova Scotia

Metabolic syndrome is defined as glucose intolerance with insulin resistance plus two or more of the following factors: hypertension, hypertriglyceridemia, low HDL cholesterol and abdominal obesity. This cluster of clinical manifestations places individuals at risk for coronary artery disease (CAD). This presentation will describe the criteria for identifying metabolic syndrome: the pathophysiology, abnormalities associated with insulin resistance/hyperinsulinemia, and current medical and nursing management strategies. The direct link to development of CAD will be emphasized, in particular how all these components interact. The increased incidence of metabolic syndrome as a result of societal lifestyle trends, changing demographics, increased incidence of obesity and Type II diabetes in young people, and the co-morbidities of aging baby boomers will be addressed. This overview will help nurses understand the complexity of metabolic syndrome and provide strategies for working with patients to help reduce the potentially devastating consequences of metabolic syndrome.

An Examination of Post-operative Nausea and Vomiting in the Cardiac Surgical Patient

Stevens, Mary, Gillies, Janet, Smith, Jill, & Wiseman, Vicki, Queen Elizabeth II Health Sciences Centre, Halifax, Nova Scotia

Post-operative nausea and vomiting (PONV) are common and well-documented symptoms during recovery from anesthesia and surgery. However, patient experiences with PONV in the initial period following cardiac surgery are not well-documented in the literature. With the trend toward shortened hospital stays following cardiac surgery, facilitating patient comfort and expediting recovery allows health care professionals to optimize patient care and teaching activities.

Staff in our 13-bed cardiovascular intensive care unit (CVICU) completed a study to examine and evaluate current practice in managing the symptoms of PONV. Specifically, the objectives were to determine the incidence of PONV in our cardiac patient population (approximately 1,200 cases per year) and to assess the frequency and efficacy of treatment. The study also reviewed our present nursing practice of patient assessment for symptoms of nausea. Information was also collected with regard to the patients' perception of these symptoms and how PONV affected their recovery, specifically the patients' recollection of their ability to ambulate and participate in patient-teaching activities. This poster presentation will share the results of our study as well as our data collection tools. The implications for nursing practice and the subsequent changes that were implemented will also be shared.

Cardiology Bed Management Coordinator: Making a Difference in Managing the Patient Population Awaiting Tertiary Transfers for Cardiac Assessment and Intervention

McKay, Judy L., Queen Elizabeth II Health Sciences Centre, Halifax, Nova Scotia

Demands for patient assessment and intervention at a tertiary cardiac care centre are escalating. Our tertiary centre has seen an increasing trend in the number of cardiac patients who, following

their initial assessment and management within a regional/community setting, require further investigation and treatment within a tertiary setting. Being the tertiary referral centre for approximately 1,100,000 people, this increasing trend resulted in the need to more effectively triage, monitor, and continually prioritize hospitalized patients awaiting transfer to our centre. The cardiac program developed the role of a cardiology bed management coordinator in 2001 to facilitate and improve the utilization of cardiac resources to meet the needs of the patient population we serve. This role is responsible for facilitating transfers, liaising with over 20 referring centres, numerous physicians, health services managers and staff nurses. This involves gathering and assessing clinical data and ongoing communication and collaboration with the referring centres. A background and knowledge in cardiac nursing as well as excellent communication skills were considered key assets for this role. This presentation will outline the development, implementation and evaluation of this role. In addition, the outcomes that were achieved and initiatives that have been introduced within our cardiac program to foster collaborative partnerships with the population we serve will be shared.

Maintaining Cardiology Nurses' Competency with Electrocardiogram Interpretation

Kim, Julie, St. Michael's Hospital, Toronto, Ontario

Cardiology nurses frequently perform electrocardiograms (ECGs) on patients as part of the routine management of their cardiac condition. Many nurses have taken ECG courses, but struggle to maintain their skills in ECG interpretation. These skills become especially important in the setting of acute changes in their patients' clinical status. In order to help nurses maintain their competency in ECG interpretation, the acute care nurse practitioner (ACNP) for cardiology at St. Michael's Hospital has developed a self-education program. This poster will present details of the program, in addition to data evaluating its effectiveness.

The program is comprised of three components: 1) a resource binder; 2) a laminated poster outlining a systematic approach to ECG analysis; and 3) weekly sample ECGs testing one's interpretive skills. Each of the sample ECGs are accompanied by the correct written interpretation, along with the diagnosis and the results of ancillary tests such as echocardiography and coronary angiography for proper clinical correlation.

Today's fast-paced health care environment poses many challenges for nurses seeking formal opportunities for ongoing education. The implementation of an ECG self-education program is an easy and effective way to fulfil nurses' educational needs, develop their knowledge, and boost their confidence, ultimately resulting in improved patient care.

Patients' Adherence to Prescribed Therapy for Coronary Artery Disease: The Influence of Patient Education

Micevski, Vaska, University Health Network, Toronto, Ontario

Cardiovascular disease continues to be the leading cause of death for both men and women in Canada. Studies have indicated that adherence to post-myocardial infarction treatment has a significant impact on mortality in both men and women. Patients' adherence has been identified as a barrier to successful implementation of evidence-based therapies. Patients' adherence to medical therapy has been estimated to be approximately 60%. The purpose of this study is to investigate the influence of an educational intervention on adherence rates of men and women to prescribed therapies for coronary artery disease.

This randomized trial includes 80 patients referred to a secondary prevention program at a tertiary hospital in Ontario. The therapy recommendations that will be monitored are: pharmacological therapies, smoking cessation, diet, and home exercise or attendance at cardiac rehabilitation. Subjects will be randomized to one of two groups: I) special educational intervention (SEI), or II) standard care (SC). The SEI and the SC groups will have information collected during three time periods: baseline, one and six months after the educational intervention for the experimental group, and baseline, one, and six months from date of discharge from hospital for the control group.

The anticipated significance of this study is that it may provide data to support the need for the development of formal educational programs for patients requiring secondary prevention following acute coronary events. Nurses are leaders in the development of educational programs for cardiac patients across the continuum of care. Identifying barriers and facilitators for patient adherence to therapy plays a key role in the development of educational programs.

Implementation of the University Health Network - Advanced Nursing Practice Framework: A Comprehensive Cardiac Nursing Model

Brubacher, Linda, Korkola, Lori, Micevski, Vaska, Tuson, Wendy, Benson, Kaye, Qasim, Abdi, & Allen, Jeannine, University Health Network, Toronto, Ontario

Advanced nursing practice (ANP) roles have been rapidly evolving in Canada over the past eight years. ANP roles include primary health care and acute care nurse practitioners, and clinical nurse specialists. The primary focus of these roles is facilitating excellence in patient-centred care and advancing nursing practice.

Literature supports that lack of role clarity has been a barrier to optimal implementation and development of these roles. To facilitate role clarity and optimal role implementation and development, the Advanced Practice Nurses' Network at University Health Network (UHN) developed an organizational specific framework for advanced nursing practice. This framework has been instrumental in guiding the development of the acute care nurse practitioner (ACNP) role, within its full scope of practice, in the UHN heart and circulation program. This presentation will: briefly describe the UHN Framework for Advanced Nursing Practice, discuss how the framework has facilitated role development within the full scope of ANP, and how this ultimately contributes to facilitating excellence in patient-centred care and advancing nursing practice.

Heparin-Induced Thrombocytopenia and Thrombosis: HITT

A Conundrum and Challenge in the Cardiac Surgical Patient

Harris, Linda D., & Jussaume, Linda H., University Health Network, Toronto, Ontario

Heparin is administered to almost every patient undergoing cardiac surgery. Heparin-induced thrombocytopenia and thrombosis (HITT) is an immunomediated disorder which results in heparin-induced platelet clumping. The true incidence of HITT, under-reported at 2%, is still not well-defined. Elderly patients, in particular those undergoing cardiovascular surgery, seem to be at higher risk. Late recognition with continued exposure to heparin can result in bleeding, thromboembolic complications and death in 30 to 50% of these patients.

The past three years in our cardiovascular intensive care unit have seen an increasing number of patients diagnosed with HITT. Management of cardiac surgery and post-operative recovery for HITT patients is problematic, and the best therapeutic strategies for these patients are still evolving.

In an effort to develop evidence-based and comprehensive HITT guidelines, we undertook a retrospective review of the 49 patients diagnosed with HITT in our program over the past three years. Platelet count triggers for requesting HITT lab assays and the controversy surrounding the best laboratory diagnosis of HITT will be presented. Prothrombic patient co-morbidities: diabetes, renal dysfunction and hyperlipidemia will be included. Our experience with alternative anticoagulation therapies: Orgaran, Hiridun and Argatroban will be highlighted. Associated complications of pulmonary emboli, bleeding and impact on length of stay and costs of care will be shared. The diagnosis of HITT can emerge any time during the clinical course of the cardiac surgical patient. Early recognition and appropriate interventions achieve better patient outcomes.

Endovascular Thoracic Aortic Stenting in the Cardiovascular Intensive Care Unit

Knechtel, Leasa, Jeffs, Angie, Richards, Leslie, & Johnson, Lisa, Sunnybrook and Women's College Health Sciences Centre, Toronto, Ontario

This presentation will describe the recent development and implementation of an endovascular thoracic stenting program, and its implications on patient care and nursing practice.

Thoracic endovascular stent grafts, or the insertion of a bypass conduit (endograft) via a femoral or iliac approach, is becoming more popular as an alternative treatment for patients who may be at higher risk for traditional thoracic abdominal aneurysm repair. Once inserted and positioned, the graft is spring deployed to cover vessel damage and a polyurethane balloon is then used to secure the stent to the vessel wall. This procedure is less invasive for patients, and early data for a select group of patients is demonstrating a quicker recovery time, decreased length of stay and, ultimately, decreased costs per patient case versus traditional repair. Recently in our cardiovascular intensive care unit, we have begun to care for patients who have undergone this procedure. A nursing plan of care has been developed to help ensure a smooth, uneventful hospital stay post-operatively.

This presentation will describe endovascular thoracic stent grafting, its advantages, potential complications, and the nursing plan of care post-operatively, both in the cardiovascular intensive care unit and follow-up on the surgical ward. Although still in its infancy, our program is proving to be a successful alternative when traditional thoracic aortic repair is considered too high-risk.

Optimizing Sternal Wound Healing with Vacuum Assisted Closure

Knechtel, Leasa, Fowler, Laurie, Cristovao, Connie, & Delabarrera, Poala, Sunnybrook and Women's College Health Sciences Centre, Toronto, Ontario

This poster presentation will describe our experience with vacuum assisted closure (VAC) for sternal wounds following cardiovascular surgery.

Vacuum assisted closure uses sub-atmospheric pressure directly into a wound in order to promote an environment for optimal healing. Through the application of negative pressure, wound edges are approximated, exudate is removed, granulation tissue formation is promoted, and blood flow is enhanced due to reduced swelling and edema. Over the past decade, VAC therapy has been used to facilitate healing in chronic open wounds, dehisced surgical incisions, and pressure ulcers. More recently, this therapy has been utilized as an effective treatment option for complicated sternal wounds post cardiac surgery.

The principles and application of VAC therapy will be briefly described. Research studies and actual patient cases will be used to highlight benefits, including increased comfort and mobility, shortened length of stay, and reduced time spent on dressing changes. Challenges around VAC therapy implementation will be discussed along with implications for future practice.

Breathing Easier: A Cardiac Surgery Approach to Chronic Thromboembolic Pulmonary Hypertension

Stolarik, Anne, University of Ottawa Heart Institute, Ottawa, Ontario

Pulmonary thromboendart-erectomy (PTE) surgery to remove obstructions caused by emboli in the pulmonary artery and its branches has been performed at this institution since 1995. This surgery has the potential to cure patients suffering from chronic thromboembolic pulmonary hypertension (CTEPH), a condition for which the prognosis is otherwise dismal. The surgery is very high-risk and is performed at only a few centres around the world. Fifty-seven patients have had this procedure at this hospital to date. The patient outcomes have been exceptional and rival those of centres which have been doing the surgery for two decades.

The patient recovery following this surgery includes problems with oxygenation caused by reperfusion pulmonary edema and pulmonary steal syndrome, confusion, delirium, mood swings and late tamponade. The purpose of this presentation is to discuss the patients' experiences following pulmonary thromboendarter-ectomy and the evolution of the nursing care. In addition, the process of intense multidisciplinary cooperation between referring centres from across Canada and within our institution, essential to ensure success for patients and families, will be outlined.

Creating a Chest Tube Removal Protocol: An Opportunity to Incorporate the Concepts of Evidence-Based Nursing into Everyday Practice

Barber, Rhonda, Sellick, Judith A., Momtahan, Kathryn L., & Kearns, Sharon Ann, University of Ottawa Heart Institute, Ottawa, Ontario

Incorporating the concept of evidence-based nursing into everyday clinical practice is a goal of our institute. The decision to have the nurses remove chest tubes in a post-operative cardiovascular surgery setting presented an opportunity to have the nurses participate in developing a protocol that was based on evidence.

A plan of action was developed that included data collection from the institute's own patient population, a review of the literature regarding chest tube removal, and a survey of the current practices at other cardiovascular institutions. The criteria for removing chest tubes were then developed based on this evidence. The learning package for chest tube removal presented to the staff outlined the protocol as well as the development process, thereby introducing the key concepts of evidence-based practice at the clinical level.

This poster presentation will outline the evidence regarding chest tube removal and the protocol that was developed. A description of the learning package and project implementation will be presented. This presentation will also outline the evaluation of the project, which included a continuous quality improvement initiative related to pain management during chest tube removal.

The Flyer Program - Interhospital Care for Angioplasty Patients

Ridley, Brenda, University Health Network, Toronto General Hospital, Toronto, Ontario

Optimal bed allocation is a challenge in a centre that provides angioplasty procedures to over 2,000 patients annually. Historically, patients requiring angioplasty at Toronto General Hospital (TGH) would have to wait in the referring hospital until a bed was available. To offset bed resource limitations, an alternative to inpatient hospital care at TGH was created for angioplasty patients. Patients coming from designated centres have their angioplasty and return to the referring centre for sheath removal and post-procedure care. This maximizes utilization of existing resources by providing care to a greater number of patients. A comprehensive educational program was developed to allow nurses to prepare and care for patients and troubleshoot complications in the referring hospital.

Demonstrating how we created a successful flyer program while dealing with challenges of legal and liability issues, developing an education program, and interhospital ambulance issues will be the focus of my presentation.

Currently, our centre has a successful program with two institutions and is in the process of training for expansion to two more centres. Our flyer program serves the needs of clients, our community, and is fiscally responsible in the era of limited bed and financial resources.

A Critical Pathway to Successful Orientation

Elgie-Watson, Jeanne, & Li-James, Sandra, University Health Network, Toronto, Ontario

Given the existing nursing shortage, recruitment and retention is crucial to an institution. Organized orientation programs are essential to integrating a new nurse to a unit, resulting in job satisfaction and retention. "A direct correlation exists between job satisfaction and employee retention with an organized orientation process" (Evers et al., 1994, p. 217). Challenges faced by educators are: lack of time for follow-up in the unit, lack of standardized, unit-based orientation processes, multiple preceptors, and new employees lacking nursing experience. This leads to missed information and preceptors who may not be aware of the orientation process. The educators provide formal classroom content while preceptors "teach" daily bedside practice and patient management. The information that new employees receive is very much dependent upon the knowledge and skills of the preceptors.

To facilitate the orientation process of new employees, an orientation critical pathway was developed based on the case management model. This model is applicable because case management coordinates patient care based on meeting patients' needs in a timely manner. The critical pathway streamlines the orientation process by outlining objectives and expectations for each week of the unit-based orientation. The pathway serves as a communication tool between preceptors, staff nurses, new employees, managers, and educators. Clear objectives, expectations, and communication, along with an established process, ensures that new employees receive a consistent orientation regardless of the number of preceptors they encounter during orientation. The tool also provides timeframes for achieving expected unit-based competencies. In this presentation, we will discuss the critical pathway, its implementation and evaluation to date.

Depression and Caregiving Involvement in Female and Male Cardiac Patients and their Spouse-Caregivers

Purden, Margaret, Frasure-Smith, Nancy, & Lespérance, François, McGill University, The Sir Mortimer B. Davis-Jewish General Hospital, Montreal, Quebec

Depression following a cardiac event has been linked to deleterious outcomes in patients and spouses. However, psychosocial interventions to alleviate depression have had mixed results. More exploratory work is needed to understand factors at play, such as caregiving, which may destabilize the relationship and lead to distress. This study compared depression and caregiving involvement in female and male patients and their spouses at two months post-cardiac event. Couples completed the Beck Depression Inventory (BDI) and the Caregiving Involvement Questionnaire (CIQ). Interviews were completed with 84 female patient couples and 164 male patient couples.

Two-way analysis of variance of the BDI showed a significant effect of role (patient/spouse; $p<.001$) with patients more depressed than spouses and a significant effect of gender ($p<.001$) with women more depressed than men. The interaction of gender by role was not significant ($p=.20$). Controlling for covariates did not alter the results. Two-way ANOVA of the CIA showed no significant main effects of role ($p=.29$) or gender ($p=.10$), however, the interaction of gender by role was significant ($p<.001$). Male patients

perceived the highest caregiving, whereas female patients perceived the lowest. The introduction of covariates resulted in a significant effect of gender, with men experiencing higher caregiving than women. Patients and spouses were then categorized depressed or non-depressed. The three-way ANOVA showed a significant effect of depression (p=.01) with the depressed reporting more caregiving. The sex by role (p<.001), sex by depression (p=.01), and role by depression (p=.04) interactions were significant, showing caregiving to be perceived highest by male patients, depressed men, and depressed spouses. The findings support assessing women and patients for depression. The fact that depressed couples have caregiving issues offers a new direction for psychosocial intervention.

A Comparison of the Psychosocial Adjustment of Male and Female Cardiac Patients and their Spouses

Purden, Margaret, Frasure-Smith, Nancy, & Lespérance, François, McGill University, The Sir Mortimer B. Davis-Jewish General Hospital, Montreal, Quebec

The psychosocial adjustment of the cardiac couple has received little investigation. The majority of previous research is based on separate studies of male patients and their wives. Less is known about the recovery patterns of female patients and their husbands. This comparative study examined adjustment outcomes for female and male patients and their spouses at two months post-hospitalization for a myocardial infarction (MI) or unstable angina (UA). All couples completed the Psychosocial Adjustment to Illness Scale (PAIS). Over a two-year period, married men and women with MI or UA were recruited from the inpatient settings of five Montreal hospitals. Eighty-four female patient couples and 164 male patient couples completed the interviews.

Multiple analysis of variance of the seven domains of the PAIS showed a significant overall main effect of role (patient/spouse; p<.001) with patients experiencing worse adjustment than spouses, and a significant effect of gender (p=.01) with women having worse adjustment than men, but the interaction of gender by role was not significant (p=.22). There was also a significant within-subjects difference associated with PAIS domain (p<.001), and a significant domain by role interaction (p<.001), and sex by role interaction (p=.01). The interaction of domain by gender by role was not significant (p=.1.0). Post-hoc analyses revealed that the major differences between patients and spouses were in vocation, domestic, and social/leisure with patients having worse adjustment than spouses. Gender differences were evident in the domestic, sexual, social/leisure and psychological domains. Women had worse adjustment than men. Adjusting for age and education did not change the findings. These results suggest important differences associated with both gender and role, and may point to the need for interventions that are specific to the recovery patterns of male and female MI/UA patient couples.

Can Patients with Intermediate- to High-risk Acute Coronary Syndromes be Cared for Safely in a Cardiac Acute Care Unit (ACU)

Qasim, Abdiqani, Toronto General Hospital, Toronto, Ontario

Several studies have evaluated the safety of managing patients with low- to moderate-risk acute coronary syndromes in an intermediate cardiac care setting. The purpose of this presentation is to describe our one-year experience with an acute care nurse practitioner-managed and physician-supervised cardiac acute care unit in a large university-affiliated, tertiary/quaternary care teaching hospital. Admission criteria: acute coronary syndromes (ACS), end-stage heart failure requiring IV inotropes, and IV lasix infusion, stable arrhythmias, post-laser lead extraction and post-septal alcohol ablation.

Results: There were a total of 395 admissions, 69 acute myocardial infarction (17.4%), 160 high-risk unstable angina (40.5%), 60 arrhythmia (15.1%), 33 laser lead extractions (8.3%), 35 CHF (8.8%), 13 post-septal alcohol ablation (3.2%), and 25 other (6.3%). The mortality was 1% (4/395 admissions). Mean length of stay was 2.5 days. Of the patients with acute coronary syndromes, 54% had angiograms and 34% of patients had percutaneous coronary intervention (PCI). From the high-risk ACS group, 60/160 (37.5%) patients were on IV nitroglycerin, 73/160 (45.6%) were on GP2B3A inhibitors, 47/160 (37.5%) had CK positive myocardial infarction (MI), and 74/160 had a troponin positive MI.

In summary, we have demonstrated that the management of patients with moderate- to high-risk ACS, end-stage CHF, and other complex cardiac patients can be safely accomplished in an ACNP-managed and physician-supervised cardiac acute care setting.

Mobilization Patterns in Phase I Patients After Acute Myocardial Infarction (PUMP): A Pilot Study

Cortes, Olga, & Arthur, Heather, School of Nursing, McMaster University, Hamilton, Ontario

The impact of general care provided by nurses in the coronary care unit (CCU) setting and its

effect on post-acute myocardial infarction (AMI) patients' recovery is largely unknown. The identification of current patterns of mobilization and their relationships to patient factors and outcomes may lead to interventions that could contribute to improved recovery in this population. The objectives of the study were to determine the early mobilization patterns after AMI and the relationships between mobilization patterns and heart rate. This prospective observational study included 31 diagnosed AMI patients admitted to three CCUs in the Hamilton area. Mobilization patterns, including bedrest, semi-Fowler, move to the chair, and stand-up/walk were documented by CCU nurses for 72 consecutive hours after admission to CCU.

The results showed bedrest and semi-Fowler positions to be the most common mobilization patterns; together they accounted for 70% of the documented positions over the first 72 hours in CCU. Heart rate decreased progressively from the first day to the third day in CCU (75.7 versus 68.7, p= 0.000). This study demonstrates that, in current practice, patients who have had AMI spend the majority of their first 72 hours in CCU in bed. Though heart rate changes in AMI patients indicate positive progression, nursing intervention to mobilize patients earlier could result in additional improvements.

Tuesday Posters

Using Vacuum-Assisted Closure in the Management of Sternal Wound Infection

Reimer-Kent, Jocelyn, Lagace, Celine, & Martin, Kate, Royal Columbian Hospital, New Westminster, British Columbia

Deep sternal wound infection (DSWI) carries a high morbidity/mortality rate. The negative effects it has on the patient are great, to say nothing of the management challenges it can pose for the care team. Wound healing has traditionally taken place, following incision and drainage, by secondary intention whereby the wound bed is allowed to close by granulation. More recently, delayed primary closure by placing a muscle flap into the wound bed has become an option for some.

However, not all patients are candidates for muscle flaps and frequent dressing changes may actually impede healing as the wound bed is shocked and traumatized. Vacuum assisted closure (VAC) therapy provides an alternative wound management strategy. Although first designed for the treatment of chronic wounds, VAC therapy has found its way into the management of acute wounds, like DSWI. As such, there is little research available, no guidebook, and a steep learning curve.

This presentation will describe VAC therapy and discuss the experience of using VAC therapy in the management of DSWI at one cardiac surgery centre.

The Electrifying World of Electrophysiology – New Hope for Atrial Fibrillation Patients

Aubrey, Barbara, & Wayne, Rita, University of Ottawa Heart Institute, Ottawa, Ontario

As the population ages, the prevalence of atrial fibrillation is increasing and it accounts for significant morbidity, mortality, and health care expenditures. The electrophysiology (EP) lab offers new hope to patients dealing with atrial fibrillation, one of the most common sustained cardiac arrhythmias. New technology allows the electrophysiologist to map the intricate road map of the atria and, where appropriate, obliterate the pathway that has been so disruptive to the patient's well-being. As the demand for this intervention increases, this will pose new challenges for centres that offer this intervention.

The mapping portion of the procedure is often long and tedious, requiring patients to be still for extended periods of time. Anticipating their needs in both their pre-hospital waiting period and during the peri-procedure time ensures a smooth and successful experience. This presentation will discuss the procedure of atrial mapping and ablation, and the education program developed to support the patients and their families.

Understanding the Unique Needs and Support of Patients Undergoing Prophylactic ICD Implants: A Case Study of Hypertrophic Cardiomyopathy and Defibrillator Therapy

Abdool, Sharlene A., Hill, Ann, Marco, Nancy S., & Mauthner, Oliver E., University Health Network, Toronto, Ontario

It has been internationally proposed and accepted that ICDs are the first-line therapy for patients resuscitated from sudden cardiac death (SCD), and/or who are at extremely high risk for life-threatening ventricular arrhythmias. It has also been widely recognized that, as a

consequence of primary ventricular arrhythmias arising out of unstable myocardial substrate and scarring, SCD is one of the most devastating outcomes to families of hypertrophic cardiomyopathy (HCM). HCM is a relatively complex, but common form (one out of 500 people) of genetic heart muscle disease and is the most common cause of heart-related SCD in patients under the age of 30. Sudden and unexpected deaths in patients with HCM can occur with or without warning symptoms, and are often as a result of lethal heart rhythm disturbances such as ventricular tachycardia (VT) or ventricular fibrillation (VF). Family history of HCM (with or without VT/VF) has recently become a very compelling proponent and rationale for prophylactic ICD implantation. This proposes the unique question of how best to prepare our patients for this sometimes devastating life adjustment.

As nurse leaders in a large teaching hospital with acute and ever-growing ICD and HCM clinics, we find ourselves faced with an increasing population of prophylactic defibrillator patients. These patients have exclusive situations and, therefore, warrant individual attention to their needs and the support required to assist them in the adjustment to this extreme life-modifying treatment. The case study to be presented is that of a 53-year-old female implanted with an ICD prophylactically based on her father's positive history of HCM and VT leading to a cardiac arrest. A literature review of HCM and the efficacy of ICDs as primary prevention in arrhythmia treatment will be included, as well as a look at support groups that can be initiated to aid these patients in the understanding and acceptance of prophylactic ICD implantation.

Educational Strategies for Success – Administering Inotropes on the Cardiac Unit

Milne, Diane L., Kaan, Annemarie, & Mackay, Martha, Heart Centre, St. Paul's Hospital, Vancouver, British Columbia

The Canadian Cardiovascular Society Guidelines for the Management of Heart Failure advocate the use of low-dose inotropes for treatment of patients with intractable heart failure. However, administration of cardiac inotropes may be an unfamiliar skill for nurses on general cardiac wards. This skill was introduced to alleviate pressure for beds in the coronary care unit (CCU). This was welcomed by nurses on the cardiac ward who were seeking additional learning opportunities to advance their skills in cardiac nursing.

This paper will outline how principles of innovation diffusion and adult education guided implementation of this change in practice, so that these patients could be managed safely in this setting. A nurse educator was hired temporarily to coordinate the education of staff in preparation for the change in practice. The educational process included pre-reading by staff, an interactive workshop, and supervised clinical experience in the CCU through which nurses gained experience titrating vasoactive infusions on stable patients. All senior ward nursing staff received the education prior to the cardiac ward accepting this group of patients.

We conclude that introduction of a new skill by a change agent with prior expertise in the skill, recruitment of opinion leaders to support the change, use of incentive strategies (prizes), and interactive teaching techniques can be effective approaches to implementing changes in nursing practice. Evaluations of the program by the learners reflected this conclusion.

Cardiac Risk Factor Counselling by Nurses: Can It Improve Medication Adherence?

Mackay, Martha, Shalansky, Stephen, Fofonoff, Doreen, Gin, Kenneth, Ignaszewski, Andrew, Kingsbury, Kori, Barr, Sandra, & Heppell, Leanne, St. Paul's Hospital Heart Centre and Vancouver General Hospital, Vancouver, British Columbia

Research has shown that, although patients may have knowledge of cardiac risk factors in general, they may not grasp the impact of their own risk factors on the development of cardiac disease. This is especially evident for the risk factors of diabetes, hypertension and hyperlipidemia. In the case of hypertension and hyperlipidemia, patients may lack understanding and motivation to change behaviours because these conditions are often asymptomatic. Since modification of these risk factors depends largely upon medications, any intervention that increases adherence to a medication regimen, through improving patients' understanding of their risk factors, would be beneficial. We conducted a study to evaluate the effectiveness of a nursing intervention in which participants received brief counselling about their risk factors prior to discharge from hospital (treatment group) or usual care, which usually did not include any risk factor counselling (control group). The main findings have been presented previously. Unique to British Columbia is a comprehensive database of all prescription medications filled within the province. This provided an opportunity to capture participants' medication adherence data from six months before and six and 12 months after the counselling intervention. These findings will be presented and we will also offer recommendations for nursing care of hospitalized cardiac patients related to risk factor counselling.

The Role of the Social Network in Influencing Low-Income, Rural Women's Participation in Physical Activity

Rietze, L., & Arthur, H.M., School of Nursing, McMaster University, Hamilton, Ontario

Physical inactivity is a risk factor for cardiovascular disease. Low-income, female populations report physically inactive lifestyles more frequently than their more affluent, male counterparts. Behaviour change models and current research suggest that social networks may have a role in modifying individual behaviour. The purpose of this study was to explore the role of the social network in influencing low-income, rural women's participation in physical activity. Grounded theory methodology was employed. Seventeen women participated in one-on-one interviews. Interview transcripts were analyzed in an iterative process to identify recurrent themes and the basic social process. The social influence theory was generated. The role of the social network in influencing participation in physical activity was found to be related to role modelling, heightening self-esteem, fostering friendships, and minimizing barriers. Most of the women reported that their motivation to initiate or maintain physical activity originated from their need for social support from their social network. Physical activity provided the opportunity to maintain the relationship and receive support. Social factors that influence low-income, rural women's participation in physical activity could be considered in developing health promotion programs. Social motivators might also be employed to institute new ways of teaching this population about health behaviour. Additional research needs to be conducted to verify the categories and relationships suggested in the social influence theory.

Prevention of Endocarditis: Creation and Validation of a Colour Brochure for Adults with Congenital Heart Diseases

Sergerie, Michel, Dore, Annie, Mercier, Lise-Andrée, Gagnon, Louise, & Dubeau, Réjeanne, Montreal Heart Institute, Montreal, Quebec, and Nursing Faculty, Université de Montréal, Montreal, Quebec

Recent studies have shown that adults with congenital heart disease (CHD) have a poor understanding of risk factors of endocarditis. The objectives of this work were to create a brochure on endocarditis to define the entity, the persons and procedures at risk, the symptoms,

the treatment, the recommended measures of prevention and then, to validate it. The brochure's level of difficulty was assessed with the Smog test after its creation. With this test, 30 sentences are selected in the brochure and the number of words of more than three syllables in these sentences are counted. Our brochure reflects a grade 12 level of difficulty. In order to validate the brochure, a seven-question Likert-type questionnaire on the perceived level of knowledge, the content (vocabulary, clarity, presentation, quantity of information), and the need for other documents was created. The brochure and the questionnaire were given to 10 patients with CHD (group A), and five normal subjects (group B). Six patients in group A and all in group B returned the questionnaire. In group A (two male, four female; mean age 32.5 (7.9 years), the level of education was high school (four), college (one) and university (one). In group B (five female; mean age 45.2 (9.8 years), one had completed primary school and four high school. The perceived level of knowledge on endocarditis was low in both groups. The content of the brochure was highly satisfactory for both groups. Almost all subjects agreed to the need for more information documents. This kind of document allows patients to modify their health behaviour and to take responsibility for their own care. The enthusiastic response to this brochure confirms the need for more information in this population.

The Facilitation of "Facilitated PCI" during a Multi-Centre Randomized Clinical Trial

Séguin, Teresa, Doucette, Pat, Feres, Allyson, Turek, Michele, & Lemay, Michel, The Ottawa Hospital, General Campus, The University of Ottawa Heart Institute

The earlier that treatment is initiated in acute ST elevation myocardial infarction (STEMI) the better the prognosis. While the current standard of care for STEMI is thrombolytic therapy, evidence is accumulating that primary PCI with stenting is an acceptable alternative to thrombolysis, and may be superior. A problem with primary PCI is the time delay to organize the procedure, particularly when patients present to hospitals without interventional facilities. An alternative may be so-called "facilitated PCI", which means administrating thrombolytic therapy first, thereby potentially encouraging medical reperfusion during the inevitable time it takes to organize an emergency PCI. A current study at our institutions randomizes patients with STEMI to either TNK and emergency PCI or TNK followed by risk stratification to then determine the need for catheterization. The study is a regional multi-centre trial involving four hospitals. To date, there are 102 patients enrolled in the study, 59 entered at a central catheterization centre, and 43 entered from referring sites. A major challenge in this study was the development of a process that would ensure timely transfer of the patient who is randomized to the cath lab. This study runs 24 hours / day and the issues vary according to the time of day. While nighttime hours require call-back of the cath lab team and physician, daytime hours present the problem of fitting the patient into an already established schedule. The referring hospitals had challenges unique to their sites, including onsite dedicated physicians and nurses, communication with the cathing site, and ambulance service. Collaboration amongst all the centres was imperative to the success of this study. This presentation will describe the process which was put in place at both teaching and non-teaching centres, the personnel involved, and the required solutions.

Surgical Ventricular Restoration: Size Does Matter

Bengivingo, Susan, & Taylor, Rachel C., Foothills Medical Centre, Calgary, Alberta, and Strathmore District Health Services, Strathmore, Alberta

Congestive heart failure (CHF) is a leading cause of morbidity and mortality in Canada. CHF can occur following myocardial infarction as a result of an enlarged, poorly functioning left ventricle. Surgical ventricular restoration (SVR) is an emerging surgical alternative for treating certain heart failure patients. SVR "remodels" the damaged left ventricle, restoring it to a more normal shape and size.

A brief description of the types of surgical techniques available will be provided, however, the main focus of this presentation will be a discussion of the post-operative management of patients who have had SVR. Individuals who require SVR often require concomitant procedures such as coronary artery bypass grafting and / or mitral valve repair or replacement and, therefore, their post-operative nursing care can be more complex. A case presentation will be utilized to demonstrate the post-operative nursing care required for these challenging patients.

Cardiovascular nurses need to be cognizant of emerging procedures and the associated effects on nursing care. This presentation will familiarize the nurse with SVR and the nursing care involved.

Perceptions of Smoking Following Myocardial Infarction: A Review of the Literature

Bradfield, Annette, The Ottawa Hospital, Ottawa, Ontario

Among individuals who have been diagnosed with coronary artery disease (CAD), smoking is the most important modifiable risk

factor. For those who have survived a myocardial infarction (MI), smoking may be the greatest predictor of mortality, and smoking cessation can reduce the risk of recurrent MI and cardiovascular death by 50 per cent or more. Despite this evidence, some individuals are willing to risk their health in order to resume smoking after hospital discharge. It has been reported that between 50 to 75% of cardiac patients continue to smoke after a diagnosis of CAD. Why do some individuals continue to smoke despite having experienced an MI? How do these individuals conceptualize healthy or risky behaviour, and accept the risks of smoking associated with CAD? This poster will present a review of the literature based on studies examining individuals who continue to smoke in the face of CAD.

The occurrence of a life-threatening event, as well as the hospitalization itself, may provide an impetus for patients to evaluate their risk-prone behaviour and attempt smoking cessation. Studies have revealed that long-term maintenance of behaviour changes is strongly influenced by the patient's causal explanation of the MI. While smokers recognize tobacco as a risk factor for CAD, they are less likely to relate it to their own MI. Denial of the value of adopting behaviour change can be perpetuated by health care professionals who communicate an over-optimistic outlook on recovery. Existing interventions do not seem to be addressing the needs of individuals who are not motivated to quit smoking. A comprehensive description of this phenomenon of non-adherence from the post-MI patient's perspective is essential for understanding how motivation can best be stimulated.

We Have to Eliminate the Monitor Nurse! Oh No - Another Change!

Heggie, Pamela G., Urquhart, Gayle L., & Tarapaski, Janice D., University of Alberta Hospital, Edmonton, Alberta

Change occurs almost constantly as hospitals downsize, re-engineer, or restructure. Historically, the cardiology unit used a dedicated monitor nurse (DMN) from CCU. The value of a DMN was questioned. After benchmarking and a literature review, the DMN position was eliminated, with staff nurses (SN) incorporating ECG interpretation into their patient care. The SN thought the elimination of the DMN would increase their workload and affect patient safety.

The purpose of the presentation is to highlight the strategies used to promote the change. The change model used consisted of unfreezing, moving, and refreezing. Overcoming the resistance to change consisted of education (theoretical and psychomotor) and SN participation (e.g. issues). The "moving" stage consisted of educational support, a transition period (DMN and SN performed ECG interpretation), and evaluation (survey). Refreezing included educational support and evaluation (survey). The survey was administered to SN at three and 12 months after the change; response rates were 67% (n=29) and 50% (n=24) respectively. The survey questions included SN knowledge and comfort level (monitoring system and ECG interpretation) and use of ECG interpretation to provide safe patient care. The majority of results improved over time. Staff nurses were reluctant to remove the DMN, yet, one year later, support was evident. Our experience in incorporating an undesired change in practice is beneficial to other programs faced with transition. Staff nurses' input helped us to determine effective methods for incorporating change.

Cardiac Volunteers Visiting Program: A Special Support for Cardiac Surgery Patients and Their Families

Dibert, Cathy, Cvitkovic, Renata, & Zidaric-Seymour, Susan, Trillium Health Centre, Mississauga Ontario

The purpose of the paper is to describe the development and implementation of a cardiac volunteer visiting program called "Healing Hearts" into a new cardiac surgery program. Cardiac surgery correlates with considerable stress and anxiety for patients and their families. Patients are concerned about their health and the success of the procedure. Families share patients' concerns and have an additional concern regarding how to support the patient during the peri-operative stage. Although education programs have been developed to provide information to patients and families to decrease anxiety, the life-threatening nature of this type of surgery hinders learning and undermines the efficacy of education in the peri-operative period.

An important component of our patient and family education program is the Healing Hearts program. The volunteers in this program underwent cardiac surgery or coronary artery angioplasty, or are spouses or partners of former cardiac patients. The goal of the program is to provide role models who exemplify the vigorous lives they are now leading. These volunteers play an integral role in the pre-operative clinic, provide support in the family waiting room, and visit patients in hospital awaiting

surgery and, of course, those recovering from their surgical experience.

The program has been an overwhelming success for patients, families, and members of the health team, and the Healing Hearts volunteers derive a great deal of satisfaction from their role. The success of the program stems from the meticulous attention to design and implementation as well as ongoing support for the volunteers.

A Regional Acute Myocardial Infarction (AMI) Care Map: Process for Development

Avery, Lorraine, & Holder-Estrella, Estrellita, Winnipeg Regional Health Authority (WRHA) Cardiology, Sub-program, Winnipeg, Manitoba

A regional retrospective audit of the care of AMI patients at the six WRHA sites revealed that practice standards varied within the region including cardiac teaching, cardiac rehabilitation referrals, risk stratification, identification of cardiac risk factors, and nursing physical assessment parameters.

An evidence-based care map system, which includes the care map, standards document, standard physician orders, variance record, and patient/family care guide, was authored to facilitate the standardization of the care of AMI patients within the region.

Three co-authors and a multidisciplinary team representing acute and community care authored the care map from June 2000 to October 2000. Four working groups with an appointed team leader were developed to facilitate the development of the tool. The groups were: teaching, quality, medical, and nursing standards. The WRHA care map manager acted as a liaison between groups.

A needs analysis was conducted to determine the learning needs of staff prior to implementation.

Based on the results, several regional education sessions were conducted. Other strategies used to increase staff's knowledge included newsletters, posters, site orientation and education sessions, and a mentoring program.

The AMI care map has been in use regionally for over one year. Specific quality indicators have been tracked during the year and suggest a decrease in regional length of stay and improvement in specific care indicators.

Development of an Algorithm for the Management of Post-Operative Atrial Fibrillation

Cline, Jennifer, Kee, Cheryl, & Tomalty, Julia, London Health Sciences Centre, London, Ontario

The incidence of post-operative atrial fibrillation (POAF) can be as high as 40 per cent following conventional coronary artery bypass grafting (CABG), 50 per cent following valve surgery, 60 per cent following combined CABG/single valve surgery, and

over 90 per cent following CABG/double valve replacement, and the clinical consequences are not insignificant (Page & Pym, 1996). The incapacitating symptoms, thromboembolic risk, and associated morbidity and mortality from stroke (Kerr, 1996) warrant effective management of this common post-operative complication. Unfortunately, there exists a great deal of variation in practice regarding prophylaxis for prevention, ventricular rate control, rhythm management, choice of antiarrhythmics, need for anticoagulation, and consideration for cardioversion.

Accessing new knowledge and integrating relevant research into one's practice is a constant challenge in the dynamic profession of advanced practice nursing. A critical appraisal of the literature and consultation with interdisciplinary colleagues was utilized to develop an algorithm for the management of POAF. This algorithm represents a strategy to include the best external evidence from clinically relevant research and provides the acute care nurse practitioner (ACNP) with a tool that can be accessed to make evidence-based patient care decisions.

A description of the algorithm will be presented as well as development considerations and strategies for implementation. The goal of this algorithm is to bring clarity and perhaps even consensus in the provision of a treatment strategy for POAF. Utilization of this algorithm should improve the consistency of post-operative care, impact patient morbidity and mortality, and reduce length of stay and associated health care costs. When ACNPs base their practice on the best evidence from research, clinical expertise, and patient preferences, both practice and patient outcomes improve (Brooten, 2002; Heater, Becker & Olsen, 1988).

Nausea and Vomiting After Cardiac Surgery: When to Worry

Kee, Cheryl, Tomalty, Julia, & Cline, Jennifer, London Health Sciences Centre, London Ontario

The incidence of gastrointestinal (GI) complications following cardiac surgery is reported to be between 0.3 to 2% (Tsiotos et al., 1994). The development of post-operative GI problems may have a significant impact on recovery by increasing morbidity, length of hospital stay and associated costs, and mortality.

Potential GI complications include: paralytic ileus, intestinal obstruction, ischemic bowel, upper or lower GI bleeding, perforated ulcer, cholecystitis, pancreatitis, hepatic necrosis, and splenic injury. Nausea and vomiting may comprise the early presenting symptoms of any of these conditions, or may be a more benign complaint related to lingering anaesthesia or other medication side effects.

This presentation will use a case study format to delineate risk factors in the evolution of GI complications in post-cardiac surgery patients. Patient care strategies for early intervention will be reviewed. Recognition of patients at higher risk for development of GI problems, and enhanced assessment skills by nurses working in cardiac surgery will facilitate early intervention leading to improved patient outcomes.

The Effectiveness of Training on the Comfort Level and Ability of Nurses to Counsel Patients on Smoking Cessation

Witt, Sharon J., & Reed, Leslie L., Calgary Health Region, Calgary, Alberta

Smoking is a significant risk factor for coronary artery disease. As health professionals, we are in a position to influence patients' smoking behaviours. On the unit, staff recognized a lack of resources and knowledge available to counsel patients about quitting smoking. In response to these identified concerns, a survey was developed to measure nurses' comfort level and ability in smoking cessation counselling. The survey was completed prior to a training workshop and three months later to evaluate the effectiveness of the workshop and its value in an acute care setting.

The two-and-a-half-hour workshop taught the Stages of Change Model. By learning minimal contact interventions, staff are empowered to help the patient in a short amount of time. In addition, a pharmacist presented nicotine replacement therapy. There was also a little time for role-playing.

The pre-class survey showed that while staff felt somewhat comfortable approaching and counselling patients, and in fact did so, they also felt they made little to no impact on smoking behaviour. They were not very aware of policies and aids available and had limited knowledge about smoking cessation strategies. The follow-up survey three months later showed that more staff, on average, felt comfortable counselling patients and had a greater awareness of supports and strategies available. As well, they felt they made more of an impact on patients' smoking behaviour.

The investigators concluded that training workshops are effective and valuable in the acute care setting. Nurses require the knowledge necessary to support patients making lifestyle changes. The delivery of this information could be disseminated in various ways, but must be available to staff.

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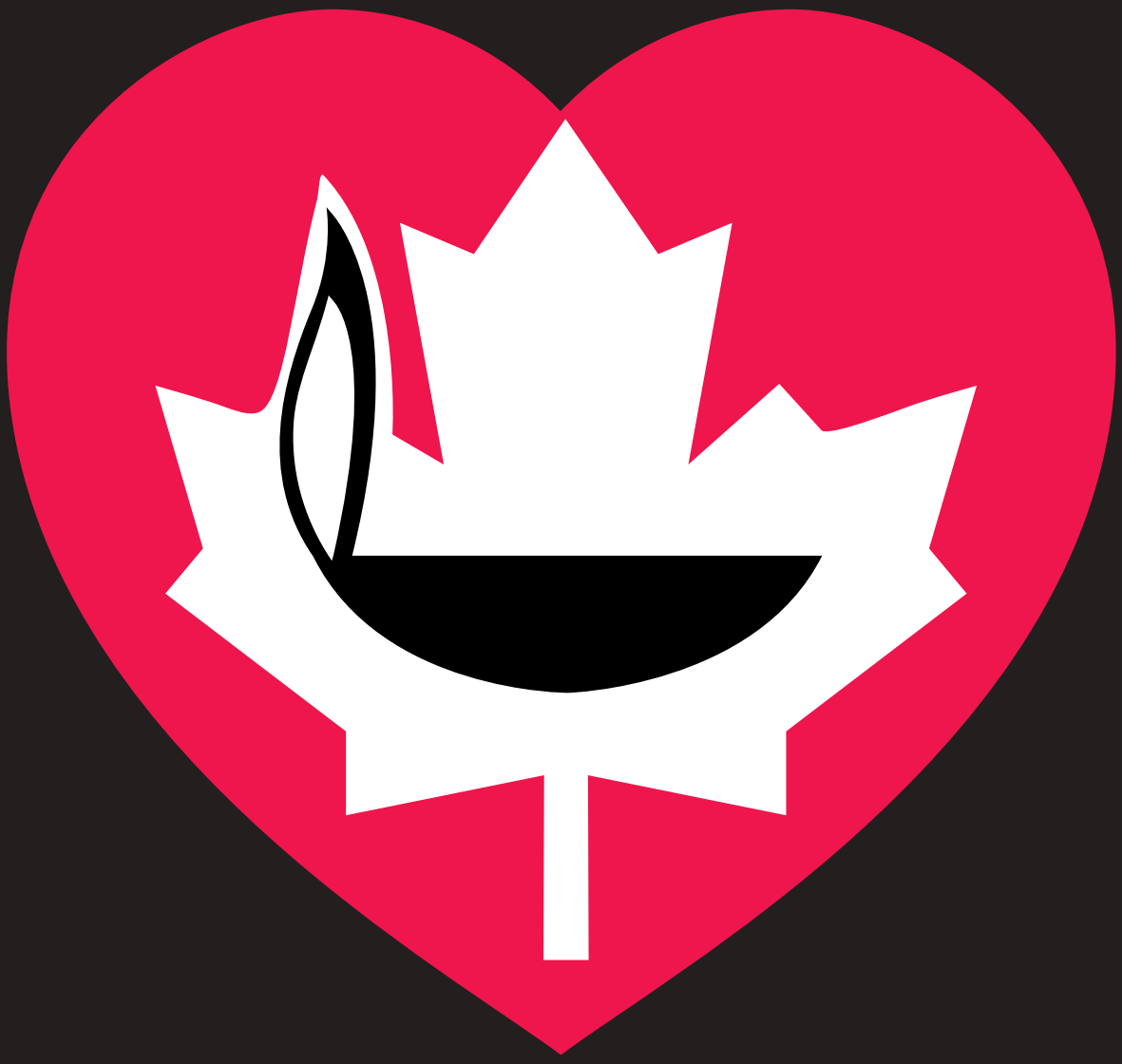

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