

N001

CARDIAC REHABILITATION: BEGINNING AT THE BEDSIDE

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Cardiac Rehabilitation (CR) and secondary prevention strategies are essential to decrease long-term morbidity and mortality from cardiovascular disease in Canada. CR programs provide risk factor modification strategies to assist individuals with coronary artery disease in their lifestyle change process. Research has demonstrated that participation in CR programs leads to positive behavioral changes such as exercise compliance, heart healthy eating, smoking cessation, adherence to prescribed medication and effective stress management programs. These interventions slow cardiovascular disease progression and decrease the incidence of further cardiac events. Unfortunately, CR programs are underutilized despite the evidence of their effectiveness and the growing number of individuals affected by cardiovascular disease.

In response to this concern, an automatic referral (AR) approach to recruit patients to the University of Ottawa Heart Institute (UOHI) CR program was implemented in March 2006. The AR process ensured that all patients admitted to the UOHI were referred into CR. Despite a higher number of referrals to CR, active enrollment only increased modestly by 2007. Thereafter, the AR program was revised and now involves nurse visitation to the bedside, at which time the facilitation of entry into the CR program is commenced.

This presentation will discuss the background information of the AR system, the dynamic role of nurses in the early phase of CR, the implementation of the process across our institution and its impact, a brief synopsis of our cardiac population, challenges and barriers which affect participation rate to CR programs.

N002

**IMPLEMENTING A DELIRIUM SCREENING TOOL IN CSICU:
HELPING TO END THE CONFUSION**

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Since cardiac surgeries were developed in the middle of the 20th century, delirium has remained one of the most devastating complications for patients, families, and their health care providers. Often called post-pump delirium or post-cardiotomy delirium, this condition generally develops in the first 24 to 48 hours post cardiac surgery. Symptoms are varied, presenting as the hyperactive, hypoactive or mixed subtypes, and may be due to a multitude of pre-operative, intra-operative, and post-operative factors. Based on the nature of their nursing practice, Cardiac Surgery Intensive Care Nurses are in an excellent position to monitor for, identify, and document the development of delirium, as well as provide quick intervention. Despite knowledge about the devastating complications of delirium post cardiac surgery, assessment and documentation remains inconsistent. The purpose of this presentation is to document the process of choosing an appropriate screening tool for the clinical setting, provide a rich qualitative description of the process of implementation as well as provide insight from the nursing staff on the effects of the tool implantation and changes in their practice. While the implementation of a systematic screening tool is not thought to have an overall effect on the rate of development of delirium, early recognition through systematic assessment, consistent documentation and clear communication assists patients in receiving the best care and intervention possible in a timely manner which may decrease length and severity of symptoms. This improved process will hopefully increase patient, family and health care provider satisfaction around delirium assessment, care and communication.

N003

**SAFE HANDOFF: ENHANCING SHIFT REPORT TO
IMPROVE PATIENT SAFETY**

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Many Canadian hospitals have no formal policy or standards for shift report or handoff. On every unit the care of a patient is transferred from one nurse to another during shift change. During this handoff period, valuable patient information should be shared through accurate communication to facilitate the continuity of patient care and support patient safety. Ineffective handoffs can contribute to adverse events, the inability to identify risks to patient safety and negative patient outcomes.

Previously, this inpatient cardiac unit practice for shift handoff was the use of a written report. The incoming nurse reviews the report, but lacks the opportunity to clarify information or ask questions regarding the patient, treatments or anticipated plan of care. A gap in communication and potential risk to patient safety was recognized; and a workgroup was established to develop a more formal process for shift handoff and transfer of accountability.

The workgroup reviewed research and opinion articles related to the transfer of accountability to assess existing practices and review best practices. As a result of the literature review, an initiative was developed and launched on the patient unit.

This presentation will share the components of this initiative; including the conception of the SAFE acronym used as a framework for shift report, the application of the "five checks at the bedside", and the progression of bedside reporting to include the patient into the practice. It will also share unit attained audit results and implementation strategies for a successful implementation in the transfer of accountability initiative.

N004

**SIMPLIFIED FLUID RESTRICTION TOOL: DOES THIS
INCREASE ACCURACY?**

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The fluid balance chart (FBC) is an important tool when monitoring fluid status in acutely ill patients. For stable heart failure (HF) patients who are preparing for discharge, learning to restrict fluid intake and monitor weight are key self-management principles. Our HF team felt that the FBC did not accurately reflect the amount of fluid actually taken in by HF patients, nor did it prepare the patient to undertake self-monitoring once discharged. To confirm this, an evaluation of FBC use in stable HF patients was performed and as suspected, it was found that the FBC did not accurately convey fluid intake when maintained by staff nurses. Similarly, FBCs maintained by patients were also inaccurate.

This paper will report on the implementation and evaluation of a simplified approach to monitoring fluid intake in HF patients. The HF tool will focus on teaching the patient how to log their input - including "hidden" fluids - and provide them with room to chart their weight each day. To help patients understand how they can incorporate a 24-hour fluid restriction into their lives, a novel approach that can be adapted to a home environment will be evaluated and presented. In summary, the current method of recording fluid restriction is not conducive to teaching patient self-management skills and further is not accurate. For patients with stable HF, learning how to restrict fluid and monitor daily weight is key. Creating ways to empower patients to do so may ultimately decrease hospital admissions and patient self-efficacy.

N005

REPORTING THE NEWS- NURSES EXERCISE AND WELLNESS STUDY

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In 2005, the results from a large population based National Survey of the Work and Health of Nurses clearly raised concern about the physical health of working nurses and the relationships between work environment characteristics and poor health.

The purpose of this study was to determine the effect of an organizational based health and lifestyle program specifically designed for working nurses on 1) awareness of physical and cardiovascular health status, 2) adoption of positive lifestyle behavioural changes and 3) health related quality of life and cardiovascular risk. The 10 week intervention included: free access to a personal trainer, free access to a well equipped gym, nutritional assessment and counseling, and group support. A pre-test, post-test design program evaluation was used. Cardiovascular and physical health, diet and physical activity history, and health related quality of life were determined at baseline. Participants' progress was monitored at 5 weeks, 10 weeks, and 6 month intervals.

We will report on the program strengths and challenges, accomplishments of short and long term goals in relation to health related quality of life, and the benefits experienced by the nurses.

The results of this study will provide relevant information for nursing employers to guide policy change to support and sustain health and wellness programs in the workplace.

N006

MEN'S ACCOUNTS OF CARDIAC REHABILITATION AND DIABETES

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Cardiac rehabilitation (CR) seeks to lower behavioural risk factors for heart disease using a program of education, support, and supervised exercise. Although diabetic men represent a large group within CR their individual goals for rehabilitation are not well understood.

This paper draws from a qualitative investigation of 16 men and 16 women recruited from three urban CR programs in Toronto, Canada. Data sources included two in-depth interviews. The first interview followed entry into a CR program. Participants kept a one-week activity journal, which was followed by a second interview. During both interviews, participants elaborated on their challenges in managing co-morbid health conditions. Analysis of interviews was concurrent with fieldwork, including weekly reflexive discussions among the core research team, identification of recurrent issues, and development of typologies of experience.

Men described goals of bodily control with a focus on explicit targets for physiological parameters. In contrast to women, men had difficulty articulating their worries about social circumstances and relationships. Uneven support in work and familial roles generated stress and vulnerability. In specific cases, these issues generated an impasse to CR participation and adherence. Many men searched extensively for alternative treatments to improve quality of life.

CR may facilitate men's physical rehabilitation through a sense of technologic control. However, social circumstances contributing to diabetes and heart disease pose significant challenges for men. Quality of life for CR participants with co-morbid conditions is variably defined. Greater awareness of individual goals and social circumstances may foster improved support and adherence in CR.

N007

REDUCING THE INCIDENCE OF SURGICAL SITE INFECTIONS THROUGH GLUCOSE CONTROL INTERVENTIONS: SUCCESSFUL CARDIOVASCULAR SURGERY PATIENT OUTCOMES AT SOUTHLAKE REGIONAL HEALTH CENTRE

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Surgical site infections are the second most common type of adverse events occurring in hospitalized patients. Surgical site infections are proven to greatly affect the patient recovery, quality of life, and satisfaction with care, in addition to the added cost of care. Review of medical literature demonstrates that the degree of hyperglycemia prior to cardiac surgery and persistently elevated glucose levels during and immediately following cardiac surgery correlates with the rate of surgical site infections in diabetic and non diabetic patients undergoing these surgical procedures. Multiple studies have documented improved patient outcomes for cardiac surgery patients when glycemic control is maintained.

The Cardiac Surgery Program at Southlake Regional Health Centre recognized the importance of implementing glucose control interventions from the beginning of their program in 2003. In addition, by implementing the Safer Healthcare Now intervention to maintain a target of 95% of patients with blood glucose levels less than 11.1 mmol/L in the perioperative period, Southlake Regional Health Centre has further reduced the incidence of surgical site infections in their cardiac surgery patient population and is proud to have met the Ontario provincial reporting requirements.

This presentation will be clinically significant for nurses and administrators working within a cardiovascular surgical program. The presentation will highlight Southlake Regional Health Centre's glucose control intervention strategies, including barriers and successes to practice, in reducing surgical site infections. Lastly, this presentation will increase the cardiovascular nurse's role in understanding the importance of glucose control and will provide key clinical practice recommendations to reduce surgical site infections, and to ultimately improve patient clinical outcomes.

N008

RADIATION SAFETY IN INTERVENTIONAL CARDIOLOGY AND ELECTROPHYSIOLOGY: MINIMIZING HARM AND OPTIMIZING PATIENT CARE

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Radiation therapy has evolved from the original crude practices to advanced techniques that form an essential tool for many diagnostic and procedure modalities, including interventional cardiology and electrophysiology. The inherent properties of ionizing radiation provide many benefits but may also cause potential harm to patients and staff.

The purpose of this presentation is to optimize nurses' capacity to advocate for and implement best practice in clinical areas that employ radiation. After initially discussing the nature, use and implications of radiation in interventional cardiology and electrophysiology procedures, we will present the recommendations of the International Commission on Radiological Protection. In the context of case studies, we will outline the implications for practice and present the results of an audit conducted at a major cardiac referral centre to assess patient and staff radiation exposure, the relationship with complexity of procedure and procedure time. We will discuss the program we developed to implement best practice recommendations, including intra-procedure radiation dose documentation, communication with patients about radiation exposure and required follow-up, and staff education. We will discuss the challenges associated with optimizing radiation safety, including fostering interdisciplinary collaboration. In conclusion, we will return to the case studies to summarize the implications for nursing practice.

N009**PALLIATIVE CARE FOR ADVANCED HEART FAILURE: HOME INTRAVENOUS INOTROPES**

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In Canada, heart failure is reaching epidemic proportions. While advances in medications and devices have helped many patients live longer with an adequate quality of life, the majority of patients will die from progressive pump failure. In response to the end-of-life treatment needs of our patients, we developed a Home Intravenous (IV) Inotrope program. This program allows our patients to be at home during the terminal stages of their illness, while offering symptom relief afforded by IV inotropes. The shared goal of providing patients with safe care that was responsive to their needs allowed us to collaborate and cooperate across disciplines, boundaries and across the city.

During the presentation we will discuss patient eligibility, discharge preparation and post-discharge support for community care providers. We will review our guidelines for deactivating the implantable cardio-defibrillator and the do-not-resuscitate process for emergency medical services. There are challenges in implementing new programs and ours was no exception. We completely underestimated the time and effort involved in the transition from hospital to home. In reality there was significant coordination and communication between the acute and community care providers, home care coordinators and the outpatient pharmacy.

N010**THE INFLUENCE OF WORK PATTERNS ON CARDIOVASCULAR RISK IN FEMALE HOSPITAL WORKERS**

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The prevalence and burden of cardiovascular disease (CVD) is a concern. CVD related deaths are now equal in Canadian men and women. CVD events will occur later in a woman's life, but the risk for CVD occurs earlier during adult years. While there is strong evidence linking modifiable risk factors, such as physical inactivity to CVD, the influence of contextual factors such as the work environment on CVD risk is poorly understood as available findings are inconsistent. The overall goal of this study is to describe in female healthcare workers the variation in relationships between work patterns and CVD risk and the mediating effects of lifestyle factors on these relationships. Work patterns are defined as: shift work, overtime hours, extended 12 hour shifts and total hours worked. Participants are female healthcare workers from 2 hospital sites (n = 509). We obtained data through anthropometric measurements, blood sampling, self-report using validated measures of lifestyle activities and linked this with hospital administrative work data. We will describe: 1) the prevalence of CV risk, as defined by indicators of the metabolic syndrome, 2) the relationships between work patterns and CV risk, and 3) the mediating effect of physical activity, diet, alcohol intake and smoking on these relationships. The findings from this study will enhance our understanding of the relationships between workplace and CV risk and will inform workplace policy.

N011**SELF-MANAGEMENT SUPPORT IN A WOMEN-ONLY CARDIAC REHABILITATION PROGRAM: ARE WE EMPOWERING OUR PATIENTS?**

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Self-management approaches have been shown to have positive impacts on the wellbeing of individuals with chronic illness. Support is critical to the development of self-management and emphasizes the patients' central role in managing and being responsible for their health. Women with cardiovascular disease typically have more than one chronic illness and may be helped by a cardiac rehabilitation (CR) program that provides self-management support. It is unknown whether programs specifically developed on the principals of empowerment for women meet the self-management support needs of female cardiac patients.

The objective of this qualitative study was to determine whether, from the

perspective of participants in a women-only CR program, the program provided the education, problem-solving skills and support necessary to manage their health problems.

Fourteen women previously enrolled in a women-only CR or primary prevention program participated in a one-time, in-person, semi-structured qualitative interview. Interviews were transcribed verbatim and analyzed using a constant comparative approach to develop a coding scheme and identify relevant themes.

All participants reported living with at least one non-cardiac chronic health condition, but none reported experiencing depression during program participation. Key themes identified by participants included re-establishing confidence, exercising independent decision-making, and finding reliable resources to make informed decisions. Women also discussed the importance of positive interactions with health care providers and their peers, and the effect of these interactions on their ability to make decisions. Still, some women highlighted their feelings of safety when they would "just listen to the doctor" and "do what they were told."

This study highlights how self-management support delivered in a women-only CR program format may give some women the knowledge and skills to improve their management of their health concerns through the provision of information, resources and education to aid in problem solving. As not all patients want to "self-manage" their chronic condition, nurses and other professionals in CR programs need to be aware of their interactions with patients, asking what the individual requires in the way of support and problem solving assistance.

N012**ACT STAT: EMERGENCY CHEST REOPENING**

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Acute profound hypotension, cardiac arrest or cardiac tamponade after open-heart surgery may require an emergent exploratory sternotomy (emergency chest reopening). The indication for an emergency chest reopening occurs in <5% of patients early in the postoperative course or as late as 30 days following surgery.

When postoperative patients become unstable to a cardiac arrest situation, it places tremendous stress on the nurse and cardiac surgery team. Further, the situation is intensified when it occurs at the patient's bedside in the clinical setting. The key to a successful outcome during an emergency chest reopening is accomplished when all team members are organized and understand their specific roles. Structured training and practice in the management of the patient undergoing a chest reopening leads to significant improvements in speed and quality of care, but its rare occurrence creates a challenge for team members to maintain competency.

Nurses on the Cardiac Surgery Patient Unit in a large community hospital completed a learning needs assessment, identifying the desire for education surrounding their role during an open chest procedure. An innovative educational approach was required to fulfill this need. An education video was created (at a low-cost) by the Cardiac Surgery team members to include; the indications of a chest reopening, identifying the required supplies, roles and responsibilities of the team members and a sample mock procedure.

This presentation will include the sharing of an eight minute education video on emergency chest reopening, the learning needs assessment and evaluation process after the education was completed.

N013**THE VIAL OF LIFE: A PATIENT MEDICATION SAFETY PROJECT**

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Patient medication safety is an ongoing challenge in health care. Medication errors are one of the leading causes of undesirable outcomes experienced by patients. Errors are common when medications are procured, prescribed, dispensed, administered and monitored, but they occur most frequently during the prescribing and administering processes. Research indicates that up to 67% of patients' prescription medication histories have one or more errors and up to 46% of medication errors occur

when new orders are written at admission or discharge (Patients Safety Solutions, 2007). In order to reduce patient harm, effectively engaging the patient and family in the medication reconciliation process is essential.

In an effort to ensure patient safety on discharge, the cardiology unit at our institution undertook a Continuous Quality Improvement (CQI) project, the Vial of Life. Prevention is the key to patient safety, and this project is an extension of the medication reconciliation process from hospital to home/community. The goal of this CQI project is to provide patients with their own updated personal and medication profile.

This presentation will describe the process taken in planning and implementing the Vial of Life CQI project. In addition, feedback from the patients and Emergency Medical Services teams will be provided about the usefulness of this tool. The Vial of Life is a valuable tool, providing all health care providers across the continuum of care with an up to date, accurate and easily accessible medication history and medical profile.

N014**THE LAST LEG OF THE RACE: CHALLENGES IN PROVIDING CARE TO HEART FAILURE PATIENTS AT THE END OF LIFE****C Galte****Providence Health Care, Vancouver, BC**

Heart failure (CHF) is a prevalent, malignant condition. Five hundred thousand Canadians are currently facing a heart failure diagnosis and the number is increasing at a rate of 50,000 per year. The aging demographic in Canada augments the challenge to provide quality care for these individuals. CHF is a common final diagnosis for individuals with this condition. Five year age-adjusted mortality is high at 45%, in common with cancers such as bowel and ovarian.

Heart failure presents unique challenges at the end of life. Trajectory of illness is unpredictable. Symptoms can be unexpected and intractable. This presentation will highlight the current palliative care literature related to heart failure, identify the challenges faced by care providers and provide some insights into attempts to determine prognosis, relieve suffering and promote quality at the end of life.

N015**LANGUAGE OF SERVICE SURVEY: A QUALITY IMPROVEMENT INITIATIVE AT THE NEW BRUNSWICK HEART CENTRE****F Bordage, C Dubé****New Brunswick Heart Centre, Saint John, NB**

The importance of delivering health care services in the language of the patient's choice is well documented in the literature. The New Brunswick Heart Centre (NBHC) mandate is the delivery of tertiary cardiac services in both of New Brunswick (NB) Official Languages (English and French). A study was done to evaluate the level of satisfaction of francophone patients with the language of service while receiving care at the NBHC. A language satisfaction survey was developed and conducted with this patient population over a six month period. The target population was identified prior to their visit to the NBHC. Those who identified French as their preferred language were approached, and all agreed to be part of the survey, resulting in a total of 134 surveys being conducted. Using a five item Likert scale format and space for written comments, the surveys were conducted by a bilingual Research Nurse in person or by telephone, with the opportunity for the respondent to self-complete and respond by mail.

Results indicated that 56% of respondents were very satisfied, 37% were satisfied, 1% was neutral, 5% were dissatisfied and 1% was very dissatisfied. Issues identified assisted the NBHC in improving the language of service delivery in French, while providing the recipient of care with a venue to express their satisfaction or dissatisfaction with same. The survey, the process followed, the results obtained and the changes made in the practice will be shared with the audience.

N016**SAFETY AT THE HEART: IS A SAFE SPACE THE KEY TO SUCCESS FOR WOMEN IN CARDIAC REHABILITATION AND PREVENTION PROGRAMS?****E Sutton, D Rolfe, J Price, L Sternberg****Women's College Hospital, Toronto, ON**

Cardiovascular disease is the leading cause of death among Canadian women. Although cardiac rehabilitation (CR) is clinically effective, significantly fewer women than men uptake and complete available programs. The literature identifies factors affecting women's CR participation and provides possible explanations for this gender disparity within cardiac care. However, knowledge of women's lived experiences with CR is lacking. The Women's Cardiovascular Health Initiative (WCHI) offers a unique CR and prevention program (PP) designed exclusively for women according to six pre-established principles of women's health: empowerment, accessible programs, broad definition of health, high quality of care, collaborative planning, and innovative approaches to care. This study explored whether CR and PP participants felt that the principles of women's health were reflected in their experiences with the WCHI program. Fourteen participants engaged in semi-structured interviews lasting 30-90 minutes. Discussions addressed women's experiences in the WCHI program. Interview transcripts were analyzed using grounded theory methods. Analysis of the data revealed women's CR and PP experiences reflected the principles of women's health, yet were characterized explicitly and implicitly in terms of physical, social, and symbolic safety. As a result we developed a holistic concept of safety situated within the therapeutic design literature to underscore their collective strength in fostering health. The role of safety in encouraging women's CR participation requires further exploration, but should be recognized by practitioners when developing CR programs that meet women's needs. The inclusion of the concept of safety should also be considered as an additional key principle of women's health.

N017**NAUSEA & VOMITING FOLLOWING CARDIAC SURGERY: WHAT'S THE BIG DEAL?****M Rivet¹, J Sawatzky²****St Boniface General Hospital¹, University of Manitoba², Winnipeg, MB**

Post-operative nausea and vomiting (PONV) is one of the most common complications following anesthesia and surgery. Despite advances in anesthesia practice and anti-emetic therapies, the overall incidence of PONV has remained relatively unchanged over the past four decades. While the incidence of PONV is 20-30% in the general surgery population, PONV rates in the cardiac surgery population are reportedly as high as 42-47%. Based on pharmacological data, the incidence of PONV in our cardiac surgery intensive care unit for 2008 approached 25%. Surgical patients prefer to suffer pain rather than PONV. PONV can also have a significant impact on patient outcomes. In addition to the negative effects on patient comfort, the occurrence of PONV may contribute to increased morbidity, prolonged hospital stay, and increased healthcare costs. The purpose of this presentation is to highlight the significance of PONV in the cardiac surgery population. A case study approach and current research evidence will be utilized to discuss the key predictors of PONV in cardiac surgery patients. As well, perioperative strategies to prevent, as well as manage PONV will be highlighted. Potential negative consequences of PONV and gaps in the current PONV cardiac surgery research literature will also be discussed. This comprehensive overview will establish the foundation for optimal prevention and management strategies, as well as further research related to PONV in the cardiac surgery patient population.

N018**A CORONARY ANOMALY: A CASE STUDY OF WHEN AN ACUTE CORONARY SYNDROME (ACS) WAS NOT CORONARY ARTERY DISEASE**

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Generally, patients who present with chest pain with electro-cardiographic changes and positive troponins are treated as an ACS. Coronary artery disease with ruptured plaque is the usual cause of ACS, however this is not always the case. Coronary angiography, magnetic resonant imaging, or computerized tomography may discover a coronary anomaly. Coronary artery anomalies are variants of the normal coronary anatomy, occurring in less than one percent of the general population (Pelech, 2006). Some coronary anomalies have no clinical significance. Occasionally, an anomalous coronary artery can cause cardiac ischemia as a result of a mechanical compression of the artery depending on the variant route of the vessel. Sudden death has also been reported with certain aberrant coronary artery vasculature.

This case study will present a patient who had an ACS secondary to an anomalous right coronary artery. The patient's clinical manifestations and investigations leading to this diagnosis will be discussed. Normal and anomalous coronary anatomy will be presented. A review of similar case reports that assisted the team to recommend cardiovascular surgery to correct the anomaly will be presented. Nursing care prior to and post operatively will be explored. While such clinical presentations are rare, it is important that cardiovascular nurses be aware of various coronary anomalies so that they can support and help their patient understand their problem.

N019**MAKING THE GRADE: THE CHALLENGE OF MEETING WAIT-TIME BENCHMARKS IN A HEART FUNCTION CLINIC**

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Heart failure is a common condition amongst Canadians. Prevalence increases with age and the number of Canadians over 65 is rapidly advancing. The Heart Function clinic at St. Paul's Hospital cares for a large population of diverse heart failure patients. The Canadian Cardiovascular Society has developed a guideline identifying appropriate wait-time benchmarks for access to disease management programs specialized in the care of heart failure patients.

This presentation will describe the challenge we experienced as the clinic matured in terms of maintaining appropriate access to care. A model for enhancing access that utilizes the "right provider for the right patient at the right time" approach will be described. Our experience implementing this model will be described and challenges and recommendations will be shared.

N020**SUCCESSES AND CHALLENGES OF OPENING A NEW HEART FUNCTION CLINIC IN RURAL ALBERTA**

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Grande Prairie, Grande Prairie, AB

Heart failure is a major cause of morbidity and mortality, poor quality of life, and escalating health care costs. Specialized inter-professional teams operating in a clinic setting have been shown to improve the management of this complex syndrome. In fact, the Canadian Cardiovascular Society describes referral to and care in such programmes as a Class I intervention. In Canada, most such clinics have traditionally existed only in major metropolitan areas, usually operating in an academic tertiary-care centre. In 2008, under the auspices of the Alberta Cardiac Access Collaborative, Heart Function Clinics were opened in four smaller centres around the province. This presentation discusses some of the challenges and successes of opening a Heart Function Clinic in a largely rural area centred in Grande Prairie, Alberta, 455 km northwest of Edmonton.

N021**WOMEN'S ACCESS TO CARDIAC REHABILITATION: DOES A WOMEN-ONLY PROGRAM FORMAT ADDRESS WOMEN'S NEEDS AND BARRIERS TO PARTICIPATION?**

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Despite the established effectiveness of cardiac rehabilitation (CR), women remain underrepresented in traditional programs. This gender/sex gap has been attributed to a lack of physician referral, women's disease severity, co-morbid conditions, transportation barriers, competing responsibilities, and inflexible program schedules. It is unknown whether a CR program specifically designed to meet the needs of women is better able to address these barriers and encourage women's participation. The objective of this qualitative study was to determine whether one of the women's health principles used to develop a women-only CR program, namely accessibility, is reflected in women's experiences. Fourteen women previously enrolled in a women-only CR or prevention program participated in semi-structured qualitative interviews, that were analyzed using a constant comparative approach to identify relevant themes. All participants reported at least one non-cardiac health condition, though none reported experiencing depression during program participation. Related to the overarching concept of accessibility, key themes identified by participants related to their experiences with acquiring physician referral, transportation, and negotiating program schedules. Women also discussed the vital role that support and encouragement received from peers and health care professionals played in their ongoing participation in CR. This study provides rich description of how women experience and negotiate typical barriers to CR. Also highlighted is the critical role that peer and health care provider support plays in supporting women's participation. Women's experiences suggest that while a women-only model supports participation, traditional barriers to CR persist, providing impetus to explore alternative program formats to reduce barriers to CR.

N022**SAFE AND TIMELY DISCHARGE: AN INNOVATIVE APPROACH**

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The purpose of this paper is to identify and address patient perceptions surrounding timely discharge from an adult cardiovascular surgery (CVS) unit in a tertiary care regional cardiac centre.

The Ontario Government has made wait times in the emergency department one of its main health care initiatives. Access to primary health care for many Ontarians starts with a visit to an emergency department, and once seen, there are many factors that influence the "door to bed time". A major influencing factor is inpatient bed capacity; therefore, it has become every healthcare professional's responsibility to ensure that patients know the expected date of discharge from the moment they are admitted.

Southlake Regional Health Centre performs approximately 934 CVS cases per year. After surgery, patients and their families are often surprised and apprehensive at the thought of discharge on post operative day five. This presentation will use a case study approach to demonstrate the post operative course and discharge process for CVS patients at Southlake, outlining our discharge readiness classes, individualized medication counseling program, and links with primary care physicians and community services. This discharge process is vital to ensure positive patient outcomes, and has clinical applicability for nurses, administrators and allied health professionals working with CVS patients. At the completion of this presentation, healthcare professionals will have a better understanding of the impact of patient teaching and information sharing on adequately preparing patients and their families for the next step in their recovery process.

N023

FACING THE CHALLENGE OF ST MONITORING IN THE EP LAB

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ST monitoring is an established nursing practice in various clinical areas that assists with early detection of impaired coronary blood flow. In the electrophysiology (EP) lab, radiofrequency current is used to ablate cardiac tissue, responsible for sustaining tachycardias. Due to the characteristics of the ablation process and the variety of endocardial target sites, intra-procedure coronary artery damage represents a potential complication for patients.

There are multiple challenges associated with monitoring patients for ischemia in the EP lab. Self-report of chest pain or other symptoms is unreliable in this clinical setting due to the use of sedatives, analgesics and anaesthetic agents. The fast sweep speeds used to observe the surface and intracardiac electrograms differs from cardiac nurses' standard ischemia monitoring practice. In addition, due to their underlying arrhythmia such as Wolf-Parkinson-White syndrome or the presence of bundle branch blocks, many patients' baseline ST segment is not a reliable marker.

This presentation will describe two EP clinical cases where patients displayed ST segment changes during treatment of an antegrade accessory pathway. We will review the intraprocedure progression and the management of ischemia. We will summarize the recommendations for nursing practice and the implications for patient care to address the challenges of ischemia monitoring in the electrophysiology lab.

N024

BI-VENTRICULAR HEART FAILURE: ARTERIOVENOUS MALFORMATIONS

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Klippel-Trenaunay – Weber Syndrome (KTWS) is a single gene defect that occurs during intrauterine damage. It is characterized by a triad of port-wine stain, varicose veins, and bony and soft tissue hypertrophy involving an extremity. KTWS can be complicated by arteriovenous malformations (AVMs) (Lisko & Fish, 2006).

A case study of an 18 year old boy will be presented to illustrate the complexity of KTWS. The pathophysiology that includes high output cardiac failure as a result of bi-ventricular with prominent right sided heart failure will be reviewed. A description of diagnostic investigations and treatment plan based on 2008 best practices for cardiomyopathy will be discussed. Consequently, due to this unusual nature of KTWS, alternative aggressive therapies such as employment of metal coil rings to correct AVMs in order to control this high output cardiac failure will be explored.

This atypical course of dilated cardiomyopathy requires an interdisciplinary team approach: traditional heart failure management, nursing care with emphasis of heart failure education to both the patient and their family, and supportive therapies such as physiotherapy, occupational therapy, counseling and spiritual care. By delivering patient centered care this should result in a measurable impact for these complex cardiac patients.

N025

ENHANCING CARDIAC CARE: USING A COMMUNITY ENGAGEMENT MODEL

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In today's regionalized health care system, cardiac service providers are challenged with providing integrated programs across a geographically and demographically diverse population. There are numerous challenges in rolling out regional programs including: standardization; knowledge deficits; compliance; and overall resourcing.

The Circle Model of Community Engagement which is typically used for community planning can also be used in the planning and implementation of Cardiac Services in a region.

The Circle Model includes strategies around: Capacity, Inclusion, Resources, Organization, Listening and Learning and Effective

Participation. Each of these strategies was used to implement cardiac service programs in our region.

This presentation will review the Circle Model, identify the components that are appropriate for cardiac service implementation, and discuss the roll out of three clinical programs, including ST segment Elevation Myocardial Infarction, Acute Coronary Syndrome Best Practice Guidelines, and Heart Failure. The establishment of formal working relationships with community partners is a key element in the successful roll out of the programs and this will be discussed as part of the model.

N026

LATE PRESENTATION MYOCARDIAL INFARCTION

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Cardiogenic shock occurs in 5 to 7 percent of patients presenting with an ST segment elevation myocardial infarction (STEMI) and is seen more commonly in those patients in whom appropriate treatment is delayed (Menon & Hochman, 2009). Early intervention has had a significant impact on the incidence and severity of this complication; however, mortality rates still range from 56 to 74 percent. Late presentation myocardial infarction patients are at increased risk of cardiogenic shock, directly related to the extent of myocardial damage (Menon & Hochman).

This case study will take you through the experience and recovery of a 53 year old male, also a health care provider, who presents to hospital twelve hours after the onset of chest pain diagnosed as a STEMI. The presentation will focus on the complications of late presentation STEMI as they relate to this patient. Complications include: PCI with dissection and persistent chest pain; cardiogenic shock with intra-aortic balloon (IAB) therapy; cardiac tamponade with pericardiocentesis and "unique" pericardial drain placement; surgical exploration with insertion of an external Left Ventricular Assist Device (LVAD); and surgical recovery complicated by an anoxic brain injury of unknown origin. The presentation will conclude with a discussion of discharge and quality of life challenges for these patients.

N027

STEP DOWN OR STEP IN: A FLEXIBLE PATIENT CARE MODEL POST CARDIAC SURGERY

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In many cardiac surgery programs patient care requirements and appropriate staffing levels do not necessarily fit into a "fixed" nurse patient ratio model. Postoperative care requirements vary from critical 1:1 to routine 1:4 nurse-patient ratios. When care requirements fall between critical and stable, many centers transfer the patient to a step down unit. For more than 10 years, we have had a ward nurse "step-in" to deal with sudden increased patient acuity. We have adapted to the often-fluctuating care requirements for some without impacting the care of other stable patients. For example, when IV antiarrhythmic drug administration requires frequent B/P monitoring; a patient is recovering from conscious sedation post cardioversion or when two bedside nurses are needed to remove chest tubes.

The recent introduction of care aides into our staff mix further increased our nursing flexibility. Some basic patient care traditionally managed by an RN such as washing, mobilizing or sitting with a delirious patient have been delegated to care aides.

The purpose of this presentation is to share experiences related to our innovative, creative and flexible patient care models. Moving the nurse to the patient to accommodate fluctuating acuity provides the patient with quick 1:1 or 1:2 care, avoids unnecessary movement of the patient in and out of a step-down unit and allows for flexible staffing. Utilizing care aides for basic patient care and non nursing duties allows the registered nurse to better utilize time to assess, plan implement and evaluate patient care.

N028**AN RNAO FELLOWSHIP EXPERIENCE: DEVELOPING STANDARDS OF NURSING PRACTICE FOR ADULT PATIENTS UNDERGOING A PERCUTANEOUS CORONARY INTERVENTION****B Barbato****Hamilton Health Sciences, Burlington, ON**

Over the last decade invasive cardiology has made dramatic advancements. As a result of technology and ongoing research Percutaneous Coronary Interventions (PCI) has become an effective modality in treating coronary stenosis. Although rapid advancements have occurred in medicine, nursing practices have remained relatively unchanged. A Registered Nurses Association of Ontario (RNAO) fellowship was recently completed to determine what the current nursing practice is for patients undergoing PCI. Through the utilization of a multi-disciplinary mentoring team a tool/questionnaire was developed and distributed to interventional cardiology centers across Canada to see if there are national standards of practice. A summary of the collated survey data and results of a current literature review provide a basis for the development of evidence based practice. Best practices for: hair removal, solution used for asepsis, closure devices, bed rest and ambulation times, and optimal discharge were established from the literature. This RNAO fellowship utilized the research available and recommendations were made for the Heart Investigation Unit (HIU) at Hamilton Health Sciences (HHS). The development of an action plan to implement these recommendations was put forward to the stakeholders at HHS. The outcomes of this fellowship include enhanced nurse's ability to practice with the most current information and best evidence available, a collaborative relationship between interventional cardiology physicians and nurses, and the entire team will be providing evidence based care to benefit their patients. Results of the survey, literature review and recommendations will be presented in this workshop.

N029**PLAN DE FORMATION POUR LES INFIRMIÈRES DES CLINIQUES SATELLITES EN INSUFFISANCE CARDIAQUE****JD Rioux****CHUS, Sherbrooke, QC**

L'insuffisance cardiaque augmente progressivement avec l'âge. Le taux réadmissions fréquentes pour une insuffisance cardiaque congestive est en hausse. Les infirmières côtoient de plus en plus des patients aux prises avec cette maladie chronique. De ce fait, elles doivent maintenir des compétences cliniques à jour pour la prise en charge efficiente de cette clientèle.

L'objectif visé est de s'assurer d'un niveau de compétence requis chez les infirmières afin d'effectuer la prise en charge adéquate des insuffisants cardiaques dans les cliniques satellites en milieu rural.

Pour soutenir le développement des compétences des infirmières un plan de formation incluant un volet théorique et pratique a été élaboré par l'infirmier praticien oeuvrant à la clinique d'insuffisance cardiaque du centre hospitalier universitaire. L'accent de la formation est mis sur le volet pratique incluant un stage dans une clinique d'insuffisance cardiaque et une autre partie se déroulant dans une unité de soins spécialisés en soins cardiovasculaire.

Les résultats attendus de cette formation seront d'avoir des infirmières avec les connaissances et les habiletés nécessaires pour reconnaître les signes et symptômes de décompensation, optimiser le plan thérapeutique du patient, adapter l'enseignement de manière à favoriser l'auto-prise en charge de la personne, favoriser des comportements de santé sains afin de prévenir les exacerbations, surveiller, planifier, coordonnée et établir des buts avec le patient et sa famille. La mobilisation des ressources en milieu rural favorisera la qualité des soins auprès des patients insuffisants cardiaques et le maintien du patient vieillissant auprès de ses proches.

N030**IDENTIFYING PSYCHOLOGICAL DISTRESS IN ICD PATIENTS: A CLINIC'S EXPERIENCE IN DEVELOPING AND IMPLEMENTING SYSTEMATIC SCREENING****S Lauck, S Flavelle, E Hahn, C McIlroy, QR Young****The Heart Centre, St Paul's Hospital, Vancouver, BC**

As ICDs gain acceptance as standard therapy for arrhythmia and heart failure management, the implications for the individuals who spend their remaining lifetime with the device must be highlighted to understand the implications on psychological adjustment. Despite increase tolerability, experiencing an ICD shock is generally reported as a frightening event. The potential for anticipatory anxiety, negative attributions and attempts to control the device firing are widely reported in the literature.

This presentation will highlight the experience of a quaternary cardiac referral centre ICD clinic in implementing a systematic screening for psychological distress for all patients. We will report our experience using the STOP-Distress (STOP-D) screening tool, a short self-administered measure validated against standard psychological instruments tool designed to identify depression, anxiety, stress, anger, and lack of social support. After outlining the challenges of implementing a screening program, we will share the findings of our initial year of screening to describe the incidence of psychological distress in our clinic's population. In conclusion, we will outline how the screening program has served to promote the development of an ICD Coping Group at our centre, designed to specifically address the psychological responses seen among ICD patients.

N031**ATRIAL FIBRILLATION: CONTEMPORARY METHODS AND MEANS OF MANAGEMENT****S Feltham****Southlake Regional Health Centre, Newmarket, ON**

The purpose of this presentation is to increase nursing knowledge about the contemporary treatment options for patients with atrial fibrillation. Atrial fibrillation is the most common sustained cardiac arrhythmia. In Canada, it affects up to 340,000 people with reports of a 3.3% annual growth rate. Evidence tells us that patients who are asymptomatic with atrial fibrillation need only rate control and anticoagulation therapy. But, what about the many others who are symptomatic, who have tachycardia induced left ventricular dysfunction, who have been admitted to hospital with heart failure, who have implanted cardiac devices, and who are refractory to heart rate control and rhythm control on antiarrhythmic therapy? In today's environment of evidence based patient care, and in the setting of increasing need for fiscal responsibility and positive patient outcomes, nurses need to know the options for patient management of atrial fibrillation in order to advocate for the most appropriate and timely treatment plans. This presentation will use a case study approach incorporating the current ACC/AHA/ESC practice guidelines for atrial fibrillation to outline the methods of atrial fibrillation management specific to patient symptoms, sequela, and comorbidities, and it will discern the best means for ongoing management including; negative chronotropic agents, antiarrhythmic agents, anticoagulation issues, AV nodal ablation/permanent pacing, and pulmonary vein isolation. At the end of the presentation, attendees will have increased knowledge about which patient population benefits most from each treatment strategy, and they will be able to assist their patients to make informed treatment decisions.

N032**BUILDING CRITICAL CARE CAPACITY: INTEGRATING NOVICE NURSES INTO THE CARDIAC SURGERY INTENSIVE CARE UNIT****C Marville-Williams, S Laj****Trillium Health Centre, Mississauga, ON**

The nursing shortage and the availability of experienced critical care nurses in Canada have resulted in a need for managers to hire newly graduated novice registered nurses (RN) into critical care and then rapidly transition them into the team. Although nursing schools provide clinical experience in the intensive care unit (ICU), many novice nurses are rarely

confident about their skills in providing critical-care nursing. To assist novice nurses in rapidly transitioning into the Cardiac Surgery Intensive Care Unit (CSICU), a multifaceted innovative mentorship program was designed and implemented. This presentation will review the literature related to integrating novice nurses in the critical care setting and outline the development, implementation, evaluation and feedback from 4 novice RN's experience in a large community hospital CSICU.

N033

GENDER DIFFERENCES IN NUMBER AND INTENSITY OF REPORTED SYMPTOMS OF ACUTE CORONARY SYNDROME

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Better understanding of acute coronary syndrome (ACS) symptoms is needed to improve timeliness of treatment, but prior research suggesting gender differences in ACS symptoms has had methodological flaws. We explored whether gender differences exist in the number and intensity of reported symptoms of ACS.

Consecutive patients having non-emergent PCI were prospectively recruited. Exclusions were hemodynamic instability, left bundle branch block and total occlusion. Prior to PCI subjects answered open-ended questions about symptoms that had led to PCI referral. Balloon inflation was maintained for 2 minutes or until a clinical reason to deflate occurred. During inflation, subjects were questioned about current symptoms. ECG data were collected prior to inflation and at deflation.

The final sample was 305 (39.7% women; mean age 63.9 (+/-10.7). Analysis focused on 245 (83%) who had ECG-confirmed ischemia during inflation. Rates of chest pain and other typical symptoms are reported elsewhere. Overall, women reported more symptoms at baseline (M 4.26 +/- 2.25 vs 3.53 +/- 1.91, p=.001) and during balloon inflation (M 1.45 +/- 1.27 vs. 1.17 +/-1.03, p NS). Reported intensity was also greater among women (4.64 +/-3.18 vs. 3.16 +/- 2.56, p< .001).

This prospective study with ECG affirmation of ischemia demonstrates that women report symptoms of greater number and intensity than men. This information may aid nurses in understanding the symptom and reporting patterns of women experiencing ACS, thus improving assessment skills. Whether these differences are due to psychosocial factors, or women actually experience more symptoms, requires further investigation.

N034

ÉVALUATION DE L'EFFET D'UNE INTERVENTION INFIRMIÈRE MOTIVATIONNELLE SELON LES STADES DE CHANGEMENT (MSSC) SUR DES COMPORTEMENTS D'AUTO-SOINS CHEZ DES PATIENTS ATTEINTS D'INSUFFISANCE CARDIAQUE

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L'insuffisance cardiaque (IC) est une maladie chronique entraînant des symptômes comme la dyspnée et l'œdème. Pourtant, les changements d'habitudes de vie permettent de contrôler ou diminuer ces symptômes. Plusieurs interventions ont été mises en place pour favoriser les comportements d'auto-soins, mais le problème persiste. Le cadre de référence retenu pour la présente étude est la théorie spécifique des auto-soins chez les patients IC de Riegel et Dickson (2008). Le modèle d'intervention retenu, l'intervention motivationnelle selon les stades de changement (MSSC), est tiré du modèle d'intervention de Bédard et al. (2006). Le but de cette étude pilote est d'évaluer l'effet d'une intervention infirmière MSSC sur des comportements d'auto-soins chez des patients atteints d'IC et vivant à domicile. Nous voulons aussi évaluer l'acceptabilité et la faisabilité de l'intervention. Il s'agit d'un projet pilote à devis randomisé à deux groupes (pré et post-test avec groupe témoin, n=15 par groupe). L'évolution dans les stades de changement de comportements est obtenue aux trois temps d'intervention. Les résultats escomptés sont l'augmentation des

comportements d'auto-soins, la progression dans les stades de changement et l'augmentation des niveaux de conviction et de confiance des patients. Le recrutement sera terminé en avril 2009 et les résultats disponibles en août 2009, nous pourrons alors présenter les résultats concernant les effets de l'intervention ainsi que l'acceptabilité et la faisabilité de celle-ci. Selon les résultats obtenus, ce type d'intervention pourrait contribuer à fournir aux infirmières un modèle d'intervention efficace et rapidement applicable pour favoriser les comportements d'auto-soins.

N035

THE DUTCH OBJECTIVE BURDEN INVENTORY: VALIDITY AND RELIABILITY IN A CANADIAN POPULATION OF CAREGIVERS FOR PEOPLE WITH HEART FAILURE

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Evidence suggests that caregivers of people with heart failure (HF) often experience caregiver burden and emotional distress. However, these studies measured the caregiving experience using generic tools since a disease-specific tool was not available. Recently, the Dutch Objective Burden Inventory (DOBI) was developed as a disease-specific tool measuring objective caregiver burden in a Dutch HF population of caregivers. Using a cross-sectional design, caregivers of HF patients attending an outpatient HF clinic completed the DOBI, the Hospital Anxiety and Depression Scale (HADS) and the Caregiver Reaction Assessment (CRA). Caregivers (n=47) were mainly female (72%) and spouses (72%) of the HF patients with a mean age of 63.1 (±10.4) years. Patients were older (mean age 72.7; ± 10.6), 64% male and had advanced HF. Feasibility for the objective portion of the DOBI was excellent with <10% missing values. The subjective component of the DOBI was incomplete and could not be used in the analyses. Seven items had minimal variability. Significant relationships emerged between the DOBI, CRA and HADS revealing construct validity for all subscales of the DOBI. Cronbach's alpha was >0.80 for all DOBI subscales. The DOBI is the only disease-specific tool measuring burden for caregivers of HF patients. The objective portion of the DOBI showed evidence of adequate internal consistency and construct validity in a Canadian population of caregivers of HF patients attending a HF Clinic. Further testing is needed to determine floor and ceiling effects for DOBI items and responsiveness of this tool.

N036

NURSING IMPLICATIONS OF CARING FOR AN EIGHT YEAR OLD CHILD UNDERGOING ROTATIONAL ATHERECTOMY IN THE CARDIAC CATH LAB: A CASE STUDY

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Best pediatric practice requires the convergence of multiple experts, an environment that takes into account a child's developmental stages and needs, and is grounded in a family-centered philosophy of care. In addition, providing specialized cardiac care to children requires varying knowledge and skills, ranging from pediatric physical assessment, hemodynamic monitoring, medication administration and titration, to radiation safety.

When a specialized procedure warrants the admission of a child to an adult facility, there are implications for all stakeholders involved. At St Paul's Hospital, Vancouver BC, a quaternary cardiac referral centre, we admit children rarely but consistently. Given the absence of the capacity to gain and sustain pediatric competency, our program has developed a systematic approach to implement evidence-informed care to support nursing practice.

Using a case study format, we will describe the development and implementation of a care map for an 8 year old child admitted for rotational atherectomy for the management of the cardiac effects of Kawasaki disease. We will focus on the required nursing standards, components of care from admission to discharge, supports for nurses, education materials for the patient and his family, and the case management approach employed. This comprehensive approach will illustrate a template for cardiac nurses to consider.

N037**CAN A MEDICAL PREDICTION RULE DETECT POST CARDIOTOMY DELIRIUM?****I Travale, K Drake****Hamilton Health Sciences, Hamilton, ON**

Post cardiectomy delirium (PCD) carries significant mortality and morbidity and affects up to 78% of patients undergoing cardiac surgery. Despite numerous advances in the recognition and management of postoperative delirium, there continues to be a significant incidence with rates as high as 78%. Risk factors in the medical patient population have been well documented, but studies in the cardiac surgical population demonstrate wide variability. The purpose of this presentation is to inform health care providers of the latest evidence regarding preoperative risk factors in the development of PCD.

A review of the current literature specific to risk factors in the development of PCD will be discussed and a new prediction rule designed to identify patients at risk for PCD will be critiqued.

In summary, although previous studies have identified risk factors for the development of PCD, no previous clinical prediction rule had been derived or validated until now. However, not all relevant predictors for the development of PCD were included in this derivation sample prior to validation.

With increasing patient acuity, PCD will continue to increase impacting morbidity, mortality, and length of stay. Many patients do not return to baseline with permanent cognitive deficits negatively impacting their quality of life and families.

Therefore, it is imperative that a prediction rule be developed and validated that takes into account cardiac specific influences in the development of PCD. Then clinicians will be better armed to identify those at highest risk for PCD, thereby enabling early intervention to optimize patient outcomes.

N038**TO BLEED, OR NOT TO BLEED? ANTIPLATELET AND ANTICOAGULANT THERAPY AND ADVERSE BLEEDING: A NURSING PERSPECTIVE****M Langevin, L Belford, K Benson****Toronto General Hospital, Toronto, ON**

The current standard pharmacologic treatment in patients with acute coronary syndromes (ACS) includes a host of antiplatelet and anticoagulant therapies. In some patients, concomitant co morbid conditions may indicate the need for additional antithrombotic therapy such that patients are often receiving several antithrombotic therapies, both while in hospital and post discharge. These therapies have been shown to significantly lower the risk of death and myocardial infarction, however, given the effects of these agents on various levels of the clotting cascade, combined therapy potentiates a higher risk of adverse bleeding. Nurses play a vital role in supporting patients and family members understanding of the indications, the risk reduction benefits and monitoring for potential bleeding associated with various antithrombotic therapies. This important patient and family education exchange can influence adherence to medications and improved patient outcomes as well as alert patients to potential bleeding complications and importance of seeking immediate medical care.

The purpose of this presentation is to strengthen nursing knowledge and therefore patient education and care opportunities by examining basic physiology involved in thrombosis and hemostasis; to review current guidelines regarding the benefits and mechanisms of action of various antiplatelet and anticoagulant agents in the care of patients with ACS, and nursing assessment opportunities in recognizing potential bleeding complications. Finally, we will briefly discuss the latest developments in antiplatelet therapies and the new concern of combined use of select prophylactic proton pump inhibitors and clopidogrel.

N039**RESTRICTIVE CARDIOMYOPATHY: HEREDITARY HEMOCHROMATOSIS****M Leysner****St Marys General Hospital, Kitchener, ON**

There are four main types of hemochromatosis: Primary, Secondary, Juvenile, and Neonatal. The heart is almost always affected in primary (hereditary) hemochromatosis. The excessive deposition of iron leads to arrhythmias, heart enlargement and failure, making hemochromatosis a form of "restrictive" cardiomyopathy (RCM). RCM is characterized by myocardium with markedly stiff ventricular walls, restrictive ventricular filling and reduced diastolic volume of either or both ventricles, and normal systolic function (Arnold et al; 2008).

A case study of a 19 year old Mennonite boy admitted with heart failure will be presented. It will showcase the incidence, prevalence, ethnic and cultural influence of hereditary hemochromatosis. It will also reveal how the features of RCM are visible on the echocardiogram and radiographs which demonstrate left ventricular dysfunction, cardiomegaly, and increase pulmonary vascular markings. However, other testing such as genetic testing, laboratory screening, and skin and cardiac biopsy are valuable for the diagnosis of hereditary hemochromatosis.

Early recognition of the signs and symptoms which include hyperpigmentation, loss of body hair, and delay puberty are critical to ensure an accurate diagnosis. Treatment with phlebotomy is essential and the main therapy for this disease. However, other heart failure treatment options will be reviewed with consideration of cardiac transplantation for end stage cardiac failure.

Finally, managing heart failure requires a consistent interdisciplinary approach. The implementation of the Registered Nurse/Nurse Practitioner's role may increase the success rate in achieving the shared goals of therapy that may improve clinical outcomes for RCM patients.

N040**DEPRESSION IN CARDIAC PATIENTS AND THEIR SPOUSES: THE ROLE OF SUPPORTIVE AND CONFLICTUAL RELATIONSHIPS****M Habra¹, N Frasure-Smith², M Purden³****Douglas Mental Health University Institute¹, Centre hospitalier de l'Université de Montréal², McGill University³, Montreal, QC**

Low perceived social support (PS) post myocardial infarction (MI) has been linked to poor health outcomes and a higher incidence of cardiac events. The spouse is a primary source of support, but evidence suggests that husbands rely on their spouses whereas wives seek out their social network. Therefore, the impact of support on depression might depend on gender and type of support provider. This study examined the predictive value of perceived conflict (PC) and PS from the spouse and the network to depressive symptoms in cardiac patients and their spouses. 228 patients (122 men) and 198 spouses (85 men) were interviewed at 2 (T1) and 12 (T2) months post-MI. They completed the Beck Depression Inventory-II and the Interpersonal Relationships Inventory (PS and PC) with respect to their spouse and their network. Separate hierarchical regressions examined the impact of gender and support provider (spouse and network) on T2 depression symptoms, controlling for T1 depression, age, and illness severity. T1 depression was a strong predictor of T2 symptoms (R² ranging from .41-.49). For both partners, greater T1 PS from the spouse predicted greater decreases in T2 depression (semi-partial correlations patients $spc = -.14$, $p = .004$; spouses $spc = -.11$, $p = .04$). Greater spouse conflict resulted in increased symptoms at T2 (patients $spc = .13$, $p = .007$; spouses $spc = .13$, $p = .02$), even after control for covariates. Network PS and PC were unrelated to outcomes. These results highlight the importance of spouse support post-MI for patients and spouses, irrespective of gender. Interventions to enhance support that include the spouse may decrease depressive symptoms post-MI.

N041

12-LEAD ECG INTERPRETATION-BACK TO BASICS

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Interpretation of a 12-lead ECG is a key clinical skill used daily by many cardiovascular nurses. The purpose of this workshop is to provide cardiovascular nurses with a general and basic overview of 12-lead interpretation. Specifically, a standardized approach to a normal 12-lead waveform will be reviewed. 12-lead ECG changes that occur with ischemia, injury and infarction will be discussed using clinical scenarios. The difference between 12-lead ECG changes in a non-ST elevation MI and ST-elevation MI will be included. The relationship between 12-lead ECG changes with coronary artery circulation and wall territory will be incorporated with each clinical scenario. This workshop will combine a presentation and discussion with each clinical scenario. Participants will be provided with opportunities to practice 12-lead ECG interpretation during the workshop. Interpretation of a 12-lead ECG can be overwhelming at times and this workshop goes back to the basics of reviewing a 12-lead ECG and understanding changes with ischemia, injury and infarction.

N042

BAFFLES, CONDUITS, SHUNTS? MAKING SENSE OF CONGENITAL HEART SURGERY

D Fofonoff

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In 1940, children with moderate to complex congenital heart disease (CHD) had a survival rate of 10%, with most of them dying before they ever reached adulthood. Today, the survival rate is 85-90%, largely due to improvements in surgical techniques. As these patients reach adulthood, responsibility for their care will transition from the pediatric to the adult health care team. Cardiac nurses in a variety of settings will encounter these patients and will require an in-depth understanding not only of the patient's congenital heart defects but also the surgical procedures used to repair the defects. The aim of this workshop is to provide an overview of the surgical procedures used to repair congenital heart defects (i.e. Blalock-Taussig, Potts, and Waterston shunts, coarctation of aorta repairs, tetralogy of Fallot repairs, Mustard procedure, Fontan repair, right ventricle to pulmonary artery conduits), and the potential complications that may arise as a result of these repairs. As well, resources on CHD will be identified. Attendance at this workshop will provide the cardiac nurse with an increased understanding of CHD surgeries that will further guide their nursing practice and lead to improvements in patient/family teaching.

N043

A "RECIPE" TO OPTIMIZE CARDIAC OUTPUT

S Morris

New Brunswick Heart Centre, Saint John, NB

The underlying concepts involved in hemodynamic monitoring are frequently intimidating for bedside nurses. Often nurses are competent in the technical aspect of equipment functioning; however, interpretation and application of the calculations obtained can prove difficult. In order to maximize cardiac output (the goal of hemodynamic monitoring) the equation: heart rate X stroke volume must be dissected and a "recipe" developed for application.

This workshop will utilize cost effective, easily accessible, common hospital items to assist the participants in understanding the basic concepts of heart rate, preload, afterload, and contractility. Participants will be given the opportunity to use "low tech" tools and visualize how these concepts can be applied to pathology within the cardiovascular system.

Following a discussion of these basic concepts a "recipe" or checklist will be provided to facilitate application in the clinical setting. Participants will engage in plotting hemodynamic calculations on a graph which will serve as a visual aid to assist in the comprehension of Frank Starling's Law of the heart. The final activity will incorporate all four determinants of cardiac output and will allow the participant to utilize the "recipe" in a number of actual case studies. This workshop is recommended for all registered nurses and not limited to those who work with pulmonary artery catheters.

N044

CARDIAC TELECARE (TLC): A SMOOTH TRANSITION HOME!

**E MacPhee, C Jennings, K Eastwood, C Struthers
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This program targets heart failure (HF) patients to improve access to specialized services and improve patient outcomes once discharged home to their community. HF is common in older patients and its incidence is predicted to increase with age. Readmission rates are high with 15% at 1 month and 50% within the first year. There is evidence that self-care strategies have a positive impact on decreasing readmission. A large proportion of patients live in remote areas with poor access to specialized care.

Telehome Monitoring (THM) and Interactive Voice Response (IVR) are enabling technologies that use a regular phone line to transmit clinical information from home to a central station located at a cardiac quaternary center. HF patients can transmit their daily weight and vital signs to a nurse. Both technologies promote self-care education, collaboration and coordination of care between primary care physicians, specialists and patients residing in urban or rural areas. The ministry of health has supported the expansion of this program by providing equipment to all of the community hospitals serviced by the cardiac center.

The workshop objectives include: to describe the program development and the technologies, to delineate the roles & responsibilities of the community and central station nurse, to provide communication and knowledge translation strategies and to review HF self-care education needs and significant patient outcomes. An opportunity for hands on demonstration will be provided. As a wrap up, a case study will be presented allowing for responses to multiple choice questions and discussion from participants.

N045

JUMP TO THE PUMP: AN INTERACTIVE WORKSHOP ON INTRA AORTIC BALLOON PUMPING

R Taylor, K Mraz

Foothills Hospital, Calgary, AB

The use of the Intra Aortic Balloon Pump (IABP) is a common therapy found in adult cardiac critical care areas. A sound educational background is essential in the provision of safe nursing care in this patient population. The purpose of this workshop is to review methodology, indications, complications and nursing care of the patient undergoing counterpulsation. In addition, challenges and helpful hints regarding timing will also be addressed.

Case study presentations along with an interactive game will outline the content to be explored and engage discussion amongst workshop members. A summary sheet will be supplied to all in attendance in order to enhance the learning experience.

Through both presentation and group discussion, learning and ideas can be shared by nurses from across Canada in order to enhance nursing practice and care of this challenging patient.

N046

PERIPHERAL ARTERIAL DISEASE: THE UNKNOWN CARDIOVASCULAR RISK

M Lovell

London Health Sciences Centre, London, ON

Peripheral arterial disease (PAD) is a common, atherosclerotic vascular disease affecting up to 12% to 29% of the elderly and as many as 8 million Americans and approximately 800,000 Canadians. PAD is characterized by atherosclerotic occlusive disease of primarily the lower extremities and is a powerful predictor for atherothrombotic disease in other vascular beds. PAD causes a decrease in blood flow to the legs and feet that can result in muscle fatigue and pain when walking (claudication). This leads to significant disability and diminished quality of life. Progression of PAD can lead to critical limb ischemia which is associated with an increased risk of amputation. Patients with PAD have advanced atherothrombosis and are at elevated risk for stroke, myocardial infarction and cardiovascular death. The incidence of PAD increases with age and is often under-diagnosed and

under-treated as it can be a "silent" condition that often has no symptoms leaving thousands of Canadians at risk for heart attack and stroke. As the aging population increases, the prevalence of PAD will increase and its associated morbidities. It is mandatory for all health care professionals to be more astute in identifying patients at high risk and ensuring appropriate management of their risk factors. An overview of PAD including etiology, risk factors, diagnosis, management and the PAD awareness campaign will be highlighted.

N047 THE ROLE OF THE ADVANCED PRACTICE NURSE IN PULMONARY HYPERTENSION CLINICS

C Pugliese

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Pulmonary Arterial Hypertension (PAH) is a chronic and often fatal disease due to failure of the right ventricle. Over the past decade there has been significant improvement in medical therapies however they are expensive, complex and in many cases have limited symptomatic benefits. Many patients will suffer from isolated right heart failure and conventional therapies can help with volume overload, however, rapid and excessive diuresis can precipitate systemic hypotension and renal insufficiency. Recently our organization launched a multidisciplinary Pulmonary Arterial Hypertension Clinic, consisting of a cardiologist, respirologist and an Advanced Practice Nurse (APN), to provide comprehensive specialized care to this patient population.

Patients are provided with knowledge, tools and skills to manage their disease. Instructions on the signs and symptoms of right heart failure, monitoring of weight, sodium and fluid restriction and the importance of blood work are discussed and reinforced. The APN plays a key role in managing the often difficult fluid management offering individualized education and support to patients and their families with the aim to improve symptoms and quality of life. The Cambridge Pulmonary Hypertension Outcome Review (CAMPHOR) was utilized as an indicator to measure quality of life.

This presentation will focus on the role of the APN in a PAH clinic and the delicacy of diuresis with this patient population. A review of the various support mechanisms available to patients and the tools that were developed will be presented. The results of the quality of life tool and the impact of the clinic will be discussed.

N048 THE STRONG MODEL OF ADVANCED PRACTICE: A COLLABORATIVE APPROACH TO THE CARE OF PATIENTS WITH AN ST SEGMENT ELEVATION MYOCARDIAL INFARCTION (STEMI)

L Avery, J Tam, N Shaikh

Winnipeg Regional Health Authority, Winnipeg, MB

The Clinical Nurse Specialist (CNS) role is not well articulated and understood within nursing and the health care system. The Strong Model of Advanced Practice provides guidance to the scope of the CNS role within a health region. The purpose of this abstract is to illustrate the processes involved and evidence-based tool developed as a result of the collaborative role of the Regional Cardiac Sciences CNS in the development and implementation of STEMI standards in July 2008 within six acute care sites.

The five domains of the Strong Model (comprehensive care, support of systems, education, research and publication) and attributes such as collaboration, scholarship and empowerment guide the Cardiac Sciences CNS in the development of regional initiatives. The domains of practice and a collaborative practice environment are instrumental in the process and development of evidence-based algorithms and standards for STEMI patients for the pre-hospital and acute care phases. The CNS is also instrumental in promoting nursing advocacy and voicing recommendations for system changes that enhance the adherence to national standards of practice. Such collaboration is powerful to bring forward innovative approaches to care.

The transition and implementation of the STEMI standards has been

largely well received. Efforts to clarify and document the CNS role using a well established model of practice brings further understanding to the effectiveness and appropriate use of the CNS role within the health region. Further research is needed to explore the synergic and collaborative influence of the CNS and other health care members in evaluating patient outcomes.

N049 ONE NUMBER TO CALL: IMPROVING ACCESS TO CARDIAC SERVICES

L Clark, H Sherrard

University of Ottawa Heart Institute, Ottawa, ON

In 2006 the Canadian Cardiovascular Society (CCS) developed wait time benchmarks for access to cardiac care based on best available evidence and consensus opinion of recognized cardiovascular health care professionals. In 2007, CCS surveyed Canadian centers and determined that assessment of the entire patient care experience would yield more meaningful benchmark results. This study also revealed that access to care was only fair to good in more than half of the centers surveyed. Several successful methodologies exist to measure wait times to procedures and interventions; however, there are few that address initial referral to first contact with a cardiologist.

To address access to care our facility developed One Number to Call as a single point of entry for all patients and health professionals to refer and gain access to cardiac services. It is a collaborative process providing documentation and evaluation of symptoms, triaging to the appropriate specialty within cardiac services and gaining diagnostic testing prior to the patient meeting the cardiologist.

This presentation will review the process of building the new initiative to address access to cardiac services at our facility. We will highlight the development of tools used to support the process, prescreening tools, the algorithm directing patients to the appropriate cardiac specialty and the medical directives for diagnostic testing prior to initial meeting with the cardiologist. Data capture and evaluation of the process aligning with the CCS best practice guidelines on access to care will also be discussed.

N050 CCCN PRESENTS – PUBLISHING IN CJCN: HELPFUL HINTS

P Price, N Parent

Co-Editor CJCN, Calgary, AB, Co-Editor CJCN, Montreal, QC

"I couldn't possibly write an article."

"I don't have anything worthwhile to write about."

"I am not qualified to write for publication."

Do any of these statements sound familiar? This presentation is intended to dispel these beliefs. You can write an article. You care for some of the most complex patients in the health care system, so you do have something worthwhile to write about. There is always something new happening in cardiovascular nursing: new pharmacological agents, interesting clinical case studies, innovative management regimens, results of your own research. You are qualified to write for publication.

The purpose of this presentation is to take the mystique out of the publication process. Each step of publishing an article will be explained, from idea formation to framing your first article. Practical examples and recommendations will be presented. The essential components of the APA format necessary for The Canadian Journal of Cardiovascular Nursing will be outlined. You will walk away with confidence and the help you may need to publish your first article.

N051 A SHEATH IN THE APEX? IMPLICATIONS OF TRANSAPICAL TRANSCATHETER PARAVALVULAR LEAK REPAIR FOR CARDIAC NURSING

BA Furlan¹, S Lauck²

**St Paul's Hospital - The Heart Center¹, Providence Health Care -
St Paul's Hospital², Vancouver, BC**

Recent innovations in the management of valvular heart disease have demonstrated the success and benefits of transcatheter aortic valve

replacement for patients with high risk profiles. The future of cardiac care holds promise for the increased use of minimally invasive techniques for both non-surgical and surgical candidates with valvular heart disease.

This presentation will explore the case study of a patient who underwent a transapical transcatheter approach to the repair of post-surgical mitral paravalvular leak (PVL). After initially discussing the pathophysiology of mitral PVL, including the hemodynamic findings and the implications for the patient under review, we will outline techniques used to date to manage this debilitating condition. We will outline an innovative approach used as an option for high risk patients, and address the nursing implications of caring for patients in the absence of evidence to guide practice given the pioneering nature of the procedure. Our main focus will be the development, implementation and evaluation of a care map to support the patient's care from admission to recovery and discharge planning. The case study will illustrate the challenges faced by cardiac nurses to keep pace with recent advances in interventional cardiology while remaining grounded in expert and evidence-informed care.

N052

OUTCOMES OF A REGISTERED NURSE ADMINISTERED ANTICOAGULATION MANAGEMENT PROGRAM AT THE EDMONTON OLIVER PRIMARY CARE NETWORK

L Warkentin

Edmonton Oliver Primary Care Network, Edmonton, AB

The aging population in Canada presents with increasingly complex conditions that may also include risk factors of stroke. Patients presenting with risk of stroke are treated through anticoagulation therapy in Family Physician offices. As part of the Edmonton Oliver Primary Care Network multidisciplinary team, the Registered Nurse worked closely with Family Physicians to develop and implement a protocol/algorithm for the management of oral anticoagulants, as well as a patient education process designed to improve patient's understanding of their disease, and increase compliance with medication and lab tests.

Physicians are extremely satisfied with the newly designed and RN led Anticoagulation Management Program. In addition to saving Family Physicians approximately 30 minutes of their time per day, patient adherence to scheduled lab work improved by 10% over 21 months reaching 91% for a patient panel of 400. Patients have expressed a high degree of satisfaction with the personalized nursing approach to their care and teaching. Through the program's implementation it has been demonstrated that the risk of stroke for the patient panel involved has significantly decreased. Research has shown that the risk of stroke in the general population is 10%. It was demonstrated in the Nurse Administered Anticoagulation Management Program at the Edmonton Oliver Primary Care Network in 2008 that risk of stroke for patients on oral anticoagulation medication was less than 1%, well below the 10% average for the general population. The RN's role is paramount in collaborating with Physicians to operationalize a successful Anticoagulation Management program to improve patient outcomes.

N053

OBSERVANCE À L'ACTIVITÉ PHYSIQUE APRÈS UN SYNDROME CORONARIEN AIGU : L'INFIRMIÈRE CLINICIENNE SPÉCIALISÉE PEUT FAIRE UNE DIFFÉRENCE

J Houle¹, O Doyon¹, N Vadeboncoeur², L Campagna¹, P Poirier³
 Université du Québec à Trois-Rivières¹, Hôpital Laval², Université Laval³, Trois-Rivières, QC

L'observance à l'activité physique (AP) constitue un enjeu important en réadaptation cardiaque (RC). Cette étude permet d'évaluer l'impact d'une intervention par une infirmière clinicienne spécialisée (ICS) en RC sur l'observance à l'AP et sur la perception d'efficacité personnelle (PEP) après un événement coronarien. Il s'agit d'un essai clinique randomisé contrôlé. Les sujets ont été recrutés durant une hospitalisation suite à un événement coronarien. L'échantillon est composé de 65 sujets. Le groupe expérimental (n=32) a bénéficié d'une intervention par une ICS utilisant une approche psychosociale et visant notamment à hausser la PEP à l'aide d'un podomètre. L'AP était mesurée auprès de tous les sujets avec un autre

podomètre à l'aveugle ayant une mémoire 7 jours ainsi que d'un journal. La PEP était mesurée à l'aide de la version française du Jenkins's Self-efficacy Expectations Scales. Les 2 groupes sont homogènes. Initialement, le niveau d'AP était similaire entre les 2 groupes (p=0.680) et tous les sujets ont augmenté significativement leur AP 3 mois après l'hospitalisation (p<0.001). Après 6 mois, le groupe expérimental a maintenu un niveau d'AP équivalent à 10 000 pas/jour; tandis que le groupe contrôle a réduit son AP à son niveau initial. Cette différence entre les 2 groupes est significative (p<0.005). La PEP a augmenté entre 1 et 6 mois après l'hospitalisation et ce, pour les 2 groupes (p<0.001). En conclusion, l'intervention d'une ICS améliore l'observance à l'AP 6 mois après une hospitalisation et ce, indépendamment de l'effet sur la PEP. L'ICS a un rôle stratégique à jouer en RC.

N054

A COLLABORATIVE CODE STEMI (ST ELEVATION MYOCARDIAL INFARCTION) PROGRAM WITH A POSITIVE OUTCOME

J Thomas, B Humphries, L Hall

St Boniface Hospital, Winnipeg, MB

In May of 2008, a pre-hospital CODE STEMI Program was implemented which provides direct communication between EMS (Emergency Medical Services) and a CODE STEMI cardiologist. The goal of the program was to optimize reperfusion therapy, enhance patient access and provide safe care for STEMI patients.

This was achieved by EMS communicating directly to the CODE STEMI cardiologist on call and transmitting the twelve lead electrocardiogram from the EMS monitor to the cardiologist's blackberry (using blue tooth technology). Based on two algorithms EMS is directed to either give fibrinolysis in the field, directly transport the patient to the heart catheterization center (bypassing the Emergency department) or proceed to the nearest Emergency department.

For off hours the on call cardiologist would activate the in house CODE STEMI Team at the catheterization center. The goal of this in house team was to prepare the patient for the heart catheterization lab while awaiting the arrival of the heart catheterization call team. This team is comprised of a Coronary Care Nurse, an Intensive Care Cardiac Surgery Nurse, cardiology resident, respiratory therapist, a nursing supervisor, and security.

Our presentation will describe the collaborative process required to reach this level of practice. We will:

- describe new processes, including the roles of the in house CODE STEMI Team
- review pre and post times to treatment
- highlight the registration process
- review lessons learned
- identify impacts on heart catheterization call team, bed utilization, and transportation issues
- describe communication strategies used for success

N055

AORTIC VALVE BYPASS SURGERY: A CASE STUDY

A Stolarik, L Harper

University of Ottawa Heart Institute, Ottawa, ON

Aortic valve bypass surgery, using an apicoaortic conduit, is an option for high risk patients with aortic stenosis for whom conventional aortic valve replacement surgery or percutaneous intervention is not possible. This surgery, conceptualized by Carrel in 1910, was clinically performed between 1955 and 1963 by Sarnoff, Templeton and Al-Naaman. Due to the high rate of thromboembolic events, it was abandoned until the 1970s when improvements in valve technology facilitated its re-emergence in the treatment of congenital heart surgery patients with outflow tract obstructions.

A case study format will be used to focus on the experience of a 56 year old male who had previous coronary artery bypass surgery 22 years ago and now presented with critical aortic stenosis and poor left ventricular function. Reoperation through a median sternotomy was not an option for him. He had functioning bilateral mammary artery bypasses which would have been transected during conventional reoperation because of their location. This operation was performed through a left thoracotomy, without aortic cross-

clamp or cardiopulmonary bypass. The risks/benefits as well as the implications for nursing practice including teaching and discharge strategies to promote successful transition from hospital to home will be outlined in the discussion.

N056

LUMBAR DRAINS AFTER THORACIC AORTIC ANEURYSM REPAIR: ACHIEVING POSITIVE PATIENT OUTCOMES FROM THE WORK OF OUR CVICU PROFESSIONAL PRACTICE COMMITTEE!

S Mckeough

Capital Health, Halifax, NS

Our Cardiovascular Intensive Care Unit (CVICU) incorporated the technique of lumbar cerebrospinal fluid drainage to preserve spinal cord perfusion and decrease the risk of paraplegia from prolonged ischemia time during thoracic aortic aneurysm repairs.

Spinal cord perfusion can be enhanced during surgery by keeping the spinal arterial pressures sufficiently higher than the cerebrospinal fluid (CSF) pressure. This can be accomplished by using a lumbar drain device to drain the CSF. The amount of pressure the spinal cord arteries must generate to overcome CSF pressure in order to maintain spinal cord perfusion is thereby reduced, thus reducing the risk of paraplegia.

Lumbar drains were introduced as a standard of care for this patient population; however our patient numbers were low, resulting in sporadic exposure for nursing staff in the care of a patient with a lumbar drain. This created specific professional practice and educational needs for CVICU staff. As well there were inconsistent approaches with respect to the procedure of draining CSF with/without transducing the lumbar drain.

To support the standard of care our CVICU Professional Practice Committee (PPC) responded to these practice concerns. After an extensive literature research, a cross Canada survey and linkage with one US facility, the PPC created a protocol for the setup and management of lumbar drain devices for patients undergoing thoracic aortic aneurysm repair. The poster presentation will highlight the work of our CVICU Professional Practice Committee to create a lumbar drain educational resource package for staff. The literature review, results of our Canadian survey and US linkage will be identified. The educational resources, protocols and quick reference guide developed for each bedside will be shared. The work of the PPC surrounding lumbar drains provided the opportunity to ensure safe patient care and ongoing staff education resulting in positive patient outcomes for this patient population.

N057

ANTICOAGULATION CLINIC: AUTOMATION IMPROVING CARE AND CHANGING THE ROLE OF NURSING

I Clark, H Sherrard

University of Ottawa Heart Institute, Ottawa, ON

Anticoagulation clinics in collaboration with cardiologists, primary health care providers, and other specialists offer safe, effective and comprehensive management of anticoagulant therapy for patients. The goal is to provide the highest quality of drug therapy while reducing adverse effects through use of standardized, evidence based practice guidelines. The management of coumadin is a complex process as there are numerous drug and dietary interactions. The safety and effectiveness of both short term and long term therapy can be optimized by a systematic approach to therapy and care; this occurs often in the context of dedicated anticoagulation management services.

Clinics must strengthen and enhance their role as coordinators and educators, and less so, managers of anticoagulation therapy. A strategy to facilitate this change at our institution was to adopt programs that automated service thereby allowing the nursing staff to focus on other vital aspects of care to this patient population. A dosing system with an accompanying integrated voice response (IVR) or automated calling program was implemented in our clinic to enhance quality of care and to realign resources.

This presentation will review the automated dosing system discussing the benefits and time saving options received through automation. The IVR program will be highlighted, we will discuss the set up of the data sets and

the development of the telephone algorithms. We will discuss the results of our pre and post implementation review of telephone traffic into and out of the clinic.

N058

TAKING ON A NEW CHALLENGE: HOW BEDSIDE NURSES CAN TAKE THE LEAD IN NURSING RESEARCH

J Brennan

St Paul's Hospital – Providence Health Care, Vancouver, BC

Bedside nurses are in a key position to identify practice issues and develop practice or research questions. However, few recognize the need to articulate this as well as to take these questions further and potentially undertake nursing research. The aim of this presentation is to highlight the need for bedside nursing staff in all areas to continue to ensure best practices by critically examining the way that they provide care and taking the next steps to become leaders in nursing practice. Unless specifically employed in research, few bedside nurses know how to proceed with practice questions. By using a case study of a Cardiac Surgery Intensive Care Unit (CSICU) nurse's journey from a practice question to research approval this presentation will illuminate the steps necessary to bring a practice or research question forward and see it through to research and potential publication. Clearly articulating the problem, in hospital and academic resources, literature review, proposal development, board approval, research method and publication submission will all be covered as the CSICU nurse follows her question through these steps to completion. This journey will illuminate the process for other nurses and is intended to inspire others to undertake this critically important task ensuring best practices and the development of specialized nursing knowledge and nursing research.

N059

PROVIDING PRIMARY PCI IN DOWNTOWN TORONTO - CHALLENGES, OBSTACLES AND IMPLEMENTATION

M Alibeiki, S McIntyre, M Rose, V Ramsaywak

St Michael's Hospital, Toronto, ON

They said it couldn't be done- rush hour, grid lock and construction were only a few of the challenges facing St Michael's hospital as we prepared to implement the first Primary PCI program at a tertiary care hospital in downtown Toronto. We had learned great lessons from the Transfer AMI study which facilitated rescue PCI's to patients in the GTA. We still had many obstacles to overcome before we could offer a Primary PCI. The initiative lead by the director of the CCU as the Clinical Leader Manager combined the resources from the CCU, Cath Lab, Emergency room departments as well as the Emergency Medical response services (EMS). Our goal was to provide patients experiencing a MI the opportunity for a primary intervention in less than 90 minutes. We have moved from our original rollout which included patients that presented to our ER to now include one peripheral partner hospital and the EMS catchment area for both hospitals. This presentation will discuss the course of the implantation including coordination of the interdepartmental teams in the CCU, Cath lab, ER's and EMS, process of repatriation and bed flow as well as the lessons we have learned so far.

N060

THE CHALLENGES OF CARING FOR PATIENTS WITH HAMARTOMA TUMOR'S

A Charlebois

University of Ottawa Heart Institute, Ottawa, ON

Primary tumors of the heart are rare and arise from the normal tissues that make up the heart.

Benign cardiac tumors are found in less than 0.0005% of people in the general population (Asdhir, 2003). Clinical manifestations are often non-specific and can be disguised as other commonly presenting cardiac conditions. Patients symptoms vary and many patients are often asymptomatic or go undetected unless seen on an image taken for another reason. These images are often seen only depending on the location and size of the tumor. All cardiac tumors, regardless of pathologic type, have the probability to cause life threatening complications.

Hamartomas are benign tumors which arise from an abnormal formation of normal tissue, although the underlying reasons for the abnormality are not fully understood. Mesenchymal hamartomas are even more atypical and are generally seen in younger populations. Due to the rarity of this diagnosis, nurses face many challenges in the care of these patients.

This presentation will discuss a case study of a young woman diagnosed with a cardiac hamartoma. The presentation will explore the research finding, nursing challenges, management, and the education required to care for this patient.

N061**CCCN PRESENTS – HEART SOUNDS: ARE YOU LISTENING PART 1****J Reimer-Kent****Royal Columbian Hospital, New Westminster, BC**

Cardiac examination is a multisensory experience that includes auscultation. When performed correctly most cardiac abnormalities can be accurately detected. Yet, did you know that cardiac examination skills are declining and often inaccurately performed? Vukanovic-Criley, JM, et al. (2006) concluded this in their study of medical students, trainees, physicians, and faculty. They further found that heart sound skills did not improve in all participant categories after the third year as a medical student.

How would cardiovascular nurses have fared if they were to participate in such a study? Nurses tend to lack confidence when it comes to stating their findings related to cardiac auscultation. Mastering this skill requires an understanding of the cardiac cycle as well as differentiating the 'lup' from the 'dup' and any sounds before, between and after. This presentation will review the fundamentals and lead you through the maze of sound that once mastered will make you a more confident cardiovascular nurse. Whether you are a beginner or a seasoned cardiovascular nurse it is never too early or too late to add this important tool to your assessment kit. Bring your stethoscope and start listening.

Reference: Vukanovic-Criley, J. M., et.al. (2006). Competency in Cardiac Examination Skills in Medical Students, Trainees, Physicians, and Faculty. Archives of Internal Medicine, 166, 610-616. Available online at: <http://archinte.ama-assn.org/cgi/content/full/166/6/610>

N062**ADVANCE PRACTICE NURSE LED TRANSITION CLINIC FOR CONGENITAL HEART PATIENTS: A LABOUR OF NURSING LOVE****J Harrison****University Health Network, Toronto, ON**

Successes in surgical and medical techniques have increased the number of congenital cardiac patients living into adulthood. Therefore, there has been a subsequent increase in the number of patients transitioning from pediatric care facilities to adult care facilities with adult congenital heart disease (ACHD) programs.

It has long been recognized in the literature, and by the congenital heart disease (CHD) medical community, that the process of transition and transfer of CHD patients is essential to the success of patient medical follow up, prevention of acute admissions as well as impacting on the process of patient maturation in accepting more responsibility for their heart health.

The literature deems nursing as a critical element to providing the education for the transitional process. In one tertiary care ACHD facility such a program has evolved over an 8-year period into a fully functional advance practice nurse (APN) led transition clinic.

Its concept is derived from evidence in the CHD literature and research conducted within the congenital program itself. Program education areas include: anatomy and physiology, medication review, sports and exercise, birth control and pregnancy planning, career planning and insurance acquisition.

This presentation will detail the APN transition clinic referral process, clinic design and the education program essential to an ACHD transition clinic. It will review the critical pieces where nursing impacted the

development of this innovative program and how an APN lead transition program can result in a positive outcome for transitioning CHD patients.

N063**IDENTIFYING GAPS IN THE EVIDENCED BASED CARE OF DIABETIC CARDIAC PATIENTS: RESULTS OF AN INSTITUTIONAL CHART REVIEW****B Quinlan¹, H Sherrard¹, S Goge¹, E Frattini¹, SA Kearns¹, S Brez²**
The University of Ottawa Heart Institute¹, The Ottawa Hospital², Ottawa, ON

Diabetes is a serious condition with potentially devastating complications affecting 1.8 million adult Canadians. Experts predict this number will grow significantly in the next ten years given our aging population, increasing immigration from high risk populations and growth in the Aboriginal community. Researchers predict that by the year 2016, 2.4 million people in Canada will be diagnosed with diabetes. Cardiovascular disease is the leading cause of death in individuals with diabetes and occurs two to four fold more often than in non-diabetics. Poor compliance to evidence-based diabetes management guidelines (by health care professionals and patients alike) has resulted in increased mortality and morbidity for this population. Additionally, there is increased cost and service pressures to the health care system where 10% of all acute care admissions to Canadian hospitals in 2006 were related to diabetes or complications of the disease.

In order to establish current diabetic management practices, our facility conducted an extensive chart review of both the cardiology and cardiac surgery patients over the last fiscal year. 10% of all patients diagnosed with diabetes were reviewed using a validated chart audit tool which was based on Best Practice Guidelines for the management of diabetic in-patients. Results of the audit clearly identified gaps between current practice and best practices and will serve as the catalyst for bridging to evidence based care within the institution. This project has the implications to change the management of diabetics; ensuring patients are receiving the care, education and follow up to lower their risk of complications and readmission to hospital.

N064**FILLING THE GAP: AN INFORMATIONAL NEEDS ASSESSMENT OF INDIVIDUALS WITH FAMILIAL ARRHYTHMOGENIC RIGHT VENTRICULAR CARDIOMYOPATHY****R Pike¹, D Best²****Eastern Health¹, Memorial University of Newfoundland², St John's, NL**

Arrhythmogenic right ventricular cardiomyopathy (ARVC) is an autosomal dominant genetic disorder in which the myocardium of both ventricles is replaced by fibrofatty tissue. It is a cause of sudden cardiac death in young adults as a result of ventricular tachyarrhythmias for which the most effective treatment is the Implantable Cardioverter-Defibrillator (ICD). Genetic epidemiology studies of ARVC5 have shown that 50% of untreated males will die by age 40 and 80% by age 50 and for women the equivalent figures are 5% and 20% respectively. Although the true prevalence of ARVC is essentially unknown, it is likely that Newfoundland and Labrador has the highest prevalence of ARVC worldwide, as defined by this single genotype. Newfoundland and Labrador ARVC5 patients have anecdotally identified that they receive an abundance of information on the physiological and technical aspect of ARVC and implantable cardioverter defibrillator but little information on the potential psychological impact that the disease and device may have on them and their families. Considering the disease mortality, its prevalence and the issues identified by the patient, it is important to identify the psychosocial needs of this group for which minimal information currently exists. From the patient interviews it was identified that uncertainty was experienced by individuals with ARVC5 especially as it pertains to sudden cardiac death and the future of their offspring. The purpose of the proposed presentation is to highlight the need for cardiac nurses to be aware of ARVC patient needs in order to provide adequate teaching and/or support services to this patient population.

N065**EMERGENCY ROOM ENCOUNTERS OF WOMEN WITH CARDIAC SYMPTOMS**H Russell¹, D Tapp²Mount Royal College¹, University of Calgary², Calgary, AB

Heart disease is a major cause of death and disability for women in Canada. Many empirical studies examine issues that are unique and significant to women with heart disease, but no studies to date have examined the construction of women's understandings and practices related to their heart disease (Davidson et al., 2003; Emslie, 2005). Current evidence suggests that health care professionals and female cardiac clients may be using disparate discourses and practices that result in less than optimal identification and management of women's cardiac health problems.

The purpose of this study is to examine the practices and understandings of health professionals as well as women by discursively exploring the Emergency Room encounters of women seeking treatment for heart symptoms. Participant observation and interviews of Emergency Room health professionals as well as women seeking care for heart symptoms in an Emergency department are currently being used to gather the data. An analytic interpretive approach to discourse analysis is used to examine the data. An examination of the specific instances of communication between health care professionals and women seeking emergent care for heart symptoms will help to illuminate the way in which the interaction itself produces practices, identities and understandings for each. This forthcoming analysis could reveal information which could be used to effect a change in the Emergency Room interaction might improve the outcomes for women with heart disease.

Davidson PM, Daly J, Hancock K, Moser D, Chang E, Cockburn J. (2003). Perceptions and experiences of heart disease: A literature review and identification of a research agenda in older women. *European Journal of Cardiovascular Nursing*, 2(4), 255.

Emslie C. (2005). Women, men and coronary heart disease: A review of the qualitative literature. *Journal of Advanced Nursing*, 51(4), 382-395.

N066**CCCN PRESENTS – HEART SOUNDS: ARE YOU LISTENING PART 2**

J Reimer-Kent

Royal Columbian Hospital, New Westminster, BC

Cardiac examination is a multisensory experience that includes auscultation. When performed correctly most cardiac abnormalities can be accurately detected. Yet, did you know that cardiac examination skills are declining and often inaccurately performed? Vukanovic-Criley, JM, et al. (2006) concluded this in their study of medical students, trainees, physicians, and faculty. They further found that heart sound skills did not improve in all participant categories after the third year as a medical student.

How would cardiovascular nurses have fared if they were to participate in such a study? Nurses tend to lack confidence when it comes to stating their findings related to cardiac auscultation. Mastering this skill requires an understanding of the cardiac cycle as well as differentiating the 'lup' from the 'dup' and any sounds before, between and after. This presentation will review the fundamentals and lead you through the maze of sound that once mastered will make you a more confident cardiovascular nurse. Whether you are a beginner or a seasoned cardiovascular nurse it is never too early or too late to add this important tool to your assessment kit. Bring your stethoscope and start listening.

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N067**ADULT CONGENITAL HEART DISEASE (ACHD) NURSE-RUN TRANSITION CLINIC – DOES IT MAKE A DIFFERENCE?**

J Morin

University of Ottawa Heart Institute, Ottawa, ON

Transitioning from a paediatric setting to an adult centre for ongoing cardiac care is mandated by the Ministry of Health of Ontario when patients reach 18 years.

Although conceptually simple, the process is complex. Research shows that change and uncertainty during this vulnerable period can lead to over 40% attrition of patients who are lost to follow-up even in those with complex CHD.

Incentive to establish the nurse-run clinic stemmed from: a need to minimize patient attrition at transition; and growth of the clinic with decreased physician availability for initial consultation.

Goals of the ACHD nurse-run transition clinic include: seamless, smooth, timely transition; gathering pertinent information/documents (test reports, operative and heart catheterization records); tour of the Ottawa Heart Institute; establishing relationships with patient/family through one-on-one appointments; reinforcement of need for ongoing ACHD care; individualized patient/family care (review of history, cardiac anatomy and physiology, surgical and/or heart catheterization interventions, and discussion related to bacterial endocarditis risk and prevention, exercise restriction, contraception, pregnancy, potential for CHD in offspring, heart healthy habits); referral to appropriate services including, device clinic, anticoagulation, women's health, prevention and rehabilitation; uncovering red flag signs and symptoms in order to expedite physician visit; and clinic note dictation.

Effects of the nurse-run transition clinic show favourable outcome regarding reduction in attrition. Improved efficiency of up-front care delivery allows more time during physician clinics. Results of a patient satisfaction survey are pending.

N068**DISCOVERING BEST PRACTICE IN THE MANAGEMENT OF PATIENTS UNDERGOING A TILT-TABLE TEST: DEVELOPMENT AND EVALUATION OF A PROTOCOL ON TILT-TABLE TESTING**

M Galapin, S Persaud, C Kangudie

Sunnybrook Health Sciences Centre, Toronto, ON

Tilt-table testing has been used to study the human body's heart rate and blood pressure in response to changes in position and the evaluation of orthostatic hypotension. During these studies, some individuals develop vasovagal symptoms such as syncope (fainting). This discovery led physicians to use this method for the provocation of neurally mediated hypotension and bradycardia in individuals who are believed to have vasovagal syndrome.¹ Although some literature findings dispute the diagnostic value of tilt-table testing, recent studies indicate that this method remains useful in establishing the diagnosis of neurally-mediated syncope also known as neurocardiogenic syncope.²

Neurocardiogenic syncope is a clinical syndrome characterized by sudden, transient loss of consciousness triggered by identifiable situations such as unpleasant sights, pain, prolonged standing or sitting, and crowded environments. There are a number of classic symptoms often associated with the syndrome. However, in many cases these classic markers are absent and the patient history alone is inadequate to establish a diagnosis.³ Hence, tilt-table testing is a valuable tool to establish a diagnosis.

Following a review of different literatures on tilt-table testing, a standard protocol was developed and tried by the Arrhythmia Service of a major teaching hospital for best practice in the management of patients undergoing tilt-table test.

This poster presentation will include the Standard Protocol on Tilt-Table Testing, evaluation of test results conducted within six months, and non-pharmacological treatments for neurocardiogenic syncope.

N069**LIFE AFTER DEATH: DEVELOPMENT OF A CLINICAL PATHWAY FOR SUDDEN CARDIAC DEATH SURVIVORS**

**A Shook, S Lauck, H Andrews, BA Furlan, C Galte
Providence Health Care, Vancouver, BC**

Although no reliable statistics are available to appreciate the number of Canadians who sustain a cardiac arrest every year, it is estimated that 95% of victims die before reaching the hospital. Although the chances of survival are reduced by 7 to 10 percent with every minute that passes without CPR and defibrillation, the survival rate is between 30 and 45 % if appropriate resuscitation is provided within 4 to 6 minutes.

There are multiple challenges associated with coordinating and providing care for survivors of sudden cardiac death and their family during their hospitalization and transition to discharge. Given the wide variation in neurological and functional outcomes, nurses often have a difficult task in providing care to these complex cardiac cases.

This presentation will begin with a review of the underlying etiologies and potential physiological effects resulting from a cardiac arrest. We will highlight the evidence available in the research literature to understand the outcomes and requirements of these patients. This will serve as the framework for sharing our experience in the development, implementation and evaluation of a clinical pathway. We will discuss the specific assessment instruments, treatments and interventions, referrals, resources and education initiatives that we have included in the pathway. We will share our experience in including survivors and care providers as stakeholders and consultants in this project, as well as our attempt to link our program with community-based primary care providers. This pathway will guide care from the acute post-resuscitation phase through stabilization to recovery and discharge planning.

N070**A COLLABORATIVE PROGRAM OF CARE FOR CARDIAC OBSTETRIC PATIENTS**

D Fofonoff

St Paul's Hospital, Providence Health Care, Vancouver, BC

The combination of congenital and/or acquired heart disease and pregnancy may result in potentially life-threatening cardiac complications, since the circulatory changes normally associated with pregnancy may result in gradual or sudden hemodynamic decompensation. The care of these women may be complex and require the combined expertise of cardiac and obstetric nurses and physicians, as well as support from allied health. In 2004, we noted an increase in the number of pregnant women with heart disease presenting to our tertiary care centre. Several of the women who presented to hospital experienced severe cardiac complications. These women were unknown to both the cardiac and obstetric teams and care was disjointed and uncoordinated. In response, a formal program of collaborative care was established with the aim to assess cardiac risk prior to admission and to improve care and outcomes for the obstetric patient with cardiac disease.

The purpose of this paper is to describe our program of collaborative care, identify the challenges faced, and report on the program's five year outcomes. This evidence based program of care has proven to be very successful and will be of interest to nurses who provide care for the cardiac obstetric patient.

Poster Presentations

NP001**CODE STEMI – THE SEQUEL: A FIVE YEAR RETROSPECTIVE OF A DIRECT PCI PROGRAMME FOR ST-ELEVATED MYOCARDIAL INFARCTION**

**M Nelson, P Doucette, N Tee, J White, J Sabourin
University of Ottawa Heart Institute, Ottawa, ON**

Direct PCI has become the standard of treatment for patients with STEMI. Five years ago a programme was launched at one tertiary Cardiovascular Referral Centre. From humble beginnings this programme has expanded

from a single Hospital Emergency department to then include direct paramedic transfers from the field. Hospitals within the Local Health Integrated Network (15 referring Hospital Emergencies) have been phased into the programme over the subsequent years.

The purpose of this presentation is to describe the development/expansion process and to present the results of the first five years' activity. This presentation will discuss the impact of this programme on nursing practice in the Coronary Care Unit. Challenges and opportunities regarding patient flow, bed management and communication will be identified and relevant strategies will be discussed. The success of this programme requires cooperation and collaboration between health care facilities, health care disciplines and individual nursing units.

This presentation will be of interest to cardiovascular nurses involved in a variety of acute care settings.

NP002**HEART FAILURE EDUCATION: WHAT DOES THIS MEAN?**

D Jurkiewicz

University Health Network, Toronto, ON

Heart failure is a long-term condition impacting the individual's quality of life along with frequent readmissions to the hospital resulting in significant financial implications for our health care system. Heart failure affects more than 400,000 Canadians, and over 50,000 new cases are diagnosed each year. Inadequate patient education about the nature of heart failure and the role of self-management contribute to worsening heart failure symptoms and the need for readmission. Patient education is a common key principle to improve patients' recognition of early warning symptoms and signs and to provide the patient with strategies they can use to intervene early and prevent further acute deteriorations.

The organization along with the Registered Nurses Association Clinical fellowship provided me the opportunity to develop strategies to streamline and formalize teaching for patients with heart failure. In collaboration with patients and the Interprofessional team members, an educational tool for self-management was developed along with an educational pathway. The goal of this tool is to promote self-monitoring during the hospital stay that may be continued upon discharge to identify the need for early intervention of their condition. Currently this tool is being evaluated to assess for usability and effectiveness. The educational pathway is used to guide the health team to ensure that timely and appropriate education is provided during the hospital stay.

This paper will present a review of the literature along with the self-management tool (including its usability and effectiveness) and the educational pathway.

NP003**THE STEMI EXPERIENCE: CHANGES, CHALLENGES AND OUTCOMES**

R Fuerte, J Ng Lee, D Murray

Sunnybrook Health Sciences Centre, Toronto, ON

What does it take to successfully implement a new program in an already busy, unbudgeted and understaffed tertiary hospital's coronary care unit? This poster presentation will give an overview of the changes, challenges and outcomes that were encountered by a coronary care unit in a university affiliated hospital in Toronto. Utilizing change theories and self-help initiatives, the poster will illustrate the crucial elements that were put in place to ensure successful implementation and integration of the new endeavour into the everyday life and routines of this busy CCU.

This presentation aims to: discuss selected change theories as they were applied to the implementation of a new STEMI program in CCU; describe the challenges and solutions that the staff encountered in the implementation of the new STEMI program; examine the staff reactions to the overall accomplishment of the goals and objectives to-date; describe some of the patients' and their families' perspectives based on their actual STEMI experience in the unit; and propose a future STEMI plan to ensure the sustainability of the program.

NP004**THE CHAIR MODEL: AN INNOVATIVE WAY TO CARE FOR POST PROCEDURAL CARDIAC CATH LAB PATIENTS**

P Wesley, D Richdale

VIHA South Island, Victoria, BC

At the Royal Jubilee Hospital site advances in equipment and techniques have enabled us to expedite the care of patients undergoing coronary cath lab procedures. Traditionally, post procedure patients were cared for in a bed. Currently 88% of our patients have their procedure done via the radial access approach allowing earlier ambulation and a quicker recovery. The question arose as to whether patients really needed to be admitted and recovered in a bed?

The purpose of this presentation is to describe our experience in implementing a chair recovery model that would meet the needs of a select group of post cath lab patients. The introduction of this care model changed how our patient's felt about their stay in our cardiac short stay unit. The presentation will outline barriers to this project as well as particular challenges for the nurses involved. Patient satisfaction was monitored and an evaluation of the data received will be presented.

NP005**IMPROVING CARDIAC SURGERY PATIENT OUTCOMES: AN OVERVIEW OF THE 2009 SOCIETY OF THORACIC SURGEONS CLINICAL PRACTICE GUIDELINE, "BLOOD GLUCOSE MANAGEMENT DURING ADULT CARDIAC SURGERY"**

S Skerratt, E Howarth

Southlake Regional Health Centre, Newmarket, ON

There is ample evidence in the literature that supports the clinical importance of preventing hyperglycemia in the cardiac surgery patient population. Numerous studies have demonstrated that increased fasting glucose levels prior to cardiac surgery and persistently elevated glucose levels during and immediately following cardiac surgery are predictive of increased perioperative morbidity and mortality in patients with and without diabetes. Evidence also suggests that poor glycemic control in the cardiac surgery patient population increases the incidence of surgical site infections and increases the hospital length of stay.

Intensive glycemic control to control perioperative hyperglycemia has now become the new stand of care for cardiac surgery patients. However, despite the emerging recognition of the importance of glycemic control in the cardiac surgery patient population, there have been no specific clinical practice guidelines, until recently, for cardiac surgery interdisciplinary teams to utilize in managing hyperglycemia in patients undergoing cardiac surgical procedures.

This presentation will outline the new evidenced based 2009 Society of Thoracic Surgeons clinical practice guideline, "Blood Glucose Management during Adult Cardiac Surgery." This presentation will be clinically significant for nurses working with the cardiovascular surgical patient population and will highlight key practice interventions for nurses in managing hyperglycemia in both patients with and without diabetes undergoing cardiac surgical procedures. In addition, this presentation will assist educators and administrators in developing program specific strategies to implement glycemic control protocols in order to ultimately improve clinical outcomes in the cardiac surgery patient population.

NP006**A PICTURE IS WORTH A THOUSAND WORDS: CREATING A PICTORIAL CARDIAC SURGERY WOUND ASSESSMENT CHART**R Martin¹, S Lochan²Royal Columbian Hospital¹, Fraser Health², New Westminster, BC

Accurate and comprehensive charting is central to nursing communication and wound management is no exception. This can be challenging, especially post-cardiac surgery. Besides the status of the wound there are also a wide variety of wound care products and therapies that need to be described.

Nurses at one Canadian Cardiac Surgery Centre noted gaps and

inconsistencies regarding wound management documentation such as the time lapse between dressing changes, whether the Enterstomal Nurse was consulted, and how the wound was healing. To address this issue the nurses formed a Professional Practice Council Shared Work Team for the purpose of developing an evidence-based wound assessment chart. The team reviewed available wound documentation tools but found them wanting for their unique and complex patient population. Using a consultative process they obtained feedback from other disciplines such as the Enterstomal Nurse and the infection control team. Over a period of nine months a wound assessment chart was developed and implemented. This comprehensive chart now contains a review of patient status at time of assessment related to the multiple clinical factors that may be affecting wound healing. Also included are details about the wound and response to the treatment. Most importantly, there is now a pictorial record of wound progress and healing. It turns out a picture is worth a thousand words as the need for lengthy wound assessment documentation that is only narrative is now a thing of the past.

This presentation will detail this work and showcase the Cardiac Surgery Wound Assessment Chart.

NP007**PROMOTING PATIENT SAFETY IN A CARDIAC CENTRE: KNOWLEDGE TRANSFER STRATEGIES FOR INCREASING THE USE OF A SAFETY REPORTING SYSTEM**C Kangudie, E Cruz, M Meneses, M Sia, K Twiss
Sunnybrook Health Sciences Centre, Toronto, ON

Literature has shown that admission to hospital carries a risk of experiencing an adverse event related to health care management. Over 7% of people admitted to hospital will suffer from injury that results in 'death, disability, or prolonged hospital stay' due to health care management. Patient safety and methods of measuring and improving this concept is a growing field of interest among healthcare providers and the public alike. The aviation and nuclear industries have identified that improving reporting of errors enables an upstream approach to strengthening systems to prevent errors in the future.

Increasing staff awareness of the link between increased safety and the reporting of errors and near misses, developing improved systems for reporting of such, enhancing identification of near misses, improving reporting, and actions geared to strengthening systems are tantamount to an organization that has identified improving patient safety as one of its priorities.

In the heart program of a major academic health care center, a project team was put in place to increase the number of E-Safety Reports submitted from the heart program, strengthening a portion of the system on which improving patient safety depends.

This poster presentation will include a review of the literature to substantiate the link between E-Safety Reports and patient safety, an overview of project goals, a description of the knowledge transfer strategies utilized, and an evaluation of the effectiveness of the strategies chosen .

NP008**DIABETES AND CARDIOVASCULAR DISEASE (CVD): THE ROLE OF MULTIMODALITY NONINVASIVE CARDIAC IMAGING**L Avery¹, C Kuttig², I Kirkpatrick², D Jassal³Winnipeg Regional Health Authority¹, St Boniface General Hospital², WRHA Cardiac Sciences Program³, Winnipeg, MB

Cardiovascular (CVD) is the leading cause of disability and death amongst patients with diabetes mellitus (DM). The prevalence of coronary artery disease (CAD) is approximately 55% in DM individuals compared to 2-4% in the general population. The role of noninvasive cardiovascular imaging for the diagnosis of both anatomical and functional disease in the DM population with CAD is in flux. The objective of this abstract is to provide a comprehensive review of the roles of cardiac CT and cardiac catheterization for anatomical imaging and myocardial perfusion imaging (MPI), stress echocardiography (SE) and cardiac MRI (CMR) for functional imaging in this select population.

Conventional cardiac angiography (CCA) and cardiac CT provide

diagnostic useful information related to coronary anatomy. CCA remains the gold standard often demonstrating multivessel CAD in the DM population. The role of cardiac CT in this population with calcified and multivessel CAD remains unclear and requires further clinical investigation. Functional imaging using MPI, SE or CMR is used to detect the hemodynamic effects of CAD. SE and MPI are useful for noninvasive assessment of ischemia in select patients. SE and CMR are indicated for viability assessment in DM patients with 3 vessel disease and severe left ventricular dysfunction.

Noninvasive imaging has a significant role in the anatomical and functional assessment of DM patients. The screening and management of high risk patients in this population is critical. Registered Nurses caring for the DM population need to be aware of and understand the indications, benefits and limitations of these noninvasive tests.

NP009**REGISTERED NURSES INCORPORATE THE 2009 RECOMMENDATIONS FOR HYPERTENSION CARE**

D McLean¹, L Cloutier², J Costello³, C Bolton⁴, D Morris⁵, T Pham⁶
**University of Alberta¹, Université du Québec à Trois-Rivières²,
Guelph Family Health Centre³, Kingston General Hospital⁴, Royal
Jubilee Hospital⁵, Sunnybrook Hospital⁶**
Edmonton, AB

OBJECTIVE: In every setting and neighbourhood across Canada; the hospital, clinic, or community, registered nurses participate in the multidisciplinary effort to control high blood pressure. Because of their continuing relationship with patients in a wide variety of settings, registered nurses are well-positioned to remain in care and maintain long-term blood pressure control.

DESIGN AND METHODS: The most up-to-date 2009 Canadian recommendations for the assessment and management of hypertension will be reviewed. Strategies for registered nurses to improve participation in the therapeutic plan, and ultimately blood pressure control will be presented.

RESULTS: Contemporary nursing practice requires that nurses take responsibility and a role in the primary prevention, detection and treatment of hypertension

IMPLICATIONS FOR PRACTICE OR POLICY: Nurses are well-positioned to help identify, manage and follow-up patients with hypertension.

FUTURE DIRECTIONS: Nurses contribute to better hypertension control by their efforts to screen, identify cases, refer and track follow-up appointments and educate patients and the public. Nurses must be committed to enhancing BP control through reinforcing messages about the risks of hypertension, the importance of managing blood pressure and achieving BP treatment targets, education about effective lifestyle interventions, pharmacologic therapies and adherence to treatment

Acknowledgements: Canadian Hypertension Education Program (CHEP)

NP010**IMPLEMENTING A JOURNAL CLUB: A NURSE DRIVEN INITIATIVE TO PROMOTE EVIDENCE BASED PRACTICE**

A Cook, B Barbato

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Current literature offers many explanations for the limited use of research evidence in clinical decision making. Lack of time, organizational support and skill in assessing the quality of research have been identified as factors that impede the bedside nurse. In an effort to encourage inquiry and critical appraisal of nursing practice in the HIU at Hamilton Health Science, a journal club was implemented.

A literature search was done to gain insight into the strategies used for successful journal clubs. Posters were developed requesting nursing to question routine practices and asking knowledge of evidence based practice. All staff were invited to participate and membership was actively encouraged with the understanding that group members would set the goals of the journal club. A collaborative process was used to determine the terms of reference, meeting times, goals and functions. The group was initially facilitated by two informal leaders. As members became comfortable with the format they rotate the facilitator's role.

At the monthly meetings the facilitator is responsible for finding an article based on a relevant clinical question and leading the group through a critique of the paper and discussion of the clinical question.

Journal club participants have gained skills in literature searches, research critique and group process.

This poster presentation will illustrate our process, achievements, successes and challenges.

NP011**THE STUDY GROUP AS A STRATEGY TO PREPARE FOR CNA CERTIFICATION PREPARATION**

LA Patry

Canadian Nurses Association, Ottawa, ON

Study groups have been described by nurses as an efficient and indispensable strategy for them when preparing for CNA Certification in a nursing specialty. As one of the educational components offered by the Canadian Nurses Association (CNA) to assist registered nurses who are preparing to write their specialty's Certification examination, the document entitled "Build on what you know: A study group manual for nurses preparing for CNA certification exams" was prepared in 2005. With two years of use, the CNA decided to undertake a review of the Manual through a Survey distributed to the 2007 Study Groups listed on their Certification Website.

A Survey was distributed to 21 individuals representing a variety of nursing specialties. The majority of respondents were Facilitators, representing thirteen (13) specialties. Survey information collected included Study Group schedules, employer support, strategies and barriers to the success of the Study Group, (from both the Participant's and Facilitator's perspectives), and resources used to prepare for the examination.

The vast majority of respondents were very complimentary and positive towards the Study Group process and the benefits of the Study Group Manual, but also shared some insightful and useful suggestions to improve the Manual and the process.

Overall, the analysis of the Survey results demonstrates the absolute necessity for the Certification Program and the Study Group process, and the central importance of the Canadian Nurses Association as a leader of change in the nursing profession.

NP012**GLYCEMIC CONTROL IN THE CARDIOVASCULAR INTENSIVE CARE UNIT**

H Harrington, I Knechtel

Sunnybrook Health Sciences Centre, Toronto, ON

Since Van den Berghe et al (2001) published their seminal research study in the *New England Journal of Medicine*; optimal glycemic control for the critically ill post-operative cardiovascular patient has been a focus of quality improvement projects internationally. Determining the optimal blood glucose range and a reliable method of achieving effective control has been our focus in the CVICU at Sunnybrook Health Sciences Centre SHSC). Tight glycemic control protocols have been an ongoing and evolving process in the CVICU since 2003. This poster will outline our continuous quality improvement project including: the development of paper based nomograms, formal study results of a computerized algorithmic nomogram based on the Glucomander®, examples of staff educational tools employed and a number of operational/system strategies used to improve glycemic control. We will also provide a summary of the evolving literature used to support our strategies. We will discuss successes and barriers as well as the ongoing knowledge translation required to fully integrate tight glycemic control into a CVICU culture.

References: Van den Berghe G, Wouters P, Weekers F, Verwaest C, Bruyninckx F, Schetz M, Vlasselaers D, Ferdinande P, Lauwers P, Bouillon R. (2001). Intensive insulin therapy in critically ill patients. *New England Journal of Medicine*, Vol 345(19), p.1359-1367.

NP013**ENHANCING CARDIOVASCULAR CARE THROUGH COLLABORATION AND PARTNERSHIP**S Burns¹, N Prodan-Bhalla²St Paul's Hospital¹, BC Woman's Hospital², Vancouver, BC

Cardiovascular disease causes death and morbidity. Primary health care services should support all people, genders and ethnicities. Newly established programs from St Paul's Hospital Healthy Heart Metabolic Syndrome Program and BC Woman's Hospital Heart Program for Woman at Risk partnered together to support program growth and development.

The objective of this partnership is to enhance care of both programs, provide support and mentorship in all phases of new program development and to facilitate new partnerships with other health authorities.

The Metabolic Syndrome Program, established in 2006, aimed to design an intensive lifestyle self-management program targeting cardiometabolic risk factors. This is a Clinical Nurse Specialist driven program. Collaborations were made to interested groups in the Vancouver area including BC Woman's Hospital. Initiation of their Heart Program in 2008 is operated by a Nurse Practitioner. A strong partnership was developed between the two advanced practice nurses.

This partnership allows opportunities for mentorship, support, access to program tools and clinical experiences with the Healthy Heart Program. The Metabolic Syndrome program derives benefit from knowledge of the Framework for Woman's-centred Health model and focus of care. Joint marketing and networking opportunities have also been formed between the two programs and facilitates dissemination of program awareness within the health community and public. This partnership also generated collaborations with other cardiac programs to influence access of care to both men and women at cardiovascular risk.

Partnerships provide health practitioner support, enhance program development and enhance patient care. Partnerships within health communities support chronic disease prevention.

NP014**STERNAL INCISION MANAGEMENT: HAD TO TACKLE BEST PRACTICE**

D Younger-Lewis, A Laughton, I Buck

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While sternal wound infections are rare, prevention remains to be the most important factor when tackling this potentially life-threatening problem, (Ghotaslou et. al, 2008). Addressing this issue in post-sternotomy surgical patients is the focus of the project.

The objective was to decipher the current infection prevention practice in post-operative patients and what needs to be changed for nurses to help prevent sternal wound infections. Nursing staff evaluated their practice by completing literature reviews, auditing dressing changes and determining areas of practice in need of adjustment.

Recommendations for protecting these patients are covering the incision with a sterile dressing for 24 to 48 hours, using sterile gloves, sterile dressing change techniques and performing meticulous hand hygiene, (Odom-Forren, 2006, Keib et al. 2006, Haycock et al. 2005). 100 sternal dressing change audits were completed and 50 of those audits were analyzed. Data showed the majority of nurses were performing consistent dressing changes.

While looking at whether nurses are following best practice during dressing changes, it was brought to the teams' attention that there was no corporate or unit sternal wound dressing change protocol to follow. As a result of this and the dressing change audits, a new policy and procedure will be developed to support and enhance best practice guidelines during dressing changes. Post implementation of the wound policy, a compliance audit will be performed. Nurses have a critical role to enhance patient outcome and to be involved to improve their practice.

NP015**PERCUTANEOUS AORTIC VALVE REPLACEMENT IN THE CARDIAC CATHETERIZATION LABORATORY**

J Hann, S Kendrick, T McVey

University of Ottawa Heart Institute, Ottawa, ON

Percutaneous Aortic Valve Replacement (PAV) is a treatment option used for patients with symptoms of severe aortic valve stenosis, NYHA class III or IV for whom surgery is not an option because of the associated risks. PAV is indicated when conventional therapy has been already used and has not been sufficient.

The category of patients deemed high surgical risk or those that have been refused surgery the use of Core Valve PAV in more than 1000 patients, the 30 day mortality risk is less than 10% and reduction of symptoms and improvement in quality of life is notably improved.

This presentation will focus on a case study that will highlight the role nurses play in the implementation of the program, nursing practice implications, benefits and potential complications of the procedure.

NP016**EXPLORING THE LITERATURE ON OLDER WOMEN LIVED EXPERIENCES WITH HEART FAILURE**

T Pereza Rolls

Vancouver Island University, Nanaimo, BC

The focus of my research is to understand the experience of older women living with preserved systolic function heart failure. Heart failure is the leading cause of hospitalization for people over the age of 65 and the Canadian population is aging. More than half of Canada's aging population are women. Preserved systolic function heart failure is more common in women than it is in men. Traditionally, cardiac care research has been conducted on men. Furthermore, the findings from research conducted on men have also been applied to women.

The methodology that I will be using is a hermeneutic phenomenological approach based on van Manen's (1997) work. In accordance to van Manen's approach (1997), the purpose of hermeneutic phenomenological research is to grasp the essential meaning of the phenomenon. In my research, the phenomenon is women living with preserved systolic function heart failure. The method of data collection used is a semi-structured interview approach. Hermeneutic phenomenology is designed to render lived experience into a textual expression of its essence. The essence of the phenomenon is discovered by reflecting upon the phenomenon whereby themes salient to the meaning of the experience begin to emerge. This study is in progress and the results are unavailable. The implication for practice will be a gained understanding of the lived experience of older women with preserved systolic function heart failure; this will advance understandings of women living with this chronic syndrome and may improve cardiac care for women.

NP017**SAFE HANDLING OF IMPLANTABLE DEFIBRILLATORS (ICD) POST MORTEM**I Long¹, S Carroll²Hamilton Health Sciences¹, McMaster University², Hamilton, ON

Over the last decade, the number of ICDs implanted for prevention of sudden cardiac death in Canada has risen rapidly. As patients reach their end of life, concerns have surfaced in regard to the safe handling of their ICDs in the post mortem period. These concerns have come to the attention of nurse clinicians through anecdotal reports from industry representatives and funeral homes. It was revealed that ICDs were being removed 'live' from expired patients in the funeral home setting. This form of unsafe handling of a live ICD could, and has resulted in ICDs releasing shocks while in the hands of funeral home staff. Although there have been no formal research studies to measure the prevalence of unsafe handling of ICDs in the post mortem period, there is a need to increase awareness and communication practices to ensure ICDs are deactivated prior to removal from deceased patients.

Currently, funeral homes are required to remove devices (pacemakers and ICDs) prior to cremation. However, to our knowledge there are no

guidelines regarding the safe handling of ICDs specifically. Communication with stakeholders found a lack of awareness of the potential harm.

A survey of common practices among funeral homes to determine how widespread the issue of unsafe handling is warranted. Additional education and safe handling guidelines could then be developed to protect the funeral home director(s) from potential ICD 'shocks'.

NP018**IMPLEMENTING A COOL PROTOCOL****R Taylor****Foothills Hospital, Calgary, AB**

Providing safe, evidence based care is of paramount importance in health care and nursing. Policies and procedures must be in place in order to guide caregivers in the provision of sound patient care. The purpose of this presentation is to review how a policy and procedure was re-developed regarding Therapeutic Hypothermia in the Mona Libin Cardiac Intensive Care Unit at the Foothills Hospital in Calgary, AB and how the new protocol was translated into practice.

Initially a unit specific protocol existed that outlined care for a patient post cardiac arrest secondary to ventricular fibrillation or ventricular tachycardia through use of therapeutic hypothermia. It provided a basic guideline on how to care for this patient population. Due to its brevity there were many questions and heightened anxiety regarding how to care for the patient. In order to alleviate fears and provide direction for both physician and nurses a new protocol was developed.

Implementation of the new protocol involved both nursing and physician education and introduction of user friendly tools to aid in its operationalization. The presentation will review how this was done and how it has impacted both the care these patients receive and the positive moral of nurses caring for this patient group.

Conclusions drawn regarding this process clearly identify that policies and protocols are a necessary part of patient care. Having them in place are absolutely essential but communication of their content is even more vital.

NP019**CASE MANAGEMENT: A PATH FROM ADMISSION TO TRANSITION****J Montpetit, C Trudeau****Foothills Medical Center, Calgary, AB**

As healthcare professionals are seeing their scopes of practice increase at rapid rates, case management has become a popular model of care delivery within our acute care health systems. Case Management allows registered nurses to focus on holistic assessment and intervention, to facilitate a patient's transition from the inpatient setting to a home or alternate living setting.

The role of the Case Manager begins with an admission needs assessment. Throughout a patient's hospitalization, the case manager will follow the patient's progress and identify or anticipate patient hurdles that may impede the future discharge. Proponents of the case manager role include but are not limited to: addressing risk factor modification, medication reconciliation, arranging follow-up care and assessing resource needs.

This presentation will illustrate the results of a six month, case management pilot project on a medical cardiology unit at the Foothills Medical Centre. The outcomes will be represented in a poster format.

NP020**DOES THEORY MATCH REALITY? THE CARDIAC SCIENCES CLINICAL NURSE SPECIALIST AND THE IMPLEMENTATION OF EVIDENCE-BASED NURSING CARE****K Schnell-Hoehn¹, L Avery²****St Boniface General Hospital¹, Winnipeg Regional Health Authority², Winnipeg, MB**

The Canadian Nurses Association identified that an important characteristic of the advanced practice nursing role is the development and dissemination of evidence-based nursing knowledge. The Cardiac Sciences Clinical Nurse Specialist (CNS) is an expert in theoretical concepts to

link professional nursing practice to an evidence-based nursing culture that promotes positive outcomes at the patient and population levels. The purpose of this abstract is to determine if three evidence-based nursing models identify the CNS practice as a link to successful evidence-based implementation.

Three nursing models (The Strong Model of Advanced Practice, The Promoting Action on Research Implementation in Health Services framework (PARIHS) and the Stetler Model) are critiqued to determine if these models articulate CNS practice. Theory provides direction and strength to the multifaceted approach to evidence-based care by the CNS in Cardiac Sciences with the ultimate goal of achieving quality patient care.

The PARIHS and the Stetler Models clearly articulate the 'how to' of evidence-based implementation but do not address the role of the CNS as part of the process. The Strong Model speaks to the advanced practice role but lacks clarity on the processes or steps for implementation.

Models of evidence-based practice provide guidance and direction to the daily practice of the CNS. However, the models and concepts may not provide the breadth and depth needed to support this practice. An ideal model would be collaborative in nature and provide substance around the key connections that fully incorporate the CNS role in patient care.

NP021**A CASE STUDY OF CARDIOGENIC SHOCK AND RESPIRATORY FAILURE REQUIRING ECMO!****S MacNeil, E MacKay, S Matheson****Capital Health, Halifax, NS**

Through a case study we will share the extraordinary journey of one of our cardiovascular patients. Following three days of flu like symptoms a 30 year old female walked in to our Emergency Department. Within a short time her condition rapidly deteriorated requiring intubation and ventilation with hemodynamic instability. The initial diagnosis was questionable septic shock.

During the next 24 hours she developed severe respiratory failure and was unable to maintain adequate oxygen and saturation levels. It was felt that she would benefit from the initiation of Extra Corporeal Membrane Oxygenation (ECMO) and arrived in our CVICU post operatively. With a diagnosis of cardiogenic shock and respiratory failure she was maintained on ECMO for seven days. During this time period she required maximum inotropic and ventilatory support and experienced multi system involvement.

Following signs of ventilatory and cardiac improvement an IABP was inserted in attempts to wean off ECMO. Two days following the IABP insertion the ECMO was removed with the IABP being removed two days later. The patient was eventually transferred from CVICU to our cardiovascular ward and then discharged home, with a total hospital stay of 3 weeks.

The presentation will share the journey of the patient, family and staff to successfully overcome the odds. Critical incidents will be presented focusing on her cardiac and respiratory pathophysiology, complications and 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.

NP022**VADS AND VALVES-NOT JUST IN CARDIOVASCULAR SURGICAL ICU ANYMORE****B Ridley, S Dhalla, J Gajasan, A Tennant****University Health Network, Toronto, ON**

The domain of surgical interventions utilizing cardiac ventricular assist devices (VADs) and valve replacements has historically been in the cardiovascular surgical realm. The Heartmate™ was approved for use in the USA by the FDA in October 1994, while surgical valve repair and replacement date back to the 1960s era of cardiopulmonary bypass (Cohn & Edmunds 2003). The knowledge and skill set for this patient population is finely honed within the cardiovascular surgical realm. With the evolution of technology percutaneous valves and VADs have become a new and integral part of cardiac management strategies. The implications for the Coronary Intensive Care (CICU) are the new challenges faced and an

expanded skill repertoire for the health care team. The purpose of our presentation will be to provide an overview of our interdisciplinary educational programs encompassing 8 different disciplines managing this percutaneous patient population post procedurally and post operatively in the CICU setting. Beyond educational programs, there was also a multicolaborative approach providing patient centered care in the CICU for this new patient population. Coupled with this will be our specific nursing challenges and nursing practice changes. Our program to date includes 14 patients who underwent percutaneous LVAD support, 12 patients who underwent percutaneous pulmonary valve replacements and 20 patients who underwent percutaneous transfemoral aortic valve replacement.

NP023

THE ROLE OF ANTICOAGULATION IN STROKE PREVENTION

B Lazzarotto, S Beaudoin

Red Deer Anticoagulation Clinic-RDRHC-DTH, Red Deer, AB

STATEMENT OF PURPOSE: To educate nurses within the cardiovascular specialty about how the anticoagulation clinic in Red Deer is involved in stroke prevention in the atrial fibrillation and prosthetic heart valve population (target population).

To share the advancements of Registered Nurses and their roles within the anticoagulation clinic in Red Deer. These roles have evolved to include policy and procedure creation and warfarin dosing.

Proposed content will include a description of the issues, program development and techniques used by the Anticoagulation Clinic in Red Deer. A description of the significance and implications for practice and a summary of the major conclusion reached will also be presented. The following is a summary of the proposed content:

Purpose of anticoagulation for stroke prevention.

Consequences of insufficient anticoagulation or lack of prophylaxis.

Contraindications for anticoagulation therapy.

Risks and benefits of anticoagulation therapy.

Various medication options for anticoagulation.

How Registered Nurses within the anticoagulation clinic in Red Deer incorporate bleed and clot risk stratification into their warfarin dosing decisions.

Various tools used by Registered Nurses within the Red Deer anticoagulation clinic to aid in making recommendations to physicians who have patients who are going for a medical, surgical or dental procedure. "To bridge or not to bridge."

How Registered Nurses within the anticoagulation clinic in Red Deer assess for and address the various stroke risk factors.

Identify the advancements made within the Red Deer anticoagulation clinic for broadening the role of the Registered Nurse.

The Anticoagulation Clinic in Red Deer manages the anticoagulation needs of the target population resulting in stroke prophylaxis and economic benefit for the healthcare system.

NP024

PREVENTATIVE HEALTH CARE: THE UNMET NEEDS OF ADULT CONGENITAL CARDIAC PATIENTS

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University Health Network, Toronto, ON

Adult congenital heart disease (ACHD) patients are living longer due to advancements in surgery and medical treatments. Many health issues become more relevant with age and awareness of preventative health strategies is essential to ensuring healthy ACHD patients as they live well into their adult years.

A cross-sectional study regarding preventative health practices and health knowledge concerns surveyed ACHD patients attending an educational conference.

Of 159 patients who attended the conference, 123 (77%) completed study surveys. Twenty-eight percent reported being overdue for appointments and 19% reported not being followed close enough. A minority reported barriers to care such as travel distance (8%) and transportation (9%).

Many patients lacked general preventative health knowledge. Specifically, 32% did not get an annual flu shot, 16% saw a dentist < yearly, and 14%

saw their family doctor < yearly. A concerning number (34%) did not know when to seek urgent medical attention. Many patients (>70%) identified moderate to extreme concerns about issues of preventative health, namely physical activity and healthy eating and 73% of participants were equally concerned about becoming more responsible in their health care.

It is clear that a minority of ACHD patients do not report preventative health practices and knowledge of healthy lifestyle issues. Patients also report a concern about understanding preventative health measures. Program strategies for better access to care, appointment adherence and specific education by the health team caring for ACHD patients will be outlined. Such programs may increase the behaviours associated with preventive health care in ACHD patients.

NP025

CREATING A NOVEL INTERVENTIONAL CARDIOLOGY RESEARCH GROUP

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Despite medical, interventional, and pharmacological development, coronary artery disease (CAD) remains the leading cause of death and disability among women, second among men, and ranks as the leading economic burden for the health care system (1). It is vital then that clinical research continues in order to facilitate faster and more effective treatments for CAD. Affiliated with McMaster University and the Population Health Research Institute, the Interventional Cardiology Research Group (ICRG) is a group initiated cooperative that was formed to facilitate and standardize screening, randomization, data collection and patient follow-up. With the growth in the number of ongoing clinical trials there is a need for organization and cooperation among researchers and nurse coordinators.

The ICRG consists of a manager, clinical research nurses, investigators, administrative assistant, research assistants and health science university students for cooperative work placement. This collaboration encourages further development of publicly funded and industry sponsored research. The ICRG also presents an opportunity for the development of nursing led research through the availability of resources and funding.

With recent attention to fiscal demands and resource management, the ICRG enables the cardiology group to continue to pursue vital research with improved utilization and flexibility of available resources.

This poster/oral presentation will highlight the benefits of creating the ICRG, emphasizing its value to ongoing clinical trials, patient care outcomes, and staff education, as well as the opportunity to access resources to conduct nurse initiated research.

(1) *Institute for Clinical Evaluative Sciences*

NP026

PROVIDING AN INTERPROFESSIONAL EDUCATION PLACEMENT WITHIN THE CVICU: OUR SHARED EXPERIENCE

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The University Health Network Interprofessional Education (IPE) leadership worked with the University of Toronto Office of IPE to offer acute care IPE placements. These placements were based on the IPE placement model developed at the Toronto Rehabilitation Institute and outlined in a handbook titled *Facilitating Interprofessional Clinical Learning: Interprofessional Education Placements and other Opportunities*. The placement offered in the Cardiovascular Intensive Care Unit (CVICU) was the first to be offered in both the acute care and intensive care setting in the Toronto LHIN.

IPE occurs when two or more professions learn with, from and about each other in order to improve collaboration and the quality of care. To understand the IPE experience of participating in placements within acute health care settings, students were asked to complete pre and post evaluations of the program.

Eight students from seven professions participated with a facilitation team representing different professions. Students found the IPE experience within the CVICU to be rewarding yet challenging. Positive placement

outcomes included: greater understanding of unique and overlapping professional roles, importance of communication as a basis for teamwork and improved ability to build a more effective patient care plan. Challenges included: rapid changes in the patient's status, unfamiliarity with setting and terminology and chart accessibility.

The CVICU environment provided a unique element to the IPE placement and highlighted the importance of intentional communication strategies and full team participation when providing effective patient-centred care. For sustainability, links to interprofessional collaboration, patient safety and patient-centred care initiatives need to be established.

NP027

WHAT ARE THE BEST PRACTICES FOR MANAGING PATIENTS POST PERCUTANEOUS CORONARY INTERVENTIONS (PCI)?

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University Health Network , Toronto, ON

The objective of this paper is to share whether best practices exist in the management of patients post percutaneous coronary interventions (PCI). Cardiovascular diseases are rising in North America along with an increase in the number of PCI performed. Process of care for patients post PCI have been driven by advances in nursing, however there is considerable variation in how patients are managed post PCI. The goal of this project was to identify best practices for patient care post PCI.

A thorough literature review was conducted along with a site visit, a national survey of other institutions and patient interviews. Thirteen patient interviews were conducted; results of the interviews were supported by literature. Key findings included comfort and support, experience and conduct of staff, and knowledge was important to patients undergoing PCI. Comfort was especially important as patients experienced pain related to sheath removal and bed rest post removal. An important finding from the interviews was that patients might hear or interpret instructions differently when they are under distress.

The findings from this project activity have major implication for nursing practice; our current policy will be changed to reflect best practices. Gaps still exist in the literature in the arena of sheath removal despite the fact that it is common nursing practice. Nurses need to use critical thinking skills in assessing patients and applying their knowledge to patient situations. Collaborating with patients and involving them in the plan of care helps to achieve the best possible outcome.

NP028

IMPACT OF PRIMARY PCI & TRANSFER AMI STRATEGIES

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Southlake Regional Health Centre (SRHC) has successfully collaborated with the three Paramedic services in their Region, offering Primary PCI services to all patients meeting set criteria following a STEMI algorithm. All Paramedics have been taught to perform and interpret 12-lead electrocardiograms and diagnose STEMI using standard criteria. Patients diagnosed with STEMI with symptoms < 12 hours from onset of pain and are within 45 minutes of SRHC are brought directly to the cath lab 24/7. Additionally following the results of transfer AMI SRHC is offering local emergencies, treatment algorithms following the recommendations of transfer AMI. Patients are therefore given thrombolytics in the ER and subsequently transferred to SRHC within 6 hours for percutaneous coronary intervention (PCI).

The success associated with the primary PCI program and implementation of their transfer AMI strategy has proven challenges in two areas. The impact to human resources and budget requirements in order to sustain the initiatives is considerable. Presented will be the impact and recommendations required to successfully support the above initiatives.

NP029

PRODUCING CHANGE: COMBATING SURGICAL SITE INFECTIONS IN A POST-OPERATIVE CARDIAC SURGERY SETTING

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A group at the Foothills Medical Centre in Calgary, Alberta was convened to study the problem of increasing surgical site infections (SSI) following cardiac surgery. In gathering surveillance data for the SSI reports from infection prevention and control, it was noted that we had higher than average SSI rates, when compared to the National Nosocomial Infections Surveillance (NNIS) parameters for high and low risk cardiac surgery infection.

Cardiac surgery patients are known to have many risk factors which can affect outcomes following surgery. Cardiac SSI's tend to have multiple implications including: increased length of stay, increased work load and costs to health care, increased morbidity/mortality rates, long-term antibiotic therapy, complex interventions for closure of infected wounds, and decreased quality of life.

After reviewing our current policy, it was decided improvements could be made to advance post-operative wound care. Using existing criteria and results from an extensive literature search we developed a best practice algorithm for wound care, with the goal to decrease SSI rates to NNIS parameters or lower. After 6 months of implementation of the algorithm; we have noted significant reductions in SSI rates in our cardiac surgery population.

This presentation will review SSI risks and outcomes, outline and model the wound care algorithm, demonstrating the results following implementation and evaluation. Nursing care has been directly impacted since the implementation of the algorithm. This will highlight the importance of evidence based practice, for nurses to optimize management of post-operative patients to prevent surgical site infections.

NP030

THE OBESE PATIENT: CARDIAC SURGERY MATERIAL?

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The prevalence for obesity is increasing in Canada. According to Statistics Canada's published data for 2005; the rate of Canadians in the obese category (BMI > 30kg/m²) has almost doubled between 1978 and 2005, rising from 13.8% to 24.3% of the adult population.

The National Institute of Health describes obesity as a major issue with clearly established health implications including the risk for coronary artery disease, hypertension, dyslipidemia, diabetes mellitus, and physical, socioeconomic, and psychosocial impairment.

One of the treatments for coronary artery disease is coronary artery bypass surgery. Patients undergoing coronary artery bypass grafting with an elevated BMI are at risk for developing complications post-operatively. These complications include superficial or deep sternal wound infection, septicemia, transient or permanent stroke, prolonged ventilation, pulmonary embolism, pneumonia, respiratory failure, anticoagulation issues, tamponade, atrial fibrillation and increased length of intensive care unit and hospital stay. Despite this extensive list of complications; it has been reported that there is an obesity paradox. Some studies report that patients who are overweight or obese have better outcomes post-operatively.

The incidence of revascularization procedures for obese patients with coronary artery disease will continue to rise based on the increased incidence of obesity. This presentation will include a discussion of the risks of obesity in the cardiac surgical patient, the implications for nursing care pre and post-operatively, and further discussion of the findings surrounding the obesity paradox.

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