Canadian Council of Cardiovascular Nurses Annual Spring Conference Conference Abstracts

ORAL POSTERS

Decisional Needs of Equity-Deserving Groups Diagnosed with Brain-Heart Conditions: A Mixed-Methods Study

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Background: Brain and heart health are closely connected, yet equity-deserving groups experience a higher burden of brain-heart conditions. Barriers to equitable healthcare contribute to unmet decisional needs and difficulties in making informed brain-heart health decisions.

Purpose: To determine the decisional needs of equity-deserving patients with brain-heart conditions and the challenges they encounter when making healthcare decisions.

Methods: This explanatory sequential mixed-methods study included adults (≥18 years) diagnosed with, or at risk for a brain-heart condition, had made or were making a health decision within the past year, and self-identified as a member of an equity-deserving group. Participants were recruited from tertiary care hospitals and community organizations in Ottawa through purposive and snowball sampling of an ongoing study. Data were obtained using cross-sectional electronic surveys and semi-structured interviews. Survey data were analyzed using descriptive statistics, interview data underwent thematic analysis, and both were integrated.

Results: Twenty participants were included. Preliminary analysis showed that 12 (60%) participants had a concurrent brain-heart condition and eight (40%) had a heart condition with risk factors for a brain condition. Thirteen (65%) identified as members of an equity-deserving group. The four (20%) participants that reported significant decisional conflict are from an equity-deserving group. Interviews revealed barriers to decision-making such as mistrust, insufficient information on available options, and negative past healthcare experiences.

Conclusion: This study found that equity-deserving groups face unmet decisional needs and barriers to brain-heart decision-making. Future research should develop decision support interventions to promote equitable brain-heart health decision-making practices among patients from equity-deserving groups.

Postural Orthostatic Tachycardia Syndrome: A Challenging Journey of Misdiagnosis to Diagnosis

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Postural Orthostatic Tachycardia Syndrome (POTS) is a lesser-known pre-syncope syndrome related to a cardiovascular autonomic disorder that is poorly understood but has been related to viral, neurological, and other causes. It is characterized by an excessive increase in heart rate on standing and symptoms of orthostatic intolerance that pose significant limitations on functional capacity. Though it has been described since the 1800s, it did not receive a consensus statement definition until 2011. Postural Orthostatic Tachycardia Syndrome predominantly affects adolescent or young adult women and is often misdiagnosed or a missed diagnosis. On average, POTS patients wait longer than 4 years for a POTS diagnosis from symptom onset, with 75% of patients experiencing one or more misdiagnoses. We will explore the cardiac and non-cardiac symptoms associated with POTS, sub-types of POTS, the hemodynamic changes that occur with POTS, and the diagnostic criteria. Using a case study, we will highlight the challenges in both getting a diagnosis of POTS and the impacts of living with POTS for a previously healthy young woman. Both the fact that diagnostic criteria focus on the heart rate and fail to capture the variety of other symptoms that are part of this syndrome, plus the lack of physician education, contribute to diagnostic delays. There is a need for increased awareness and algorithms that, in addition to the cardiac features, consider the functional symptoms as well as potential causes of this syndrome.

The Ottawa Mobile Screening Program: Addressing the Unmet Need of Communities

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Valvular heart disease (VHD) is underdiagnosed, undertreated, and referred too late in its disease course. At the University of Ottawa Heart Institute (UOHI), the Centre for Valvular Heart Disease Mobile Screening Program (MSP) bridges these gaps in care at a primary level, while focusing on Indigenous, rural, and minority communities. Eligible participants are 65 years of age, have no known cardiovascular disease, have no follow-up with a cardiologist, and have not undergone an echocardiogram in the last three years. A sonographer uses a point of care ultrasound (POCUS) to screen for significant VHD and a nurse screens for the five common cardiovascular risk factors (CV-RF). Recommendations are provided to the participant by the nurse based on an algorithm (Figure 1). Results and documentations are subsequently reviewed by a cardiologist specialized in echocardiography. A summary is sent to the primary care provider (PCP) and available to the participant. Over 18 months, 1,389 participants were screened; 7% had significant VHD and were referred for a formal transthoracic echocardiograph (TTE) and a consultation with a VHD-specialized cardiologist, 7% were referred to their PCP or walk-in clinic for a TTE for significant non-valvular POCUS findings, 0.5% were referred to the UOHI Rapid Access Clinic for urgent non-valvular POCUS findings, and 29% were referred to their PCP or walk-in clinic for above target CV-RF (Figure 2). This innovative prevention initiative demonstrates that an MSP is feasible and sustainable with relatively high rates of unidentified abnormalities. The program's impact and cost-effectiveness are currently being assessed.

Figure 1

Algorithm Used in MSP

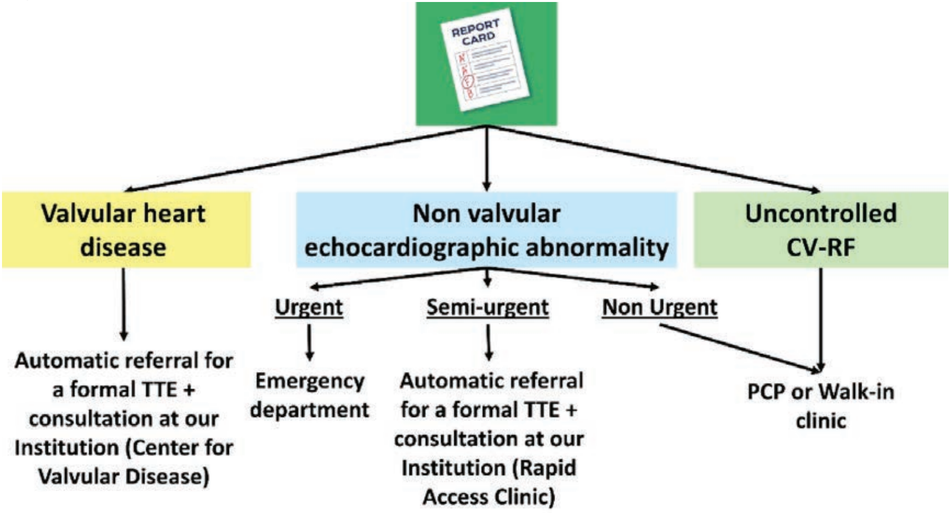
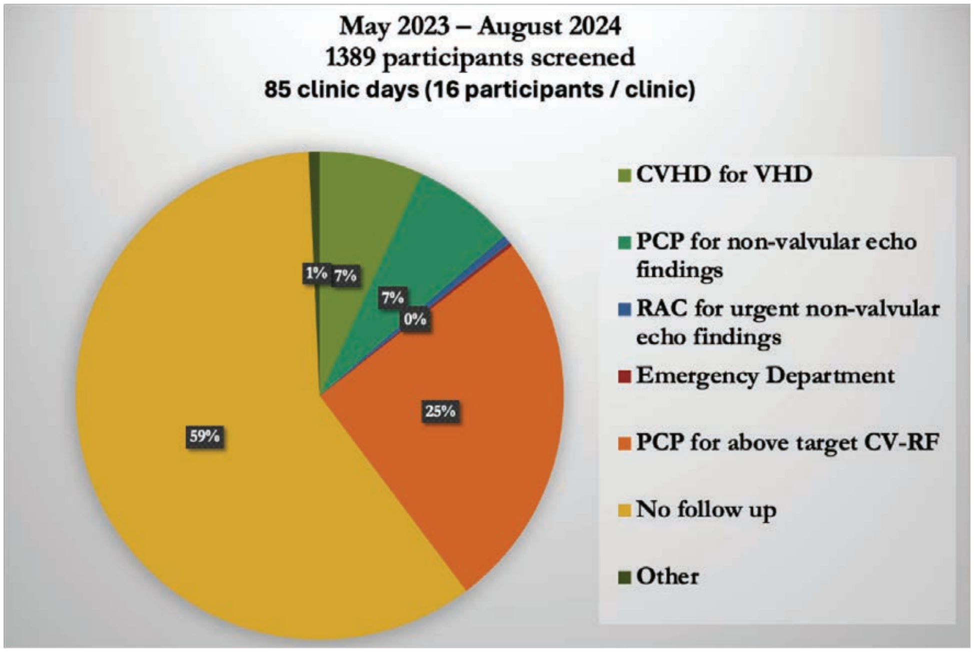


Figure 2

Graphical Abstract



Note. CVHD = carcinoid valvular heart disease; VHD = valvular heart disease; PCP = primary care provider; RAC = Rapid Access Clinic; CV RF = cardiovascular risk factors.

ORAL PRESENTATIONS

Cancer Survivors' Experiences of Cardiotoxicity-Induced Heart Failure: Living in the In-Between

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Cancer treatment methods, particularly chemotherapy and radiation, have significantly increased survival rates. However, chemotherapy has a detrimental impact on survivors' heart health, leading to cardiotoxicity-induced heart failure (CIHF). Cardiotoxicity-induced heart failure post-chemotherapy is a life-threatening condition that impairs survivors' quality of life. Cardiotoxicity occurs in 25% of individuals with cancer. Cardiotoxicity-induced heart failure severity depends on an individual's level of pre-existing risk factors and the chemotherapeutic medications used. There is limited research about how individuals with CIHF cope. This qualitative study explored coping strategies employed by cancer survivors living with CIHF. Semi-structured interviews were conducted with seven individuals (five females; two males; age ranged between 25–70) who developed CIHF after chemotherapy for various cancers. Using interpretive description, guided by the transactional theory of stress and coping, thematic analysis generated the overarching theme of Living in the In-Between. Participants experienced tensions transitioning from surviving cancer to living with CIHF. Sub-themes highlighted the disruptive impact of CIHF symptoms on survivors' lives and the need to form a new identity post-diagnosis. Coping strategies identified were seeking social supports, making lifestyle changes, and use of positive thinking to live within their new identity. This study identified significant implications for CIHF-related healthcare. Patient, health are professional and public education on the cardiotoxic risks of chemotherapy, the incidence, prevalence, and symptoms of CIHF are needed. Cardiovascular nurses are in a pivotal position to advocate for and educate patients with CIHF on how to recognize, manage, and cope with symptoms associated with CIHF.

Connecting Gender to Prompt Help-seeking in Men Experiencing Myocardial Infarction

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Establishing a Transfer Program in Adult Congenital Heart Disease to Address Risks of Health Decline

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More than 90% of children born with a congenital heart disease (CHD) grow up to adulthood. This patient population requires lifelong follow-up in an Adult Congenital Heart Disease (ACHD) clinic. In a recent retrospective study completed at our centre, one in eight patients had a decline in their health while waiting for an ACHD consultation. In addition, patients with moderate or severe CHD lesions were at greater risk for decline, compared to those with simple CHD lesions. The ACHD clinic at the University of Ottawa Heart Institute (UOHI) developed a multipronged transfer program to aid in minimizing health decline while on the waitlist. First, a nurse-led virtual visit is scheduled within one month of receiving a new referral to the ACHD clinic. These clinic appointments aim to provide patients with education on their specific heart defect, awareness of potential red flag symptoms, and lifestyle recommendations. This enables nursing staff to triage and prioritize consults, and facilitate referrals as needed. Secondly, a concise personalized congenital history document is created for each referral. This is shared with the patient at the time of their nursing visit. This summary includes pertinent cardiac health information, alarm symptoms, and clinic contact information. To date, 51 patients have been included, five of whom were identified as high risk for health decline and were triaged for an urgent visit. These two patient interventions aid in early establishment of therapeutic relationships, detection of those at risk of declining, and dissemination of concise and patient specific information to patients and healthcare providers.

From Knowledge to Action: Improving Nicotine Dependence Screening and Smoking Cessation Support in Cardiac Care

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Quitting smoking immediately following an acute coronary syndrome event is safe and can substantially reduce future outcomes such as death or re-infarctions. As frontline healthcare providers, the St. Paul's Hospital Cardiac Intensive Care Unit (CICU) nurses play a pivotal role in identifying individuals at risk, offering education on the health risks of smoking, and empowering patients to quit. Canadian tobacco guidelines recommend that all patients in acute care settings are screened for tobacco use and be offered treatment to those who actively smoke. Despite this knowledge, recent health record audits revealed less than 40% of CICU admissions had documented screening of nicotine dependence. We sought to address this gap in care through a knowledge translation (KT) initiative to improve screening of nicotine dependence on patient admission, encouraging nurses in supporting smokers, and creating access to smoking cessation expertise during the patient hospital stay and at discharge. Our pathway to improve care included collaboration across disciplines, streamlining direct nursing consults to smoking cessation experts, dedicated sustainable training, and partnership with patients. Evaluation of this KT initiative is ongoing. Regular health record audits demonstrated that there are areas for improvement; there has not been a significant increase in documentation of nicotine dependence. We conducted nursing surveys exploring barriers to practice revealing discomfort with nurse-initiated referrals and charting 'fatigue' with electronic medical records. Implications include additional work to address local barriers through further engagement with CICU staff and patient partners. We plan to share systems-level barriers with leadership to inform the regional strategy on smoking cessation.

Implementing a Coaching and Mentorship Program to Improve Retention and Well-being of Nurses in an Acute Cardiovascular Centre of a Canadian Quaternary Hospital Network

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Hospital nursing shortages remain a challenge impacting well-being of nurses and patient care. Nurses face heavy workloads and resource limitations, contributing to job dissatisfaction, burnout, and high turnover. Educational initiatives, like coaching and mentorship, are shown to be effective retention strategies. This pilot study evaluated the feasibility, acceptability, and impact of developing and implementing a Clinical Coaching and Mentorship program, to retain nurses at all career stages in an acute cardiovascular inpatient setting. Using a pragmatic embedded mixed-methods pre-post design, two professional development streams were assessed: 1) Clinical coaching: Experienced nurses (clinical coaches) released from clinical duties for up to 12-hours per week, for 16 weeks, to support point of care skill and knowledge development of novice nurses (coaches). 2) Mentorship: Experienced nurses (mentors) in advanced practice and leadership roles, guide professional growth and career aspirations of early and mid-career nurses (mentees), who are released from clinical duties for up to 12-hours per week, for 16 weeks, for one-on-one mentoring and self-directed activities. Outcome measures included validated pre- and post-surveys that measured organizational commitment, well-being, job satisfaction, self-efficacy, and retention rates. Focus groups provided qualitative insights into the program's feasibility and impact. Participants report positive impacts and overall satisfaction with the program during focus groups. Validated survey results of the study are currently being assessed. Findings will inform other hospitals on effective strategies to improve the work experiences, well-being and retention of nurses in other specialized acute cardiovascular care settings.

Increasing Access to Heart Failure Education in British Columbia: A Provincial Patient and Family Video Project

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In British Columbia (B.C.), there is a need for standardized, up-to-date, evidence-based, and accessible heart failure (HF) patient education. A provincial initiative is currently underway to create educational videos for all patients with HF and their families/caregiver(s). The goal is to provide access to high-quality education for patients who are enrolled, or waiting to be enrolled in a specialized heart function clinic, or do not have access to multidisciplinary heart-failure care. With leadership from Cardiac Services B.C. (CSBC), a provincial team of multidisciplinary HF clinicians collaborated to develop eight 10-minute videos that cover the fundamentals of heart failure education. Using the framework for engagement developed by the International Association for Public Participation 2 (IAP2), five people with lived experience provided input on content and co-starred in each video with clinicians. Health literacy experts reviewed the content to ensure it is easy to understand and actionable. Indigenous partners reviewed the content for cultural safety and alignment with Indigenous-specific anti-racism principles. The creation of this provincial video series is an example of innovation to improve access to evidence-based HF education that supports self-care and self-advocacy outside the clinic setting for patients and their families/caregiver(s). Sharing lessons learned and discussing the various barriers to overcome will prove valuable for other teams. Consultation with Indigenous partners and people with lived experience in this provincial project hopefully will lead the way to more opportunities for collaboration.

Mobility in a Cardiac Surgery Intensive Care Unit: A Behaviour Mapping Study

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Mobilization by ambulation or cycling within 24 hours post-cardiac surgery (CS) is associated with improved physical health outcomes, is safe, and is guideline-recommended. Despite these points, no observational studies explore mobility post-CS in the CS intensive care unit (CSICU). This study used behaviour mapping to observe and describe patterns of patients' mobility in one CSICU over 16 hours (0630-2230 hours) on two weekdays and two weekend days. Two observers collected patient mobility mode, location, and support data at 15-minute intervals. Data were aggregated into four-hour time blocks. A total of 1,342 observations were made over 4 days: 487 of mode, 485 of location, and 370 of support. Sitting in a chair was observed 430 of 487 mode observations, 10-fold more than any other mode. Mobility within the CSICU room was observed in 448 of 485 location observations. Bedside nurses were the most common healthcare providers observed supporting mobility with 142 of 370 observations. The prevalence of observations of sitting in a chair, and the lack of observations of ambulation and cycling raises questions about the clinical goals and rationale of early mobility. Reframing early mobility for clinical cardiovascular nurses is one part of shifting clinical practice to move beyond sitting in a chair. This presentation aims to have cardiovascular nurses reflect on their clinical early mobility practices to begin to support practice changes. As the most common healthcare professionals supporting mobility, cardiovascular nurses are the key drivers to operationalizing these changes to mobility and improving patient health outcomes post-CS.

Postoperative Coronary Artery Bypass Graft Readmissions in Rural, Remote, and Northern Communities: Case Control Study Focused on the Social Determinants of Health

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People living in rural, remote, and Northern communities (RRNC) are at greater risk for hospital readmissions post-coronary artery bypass graft (CABG). We aimed to identify the contributing factors, including social determinants of health (SDOH) associated with hospital readmission post-CABG in RRNC. In this case-control study from one Northern Ontario hospital, we reviewed 44 patients' charts, all of whom were readmitted within 30 days of CABG between 2021 and 2023. The control group included 44 patients matched by age and sex. Logistic regression analysis revealed that readmission was associated with previous myocardial infarction (OR 2.517; CI 1.493–4.242), wait time for surgery (OR 1.016; CI 1.003–1.030), town of residence (OR 0.183; CI 0.066–0.512), distance from hospital (OR 1.010, CI 1.005 –1.015), and need for community care upon discharge (OR 14.968; CI 4.026–55.645). Therefore, factors for readmission were less associated with patient health-related factors but, rather, related to health services, physical environment, and community-related factors, which all consist within the SDOH. Nursing implications include considering the latter factors within clinical practice, education, research, and health policy. A shift in focus in nursing practice should be to improve care planning and management of patients undergoing CABG during their cardiac health journey from diagnosis to treatment, and to discharge into the community.

Tailoring a Mobile Pain-Management App for Youth Post-Cardiac Surgery

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One in five children who undergo cardiac surgery report experiencing pain lasting more than 3 months after surgery. Many of these patients experience moderate to severe pain intensity, which has a significant impact on quality of life. iCanCope with Post-Operative Pain (iCanCope POP) is a smartphone app that provides adolescents with evidence-based strategies to manage post-operative pain. The goal of this study was to explore the unique needs and pain-management experiences of youth undergoing cardiac surgery to inform the development of a tailored iteration of iCanCope POP. A descriptive qualitative design using semi-structured interviews and focus groups was conducted with adolescents ages 12–18 who had received cardiac surgery, caregivers of youths undergoing cardiac surgery, and interdisciplinary healthcare providers. Qualitative data were inductively and deductively coded using a content analysis approach to outline participants' pain management experiences and perspectives on the iCanCope POP app. Fourteen interviews and one focus group were completed with six children, six parents, and 13 healthcare providers. Preliminary analysis highlighted three key themes: 1. Pre-operative expectations and preparation (e.g., timeline, technology versus in-person approaches); 2. Post-operative support and recovery (e.g., pharmacological management, clinical support, unexpected setbacks); and 3. App usefulness and modifications (e.g., visual progress, age appropriateness, timeline). Preliminary analysis identified various aspects of the cardiac surgery journey that could be enhanced by the iCanCope POP app. Future research should use these perspectives to inform the co-design of a new iteration of the iCanCope POP app specifically for youth undergoing cardiac surgery.

The PREVENT Clinic – A Risk-Factor Reduction Program for Primary Prevention of Cardiovascular Disease

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Atherosclerotic cardiovascular disease (ASCVD) is the leading cause of mortality in Canada. Modifiable cardiovascular (CV) risk factors, such as smoking, obesity, hypertension, hyperlipidemia and diabetes, are common conditions leading to an increased risk of ASCVD. Evidence-based CV risk reduction models help guide clinicians to estimate ASCVD risk in adults 40–75 years old, and can help guide pharmacological and non-pharmacological management decisions, to lower CV risk. Long-term patient adherence to guideline recommendations are enhanced by shared decision making, and by leveraging support of a multi-disciplinary team. St. Mary's General Hospital Regional Cardiac Care Centre in Kitchener launched a nurse practitioner (NP)-led CV risk factor reduction program, called the PREVENT clinic, where patients receive a clinical assessment with a NP, and have access to the multidisciplinary cardiac rehab team, for guidance on evidence-based heart-healthy diet modifications, exercise therapy with an individualized exercise prescription, smoking cessation and social work support. The purpose of this workshop is to review the Primary Prevention of Cardiovascular Disease Guidelines. We will discuss gaps, and review barriers to ASCVD risk reduction in the high-risk patient. Using a case-based approach, the presenters will discuss how an NP-led PREVENT clinic can reduce common modifiable CV risk factors. Presenters will outline strategies that nurses can apply when educating patients and their families. Case studies will compare and contrast the 2023 PEER simplified lipid guidelines with the 2021 Canadian Cardiovascular Society (CCS) lipid guidelines, as well as highlight limitations of standard CV risk-reduction models.

Why Are We Too Cool for Cooling – Or Were We Always Cooling Too Cool? An Update on Therapeutic Temperature Management

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Hailed as one of few interventions that improve neurologic outcomes post-out-of-hospital cardiac arrest, therapeutic hypothermia became widespread practice in the early 2000s. Over the last decade, there has been a shift from therapeutic hypothermia to targeted temperature management (TTM); where the goal temperature ranged from as low as 32 to 36 degrees Celsius. Then, in 2021, TTM was dethroned in favour of normothermia; the practice of maintaining body temperature less than 37.8 degrees Celsius for a prolonged period of time post-cardiac arrest. Practitioners were keen to reject hypothermic cooling, as it is complex, time consuming, and challenging to do well. Unfortunately, normothermia may not have been aptly, or formally adopted in substitution. In some instances, cooling policies were abandoned before best practices were formally updated, leaving a gap in evidence-based care. This presentation aims to promote best practices by exploring the evolution of TTM with a focus on the corresponding nursing care. Using a conversational style of presentation, a description and history of cooling will be reviewed, emphasizing hallmark studies that resulted in practice changes. Current guidelines will be highlighted before concluding with a discussion revolving the art of nursing in the realm of TTM. After participating in this workshop, attendees will have a better understanding as to what the current temperature management goals are post cardiac arrest, and why. Participants will be equipped with the knowledge necessary to advocate for their post-cardiac arrest patients, engage in evidence-based care, and facilitate practice updates as needed.

POSTERS

Characterizing Stigma in Congenital Heart Disease: A Scoping Review

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Congenital heart disease (CHD) is the most common congenital malformation that affects approximately 1.3% of Canadians. While medical advancements have improved survival rates, individuals with CHD may face enduring stigma that impacts their social, professional, and emotional well-being. Patients with CHD often encounter misconceptions about the nature of their disease and face challenges surrounding disclosure of their condition. Beyond the personal and relational impact of stigma, patients frequently hesitate to disclose their CHD diagnosis at the organizational or institutional level due to fear of discrimination at school or work. Emotionally, stigma contributes to anxiety, depression, and diminished self-esteem, exacerbating feelings of otherness. The purpose of this review is to synthesize evidence on the various manifestations of stigma in CHD patients' lives and explore how stigma is characterized in this population. This scoping review was conducted and reported in accordance with the Joanna Briggs Institute (JBI) scoping review methodology and the Preferred Reporting Items for Systematic and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR), respectively. A scoping review methodology was deemed the most suitable approach to explore the breadth and depth of the literature on stigma in the CHD population as: (a) no previous reviews have been conducted on this topic, and (b) stigma is a concept that has been applied to a broad range of healthcare and academic disciplines. Preliminary results suggested limited research has focused on this issue and, to date, no research has thoroughly examined or documented the experiences of stigma in CHD patients.

Early Discharge, Timely Access to Care: The Role of the Nurse Practitioner in an Outpatient Clinic Post-Adult Congenital Cardiac Surgery

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Advanced practice nurses (APNs), including nurse practitioners (NPs), are essential providers within the Canadian healthcare system, and facilitate the delivery of high-quality person-centred care across healthcare settings. Evidence shows that NPs contribute to key outcomes in healthcare delivery, including reduced length of stay, improved access to care, and increased patient satisfaction. The purpose of this presentation is to provide an overview of the impact of developing a unique NP role that addresses the post-operative care needs of adults with congenital heart disease (ACHD). At the University Health Network (UHN), a major academic healthcare organization in Toronto, Canada, NPs are fully integrated across speciality areas within interprofessional teams. This is achieved through the support of the organization's leadership who prioritize the APN role within various teams, most notably in speciality areas, such as ACHD. On average, 100 ACHD patients receive surgery at UHN each year. Often, these surgeries are challenging and patients may experience prolonged recovery that can result in physical and mental health impacts. The role of the NP with the Toronto ACHD program has evolved to meet the unique needs of patients and families; in this context, an outpatient clinic with a specific focus on postoperative ACHD care was developed. This presentation will provide an analysis of relevant healthcare utilization and access outcomes, alongside an overview of the experiences of patients and family members who are served by this clinic to demonstrate the impact of a novel NP-led post-operative ACHD clinic.

Evaluating Nursing Perspectives on the Implementation of a Multidisciplinary Cardiogenic Shock Program Team in a Canadian Heart Centre

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Current evidence highlights improved outcomes in heart centres operating multidisciplinary cardiogenic shock (CS) programs, including dedicated CS-Program Teams (CSPT). Despite its benefits, CSPT implementation across Canada remains limited due to systemic and human factor barriers. We assessed the implementation of a CSPT at the New Brunswick Heart Centre, focusing on early screening, timely activation, and invasive monitoring. A secondary objective was to evaluate the program's impact on nursing practices, workflow integration, and communication within the coronary care unit (CCU). A mixed-methods survey was conducted three years post-implementation, with 38 CCU nurses responding. We revealed that 63% of nurses agreed or strongly agreed with the effectiveness of CS-screening tools, and 82% supported integrating a standard order set. However, only 30% felt comfortable activating the Shock-Team. Our survey highlighted confusion about team composition, inconsistent activation protocols, and concerns about attending availability. Nurses emphasized the need for more education, clearer order sets, and standardized documentation across facilities. Respondents valued Shock-Team communication, with 90% endorsing improved attending feedback on activation decisions and 87% supporting nurse participation in team discussions and family meetings. Themes also included a desire for concrete management guidelines and simplified tools for shock staging. Challenges such as arterial line placement and inconsistent protocol application were noted. Our findings highlight the need for enhanced communication, streamlined processes, and interdisciplinary education. These insights provide actionable strategies to optimize CSPT implementation and expand protocols, with further evaluation recommended to measure impacts on patient outcomes.

Heart Failure Transitional Care: The Value of an Inpatient Versus Outpatient Intervention

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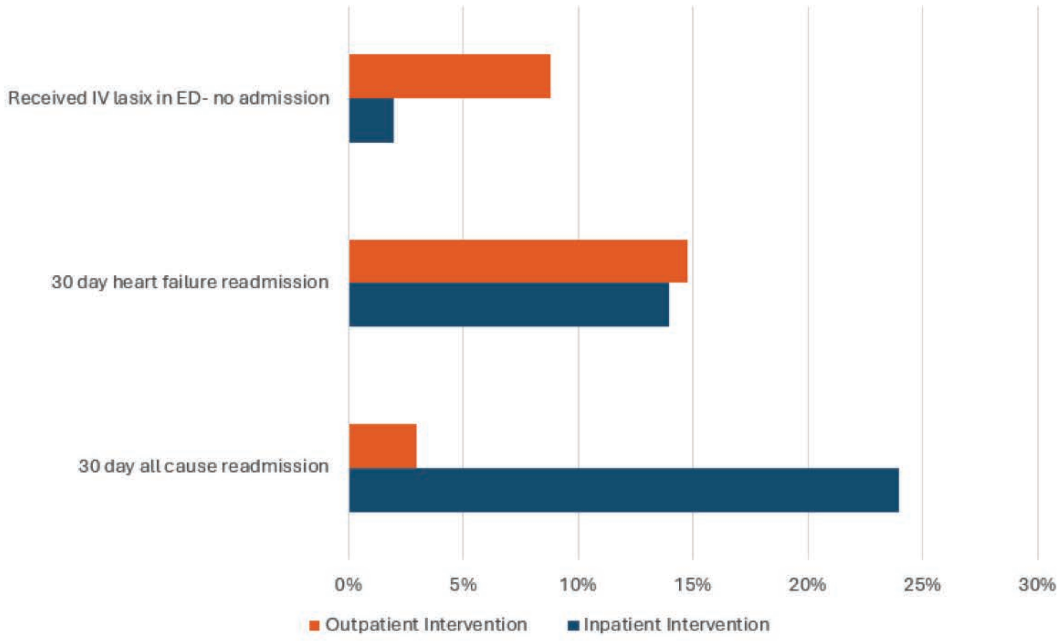
In 2015, a tertiary care facility began the utilization of a heart failure transitional care nurse (HFTCN) to improve outcomes for patients with heart failure (HF). Interventions completed by the nurse include HF self-care education, as well as collaboration with the multidisciplinary team to identify barriers to discharge and potential triggers for readmission. Additionally, the HFTCN ensures follow-up for patients though either telehome monitoring, an interactive voice response system (IVR), or a follow-up call. A quality improvement project was initiated to evaluate whether outcomes vary when a patient receives an in-person intervention while in hospital versus an outpatient intervention when at home. Between January 2023 and January 2024, 222 patients were followed by the HFTCN. However, only 34 patients received an outpatient intervention. To keep sample sizes consistent the first 50 patients who received an inpatient intervention were analyzed. Outcomes assessed included 30-day HF readmission, 30-day all-cause readmission, and those who received intravenous (IV) furosemide in the emergency department (ED), but were not admitted (Figure 1). Data illustrated there was little difference in 30-day HF readmissions between interventions. There were noted variations in the number of 30-day all cause readmission rates and

Figure 1

Patient Outcomes



Note. IV = intravenous; ED = emergency department.

the number of patients who received IV furosemide in the ED without an admission. An inpatient intervention led to higher all-cause readmissions, whereas an outpatient intervention led to more patients visiting the ED for IV furosemide without admission. Further investigation is required to determine the cause of variance with these outcomes and which intervention should become standard of practice.

Implementation of a "Shock First, Code Blue" Strategy on the Cardiac Wards

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The purpose of our poster presentation is to share an algorithm developed to implement modified basic life support (BLS) on the in-patient cardiac ward for post-sternotomy patients. We will describe an education training program, which includes rapid cycle defibrillation practice, and share results of our quality review. After an in-hospital cardiac arrest, survival to discharge is significantly associated with the time to defibrillation. Delayed defibrillation, defined as greater than two minutes, is associated with increased morbidity and mortality (Chan et al., 2008). Rhythm recognition and access to trained staff are two factors that influence the time to defibrillation (Chan et al., 2008). During the COVID pandemic, non-advanced cardiovascular life support (ACLS)-trained cardiac ward nurses were upskilled to provide early defibrillation while waiting for the arrival of Code Blue team members. Cardiac arrest after cardiac surgery is a rare event and the best practices for code blue management differ for patients after sternotomy compared to the regular population. While modified ACLS for cardiac surgery patients in the intensive care unit (ICU) setting is common, the standard of care differs on the cardiac ward. During the upskilling of ward nurses to defibrillate, we also chose to implement a modified BLS protocol on the cardiac wards to provide a defibrillation-first strategy for shockable rhythm cardiac arrests. The results of 3 years of code blue data and staff satisfaction surveys will inform future recommendations for program development on cardiac wards.

Navigating Vasovagal Syncope: Tools and Strategies for Cardiac Nurses

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Vasovagal syncope, a common cause of transient loss of consciousness, is due to a vagal response causing sudden vasodilation, hypotension, bradycardia, and subsequent inadequate cerebral perfusion. This presentation will explore the pathophysiology of vasovagal syncope, including the intertwined roles of the autonomic nervous system and cardiovascular reflexes. We will detail the clinical presentation, including prodromal symptoms like nausea, diaphoresis, and lightheadedness, which are critical for early recognition. This was inspired by a case that presented to our acute coronary care unit (ACCU); a young male with recurrent vasovagal syncope and sinus pause, requiring demand pacing, diagnostic workup, and ongoing treatment. The presentation will also focus on diagnostic strategies such as tilt-table testing, ECG, and echocardiography to confirm the condition while excluding life-threatening arrhythmias and structural heart diseases. Additionally, we will discuss risk stratification and the implications of comorbidities in patient management. Understanding vasovagal syncope is particularly relevant to cardiac nurses, as they often encounter patients presenting with syncope in acute and outpatient settings. Recognizing the clinical patterns and applying appropriate diagnostic tools ensures prompt identification, reduces unnecessary interventions, and alleviates patient anxiety. Moreover, nurses play a vital role in educating patients on symptom management and lifestyle modifications to prevent recurrence. By equipping cardiac nurses with a comprehensive understanding of vasovagal syncope, this presentation aims to enhance patient safety, improve outcomes, and foster confidence in managing this frequently encountered condition that can vary in severity.

Optimizing Patient-Centred Care by Preparing Patients Ahead of their Cardiovascular Consult

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In a specialized tertiary care hospital, 130,000 patients visit annually for cardiac testing and treatment of heart disease. Preparing these patients ahead of their appointments is a key component to providing patient-centred care (Gholamzadeh et al., 2021). Given this, a Quality Improvement Project (QIP) was implemented to address the lack of information and resources provided to patients to prepare them prior to their appointments. The aim of this nurse-led initiative is to empower patients by educating them on necessary testing and providing them with tools and resources for symptom management and modifiable risk factors. Collaboration with both patient partners and members of the multidisciplinary team was an integral component when determining necessary interventions to implement. These interventions include monthly interactive webinars, a checklist for patients to complete prior to their visit and, if appropriate, a referral to a smoking cessation program. Since the implementation of the QIP in August 2024, participation in the monthly webinars continues to increase. By offering resources and structured guidance, this initiative empowers patients to take an active role in managing their health prior to their consultations. This QIP highlights the importance of patient-centred strategies to improve both the patient experience and health outcomes. Furthermore, the QIP encourages a collaborative approach reinforcing the importance of patient input in quality improvement. In the long term, this initiative could lead to increased efficiency within the healthcare system, as better-prepared patients may experience more streamlined consultations.

Reference

Gholamzadeh, M., Abtahi, H. & Ghazisaeeidi, M. (2021). Applied techniques for putting pre-visit planning in clinical practice to empower patient-centered care in the pandemic era: A systematic review and framework suggestion. *BMC Health Services Research, 21*, 458. https://doi.org/10.1186/s12913-021-06456-7

Pre-Admission Unit Appointment Triaging for Electrophysiology Procedures

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Pre-surgical assessments and testing can be time consuming for patients and resource intensive to hospitals. Reducing unneeded visits to hospitals increases patient satisfaction and optimizes hospital resources. Historically, electrophysiology (EP) procedures requiring anesthesia support required a pre-admission unit (PAU) appointment for assessment by an anesthesiologist. This blanket requirement can delay access to procedures and reduces efficiency in procedure scheduling. To address this, our institution created a triaging process to determine which patients genuinely benefit from a PAU appointment, and which patients were appropriate to avoid one. A questionnaire was created to score patients on current and past medical history, which assisted in triaging patients. Patients were categorized into two groups: those needing a PAU visit and those who could safely proceed without one. Over six months, 334 patients were triaged, with 140 (42%) identified as candidates to forgo a PAU visit. This resulted in a potential cost reduction of $70,000 over six months with further projected annual savings of $165,000 using current modeling. Most importantly, there were no procedure cancellations or complications attributed to foregoing PAU appointments. This model can significantly reduce costs and improve access to care for those who need it. Furthermore, this model is also highly transferable to other areas, such as cardiac surgery and structural heart programs. Integration of this model into electronic health records systems could streamline the triaging process and further reduce cost.

Reviving the Canadian Nursing Association Cardiovascular Certification Exam: A Scholarship-Based Approach

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The Canadian Nursing Association (CNA) certification exam in cardiovascular nursing is a vital credential for ensuring excellence in specialized nursing care. Despite its importance, interest in the certification has declined in recent years. On September 2022, CNA announced the risk of the exam's retirement in December 2029 if the number of yearly writers does not reach their minimum requirement of 90 new exam writers per year nationwide. Past research has shown that certification improves retention, job satisfaction and patient outcomes. Thus, nursing leadership at the Heart Centre of St. Paul's Hospital in Vancouver, British Columbia, sought to revive interest in the exam. Building on local work to strengthen and sustain professional development of our cardiac nurses, we addressed barriers and enhanced accessibility through a scholarship-based recruitment strategy. The premise behind a scholarship strategy was also to promote the exam's academic association. Scholarships were awarded to eligible applicants to cover exam fees, coupled with mentorship opportunities to support candidates in preparation. At an organizational level, dissemination in the benefits of certification has reinvigorated widespread interest, increased certification uptake, and improved administrative sustainment support with the program. The process of program development, addressing the enablers and barriers, as well as outcomes of application, exam pass rates, and participant feedback will be presented. Sharing this information will hopefully inspire other centres nationally to adopt similar initiatives, promoting widespread participation in certification programs and reinvigorate advancing the standard of cardiovascular nursing care across Canada.

Shaping Postpartum Cardiac Obstetric Nursing Care: How Can the Perspectives of Moderate- and High-Risk Cardiac Obstetric Patients Inform Nursing Practice

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The Canadian Cardiovascular Society has acknowledged the growing number of women of childbearing age with cardiovascular disease. There has been an increase in the survivorship of children with congenital heart disease (CHD), with greater numbers reaching reproductive age. Concurrently, advancing maternal age means more patients enter pregnancy with co-morbid conditions and acquired cardiovascular disease. The Cardiac Obstetric (COB) Clinic at St. Paul's provides quaternary cardiac care for pregnant patients with congenital or acquired heart conditions. Our clinic sees 300-350 patients per year who deliver at hospitals across British Columbia. There are well-established medical guidelines for the care of cardiac-obstetric patients, but a paucity of literature on best nursing practice. Cardiac-obstetric patients have a high level of surveillance in pregnancy, which provides opportunity for reassessment. Hemodynamics continue to evolve postpartum, which can impact the patient's cardiac condition and level of risk; yet there is very little guidance on postpartum cardiac nursing intervention. To address this gap, we introduced cardiac-specific discharge teaching and RN telehealth within two weeks after delivery. To support this novel nursing practice, we are conducting a qualitative research project to understand perspectives of moderate- and high-risk COB patients during the interval between hospital discharge and first cardiac postpartum appointment. We have selected interpretive description as our methodology. Using semi-structured phone interviews, preliminary findings suggest that patients' perspectives support more comprehensive postpartum nursing care. Our goal is to utilize this information to plan our cardiac-obstetric nursing care and discharge support for a unique and growing patient population.

WORKSHOPS

"This is Cardiology": Bridging Research and Practice Through Interactive Learning

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This dynamic session will connect the latest research findings with real-world clinical practice, highlighting critical updates in treatment guidelines, pharmacology, and emerging study results. The purpose of this workshop is to engage attendees in a Jeopardy-style game show where we will explore a broad spectrum of contemporary cardiac care topics. Three contestants will test their knowledge across key areas, such as echocardiogram (ECG) interpretation ("Is that a STEMI?"), heart failure management ("Broken Heart Club"), arrhythmia and pacer management ("Let the Beat Drop"), and cutting-edge topics like amyloidosis ("Are You a Wild Type?") and advanced hemodynamics ("Need More Data"). The audience will be engaged as rather than Daily Doubles, we will have Open Mic Night, where the answer will be posed to the audience. The person who responds correctly will then select who the points go to. With each category tailored to reflect everyday cardiac nursing scenarios, attendees and contestants will gain insights that bridge hospital care, community health, and home-based cardiac management. Following this workshop, attendees and contestants will be able to walk through the process of assessment, testing, diagnosis, and treatment options to apply knowledge that supports the integration of theoretical knowledge into clinical practice. "This is Cardiology" will offer something for everyone, and the workshop's interactive, competitive, and fun mode will support attendance, interaction, and team building among conference attendees while promoting knowledge exchange and critical thinking.

"The One Where We Explain Why Ross is Fine": An Exploration of Ross Procedures for Nurses

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Like many trends that peaked in the 1990s, the Ross procedure is trying to make a comeback. The procedure includes replacing a diseased aortic valve with a healthy native pulmonary valve, which is then replaced with a homograft; it is complex, controversial and uncommon. Due to the decreased risk for thromboembolism, anticoagulation needs, and improved life expectancy, the Ross procedure is becoming an attractive treatment option for specific patient populations. While there has been some research exploring ideal patients, procedural advantages, and surgeon education and training struggles related to pulmonary autograft procedures, there has been little focus on the needs of nurses. The purpose of this presentation will be to help bridge the knowledge gap between what surgeons expect nurses to know, what patients want to know from their nurses, and what nurses need to know to engage in excellent pre- and post-operative care. Through an interactive approach, utilizing Mentimeter, this presentation will answer questions such as: What is a Ross procedure? What are the benefits and risks? Who should get a Ross procedure? What happens after the procedure? Each area will be explored from the lens of what nurses need to know; attempting to unravel some of the surgery's mysteries, while fostering the art of nursing. By the end of the presentation, attendees will have a better understanding of what a pulmonary autograft procedure is, who should get one and why. With this new and/or reinforced knowledge, nurses will be invigorated in their practice and passion for information sharing.

Building Cardiovascular Nurses' Competencies in Decision Coaching: An Equity-Focused, Interactive Workshop Using the Ottawa Personal Decision Guides

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People affected by cardiovascular disease are faced with difficult health decisions about cardiac screening, investigations, and treatment. These decisions are difficult because they have more than one reasonable option, have uncertain outcomes, or known outcomes that people value differently. Nurses play a crucial role in supporting people to participate in shared decision-making by advocating for their needs and personal preferences, helping them navigate key decisions, and guiding them to implement their preferred option. We propose an interactive workshop designed to enhance cardiovascular nurses' competencies in providing decision coaching. Decision coaching is non-directive support by trained healthcare professionals to prepare people to actively participate in making health decisions. Systematic reviews show it improves patients' knowledge and participation in decision making without causing harms.

Workshop objectives: Enhance participants' knowledge, skills, and confidence providing decision coaching, using the Ottawa Personal Decision Guide(s); appraise quality of decision coaching; explore barriers to decision coaching, including those for equity-seeking groups; discuss strategies for incorporating equitable decision coaching in clinical practice. Activities will include 1) overview of decision coaching, theories, and evidence; 2) introduction to the Ottawa Personal Decision Guides for one or two people making decisions together (e.g., substitute decision-maker and patient); 3) small group role-play exercise, with debriefing to offer participants an opportunity to reflect on their experiences as the patient, decision coach and/or observer; and 4) group discussion on how equitable decision coaching can be incorporated in clinical practice, including strategies to address barriers with its use.