

## Welcome

Welcome to the first edition of the "NBHC HeartBeat". This publication will be used as a venue to disseminate information to the New Brunswick Heart Centre's stakeholders. Together with our mandate to deliver the highest quality tertiary cardiac care to the adult population of New Brunswick, we also recognize the importance of communication with our healthcare partners around the province. Our newsletter will address the clinical, educational and research activities occurring at the NBHC. We aim to promote the exchange of ideas, build dynamic partnerships, and participate in strengthening the provincial commitment to fight cardiovascular disease in New Brunswick.

"NBHC HeartBeat" is a quarterly publication produced in both official languages. We welcome your feedback on future publications. In the spirit of cooperation we recognize that there is strength in unity (l'union fait la force)!

**We can be contacted  
by e-mail at:**

**[nbhc@reg2.health.nb.ca](mailto:nbhc@reg2.health.nb.ca)**

### Editorial Board

- Dr. Sohrab Lutchmedial  
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- Francine Bordage  
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**New Brunswick  
Heart Centre**



Atlantic Health  
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## Implementation of NB External Cardiac Recommendations

The External Review of New Brunswick Cardiac Services report released September 2004 outlined nine recommendations aimed at improving cardiovascular disease surveillance and prevention, and timely access to diagnosis, therapy and rehabilitation. Fulfilling of one of the key recommendations around access to cardiac catheterization and electrophysiology services, the Honourable Elvy Robichaud, Minister of Health and Wellness, announced the investment of almost 2.5 million dollars in the New Brunswick Heart Centre February 8 2005. These monies will be used to provide a third provincial cardiac catheterization lab at the NB Heart Centre, to be used 50% of the time for cardiac catheterization and the other 50% to provide electrophysiological services. Currently, New Brunswickers requiring procedures such as diagnostic electrophysiology tests, arrhythmia catheter ablation and implantable defibrillator placement need to travel to the QE2 hospital in Halifax. Recruitment of electrophysiology trained cardiologists to provide this local service is underway.



A collaborative effort is ongoing between the Department of Health and Wellness, Department of Supply and Services, Atlantic Health Sciences Corporation and the NB Heart Centre to develop architectural plans for construction of the laboratory space. Cath lab medical director Dr Vernon Paddock explains the need for careful planning: "The Cath/EP room is a complicated design and construction issue. Issues include radiation shielding, specialized ventilation, and electrical and data connections. Construction is to occur adjacent to the current Cath Labs and will require significant innovation to prevent the new construction from interrupting the current patient flow through the Cath Lab."

In the interim, the NBHC is committed to continuing to provide timely and expert tertiary care for the province. The development of a full time Access Coordinator position will facilitate patient flow through the system. (see article page 5) The Catheterization equipment has been selected, and the target date for commissioning is February 2006.



## Heart & Stroke Foundation

Over the past 20 years, hundreds of New Brunswickers have benefited from the Heart and Stroke Foundation's



patient education programs. The Heart to Heart program has recently been updated and the Foundation is able to offer the new version of the program in both official languages free of charge.

"We have dedicated a significant amount of resources into developing a French version of the Heart to Heart program," says Vicki Poirier, the Director of Health Promotion for the Heart and Stroke Foundation of New Brunswick. "We really believe that it is very important to provide New Brunswickers with the best possible health information in the language they feel most comfortable with." The Foundation is planning to expand the program on the Acadian Peninsula. The Heart and Stroke Foundation of New Brunswick is recruiting facilitators for its secondary prevention program Heart to Heart.

All of the facilitators are health professionals and they receive an honorarium for their work.

"This is the most complete patient education program in heart health currently available in the province. The information is current and based on solid science," says Ms. Poirier. She stresses the importance of providing high quality materials and tools to the facilitators as well as the participants. "Facilitators are a crucial component of the program. They are the ones who have to be able to motivate the participants and help them understand the information. To do that they need the best available tools possible and Heart to Heart program gives them those tools," she says.

The Foundation is planning to further expand the program in various communities across the province. "We really encourage those health professionals who are

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## Introducing the new Administrative Director of the NBHC



It is our pleasure to announce that Francine Bordage is the successful applicant to the position of Administrative Director to the NBHC. Francine obtained her BN from the Université de Moncton in 1980. A native of the beautiful Madawaska republic, she is a true "Brayon" at heart. In her twenty-five year career she has worked at the Moncton Hospital, the Soldiers' Memorial Hospital in Campbellton, and the Saint John Regional Hospital. Francine has been with the NBHC since it's opening in 1991 and has worked as a CCU nurse, Interventional Nurse Associate, in

the Cardiovascular Health and Wellness program, and finally as Unit Manager for 3B South – Cardiac Services, the management of the Interventional Nurse Associates, as well as the access coordination to the NBHC. More currently, Francine is involved in the development of the NBHC website, assisting in the production of the "NBHC HeartBeat" newsletter, as well as in the recruitment of bilingual nursing staff for AHSC and the NBHC. We welcome Francine to the position of Administrative Director to the NBHC.

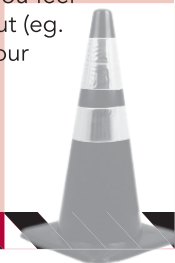
Francine can be reached via e-mail at: [borfr@reg2.health.nb.ca](mailto:borfr@reg2.health.nb.ca).



### NBHC website "Under Construction"

We are in the process of constructing a website for the NBHC. In our desire to create a site that will meet the needs of all NBHC stakeholders, we request your feedback. What topics would you like to access? What patient education materials do you feel would be useful? What areas of the NBHC would you like to know more about (eg. protocols for hospital transfers / triage system / description of procedure)? Your suggestions are essential for the creation of a truly "provincial" website.

**Please contact us via e-mail at: [nbhc@reg2.health.nb.ca](mailto:nbhc@reg2.health.nb.ca) with your suggestions.**



## Leading the Way in Heart Care: Contributing to Evidence Based Medicine

The New Brunswick Heart Centre is one of approximately 250 healthcare facilities in North America to serve as a research site for a drug used to treat severe heart problems, such as unstable angina or small heart attack (also known as acute coronary syndrome or ACS).

The study, called EARLY ACS, is a large clinical trial that will examine whether the early use and increased dose of a drug called eptifibatide can prevent subsequent heart attack and death in high-risk patients admitted to the hospital with ACS. The drug, which is given to patients intravenously, reduces the formation of blood clots. It has been studied in more than 19,000 patients and has been approved by the Food and Drug Administration (FDA) for patients with ACS and those undergoing percutaneous coronary intervention (PCI).

The dosing regimen being evaluated in this investigational trial is different than the current FDA-approved labeling.

Study participants will receive standard therapy for high-risk ACS patients, but half will also receive the drug eptifibatide within eight hours of entering the emergency room. The dose under study is greater than the current approved dose for this high-risk population (both in bolus amount and potential maximum infusion duration). Patients will receive two IV injections and a constant infusion of study drug.

The EARLY ACS trial is designed to reflect current treatment guidelines and real-world practice patterns. Currently, doctors do not feel they have a convincing set of data that tells them the best time to initiate eptifibatide therapy

# Introducing The New Brunswick Heart Centre Research Initiative

The New Brunswick Heart Centre (NBHC) Research Initiative has recently been established at the Atlantic Health Sciences Corporation with the appointment of Dr. Sohrab Lutchmedial as Medical Director and Fabia Fitzgerald as Clinical Research Manager. The group consists of a team of cardiovascular researcher/physicians and coordinators. Their mandate includes improving the health and wellness of our New Brunswick communities through exposure to novel cardiovascular devices and treatments. Additionally, the NBHC Research Initiative will provide local research opportunities for medical residents and students along with educational and career opportunities in the growing field of clinical research.

Currently, the NBHC Research Initiative is participating in eight multi-centre trials. The evaluation of other studies is underway with several in the early stages of initiation. The focus of the group's activities range from interventional trials to heart failure and primary prevention of heart disease.

The aims of the trials currently recruiting or under review are listed in the table below. Interest and inquiries are welcomed from Family Practitioners and Specialists regarding patient eligibility for these protocols. It is always recommended that patients speak to their primary physician prior to entering a clinical trial.



CLINICAL TRIAL AREAS OF INTEREST	CURRENT TRIAL STATUS
Acute Myocardial Infarction (heart attack)	Enrollment Phase
Acute Coronary Syndrome (unstable angina and/or small heart attack)	Enrollment Phase
Heart Failure	Enrollment Phase
Diabetes and heart disease	Enrollment Phase
Risk Factor Management - Smoking Cessation	To be initiated Summer 2005
Cardiogenic Shock	To be initiated Summer 2005
Adjuvant Angioplasty Devices	To be initiated Fall 2005



## Dr. Sohrab Lutchmedial Interventional Cardiologist

Dr. Sohrab Lutchmedial has been appointed as Medical Director of the NB Heart Centre Research Initiative. Dr. Lutchmedial is a native of Montreal and a graduate of McGill University medical school. He joined the staff of the Atlantic Health Sciences Corporation in 2000 following his Interventional Cardiology training at Université de Montréal. Along with being a faculty member of Dalhousie University School of Medicine, he is an active Interventional Cardiologist who has taken a lead role in coordinating clinical research at the NBHC and the production of the NBHC HeartBeat newsletter. His main research interests are in the areas of STEMI and ACS therapy.



## Fabia Fitzgerald RN

Fabia Fitzgerald has recently joined the NB Heart Centre Research Initiative as Clinical Research Manager. Along with a strong cardiology background, her research experience includes over 10 years in both pharmaceutical and original research, most recently at The Toronto General Hospital (TGH). As Research Manager at TGH, Fabia developed and managed a national multi-centre trial funded by the Canadian Institutes of Health. She has co-authored numerous research papers that have been published in diverse medical journals including Circulation, American Journal of Respiratory and Critical Care Medicine and Canadian Journal of Cardiology. Fabia is excited to be able to continue her research career back home in the Maritimes.

## with the EARLY-ACS Trial

in this patient population. In this case, the question is 'does eptifibatide given early in the course of hospitalization improve patient outcomes?' The data collected in this study will be used to support the concept of "Evidence Based Medicine."

"We are excited to partner in a clinical trial which could significantly change how we treat this population of patients in the future" said Dr. Sohrab Lutchmedial, Local Principal Investigator of the EARLY ACS Trial.

Patients will receive the study medication at no cost and may benefit by contributing to the advancement of medicine. Patients' health will be closely monitored throughout the study period by clinical and research teams. About 10,500 patients from an estimated 500 centers around the world will participate

in the EARLY ACS Study. The NB Heart Centre began enrolling patients in the study in May 2005.

Early in the study set-up phase, all hospital centers in the province were contacted regarding collaboration as 'spoke sites' with EARLY ACS. We are pleased to announce our collaboration with the Moncton City Hospital with Dr Carolyn Baer as PI, and Candace MacLoughlin as the Study Coordinator. Patients enrolled at the Moncton Hospital will be transferred as per the usual practice to the Atlantic Health Sciences Corporation for further study treatment. The study design will not alter the established VITAL triage system utilized for tertiary cardiac care transfers in the province.

# New Brunswick Heart Centre Cardiovascular Symposium

*Dr. David Bewick, Chairman*

The New Brunswick Heart Centre's Cardiovascular Symposium on Current Perspectives in Cardiovascular Disease chaired by Dr. David Bewick will be held the last weekend of September in Saint John, New Brunswick.

This educational program began in 1991 in conjunction with the opening year of the NB Heart Centre, and has become a forum for clinicians and health care personnel to enhance their knowledge in the field of cardiovascular medicine. It is nationally recognized for its excellence in providing a high quality cardiovascular learning experience for physicians, nurses and allied health care providers.

Attendance has been increasing yearly, with 400 in present for the 2004 sessions. The program has expanded to three days to give the participants a comprehensive review in key areas of cardiovascular medicine with emphasis on clinically relevant subjects.

This year marks the 15th conference.

Over 40 nationally recognized experts are scheduled to present informative topics, conduct clinical and technical workshops and participate in panel discussions on subjects of interest to the cardiovascular healthcare professional.



Dr. James Stone and Dr. Rick Ward from the University of Calgary will present didactic talks related to New Approaches to Managing Atherosclerotic Risk at the Primary Prevention in Cardiovascular

Disorders session. Dr. Victor Huckell from the University of British Columbia, Dr. Heather Ross from the Toronto General Hospital and Dr. Malcolm Arnold from the University of Western Ontario will present topics at the Office-Based Cardiology session.

At the Current Concepts in Echocardiography session and the Stress Echocardiography Workshop,

Dr. Sherif Labib from the Lahey Clinic returns this year to share his expertise in echocardiography and stress echocardiography along with Dr. Kwan-Leung Chan and Dr. Jean Dumesnil from the Ottawa Heart Institute and Dr. Anthony Sanfilippo from Kingston, Ontario. Dr. Zion Sasson of the Canadian Society of Echocardiography will be participating in heart failure case discussions on Integrating Echo in Clinical Decision Making.

Specialty sessions offering an advanced level of cardiovascular education will include the Annual Cardiovascular Society Meeting and the Emerging Perspectives in Cardiovascular Disease session, both which provide the audience with "cutting edge" topics in diagnostics, therapeutics and innovative technologies. This year's Annual Cardiovascular Society Meeting takes on the format of panel discussions on several very interesting and unusual case presentations. At the Emerging

Perspectives in Cardiovascular Disease session, Dr. Paul Armstrong and Dr. Stephen Archer from the University of Alberta, Dr. Lyall Higginson from the Ottawa Heart



## Stress Echo

*by Dr. Greg Searles  
MD, FRCP*



Stress echocardiography is a versatile and evolving diagnostic tool, with a role in the evaluation of many types of patients. The procedure itself involves initial 2D echo scanning of resting left ventricular function. The echo technologist scans and records multiple cardiac cycles from various views or "windows", and the cardiologist chooses the best quality recordings. The image loop of the selected heartbeat is then stored on the echo machine

computer. Four or five different views are captured, to assess the contractility of all segments of the left ventricle (LV). After these baseline images are stored, the patient performs a standard exercise treadmill test. This involves walking with gradually increasing speed and incline on the treadmill, while monitoring the ECG and blood pressure. When an end point is reached (target heart rate, fatigue, ST changes, etc.) the treadmill is quickly stopped and the patient lies down again to repeat the echo. The sonographer has to quickly obtain images (ideally within 1 minute) as wall motion abnormalities may resolve rapidly as the patient rests. After acquisition of the post-exercise images, the cardiologist reviews all the recorded

heartbeats and again selects the best quality images. The pre and post exercise images can then be compared side-by-side (see picture).

Interpretation of the test is based on wall motion analysis. The hallmark of ischemia is a lack of endocardial thickening following exercise. If a segment that is normal at rest contracts less vigorously following exercise, that segment is likely supplied by a stenosed coronary artery. Segments supplied by normal coronary arteries are expected to show increased contractility following exercise.

Indications for stress echo are varied. The commonest reason for performing the test is for the evaluation of the patient

# Access Coordinator — New Brunswick Heart Centre (NBHC)

Janine Doucet graduated from Université de Moncton in 1989 with a bachelor degree in Nursing Sciences. Following graduation, she moved to Saint John and began her nursing career at the Saint John Regional Hospital. In December 2002, she completed a Master of Nursing from Athabasca University.



a natural extension of her previous responsibilities.

Our Interventional Cardiology team has long been sensitive to the medical and psycho-social burdens associated with long waiting queues. For patient focused change to occur in the era of evidence based decision making, we must be able to objectively quantify these factors. The Access Coordinator role was added to the current NBHC structure to ensure transparency in the triage system, which will be achieved through acquisition of reliable and accurate statistics. As well, the objective data gathered will be used to facilitate the flow of patients through the inpatient and outpatient areas of the NBHC

An interest in cardiovascular nursing was seeded with the opening of the NBHC and Janine has been part of the Heart Centre team since the doors first opened in April 1991. She has spent the majority of her Nursing career as a Nurse Associate for Interventional Cardiology and has recently taken on the role of Access Coordinator. She feels that this new role is

program. The role was also conceived from the Heart Centre's commitment to improve and enhance the intra-provincial communication network.

When considering the past, Janine notes that New Brunswick has a rich pool of cardiovascular Nursing expertise. The national recognition that has been awarded to VITAL is a proud reflection of what can be achieved when the strengths of healthcare providers from around our province are combined. Janine is confident that there will be many occasions where Nurses will be working collaboratively, including opportunities to conduct original research.

Janine can be contacted at (506) 648-7288 (Access Coordinator office), or by email: douja@reg2.health.nb.ca

Institute, Dr. Blair O'Neill from the Queen Elizabeth II Health Sciences Centre and Dr. Allan Ross from the George Washington University Medical Center will discuss topics relating to "Conundrums" in Acute Myocardial Infarction Management.

The plenary program Current Perspectives in Cardiovascular Disease will review a number of general cardiovascular topics describing the latest trends in diagnosing and managing patients with heart disease, such as Management of ST Elevation MI by Dr. Allan Ross, Current Management of PVD by Dr. Victor Huckell, Diabetic Care In the Management of Atherosclerotic Cardiovascular Disease by Dr. Ehud Ur



from the Queen Elizabeth Health Sciences Centre and Managing CHF in 2005 by Dr. Peter Liu from the University of Toronto.

This year's program will also include a Device/Arrhythmia Workshop,

an Echocardiography Workshop and sessions focusing on Cardiac Rehabilitation and Cardiac Nursing in addition to family medicine case management workshops.

Representatives from various pharmaceutical and medical supply companies will be on hand to exhibit their products in the Light Court, Saint John Regional Hospital.

Costs to participants run from \$75 to \$450 for physicians and \$50 to \$225 for other medical professionals.

Registration fees include all program materials, refreshments during conference breaks and meals during the all-day and evening sessions.

with chest pain, to help establish if they do or do not have coronary artery disease. Advantages over regular stress testing include greater test accuracy (both higher sensitivity and specificity) and localization of ischemia. The region of inadequate coronary reserve can be determined based on the region of the LV that shows ischemia, something that regular stress testing with ECG alone cannot provide. Sometimes stress echo will be performed to assess hemodynamic effects of exercise on other problems such as mitral regurgitation, LV outflow tract obstruction in hypertrophic cardiomyopathy, and estimation of pulmonary artery pressure in patients with mitral stenosis. The information gained from testing can help

determine if these patients will benefit from surgical intervention for their disease state.

In the diagnosis of ischemia, stress echo supplies similar information and accuracy as nuclear stress perfusion testing (Thallium or MIBI), and can do so with several advantages. These include not requiring an intravenous, quicker overall testing time (20 minutes instead of several hours), and having the results available while the

patient is still with the physician rather than having the scan read after the patient has left the building. The major disadvantage of echo compared to nuclear studies is that a small minority of patients (5-10%) will have poor quality echo images with current echo technology that limits the accuracy of the test. Over 1100 stress echocardiograms were performed at the NBHC last year.



# New Brunswick Heart Centre Foundation

Public and corporate philanthropy makes a significant difference in healthcare. Public donations help care providers to take on projects and services that are beyond the reach of regular government funding. Projects can involve everything from patient comforts to advanced medical technology, from leading edge research to cardiac forums and clinical trials. Donations are important.

The New Brunswick Heart Centre Foundation has been created to accept gifts directed to the cultivation of excellence at New Brunswick's Heart Centre. These gifts will result in enhanced cardiac care right here in New Brunswick . . . right away.

The latest equipment and technology helps attract and retain the best medical staff. Opportunities for research and drug trials are also related

to the quality of the personnel and equipment. The Heart Centre's vision is to advance the reputation of the New Brunswick Heart Centre as a centre of excellence in Canada for cardiac care. But reputations are built on action. Our new Charitable Foundation is essential to this vision.

Donors with an interest in cardiac care have a place to direct their contributions. The Foundation will accept charitable donations, encourage estate gifts, promote the creation of endowments and conduct periodic campaigns and special events. Donations will be used entirely to support the New Brunswick Heart Centre. Gifts should be directed to **New Brunswick Heart Centre Foundation, PO Box 2100 Saint John, NB E2L 4L2.**

## Heart & Stroke

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interested in working as Heart to Heart facilitators in their communities to contact us. Given the prevalence of heart disease in our communities, we believe it is really important that we reach as many cardiac patients and their caregivers as possible," she says.

The program consists of six weekly sessions in which heart patients and their partners learn about various aspects of heart health. The program targets specifically those cardiovascular patients discharged from the hospital after a cardiac event. "This is a very comprehensive program that deals with lifestyle issues such as physical activity and proper nutrition as well as medical issues such as the anatomy of the heart and appropriate use of medications," says Ms. Poirier. The participants receive a workbook that guides them through the program. The facilitators receive a detailed manual and multimedia package to help them with the facilitation process.

Recent studies show that eight out of 10 Canadians have at least one risk factor for cardiovascular diseases. New Brunswickers are especially at risk with the lowest rates of physical activity in the country and some of the highest rates of obesity.

The Heart to Heart program is currently available in the following communities: Deer Island, Sackville, Moncton, Fredericton Junction, Harvey, Fredericton, Woodstock, Stanley, Minto, Chipman, Sainte-Anne de Kent, Miramichi, Grand Falls, Edmundston, St. Quentin, and Bathurst. Sites in St. Stephen and Sussex run a combination of Heart to Heart and Healing Hearts program while Saint John site runs Healing Hearts program. Those interested in becoming a facilitator should contact the Foundation at **1-800-663-3600** or through e-mail at **heart.stroke@hsf.nb.ca**.

*The Heart and Stroke Foundation ([www.heartandstroke.ca](http://www.heartandstroke.ca)) is a leading funder of heart and stroke research in Canada. Our mission is to improve the health of Canadians by preventing and reducing disability and death from heart disease and stroke through research, health promotion and advocacy. The Heart and Stroke Foundation of New Brunswick relies exclusively on public donations to ensure vital heart and stroke research and education programs continue.*



## New Brunswick Heart Centre Foundation



### A donation to the New Brunswick Heart Centre Foundation will:



- Maintain advanced cardiac care right here in New Brunswick.
- Help attract and retain cardiac specialists.
- Help us keep pace with latest in medical equipment and technology.

**Yes, I support the New Brunswick Heart Centre.**

#### Here is my donation of:

\$25  \$50  \$100  \$500  Other \$ \_\_\_\_\_

I have enclosed a cheque for NB Heart Centre Foundation

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Name: \_\_\_\_\_

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City: \_\_\_\_\_ Postal Code: \_\_\_\_\_

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Expiry Date:

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**Donation Reply to:** New Brunswick Heart Centre Foundation, PO Box 2100 Saint John, NB E2L 4L2