

NBHC Heart Beat



**NEW CARDIAC PLANS
AND PROCEDURES** *at the
New Brunswick Heart Centre*



Dr. Rand Forgie

Cardiovascular news provided by
NBHC doctors and staff.



**CARDIAC
CHAMPION**



SAINT REGIONAL FOUNDATION
JOHN HOSPITAL
FONDATION DE L'HÔPITAL SAINT
RÉGIONAL JOHN

Message from the Foundation

As a Foundation, we work closely with the New Brunswick Heart Centre to help fulfill the needs of care providers, who in turn fulfill the needs of patients. The feedback we receive from doctors, nurses and clinicians give us inspiration in our goal to support the world-class work happening at the NBHC. And it is the feedback we receive from patients that gives us motivation. We are fortunate to hear many stories of lives lived longer and better because of the care they receive at the New Brunswick Heart Centre.

Here are just two of the many testimonials we've received:

"I've never seen a team collaborate so closely, and the end result is that they want to promote the health and provide quality care to the patient." – Norma Melanson, Moncton

"For me, it was ideal, because I was suffering a heart attack driving to work. So, it was turn left to the office or right to the hospital and knowing the cardiac program they have at the Regional Hospital, that is second to none. I went right, and I'm very happy that I did." – Butch Jones, Kingston Peninsula

In this issue, we learn of the latest advancements and achievements of an ever-changing department. And it is those achievements, performed by talented and dedicated health care staff, that save lives from across the Maritimes.

We at the Foundation want to continue to share the gift of philanthropy with the NBHC and continue to share the stories of its grateful patients. If you have a story you wish to share or a clinical need you would like to discuss, please get in touch with our Communications Director, Hance Colburne: hance.colburne@horizonnb.ca



Jeff McAloon
President & CEO, SJRH Foundation



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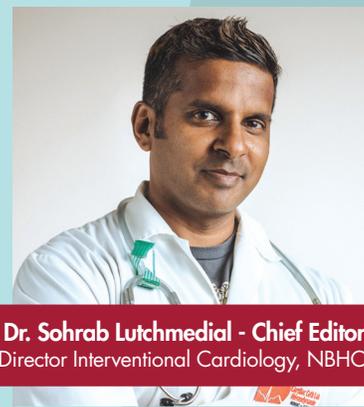
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Hello from the NBHC Team

Dr. Sohrab Lutchmedial - Chief Editor
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Janine Doucet
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Welcome to the 2019 edition of the New Brunswick Heart Centre *Heartbeat* magazine.

It has been another exciting year in our program. We have been extremely pleased to bring several new technological advances to the province as outlined in this issue. It is no secret that our goal is to become the premier cardiovascular centre in Atlantic Canada, and our commitment to bring cutting edge technology to the province is only part of our overall plan. We are actively recruiting cardiovascular specialists in new and developing fields like Heart Failure and Advanced Cardiovascular Imaging - this time next year we hope to introduce you to some of the new faces that will be caring for New Brunswickers at the Heart Centre.

Sadly, this issue we bid "Adieu" to the soon to be retired Dr. Rand Forgie, a cardiac surgeon who helped shape the NBHC to where it stands today.

Lastly, as our program grows, so does our physical footprint in the hospital. The Heart Centre has been scattered across the SJRH for the past three decades, but this coming year we will be consolidating our workspace to a single unit on the 5D wing. We look forward to welcoming our colleagues and collaborators in our new office space early in 2020.

If you have any comments, questions or suggestions for our Heartbeat team, please contact us at nbhc@horizonnb.ca



HOPE
heartbeat
research
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CARDIAC SURGERY

Subcutaneous ICD Update

I've Got You Under My Skin

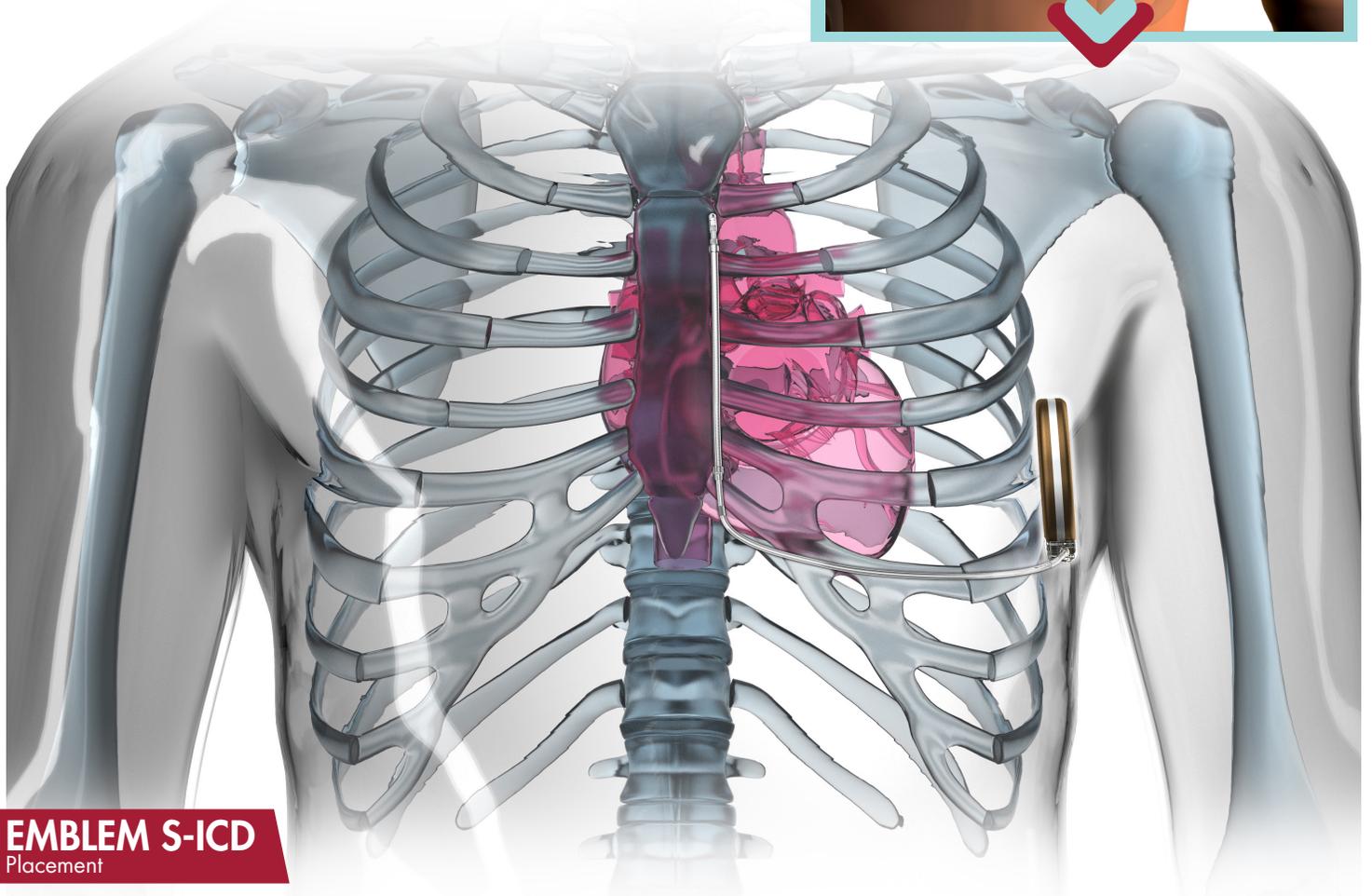
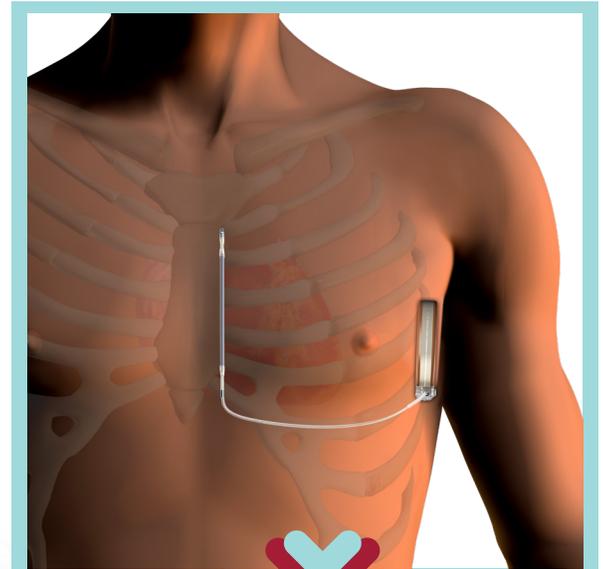
S-ICD systems, like the Emblem model pictured, provide effective defibrillation, without ever touching the heart and vasculature.

Benefits include:

- Protection without touching the heart and vasculature
- No transvenous leads
- A less invasive way to protect patients from Sudden Cardiac Arrest (SCA)

Specs:

- EMBLEM S-ICD is 20% thinner and is projected to last 40% longer than previous models
- Enabled for remote monitoring
- Incorporates contoured edges designed for ease of implant and patient comfort



EMBLEM S-ICD
Placement

NBHC Progress Update

Improvements in the Future

We all encounter challenges in life, but for many of us those challenges are greater than others. Women have unique challenges. Though our society has progressed to become stronger through seeking equity and inclusiveness for women, we still are falling short of our full potential. If you are reading this, then I hope you love yourself as a woman, that you love and value women as your wives, mothers, daughters, sisters, colleagues and friends. This year, we celebrate new progress in local cardiovascular research that seeks to improve the medical outcomes of women.

Our medical research team, IMPART (<https://impart.team/>) has been focused on improving our understanding of conditions affecting women. This includes cardio-oncology of breast cancer, heart failure with preserved ejection fraction (HFpEF), pregnancy related cardiovascular complications (PRCC) and myocardial infarction with no coronary artery disease (MINOCA). These conditions exclusively or predominantly impact women, and we have extremely limited tools and strategies to help them medically. Dr. Thomas Pulinilkunnil's PhD student, Mr. Logan Slade, recently received the Alexander Graham Bell Doctoral Scholarship, the highest award offered by the Natural Sciences Engineering Research Council of Canada. This will enable Logan to study the role of anthracycline chemotherapy in breast cancer and how the metabolic actions can be unraveled to better protect the heart, possibly even by changes in diet during chemotherapy treatment. This will also include new funds from the Dalhousie Medical Research Foundation to the IMPART BioBank team led by Dr. Pulinilkunnil, in the order of \$100,000, and the Saint John Regional Hospital Foundation Chesley Award of \$35,000.

In addition, women will soon benefit from new funding to Drs. Lutchmedial, Hassan, Légaré & Brunt that seeks to connect



Dr. Keith Brunt
Translational Scientist, NBHC

the APPROACH clinical database with the IMPART BioBank and Public Datasets (NBIRD) to establish a Real World Evidence program for monitoring impacts and outcomes of heart centre patients. The \$270,000 will come from a partnership between Servier Canada and the New Brunswick Health Research Foundation. This will allow the Heart Centre to investigate the cause(s) and efficacies (or failures) in treating conditions like HFpEF, PRCC, & MINOCA that impact women. This is to be combined with new funding from the Canadian Institutes of Health Research to Drs. Brunt & Simpson, which will establish the sex differences in an experimental model of HFpEF, so that drugs can be tested to treat this condition for the first time. In total, approximately \$1.5 million in new funds have been awarded this year to improve medicine for women!!! The New Brunswick Heart Centre is increasingly



IMPART Podcast

Project Author: **Juliana Prestes**, Host: **Hance Colburne**,
Project Manager: **Keri Calp**

being recognized as a place where innovation happens, nationally and internationally. Please stay tuned. Also, feel free to brag a bit as a Saint Johner, it's a big deal!!!

The IMPART team continues to grow, after more than doubling our clinician/scientists to 40 members! The team is supporting the mission of 30 research funding agencies, 15 partner companies (NEW JOBS!!!) and 12 universities/academic centers. We are now well on our way to establishing a national center of excellence for inflammation, metabolism, physical

NBHC Progress Update

Continued...

ability and research translation to benefit our patients. Our IMPART BioBank continues to grow and be viewed as an incredible asset alongside our brain trust of clinicians and scientists. We launched our first patient podcast (<https://impart.team>) and Facebook groups. Be sure to like and follow us, @ImpartTeam (on Facebook, Twitter, LinkedIn or Instagram). We appreciate all partners involved in this at the Heart Centre, Saint John Hospital and Foundation, DMNB, UNBSJ, and Horizon that enable us to connect patients, frontline caregivers, journalists, and scientists to improve healthcare in our own backyard.

The research and education program at DMNB will be celebrating its 10 year anniversary in the spring of 2020! At which time, 210 newly trained MD's (52% women) will have graduated right here in Saint John – it's amazing progress. This will be an incredible milestone and we hope that everyone will help us with the celebrations. The DMNB will also be celebrating the graduation of our very first biomedical PhD, Dr. Kenneth D'Souza.

This exciting achievement was the result of mentorship by Dr. Petra Kienesberger, Associate Professor of Biochemistry & Molecular Biology. Dr. D'Souza was a Vanier Scholar (Canada's most prestigious graduate award) and he has made fundamental discoveries into the nature of the enzyme autotaxin as a regulator of mitochondria. The mitochondria produce all the energy in our bodies. They can both cause or be susceptible to disease. Indeed, the cause of nearly 20% of all disease has been traced back to the mitochondria in some way. Drug companies have taken autotaxin inhibitors as far as phase-3 clinical trials to treat idiopathic pulmonary fibrosis, and Dr. D'Souza is collaborating with a private sector company to determine if these inhibitors could be used to protect patients with diabetes.

The DMNB also welcomed a new faculty member, Dr. Daniel Dutton, Assistant Professor, medical epidemiologist with a specialty in social epidemiology and health economic evaluations and a focus on poverty. Dr. Dutton received his PhD from the University of Calgary and was a fellow at the School of Public Policy in Calgary before joining us. Dr. Dutton brings with him a son and wife (who is also a physician). Welcome Dutton family!!

With respect to the growing strength in health education on the Saint John campus, UNBSJ will soon be offering a new bachelors degree in health science and has formed a graduate academic unit to bring this forward. UNB will dedicate themselves to making Saint John a health science cluster alongside their partners at DMNB, Horizon and NBCC. We encourage parents and their high caliber students, who

may have previously considered leaving the city or province to pursue a similar degree, take special note of this.

It is important to take the time to recognize the returns on investment to New Brunswick. Remember that 10 years ago there was no medical school, no locally trained MDs, the federal government gave virtually no money to health research in Saint John, far too many high school graduates left the province to study health related topics elsewhere and there were no new healthcare companies starting their business or coming to do their first clinical trials in Saint John.

As we celebrate the momentous change of this last decade, let's recognize that there is more growth on the way. The R&D activities happening in Saint John and throughout the province help attract and retain the best clinicians, students, trainees and other workers. This growth will improve our tax base, which helps everyone get the healthcare we need. These activities also enable our patients to sit at the front of the line to receive the latest technology and medicines. We have a say in what does and doesn't work for our patients. We set expectations. Collectively, we see accelerated growth in our knowledge-based economy through clinical trials and clinical development of new technology, medicines and healthcare strategies.

Science is the only way to solve problems in our healthcare system. Science is power for change. These types of investments could not have happened without the efforts of our provincial and hospital research foundations, hospital care providers, patients and community backers. If you are reading this far, I mean YOU—so, from all the members of the Heart Centre and the IMPART investigator team,

THANK YOU very much for your dedication, passion, support, generosity and faith.



Dr. Rand Forgie retires from NBHC

Dr. Rand Forgie, a native New Brunswicker born and raised in Moncton, attended Acadia University in Wolfville, Nova Scotia. There he studied undergraduate science and followed this with a Doctor of Medicine in 1979 from Dalhousie University in Halifax. Rand then went west to Edmonton to pursue a residency in General Surgery certifying as a Fellow of the Royal College of Physicians and Surgeons of Canada in 1985. Subsequently, he pursued a residency in Cardiovascular and Thoracic Surgery and achieved his Masters in Surgical Science in 1986 and Royal College certification in 1988.

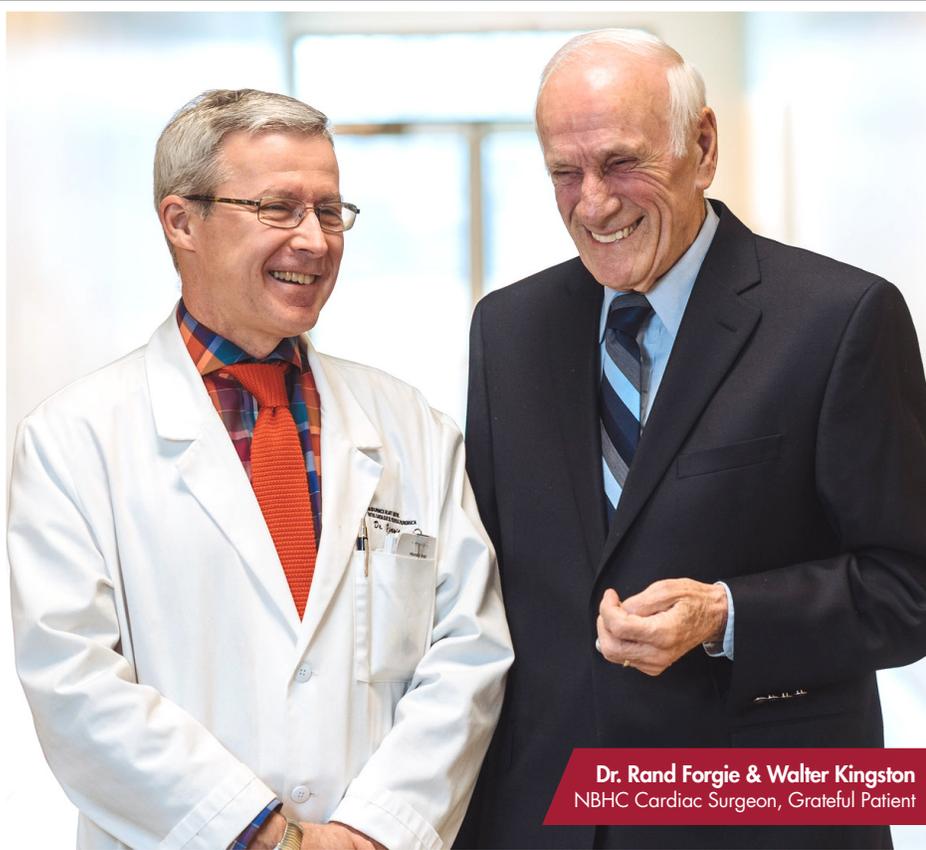
He began his cardiovascular and thoracic surgical career in Regina, Saskatchewan at the Plains Health Centre, but the opening of the New Brunswick Heart Centre in Saint John lured him back to the province in 1991. Although Rand operated on patients suffering from the broad spectrum of adult cardiac surgical disease, he was particularly interested in mitral valve surgery and was a key member of the TAVI program. In addition, he served as the undergraduate education liaison between the Department of Cardiac Surgery and DalMed NB, and ably represented our specialty in the NB Medical Society.

His wife Kathryn and he have proudly raised three boys and several canine children, and can now boast of three grandchildren (human). His major outside interests have been and continue to be golf (single digit handicap), gardening and fine wine.

The members of the Department of Cardiac Surgery at the New Brunswick Heart Centre will miss his practical wisdom, calm collegiality and attention to detail. We wish him and Kathryn a long, happy and healthy retirement.



THANK YOU
Dr. Rand Forgie!



Dr. Rand Forgie & Walter Kingston
NBHC Cardiac Surgeon, Grateful Patient



Dr. Rand Forgie
Cardiac Surgeon, NBHC

NBHC Relocation - Growth in the Future

The New Brunswick Heart Centre (NBHC) first opened its doors for business in April 1991. The program began with only one cardiovascular surgeon and one interventional cardiologist requiring office space within the Saint John Regional Hospital (SJRH) facility. Unoccupied space was abundant within the footprint of the SJRH at the time and the administrative area for the NBHC program was set up on the first level adjacent to an ambulatory clinic that was moderately busy. An open space for four administrative support personnel and eight offices seemed sufficient at that time for opportunity for growth.

Over the next nearly three decades, the program has seen significant expansion and diversification. As capacity expanded and services were added, additional physicians, support services and personnel all required additional space. Adjustments were made to the existing space creating as many cubicles as could be supported without work code violations. Filing cabinets reached as high as the fire marshall would allow. Subsequent fragmentation and dispersion was the only solution possible to allow the growth to continue. Support services are currently located on 4 different floors and 3 separate towers creating significant inefficiencies.

While the NBHC program has grown, the adjacent ambulatory clinic, through which heart center personnel need to pass to get to their offices and workspace, has also grown. The clinic is now one of the busiest clinics in the province and is in desperate need of expansion. This hectic clinic environment often infringes into the NBHC space creating other work-related challenges. Fortunately, the SJRH Foundation embarked upon a campaign raising funds to support the much-needed Clinic 1 expansion. However, the footprint required for the clinic expansion includes the space currently occupied by the NBHC program administration and support services; therefore, we must be relocated.

In an effort to defragment several NBHC services, facilities planning personnel were able to support a series of moves that will allow the NBHC to relocate to 5DN at the Saint John Regional Hospital. The space will enable us to consolidate the physicians, NBHC administrative and administrative support personnel, NBHC access management personnel, TAVI program coordinators and cardiovascular research personnel. The efficiencies created by this consolidation are vast. The area has four examination rooms which will enable us to schedule appointments in a more patient centered manner as opposed to scheduling around room availability within the facility. A fully e-connected conference room will provide us with greater flexibility to schedule meetings around personnel availability as opposed to scheduling around room availability. The NBHC has been hosting weekly cardiovascular rounds that are now available via online video/teleconferencing software – this new conference room will now allow for treating physicians from across the province to participate in the discussion and management of challenging patient conditions. The further adjacency to the inpatient cardiology departments, cardiac telehealth, cardiac health and wellness and our outpatient cardiac catheterization assessment clinic, also all located on the 5th level, will create further efficiencies.

For the first time in close to twenty years, personnel who share responsibilities for our patients' care continuum will be located together within a proximity that will promote work effectiveness. We are all eager to relocate to our new home. We are grateful to have a space that consolidates many of our NBHC personnel and support services. We look forward to being able to invite internal and external stakeholders to our new NBHC program administration area. Should you arrive a few minutes early, we will now have a waiting area for you to sit and wait comfortably and quietly.

CLINIC 1

There is a good chance that anything you bought in 1982 is either gone, or had some major work done to keep it in good working order. When Clinic 1 opened in 1982, it met the needs of the time. But, 31 specialties now call it home. Almost 40 years later, it has been untouched. And it shows. Not in the quality and care of the work of doctors, nurses and clinicians, but in the crowded waiting room, the hallways pressed into action as doctor's offices, and quiet corners of stairways used to give patients delicate, sensitive information. The care is still exceptional, in spite of the deficiencies, and we've decided our health care professionals and our patients deserve better. We are soon ready to break ground (or at least walls) in a new beginning for Clinic 1. With the Saint John Regional Hospital Foundation's 12-million-dollar campaign approaching 6 million dollars, construction will begin in the coming months.

Clinic 1 is finally getting the attention it deserves so patients can get the care they deserve. The more than 40 thousand New Brunswickers who visit Clinic 1 every year know of its limitations. Together, we will turn a 7,000 square foot space into 14,700 square feet, improving accessibility, privacy and patient comfort and care.

The idea for the expansion came from those who work in Clinic 1. And they have been consulted every step of the way. While there will be some growing pains, we are excited to be part of new beginnings in health care in New Brunswick.

New **ADVANCES** in Heart Health

Committing to bringing cutting edge cardiovascular care to New Brunswick.

This year has seen continued innovation in the Interventional Cardiology field here at the NBHC. In April, we performed the first percutaneous mitral paravalvular leak closure in our province. This was done for a patient with debilitating heart failure due to a severe paravalvular leak around a bioprosthetic mitral valve. The patient had undergone two previous open-heart valve surgeries and it was felt that there were no further surgical options to treat his condition. We were able to offer him a non-surgical option that could be done through a small hole in the femoral vein in his leg.

This was a true team effort, involving two interventional cardiologists, anesthesia and a number of nursing and allied health staff. The procedure was successful, and the patient was home within a day or two and is doing well.

Our structural heart program continues to evolve. We are now in the final stages of acquiring an intracardiac echo system that will allow us to perform echocardiography within the heart by inserting a small diameter probe through the femoral vein in the leg. This can be done under local anesthesia avoiding the need for general anesthesia and transoesophageal echo for many of our complex structural heart disease cases.

Once we have this new imaging technology on site, we plan to start our new percutaneous atrial septal defect / patent foramen ovale closure program. These two similar cardiac defects are holes between the upper chambers of the heart (the atria). These defects can have a causal relationship with



Dr. Brent McGrath
Interventional Cardiologist

pulmonary hypertension (in the case of an atrial septal defect) and cryptogenic stroke (in the case of patent foramen ovale). Presently, patients who require percutaneous repair of these defects are being sent out of province.

“ Saint John is home, so to bring this back home **is really a win-win for Saint John and myself.**

Dr. Brent McGrath ”

We hope to be offering this service locally very soon, continuing our commitment to bringing cutting edge cardiovascular care to New Brunswick.

HEALING & HEARTS SAVING LIVES

- The NBHC is the primary referral centre for cardiac care in New Brunswick and Prince Edward Island.
- The NBHC has been healing hearts for 27 years.
- Every year they care for over 24,000 patients.

THANK YOU
for healing hearts and saving lives!
Your support is deeply appreciated.



CARDIAC

HEALTH & WELLNESS



SAINT JOHN REGIONAL HOSPITAL FOUNDATION
FONDATION DE L'HÔPITAL SAINT RÉGIONAL JOHN

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Give. Gratitude.

IMPROVING
cardiovascular health & wellness
in our New Brunswick community

The **Saint John Regional Hospital Foundation** accepts gifts to support the cultivation of excellence at the New Brunswick Heart Centre. *These gifts will result in enhanced cardiac care right here in NB...right away.*

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

Please find enclosed my donation of:

\$25 \$50 \$100 \$500 Other \$ _____

I have enclosed a cheque, payable to: **Saint John Regional Hospital Foundation**

Please charge my:   

Name: _____

Address: _____

City: _____ Postal Code: _____

CARD NUMBER: _____ EXPIRY DATE: _____

SIGNATURE: _____ CV#: _____

Donation Reply to:
Saint John Regional Hospital Foundation, P.O. Box 2100, Saint John, NB E2L 4L2

Your Donation will:

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



NBHC
HeartBeat

NEW CARDIAC PROCEDURES
at the *New Brunswick Heart Centre*

