Challenge

# Better care for people with atrial fibrillation

## A Québec-wide group of cardiologists partners with Boehringer Ingelheim to implement guideline-based protocols, patient education and care coordination

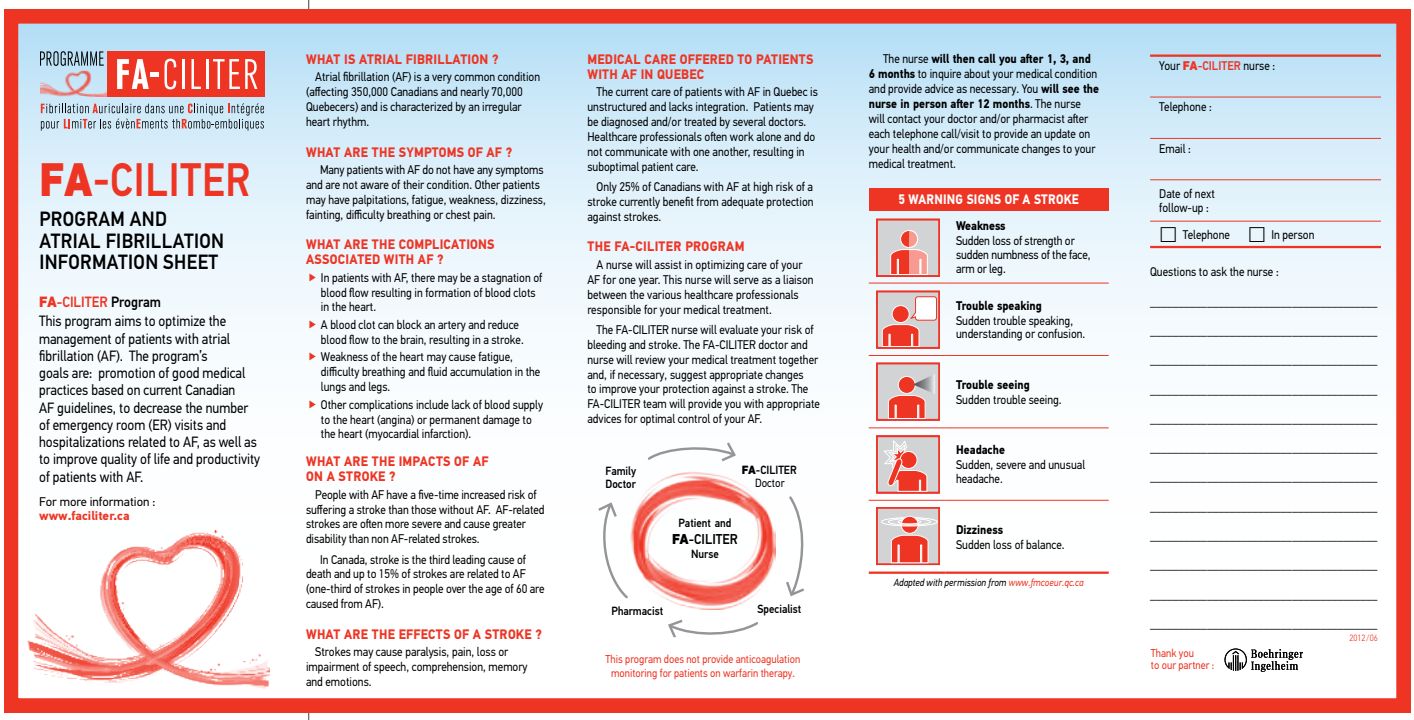
Approximately 70,000 people in Quebec have atrial fibrillation (AF), a cardiac arrhythmia associated with increased risk of heart failure, stroke and mortality. According to Dr. Thao Huynh, cardiologist at the McGill University Health Centre (MUHC), only 25% of people with AF are adequately protected against stroke and close to 8,000 people in Quebec with AF are admitted to hospital every year due to this condition.

They are frequent visitors to the emergency department (ED) when worrisome heart palpitations or bleeds occur.

Dr. Huynh recognized serious shortcomings in AF care. Patients typically see several healthcare professionals and take medications, such as anticoagulants, that require close monitoring. Communication among the professionals involved in the patient's care is generally insufficient and suboptimal. She estimates that ED visits could be reduced by up to 20% through better care coordination. "I see between three and five patients with AF a day and recognize that they're a very difficult group to manage well," she says. "They're shipped back and forth between the ED, the family physician and heart specialist with nobody providing a link."

In 2011, she approached Boehringer Ingelheim, a pharmaceutical company with long experience in cardiovascular health to discuss measures that could bring about significant improvements in the care of this group of patients. These involved the development of treatment algorithms and protocols and the establishment of a knowledge-sharing network to encourage adoption of guideline-recommended care in cardiology and general practice. Dr. Huynh also foresaw the creation of a "pivot" or liaison nurse role to assume care coordination and patient education and reduce ED visits. "Around the world and in many specialties," observes Dr. Huynh, "we see that nurse-led programs are more effective than physician-led programs because physicians do not always have the time to spend educating patients and coordinating care."

Boehringer Ingelheim had prior experience at the MUHC, as one of the industry partners on the Living Well with COPD program[1] and the CanCOLD (Canadian Cohort of Obstructive Lung Disease) prospective multi-center cohort study, both led by Dr. Jean Bourbeau at the Montreal Chest Institute. Boehringer Ingelheim also had a particular interest in AF, having recently developed an anticoagulant that provided an alternative to warfarin. The company perceived a golden opportunity to change the face of AF care in Quebec that could then contribute to closing important care gaps in AF across Canada. They agreed to provide significant funding to support the project over a two-year period. The global aim was to encourage the promotion of good medical practice in the management of patients with AF as based on



PROGRAMME FA-CILITER
Fibrillation Auriculaire dans une Clinique Intégrée pour LImiTer les évènEments thRombo-emboliques

# FA-CILITER

## PROGRAM AND ATRIAL FIBRILLATION INFORMATION SHEET

**FA-CILITER Program**

This program aims to optimize the management of patients with atrial fibrillation (AF). The program's goals are: promotion of good medical practices based on current Canadian AF guidelines, to decrease the number of emergency room (ER) visits and hospitalizations related to AF, as well as to improve quality of life and productivity of patients with AF.

For more information :
www.faciliter.ca

**WHAT IS ATRIAL FIBRILLATION ?**

Atrial fibrillation (AF) is a very common condition (affecting 350,000 Canadians and nearly 70,000 Quebecers) and is characterized by an irregular heart rhythm.

**WHAT ARE THE SYMPTOMS OF AF ?**

Many patients with AF do not have any symptoms and are not aware of their condition. Other patients may have palpitations, fatigue, weakness, dizziness, fainting, difficulty breathing or chest pain.

**WHAT ARE THE COMPLICATIONS ASSOCIATED WITH AF ?**

- In patients with AF, there may be a stagnation of blood flow resulting in formation of blood clots in the heart.
- A blood clot can block an artery and reduce blood flow to the brain, resulting in a stroke.
- Weakness of the heart may cause fatigue, difficulty breathing and fluid accumulation in the lungs and legs.
- Other complications include lack of blood supply to the heart (angina) or permanent damage to the heart (myocardial infarction).

**WHAT ARE THE IMPACTS OF AF ON A STROKE ?**

People with AF have a five-time increased risk of suffering a stroke than those without AF. AF-related strokes are often more severe and cause greater disability than non AF-related strokes.

In Canada, stroke is the third leading cause of death and up to 15% of strokes are related to AF (one-third of strokes in people over the age of 60 are caused from AF).

**WHAT ARE THE EFFECTS OF A STROKE ?**

Strokes may cause paralysis, pain, loss or impairment of speech, comprehension, memory and emotions.

**MEDICAL CARE OFFERED TO PATIENTS WITH AF IN QUEBEC**

The current care of patients with AF in Quebec is unstructured and lacks integration. Patients may be diagnosed and/or treated by several doctors. Healthcare professionals often work alone and do not communicate with one another, resulting in suboptimal patient care.

Only 25% of Canadians with AF at high risk of a stroke currently benefit from adequate protection against strokes.

**THE FA-CILITER PROGRAM**

A nurse will assist in optimizing care of your AF for one year. This nurse will serve as a liaison between the various healthcare professionals responsible for your medical treatment.

The FA-CILITER nurse will evaluate your risk of bleeding and stroke. The FA-CILITER doctor and nurse will review your medical treatment together and, if necessary, suggest appropriate changes to improve your protection against a stroke. The FA-CILITER team will provide you with appropriate advices for optimal control of your AF.




This program does not provide anticoagulation monitoring for patients on warfarin therapy.

The nurse **will then call you after 1, 3, and 6 months** to inquire about your medical condition and provide advice as necessary. You **will see the nurse in person after 12 months**. The nurse will contact your doctor and/or pharmacist after each telephone call/visit to provide an update on your health and/or communicate changes to your medical treatment.

**5 WARNING SIGNS OF A STROKE**



**Weakness**
Sudden loss of strength or sudden numbness of the face, arm or leg.



**Trouble speaking**
Sudden trouble speaking, understanding or confusion.



**Trouble seeing**
Sudden trouble seeing.



**Headache**
Sudden, severe and unusual headache.



**Dizziness**
Sudden loss of balance.

*Adapted with permission from www.fmcoeur.qc.ca*

Your FA-CILITER nurse :

Telephone :

Email :

Date of next follow-up :

☐ Telephone ☐ In person

Questions to ask the nurse :

2012/06

Thank you to our partner : Boehringer Ingelheim

the Canadian guidelines and the criteria for reimbursement by the Régie de l'assurance maladie du Québec (RAMQ).

## The program

Dr. Huynh, along with Caroline Boudreault, the clinical trials research nurse who has worked with her at the MUHC for 17 years, set out to recruit university health centres and other hospitals to participate in the project. "We already had contacts in cardiology at many of the centres from the previous network we established, AMI-Québec,"[2] says Ms. Boudreault.

The project was named FA-CILITER (Fibrillation Auriculaire dans une Clinique Intégrée pour LImiTer les évènEments thRombo-emboliques). An executive committee was formed that includes Quebec's four medical faculties and their affiliated centres (the MUHC, the Centre hospitalier de l'Université de Montréal (CHUM), the Cité de Santé de Laval and the Institut de Cardiologie et Pneumonologie du Québec) the Centre hospitalier universitaire de Sherbrooke and Sacré-Coeur Hospital.[3] A provincial cohort of health professionals at nine other health centres across the province joined the project, including the Lakeshore General Hospital and Jewish General Hospital in Montreal; CHA-Enfant-Jésus, and Hôtel-Dieu de Lévis in Québec City; and regional hospital centres in Saguenay, Trois-Rivières and Saint-Georges de Beauce.

The FA-CILITER project officially launched in February 2012 with a goal of treating 4,000 AF patients. It has three main areas of focus:

1. Implementation in the 13 participating healthcare centers of a guide for managing AF patients, developed according to the latest Canadian Cardiovascular Society's atrial fibrillation guidelines, and taking into account the criteria for medication reimbursement in Quebec.
2. Establishment of a knowledge transfer network between the institutions and the community using a website, a toolkit, and educational programs for healthcare professionals and patients.
3. Integration of a liaison "pivot" nurse within each centre, responsible for educating and coordinating care of AF patients for a one-year period, according to the treatment guide and under a physician's supervision. This nurse is responsible to provide linkages between the various healthcare professionals involved in care.

In each of the participating centers, a nurse with expertise in cardiology was trained to become the pivot nurse for AF patients. The nurse meets with the patient following AF diagnosis to evaluate their needs and provide education, and follows up at three-month intervals to check on the patient's ability to manage AF. Findings and concerns are communicated to the treating physician and to the pharmacist.

A significant portion of the funding from Boehringer Ingelheim is devoted to supporting these nursing roles. The four major hospitals each have a full-time nurse devoted to AF care coordination, responsible for following 400 patients. They are available on demand to deal with questions and concerns from the patients and their healthcare providers. Each of the nine other centers has a part-time nurse in this role, following 250 patients each. "We want to improve patients' quality of life and their ability to self-manage," says Ms. Boudreault, "and that requires a nurse who can spend time with them." Support for the nurses' salaries was crucial for securing participation of the healthcare institutions.

The executive committee oversaw the development of educational materials on AF management geared for physicians, nurses and patients. These are based on the latest Canadian cardiovascular society guidelines. Boehringer Ingelheim's network of sales representatives proved useful in assuring the distribution of educational materials. The company supported development of the web-based knowledge-sharing network to facilitate communication of best practices (www.faciliter.ca), and organized in-hospital training and information sessions. "We held rounds in cardiology, internal medicine and emergency medicine at each of the participating hospitals," says Mr. Désormeau, Healthcare Affairs Manager at Boehringer Ingelheim.

## Results

While FA-CILITER is exclusively a program of care, a second project, INTEGRATE-AF, also supported by Boehringer Ingelheim, willl be evaluating the outcome measures of the FA-CILITER program. Each of the pivot nurses keeps case reports that outline whether patients are being treated according to guidelines and track the number of hospitalizations and ED visits as well as patient outcomes and experience. Dr. Huynh expects results of the project INTEGRATE-AF to be presented at the Canadian Cardiovascular Congress and published in 2015. Multi-site research ethics board approval was received in September 2013 and patients are being contacted to provide consent to share their medical information.

A survey of participating centres in Spring 2013 found the project to be perceived very positively. "Patients are learning about their condition and their risk," says Ms. Boudreault, "which improves adherence to therapy and lifestyle changes. This is key to reducing the risk of stroke. They also feel like someone is taking care of them. While we don't have the numbers yet, the nurses definitely feel they are enabling patients to avoid ED visits and unnecessary hospitalizations."

The program also appears to have helped shorten ED visits when patients do arrive. People with AF are now treated much more rapidly and are less likely to be hospitalized, according to Dr. Danielle Dion cardiologist at Saint-Georges hospital in Beauce.

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— Ms. Caroline Boudreault

A number of patients have submitted testimonials of their experience with the care program to the FA-CILITER website. Mr. Peter O'Brien, a Montreal lawyer writes: "The biggest help in seeing me through these trying times was the FA-CILITER program, through which I was regularly monitored. Most important was their role in educating me about Afib [atrial fibrillation], and in particular MY Afib, how to treat it how to live with it, the importance of blood thinners to help avoid future strokes, and generally to

put some structure to the information I was bombarded with from the Internet."

## Potential for expansion

FA-CILITER is the first interdisciplinary program for AF care in Quebec. The goal is to demonstrate reductions in ED visits, improved health and patient experience and see the pivot nurse and educational programs funded publicly and incorporated into Quebec's health system.

Assuring the sustainability of the project is a key consideration and Dr. Huynh and the executive committee are now discussing how to apply the tools and model of care developed in FA-CILITER throughout Quebec. There is recognition that much effort will need to go into improving primary care for AF patients. Within the MUHC, Dr. Huynh is working with the Neurology Department to expand the care program to the patient population with AF who has already suffered a stroke.

Additional funding will be required to perpetuate the work of the pivot nurses, something that is difficult in the current economic climate. However, even before publication of the FA-CILITER results, Ms. Boudreault notes that four of the participating centers have realized the benefits of the FA-CILITER project and have taken over responsibility for funding the pivot nurse role after completion of the project. This is often being integrated into the responsibilities of an existing nursing position.

A previous project in which Dr. Huynh had a leading role, AMI-Québec, blossomed into a sustained network across Québec that received additional support from the Canadian Institutes for Health Research and the Fonds de Recherche en Santé du Québec. "Industry grants can promote government support," says Dr. Huynh, "and vice versa." She hopes that FA-CILITER will receive similar support and become a sustained network of AF care.

In her encounters, Dr. Huynh has found companies very interested in supporting initiatives to promote the use of guidelines and improve care. The resources they provide help her pursue the ultimate goal, which is to make a difference in the health care patients receive in Quebec. ■

## NOTES

**1.** Starting in 1996, Dr. Jean Bourbeau led and devised, with other health professionals from Quebec, the renowned self-management chronic obstructive pulmonary disease (COPD) program called "Living well with COPD". The program helps physicians develop a partnership with their patients to facilitate the adoption of healthy lifestyle and has been shown to improve individuals' quality of life, reduce hospitalizations and emergency room visits by 40%, and unscheduled medical visits by 60%. Its development was supported through a public-private partnership between the Montreal Chest Institute of the McGill University Health Centre, the Fonds de la Recherche en Santé du Québec Respiratory Health Network, Boehringer Ingelheim Canada, Pfizer Canada, GlaxoSmithKline, the Canadian Lung Association, the Réseau québécois de l'asthme et de la MPOC (RQAM), health care professionals and patients within and outside of Canada. The Living Well with COPD program has been approved by the health ministry of Québec and implemented in all the regions of the province. It has also been adapted for implementation in other provinces and countries. See http://www.livingwellwithcopd.com

**2.** AMI-Québec is a long-term knowledge translation program to optimize pre-hospital, in-hospital, discharge and long-term care of patients who suffer cardiovascular diseases in Quebec by identifying care gaps and obstacles to optimal care, and proposing solutions to these obstacles. It is supported by Sanofi, Roche, Astra-Zeneca, Bristol-Myers Squibb, along with the CIHR, FRSQ and MUHC Research Institute. See http://www.amiquebec.ca

**3.** Members of the FA-CILITER executive committee: Dr. Félix Alejandro Ayala-Paredes, CHUS; Dr. Teresa Kus, HSCM; Dr. Vidal Essebag and Dr. Thao Huynh, MUHC; Dr. Martine Montigny, Hôpital de la Cité-de-la-Santé; Dr. Gilles O'Hara, Dr. François Philippon and Dr. Jean-François Sarrazin, IUCPQ; Dr. Isabelle Greiss and Dr. Jean-Marc Raymond, CHUM.