



INSTITUT UNIVERSITAIRE
DE CARDIOLOGIE
ET DE PNEUMOLOGIE
DE QUÉBEC



Press Release

**CANADIAN MEDICAL PREMIERE:
NEW IMPLANTED CARDIAC DEFIBRILLATOR
AT THE QUEBEC HEART AND LUNG INSTITUTE – LAVAL UNIVERSITY**

Quebec City, May 19, 2017 • A team of cardiac electrophysiologists from the Quebec Heart And Lung Institute – Laval University successfully implanted the first in Canada of PLATINIUM, a new generation of internal cardiac defibrillators. Approved by Health Canada in March 2017, the Institute implanted the first new generation of defibrillators on May 9 and 18. "Our medical team was the first in Canada to use this device and we are proud of it, especially for our patients who will benefit from this technological advancement," said Dr. Jean Champagne, cardiac electrophysiologist, and Chief of the Cardiac Electrophysiology Department at the Institute. Dr. Champagne is also a researcher at the Institute's Research Centre and a full professor at Laval University.

Every year, the Institute implants over 1,000 cardiac pacemaker and defibrillators, which makes it one of the largest centers in Canada.
The Institute's physicians and health professionals have extensive expertise and contribute to advancing the science of medicine.
The mission of the Institute is also to evaluate health technologies and interventions.

"The longevity of the device is an important factor to consider for our patients receiving internal cardiac defibrillators (ICD), and the new PLATINIUM offers an excellent balance between the extended life and the size of the device" stated Dr. Louis Blier, cardiac electrophysiologist. "We are delighted to be able to create value and support this new technology by also offering to our Canadian customers and their patients an industry-leading warranty with the PLATINIUM family," said Scott Dick, Sales Director, CRM and Neuromodulation, LivaNova Canada. "This is an important step, and we thank Dr. Jean Champagne and the Institute's electrophysiology program team for agreeing to join us. "

Some statistics on our clientele:

The Institute's ten electrophysiologists perform nearly 2,700 procedures annually, which is the highest volume of activity in a single site in Canada. Approximately 600 implantable defibrillators are implanted per year to prevent sudden death, of which 20% are device replacements due to end of battery life. Annually, the Institute treats tachycardia (SVT-AF-VT) with the use of radio-frequency ablation catheters or cryoablation in approximately 1,000 patients and bradycardia problems with the implantation of nearly 1,000 pacemakers. The Institute offers its patients the latest technologies such as leadless pacemakers, subcutaneous defibrillators, left atrial closures to prevent strokes related to atrial fibrillation as well as pacing lead extractions due to infection. The team of electrophysiologists participates in more than 20 research projects in collaboration with the major international centers to evaluate the technologies of the future.

ABOUT THE PLATINIUM DEFIBRILLATOR

This new device offers unmatched longevity thanks to innovative technology that ensures extremely low intrinsic power consumption. Under standard operating conditions, the lifetime of the unit is estimated to be more than 14 years for the single-chamber ICD model, more than 13 years for the dual-chamber ICD model and more than 10 years for CRT-D devices. More than 60% of patients are under 70 years of age at the time of their first device implant¹ and more than one-third will require at least one replacement due to battery depletion². Replacement procedures are associated with twice as many surgical re-procedures as de novo procedures because of increased rates of complications such as infection³. The mortality rate in patients with an infection is 16.9% at 1 year and 27.5% at 3 years⁴.

The exceptional longevity of this device, which has been achieved without compromising its size, is aimed at limiting the number of device replacements and minimizing the risks inherent in such re-implantation procedures. The size of PLATINIUM varies from 31 cc to 33 cc and the Ergoform™ design of the case with its rounded shape and smooth contours has been designed to facilitate the implantation procedure and improve patient comfort. The devices of this new generation of defibrillator also include proven therapeutic functions, including PARAD+™, a proven arrhythmia discrimination algorithm, Safer™ stimulation mode which preserves natural cardiac conduction and SonR™, the only contractility sensor that automatically optimizes CRT settings.



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Annually, 14,598* people are hospitalized and 119,186 visits are carried out on an outpatient basis for 40,751 users. The Institute services a population of over 2,000,000 people, or about 30% of the population of Quebec. Affiliated with Laval University, the institute relies on the collaboration and dedication of more than 3,000 employees, doctors, professionals, researchers, managers and volunteers to provide quality care and services to inpatient and outpatient clients. The Institute offers specialized and ultra-specialized care and service programs for the treatment of cardiovascular, respiratory, and obesity-related diseases. The Institute's physicians and health professionals have extensive expertise and contribute to advancing the science of medicine. The mission of the Institute is also to evaluate health technologies and interventions. The Research Centre of the Institute is internationally recognized for the quality of its research work.

* Financial data 2015-2016

ABOUT THE RESEARCH CENTRE

The research centre's vision is to be a key international player in the fight against chronic diseases due to its integrated research model in cardiology, pulmonology and obesity. Considered as exceptional at its last evaluation in the spring of 2014 by the Quebec Health Research Fund, the Research Centre collaborates with 157 researchers, many of whom are recognized as leaders in their field. These

internationally renowned researchers are among the most productive in Quebec. In addition, the perfect alignment of the research axes with the specializations of the Institute ensures synergy between clinicians and researchers, thus enabling a rapid transfer of knowledge to patient care.

REFERENCES

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The Institute, present in its community and on social media

