

Medtronic Announces CE Mark of World's Smallest Pacemaker, Micra Transcatheter Pacing System

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Miniaturized Device Less Than One-tenth the Size of a Conventional Pacemaker and Placed Directly in the Heart

DUBLIN - April 14, 2015 - Medtronic plc (NYSE: MDT) today announced it has received CE (Conformité Européenne) Mark of the Micra® Transcatheter Pacing System (TPS), the world's smallest pacemaker. At less than one-tenth the size of traditional pacemakers, the Micra device provides the most advanced pacing technology available while being cosmetically invisible and small enough to be delivered with minimally invasive techniques through a catheter, and implanted directly into the heart.

Comparable in size to a large vitamin, the Micra TPS does not require the use of wires, known as "leads," to deliver pacing therapy; rather, it is attached to the heart via small tines and delivers electrical impulses that pace the heart through an electrode at the end of the device.

"Unlike traditional pacemakers, the Micra TPS does not require leads or a surgical 'pocket' under the skin, so potential sources of complications are eliminated - as are any visible signs of the device," said Philippe Ritter, M.D., cardiologist at Hôpital Cardiologique de Haut Lévêque and Centre Hospitalier Universitaire (CHU) Bordeaux. "While the Micra TPS is dramatically smaller, it is a fully self-contained pacemaker that still delivers the most advanced pacing technology available to patients."

Once positioned, the Micra TPS is attached to the heart wall and can be repositioned or retrieved, if needed. The device responds to patients' activity levels by automatically adjusting therapy. Despite its miniaturized size, the Micra TPS has an estimated 10-year battery life and is approved for full body MRI scans, providing patients with access to the most advanced imaging diagnostic procedures.

The device was awarded CE Mark based on results from the first 60 patients (at three months) in the Medtronic Micra TPS Global Clinical Trial. The trial is ongoing and will continue to evaluate the safety and efficacy of the device through a single-arm, multi-center study that will enroll up to 780 patients at approximately 50 centers in 20 countries. Initial results from the Micra TPS Global Clinical Trial will be revealed for the first time at a late-breaking clinical trials session at the Heart Rhythm Society's 2015 Annual Scientific Sessions in May.

In the U.S., the Micra TPS is an investigational device and not yet approved for commercial use.

"Our cross-functional teams have been working for years to redefine engineering limits and production capabilities by radically reducing the size of medical devices by more than 90 percent while continuing to innovate upon the existing technology," said Brian Urke, vice president and general manager of the Cardiac Rhythm and Heart Failure's Brady business, which is part of the Cardiac and Vascular Group at Medtronic. "We believe our investment in this research is transforming cardiac care and will provide more and better therapy options to patients."

Pacemakers help restore the heart's rhythm by sending electrical signals to the heart to increase the heart rate, which can relieve the symptoms of bradycardia. Pacemaker therapy is the most common way to treat bradycardia (a slow heartbeat), with more than one million pacemakers implanted worldwide each year.¹ The Micra device is available for patients who benefit from single-chamber pacing as it paces one chamber of the heart, the right ventricle.

In collaboration with leading clinicians, researchers and scientists worldwide, Medtronic offers the broadest range of innovative medical technology for the interventional and surgical treatment of cardiovascular disease and cardiac arrhythmias. The company strives to offer products and services that deliver clinical and economic value to healthcare

consumers and providers around the world.

About Medtronic

Medtronic plc (www.medtronic.com), headquartered in Dublin, Ireland, is the global leader in medical technology - alleviating pain, restoring health and extending life for millions of people around the world.

Any forward-looking statements are subject to risks and uncertainties such as those described in Medtronic's periodic reports on file with the Securities and Exchange Commission. Actual results may differ materially from anticipated results.

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¹ Mond HG, Proclemer A. The 11th world survey of cardiac pacing and implantable cardioverter-defibrillators: calendar year 2009 -- a World Society of Arrhythmia's project. *Pacing Clin Electrophysiol.* 2011 Aug;34(8):1013-27.

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