Medtronic News

Data Reinforce Benefits of Medtronic Cardiac Resynchronization Therapy Technologies in 'Real-World' Setting

EffectivCRT(TM)and AdaptivCRT(TM) Exclusives Featured in Heart Rhythm 2017 Presentations

DUBLIN - May 15, 2017 - Medtronic plc (NYSE: MDT) today announced new data supporting the clinical performance of the company's exclusive EffectivCRT(TM) Diagnostic and AdaptivCRT(TM) algorithm in heart failure patients who receive cardiac resynchronization therapy (CRT) devices. The data were recently presented at Heart Rhythm 2017, the Heart Rhythm Society's 38th Annual Scientific Sessions in Chicago.

CRT is an established treatment that uses an implantable defibrillator or pacemaker to improve the pumping efficiency of the heart. Many CRT devices report "percent pacing" - a measure of whether the device sends a pacing pulse to stimulate the heart. However, they do not report the effectiveness of each pacing stimulus - that is, whether the pacing pulse "captures" the heart muscle and improves its pumping ability. The EffectivCRT Diagnostic - available on the newest Medtronic CRT-defibrillators and CRT-pacemakers - automatically determines the effectiveness of left ventricular pacing.

Chris Plummer, M.D., of Freeman Hospital, Newcastle-on-Tyne, United Kingdom, presented an analysis of 335 patients implanted with a Claria MRI(TM) CRT-D SureScan(TM), which provides diagnostics to help determine the cause of ineffective pacing. Awareness of effective CRT can help physicians provide a more personalized approach to treatment.

Additionally, a large (40,000+ patients) observational study compared the risk of developing atrial fibrillation (AF) in patients with CRT-Ds treated with AdaptivCRT vs. standard biventricular pacing. Patients treated with AdaptivCRT experienced a 35 percent reduction in the subsequent development of AF compared to patients treated with standard biventricular pacing. The data presented at Heart Rhythm 2017 are consistent with previous findings from the randomized Adaptive CRT clinical trial, which demonstrated a 46 percent reduction in the risk of developing AF1.

"These outcomes further confirm the benefits of these advanced cardiac resynchronization therapy technologies delivered in a contemporary real-world clinical setting," said Jonathan Hsu, M.D., cardiac electrophysiologist and assistant professor of medicine at the University of California, San Diego. "AdaptivCRT gives us more insights and automatically makes adjustments based on each patient's unique needs, and our study suggests that its use is associated with a decreased risk of developing atrial fibrillation."

The AdaptivCRT algorithm, available in the Medtronic Claria MRICRT-D, Amplia MRI(TM) Quad CRT-D SureScan(TM), Percepta(TM) Quad CRT-P MRI SureScan(TM), and Serena(TM) Quad CRT-P MRI SureScan(TM), adjusts the way the device stimulates (paces) the heart according to minute-to-minute evaluations of each patient's rhythm. The Percepta Quad CRT-P also features the EffectivCRT Diagnostic.

"Medtronic is committed to providing the most advanced technologies that are shown to help improve the delivery and effectiveness of cardiac resynchronization therapy in both controlled and real-world environments," said David Steinhaus, M.D., vice president and general manager of the Heart Failure business, which is part of the Cardiac and Vascular Group at Medtronic. "Our portfolio of cardiac devices and technologies continues to lead the way in personalized care, creating better solutions and improving individual patient outcomes."

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 of the highest quality 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 among the world's largest medical technology, services and solutions companies - alleviating pain, restoring health and extending life for millions of people around the world. Medtronic employs more than 88,000 people worldwide, serving physicians, hospitals and patients in approximately 160 countries. The company is focused on collaborating with stakeholders around the world to take healthcare Further, Together.

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 Martin D, et al. Clinical outcomes with adaptive cardiac resynchronization therapy: Long-term outcomes of the Adaptive CRT Trial. HFSA Annual Scientific Meeting. September 23, 2013.

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