Medtronic News

Medtronic Mosaic(R) Heart Valve Demonstrates Long-Term Durability up to 12 Years in International Study

MINNEAPOLIS, Feb 28, 2011 (BUSINESS WIRE) --

Medtronic, Inc. (NYSE: MDT) today announced that its Mosaic(R) bioprosthetic heart valve has demonstrated positive performance results at 12 years in a study published online in *The Journal of Thoracic and Cardiovascular Surgery*. The Mosaic valve was evaluated in patients who had aortic valve replacement (AVR) and mitral valve replacement (MVR), and with 12 years of follow-up, the study revealed a freedom from structural valve deterioration of 93.3 percent of AVR patients 60 years and older and in 95.3 percent of MVR patients 70 years and older. In addition, hemodynamic performance data showed stability up to 10 years, indicating durability of the Mosaic bioprosthesis over time.

The patients in this study represent a subset of patients from the original Mosaic FDA pre-market approval (PMA) trial in the U.S.; they were followed for 12 years at six international centers in this prospective, nonrandomized trial. The population of the present study involved 1,029 patients who received the Medtronic Mosaic porcine bioprostheses between 1994 and 2000, including 797 patients (mean age of 69 years) who had AVR and 232 patients (mean age of 67) who had MVR.

"These strong findings address and support the intermediate- to long-term durability of the Medtronic Mosaic bioprosthesis in the aortic and mitral position," said Eric Jamieson, M.D., professor of surgery from the University of British Columbia in Vancouver, British Columbia, and a principal investigator of the study since 1994. "Until now, there has been limited published documentation of the durability of this newer generation of bioprosthesis. I expect these results will be reviewed favorably by cardiothoracic surgeons, especially for patients 60 years of age and older requiring aortic valve replacement and patients 70 years of age and older who are candidates for mitral valve replacement."

The Mosaic bioprosthetic heart valve, approved by the U.S. Food and Drug Administration (FDA) in 2000, is an artificial heart valve used to replace a patient's diseased or damaged natural heart valve, usually the aortic or mitral valve, depending on a patient's disease condition. The third-generation valve is made of porcine (pig) tissue that is attached to a cloth-covered, flexible plastic stent, and was designed with advanced technology for tissue preservation and calcium mitigation.

"Surgical tissue valves are an excellent option for many patients with heart valve disease. This clinical study supports the long-term, robust performance of the Mosaic valve, and reinforces the trend in the decreasing average age of recipients," said John Liddicoat, M.D., vice president and general manager of the Structural Heart division at Medtronic. "We're committed to delivering the industry's strongest global portfolio of surgical and transcatheter valve solutions to meet the needs of physicians and patients."

About Medtronic
Medtronic, Inc. (www.medtronic.com), headquartered in Minneapolis, 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.

SOURCE: Medtronic, Inc.

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