Medtronic News

Medtronic CareLink(R) Network Remote Monitoring Helps Improve Patient Care and Reduce Healthcare Costs

CONNECT Trial Demonstrates Clinical and Economic Benefits of Remote Monitoring in Reducing Hospital Stays and In-Office Visits for Cardiac Patients Treated with Implantable Devices

MINNEAPOLIS, Mar 08, 2011 (BUSINESS WIRE) --

Medtronic, Inc. (NYSE: MDT) today announced results from a clinical trial that showed remote monitoring of implantable cardiac device patients with the company's CareLink(R) Network with automatic Medtronic CareAlert(R) Notifications reduces healthcare utilization costs compared to standard in-office follow-up. Key findings of the CONNECT (Clinical Evaluation of Remote Notification to Reduce Time to Clinical Decision) trial show that remote monitoring reduces the time from a clinically-actionable event to a clinical decision by 79 percent ($p<0.001$), reduces average length of hospital stay for cardiovascular reasons by 18 percent (0.7 days), and provides estimated costs savings of $1,793 per admission. These study results were published today in the *Journal of the American College of Cardiology*.

"The results from the CONNECT trial reinforce the important role of the CareLink Network in improving the overall care of patients treated with implantable cardiac devices. With better utilization of the remote monitoring system, earlier treatment intervention can ultimately result in improved clinical outcomes," said George H. Crossley, M.D., F.A.C.C., Saint Thomas Research Institute and Saint Thomas Heart at Baptist Hospital in Nashville. "We saw a correlation between improved clinical outcomes and a reduction in healthcare utilization costs, benefiting both the patient and the healthcare system."

The CONNECT trial also showed a decrease in the number of in-office visits by 38 percent for patients using the CareLink Network. Replacement of standard in-clinic visits with remote monitoring did not significantly increase emergency room visits, cardiovascular hospitalizations or unscheduled clinic visits.

In the CONNECT trial, the most frequently occurring alert events were the Atrial Tachycardia (AT)/Atrial Fibrillation (AF) burden (74 percent) and Fast Ventricular Response during AT/AF events (9 percent). More timely treatment decisions was particularly important in these patients; early notification of AT/AF and rapid ventricular response during AT/AF can be beneficial due to the numerous medical complications associated with each, including embolic events, inappropriate shocks, or worsening of heart failure.1

Patients in the trial who had a successful AT/AF burden alert leading to a remote transmission saw a median of 3 days from the onset of their arrhythmia to clinical action, compared to 24 days in the group relying only on routine in-office visits. According to the study authors, this may have resulted from the high percentage of asymptomatic atrial fibrillation in this population. Without the development of symptoms, AF would only be detected at the time of a routine visit, or a hospital admission that may have been triggered by an embolic event or worsening of heart failure due to the atrial fibrillation.

"Our CareLink Network is a vital, clinically validated patient management tool that is associated with numerous benefits, as demonstrated in the CONNECT trial," said Pat Mackin, president of the Cardiac Rhythm Disease Management business and senior vice president at Medtronic. "We are fully committed to providing patients and physicians with superior cardiovascular management tools that help treat an array of debilitating heart rhythm conditions, as well as help remove costs from the healthcare system."

The CareLink Network, which has more than 4,500 clinics and nearly 600,000 patients enrolled in 31 countries2, was recently awarded ISO 27001 certification, a stringent worldwide information security standard.

About the CONNECT trial

The multi-center, prospective CONNECT trial randomized 1,997 patients implanted with an ICD with or without CRT capabilities, from 136 sites in the United States to remote monitoring *versus* standard in-office care. The study evaluated the time from clinical event to clinical decision in response to the event, as well as the associated impact on health care utilization, such as hospitalizations and visits to the emergency department. All patients were followed for 15 months post-implant.

The 1,014 patients monitored remotely were given Medtronic's wireless remote management system, consisting of the Medtronic CareLink Network, CareLink Patient Home Monitor, Concerto(R) CRT-D and/or Virtuoso(R) ICD with Conexus(R) Wireless Telemetry, and CareAlert(R) Monitoring, for transmitting patient device diagnostic data accessible in the physician's office. These devices used wireless telemetry, allowing the automatic transmission of diagnostics to the physician. The 983 patients receiving in-office care were followed at a fixed standard-of-care schedule, without remote monitoring.

About the Medtronic CareLink Network

The Medtronic CareLink Network offers customizable and color-coded alert notifications for devices with Conexus Wireless Telemetry. Through this network, patient device diagnostic data are transmitted from their implantable device using a portable monitor that is connected to a standard telephone line or the Medtronic M-Link(R) Cellular Accessory. Within minutes, the patient's physician and nurses can view the data on a secure Internet Web site. Available information includes arrhythmia episode reports and stored electrograms along with device integrity information, which is comparable to the information provided during an in-clinic device follow-up visit, and provides the physician with a view of how the device and patient's heart are operating.

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.

1Capucci, 2005; Ousdigian, 2005; Wang, 2003; Bala, 2006
2CareLink Metrics Database (February 2011).

SOURCE: Medtronic, Inc.

Medtronic, Inc.
Wendy Dougherty
Public Relations
763-526-2853
or
Jeff Warren
Investor Relations
763-505-2696

---

https://news.medtronic.com/2011-03-08-Medtronic-CareLink-R-Network-Remote-Monitoring-Helps-Improve-Patient-Care-and-Reduce-Healthcare-Costs