## Medtronic News

Medtronic Launches Orthopedic Solutions Business to Help Providers Deliver Outcome-Focused Care and Succeed in New Value-Based Bundled Service Models
Orthopedic Solutions Offers Comprehensive Services for Joint Replacement Episodes of Care, Including the Launch of a Total Knee Arthroplasty System

DUBLIN and DALLAS - Nov. 10, 2016 - Medtronic plc (NYSE: MDT) today announced the launch of Medtronic Orthopedic Solutions, a comprehensive offering for total joint replacement episodes of care designed to drive clinical and economic outcomes. This offering is in response to the high costs associated with hip and knee replacements, along with the growing emphasis on improving patient outcomes, and specifically addresses the Centers for Medicare & Medicaid Services (CMS) recently implemented Comprehensive Care for Joint Replacement (CJR) model - a bundled payment initiative that holds approximately 800 hospitals accountable for the quality of care they deliver for hip and knee replacements. Medtronic Orthopedic Solutions offers a consultative program designed to help providers meet CJR requirements by reducing system costs while addressing patient satisfaction and outcomes; it will support providers from pre-surgical planning through the 90th day post discharge. In addition, Medtronic is launching a value-based total knee arthroplasty system at the American Association of Knee and Hip Surgeons Annual Meeting (AAKHS), which is currently taking place in Dallas. The Total Knee Arthroplasty System will be widely available in the first half of 2017.

"Medtronic is here to help speed the adoption of value-based healthcare in orthopedics by helping hospitals drive down costs while keeping outcomes top of mind," said Geoff Martha, EVP and president of Medtronic Restorative Therapies Group. "Our technological and operational efficiency know-how - along with our insight into the various points along the care continuum - helps us develop effective solutions, tailored to client needs. And we back this up by sharing potential savings with our customer, which means we get paid if our program is successful in reducing episode costs for customers. This is about more than just offering implants or individual technologies and services; it's about partnering with all stakeholders throughout the entire episode of care to enable patient-centered care at the best value."

CMS targeted hip and knee replacements because they are the most commonly performed inpatient procedures for Medicare patients and often entail lengthy recoveries. 1 More than 400,000 procedures took place in 2014, with hospital costs of \$7 billion.1 There is significant variance in complication rates and overall costs across hospitals and geographies. CJR aims to improve patient care by encouraging hospitals, physicians, and post-acute care providers to work together to improve the quality and coordination of care from the initial hospitalization through recovery, and financially rewarding hospitals for providing cost effective and high quality care, while levying penalties for poor outcomes.

"CJR represents a completely new approach to healthcare with bundled payments rewarding the best outcomes, which will ultimately improve patient care," said Joseph A. Bosco, M.D., an orthopedic surgeon in New York, NY. "But to succeed, hospitals need new solutions to streamline the delivery of care and evaluate outcomes. The way CJR works, target episode prices will be set in comparison to large regions, so there will be a premium to figuring things out very quickly."

Medtronic Orthopedic Solutions was developed in partnership with leading physicians who have successfully implemented bundled payment programs. It is designed to create tailored solutions that improve quality and patient experience, while lowering costs across the care continuum. These solutions include:

- Care Pathways A comprehensive, patient-focused program designed to uncover opportunities to reduce costs and improve efficiencies, patient satisfaction, and outcomes at every point of care. It also provides technology to monitor success and course-correct as needed. This service will be offered as a performance-based partnership; Medtronic is compensated when the company achieves successful outcomes and cost savings for customers.
- Patient Monitoring with Medtronic Care Management Services (MCMS) Our remote patient monitoring and engagement solutions are designed to help patients recover at home, deliver
  actionable information to providers to help enable timely and effective clinical interventions, and provide patient context and education important for self-care. With a remote patient
  monitoring program designed specifically for patients recovering from total hip and total knee arthroscopy, MCMS may help clinicians manage readmission risk and improve patient
  satisfaction important factors in CJR evaluations.
- Total Knee Arthroplasty System Medtronic's FDA-cleared knee implant was designed to facilitate cost savings by leading orthopedic surgeons who have significant clinical and design experience. The implants are made in the United States using well-studied materials and supported intraoperatively by trained clinical specialists.
- Bleeding Control with the Aquamantys(TM) System This well-established Medtronic technology combines radiofrequency energy and saline to provide hemostatic sealing of soft tissue and bone. Aquamantys use has been shown to decrease length of stay and hematoma rate, and increase the number of patients discharged to home self-care following primary total hip arthroplasty. 2 In total knee arthroplasty, Aquamantys use has been shown to reduce blood loss, transfusion rates, and drain output, and to maintain hematocrit levels.3

"Quality, lower-cost implants are a very attractive option as we seek to improve patient's lives while also providing value-driven healthcare," said Richard Scott, M.D., professor of Orthopedic Surgery, Emeritus, at Harvard Medical School and formerly chief of Joint Arthroplasty at The New England Baptist Hospital and co-designer of Medtronic's total knee arthroplasty system. "We designed Medtronic's total knee arthroplasty system to be simple, versatile and intuitive without unnecessary complexity and inventory. The goal is to benefit everyone - first and foremost the patients, but also the surgeons, hospitals and payers who are providing their care."

Medtronic intends to report results from the Medtronic Orthopedic Solutions business as part of its Spine division within the Restorative Therapies Group. For more information about Medtronic Orthopedic Solutions, please visit

http://www.medtronic.com/us-en/healthcare-professionals/services/orthopedic-solutions.html.





Medtronic's Total Knee Arthroplasty System

Medtronic Launches Orthopedic Solutions Business and Total Knee Arthroplasty System

Click the thumbnail above for a larger image.

## 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.

## References:

- 1. Comprehensive Care for Joint Replacement Model, Centers for Medicare and Medicaid Services website. https://innovation.cms.gov/initiatives/CJR. Accessed 10-18-16.
- 2. Ackerman SJ, Tapia Cl, Baik R, Pivec R, Mont MA. Use of a bipolar sealer in total hip arthroplasty: medical resource use and costs using a hospital administrative database. Orthopedics. 2014;37(5):e472 481.
- 3. Sah A, Dearborn J. Aquamantys bipolar sealer in primary total knee arthroplasty: experience with 3,172 consecutive knee replacements. Poster presentation at American Academy of Orthopaedic Surgeons Annual Meeting 2012; San Francisco, CA.

Knee replacement surgery is intended to relieve knee pain and improve knee function. There are potential risks with knee replacement surgery such as loosening, wear and infection that may result in the need for additional surgery.

Please see the package insert for Responsive Orthopedics Total Knee Arthroplasty System for the complete list of indications, warnings, precautions, and other important medical information.

Contacts:
Victor Rocha
Public Relations
+1-901-399-2401

Ryan Weispfenning Investor Relations +1-763-505-4626

https://news.medtronic.com/2016-11-10-Medtronic-Launches-Orthopedic-Solutions-Business-to-Help-Providers-Deliver-Outcome-Focused-Care-and-Succeed-in-New-Value-Based-Bundled-Service-Models