Ceramic-On-Metal Total Hip Replacement System

DePuy Orthopaedics Inc., has announced the launch of the Pinnacle® CoMplete™ Acetabular Hip System, the first ceramic-on-metal artificial hip system for patients with osteoporosis.

The Pinnacle® CoMplete™ Acetabular Hip System was approved by the US Food and Drug Administration (FDA) after results of a 2-year, randomized clinical trial indicated no clinical difference between 194 patients who received the ceramic-on-metal system and 196 patients in a control group who received a metal-on-metal hip implant.

This is the first time ceramic and metal bearing surfaces are being combined in a hip replacement system. The Pinnacle® CoMplete™ Acetabular Hip System provides orthopedic surgeons and patients with more choices that result in more individualized treatment based on specific patient anatomy, lifestyle, age, medical condition, and surgeon preference.

Lab testing on the Pinnacle® CoMplete™ Acetabular Hip System showed a greater-than-90% reduction in wear compared to the metal-on-metal system under normal gait conditions, and a more than 80% reduction in wear under adverse conditions.

To learn more, contact DePuy Orthopaedics Inc., 700 Orthopaedic Drive, Warsaw, IN 46582; phone (574) 267-8143; fax (574) 371-4865; http://www.depuy.com

Quick-To-Dough PMMA Bone Cement

Medtronic, Inc. announced the US launch of Kyphon Xpede Bone Cement, a quick-to-dough polymethylmethacrylate (PMMA) bone cement for use in the treatment of spinal fractures with minimally invasive Kyphon® Balloon Kyphoplasty.

Xpede Bone Cement reaches the doughy state more than twice as fast compared with 2 other Medtronic products, Kyphon® HV-R® Bone Cement and Kyphon® ActivOs™ 10 Bone Cement. This latest innovative bone cement from Medtronic's Kyphon Products Division helps streamline the Kyphon Balloon Kyphoplasty procedure, while providing sufficient time for careful surgical introduction and controlled delivery.

Xpede Bone Cement further expands Medtronic's portfolio of bone cements for treatment of patients with vertebral compression fractures caused by osteoporosis or cancer. Xpede Bone Cement joins the Kyphon bone cement product family in the United States, which includes Kyphon ActivOs 10 Bone Cement (a PMMA-based bone cement formulated with 10% hydroxyapatite by weight in the powder). Kyphon also offers HV-R Bone Cement, the first PMMA bone cement for use in kyphoplasty.

To learn more, contact Kyphon, 710 Medtronic Parkway, Minneapolis, MN 55432; phone (800) 633-8766; fax (763) 514-4879; http://www.medtronic.com

Cutting Guides

Stryker Orthopaedics announced that its ShapeMatch Cutting Guides have been granted 510(k) market clearance by the FDA for use with the company's Triathlon Total Knee System. The single-use ShapeMatch Cutting Guides are designed and manufactured from patient-specific 3D imaging data that are derived from magnetic resonance imaging (MRI) or computed tomography (CT) scans.

ShapeMatch Technology utilizes proprietary 3D imaging software to develop a customized preoperative surgical plan for each patient. Upon surgeon review and approval, this plan is used to develop cutting guides for the individual patient. ShapeMatch Technology is only available for use with Stryker's Triathlon Knee System.

This technology has the potential to positively impact hospital costs associated with various stages of the patient care continuum during knee surgery. A study has shown that a reduction in instrumentation may provide a shorter procedural time,[1] which may increase the potential capacity for additional procedures per day.[1,2]

For more information, contact Stryker, 325 Corporate Drive, Mahwah, New Jersey 07430; phone (201) 831-5000; http://www.stryker.com

1. Stryker Orthopaedics. Precision Impact Assessment, Central Sterile Supply. March 21, 2008 (Presscott Associates Ltd.).
2. Stahl JE, Sandberg WS, Daily B, et al. Reorganizing patient care and workflow in the operating room: a cost-effectiveness study. *Surgery*. 2006;139(6):717-728.

Integrated Mixing Device

MEDMIX Systems AG has developed a range of syringes with integrated mixing device for the preparation of PMMA or calcium phosphate bone cements, as well as pastes and gels. This device allows the prefilled storage of the powder component and safe transfer of the liquid.

MEDMIX offers a range of syringes with a mixing device, which allow the prefilled storage of the powder component of the bone cement. Product development targeted the reduction

of preparation steps in the operating room and, thus, the duration of surgery. This integrated and user-friendly medical device allows for a simple mixing method with minimal risk of contamination.

Three syringe volumes are available: 3 mL, 14 mL and 40 mL. MEDMIX also offers a number of transfer devices to safely open and transfer liquids from ampoules or vials to the syringe due to its needleless design. Needlestick injuries are prevented. The unique bone cement application device with threaded luer cap allows an easy-to-use connection with any luer device. For controlled dispensing of high viscosity biomaterial, an attachable spindle drive is available.

To learn more, contact MEDMIX SYSTEMS AG, Grundstrasse 12, CH-6343 Rotkreuz,

Switzerland; phone +41 41 798 06 80; http://www.medmix.ch

Shoulder Joint Replacement Surgery Stem

Tornier Inc. has announced the introduction of the Porous Coated Affiniti™ Stem for shoulder joint replacement surgery. The Porous Coated Stem, which facilitates device fixation to bone without bone cement, addresses the large segment of the market represented by patients for whom fixation with bone cement may be problematic.

The Porous Coated Affiniti Stem expands Tornier's Affiniti shoulder product line that was launched in 2008. The Affiniti product line features innovative humeral stem and glenoid component designs, as well as advanced instrumentation to maximize both accurate implant positioning and ease of use. The Porous Coated Affiniti Stem was designed not only to allow increased bone fixation for improved implant longevity without cement but also to reduce bone loss if the patient requires revision surgery in the future.

To learn more, contact Tornier N.V., Olympic Plaza Fred. Roeskestraat 123 1076 EE Amsterdam, The Netherlands; phone +31 20 675 40 02; http://www.tornier.com

Plate System

Aesculap Implant Systems POSITION HTO Plate System, manufactured of pure titanium with an anodized surface, offers a solution for a range of needs. The instruments are easy to use, specifically designed for the implant, and allow for the option of minimally invasive surgery. The POSITION HTO Maxi Plate complements the current POSITION HTO plate. The POSITION HTO Maxi Plate, cleared by the FDA in November 2010, provides surgeons flexibility and stability to perform larger osteotomies due to the longer plate length and the ability to use additional screws.

The Position HTO System gives surgeons more options for treating their patients by using either the smaller, modular HTO plate or the larger HTO Maxi Plate, depending on anatomy, indication, and correction height.

For more information, contact Aesculap Implant Systems, LLC, 3773 Corporate Parkway, Center Valley, PA 18034; phone (610) 797-9300; http://www.aesculapimplantsystems.com

Total Ankle Replacement System

Wright Medical Group, Inc., has announced the full commercial launch of the INBONE® II Total Ankle Replacement System. This new addition to the INBONE® Ankle System provides surgeons with a broader implant offering and further improves the system's highly precise surgical instrumentation.

Building on the success of the original INBONE® System, which has been used clinically since 2006, the INBONE® II System builds upon the core principles that have made the original system successful, such as implant modularity and intramedullary-guided instrumentation for surgical accuracy and reproducibility.

The INBONE® II System is the only ankle replacement on the US market that offers surgeons multiple implant options with different articular geometry. These highly anatomic implants are intended to permit the surgeon to tailor the amount of implant constraint or motion, based upon the patient's unique anatomical demands. Improvements in the INBONE® II instrumentation are also intended to permit the surgeon to optimally place the implant components based upon each patient's biomechanical profile.

To learn more, contact Wright Medical Technology, Inc., 5677 Airline Road, Arlington, TN 38002; phone (800) 238-7117; fax: (901) 867-9534; http://www.wmt.com