HipSextantâ„¢ Navigation System Receives Its First Commercial Use

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BOSTON, Oct. 18, 2011 /PRNewswire-USNewswire/ -- A "smart" surgical instrument, the HipSextant™ Navigation System, was used commercially for the first time on Monday, October 17, at a New York hospital. The system is designed to assist surgeons in placing the artificial implant's cup—the hip socket component—into the pelvis with greater precision during hip replacement surgery.

Studies have shown that cup malposition occurs in 50-80% of hip surgeries performed with traditional techniques. It is one of the leading reasons for hip revision surgery—the surgery required to repair a hip implant that has loosened or dislocated. Among Medicare patients alone, hip revision surgery costs more than $500 million each year.

"Improper positioning of the cup is the largest unsolved problem in hip replacement surgery," says Stephen Murphy, MD, the orthopedic surgeon who invented the HipSextant Navigation System, which has received Class II FDA clearance as a patient-specific manual navigation instrument. "The challenge for surgeons is, if you don't know exactly where the pelvis is in space, you can't possibly know exactly how to align the implant." The Navigation System, which can be adjusted for a specific patient, solves the problem. Once the three legs of the instrument dock onto the pelvis, a direction indicator points in the direction that the surgeon has designated as the desired orientation of the artificial cup.

Winshih Chang, MD, an orthopedic surgeon with training in biomedical engineering, used the new system to perform hip replacement surgery on a 74-year-old man at Putnam Hospital Center in Carmel, New York. "It is a simple, elegant and reproducible way to approach placement of the implant cup," said Dr. Chang. "In using the device, I was impressed by the thought and planning that went into its development."

Dr. Chang will use the HipSextant Navigation System again soon. "I have another patient on the schedule an
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