

Virtual Surgical Observation (VSO) at South County Hospital expands during pandemic

Robert Marchand, MD, livestreams on robotic surgery techniques to worldwide participants

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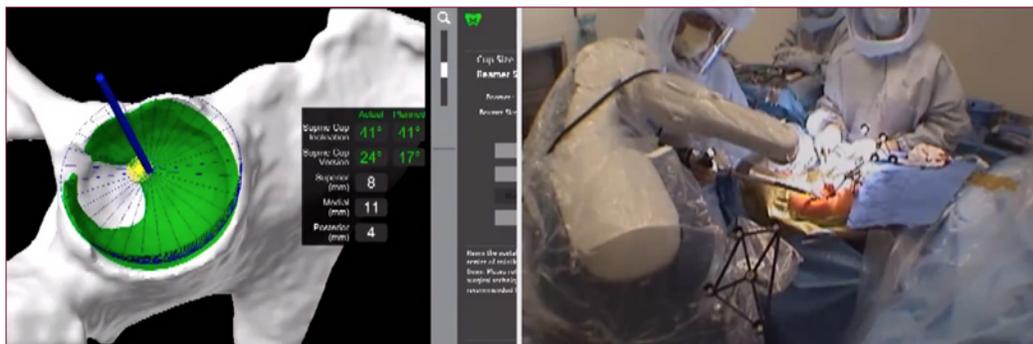
WAKEFIELD – Spurred by the COVID-19 pandemic, Virtual Surgical Observations (VSOs) have accelerated. South County Hospital's **ROBERT MARCHAND, MD**, an orthopedic surgeon with Ortho Rhode Island, has livestreamed about 140 VSOs in the past year on the use of robotic arm-assisted surgeries for knee and hip procedures.

Although he has been doing VSOs since 2015, “previously, surgeons new to robotic technology usually would fly in to learn and observe for two or three days,” he said. When the pandemic first hit, and operating rooms shut down for a time, “surgeons took the downtime opportunity to learn something new and virtual blossomed.”

Dr. Marchand shares his expertise operating with the Stryker technology company's Mako SmartRobotics™, one of three telesurgery systems at South County Hospital. Stryker sets up the VSOs through its medical education training program, which has also grown exponentially during the pandemic, according to the company website.

“At first I worried about the sound going off, but so far it has gone smoothly,” Dr. Marchand said. “The challenges in VSOs are more logistical – keeping the workflow coordinated, efficient and on time – while doing VSOs with surgeons in different time zones.”

While many surgeons around the world are English-speaking, he recently welcomed two orthopedic surgeons from Madrid, Spain, who observed a Mako total hip full anterior approach replacement on a patient. During the hour-long procedure they watched as he guided the Mako's robotic arm within the predefined area, following the patient's personalized preoperative



A Virtual Surgical Observation (VSO) livestreamed on May 25th of a full anterior hip replacement at South County Hospital. Observers viewed, at left, a 3D model of the patient's pre-operative plan. At right, **Dr. Robert Marchand** guides the Mako robotic arm. [SCREEN CAPTURE BY MARY KORR]

plan based on a CT scan and 3D model. An interpreter in Madrid translated and relayed the Spanish surgeons' questions during the procedure.

Dr. Marchand explained the benefits of the robotic technology and his step-by-step process, as he guided the robotic arm to remove diseased bone and cartilage and replace it with an implant. He highlighted the pinpoint accuracy, precision sculpting and customized fit and alignment robotics-assisted surgeries provide. “I always thought I was good,” he told his Spanish counterparts somewhat humorously, “but I can't match the precision of using this technology.”

At a nationwide VSO held May 25, RIMJ watched as Dr. Marchand introduced the patient's virtual model developed through the initial CT scan. Throughout the live hour-long anterior hip replacement procedure, he checked the level of accuracy, confirming it to the 3D model.

He described how to place the pins and pelvic array, collect patient landmarks and register and verify checkpoints and demonstrated the intraoperative changes possible to adjust hip length and offset goals.

A moderator relayed questions from the Chat room and targeted questions to specifics, such as what would happen if the array moves. The VSO provided remarkable close-up views of the entire procedure, and the insertion of the robotic arm guided by Dr. Marchand.

In addition to surgeons, the worldwide virtual audiences include hospital and healthcare administrators, PAs, nurses and other healthcare workers. Attendees have come from China, Thailand, Japan, Singapore, India, Australia, Turkey, Brazil, Argentina, Norway, Austria, Ukraine, Austria, Germany, France, Romania, Italy, the United Kingdom, Sweden, and Canada.

As the pandemic ebbs, Dr. Marchand, who serves as an adviser/consultant to Stryker, expects VSOs as an educational tool will continue, especially as the technology, software and applications evolve, and more hospital systems purchase or lease the systems. Recently, a California surgeon training in the technology attended a South County Hospital VSO, and then flew to Hawaii on vacation, where he tuned in for a second one. In hospital systems



affiliated with medical schools, VSO rotations have been implemented, and there are VSO national and international conferences.

Orthopedic surgeon **Dr. Robert Marchand** inside one of the seven operating rooms featuring the Mako SmartRobotics™ system at South County Hospital in Wakefield.

When asked how patients respond when they are introduced to the idea of their surgery being livestreamed and recorded, which, of course, they sign consent forms for (none are identifiable during the procedures), Dr. Marchand said, “Most of the patients have been asking me: ‘How can I get a video copy?’” ❖

Kent Hospital’s Drs. Laura Forman and Jinen Thakkar collect medical donations to send to India

WARWICK – Having spent years doing disaster relief work in war zones, refugee camps, and impoverished areas around the globe, **DR. JINEN THAKKAR**, Hospitalist, and **DR. LAURA FORMAN**, Chief of Emergency Medicine at Kent Hospital, are now determined to do what they can to help their colleagues in India by organizing a cargo flight of critical medical supplies. They have received more than \$65,000 in donations and 45,000 N95 masks.



Dr. Jinen Thakkar



Dr. Laura Forman

India being treated on the floors with no oxygen, and scarce or no PPE for the health care workers, they knew they had to act by coordinating a mass donation of needed supplies.

“Having worked on the front lines in Rhode Island when we had the highest per capita number of COVID-19 cases in the world (at least among countries that were able to test and report

them), we’ve been struck by the situation facing our colleagues and patients in India. We wanted to do something to help, and have gotten a flight donated,” said Dr. Forman.

Early on while working on the front lines of the COVID-19 pandemic, Drs. Thakkar and Forman said they were fortunate hospitals in Rhode Island were rapidly able to obtain supplies. Patients never had to go without oxygen, or a bed. And staff never had to go without gloves and masks.

When Drs. Thakkar and Forman learned of patients in

Drs. Forman and Thakkar are working with the World Health Organization’s South-East Asia Regional Office (WHO SEARO), which is coordinating the donation distribution in India. ❖



Medical supplies collected for India await transport at Kent Hospital. [PHOTO COURTESY OF KENT HOSPITAL]