

SurgeryNews

SPOTLIGHT ON HIGH-TECH TRAINING & DIGESTIVE HEALTH

Beth Israel Expands its SURGERY SIMULATION TRAINING CENTER

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Simulation training is not new: Astronauts and fighter pilots have used basic simulation for years. But recent technological advances have prompted wider application and virtual-reality (VR) simulation has found a place in the medical field. Now, thanks to a \$1.5 million gift from The Herbert and Nell Singer Foundation, Beth Israel Medical Center is expanding its simulation training programs threefold and establishing the Alice and Richard Netter Simulation Training Center, named in memory of former Trustee Richard Netter, Esq.

The state-of-the-art facility has a classroom, two simulated hospital rooms with patient simulators directed from a glass-walled control room, as well as a suite of computerized desktop surgical simulators. **The facility was born from a multi-department effort** and will augment training for an array of physicians, nurses and students. Surgical residents will gain broader experience in more high-risk procedures and scenarios, while medical doctors, emergency room physicians, gynecologists, pediatricians and others will benefit from expanded medical simulation training. (See *related story*, page 2.)

The technical skills of minimally invasive surgery (MIS) are particularly suited to practice through computer simulation since the procedures have always been viewed on a monitor. Specialized perceptual and spatial dexterity skills are essential in MIS, and computer modules provide practice, testing and metrics on instrument precision and speed, as well as the number of attempts before completion. Major mishaps or



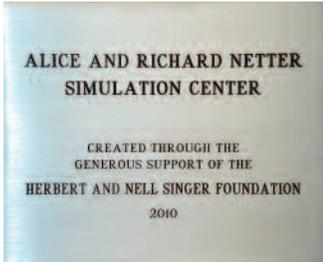
Not for residents only: Dr. Surick challenges the LapSim™ trainer.

misidentification of anatomy are also captured.

An added advantage of computer simulation is that residents can encounter unexpected, high-risk situations, like excessive intraoperative bleeding, before they face it in the OR. In addition to the opportunity to practice and to redo procedures, a turn at the computerized instruments presents photo realistic, 3D graphics and a sense of tactility. Procedures

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SURGERY SIMULATION Training Center



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available to practice include appendectomy, cholecystectomy, hysterectomy, ectopic pregnancy, bariatric surgery, kidney removal, upper gastrointestinal surgery and colon

resection. **Some research has pointed to better outcomes after surgeons warm-up with computerized simulation immediately prior to procedures.** A further endorsement comes from the hospital's risk management firm, which is to help fund one of the simulators.

Surgical residents are required to show mastery in Fundamentals of Laparoscopic Surgery (FLS) before becoming board-certified. Part of the FLS training uses a box trainer, which replicates the confining MIS environment with camera and instruments passed through holes in the enclosed desktop container. This low-tech apparatus provides tactile feedback, which some think is superior to computer stimulation. **All of these training modalities are an integral part of the new simulation center.** Our goal is to enhance practice and training, add an extra layer of credentialing and further skills improvement and patient safety.

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For more information about simulation training or the new center please contact Dr. Surick at (212) 420-4520.



Residents practicing in 3D virtual simulation.

Laparoscopic Team training for an intra-operative complication.



Practice Makes Perfect: MEDICAL SIMULATION Hits High Fidelity Note

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The new Alice and Richard Netter Simulation Training Center is taking medical simulation to a new level with a major expansion of this very active and long-standing training tradition for Beth Israel physicians.

Since 2002, a computerized patient simulator called SimMan® has been challenging residents, fellows and attendings to hone their response and resuscitation skills during frequent re-enactments of high-risk, low-frequency clinical events. Practicing respiratory and cardiac arrest and rapid response team (RRT) scenarios has helped medical interns and residents fine tune many discrete skills such as basic airway management and chest compressions, while pulmonary and critical care fellows have gained expertise in endotracheal intubation and the use of advanced airway management devices.

Now with expanded, multi-purpose, dedicated new space and multiple simulation equipment acquisitions such as a wireless SimMan® and anatomic models that serve as procedural task trainers, the educational possibilities are broadening considerably. State-of-the-art ceiling cameras installed in the Simulation Center can videotape physician trainee performance during practice



Introducing the CENTER for DIGESTIVE HEALTH

Beth Israel Medical Center recently opened its much anticipated Center for Digestive Health, bringing together many of its internationally renowned gastric and digestive disease experts under one roof. **The new facility is located at 37 Union Square West on the 4th floor** and enables patients to be seen by digestive disease experts who work together to diagnose and treat patients through a seamless plan that emphasizes teamwork and coordinated care. This has created a high-quality and efficient environment to provide the best service to our patients with established or suspected benign or malignant disease of the gastrointestinal tract, liver, biliary tract or pancreas.



From left to right: Richard Freeman; Justin Steele, MD; Jason Bratcher, MD; William Brown, MD; Michael Wayne, MD; Franklin Kasmin, MD; Martin Karpel Jr., MD; Harris M. Nagler, MD; David Carr-Locke, MD; Jerome Siegel, MD; and Henry Bodenheimer, MD.

scenarios for replay and critical analysis afterwards. Additions to the current fast-paced curriculum will include training in chest tube and central line insertion, cricothyrotomy (similar to tracheotomy but performed higher in the windpipe), thorocentesis (draining fluid from chest) and paracentesis (draining fluid from abdomen), among others.

With wireless capability, SimMan® can even leave the center and travel to patient floors, allowing for practice scenarios that draw in the entire patient care team including nurses, physician assistants and others working on the units. The physician facilitator, who remains in the Simulation Center's control room, orchestrates the scenario by changing the mannequin's vital signs as needed and monitoring care team responses. High-fidelity rehearsal such as this will help to improve clinical skills of Beth Israel's doctors as never before.

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**Our Doctors:
On Air. On Line.
On Demand.**

Top surgeons from Beth Israel Medical Center, Roosevelt Hospital, St. Luke's Hospital and Long Island College Hospital have allowed cameras into their operating rooms so you can see exactly what goes on at the Continuum Health Partners hospitals.

Check out our extensive library of videos, at www.LookInTheOR.com, for such procedures as: Minimally invasive lung cancer surgery, Bariatric surgery, Spine surgery, and Breast reconstruction surgery.

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Webcast Coming in March

Complex Cases in Digestive Health: Patient Questions, Physician Answers.

A panel of Beth Israel digestive health experts will present a Webcast of complex cases on March 30, 2011 at 6:00PM EST.

Our experts will answer patients' questions on a variety of conditions of the esophagus.

Visit www.ORLive.com/nydigestivehealth for more details.

Beth Israel surgeons provide first-rate, state-of-the-art quality care to all patients and collaborate with referring physicians to create an individualized treatment plan. For more information about surgical services at Beth Israel Medical Center, **call (212) 420-4044 or visit our Website at www.BISurgery.org.**