The new Leona M. and Harry B. Helmsley Surgical Suite, located within the Advanced Therapeutic Services Center, consists of four spacious operating rooms (ORs) housing futuristic surgical, endoscopic and imaging technology. Each of these ORs is tailored for specialty areas including neurosurgery, vascular surgery, colorectal surgery, bariatric surgery, and cardiothoracic surgery.

Established through The Leona M. and Harry B. Helmsley Charitable Trust, the ORs incorporate information display systems to convey imaging reports, patient history and lab results. The availability of live-feed, multi-image video during surgeries is giving surgical teams instantaneous access to critical data sources from inside and outside the Hospital’s information systems, ranging from 2 and 3-D image reconstructions obtained from real-time imaging sources in the ORs to important data and images obtained preoperatively. There will additionally be video inputs capable of sending live images in and out of the ORs for conferences and teaching purposes.

These sophisticated ORs will also help to facilitate the many surgical innovations being devised by our surgical teams with additional focus on efficiency, efficacy, safety and ease of operation.
“Bringing this level of technology into the operating rooms and having immediate access to an assortment of patient data, test reports, and radiology images, is improving communication and enabling us to drive improvements in patient care.”

– Jeffrey W. Milsom, MD
Chief, Colon and Rectal Surgery Section

With the opening of the Leona M. and Harry B. Helmsley Surgical Suite, NewYork-Presbyterian/ Weill Cornell Medical Center has a total of 38 operating rooms: 19 inpatient operating rooms located in the Greenberg Pavilion, now linked by a corridor to the four new ORs in the Helmsley Surgical Suite, and a dedicated floor of 15 ORs for ambulatory surgeries located in the F Building of the main Hospital.

The new ORs have also been specially equipped with advanced technology systems to handle specific procedures. One OR will primarily accommodate vascular procedures. The room contains the Artis zeego angiography C-arm system developed by Siemens Healthcare and recently approved for use in the United States. Based on industrial robotic technology, the imaging system can be completely controlled right at the OR table and allows virtually all anatomic regions to be easily imaged. The system provides extraordinary functionality and flexibility, enabling the C-arm to articulate at many angles and move to almost any position around the patient. As a result, the surgeon can visualize internal organs from various perspectives with access to more anatomical details, including the most minute vessels, than ever before possible. With more complete information to determine a precise diagnosis, surgical planning can be more specific and treatment more targeted. And by having this technology in the OR, our surgeons can go directly from diagnosis to surgical remedy.

A second OR also has the Artis zeego system, with the added capability for brain mapping and navigation. This OR has been designed for neurosurgical and cardiothoracic procedures. All OR personnel—physicians, nurses, and technicians—have undergone training on the system. In addition, a radiology technician will be part of the OR team.

The other two ORs are designated for less invasive or minimally invasive procedures, particularly for colorectal and bariatric procedures. In these rooms, equipment has been installed that facilitates maximum flexibility to support unique needs and advanced procedures, while improving function and safety of patient care.

Communication is Key

The new Helmsley Surgical Suite incorporates futuristic technology, including a Wall of Knowledge, which facilitates active communication and the sharing of clinical information among all OR personnel.

Each OR is equipped with multiple high-definition video screens, telecommunication channels to pathology and other ORs, as well as advanced inputs from clinical information sources. Flat screen monitors attached on walls and from booms afford the team incomparable visual flexibility.

These monitors provide a range of patient information, including clinical reports available through WebCIS, the Hospital's clinical information system, imaging data via PACS, the Picture Archiving and Communication System, as well as the patient's laboratory reports.

The monitors also display information about who is in the room, milestones occurring during surgery, and information on patient vital signs usually only seen continuously by anesthesia personnel.

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Comforting for Patients

The spacious operating rooms, which are 600-plus square feet, provide a feeling of openness. The nursing stations face into the OR, providing the OR nurses with a clear view of the patient, surgery and other personnel involved. Since the equipment is now accessible from booms, the floors are clear of cords and carts, making the OR environment much less intimidating for patients and safer for staff. The room colors were designed to be calming for patients.

“The surgeons, the anesthesiologists, the nurses … we all provided input in the development of the new operating rooms in the Leona M. and Harry B. Helmsley Surgical Suite. This not only provided important information for the design of the ORs, it enabled us to learn a lot about the needs of our colleagues.”

– Beryl Muniz, RN, MAS
Vice President, Perioperative Services