

TRANSFORMING SURGICAL

EXPANSION PROJECT ENHANCES OPERATING ROOMS AND STERILIZATION.

A major capital project that expands surgery capabilities at Robert Wood Johnson University Hospital (RWJUH) is enhancing both the hospital's surgical suites and critical support services that patients rarely see.

With help from grants totaling \$2.5 million from the Robert Wood Johnson Foundation (RWJF), the ambitious surgical services expansion adds three new state-of-the-art hybrid operating rooms (ORs), reconstructs every existing OR and provides a new Central Sterile Processing (CSP) unit. Sometimes described as the heart of the hospital, CSP is responsible for cleaning and sterilizing all devices used in medical procedures across every unit at RWJUH.

The transformation will help meet growing demands for complex care and more fully embrace forward-looking technologies that can enhance quality and improve outcomes—important as RWJUH has advanced as the academic medical hub for the state's most comprehensive health system and integrated more closely with Rutgers Robert Wood Johnson Medical School.

“Every year, hundreds of patients are transferred to RWJUH from other hospitals because of our expertise and ability to save lives,” says Keith P. Lewis, RPh, MD, Chief of Anesthesia and Director of Perioperative Quality and Safety at RWJUH, as well as Professor and Chair of Anesthesiology and Perioperative Medicine, and Interim Executive Vice Dean at Rutgers Robert Wood Johnson Medical School. “Our medical professionals need the top tools to do their best work and deliver the best outcomes, including facilities with adequate space, logical flow and cutting-edge technologies.”

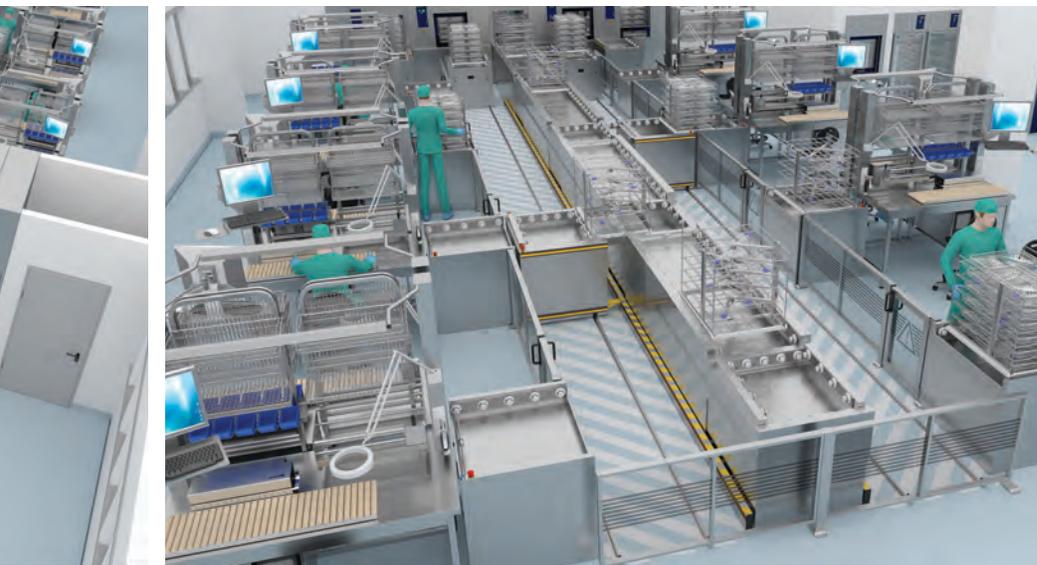
The project broke ground in July 2020, and its first phase—construction of a new three-story building adjacent to existing surgical facilities—has just been completed. Five new operating rooms, including a hybrid OR with intraoperative MRI capability and CSP, are housed in the new addition. Existing operating rooms will be reconstructed in phases as the entire project advances toward completion in 2025 so there is no disruption in surgical capacity at RWJUH.

ALL-IN-ONE CAPABILITIES

The new, larger operating rooms provide more space and take surgical care to the next level. Every operating room will boast an integration system that consolidates and organizes all patient data during a procedure. This technology minimizes OR congestion, streamlines information across multiple platforms and allows surgical staff to better focus on patient care. ORs will also be designed to support easier use of mobile technologies, robotics and team collaborations.

Hybrid operating rooms combine traditional devices, instruments and equipment with medical imaging, robotics and other technologies for minimally invasive procedures. Among key technologies is bi-plane imaging, in which two rotating cameras provide surgeons with detailed, high quality 3D images. “A bi-plane hybrid room has many benefits to patients and clinicians alike and will allow neurosurgeons, cardiothoracic surgeons, radiologists and other interdisciplinary teams to work closely together, making surgery seamless for patients,” says Dr. Lewis.

Hybrid ORs allow doctors to do both open and laparoscopic surgeries or even



The new CSP unit at Robert Wood Johnson University Hospital features enhanced processes and space design, and mitigates the risk of error through integrated automation. Key features include a centralized layout near operating rooms, enhanced sterilization and decontamination, advanced water treatment, a dedicated elevator and a state-of-the-art automated conveyance system.

CELEBRATING 50 YEARS

Since its inception in 1972, the Robert Wood Johnson Foundation (RWJF) has been instrumental in developing the legacy of Robert Wood Johnson University Hospital (RWJUH)—New Jersey's premier academic medical center. With contributions nearing \$37 million, RWJF supported the growth of the hospital's academic medical campus and invested in innovative equipment, technology and programs throughout clinical areas. Our patients, their families and the community we serve are grateful for the foundation's ongoing commitment.

SERVICES

switch from one to another during the same operation. Such flexibility allows surgeons in a variety of specialties to handle more complex procedures, more nimbly pivot in the face of complications and sometimes perform diagnostic imaging and surgical treatment during the same procedure. Hybrid operating rooms will be used by every service line at the hospital in a wide variety of surgeries. Benefits to patients may include more efficient procedures, shorter hospital stays and faster recovery.

Funded in part by a \$1.5 million grant from RWJF, the hybrid OR opening in the new RWJUH surgical building also includes intraoperative magnetic resonance imaging (iMRI) to give neurosurgeons real-time views of the brain during surgery. Combining diagnosis and treatment into one procedure saves valuable time and can make a difference in recovery for patients with stroke or other severe neurovascular complications.

A CLEAN START

Yet no surgery would be possible if CSP didn't sanitize instruments from scalpels to scopes. With up to 30 instrument trays needed per surgery,

CSP processes 14,000 to 15,000 trays each month, or more than 3 million instruments per year. As surgical case numbers and complexity have increased, the need for expanded sterilization and decontamination has grown significantly.

With assistance from a \$1 million award from RWJF, the surgical expansion project almost doubles RWJUH's CSP space to 16,000 square feet and substantially expands staff. Just as important, it places the CSP unit near operating rooms. This shortens movement of instruments, improves efficiency, reduces risk of damage and improves patient safety.

RWJUH worked with a leading manufacturer of equipment and systems for sterilizing medical instruments to create an innovative CSP design. It incorporates automation and advanced technologies that maximize productivity of both machines and staff, with quality control and reliability at the forefront.

"New Jersey has one of the strictest CSP requirements in the country, and our unit will set the standard not just for the state but for every hospital across the nation," Dr. Lewis says.

"We're committed to creating a healthier community and a healthier New Jersey," says Bill Arnold, President and Chief Executive Officer at RWJUH. "Our new surgical services platform will transform our ability to deliver on these goals today and integrate new technologies as they become available in the future."

"The Robert Wood Johnson Foundation is pleased to support these transformational advances, expanding RWJUH's ability to provide the finest surgical care possible," says Marco Navarro, RWJF Senior Program Officer. "These advances in RWJUH surgery facilities help ensure that the people of New Jersey will be able to get outstanding, cutting-edge care without leaving our state."

To support the Robert Wood Johnson University Hospital Foundation, visit www.rwjhgiving.org.

