



PHOTO BY FRANK AYMANI

From left: Dr. James Korndorffer Jr., Jennifer Calzada and Drs. Kevin Krane and Paul Primeaux test Tulane University School of Medicine's robotic patient in the school's new simulation center.

Simulation Center

Tulane University School of Medicine

Key innovation: medical simulation training center for medical students that uses responsive robotic patients

Where they're based: New Orleans

Year introduced: January 2009

Top executive: Dr. James Korndorffer Jr., medical director

Web site: <http://tulane.edu/som/sim/>

Doctors, nurses, technicians, first responders and medical students living and working in the New Orleans area now have access to hands-on medical training without the need for human patients.

Earlier this year, Tulane University School of Medicine opened a \$3 million, 14,000-square-foot medical simulation and team training center that offers medical practitioners on all levels the opportunity to learn and perfect the latest techniques and best practices for patient care and safety. The

center uses robotic patients that can simulate a wide variety of medical ailments

"The facility was built to hospital standards," administrative director Jennifer Calzada said. "It includes an emergency room, an intensive care unit, an operating room and a labor and delivery suite. It's equipped to handle any situation and allows clients to practice and perfect techniques with no risk to human patients."

Calzada said all of the 147 life-sized robotic patients, which come in adult, toddler and infant sizes, look and feel like living, breathing humans.

"They move their eyes, they speak, they have a variable pulse rate, they even react to doses of medication," Calzada said. "A simulation can even be arranged where the robotic patient goes into cardiac arrest and expires."

Calzada said plans for the simulation center got started after Hurricane Katrina when Dr. Benjamin Sachs, dean of the medical school, joined the staff following a stint at Harvard. She said Harvard's medical school had enjoyed great success with a similar simulation center and Sachs

hoped to emulate that success at Tulane.

Calzada said early results have been promising.

"People come in and use the center on a daily basis, and we have bookings through next year," she said. "The unique thing about our facility is the emphasis on team training. We are helping health care professionals perfect their communications skills, which are critical in emergency and high stress situations."

According to training statistics through July 31, the simulation center has provided training to 623 medical students, 156 medical residents, 102 nurses and nursing students, 122 allied health professionals and 155 practicing physicians, many of whom are external to Tulane.

"The training at the simulation center is tailored to meet the clients' goals," said Calzada said. "We ask what their goals and objectives are, find out what they hope to learn and create training exercises to fit their needs. We give physicians the opportunity to practice procedures dozens or even hundreds of times before they ever involve their patients."•

— Robin Shannon