

TeleHealth World

Business and Technology News for Telemedicine and Telehealth Providers

Los Angeles is the Nation's First Pediatric Hospital to Remotely Manage Unit with a Wireless, Mobile "Remote Presence"

For more than a year, the In-Touch Health RP-7 robot, a sort of telemedicine system on wheels, enabling doctors who are away from the hospital to instantly interact with patients, their families and staff via laptop computers, has become as familiar a part of the intensive care landscape at Childrens Hospital Los Angeles as the IV poles and cardiac monitors.

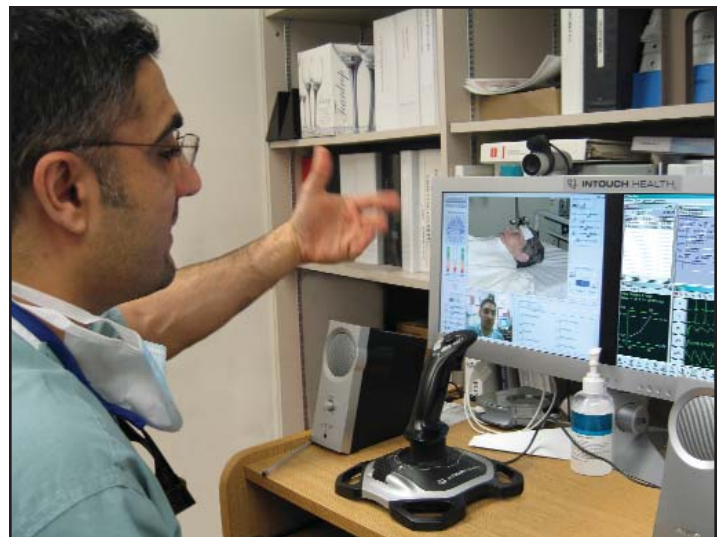
The duties of this RP-7 robot are being overseen by the telemedicine team in both the Pediatric Intensive Care Unit (PICU) and the Cardiothoracic Intensive Care Unit (CTICU) at Childrens Hospital Los Angeles that helped pioneer the Laura P. and Leland K. Whittier Virtual PICU (VPICU). Childrens Hospital is the nation's first pediatric hospital to remotely manage the PICU with the aid of a wireless, mobile "Remote Presence."

Ashraf Abou-Zamzam, M.D., medical director of telemedicine for the Whittier VPICU at Childrens Hospital Los Angeles, makes it clear that he regards the device more as a medical tool than as a colleague.

"We are not looking to replace doctors with robots," he says. "We're trying to enhance the delivery of care because there just are not enough intensive care physicians to provide it." Dr. Abou-Zamzam views the remote presence robotic technology as a milestone in medicine that will transform health care and improve the outcomes of countless children.

Now, medical consultation can be instantaneous, explains Dr. Abou-Zamzam. In the time it takes to return a page, the physician can rely on this remote presence, using his laptop computer and an Internet connection to activate the robot in the unit, and "drive" it over to the child's bedside for a first-hand look.

"We can beam right in and be virtually there within minutes," he explains. Peering into his laptop screen to study the child, the doctor can assess the patient's condition (thanks to equipment like a digital stethoscope), analyze physiologic data in real time,



and even preside over a Code Blue trauma alert.

"Having instant access with this robot gives us enough information to perform accurate assessments, diagnoses and start treatment remotely, ideally during the first 'golden hour' after a patient is brought to the hospital. The technology is getting that good."

Pediatric intensivist Sylvia del Castillo, M.D., has witnessed the value of the robot. One of her patients, a three-day old baby with hypoplastic left heart syndrome, underwent the first stage of cardiac surgery earlier that day to provide adequate blood flow to both the lungs and the body. When Dr. Del Castillo left that night, the baby was doing well. However, at 2:30 a.m. the following morning, Dr. Del Castillo received a call from the unit that the baby was coding and her colleagues had begun chest compressions.



“Hang up and unplug the robot from the wall,” she calmly instructed.

Within two minutes, she had piloted the robot over to the child’s bedside, and through its camera could assess the baby for herself.

During the next two hours, she oversaw the code, and ordered tests to monitor the baby’s progress. She was able to closely monitor the vital signs on the patient as one of the surgical fellows came in, opened the child’s chest, and placed her on the extra corporeal membrane oxygenation (ECMO) circuit. “It was very reassuring to have the technology at your fingertips in a critical situation when time is of the essence,” she said. “You don’t have to worry

about speeding down the highway at 2 a.m. not knowing what is happening during those critical minutes.”

Incorporating the robot into the routine practice within the PICU and the CTICU at Childrens Hospital Los Angeles ensures that the robotic technology can be safely used in other hospitals that do not have pediatric intensive care units.

“The idea is to be able to provide pediatric expertise to adult facilities so we can work in collaboration with adult intensivists, enabling them to keep the kids in the hospitals in their own communities, and allowing them to receive the care they need there,” she says.