Feature

Practice (on Plastic) Makes Perfect

An infant outside the Intensive Care Unit is reported "twitching and not responding." A teen in the Operating Room is having difficulty breathing. In these situations, time is of the essence.

How do you learn how to respond to situations that are infrequent, life-threatening and need rapid response?

At Children's, the answer is increasingly: Refer to what you learned during a recent training with "manikins." As part of an expanding simulated training program, nurses and other hospital staff are being equipped to respond to difficult, time-sensitive situations by working with manikins designed to mimic real-life scenarios. These specialized, computer-operated manikins are a far cry from the dolls with disposable mouth-covers used in CPR training and have more in common with a laptop than with department store mannequins. Using manikins in clinical simulations allows clinicians to practice on life-like training simulators without the risk.

The new Children's Pediatric Simulation Center now has seven child and baby medical manikins. They can show breathing, heart rate, blood pressure and other vitals. These manikins can simulate "almost any situation I need for teaching purposes" said Halli Jones, Simulation Center Coordinator.

Jones, along with Kiran Hebbar, Medical Director, TEAMS Center for Simulation, has been working since October 2010 on a formal teaching program using the manikins, which she first began using in her nurse residency program for training and annual competency sessions. "We don't teach in the traditional sense of the word, rather we facilitate

At Children's, employees are learning how to respond to difficult, time-sensitive situations by working with high fidelity manikins as part of an expanding simulation training program.

learning by recreating high-stress medical situations in a controlled environment," said Jones.

The manikins are built with realistic airway anatomy and programmed to give visual cues such as blue lips, as well as readable vital signs. All of these cues and signs are controlled by a computer program the test administrator uses. If they do well, vital signs stabilize. If not, the heart-rate drops, breathing slows, and the manikin drops into a code.

Lorisa Williams, Director, Learning, Clinical and Physician Practice, shared, "Last year we focused a lot on responding to a rapidly deteriorating patient, but we choose our focus based on need. We can really incorporate these simulations into any situation you would need to handle in your day-to-day job."

A new simulation lab opened in January at Scottish Rite, and the team plans to continue expanding their training capabilities. Today, the manikins are being used with floor staff nurses for rapid response, radiology sedation nurses, team training for crisis resource management and even in the operating room—basically anywhere quick response time and teamwork are needed.

"Our training provides a safe environment for all clinical staff to be able to practice and learn and see things they don't see very often," said Jones. "For instance, there is a very low rate of codes outside of the ICUs, so the skill goes away. We create those circumstances for them."

Since the manikins can be programmed for almost anything, the Pediatric Simulation Center has set its sights on expanding their training programs. They are visiting unsuspecting ORs and giving impromptu tests, and are ordering more manikins to make sure they can cover the demand for their services.

The most important part of every training session is the debriefing. The simulation takes 10 minutes, and the debriefing takes about 20. In the debriefing, the trainees talk through what went well and what didn't go so well, what they missed and how they could work better together. They take those lessons back to their jobs.

For example, during a team training on a deteriorating patient scenario, the group forgot about the oxygen emergency equipment in the room and struggled to stabilize the patient. In their debriefing, they went over the importance of remembering the resources available in their surroundings. A few weeks later, Jones got a letter from a nurse from that session saying that she had responded to a deteriorating patient situation and the first words out of her mouth were, "Go in the box and get the oxygen equipment!"

Simulation Center Coordinator Halli Jones leads a debrief with participants after the simulation training.

Recounting the story, Jones reflected, "It's the simple things that can prevent the patient from deteriorating and the simulation training program provides the perfect environment for clinical staff to learn without risking patient safety. Ultimately, we're going beyond what's expected so we can provide exceptional patient care."