Simulation labs aid OR staff education

OR assistants needed more practice handling microscopes and laparoscopes. OR teams wanted to brush up on trauma skills. New nursing staff and medical students needed a realistic environment to practice scrubbing, gowning, and gloving.

At Riverside Methodist Hospital in Columbus, Ohio, they go to the Center for Medical Education and Innovation. The high-tech learning lab has, among other things, a mock OR complete with scrub sinks and a computerized “patient” that can be hooked up to a real anesthesia machine and patient monitors.

The center is one of several around the country that are helping clinicians move from classroom to patient care.

“We see simulation not as something extra but as a new way of teaching,” says Pamela J. Boyers, PhD, Riverside’s director of medical education.

Drill on rare events

In addition to learning techniques like airway management and central-line insertion, they can drill on rare events that require a team response, such as cardiac arrest.

The most sophisticated simulators like Stan (for Standard Man) from Medical Education Technologies, Inc, (METI), Sarasota, Fla, use computerized models that mimic patient responses. Training sessions can be video taped for debriefing and coaching afterward.

OR assistants at Riverside used the center to train after surgeons said they needed extra experience. The center provided a draped spine model complete with artificial skin and synthetic blood. The OR management team worked with the lab’s staff to develop learning modules for the OR assistants.

“They learned how to adjust the scope, retract the nerve root, and perform in a sterile manner, all in a safe, less stressful environment,” says Jill Schaefer, RN, BSN, CNOR, assistant nurse manager for surgery.

Surgeons surveyed before and after the training thought assistants’ skills improved dramatically.

Training for close teamwork

At the Center for Virtual Care at the University of California, Davis, in Sacramento, OR staff train for situations that call for close teamwork.

“Using simulators doesn’t make sense for simple things, but for team training, it makes a lot of sense,” says the center’s training coordinator, Peter Rutan, RN, BSN, CCRN.

Nurse educator Susan Fossum, RN, BSN, CPAN, first saw simulators in the military when she helped run a battlefield exercise for physicians and medics, complete with sand and battle sounds.

At UC Davis, the staff practice scenarios for malignant hyperthermia. “This provides an opportunity for team building and response to a crisis management. If the patient doesn’t receive the correct treatment or medication, the team must come up with a way to manage it,” she says. Other simulators, less high tech than Stan, are used for routine procedures like starting IVs and placing Foley catheters.

Though simulation labs are costly, educators say they offer learning that is hard
to get in other ways. The most sophisticated simulators like Stan sell for $165,000 to $200,000. A less costly simulator, at about $40,000, has many of the same features but doesn’t take actual drugs and gases. Riverside Methodist’s 20,000-sq-ft lab, which cost $3 million to build and equip and costs $2 million to operate, was a gift from a foundation started by the medical staff.

Educators expect simulation to be more widely used. Cooperative efforts are emerging. California’s government is funding regional simulation centers that hospitals, schools of nursing, and other programs will be able to use.

Visit Riverside Methodist’s center at www.ohiohealth.com/bodycmei.cfm?id=419
The web site for UC Davis’s learning lab is at http://healthsystem.ucdavis.edu/cvc/