

UKHC Enterprise Quality and Safety

Simulation Center for Advanced Clinical Skills

The Simulation Center for Advanced Clinical Skills serves the UK HealthCare Enterprise as a hub for training our medical staff and students. We teach the students and staff critical skills and procedures for patient care including vascular access, basic and advanced CPR and life support, surgical techniques and procedures, and airway access and management. For advanced classes, the center focuses on patient care and clinical decision skills in hospital and emergency crisis settings. The healthcare enterprise is committed to improving our physician's, nurse's, student's and clinical staff's medical skills and providing the best care possible to our patient with our highly trained and experienced personnel.

For more information or to schedule an appointment with any of the simulators listed below located in the A. B. Chandler Medical Center, please contact Darrin Burchell at darrin.burchell@uky.edu or (859) 323-3580.

Central Venous Cannulation Skill Trainer

This simulator provides an anatomically correct model of the deep cardiovascular region. Using the anatomical landmarks, students practice the placement of central and Swan-Ganze catheters. The model provides realistic haptic feedback to guide the placement of these catheters. It is designed to train any personnel who need to be proficient with the placement of deep line catheters.

“Use of the central line simulation is invaluable to newly practicing providers to gain experience with the procedure and the equipment before they place central lines in actual patients. For those providers who have little previous experience placing central lines, they can become familiar and comfortable with the use of ultrasound and the mechanics of putting in a central line in a low-stress, non-intimidating environment. They also become familiar with the aseptic technique associated with central line placement so that UK can continue to strive for a zero rate of central line associated blood stream infections.”

Lynn Kelso, MSN, APRN, FAANP

Human Patient Simulator Advanced Clinical Simulator

These mannequins model various patient physiologies ranging from young children to geriatrics. Each model displays a full range of vital signs, representing the physical state of the patient the mannequin represents. On these patients, critical event scenarios can be played out ranging from septic shock to coronary bypass. The patient progresses through the scenario, changing physiologic presentation as the event proceeds and student intervention allows. Both

patients and scenarios can be customized to fit the learning objective. This simulator is designed to train personnel who need training in a wide variety of clinical and critical event management in a hospital setting. It is ideal for teaching team management and cross disciplinary training scenarios.

iStan Simulator

The iStan mannequins model various patient adult physiologies. Each model displays a full range of vital signs, representing the physical state of the patient the mannequin represents. On these patients, critical event scenarios can be played out specializing in ACLS scenarios. The patient progresses through the scenario, changing physiologic presentation as the event proceeds and student intervention allows. Both patients and scenarios can be customized to fit the learning objective. This simulator is designed to train personnel who need training in a wide variety of clinical and critical event management in any setting. This model is fully portable, allowing training to take place in any environment. It is ideal for teaching team management and cross disciplinary training scenarios.

Lumbar Puncture and Spinal Injection Simulator

This simulator provides an anatomically correct model of the lumbar region of the spine. Using the anatomical landmarks, students practice the placement of spinal anesthesia injections. The model provides realistic haptic feedback to guide the placement of the spinal injectors. It is ideal for training anesthesia personnel.

Mr. K Cardiac Auscultation Training Simulator



This simulator demonstrates 88 different cardiac conditions. The student interface consists of a fully auscultatable mannequin capable of presenting both heart sound and pulses of the target condition. This demonstrator is ideal for training rare heart sounds: supplement cardiac training when real patients are not available or for testing situations.

Lung Sound Auscultation Training Simulators (LSAT)



This simulator demonstrates 36 different pulmonary conditions. The student interface consists of a fully auscultatable mannequin capable of presenting lung

sounds of the target condition. This demonstrator is ideal for training rare pulmonary conditions: supplement pulmonary training when real patients are not available or for testing situations.

Urinary Catherization Skills Trainer

This simulator provides an anatomically correct model of the male and female urinary track. Using the anatomical landmarks, students practice the placement of urinary catheters. This simulator is for any medical personnel who place urinary catheters in patients.

Nasogastric Tube and Trachea Care Simulator with Advanced Trauma Care



The simulator provides an anatomically correct model of the upper airway leading to the upper gastric region. Using the anatomical landmarks, students practice the placement of nasal-gastric tubes. The model provides realistic haptic feedback to guide the placement of the nasal-gastric. This simulator is for any medical personnel who place feeding tubes in patients.

Advanced Airway Management Simulator

This simulator is an anatomically correct model of the upper airway leading into the lung region. Using the anatomical landmarks, students practice airway management techniques. The model provides realistic haptic feedback to guide the placement of endotracheal tubes, laryngo-mask airways and proper ventilation technique. This simulator is for any medical personnel who must manage the airways in patients, particularly useful to ED, anesthesia, and intensive care staff.

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