How is medicine learned? What does a medical student need to know before facing his or her first real patient? How can students gain necessary experience and confidence without putting patients at risk?

These fundamental questions drive the development of UVA's Medical Simulation Center. Here, new student-centered learning methods are created, tested, and evaluated to determine the very best approaches for educating the greatest variety of students. The resulting technology and methodology position UVA to become a leading program in medical simulation. UVA's program is enhanced by an interdisciplinary, multi-specialty environment that spans the undergraduate, graduate, and continuing medical education curricula. Methodology is learner-centered and outcome-based.

**UVA Simulation Today**

Over the past 10 years, medical simulation has advanced dramatically at UVA. Originally pioneered by UVA's chair of emergency medicine, UVA's first simulators – life-sized mannequins designed for practicing medical procedures – were purchased in 2002. In subsequent years, additional simulators and task trainers (used to teach targeted procedures) were added. The new equipment opened the door for the Life-Saving Techniques Workshop, which quickly became a mainstay for third-year medical students.

Today, UVA's simulation lab occupies 1,200 square feet with five patient bays outfitted to simulate various emergency, surgical, and hospital ward environments. It includes emergency care simulators (adult and pediatric), a maternal and neonatal simulation system, and a variety of other simulation tools. Designed to closely replicate the clinical environment, it employs standard clinical equipment. The control room includes audiovisual technology to allow for the remote control, interaction, monitoring, and recording of each patient bay. The conference room is equipped to stream real-time video from the simulation rooms or to play back videotaped sessions, for group review and discussion. Sample courses include “Toxic Syndromes,” “Anesthesiology Boot Camp,” and “Emergency Medicine Resident Competencies.”

**Future of UVA Medical Simulation**

In the years ahead, UVA's Simulation Center will assume an even greater significance. In 2010, with the opening of the Claude Moore Medical Education Building, the center will move into 11,000 square feet of newly designed space. It will become a core hub for medical simulation, with new capabilities for transmitting real-time simulations to large class settings, providing greater access to more diverse equipment, and enhancing the scope of use. UVA's School of Medicine is committed to developing medical simulation's full potential within the curriculum and refining methods for testing and evaluating the efficiency of these teaching tools.

Such expansion will require a substantial, ongoing investment in equipment and program development. Private support provides a critical edge in meeting these needs and providing powerful clinical teaching tools for UVA students. For more information or to make a gift, please contact the UVA Health System Development Medical Alumni Team at (800) 297-0102 or the UVA Medical Alumni Association at (866) 315-0947.