Q. How did you become involved with Greenville Healthcare Simulation Center?
A. Part of my Anesthesia residency at Massachusetts General Hospital involved simulation experience at the Center for Medical Simulation in Boston. I joined Greenville Anesthesiology, PA, in 2002. When the Greenville Hospital System (GHS) opened its original simulation center in 2007, I had an immediate interest. After working with Dr. John Schaefer, who established and leads Healthcare Simulation South Carolina, I developed a passion for simulation training. In March 2010, I became the medical director of the Greenville Healthcare Simulation Center.

Q. What makes this Simulation Center unique?
A. Our facility is incredible. In July 2012, we moved into a new 11,500-square-foot space in GHS’s Health Sciences Education Building. It’s designed specifically for simulation training and equipped with the latest human simulators along with multimedia and information technologies. This is quite different from legacy centers that are often located wherever an institution has room. All of our training rooms are equipped for audio and video recording of training scenarios. Our human simulators are software driven, which standardizes the learning experience. Using the data captured during each session, we’re able to assess student performance and even the efficacy of the training scenario itself.

Another differentiator of our center is innovation. As members of Healthcare Simulation South Carolina, we develop and share training scenarios with our partners, which include the Medical University of South Carolina, Clemson University, University of South Carolina, and Greenville Technical College. It’s also exciting that centers around the world can license simulation software we develop here in South Carolina.

Q. What is your relationship with the USC School of Medicine Greenville?
A. We provide simulation training to medical students that supports the curriculum at each stage of their training. We also train CRNA, pharmacy, nursing and allied health students, as well as provide continuing education to physicians, nurses, and paramedics from throughout South Carolina’s Upstate region.
Q. What types of training are first-year med students receiving?

A. Training falls into three categories. First, we provide skills-based training during which first-year medical students learn things like how to draw blood, start IVs and insert central lines. This is done on mannequins so students get comfortable performing basic clinical skills. Second, we provide team training with our medical, nursing and allied health students. Finally, our program includes standardized patients—real people trained to simulate patient encounters. Medical students learn how to take histories, develop effective interview skills and examine patients. Our standardized patients are often part of the grading process and critique the medical students on their physical examination skills, whether they washed their hands or not on entering and leaving the room, and on interpersonal skills.

All training is videotaped and we have debriefing sessions after each encounter. Instructors can go step-by-step through the video, discussing what happened with students. It’s a very engaging way to learn. Students learn to accept constructive guidance and become more collaborative with fellow students, asking questions such as: “How could we have done this better?”

Q. How does simulation enhance and advance med students’ educational experience?

A. It’s one thing to read a textbook or listen to a lecture. It’s an entirely different learning experience when you’re performing skills on mannequins with human responses. Information retention is much greater. In the past, the first patient a medical student encountered was an actual patient, which was stressful for students and patients alike. With simulation, they get hands on experience in a non-threatening environment so when they finally see real patients, there’s a greater comfort level. But it’s more than just patient care. Our first-year medical students learn how to use electronic medical records systems and a full range of medical tools and technology, something many don’t experience until much later in their training.

Q. The USC School of Medicine Greenville is committed to transforming medical education. Why is simulation training critical to this effort?

A. Simulation training is in itself transformative. It facilitates active teaching and learning, and improves efficiency and efficacy. Many of our courses are directly aimed at improving patient safety. Thanks to the mannequins and the sophisticated software behind them, we’re able to objectively measure how students perform during training scenarios and coach them to become better. The data capture component allows us to measure educational outcomes of students and the curriculum. We’re also identifying the best, evidenced-based ways to teach. At the end of the day, this new generation of simulation-prepared physicians will value open discussion, deliver safe, high quality care, and work as members of a healthcare team. That’s pretty exciting.