



Training the next generation of Nurse Anesthetists with Hi-Fidelity Simulation

John Shields, DNP, CRNA, a certified registered nurse anesthetist and professor from Middle Tennessee School of Anesthesia is using ultrasound simulation to completely revolutionize his university's CRNA training program – and he has the research to back it up. Shields, a pioneer in the world of CRNA education, is working to establish and introduce formal transesophageal echocardiography (TEE) and point-of-care ultrasound (PoCUS) training guidelines for the next generation of CRNAs in the United States. His co-authored research article, *Effect of Simulation Training on Transesophageal Echocardiography Cognitive Performance*, is expected to publish in the *AANA Journal*, the official journal of nurse anesthesia. The research aims to highlight the importance of simulation training and hypothesizes that TEE-learning could be better accomplished with a simulator than with online or web-based training.

Nurse Anesthetists have an important role in the future of perioperative care

The present role of ultrasound scanning in a CRNA's day-to-day activities is limited. However, there is a push for more duties to fall into the hands

of nurse anesthetists and other advanced practice nurses. Shields notes, "There is a national movement for incorporation of TTE/TEE and other PoCUS scanning into our training. [The] Council on Accreditation [of Nurse Anesthesia Educational Programs] is currently assessing the need to have PoCUS as a requirement for graduation. It is the future of perioperative care."

At Middle Tennessee School of Anesthesia, Shields is developing TEE and PoCUS curricula specifically for the CRNA program. Shields mentions, "We are planning on acquiring strategic partnerships with national organizations in developing a PoCUS certification program involving all aspects of ultrasound used during the perioperative period including echocardiography and other assessments of cardiopulmonary instability. There will be online learning with didactic and clinical through virtual scanning. Participants will be required to scan at clinical sites as well as pass difficult case-based scenarios using BodyWorks Eve and HeartWorks simulators." He hopes to launch the program in 2020.



"There is a national movement for incorporation of TTE/TEE and other PoCUS scanning into our training."

“HeartWorks gives you the whole TEE experience. We train with an 11-year-old [HeartWorks] unit at a major academic center that still runs like a new unit. BodyWorks Eve is even better with the non-cardiac features such as pulmonary, pelvic and abdominal scanning. BodyWorks Eve should be fabulous as I can take it on a plane and go wherever there is a need.”

PoCUS is the new stethoscope

His reason for building out an expansive training program with ultrasound simulation is simple: “Need. TEE is the most robust cardiovascular monitor available and is used in almost all cardiac operations. CRNAs are a vital part of healthcare, especially in critical access hospitals. Our patients deserve the best care possible and PoCUS is the new stethoscope. The next generation of providers need this vital skillset. We envision other programs drawing from our experiences and curriculum and establishing their own programs. There are 50,000 CRNAs in [the United States] and 105 programs, and they should all be providing similar training.”

For Shields’ program to work effectively, he needs the highest quality and most realistic ultrasound simulators on the market – that’s why he has advocated for his university to purchase systems from Intelligent Ultrasound. According to Shields, “HeartWorks gives you the whole TEE experience. We train with an 11-year-old [HeartWorks] unit at a major academic center that still runs like a new unit. BodyWorks Eve is even better with the non-cardiac features such as pulmonary, pelvic and abdominal scanning. BodyWorks Eve should be fabulous as I can take it on a plane and go wherever there is a need.”

It’s not just professors and program directors who value the capabilities of HeartWorks and BodyWorks Eve. Most importantly, students who are now able to actively engage in hands-on learning are quite drawn to the technology. Shields added, “[The students] love it. This age group learns the best with hands-on. At the end of every session, I have students asking when they can scan again, when it will be available for them again and expressing how much more they understand the heart and pathology.”

Today, the use of ultrasound is expanding, and making a meaningful impact on more and more specialties throughout the healthcare system. Intelligent Ultrasound is proud to work closely with healthcare educators from around the world to develop market leading simulators and learning systems that will help better prepare and support clinicians in the care of their patients.

To find out more about how ScanTrainer could help your trainees learn faster and learn better get in touch today.

Email: hello@intelligentultrasound.com

UK: +44(0)2920 756534

US & Canada: +1 (770) 777-8191

China, Japan & Asia-Pacific: +86 01052830381



INTELLIGENT
ULTRASOUND®

for smarter scanning

www.intelligentultrasound.com