

LOW-COST ULTRASOUND TRAINING TOOLS AND STRENGTHENING EMERGENCY MEDICINE SPECIALTY SOCIETIES IN AFRICA

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In his book, “Anyone, Anything, Anytime: A History of Emergency Medicine,” Brian Zink describes the evolution of the essential specialty of emergency medicine in the United States of America, which allows immediate access to care provided by specialists to all patients for acute illness and injury whenever they arrive at a hospital. While the specialty began to develop as we know it in the US in the 1960s, it remains in its infancy in Africa and many other parts of the world. Without access to dedicated emergency care available at all hours, those who are suddenly short of breath, having strokes or heart attacks, or suffering injuries from road traffic collisions all risk delays in essential stabilization and treatment. This year, with the support of the Center for African Studies, I was able to attend the International Congress on Emergency Medicine in Cape Town, South Africa. At ICEM, as a representative of the International Federation for Emergency Medicine’s Specialty Implementation Committee, I was honored to lead a session presenting our Task Force’s manuscript, “How to Start and Implement a National Emergency Medicine Specialty Organisation.” Previously published in the *African Journal of Emergency Medicine*, the manuscript describes considerations for fledgling organizations to operationalize a specific group of practitioners working to provide consistent emergency care. This promotes specifically trained physicians, nurses and medics to be ready for these patients in emergency centers rather than relying on the most junior trainees and general practitioners to attend to these ill and injured. Now, in more and more places, emergency care practitioners may join together for mutual support, political lobbying and advancement of patient care and educational goals. The session inspired dialogue amongst physicians, nurses and paramedics in countries that have recently successfully launched such societies and

those considering such a project.

Also at ICEM, I had the opportunity to present, “Agar Ultrasound Phantoms for Low-Cost Training Without Refrigeration.” In the summer of 2015, Matthew Earle, a UF medical student, set out to find a better model to allow trainees in low-income countries to practice placing IV lines and large central venous catheters using ultrasound guidance. One low-cost model involves making models from gelatin, however, in sub-Saharan African climates, often these models melt



at room temperature after minimal use. Mr. Earle’s research led to a new model utilizing easily accessible components, which can be reused, and both assembled and stored without refrigeration. This allows improved patient safety by allowing training on affordable and realistic simulation models. The accompanying manuscript was also published earlier this year in the *African Journal of Emergency Medicine*. Presenting at the conference allowed us to network with faculty and residents in several low-resource training programs

worldwide and facilitated discussion about other low-cost teaching and clinical materials for ultrasound training.

Finally, I remain tied to the pioneers of emergency medicine in Rwanda. In 2014, I served as the full-time Technical Director for the sidHARTE Rwanda program, teaching district hospital staff foundations of emergency care and serving as a faculty member in the nation’s first emergency medicine residency program at the national referral hospital in Kigali. In 2014, Rwanda had the first meetings of the Rwanda Emergency Care Association (RECA). In August 2016, I was invited to lecture on “Models of Training in Emergency Care,” at the first RECA national congress and was honored with an award for “Outstanding Support to the Development of the Rwanda Emergency Care Association.” We look forward to ongoing opportunities to collaborate and to provide mutual support for educational program development.

Dr. Elizabeth DeVos is the director of Global Health Education Programs for the University of Florida College of Medicine and an associate professor in Emergency Medicine at UF College of Medicine-Jacksonville where she is medical director of International Emergency Medicine Education. The Medical Student Research Program funded medical student project development. Departmental and CAS funding allowed travel to the ICEM congress.