

I squint at the small screen trying to will an appendix into existence out of a meshwork of grey dots and lines. Dr. Opio, a surgeon I shadowed in a small city in northern Uganda, tells me I am looking at a dilated, non-compressible, tubular structure that he will remove later that day. It was the first time I witnessed the power of ultrasound. I have yet to see abdominal ultrasound performed to his level of mastery - he seemed to always find the appendix, even normal ones.

Fortunately for me, my medical school class was the first to have ultrasound education incorporated into the organ-based preclinical subjects. I enjoyed these sessions immensely and learned from very engaging and interesting people - as the vast majority of the instructors were EM attendings and residents. Two years later, after completing a one-month ED ultrasound elective, I helped introduce the MS1s to ultrasound by running my own scanning station during their ultrasound sessions. Using one of those University of Pennsylvania ultrasound machines, covertly late in the evening, I scanned my wife and visualized our son as an 8-week fetus, first confirming IUP and FHR.

Later that year I worked with a nephrology-trained US fellow enrolling patients and performing approximately 60 "28-point B-line" studies on ESRD patients in the ED. While it may sound monotonous, it was during these scans that I first felt like a physician. Often the patients had many prior ED visits, and of course spent hours each week in the dialysis center. Nearly all I asked enrolled in the study - I believe they wanted to *feel* cared for. I prepared them for the cold gel and made small talk, but most importantly I laid an extension of my hand - the probe - on their chest and mutual therapy ensued. Now, as one of my residency program's US chiefs, I have the honor to pass on the knowledge that I have accumulated. I can impart onto junior learners the satisfaction of radiation-free diagnostics, procedural guidance, and the patient reassurance that ultrasound can provide. I see an emergency ultrasound fellowship as an opportunity to become a better educator and recruit a new generation of sono enthusiasts.

I also have a particular interest in procedural ultrasound applications. Recently, on a nerve block elective, an elderly anesthesiologist recounted to me, "before the days of ultrasound, we used to transect the artery and inject anesthetic knowing anatomically that the nerve was just distal." I had organized this new elective with our Regional Anesthesia Department after witnessing the effectiveness of a serratus anterior block for painful rib fractures. Then I read about many other ED nerve block applications and I wondered why I was not seeing them utilized in our EDs. Turns out, it was mostly a self-propagating cycle of lack of experience. I recently applied for a grant to conduct a large ultrasound-guided nerve block workshop this fall using high-fidelity meat-models. Our acting Program Director is a strong advocate of emergency ultrasound and fully supports this effort. I look forward to having my fellow residents gain simulated procedural experience and absorb yet another use for ultrasound that can assist them in their patient care. One day I hope to find myself in a leadership role where I can regularly help mold the next generation of Emergency Physicians, equipping them with the ever-expanding arsenal of bedside ultrasound applications.

I apply for your emergency ultrasound fellowship with the goal of becoming an effective and inspiring educator and a future leader in this innovative and practice-changing field. Thank you for your time and consideration.