**TEACHING AND MENTORING OVERVIEW**

Dr. \*\*\*\* is heavily involved in the educational mission of UAMS with multiple roles within the Department of Emergency Medicine (EM) and extensive involvement in the College of Medicine (COM) medical student curriculum and the Department of Pediatrics EM fellowship curriculum. Most of Dr. \*\*\*\*'s time is focused on teaching at the bedside while working clinically or performing ultrasound education.

Dr. \*\*\*\* serves as core faculty for the Emergency Medicine residency program at UAMS. In that role, he provides numerous lectures to Emergency Medicine residents related to EM in general and Emergency Ultrasound in particular. Additionally, he provides continuous quality improvement through image review of ultrasounds performed during clinical work in the Emergency Department. He educates residents both while working clinically and during specific "scan shifts," where he teaches ultrasound at the bedside during the emergency ultrasound rotation. He also provides education through simulation and procedure labs throughout the year to EM residents about various skills from airway management to resuscitation and communication. Additionally, he lectures and participates in skills labs during the annual EM departmental airway course designed to teach EM residents and pediatric EM fellows advanced airway management.

His role as the Director of the Clinical Ultrasound Fellowship requires significant time. Dr. \*\*\*\* assists the academic endeavors of the fellows in these roles. In addition to completing in-person and asynchronous curricula, a research project, and developing experience delivering didactics while simultaneously working clinically part-time, fellows must complete one thousand credited high-quality ultrasounds during their one-year fellowship. Dr. \*\*\*\* and the other faculty in the Division of Emergency Ultrasound review all ultrasounds performed in the emergency department, including those performed by emergency ultrasound and pediatric emergency ultrasound fellows. They also supervise scanning at the bedside, deliver didactic presentations to the fellows, and mentor fellows to develop them into researchers and educators.

Dr. \*\*\*\* is also the associate director of pediatric EM fellow ultrasound education. Through this role, he works to develop the pediatric EM fellows' knowledge and skill in using point-of- care ultrasound. This development is accomplished through a combination of asynchronous and in-person didactics, proctored bedside ultrasound performance, and independent ultrasound performance with image review. Dr. \*\*\*\* has also organized a series of longitudinal lectures to provide fellows with ongoing ultrasound education throughout their fellowship. These topics include applications such as echocardiography, lung ultrasound, the extended focused assessment with sonography in trauma (eFAST), hip ultrasound, and ultrasound diagnosis of appendicitis, pyloric stenosis, intussusception, and bowel obstruction.

Dr. \*\*\*\* has also helped improve access to point-of-care ultrasound by delivering ultrasound education beyond the Departments of EM and Pediatrics. To this end, he has served as a

faculty member for the COM pre-clinical ultrasound curriculum, helping bridge the transition from anatomic to clinical knowledge by utilizing ultrasound as an educational medium. In addition, he has provided lectures for the Fellows in Pediatric EM, Critical Care, and Cardiovascular Critical Care, as well as Ophthalmology residents.

Dr. \*\*\*\* and members of the Division of Emergency Ultrasound have worked to develop curricula for ultrasound education and encourage the utilization of point-of-care ultrasound beyond UAMS. For example, Dr. \*\*\*\* has provided dynamic lectures about bedside ultrasound for other EM residency programs, the American Association of Anatomy Regional Meeting, the Arkansas Academy of Family Physicians, the Society of Emergency Medicine Physicians Assistants, and the Central European Emergency Medicine Conference. In addition, Dr. \*\*\*\* and his colleagues in the Division of Emergency Ultrasound have developed a combination of asynchronous didactics and in-person skills sessions to provide education in point-of-care ultrasound applications to organizations and groups outside of UAMS. To date, they have conducted two courses with more than 25 hands-on learners. These courses have received rave reviews from the participants, proved profitable for the institution, and produced results presented at the American Institute of Ultrasound in Medicine annual conference in 2022. Additionally, these courses are live and available for scheduling by any outside group through the UAMS Simulation Center.

Dr. \*\*\*\* has a strong interest in curriculum development and, along with his colleagues in the Division of Emergency Ultrasound, developed the curriculum for Pediatric Emergency Medicine fellows completing the Ultrasound Fellowship. This process required a review of the available literature, discussion with colleagues at other sites with pediatric emergency medicine ultrasound fellowships, and approval by the college of medicine and designated institutional official. Dr. \*\*\*\* and his colleagues in the Division of Emergency Ultrasound have dedicated significant effort to developing asynchronous materials to amplify the educational endeavor.

Specifically, they have designed methods of capturing in-person lectures and brief "chalk talks," typically given on a chalkboard or piece of paper at the bedside. The lecture is recorded and stored online for review by learners at their leisure. To date, these asynchronous lectures have received >3,500 impressions and have amassed more than 23 hours of total viewing time. Dr. \*\*\*\* also participates in virtual journal clubs reviewing emergency ultrasound literature, a novel method he and his faculty developed while he was a resident. These virtual sessions have progressed into a national-level journal club, are sponsored by the largest EM society, the American College of Emergency Physicians, and are attended by approximately 180 participants each month. Dr. \*\*\*\* continues to be involved in this journal club by leading breakout groups and reviewing articles with ultrasound faculty, fellows, and residents.

Dr. \*\*\*\* also has a strong interest in mentorship. He has served as a Practice of Medicine Mentor for three second-year medical students as well as the career advisor for two additional medical students. Additionally, he has served as a research mentor for three Pediatric EM fellows and three additional medical students. His passion, however, lies in mentoring Emergency Ultrasound Fellows as they transition from learners to a role defined by being a leader, researcher, and educator. To this end, he has dedicated much of his personal

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development to ensuring he can provide support for Emergency Ultrasound fellows as they undergo this transition during their fellowship.