

# UTHSCSA Emergency Medicine Ultrasound Rotation

Welcome to your rotation with the Ultrasound Division within the UTHSCSA Department of Emergency Medicine. During your time with us we hope to impart upon you a broad understanding of point of care ultrasound and its applications both in the emergency setting and in a variety of critical care and other bedside environments. As emergency physicians we have the privilege and pleasure of managing the emergent presentations of all other subspecialties, thus as emergency ultrasonographers we strive for proficiency in all manner of bedside ultrasound. With us you will learn obstetric, orthopedic, renal, cardiac, trauma, and procedural ultrasound as well as a variety of other novel techniques and applications of point of care ultrasound that we believe will enhance your clinical skills and acumen regardless of your current or future specialization.

## The Faculty:



**Craig Sisson, MD, RDMS, FACEP** - Dr. Sisson attended medical school at Wayne State University in Detroit Michigan, then completed his EM residency and his EM Ultrasound Fellowship with the University Emergency Medicine Foundation affiliated with Rhode Island Hospital/Brown University in Providence, Rhode Island. From 2008 to 2011 Dr. Sisson was the Director of Emergency Ultrasound with the EM Department at the East Carolina University Brody School of Medicine. In 2011 he came to the HSC as the Director of Emergency Ultrasound and was a founding member of the UTHSCSA Center of Emergency Medicine, now the Department of Emergency Medicine. He is currently the Director of the Division of Emergency Ultrasound. He has trained faculty, residents, medical students, extended providers, nurses and technologists in various ultrasound applications locally, nationally and internationally. Dr. Sisson created this elective rotation when he arrived in 2011 to expand ultrasound training for medical students. He has since expanded his role within the school as a UTSOMSA Discipline Coordinator for the Longitudinal Medical Student Ultrasound curriculum, and along with his co-discipline coordinator, designed and oversaw the construction of the school's state-of-the-art ultrasound lab. Dr. Sisson's research interests are spatial orientation and sensorimotor skill development for which he has grant support, curricula development and competency training, ocular ultrasound, and trauma ultrasound among many others.



**Chris Gelabert, MD** - Dr. Gelabert graduated from medical school here at the University of Texas School of Medicine in San Antonio, and then completed his Emergency Medicine residency at Beth Israel Medical Center in New York and Emergency Ultrasound Fellowship at North Shore University Hospital in New York. Dr. Gelabert returned to UTHSCSA as faculty member in 2014 and is the Assistant Director for Quality Improvement and Quality Assurance for the Division of Emergency Medicine.

## The structure of the rotation:

Each week you will spend 2 days receiving lectures and scanning directly with a fellowship trained ultrasound attending. These days are typically Tuesdays and Fridays. On the other days (Monday, Wednesday, and Thursday) you will scan independently in the ED and read on topics you have learned. Your nights and weekends are free and there is no call.

### Tuesdays and Fridays

Rotators meet with an ultrasound faculty member at 9am in the ED main lecture hall. These mornings will be spent on lectures intermixed with practice sessions and/or scanning patients. We typically take a lunch break then resume scanning together in the ED for the remainder of the afternoon, concluding at 5 pm.

### Mondays, Wednesdays, and Thursdays

On your independent scanning days you will go to the ED and find patients to scan by scrolling the tracking board and communicating with the clinical teams. You may perform educational studies on any willing patient with the permission of the clinical attending. **Any significant findings should be reported directly to the clinical attending in charge of the patient so that he/she may order the appropriate confirmatory study.**

After selecting a suitable patient you should enter the room and introduce yourself as a student/resident on the ultrasound team for the Emergency Department. Inform the patient that their clinical team has indicated that the patient might be willing to allow an ultrasound study and confirm if they would be amenable. It is important to emphasize that your examination is for educational purposes only, will not be billed, and the patient may still require additional formal imaging studies including another formal ultrasound. Lastly, **DO NOT attempt to interpret the images for the patient, communicate any suspected findings, nor give predictions about their clinical course based on your ultrasound findings.**

During your rotation your independently acquired ultrasound images and videos will be reviewed weekly. An ultrasound trained faculty member will review your studies, critique them and provide recommendations for improvement.

There will be an ultrasound journal club every two weeks. You will be required to select a current piece of ultrasound literature and provide a review for the students, residents and faculty.

## Expectations:

Rotators are expected to be prompt and present for all lectures and scanning shifts for the duration of the shifts.

Rotators should properly label and record representative clips for all studies performed (see laminated cards provided).

Rotators should demonstrate understanding of basic physics and concepts of ultrasound, as well as basic “knobology” common to all machines for the acquisition of optimized images.

By the end of the rotation rotators should demonstrate proficiency in obtaining and interpreting ultrasound images from a variety of modalities using the appropriate nomenclature.

Rotators should strive to master certain ultrasound guided procedural techniques like US guided PIV insertion, marking fluid for paracentesis, etc.

## **How to excel:**

Above average rotators typically:

- Read and study ahead of time and come to scanning shifts with some advanced knowledge and questions already in mind
- are proactive about identifying suitable patients to scan during their shifts
- demonstrate significant improvement and proficiency in scanning techniques, image optimization, and interpretation
- demonstrate interest in or practice of more advanced ultrasound techniques and modalities

## **Appendix A: The machines**

See the attached document “Recording images on Sonosite and Zonare Machines”

## **Appendix B: The standard images**

The core modalities you will learn on this rotation are:

- Emergency echocardiography
- FAST and EFAST
- Biliary
- Renal/bladder

- Pelvic for confirmation of pregnancy
- Procedural (peripheral line and central line insertion)
- Ocular
- Soft Tissue/Musculoskeletal
- Aortic
- Thoracic
- DVT

Refer to laminated cards, lectures, and teaching throughout the rotation for the finer details of each modality.

## Appendix C: A few resources

- The Ultrasound Podcast  
<http://www.ultrasoundpodcast.com/>
- Ma and Mateer Text
- Sonoguide  
<http://www.sonoguide.com/>
- Ultrasound for the Win Case series - Academic Life in Emergency Medicine  
<http://www.aliem.com/category/clinical/system/radiology/ultrasound/>