

UT SOUTHWESTERN DEPARTMENT OF SURGERY

TECHNICAL SKILLS COURSE OUTLINE

Course Title: ULTRASOUND IN THE TRAUMA SETTING-FAST

Course Director: Name: Heidi Frankel, MD, FACS
Specialty: Surgery

Additional Course Faculty: Name: BTCC Faculty and Fellows
Specialty: Surgery

Participants: Specialty: Surgery Residents
Level: PGY 2

Expected Attendance: 15 participants

Course Completion Verification - Course completion will be verified by attendance and successful demonstration of a FAST exam.

Self-study or Self-practice (Is self-study or self-practice an expectation of this course?)

No

Yes (*specify*) Students must complete ACS ultrasound basic CD prior to the course

Training Location(s): D1.104 and then SCMIS

Equipment/Simulator(s): SonoSite ultrasound unit

Other Resources (Textbooks, CD-ROMS, Videos, etc):

Educational Scope:

Skills – Essential practices and physics of ultrasound imaging; proper transducer selection and orientation in B mode (Brightness)

Cognitive - Applications of ultrasound principles to clinical imaging in the Trauma and Acute General Surgery setting

Judgment – Developing ultrasound imaging skills to diagnose acute life threatening Conditions and urgent surgical conditions

Learning Objectives:

1. Understand essential ultrasound practices and physics principles
2. Understand and identify role of artifacts in ultrasound imaging
3. Understand indications and limitations of ultrasound imaging in the trauma setting
4. Incorporate ultrasound imaging and interventional/surgical procedures for life-threatening conditions

Summary of Curriculum, Teaching Methods, and Resource Utilization:

All residents will complete the *ACS Ultrasound for Surgeons CD-ROM* and pass the web-based examination. Upon completion of this, all residents will receive ACS verification in ultrasound training by participating in the *ACS Ultrasound in the Acute Setting Course*, which will be exported to UTSW surgical residents.

All residents rotate on the Trauma/Emergent Surgical Services, therefore early ultrasound education in first three years is important for competency. This training will allow the participants to diagnose the following life-threatening conditions in trauma: hemopericardium, hemoperitoneum, hemothorax and pneumothorax. Furthermore, in the emergent general surgery patient, participants will be able to diagnose the following clinical entities: acute cholecystitis, cholelithiasis, CBD dilation and intra-hepatic biliary dilation, ascites, and soft tissue abscess formation.

Participants will be required to perform 50 proctored FAST examinations in trauma. A record of these will be in the residents' SNIPS documentation.

Methods for giving feedback to learners (Formative and Summative): Feedback will be verbal and immediate during the skills sessions. In the trauma hall, performance feedback will be verbal and immediate for all Level 1 Trauma patients since attending presence is mandatory.

Methods for Assessment of Learners: open feedback by course director and in-house trauma attending.

Methods for Course Evaluation: by Learners open feedback
By Faculty open feedback

Materials

Ultrasound machines (Sonosites)

Human model volunteers (2)

Towels

Mattresses

Ultrasound gel

Olives

Turkey

Tru-cut biopsy needles

Paper towels
Wex-cide disinfectant