

UT SOUTHWESTERN DEPARTMENT OF SURGERY

TECHNICAL SKILLS COURSE OUTLINE

Course Title: Ultrasound-guided central line insertion and chest imaging

Course Director: Name: Heidi Frankel, MD, FACS
Specialty: Trauma and Surgical Critical Care

Participants: Specialty: General Surgery
Level: PGY 2

Expected Attendance: 15 Residents in 1 of 2 sessions
of Wednesday Morning Sessions Assigned to Each Trainee: 1
Duration of Each Session (max 2 hrs): 1.5 hrs
of Trainees per session: 8

Course Completion Verification - Trainees have successfully completed the course if attendance is verified and if proficiency in CVP insertion and chest drain is determined.

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

 No

 X Yes (*specify*) View slide set and pass pre-test

Self-study component(s): _____

Estimated time requirements for self-study: 2 hrs.

During what phase(s) of the course is self-study to be completed? precourse

Self-practice component(s): No

Estimated time requirements for self-practice: _____ hrs.

During what phase(s) of the course is self-practice to be completed? _____

Training Location(s): Skills lab

Equipment/Simulator(s): B&K ultrasound unit
Blue Phantom models

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 SICU setting – vascular and thoracic imaging

Judgment: Developing ultrasound imaging skills to perform at the bedside of critically ill surgical/trauma patients

Learning Objectives:

1. Understand essential ultrasound practices and physics principles
2. Understand indications and limitations of bedside ultrasound imaging
3. Incorporate ultrasound imaging and interventional/therapeutic modalities including central line and pleural drain insertion procedure
4. Improve patient safety by ultrasound imaging prior to invasive procedures

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.

Trainees will perform central line insertion on a phantom and image and instrument a thoracic phantom.

Methods for giving feedback to learners (Formative and Summative): Formalized feedback will be given immediately to course participants by the course director. Residents will perform 20 ultrasound-guided central line placements to be deemed proficient (will capture in SNIPS) and visit practice station annually.

All SICU procedures, with or without the use of ultrasound guidance, will be observed by an SICU/Trauma attending. Immediate verbal feedback will be provided.

Methods for Assessment of Learners: Immediate verbal feedback. Also, any procedure complications will be recorded in the SICU database so that patient safety and quality improvement processed can be reviewed.

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

Materials: Blue Phantom vascular and chest phantoms (2)