

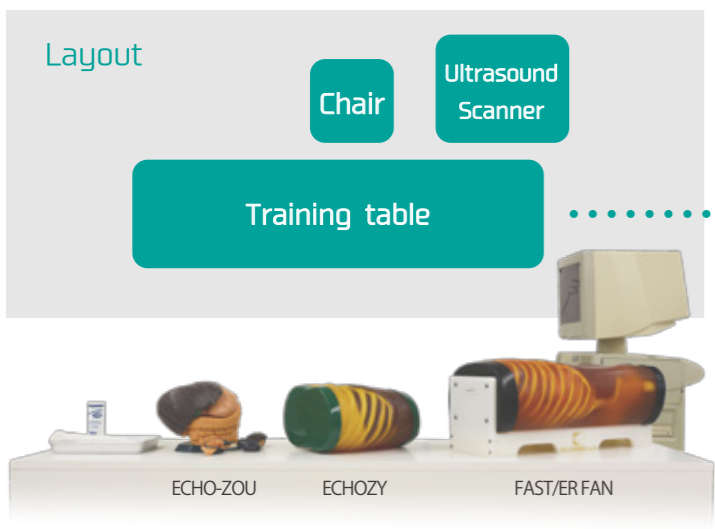


Let's work with ECHOZY & FAST/ER FAN!

Abdominal Ultrasound Examination

Case :  Osaka City University, Faculty of Medicine Skills Simulation Center
 WEB ▶▶ <http://www.med.osaka-cu.ac.jp/ssc/>

STEP 1 ITEMS TO PREPARE



On the training table

- US-1 Ultrasound Examination Training Phantom "ECHOZY"
- US-5 FAST/Acute Abdomen Phantom "FAST/ER FAN"
- M98 Anatomical Model "ECHO-ZOU" or an anatomical chart of abdomen
- Ultrasound gel
- Wet cloth (to wipe gel off the phantom)
- Tray to put the cloth

Others

- Ultrasound scanner (with a convex transducer)

Good to Know TRAINING TRICKS

POINT Do not leave trainees with questions and doubt!

"How should I move my transducer?"
 "What am I seeing on the screen?"
 Most of beginners are uncertain on basic points and may be embarrassed to express it. During the basic training with ECHOZY, let us try to answer such questions, from how to hold the transducer to interpretation of visualized images, on the spot and clear such uneasiness. Making trainees be comfortable to rise their questions at any time is one of the keys for successful training.

POINT Now you are at ER! Create a realistic sensation.

At ER, time for examination is a scarce resource. Once the trainees have familiarized with ultrasound examination, setting a time limit of approx. 2 minutes per exam to simulate a ER setting will be effective. In addition, making the room light dim, using sound effect or adding words that are typically used in ER helps trainees imagine real life situation. Create a realistic sense of tension in the training session to have true-to-life experience in ultrasound in emergency setting.

POINT First, play and enjoy as a game!

When the training transits from the basics with ECHOZY to advanced session with FAST/ER FAN, some trainees may be overwhelmed by new challenges such as abnormal finding. At the beginning, the session can be like a playful game rather than serious simulation. Make the trainee work as a team to find differences from the normal findings of ECHOZY and lead them to a successful experience.

POINT Strike while the iron is hot! Prompt follow up helps.

After going through the course with the phantoms, encourage the trainees to scan each other within days, while their memory is still fresh. There naturally are some difference between phantoms and human bodies such as respiratory movement of organs. Performing ultrasound scanning on real people while the trainees maintain their excitement from the training course will facilitate filling the gap between phantom and reality and acquiring skills for ultrasound examination.

"Line-by-line advices" to retain trainees' interest, and "praise and recognize" to motivate them further!

STEP 2 CARRYING OUT THE TRAINING

The below example is for one hour training session.

To encourage trainees to prepare from some days before the training session will increase effectivity of the training.

Orientation

The trainees are assessed on preparation work or previous experiences in ultrasound examination. Orientation on training contents and flow is given.

Introduction for ultrasound examination

5 min.

Demonstration of abdominal ultrasound on ECHOZY.

Points to cover

- usefulness of ultrasound examination
- interpretation of ultrasound images
- how to use an ultrasound scanner
- basics of ultrasound scanning
- when facing challenges during examination and so on. Keep concise explanation.

POINT Why is ECHOZY used for demonstration?

Since ECHOZY does not contain abnormal findings, it fits better for demonstration and training on beginners.

As a pair, thoroughly try and learn the basics for 25 min.

Practical training (Basic/ECHOZY)

25 min.

Hands-on training of basic abdominal ultrasound using ECHOZY

Goals Basics of ultrasound scanning, visualization of normal organs and anatomical understanding

Training sessions

● Using the ECHO-ZOU model or an anatomical chart, check the organ that is visualized on the monitor as an ultrasound image.

*ECHO-ZOU is included as a component ECHOZY full set.

POINT Nip the dread in the bud.

Clear the trainees' questions and uncertainty on the spot to prevent it grows into dread for the examination.

POINT Advices from experienced clinicians

Share the events that trainees will encounter in real life and tips that are not on text books.



Practical training (Advanced/FAST/ER FAN)

30 min.

Simulation training on ultrasound exam. in ER setting using FAST/ER FAN.

Goals Visualization of abnormal findings

Training sessions

● Using a case scenario to conduct realistic simulation training

Example: The patient met a traffic accident and was ambulated to the ER.

- His blood pressure and consciousness are decreasing.
- age - sex - history - existing conditions
- data at the time of acceptance including body height, weight, blood pressure, pulse rate and LOC

POINT Providing the scenario and patient data facilitates trainees to perform examination while searching for causes of findings.

POINT Give prompt feed-backs on findings that trainees reach to promote understanding.

POINT Write up the collected information on a whiteboard in real time to share the situation.

As a team of five, scan the patient in 2 min. per a trainee.

