

Case authors: Timothy Buckley, MD and Neil Wallace, MD

Case 2 Setup

Ultrasound Preparation:

- Ensure phased array, linear, and curvilinear probes are present, functioning and clean.
- Ensure the ultrasound screen is easily visible to the examinee, either directly or via screen share.

When Examinee Enters:

—“Hello Doctor, I am Dr. _ and will be assisting as your examiner for this ultrasound case. As a reminder, please ask me to change probes, change depth, gain, or mode of ultrasound to assist you with the case. Please ask for help to reposition the patient or bed. Do you have any questions?”

Case vignette:

—“As you have noted, the patient is a 48 year-old male presenting with shortness of breath and right sided chest pain.”

Ultrasound:

—“I would like for you to now demonstrate how you would assess dyspnea using ultrasound to evaluate the lungs, starting with the left lung. Which probe would you like to use?”

Probe settings:

- Linear
 - Gain 10, depth 10cm
- Phased array
 - Gain 10, depth 5cm
- Curvilinear
 - Gain 10, depth 5cm

If asked to change probe settings:

- “Tell me when to stop adjusting [gain/depth]
 - Adjust the gain and depth slowly, allowing the examinee to stop you.

—“Please assess the left lung now. When you find an acceptable image, please let me know.”

After examinee has selected their image:

—“Thank you, I will take the probe from you now. Please direct your attention to the screen. Assume this video is the video you obtained from this patient. I would like you to point out any artifacts, anatomy, or pathology that would be important for this complaint.”

– “Thank you, now please obtain an M mode image of the pleura”

****After interpreting the normal images, direct the examinee to the screen where you will show them pathology** - Clip (no lung sliding) and image (barcode)**

—“Assuming this is your patient’s right lung ultrasound, please interpret the image/clip, pointing out any pathology.”



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Application:

—“Assuming there was an absence of lung sliding, and CXR showed 40% collapse of the right lung, what would be your next steps in managing the patient?”

End of case: “Thank you, that concludes your case.”

Case Pearls and Pitfalls:

- 1) For examining the pleura for evidence of pneumothorax, decrease your depth to have the pleura in the center of the screen.
- 2) While absence of lung sliding is suggestive of pneumothorax in the right clinical context, finding a lung point (lung is sliding and a transition to absence of sliding in the same view) is diagnostic of pneumothorax.