Pre-Course Knowledge Assessment

Please complete the knowledge assessment below.

Thank you!

What is your full name?

_____

Have you had any formal education in point-of-care ultrasound prior to this academic year?

○ Yes
○ No

What education did you receive?

○ Single training session
○ Multiple training sessions
○ Longitudinal training experience
○ Other

Briefly describe your prior education:

_____

How comfortable are you with using point-of-care ultrasound?

○ Very uncomfortable - have no experience, do not know differences in probes/how to hold them, do not know how to adjust basic settings
○ Uncomfortable - have some knowledge of how to use probes and adjust settings, but need guidance in practice on patients
○ Neutral - know how to use probes and adjust settings, can identify normal structures with guidance
○ Comfortable - know how to use the ultrasound and identify normal structures and some abnormal findings in patients who are easy to examine (thin body habitus, can follow commands) without guidance
○ Very comfortable - can do all the above in patients who are difficult to examine and teach others

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Ultrasound has a valuable role in the management of patients in the inpatient setting.

○ Strongly disagree
○ Disagree
○ Neutral
○ Agree
○ Strongly agree

Ultrasound has a valuable role in the management of patients in the outpatient setting.

○ Strongly disagree
○ Disagree
○ Neutral
○ Agree
○ Strongly agree

With adequate training and availability of equipment, how likely are you to integrate point-of-care ultrasound into your medical decision making when applicable?

○ Very unlikely
○ Unlikely
○ Neutral
○ Likely
○ Very likely

Briefly describe how you may do this:

_____

1   How would you optimize the following image?

   ○ Decrease the gain
   ○ Increase the gain
   ○ Decrease the depth
   ○ Increase the depth
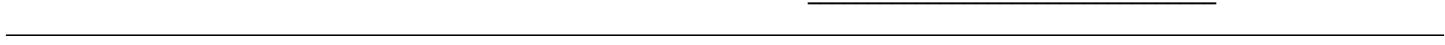   (Please see video below.)

_____

2   How would you optimize the following image?

   ○ Decrease the gain
   ○ Increase the gain
   ○ Decrease the depth
   ○ Increase the depth
   (Please see video below.)

_____

3   In order to maximize image quality, the probe should
be aligned _____ to the object of interest.

   ○ Parallel
   ○ Perpendicular
   ○ 45 degree angle
   ○ 30 degree angle

_____

Select the echogenicity of the following tissues in reference to a normal liver:

		Anechoic	Hypoechoic	Isoechoic	Hyperechoic
4	Spleen	○	○	○	○
5	Fluid (blood, ascites, effusions, etc.)	○	○	○	○
6	Pleura	○	○	○	○
7	Renal cortex	○	○	○	○
8	Diaphragm	○	○	○	○

_____

_____

_____

_____

9   Which probe would be most suitable for examining the
     pleural space?

○ Linear probe
○ Phased array probe
○ Curvilinear probe

10   A focused lung ultrasound is performed on a patient
     with acute hypoxic respiratory failure, with the
     following clip representative of all lung fields.
     What is the most likely diagnosis out of the options
     listed?

○ COPD/asthma
○ Congestive heart failure
○ Pneumothorax
○ Pulmonary embolism
  (Please see video below.)

11   A 65yo man presents with shortness of breath, cough,
     and hypoxia requiring 6L nasal cannula. A focused
     lung ultrasound is performed, with the results shown
     in the following clip. What is the next step for
     management?

○ Perform thoracentesis
○ Initiate antibiotic therapy
○ Consult CT Surgery for chest tube placement
○ Obtain CTA Chest to evaluate for pulmonary embolism
  (Please see video below.)

12   A 35yo woman with cirrhosis presents with 2 day
     history of abdominal pain and tenderness. A focused
     abdominal ultrasound was obtained and is shown below.
     What is the next step for management?

○ Start aggressive bowel regimen
○ Perform a diagnostic paracentesis
○ Insert nasogastric tube for suctioning
○ Initiate empiric antibiotic therapy
  (Please see video below.)

13   Which artifacts are present in the following image?
     (Select all that apply)

☐ Side lobe artifact
☐ Reverberation artifact
☐ Acoustic shadowing
☐ Mirror image artifact
  (Please see video below.)

Total score