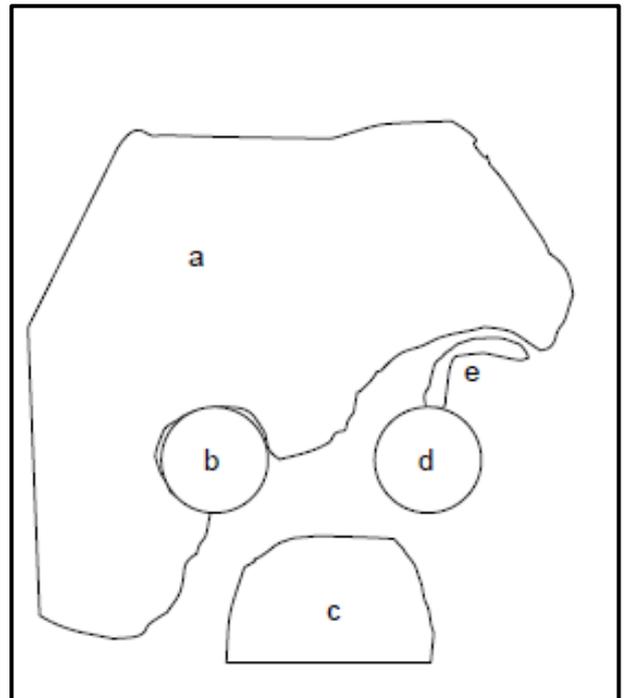
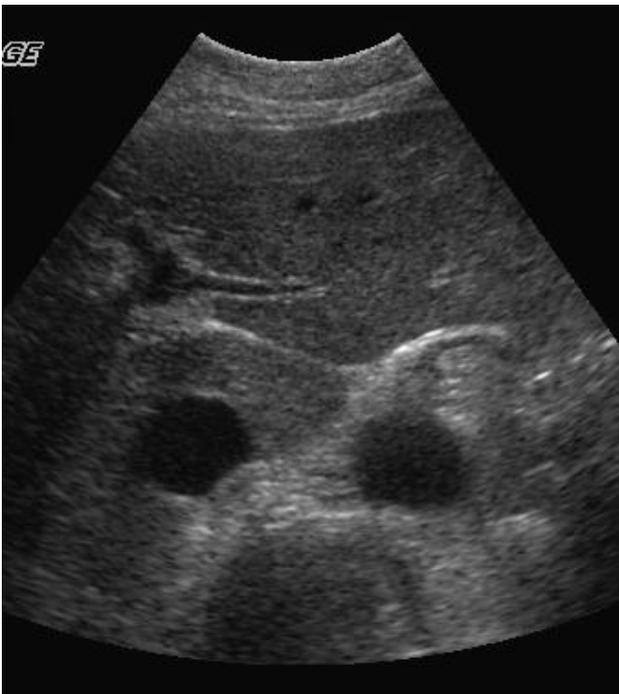


Ultrasound Course Pre-Quiz

1. Select the most appropriate transducer for an abdominal aortic aneurysm ultrasound examination
 - a. Linear transducer (8-12MHz)
 - b. Sector transducer (6-9MHz)
 - c. Curvilinear transducer (3-5MHz)
 - d. Annular array (4MHz)

2. EFAST scans can determine if there is blood in the peritoneal cavity
 - a. True
 - b. False

3. Label the following structures:



- a. _____
- b. _____
- c. _____
- d. _____
- e. _____

4. In EFAST scanning, if good images are obtained with ultrasound then an abdominal CT scan is not required.

- a. True
- b. False

5. Diagnostic ultrasound has been shown to cause the following potential harmful effects in humans (tick as many as are correct):

- a. Tissue heating
- b. Foetal malformations
- c. Pulmonary haemorrhage
- d. Bowel perforation
- e. Foetal deaths

6. The velocity of ultrasound waves in the human body is:

- a. Dependent on frequency
- b. Irrelevant to modern day ultrasound machines
- c. Variable by less than less than 10% through different body tissues
- d. Almost constant in soft tissue

7. The reflection coefficient between air and water is:

- a. 90%
- b. 1%
- c. Nearly 100%
- d. 50%

8. Which of the following is not a means of attenuation?
- a. Absorption
 - b. Reverberation
 - c. Reflection
 - d. Scatter
 - e. Refraction
9. What percentage of time does a typical pulses ultrasound system spend receiving echoes
- a. 99%
 - b. 90%
 - c. 50%
 - d. 1%
10. Regarding the frequency of ultrasound waves in tissues. Which is correct?
- a. Lower frequency waves are best for viewing fine detail
 - b. Increasing frequency will improve tissue penetration
 - c. Frequency is inversely proportionate to wavelength
 - d. Increasing frequency will increase velocity of the sound wave
11. Artefacts are unhelpful. True or false:
- a. True
 - b. False
12. In a patient with a known AAA, ultrasound can allow a patient with renal colic type pain to be safely observed overnight.
- a. True
 - b. False

13. What is the principle artefact that is evident in this image?



- a. Comet tail artefact
- b. Mirror artefact
- c. Acoustic shadowing artefact
- d. Acoustic enhancement artefact

14. Lateral resolution is:

- a. A function of spatial pulse length
- b. The ability to differentiate between two objects laying in the same line as the US beam
- c. The ability to see as wide as possible
- d. Greatest in the focal zone