**ANSWERS: CHAPTER 2**

**MATCHING**

1. d 4. c 7. h 10. i  
2. f 5. a 8. l 11. j  
3. k 6. e 9. g 12. b  

**IMAGE LABELING**

1A. Psoas major  
1B. Quadratus lumborum  
1C. Rectus abdominis  
1D. Linea alba  
1E. Lumbar vertebra  
2A. Skin  
2B. Camper’s fascia  
2C. Scarpa’s fascia  
2D. External oblique muscle  
2E. Internal oblique muscle  
2F. Transverse abdominal muscle  
2G. Parietal peritoneum  

**MULTIPLE CHOICE**

1. d 6. d 11. a 16. c  
2. a 7. a 12. d 17. a  
3. b 8. c 13. b 18. b  
5. b 10. a 15. d 20. d  

**FILL-IN-THE-BLANK**

1. thoracic; abdominopelvic  
2. Camper’s; Scarpa’s  
3. parietal peritoneum  
4. rectus sheath  
5. psoas major; iliacus; quadratus lumborum  
6. standoff pad  
7. hyperechoic; hypoechoic  
8. inflammatory; traumatic; neoplastic  
9. heat; redness; pain; swelling  
10. spherical; elliptical  
11. thicker; anechoic  
12. rectus sheath  
13. ecchymosis; hematocrit  
14. seroma  
15. ventral; groin  
16. strangulation; incarceration  
17. valsalva maneuver  
18. pleural effusion  
19. absent; paradoxical; exaggerated  
20. abdominal; stomach; bowel; liver  

**SHORT ANSWER**

1. Ascites is an accumulation of fluid in the abdominal cavity and will be located inferior to the diaphragm whereas a pleural effusion is an accumulation of fluid within the pleural cavity and will be located superior to the diaphragm.  

2. An abscess is the result of an inflammatory response. If the cellular and fluid exudates from the inflammatory response do not resolve, fibrous tissue growth can occur in a process called organization. If necrosis of the tissues occurs, dead tissue and pus collect in a cavity that is called an abscess. As time goes on, the fluid contents of the abscess are reabsorbed and calcifications may develop.  

3. Standard precautions must be followed to avoid spreading infection to this and other patients. The transducer should be cleaned with a sterilizing agent and should be covered with a sterile transducer cover. Sterile gel should also be used. After the examination the transducer should be cleaned again with the sterilizing agent and, as always, gloves should be worn during the examination.  

4. If the hernia is not visible in the supine position, the Valsalva maneuver can frequently help demonstrate the hernia. Having the patient perform the maneuver while scanning over the area may aid in visualization. Changing the patient position may help as well. Having the patient sit upright or even stand can help demonstrate the hernia in real time. The location, size, and contents of the hernia should be documented along with the response to Valsalva and the reducibility of the lesion.  

5. Both the right and the left hemidiaphragm should be evaluated. If a unilateral paralysis is present, the affected side will have absent or paradoxical motion and the opposite hemidiaphragm will demonstrate normal or exaggerated motion.  

**IMAGE EVALUATION/PATHOLOGY**

1. Irregular, hypoechoic, complex mass; increased through transmission; the abscess contains fluid and pus and therefore will frequently exhibit posterior enhancement typical of fluid-filled structures  

2. Diaphragm; ascites; pleural effusion  

3. Right lung; large pleural effusion  

4. Well-defined, echogenic, ovoid mass located within the anterior abdominal wall; superficial fascia; muscular layer; transversalis fascia
CASE STUDY

1. Congenital diaphragmatic hernia is caused by a diaphragmatic fusion failure, maldevelopment, or a congenital localized weakness in the diaphragm. The most common complication is respiratory failure.

2. A large complex mass is seen posterior to the incision site. The mass contains multiple internal septations and some increased through transmission is noted. The appearance of the mass is consistent with an incisional abscess, which is typically treated with antibiotics or sonography-guided aspiration. Septations can limit the effectiveness of aspiration.