ABDOMEN:

- Prep: Patient NPO for 8 hours
- Basic Principles: Use appropriate transducer for patient body habitus. Patient position to vary based on anatomy.
- Examination should include a survey of the following:
    - Aorta and periaortic region
    - Liver and portahepatis
    - Kidneys
    - Biliary system
    - Pancreas
    - Spleen
    - IVC

If variations in the anatomy or pathology are seen, additional images and measurements should be obtained over the area of interest.

- AORTA AND PERIAORTIC REGION
    - Representative images of the aorta in longitudinal and transverse planes should be obtained
    - Examine for size, thrombus, and associated vessels.
    - Evaluate periaortic region for enlarged lymph adenopathy, mass or hematoma.

- LIVER
    - Evaluate entire liver in longitudinal and transverse planes.
    - Evaluate for overall size, echogenicity (compared to right kidney), and overall echo pattern for focal and/or diffuse abnormalities.
    - Evaluate the major vessels including the IVC, the hepatic veins, the main portal vein, and, if possible, the right and left branches of the portal vein with grey scale imaging.
    - Evaluate the intraheptic ducts, diaphragm and right pleural gutter.
    - If the liver is cirrhotic or the spleen is significantly enlarged Doppler the main portal vein.
    - Evaluate anterior surface with higher frequency for nodularity or mass
    - Document right hemidiaphram and pleural space

- BILIARY SYSTEM
    - The gallbladder should be imaged in longitudinal and transverse planes in the supine, LPO, decubitus or other positions based on pathology and body habitus.
    - Evaluate for size and wall thickness. Measure GB wall if abnormal.
    - Evaluate the gallbladder, pericholecystic regions and intraluminal areas completely (especially when stones and/or sludge are observed; measurements may aid in determining wall thickness)

- Evaluate and measure common duct at portahepatis for size and intraluminal defects.
- Evaluate CBD at the level of the pancreas for size, intraluminal or extraluminal defects.
- Document gallbladder pain with compression (Murphy's sign)

- KIDNEYS
  - The kidneys should be imaged in longitudinal and transverse planes.
  - Evaluate for overall size, cortex thickness and echogenicity.
  - Measure renal length
  - Evaluate for mass, obstruction, abnormal fluid collections or stones.
  - If hydronephrosis follow ureter to obstruction if possible

- PANCREAS
  - Image in longitudinal and transverse planes.
  - Evaluate for size and echogenicity, as well as for masses or fluid collections.
  - Image all portions of the pancreas – head, body, and tail.
  - Evaluate the distal CBD in the region of the pancreatic head, and note if the pancreatic duct in enlarged.
  - Evaluate the peripancreatic region for adenopathy and/or fluid.
  - Utilize various positions to best visualize anatomy.

- SPLEEN
  - Evaluate the entire splenic bed and regions in longitudinal and transverse planes.
  - Evaluate the size, contour, echogenicity (compared to the left kidney) and the splenic hilum.
  - Measure in the longitudinal plane.
  - An attempt should be made demonstrate the left hemidiaphagm and the adjacent pleural space.

- IVC
  - Evaluate in longitudinal and transverse planes as appropriate.
  - Vena cava filters, interruption devices, or catheters may need to be localized with respect to the hepatic and/or renal veins.

- Peritoneal Fluid
  - Evaluate for free or loculated fluid, document extent, location and nature (simple or complex)