ULTRASOUND PROTOCOLS

Reviewed: 1/10/2025; 01/11/2024; 01/12/23; 1/29/22; 10/30/20

PROCEDURE FOR Abdominal Aorta Ultrasound

PROCEDURE FOR RENAL ULTRASOUND:

- The entire length of the abdominal aorta and proximal few centimeters of the common iliac arteries should be visualized to evaluate their contour, size and presence or absence of intraluminal or surrounding masses. The proximal few centimeters of the celiac and superior mesenteric arteries should be visualized.
- When imaging the aorta and proximal iliac arteries, the transducer should be oriented parallel to the vessel in a longitudinal plane, and the aorta should be surveyed from right to left. Transverse images are obtained in an orthogonal plane, and the aorta is surveyed from superior to inferior.
- This examination should first be attempted from an anterior approach with the patient in a supine position. If overlying structures prevent adequate visualization of the aorta, then a lateral decubitus position should be used to optimize visualization of the aorta through the liver, kidneys and/or spleen.

EVALUATION AND DIAGNOSTIC CRITERIA:

Abdominal Aorta

1) Longitudinal images
   a) Proximal b) Mid c) Distal
2) Transverse images
   a) Proximal (near diaphragm) b) Mid c) Distal
3) Color and spectral doppler imaging
   a) Proximal b) Mid c) Distal
4) Measurements
   a) Measurements of the proximal, mis distal aorta. Measurements are taken at greatest diameter of the aorta from the outer edge to outer edge
   b) If an aneurysm is present, the maximal size and location of the aneurysm should be documented and recorded.

Common Iliac Arteries

1) Longitudinal images of proximal right and left common iliac arteries
2) Transverse images of the proximal common iliac arteries just below bifurcation
3) Measurement of the widest visualized portion of each common iliac artery from outer edge to outer edge

Abdominal Aorta Ultrasound: Abnormal Criteria

- Abdominal aorta AP diameter exceeds 2 cm in persons < 50 years old
- Abdominal aorta AP diameter >3cm - aneurysmal
- Evidence of plaque or intramural thrombus (focal or diffuse)
- Decrease or absence of spectral Doppler flow and/or color flow is indicative of aortic stenosis/occlusion