

University of Florida Critical Care Medicine Ultrasound Curriculum (Abdominal sonography competencies)

Technical (image acquisition) and cognitive (image interpretation) elements required for competence in pleural

ultrasonography (based on Mayo, Paul et al. American College of Chest Physicians Statement on Competence in Critical Care Ultrasonography. Chest/135/4 April 2009)

- Assessment for intraperitoneal fluid
- Identification of a relatively echo-free space surrounded by typical anatomic boundaries: abdominal wall, diaphragm, liver, gallbladder, spleen, kidney, bladder, bowel, uterus, spinal column, aorta, IVC
- Identification of abdominal wall, diaphragm, liver, gallbladder, spleen, kidney, bladder, bowel, uterus, spinal column, aorta, IVC
- Identification of characteristic dynamic findings of intraperitoneal fluid, such as diaphragmatic motion, floating bowel, bowel peristalsis, dynamic fluid motion, and respirophasic shape change, compressibility
- Characterization of fluid: anechoic, echogenicity (using liver/spleen as reference); homogeneous or heterogeneous; presence of strands/debris/septations
- Qualitative assessment of intraperitoneal fluid volume
- Recognition of specific limitations of ultrasonography to identify intraperitoneal fluid such as inadequate image quality due to technical limitations, hemoperitoneum, echo-dense purulent fluid, or retroperitoneal location
- Assessment of the urinary tract
- Bladder: identification of bladder, identification of urinary catheter, identification of abnormal bladder contents
- Differentiation of distended bladder from ascites
- Qualitative assessment of intravesicular volume, identification of overdistention
- Kidneys: identification of both kidneys, identification of presence or absence of hydronephrosis, measurement of kidney in longitudinal axis
- Assessment of aorta
- Identification of abdominal aorta (down to iliac bifurcation)
- Identification of abdominal aortic aneurysm