

## 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