

Minimal Requirements for Acceptable Scans

ABDOMINAL FAST

25 exams, 7 true positive studies (free fluid)

Show superior and inferior poles of kidney; clear interface between organs

- Hepatorenal space (Morison's Pouch) on the right
- Sub-phrenic space and splenorenal space on the left
- Pelvic (sagittal and transverse)

AORTA (5 views with measurements)

25 exams, 2 true positive studies (abdominal aortic aneurysm)

Measure outer-wall to outer wall in the anterior-posterior diameter

- Longitudinal (normal <3cm)
- Transverse (proximal, middle, distal)
- Transverse iliac bifurcation (normal <1.5cm)

BILIARY

25 exams, 12 true positive studies (cholelithiasis)

- Longitudinal gallbladder
- Transverse gallbladder
- Demonstrate relationship to portal vein
- Measure:
 - Anterior gallbladder wall thickness (normal <3mm)
 - Common bile duct (inner to inner wall, normal <6mm), necessary only if abnormality (stones, anterior GB wall measurement or LFTs)

CARDIAC FAST (2 of 4 views)

25 exams, 2 true positive studies for effusion, 2 true positive for asystole

Show a clear pericardium-myocardium interface

- Subxiphoid (SX)
- Parasternal Long-Axis (PLA)
- Parasternal Short-Axis (PSA)
- Apical 4 Chamber (A4)

DEEP VEIN THROMBOSIS (4 views)

25 exams, 7 true positive studies (deep venous thrombosis)

Show either complete or incomplete compressibility of the vessel

- Common femoral vein
- Sapheno-femoral junction
- Confluence of the superficial and deep femoral veins
- Popliteal vein

LUNG (3 views)

25 exams, 5 true positive pleural effusion, 3 true positive pneumothorax, 5 true positive interstitial syndrome
Three locations for each hemithorax

- Anterior lung (rib-intercostal space-rib) 2nd or 3rd intercostal space, midclavicular line
Document in M-mode or with video clip
- Lateral lung axillary region
Document in M-mode or with video clip
- Lung bases inferior region
Demonstrate mirror image artifact/spine cut off sign

RENAL

25 exams, 12 true positive studies (hydronephrosis)

- Longitudinal of each kidney
- Transverse of each kidney
- Sagittal and transverse of the bladder

OB-GYN

25 exams of trans-abdominal, 12 true positive studies (intrauterine pregnancy)

25 exams of trans-vaginal, 12 true positive studies (intrauterine pregnancy)

Perform a trans-abdominal study before performing a trans-vaginal study

Show a clear posterior cul de sac

- Sagittal uterus (TA), coronal uterus (TV)
- Transverse uterus
- Measure endo-myometrial mantle at its minimal thickness (≤ 7 mm is concerning) up to 20 weeks
Document fetal heart rate in M-mode
Show adnexa in trans-vaginal scans

VASCULAR ACCESS

3 venous access exams, 2/3 central access

Show video clip of compressible vessel

SOFT TISSUE

5 true positive cellulitis exams

5 true positive abscess exams

- Show in 2 planes
- Show contralateral side for comparison

INFERIOR VENA CAVA

3 exams

- B mode – measure maximal diameter distal to the hepatic vein confluence
- M mode – visualize max and min during respiratory cycle and estimate degree of collapse

BLADDER VOLUME

1 exam

- Bladder sagittal and transverse
- Measure width, height and depth in cm
- Calculate the bladder volume: $(W \times H \times D \times 0.7 = \text{volume in ml})$

OCULAR

5 exams, 3 true positive studies (FB, retinal detachment, vitreous hemorrhage, lens dislocation)

- Use the ophthalmology setting on the machine
- Globe in 2 planes
- Measure optic nerve sheath diameter, 3mm posterior to the retina
- If optic nerve sheath diameter >5mm, show contralateral side for comparison

PROCEDURAL GUIDANCE

1 exam each, static or dynamic, show the area in two planes to evaluate surrounding structures

- Thoracentesis
- Pericardiocentesis
- Paracentesis
- Abscess drainage
- Foreign body localization