**Required views to obtain credit for each exam**

**1. E-FAST (minimum 4 images - clips preferred)**
- Morison’s pouch (RUQ)\* - RUQ view should also visualize liver tip
- Splenorenal (LUQ - should see subphrenic space as well as spleno-renal recess)\*
- Pelvic (TV and Long views)\*
- Cardiac (either subcostal or PSL to eval for pericardial effusion)\*
- Bilateral anterior chest views for pneumothorax assessment (either M-mode or clip)
- Bilateral hemithorax views for hemothorax evaluation

**2. Aorta (minimum 5 images)**

-Three transverse views of abdominal aorta, with A-P measurements (proximal\*, mid\*, and distal\*)

-Aortic bifurcation with measurements to evaluate for iliac aneurysm

-Two long axis view of the proximal\* and distal\*aorta

**3. Cardiac (minimum 3 clips - 4 preferred as well as IVC)**
You need at least 3 of the main views (although you may not be able to obtain all on all patients, you need to write a comment into the comment section to explain circumstances).
-Subxiphoid\*
-PSL\*
-PSS\*
-Apical 4-chamber\*
-Any 2-, 3-, or other outflow tract views and Doppler images are welcome!  Consider obtaining IVC views on ALL echos as part of volume assessment.

**4. Gallbladder (minimum 3 images)**
-Gallbladder in longitudinal\* and transverse\* axis.  Measure the anterior GB wall in transverse view.

-CBD\* with measurement -- ideally, you should have an image that shows the entire portal triad (portal vein, CBD, and hepatic artery) with a transverse section of the CBD measured inner wall to inner wall. It is not always possible to obtain this optimal image. But any view submitted as CBD should be evaluated with color flow on the submitted image to demonstrate lack of flow.

**5. Transabdominal OB/GYN (minimum 2 images)**
-Longitudinal\* and transverse\* views of the uterus

-Bilateral adnexa views

Use M-mode to calculate FHR.  Do not use Doppler (color or pulsed wave) as it is  a higher energy modality, especially with pregnancy imaging, the principle of ALARA (as low as reasonably achievable) should be observed. You should estimate gestational age by gestational sac, CRL, or BPD measurements.

**6. Transvaginal OB/GYN (minimum 2 images)**
-Longitudinal\* and transverse\* views of the uterus

-Bilateral adnexa views

Use M-mode to calculate FHR.  Do not use Doppler (color or pulsed wave) as it is  a higher energy modality, especially with pregnancy imaging, the principle of ALARA (as low as reasonably achievable) should be observed. You should estimate gestational age by gestational sac, CRL, or BPD measurements.

**7. Kidney  (minimum of 6 images**)
- L kidney in longitudinal\* and transverse\* axis

- R kidney in longitudinal\* and transverse\* axis

-Bladder in with long\* and transverse\*

Measure each kidney if hydronephrosis is suspected.
Ureteral jets can be documented to evaluate for ureteral flow blockages if obstructive uropathy is present. This is not necessary to receive credit for the renal study. To do this, you should obtain a transverse bladder image of maximal dimension and place a color or power Doppler flow window over the inferior bladder, evaluating both sides for discrete, episodic flow (ureteral jets).

**8. Pulmonary (minimum of 8 images)**
-Evaluate superior/anterior left\* and right\* chest for pneumothorax with M-mode  (one image each: Label "L1" and "R1") -- use linear or curvilinear probe

-Evaluate inferior/anterior left\* and right\*  hemithoraces for infiltrates, sonographic B-lines or effusions (Label "L2" and "R2") -- should use a curvilinear probe with depth settings of ~12- 15 cm

-Evaluate lateral/anterior left\* and right\*  hemithoraces for infiltrates, sonographic B-lines or effusions (Label "L3" and "R3")
-Evaluate both diaphragms for fluid in the right\* and left\* costo-phrenic angles (Label "L4" and "R4")

-May include posterior views if clinically relevant (Label "L5" and "R5"), though not required for credit

**9. Procedures (minimum 2 images)**
2 orthogonal views (transverse\* and longitudinal\*) of the structure of interest  (e.g. abscess I&D, paracentesis, thoracentesis, arthrocentesis, ultrasound guided nerve blocks, etc.)

**10. Vascular Access (minimum 1 image)**
Requires at least one image\* (either transverse or longitudinal) of the catheter or guidewire in the vessel.  Once the minimum of 5 studies have been QA'ed, an image of the vessel that is cannulated with an attestation that the IV was placed successfully via aspiration of blood is sufficient for credit.

**11. DVT (minimum 3 video clips or "split" images of compressed/uncompressed vessels)**
-Common femoral vein (CFV) at the level of greater saphenous vein (GSV)\*
-Femoral vein (FV) aka Superficial femoral vein (SFV)\*
-Popliteal vein (PV)\*

Please include labels and an arrow or caliper that marks the compressed vein

Each leg (right/left) can be split and submitted as separate DVT study

**12. Soft Tissue / MSK (minimum of 2 views)**
-2 orthogonal views (transverse\* and longitudinal\*) of the structure of interest (i.e. abcess, celluitis, ruptured or partially torn tendons, muscles, fracture, joint dislocation, joint effusions, etc.)

**13. Ocular (minimum 2 views)**
-Globe in transverse\* and longitudinal\*
Should include measurement of optic nerve sheath diameter

**14. Bowel/SBO (minimum 4 clips, 4 images)**

- Clips looking for “to & fro” peristalsis labeled in each quadrant

- Still images in each quadrant w/ bowel wall thickness & luminal diameter measurements

- Appendix: multiple convincing compression clips and still images w/ luminal diameter

\*Required for credit. If no \* then these views are suggested/ideal for ruling in/out pathology.