

Minimal Criteria -

HAEMR Ultrasound Residency Training Guidelines

IMPORTANT!

Input patient name and MRN.

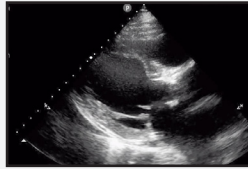
Write a procedure note.

- Video clips are required
- Fan completely through structures of interest
- If measuring, save a still picture with measurements

Cardiac: Pericardial effusion? LV function? RV strain?

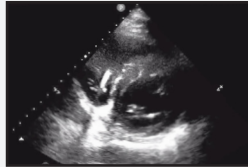
PSL parasternal long

- horizontal septum



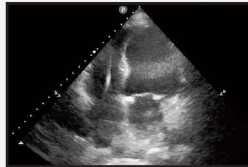
PSS parasternal short

- round LV
- D-Sign? RV strain?



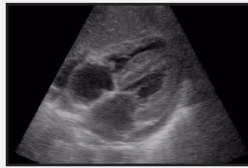
AP4 apical four

- 4 chambers
- vertical septum
- RV strain?
- Required view if assessing RV strain



SX subxiphoid

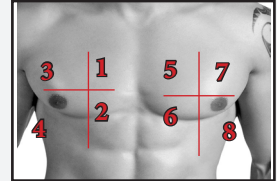
- 4 chambers



At least 2 of the 4 views are required

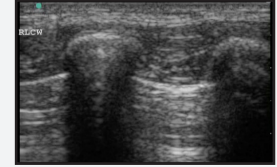
Chest: PTX? Pleural fluid? B-Lines?

Chest Zones



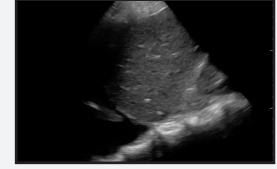
PTX?

- Zone 1, 5
- lung sliding?



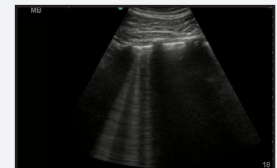
Pleural fluid?

- Zone 4, 8
- spine sign?



B-lines?

- Zone 1,4, 5, 8
- >10 cm?
- >= 3 B-Lines



Abdominal - Free fluid?

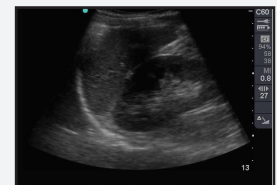
RUQ

- hepatorenal recess
- inferior renal pole
- diaphragm



LUQ

- splenorenal recess
- caudal spleen tip
- diaphragm

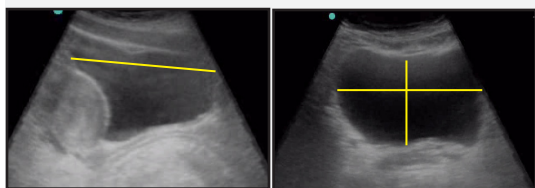


Pelvis

- sagittal bladder
- fan side to side
- posterior bladder rectovesicular or rectouterine space



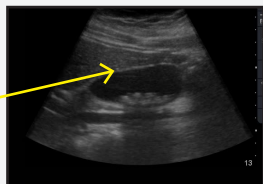
Bladder: Volume?



$$V=0.7(L \times W \times H)$$

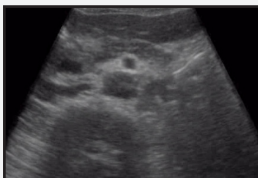
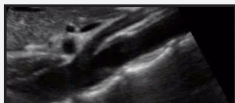
Biliary: Stones? Cholecystitis?

- longitudinal and transverse
- measure anterior wall



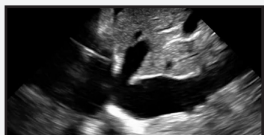
Aorta: > 3 cm?

- sweep through aorta from SMA to iliacs
- one measurement of largest diameter in transverse
- longitudinal aorta



IVC: Collapsibility? Size?

- video clip during respiration in sagittal view



Soft Tissue: Abscess?

- remember than not all abscesses are hypoechoic
- consider compressing to show "pusistalsis" and **color flow** to show absence of vascular flow



Renal: Hydronephrosis?

Right and Left

- fan through bilateral kidneys
- if there is hydro then scan bladder



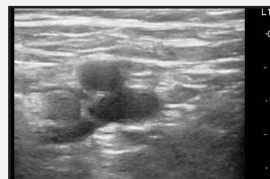
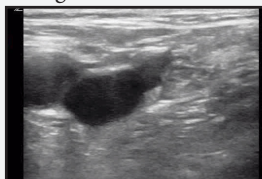
Uterus: Definite IUP?

- endometrial stripe
- posterior cul de sac IUP?
- needs gestational sac + yolk sac
- fetal pole if present
- FHR measurement in M-Mode

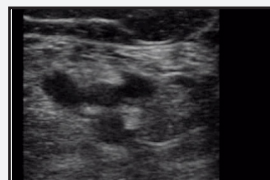


DVT: Thrombus?

Proximal zone: compress from the GSV-CFV junction through the bifurcation of the CFV to SFV/DFV

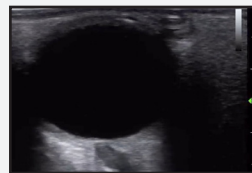


Popliteal zone: compress from popliteal vein through trifurcation



Ocular

- retinal detachment?
- vitreous hemorrhage?
- lens dislocation?
- papilledema?
- elevated ICP?



All ultrasound images need to be saved and documented.

DIAGNOSTIC scans are those that are incorporated into clinical decision-making. For these scans,
1) findings need to be discussed with the clinical team,
2) a procedure note in Epic should be:
- written by the scanner
- signed by an ED attending.

EDUCATIONAL scans are those that are NOT incorporated into clinical decision-making. For these scans,
1) findings need to be discussed with the clinical team,
2) the scan should be documented on the HAEMR US datasheet. Be sure to include what the patient was told about follow-up of any incidental findings.