Race the Expert
Credits: Robert Stenberg, UNC/VCU/CCAG EM Residencies, FOAMed

- Judge/Proctor: Some other U/S Expert
- Equipment
  - Judge
  - Expert
  - 2 tables/gurneys
  - 2 models
  - 2 machines, towels, gel
  - Score sheet, writing utensil
- Game:
  - Judge calls out image which initiates scan
  - Judge makes call who gets image first
  - One person at a time scan, team can help find
  - Rotate team member each time
- Points
  - 10 pts if beat expert
  - 5 pts if able to acquire image
- ***Extra Time***
  - Review the cases
  - Review the treatment
  - Drop pearls
1. Popliteal vein
2. Parasternal Short Aortic View
3. Inferior epigastric vessels
4. Deep brachial vein/Brachial Vein
5. Lateral Edge Artifact
6. Right iliac artery
7. Left renal vein
8. Site for ankle arthrocentesis
9. Hepatic vein pulsatility with PW Doppler
10. CBD
11. Sternoclavicular joint
12. Glenoid/humeral head articulation
13. Biceps tendon proximal insertion
14. Posterior acoustic enhancement
15. Thyroid Isthmus
16. Stomach
17. Reverberation Artifact

Updated April 2023
1. Popliteal vein
   a. Behind knee, should be compressible,
   b. Should be proximal to trifurcation of distal veins (posterior tibial, anterior tibial, peroneal)

2. Parasternal Short Aortic View
   a. Great way to see entire RV Side
   b. Assess for bicuspid or tricuspid aortic valve based on when valve is OPEN

3. Inferior epigastric vessels
   a. Need to watch out for while doing paracentesis
   b. Runs lateral to midline
4. Deep brachial vein
   a. Runs with artery and nerve so have to be more careful

5. Lateral Edge Artifact
   a. Hits edge of curved surfac so no sound waves return past such
   b. Gallbladder bladder achilles

6. R iliac artery
   a. Just distal to aortic bifurcation
7. Left renal vein
   a. Probably easiest to see on aorta view just deep to SMA.
   b. Can also try to get on a kidney view but is harder

![Image of left renal vein and SMA]

8. Site for ankle arthrocentesis
   a. Medial to tib ant tendon

![Image of ankle arthrocentesis]

9. Hepatic vein pulsatility with Doppler
   a. Should see it dumping into IVC

![Image of hepatic vein Doppler]
10. CBD
   a. Should not see flow on color
   b. LEFT ear of mickey mouse figure (short axis)
   c. On top of portal vein (long axis)

11. Sternoclavicular joint
   a. Usually transverse axis
   b. Usually if have effusion weird pathology or from IV Drug users doing pocket shots

12. Glenoid/humeral head articulation
   a. Should be posterior, transverse, just inferior to scapular spine

13. Biceps tendon proximal insertion
   a. Should be anterior shoulder running in bicipital groove, usually transverse orientation

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14. Posterior Acoustic Enhancement
   a. Seen with any fluid filled structure. Due to machine trying to autocorrect for attenuation but this happens less with liquids.
   b. Why you measure anterior wall of things as posterior wall can have falsely elevated measurements (e.g. gallbladder)

15. Thyroid Isthmus
   a. Thyroid looks like liver of the neck
   b. Midline along trachea should be able to see lobes on either side

16. Stomach
   a. Used in Anesthesia to assess for size of stomach/need for possible decompression before surgery
   b. May be seen in multiple views: LUQ or often liver tip along epigastric area to assess gastric antrum
17. Reverberation artifact
   a. Sound waves bounce between multiple reflectors
      i. A lines in lung, pneumoperitoneum in belly
   b. Comet tail is a type of reverberation artifact
      i. Adenomyomatosis