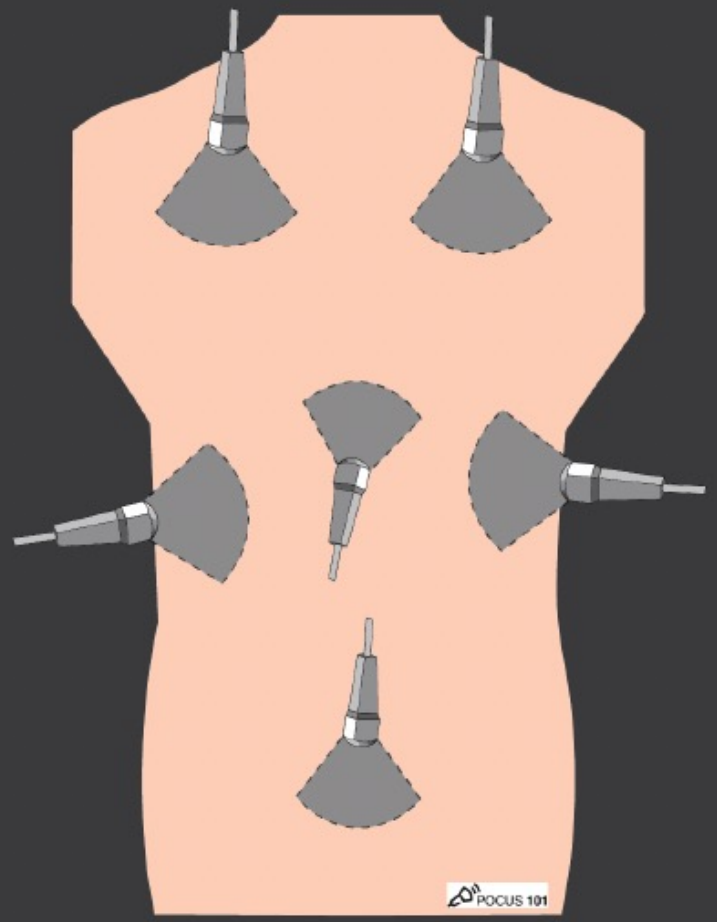


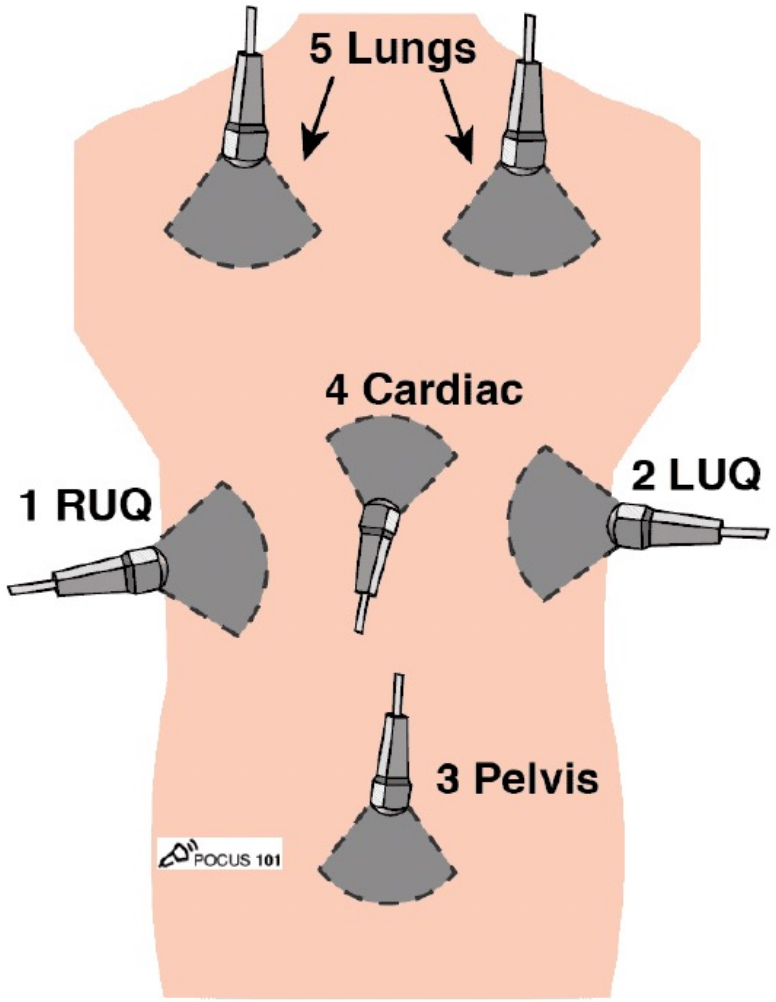
eFAST Ultrasound Made *EASY!*

eFAST Exam

- Focused
- Abdominal
- Sonogram for
- Trauma

Recommended eFAST Exam Sequence

1. **Right Upper Quadrant View** (RUQ)
2. **Left Upper Quadrant View** (LUQ)
3. **Pelvic View**
4. **Cardiac View** (Parasternal Long Axis or Subxiphoid)
5. **Lungs** (Right and Left)

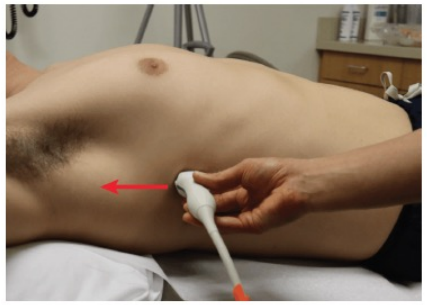


RUQ Probe Placement and Hand Placement

RUQ Probe Position and Hand Placement

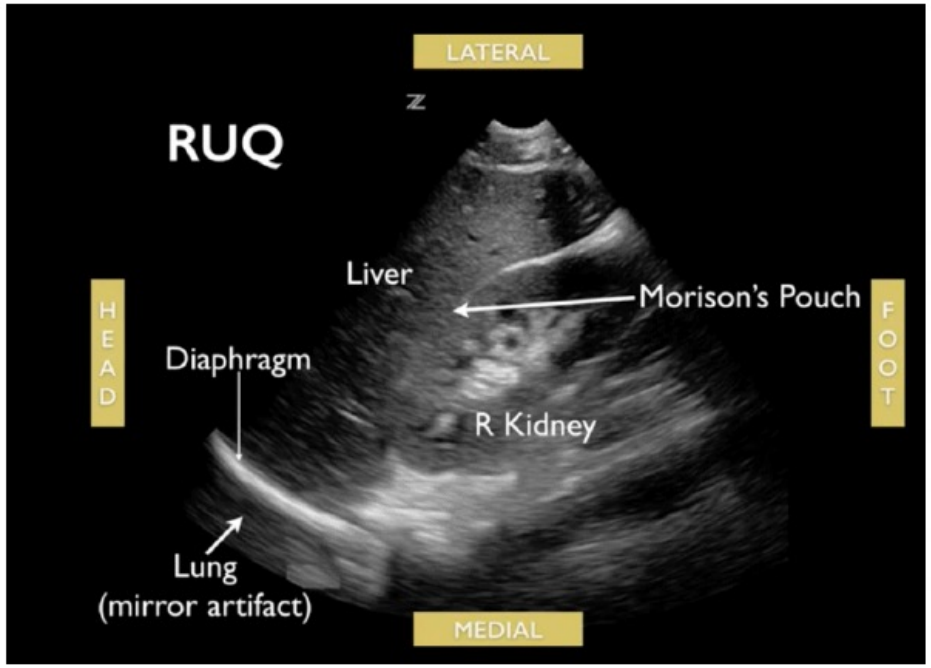
- Orientate the **probe indicator** towards the **patient's head**.
- **Anchor** your probe in the **midaxillary line** at the **10th intercostal space**.

eFAST Exam Probe Placement – RUQ

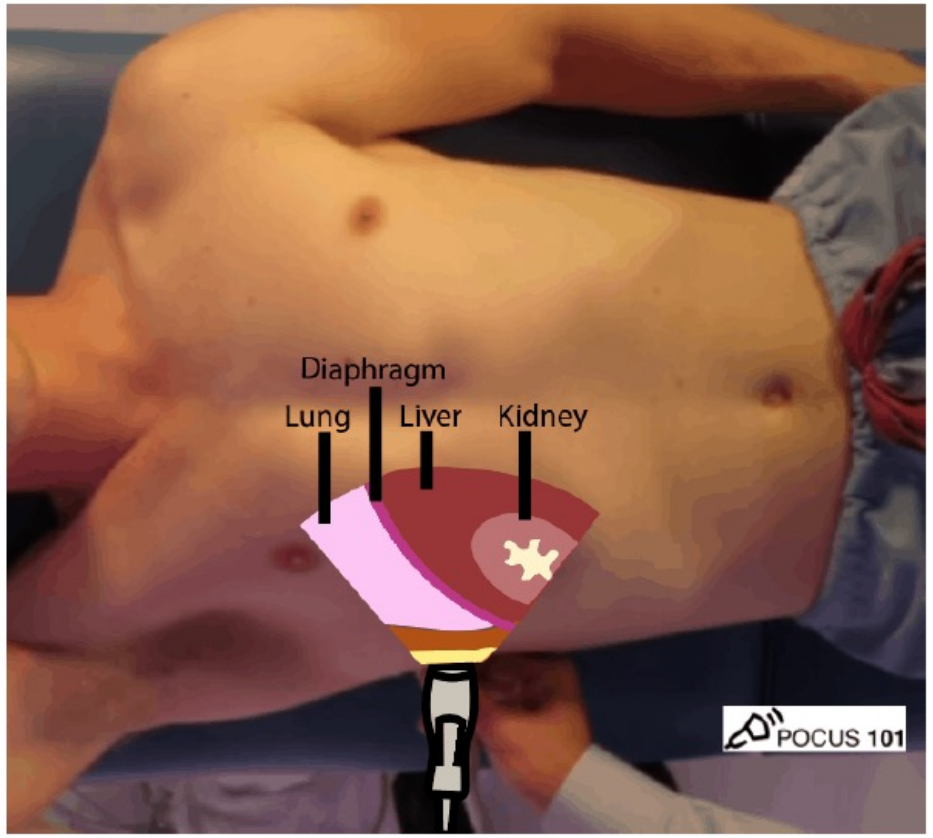


eFAST Exam Probe Placement – RUQ

RUQ Normal View and Structures



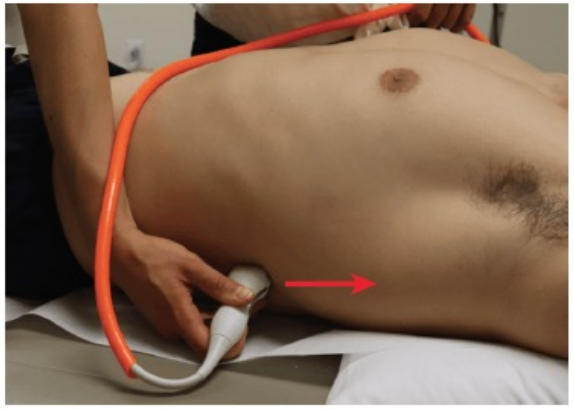
Normal RUQ – eFAST exam



RUQ eFAST exam illustration

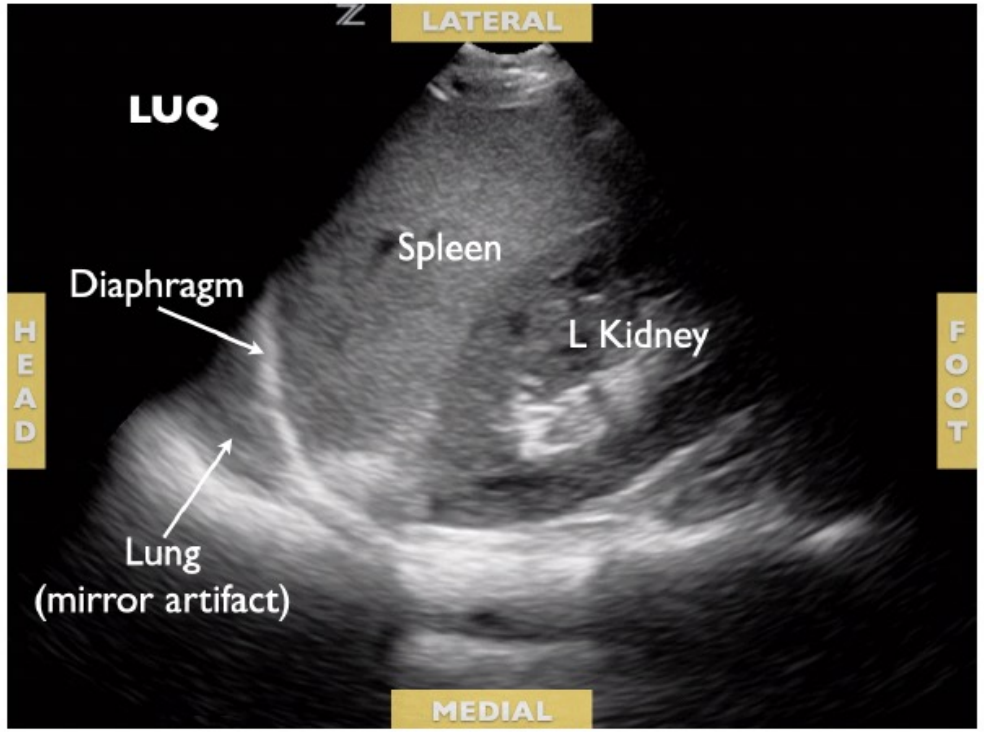
LUQ Probe Placement and Hand Placement

eFAST Exam Probe Placement – RUQ

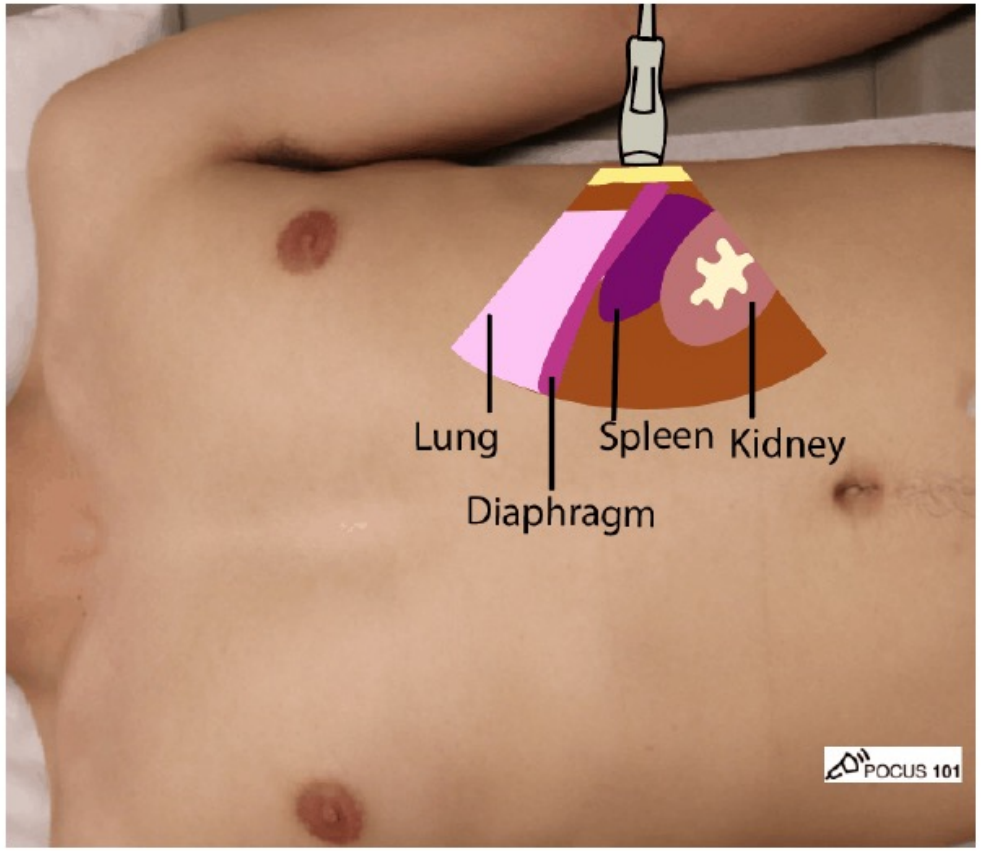


“Knuckles to the Bed” for the LUQ eFAST exam view

LUQ Normal View and Structures



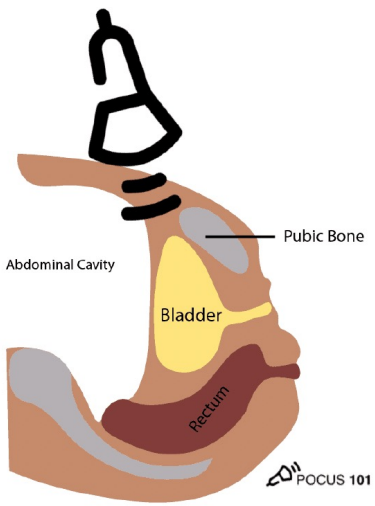
Normal LUQ – eFAST exam



LUQ eFAST exam illustration

Pelvic Ultrasound – Longitudinal View

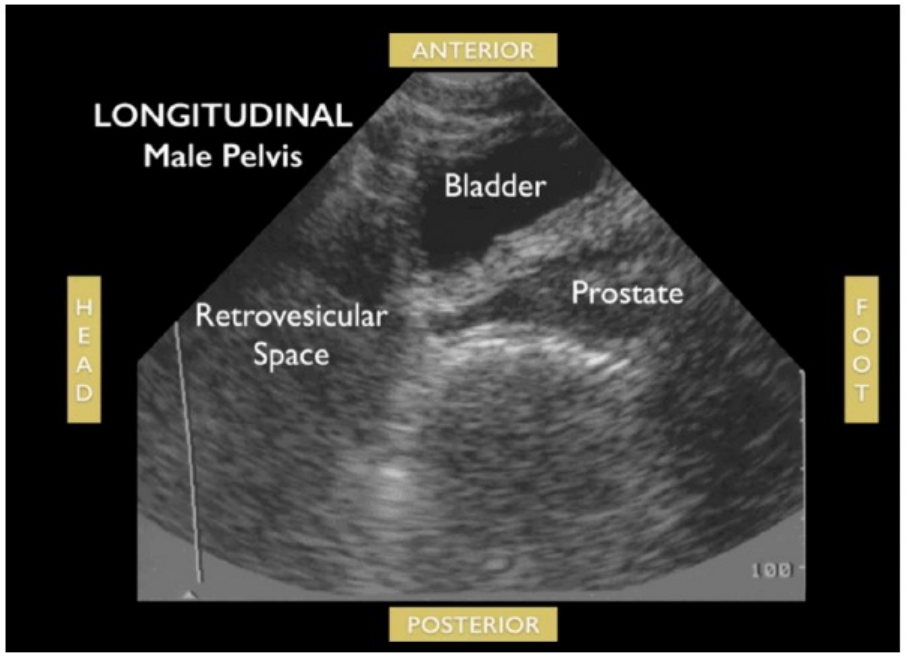
- Place the transducer with the **indicator pointing towards the patient's head** in the patient's midline, right **above the pubic symphysis.**
- Rock the probe so that it **points down towards the pelvic cavity.**



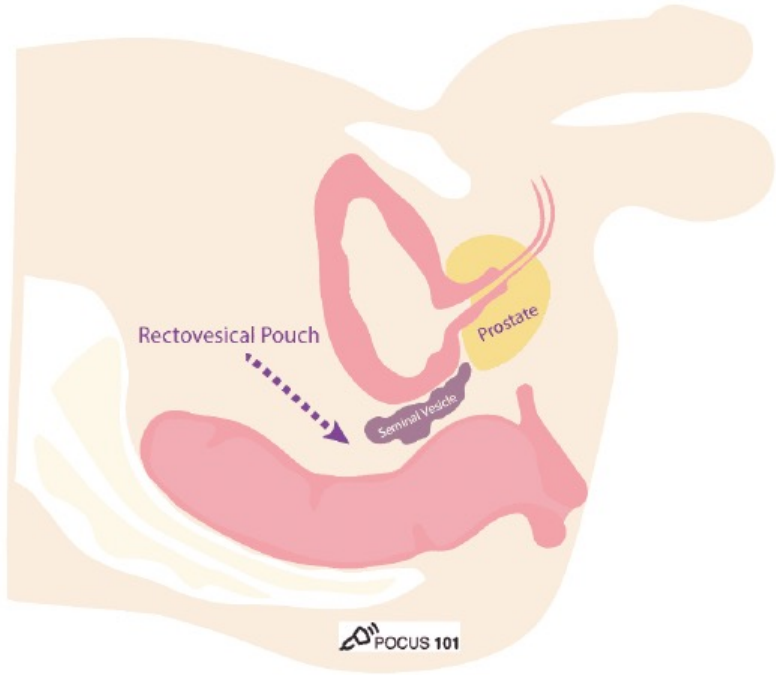
Make sure to point your probe into the pelvis!

eFAST Pelvic Ultrasound – Longitudinal View

Male Pelvis

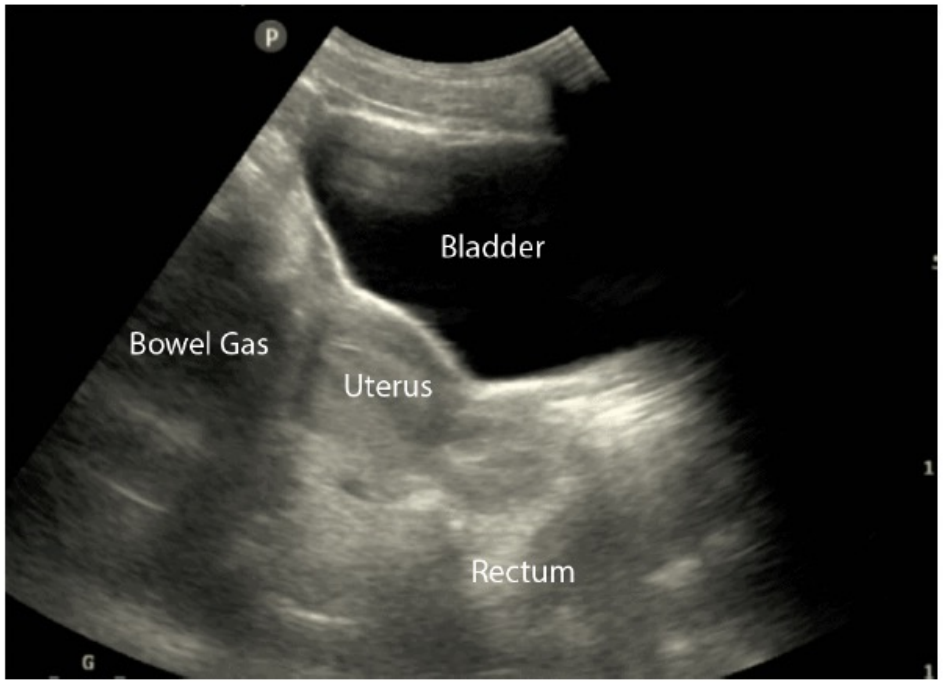


Male eFAST exam Pelvic View – Longitudinal

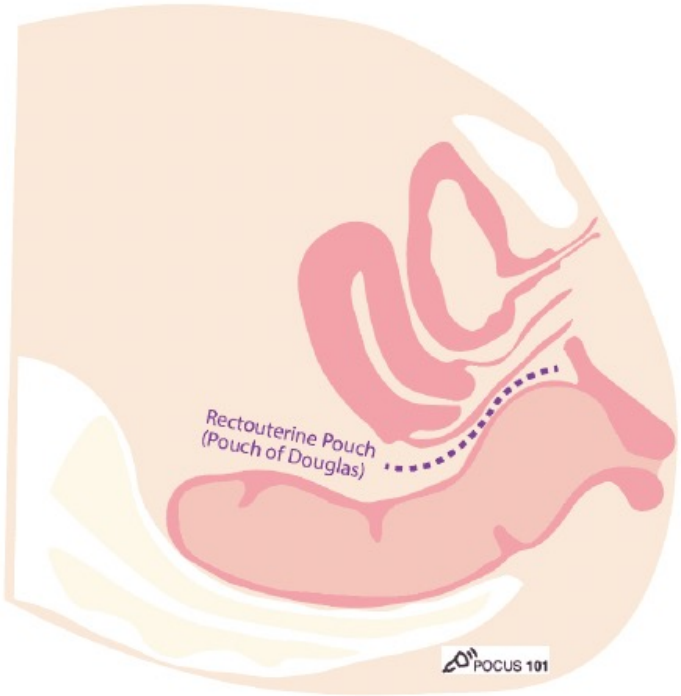


Male eFAST exam Pelvic View – Longitudinal (Illustration)

Female Pelvis



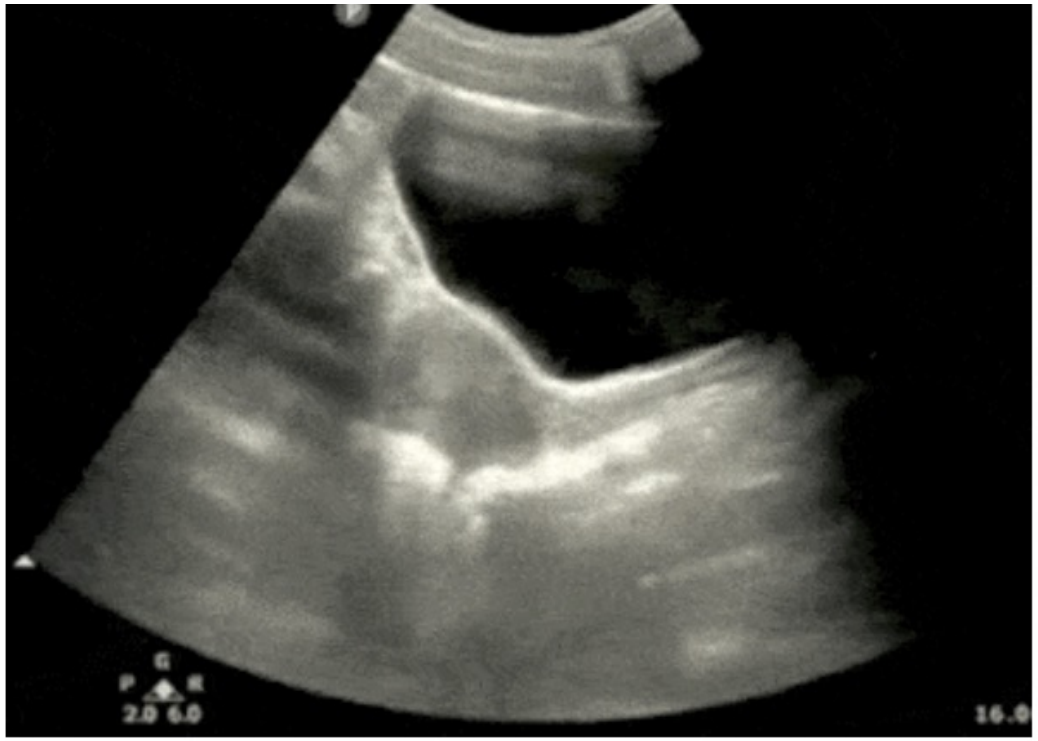
Female eFAST exam Pelvic View – Longitudinal



Female eFAST exam Pelvic View – Longitudinal (Illustration)

Tilting and Fanning the Probe

- In all patients (male or female), observe the lateral borders of the bladder to identify free fluid by **tilting/fanning** the probe left and right.



Tilting the probe in the longitudinal view

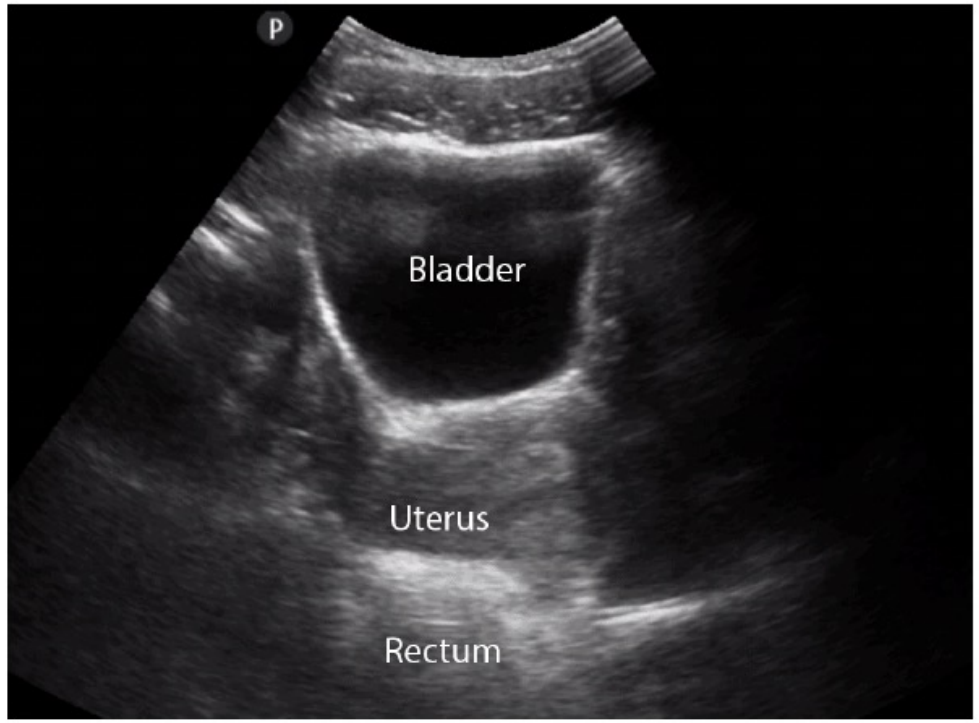
Transverse View

Pelvic Ultrasound – Transverse View

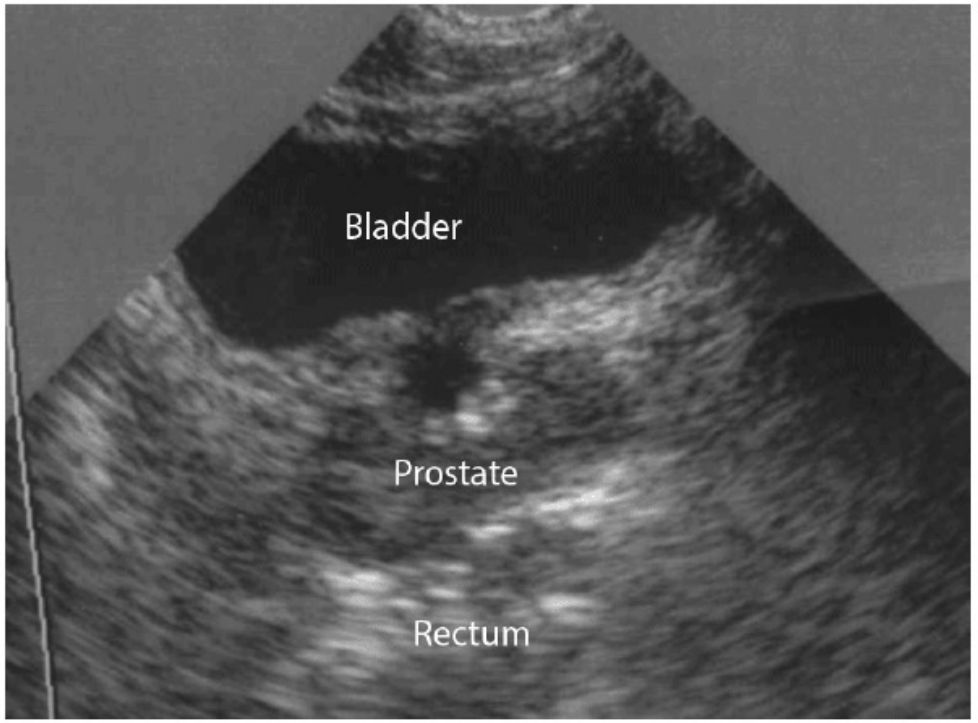
- Next, center the bladder and then rotate the transducer **90 degrees counterclockwise**. The indicator should now point to the patient's **Right side**.
- Make sure to tilt the ultrasound probe so it scans into the pelvic cavity.

eFAST Pelvic Ultrasound – Transverse View

Transverse View (Male and Female)



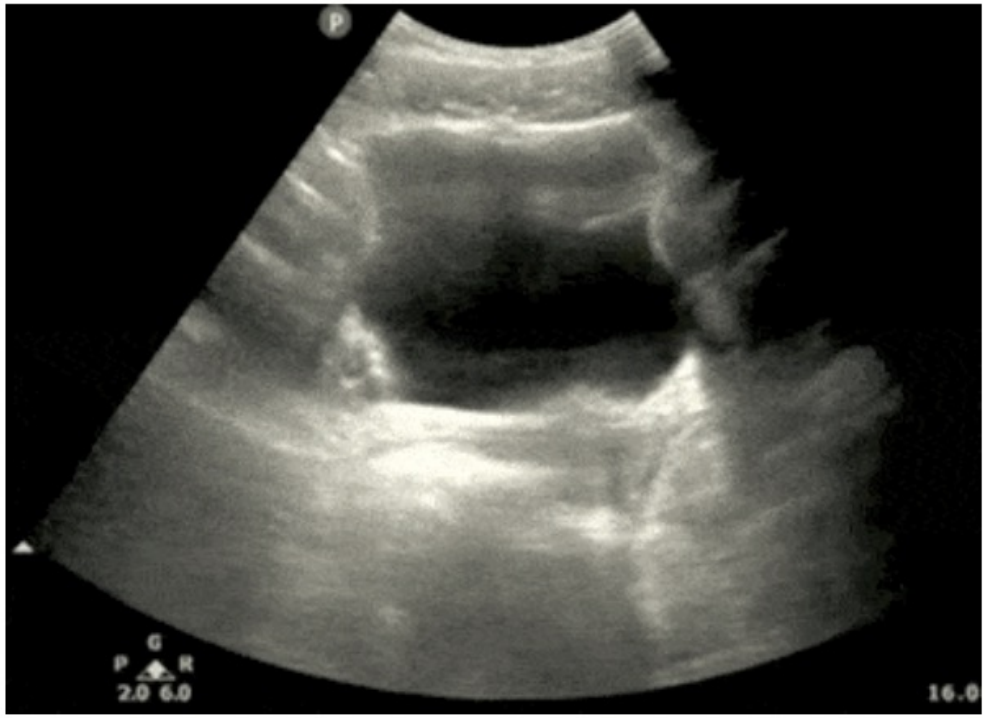
Female eFAST exam Pelvic View – Transverse



Male eFAST exam Pelvic View – Transverse

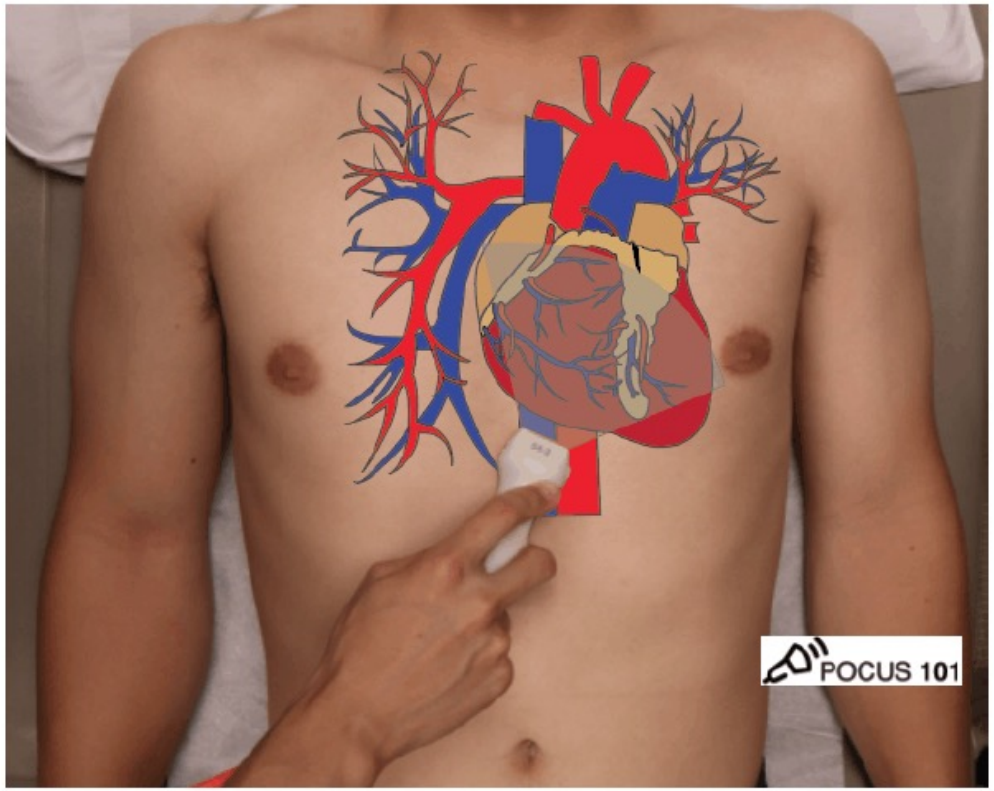
Survey the Area

- **Tilt/Fan the probe** to examine the entire pelvis from superior to inferior.



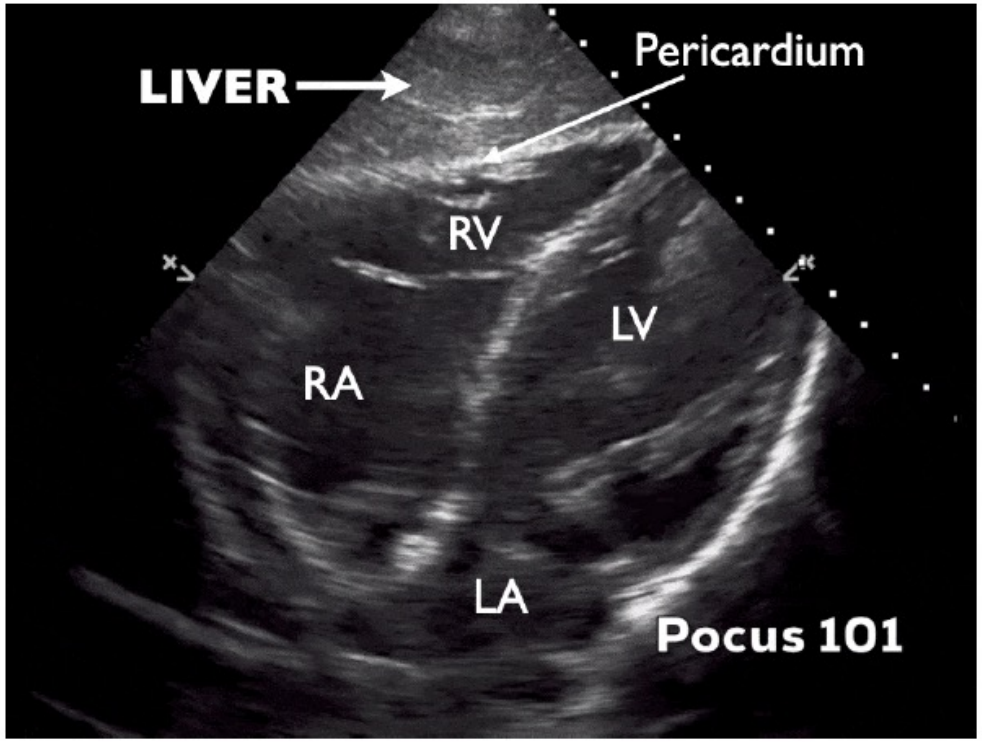
Transverse view of the eFAST Pelvic View

eFAST Cardiac View

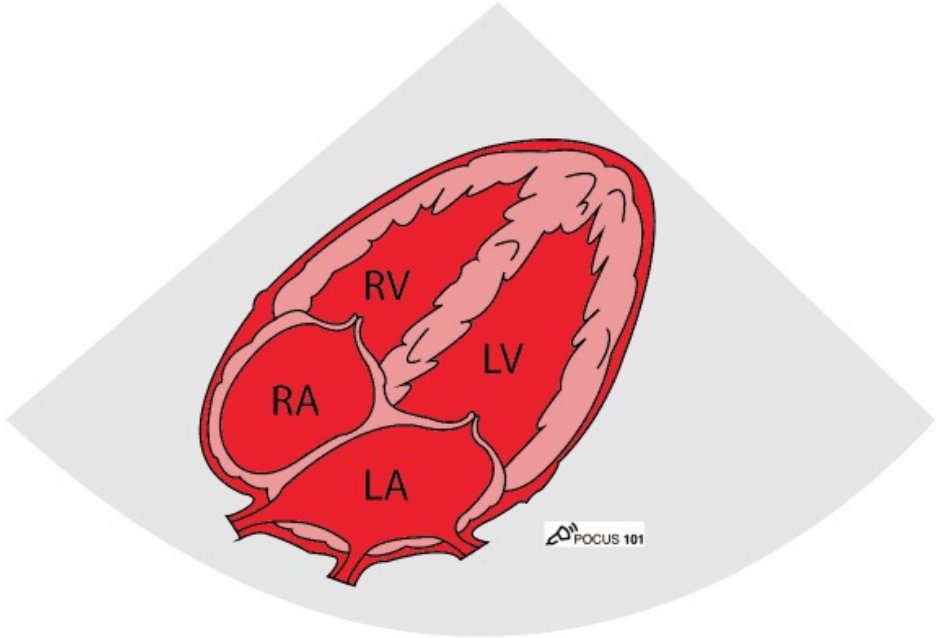


eFAST Subxiphoid View Probe Position

Identify: Liver, Pericardium, Rt & Lt Atrium/Ventricle



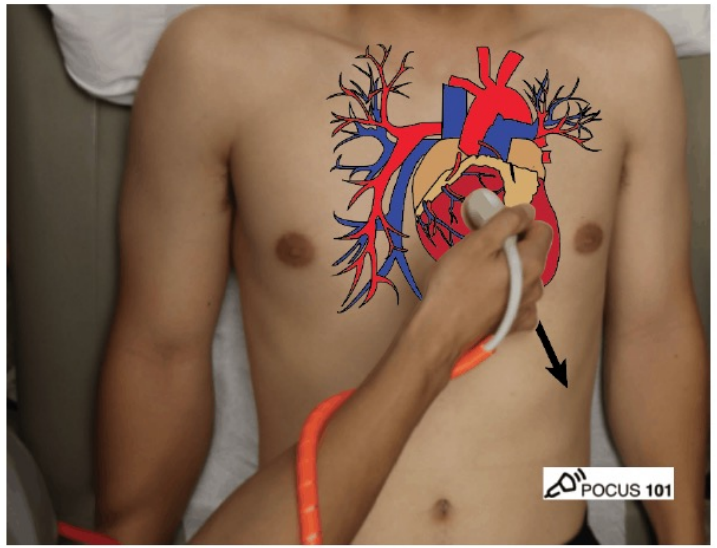
eFAST Subxiphoid View Structures



eFAST Subxiphoid View Structures (Illustration)

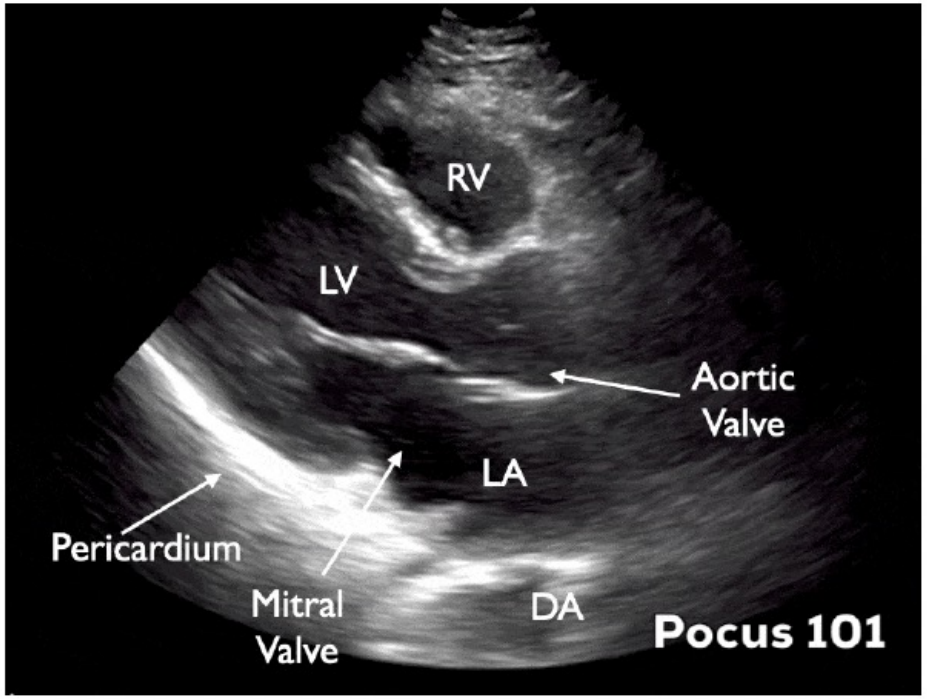
Cardiac Parasternal Long Axis

- Grasp the linear probe between your **thumb** and **first finger**, like *holding a pencil*.
- **Anchor** your third and/or fourth finger(s) in the **2nd or 3rd left intercostal space**, just **lateral** to the **sternum**.
- **Probe indicator** towards the patient's **left hip** with the machine **depth** set approximately **10-15 cm**

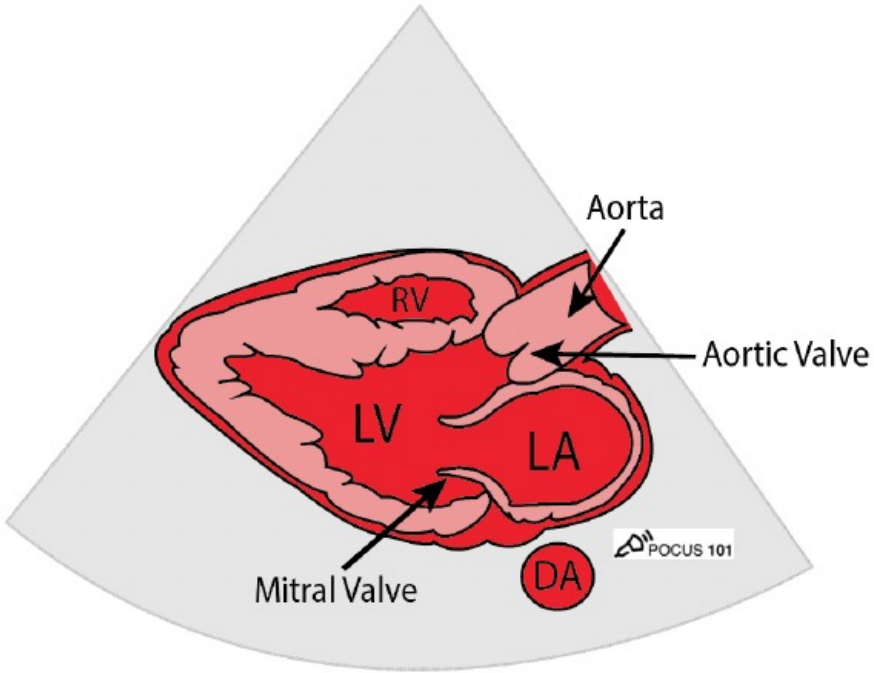


eFAST Parasternal Long Axis View Probe Position

Cardiac Parasternal Long Axis



eFAST Parasternal Long Axis View Structures



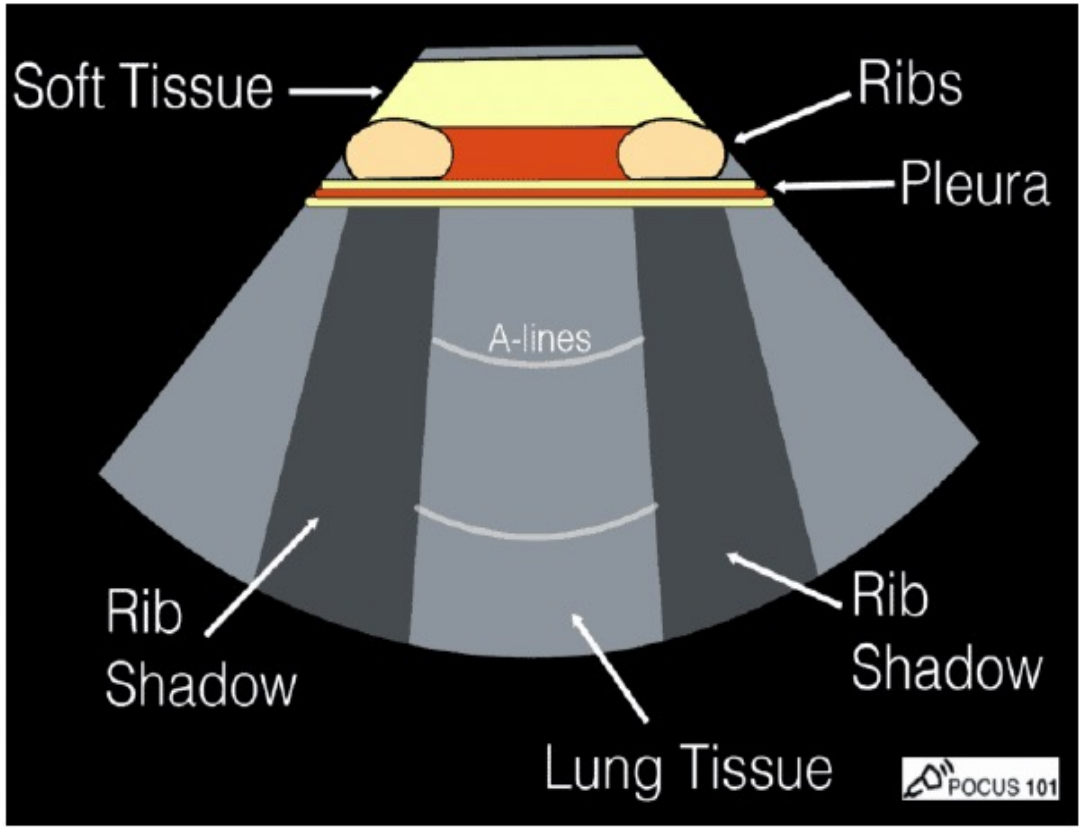
eFAST Parasternal Long Axis View Structures (Illustration)

Lung Probe Position and Hand Placement

eFAST Scan of the Right Lung

eFAST Scan of the Left Lung

Two Rib Shadows “Batwing Sign’

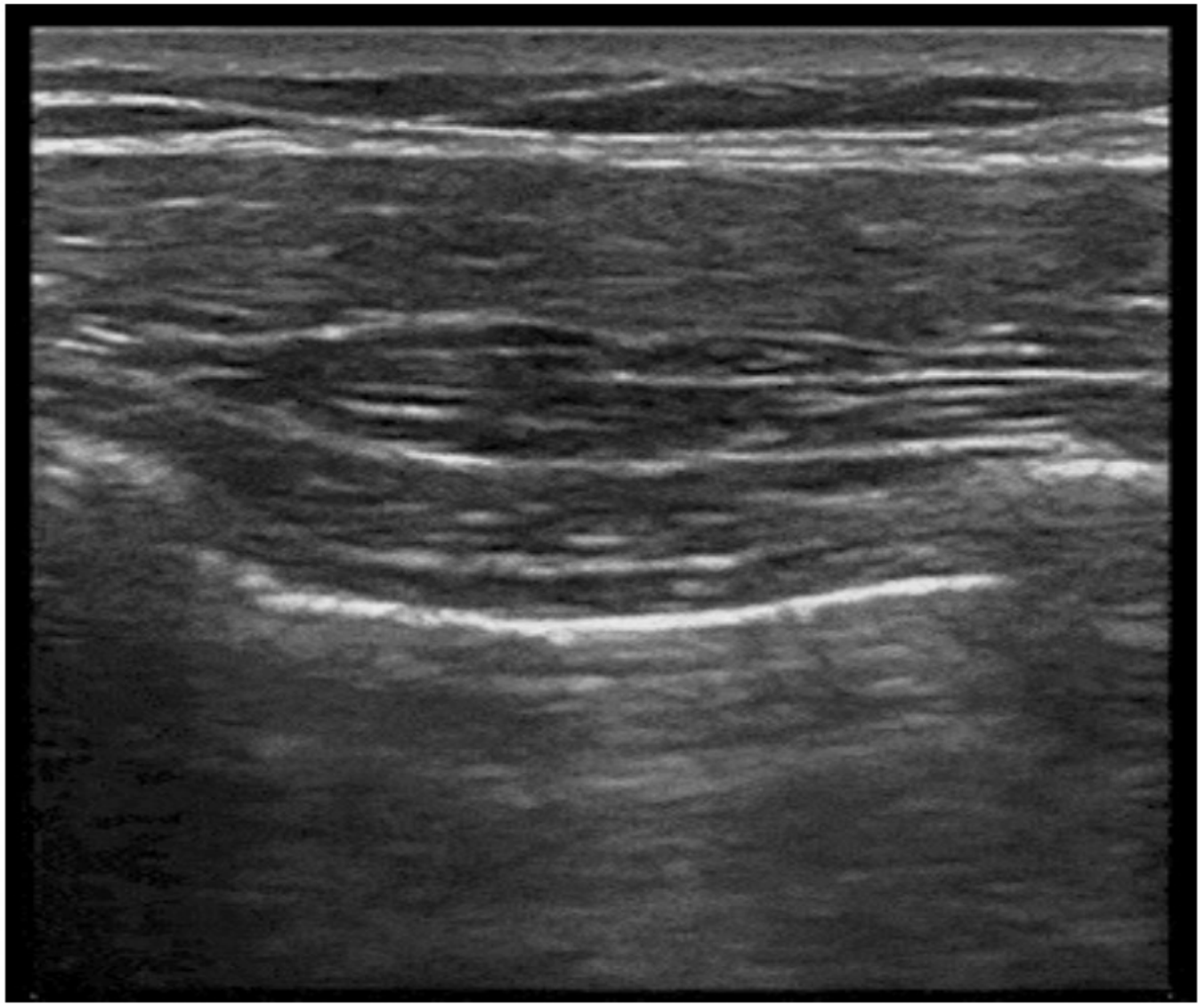


Batwing Sign Illustration

Batwing Sign on Ultrasound

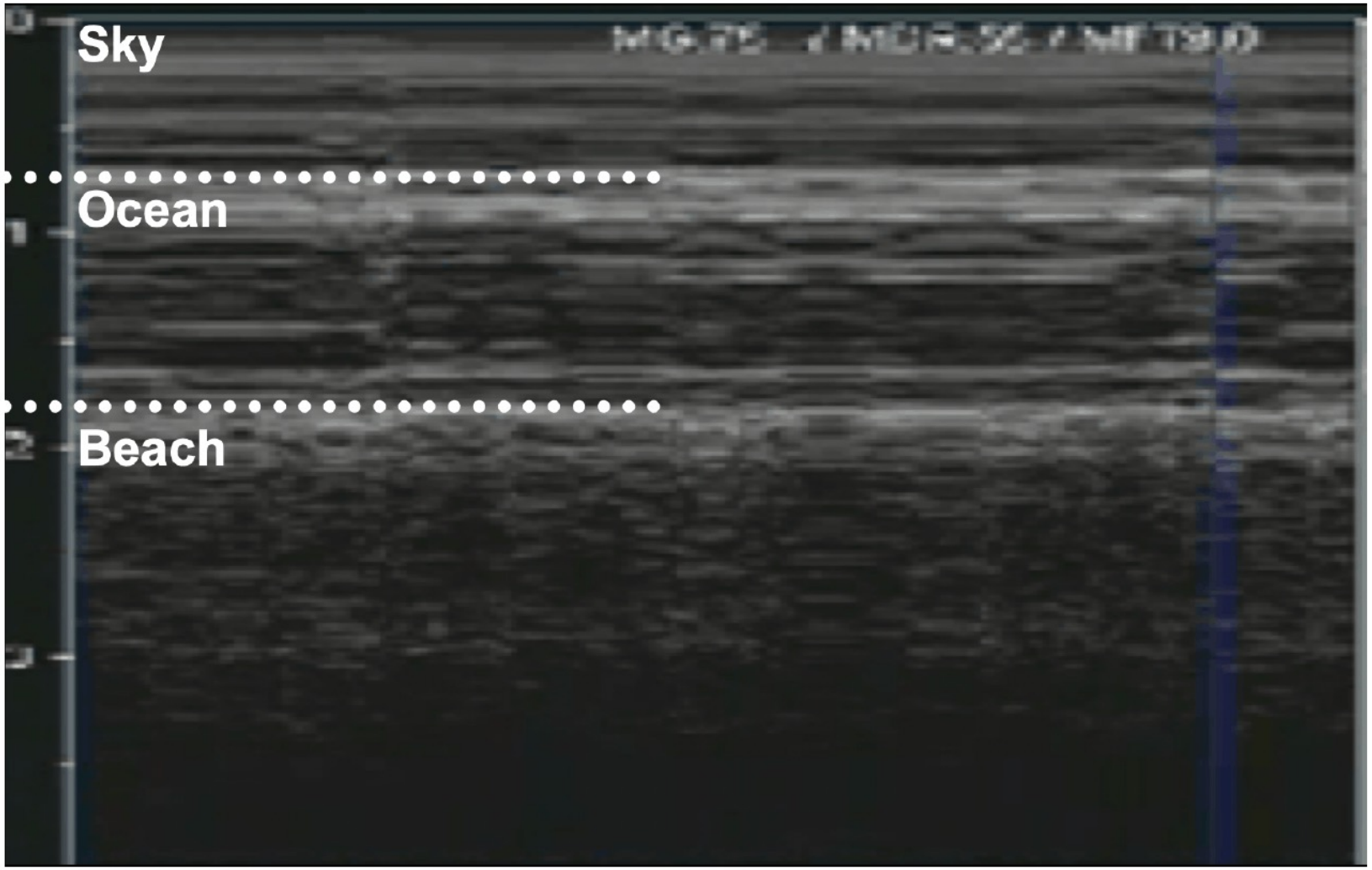
Lung Sliding

"Ants Marching Sign"



Lung Sliding

Barcode Sign "Seashore Sign"



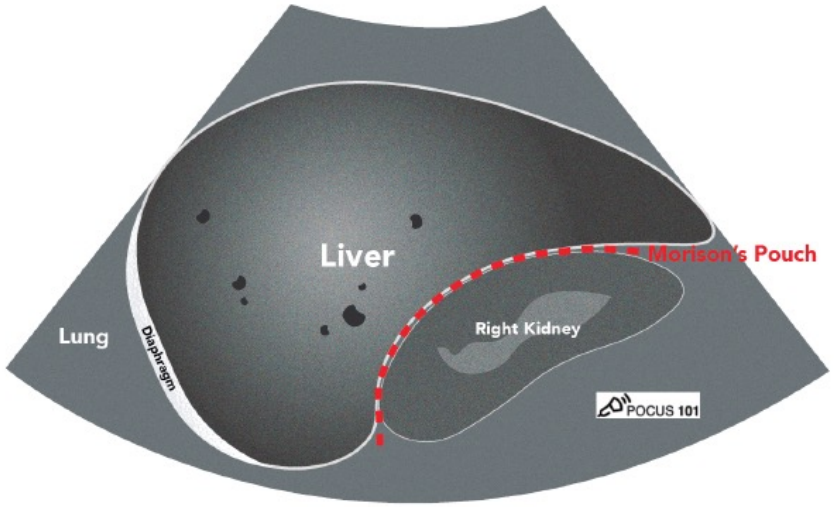
Normal Lung with Seashore Sign on Lung Ultrasound.

RUQ - Hemoperitoneum

Right Upper Quadrant (RUQ) – Hemoperitoneum

The three common locations for free fluid to accumulate in the RUQ of the eFAST scan are the:

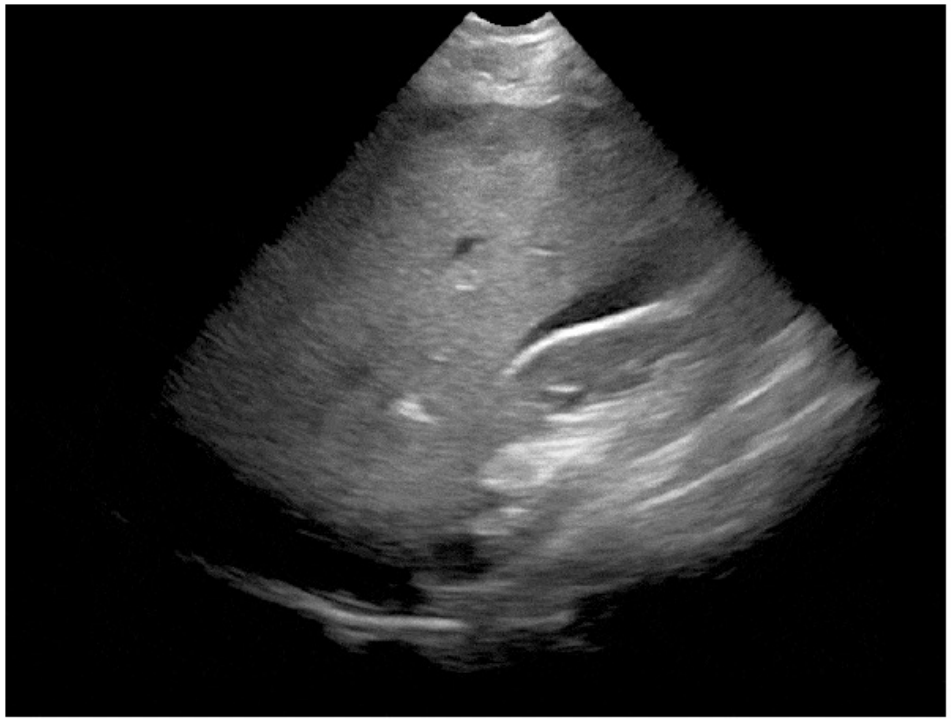
- **Hepatorenal Space or "Morison's Pouch"**
- **Caudal Tip of the Liver**
- **Suprahepatic Space**



eFAST RUQ Morison's Pouch

RUQ - Hemoperitoneum

Free Fluid at the Caudal Tip of the Liver



Free Fluid in Morrison's Pouch and Suprahepatic Space

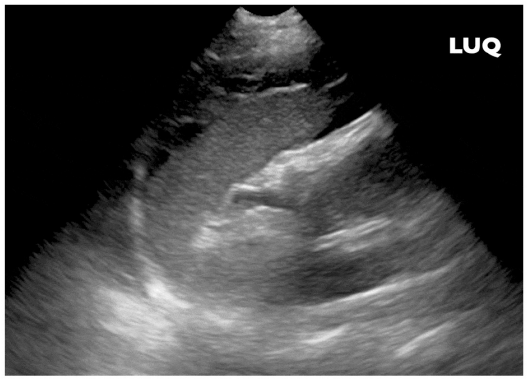
LUQ - Hemoperitoneum

POCUS 101 TIP: It is important to note that in the LUQ the most common area to find fluid is in the perisplenic space, NOT between the spleen and the left kidney. This is because there is a splenorenal ligament that attaches the spleen and the left kidney preventing a significant amount of fluid to accumulate there unless the ligament is ruptured.

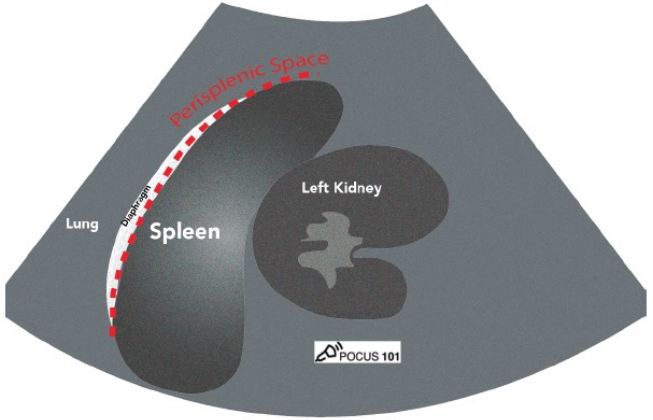
Left Upper Quadrant (LUQ) – Hemoperitoneum

We will evaluate the LUQ in the eFAST for free fluid in the following places:

- **Perisplenic Space**
- **Spleen Tip**
- **Splenorenal Recess**



Free fluid in Perisplenic Space

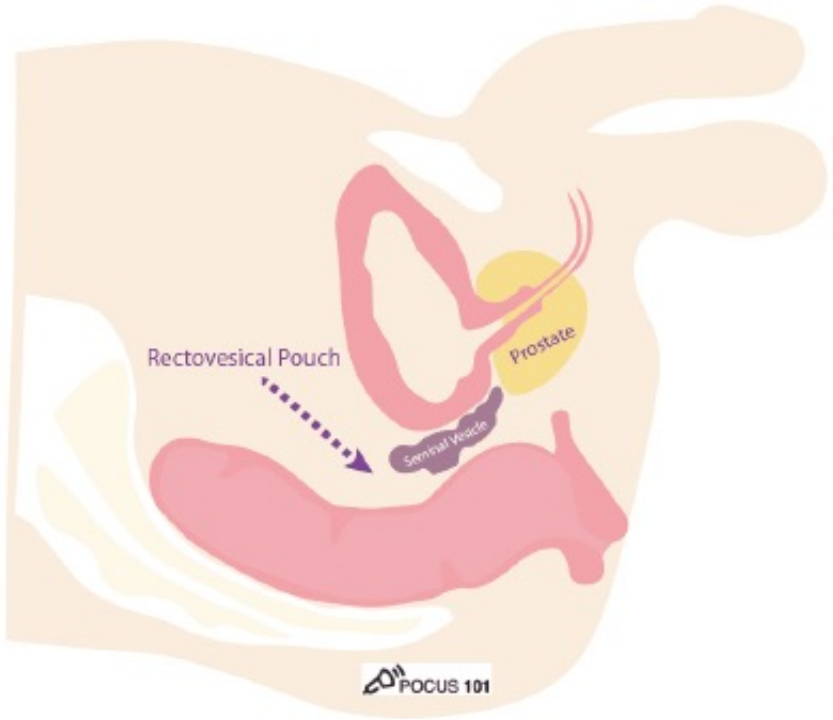


eFAST LUQ Perisplenic Space

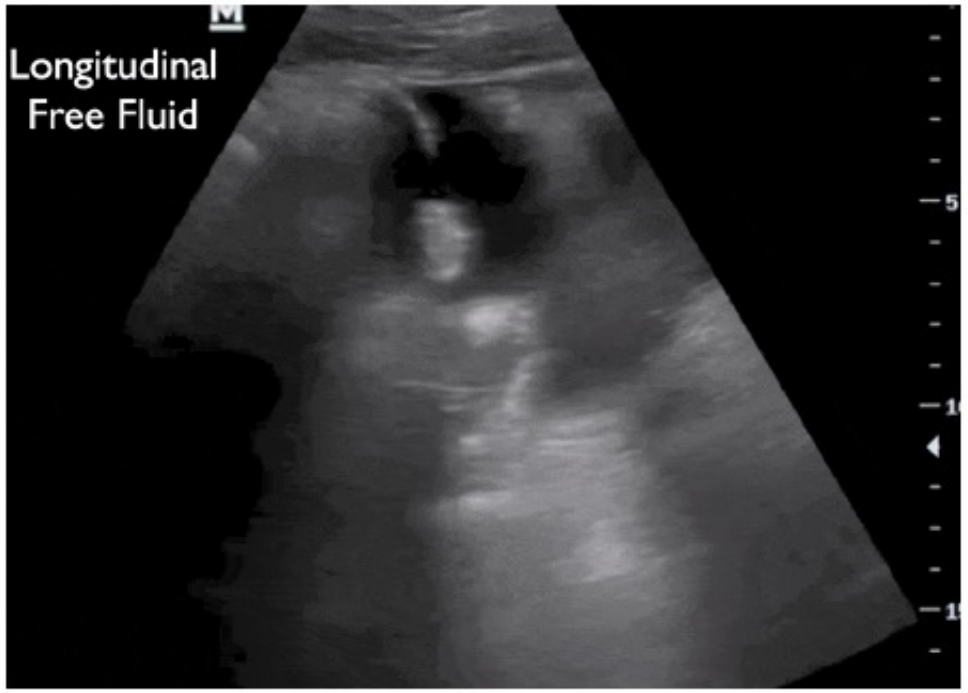
Male Pelvis – Hemoperitoneum

In the male pelvis, you can find free fluid in the rectovesical pouch/space.

Male Pelvis - Hemoperitoneum

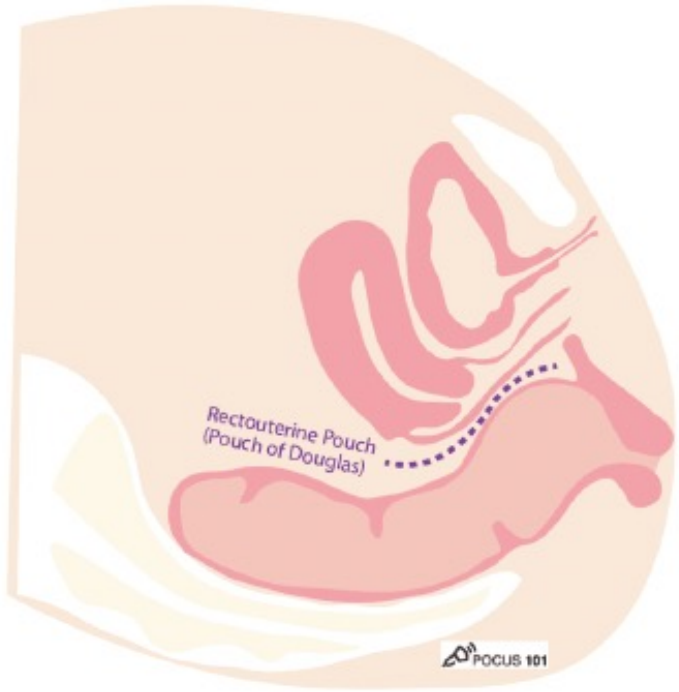


Male Pelvis Rectovesical Pouch

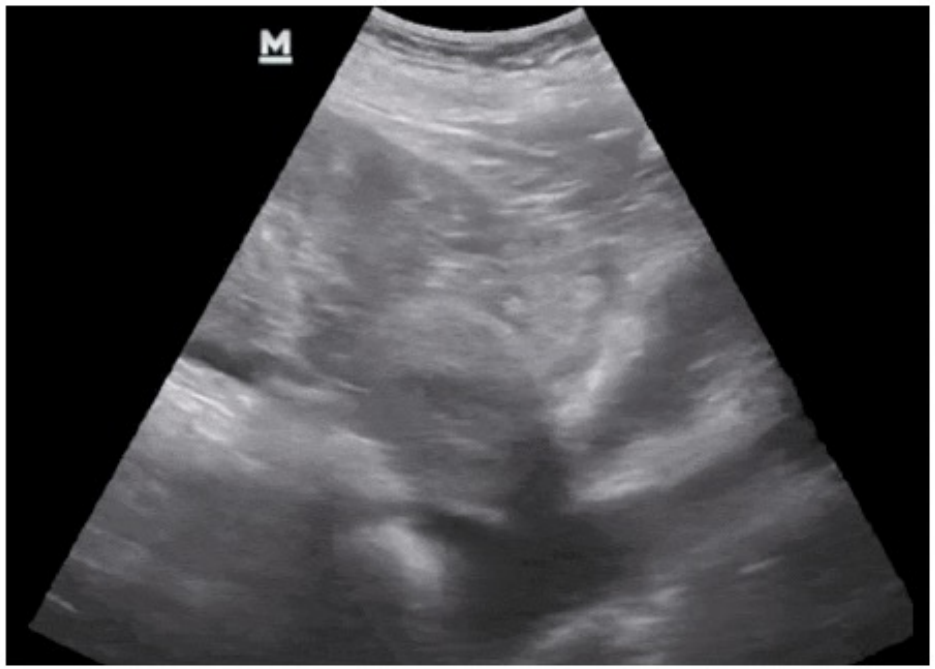


Male – Abdominal Free Fluid in Pelvis (Rectovesical Pouch)

Female Pelvis - Hemoperitoneum

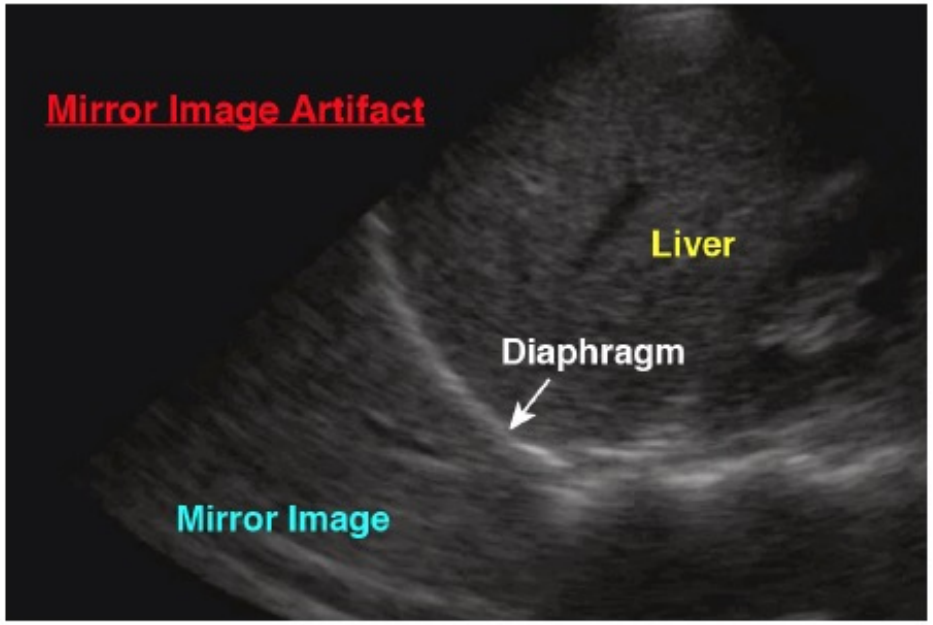


Female Pelvis Rectovesical Pouch

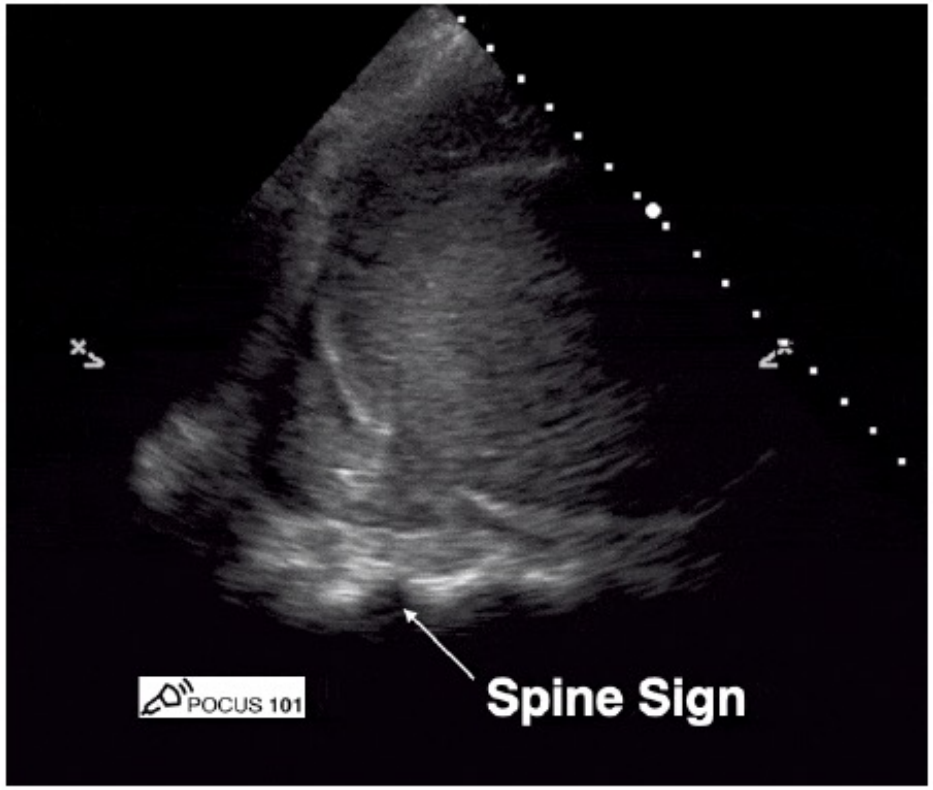


Female – Abdominal Free Fluid in Pelvis (Pouch of Douglas)

Hemothorax



Absence of Spine. **Normal Finding.**



Presence of Spine. **Pathologic Finding.**

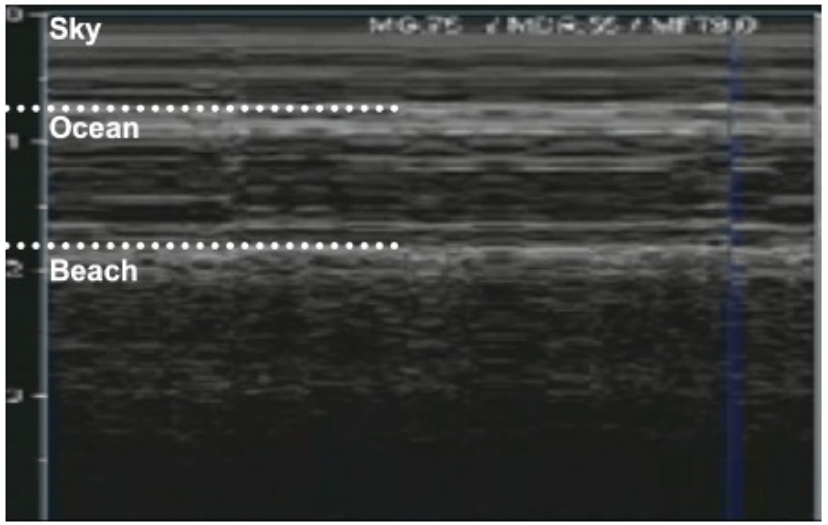
Pericardial Effusion and with Tamponade

eFAST Subxiphoid View with Pericardial Effusion

eFAST Parasternal Long Axis view with Pericardial Effusion and Tamponade (RV Diastolic Collapse)

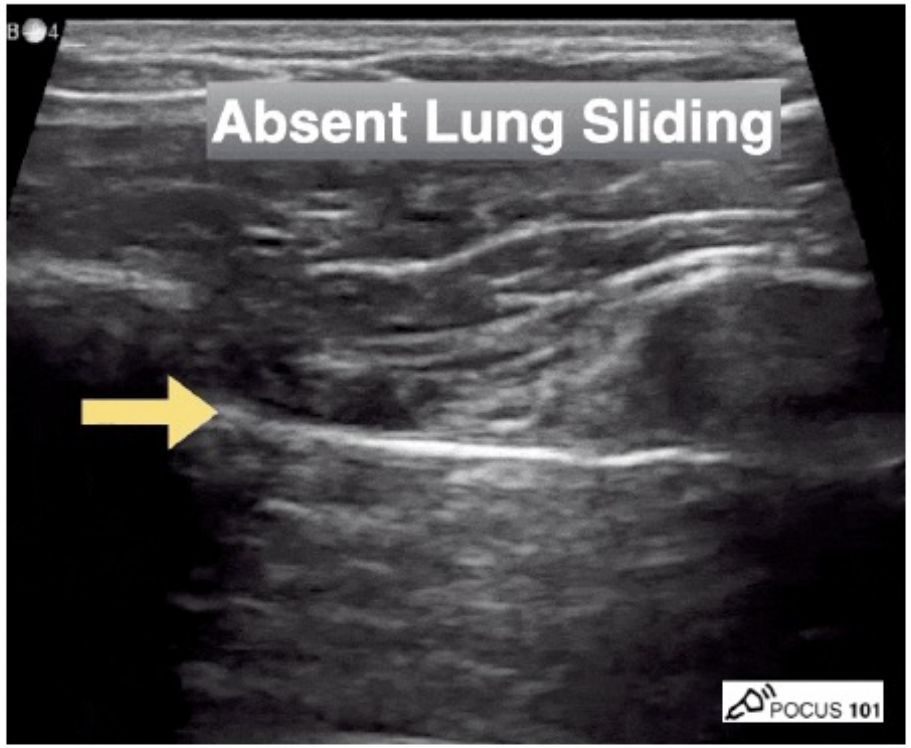
Pneumothorax

Normal Lung Sliding (B-mode)

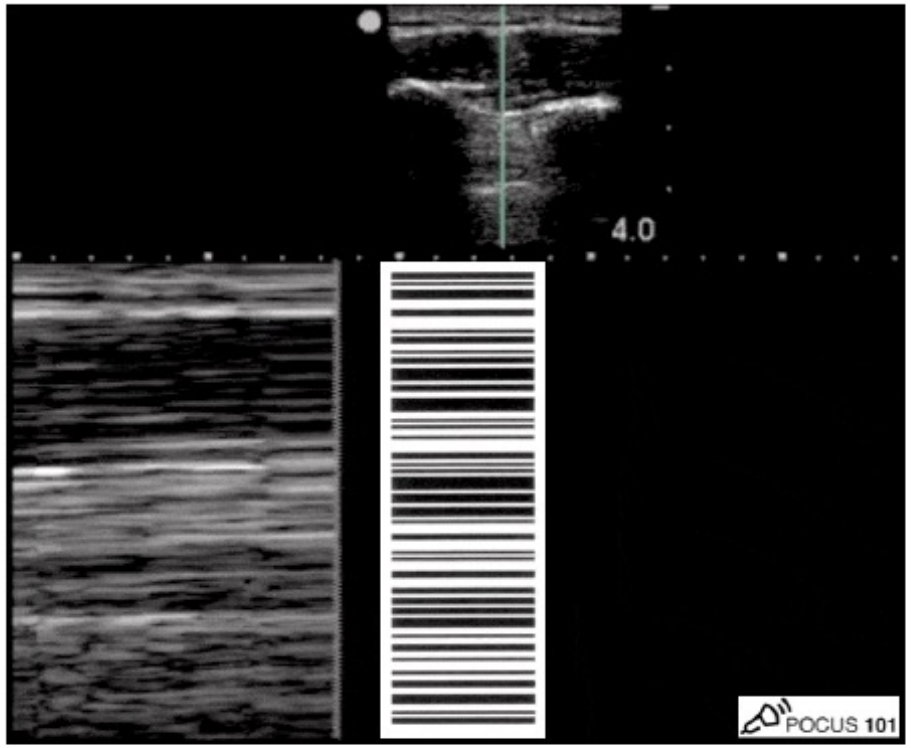


Normal Lung Sliding with Seashore sign (M-mode)

No Lung Sliding = Pneumothorax

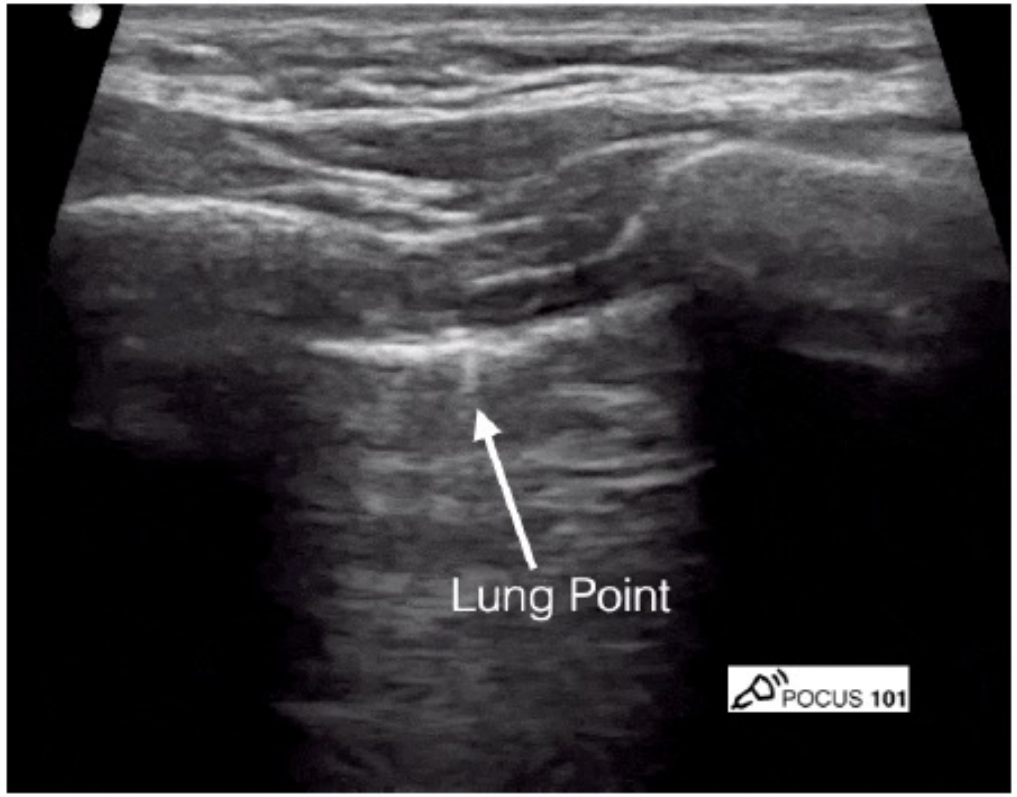


Absence of Lung Sliding (B-mode)

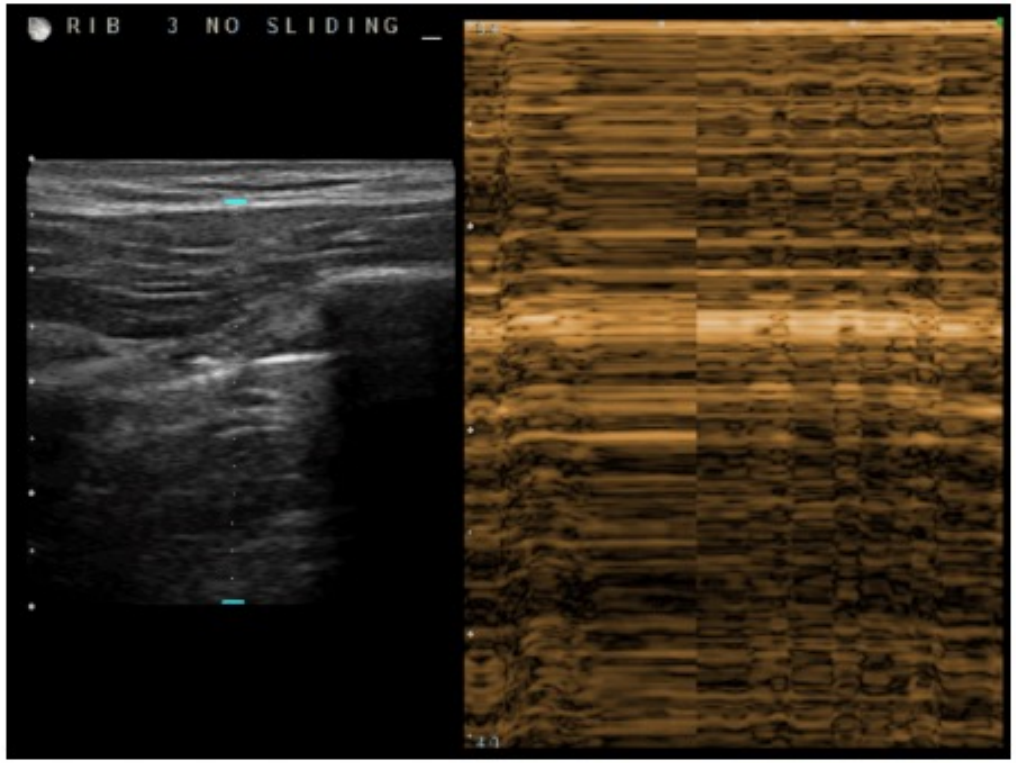


Absence of Lung Sliding – **Barcode Sign** (M-Mode)

Lung Point Sign = Confirmed Pneumothorax

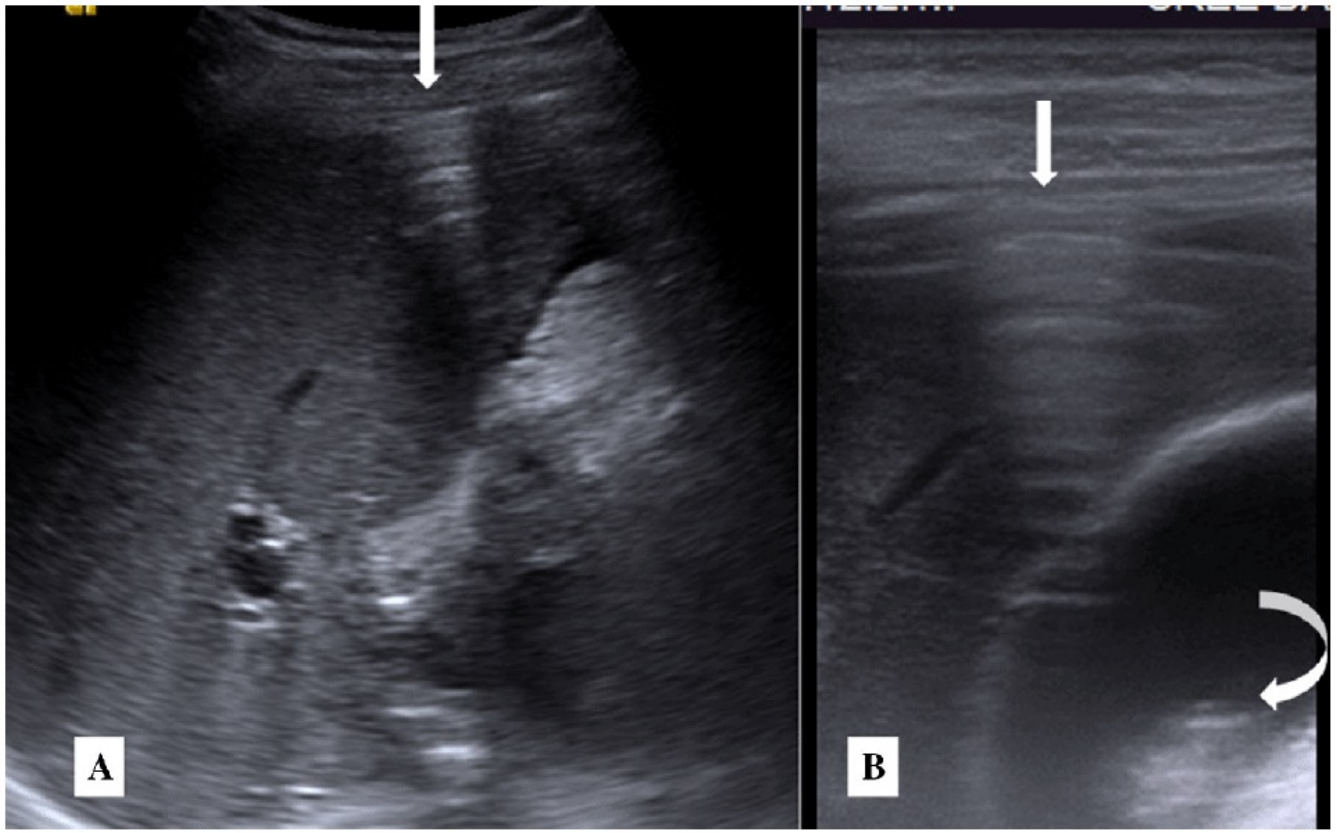


Lung Point Sign (B-mode)



Lung Point (M-mode)

EPSS = Enhanced Peritoneal Stripe Sign Positive for Pneumoperitoneum

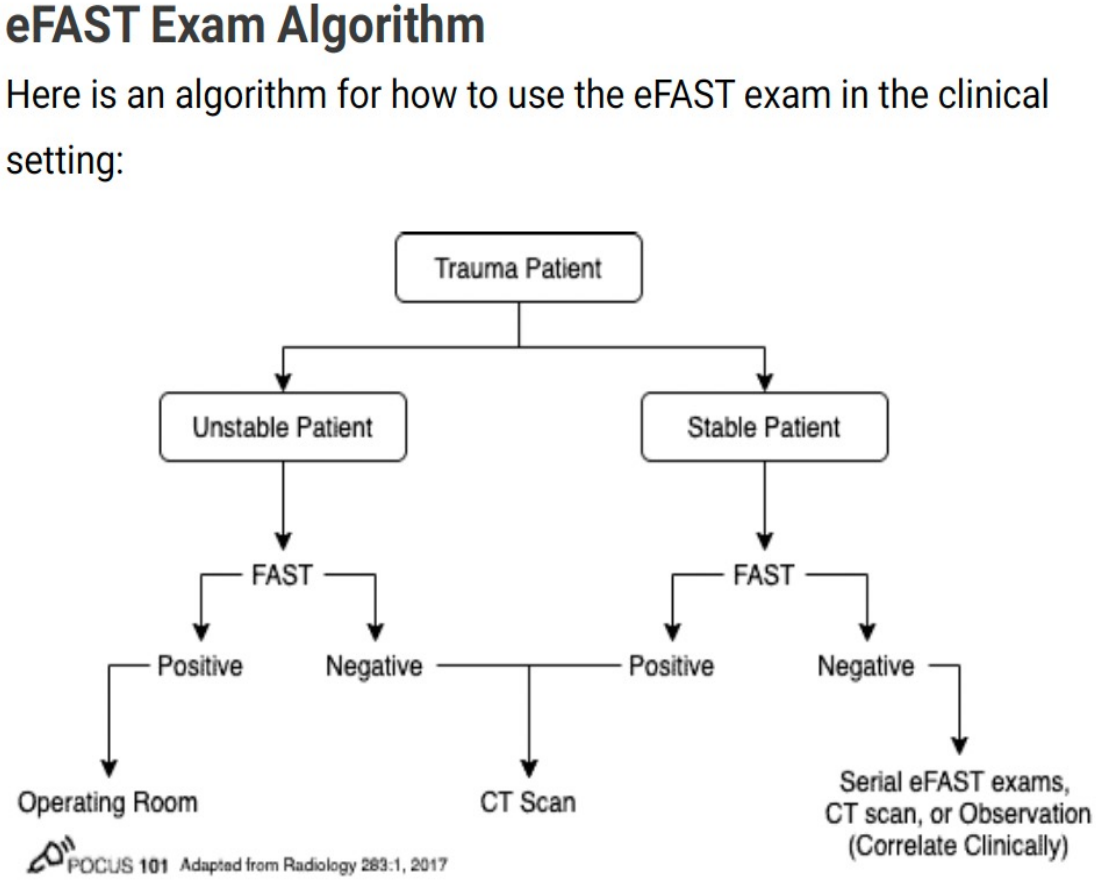


Enhanced peritoneal stripe sign (EPSS) seen anterior to the liver in both images (straight arrows), indicating the abnormal presence of air between the liver and the anterior abdominal wall (Indiran).

POCUS eFAST exam is most beneficial in hemodynamically unstable patients unable to go to the CT scanner.

Positive identifies and helps surgeon general region of bleeding

Negative: patients can have a delayed presentation



eFAST Scan Algorithm