

East of England
ACCS Training Day
Peterborough City Hospital
eFAST

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23rd September 2015

Objectives

- ⊗ Overview of the the EFAST Scan
 - ⊗ Use in Trauma
 - ⊗ Advantages and limitations
 - ⊗ Demonstrate Technique
 - ⊗ Normal and abnormal scans

EFAST Definition

- ⊗ Extended
- ⊗ Focused
- ⊗ Assessment with
- ⊗ Sonography in
- ⊗ Trauma

EFAST

How can we use it?

- ⊗ Clinical Examination
- ⊗ Answers specific Questions
 - ⊗ Is there free fluid in the abdomen?
 - ⊗ Is there free fluid in the pericardium?
 - ⊗ Is there evidence of a pneumothorax/haemothorax?
- ⊗ Guides management

EFAST

How's it performed?

- ⊗ Real time views
- ⊗ Abdominal
 - ⊗ Perihepatic/RUQ
 - ⊗ Perisplenic/LUQ
 - ⊗ Pelvic (Longitudinal and Transverse)
- ⊗ Cardiac
 - ⊗ Pericardial (usually subcostal)
- ⊗ Thorax
 - ⊗ RUQ
 - ⊗ LUQ
 - ⊗ Parasternal

EFAST Views

- ⊗ Perihepatic/RUQ
 - ⊗ Probe in longitudinal orientation
 - ⊗ Lower ribs of right chest wall
 - ⊗ Mid-axillary line slide posteriorly
 - ⊗ Morrisons Pouch
 - ⊗ Subdiaphragmatic space
 - ⊗ Right costo-phrenic angle

Gen

RUQ

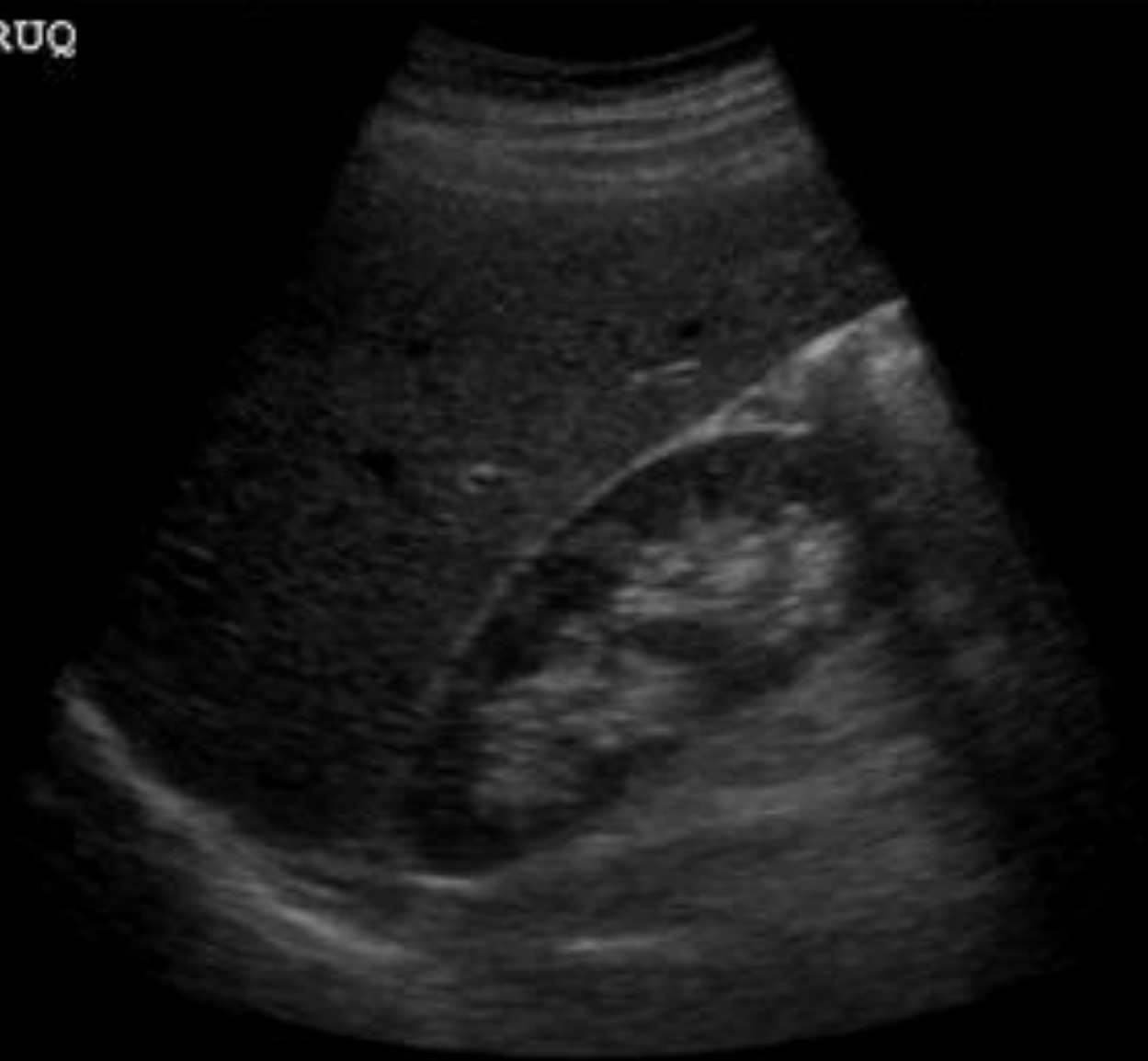
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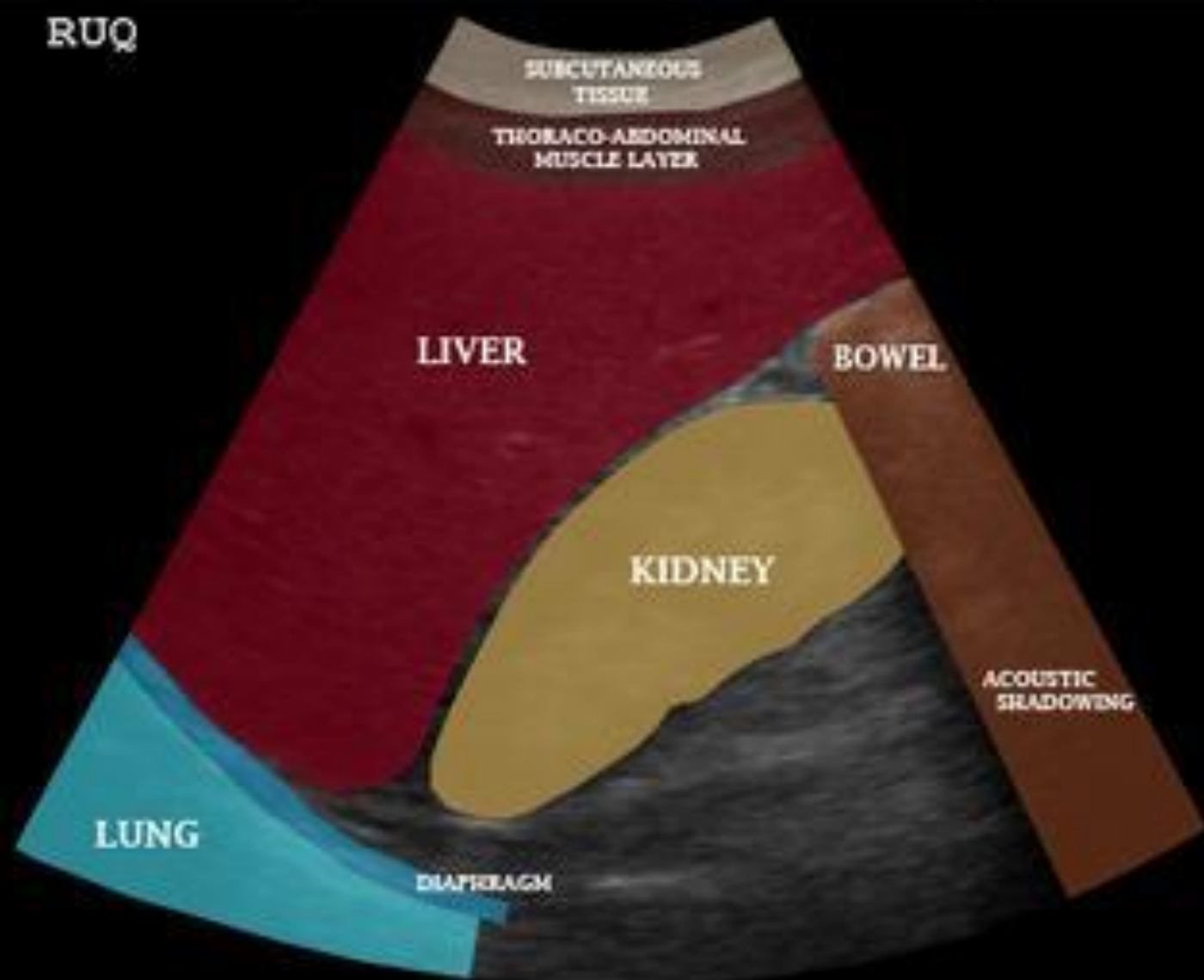


MI
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18





EFAST Views

- ⊗ Perisplenic/LUQ
 - ⊗ Longitudinal Probe orientation
 - ⊗ Mid to post axillary line
 - ⊗ Often more posterior view with deep inspiration
 - ⊗ Leino-renal space
 - ⊗ Perisplenic
 - ⊗ Left costo-phrenic angle

Gen

LUQ



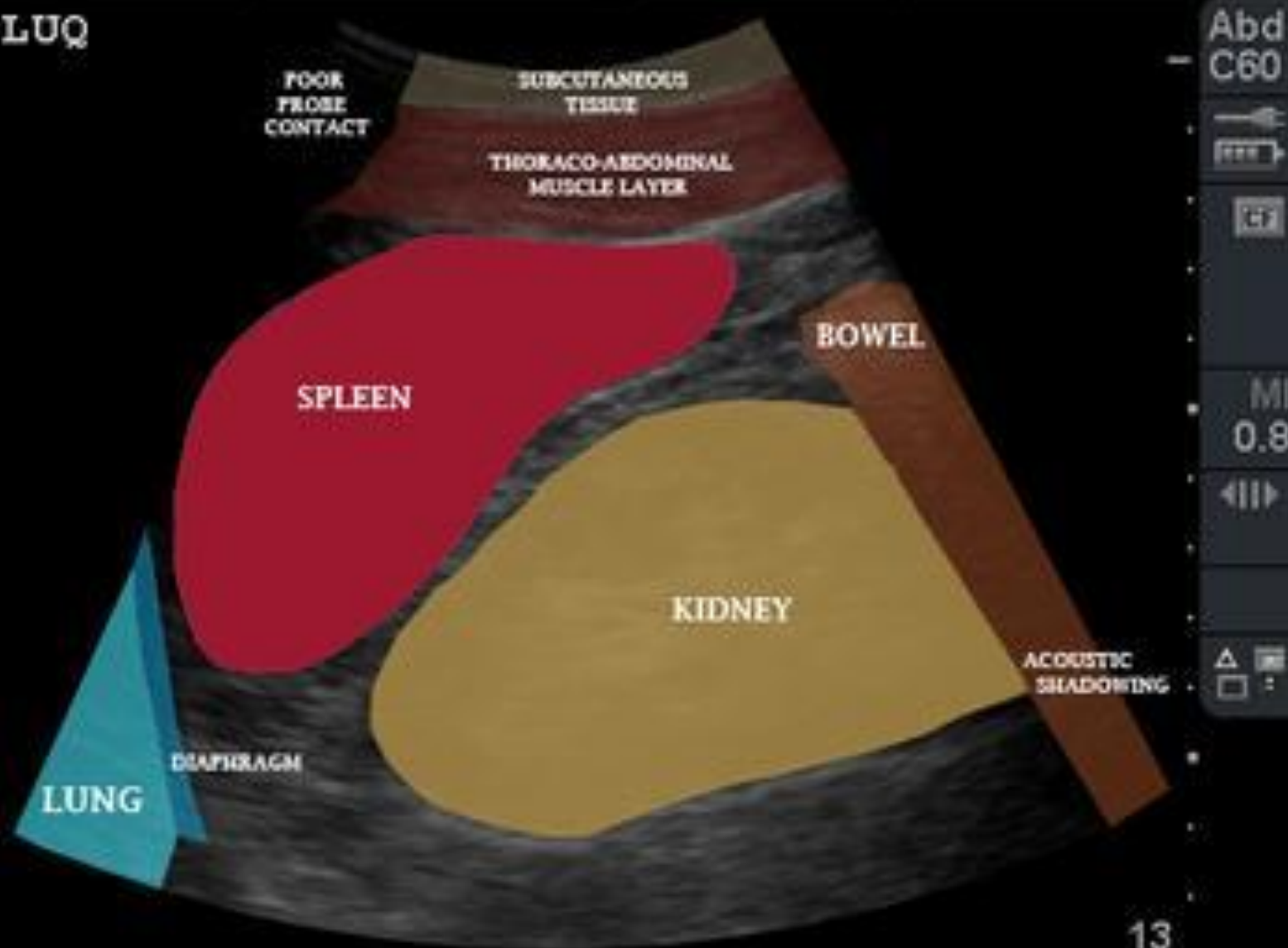
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EFAST Views

⊗ Pelvic

- ⊗ Just above symphysis pubis
- ⊗ Transverse and Longitudinal probe orientation
- ⊗ Female versus Male

⊗ Pitfalls

- ⊗ Bowel fluid
- ⊗ Empty Bladder

Gen

BLADDER LS



Abd
C60



CF

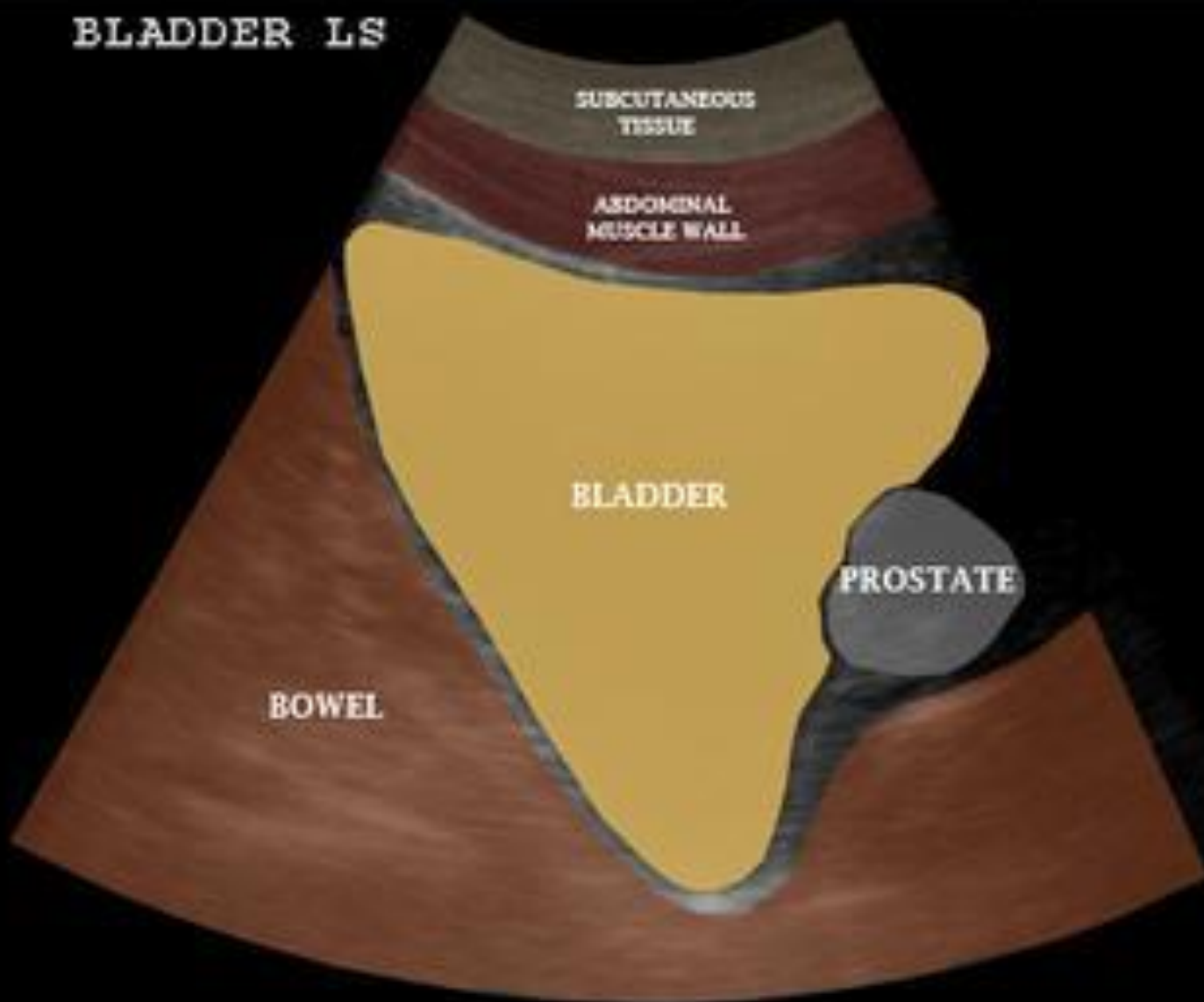
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Gen

BLADDER LS



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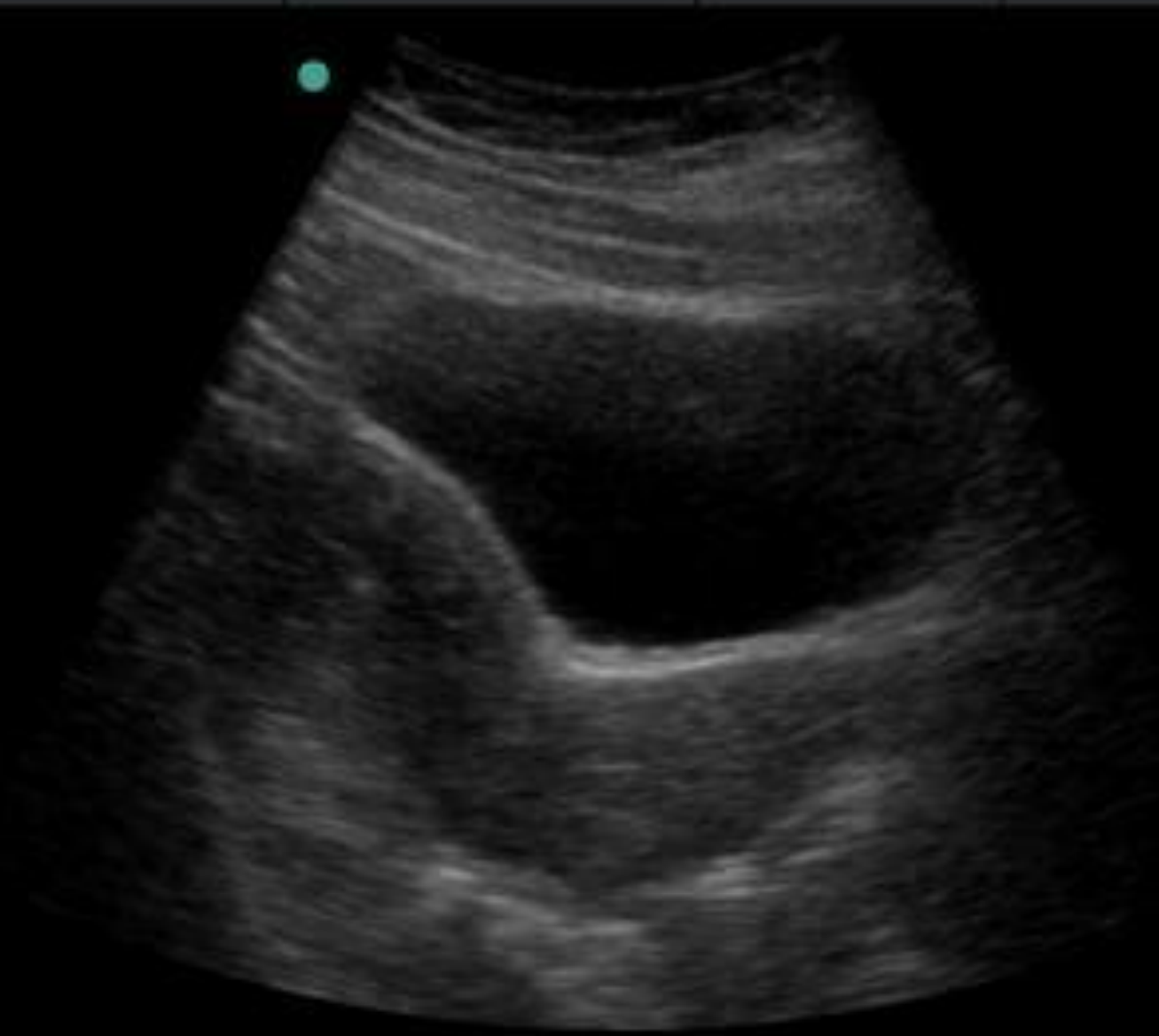


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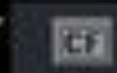
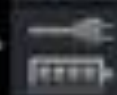




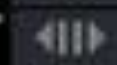
Gen MB



Abd
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EFAST Views

- ⊗ Pericardial View

- ⊗ Left Subcostal probe position
- ⊗ Angled under ribcage, towards left shoulder

- ⊗ Pitfalls

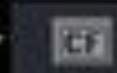
- ⊗ Pleural effusions
- ⊗ Pericardial fat pad



Gen THI



Crd
P17



MI
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21



MI
0.7



EFAST Views

- ⊗ Lung
 - ⊗ Most anterior chest spaces in supine patient
 - ⊗ Parasternal, longitudinal
 - ⊗ Bat shape
 - ⊗ Lung sliding (“trail of ants”)
 - ⊗ Lung comets (Presence excludes PTx)
- ⊗ PTx
 - ⊗ Loss of lung sliding
 - ⊗ Lung point sign

Normal

PTX



EFAST

What does it mean?

- ⊗ Free fluid is anechoic/sonolucent (Black) and has angularity to its margins (ie. takes the shape of its container)
- ⊗ Clot appears echogenic
- ⊗ Cannot differentiate fluid types
 - ⊗ Clinical context is important (+/- diagnostic aspiration)
- ⊗ Generally require greater than 100-250mls free fluid
 - ⊗ Dependent on bladder fullness/patient size/sonographer skill

EFAST

How does it help?

- ⊗ Guides Management
 - ⊗ Prioritization
 - ⊗ What should be dealt with first
 - ⊗ Ensures more accurate assessment
 - ⊗ Thoroughness

EFAST

How does it not help?

- ⊗ Wrong questions
 - ⊗ Is there any intraperitoneal bleeding?
 - ⊗ Is there any intra-abdominal injury?
 - ⊗ Can I send the patient home?

EFAST

Pros

- ⊗ Rapid and Bedside
- ⊗ Non-Invasive
- ⊗ Repeatable
- ⊗ High sensitivity and specificity
 - ⊗ Depends on the question being asked/answered
- ⊗ Consider it as part of Primary survey
 - ⊗ Chest = CXR
 - ⊗ Abdomen = FAST

EFAST

Cons

- ⊗ Low Sensitivity and Specificity
 - ⊗ if the wrong question asked
- ⊗ Operator dependent

References

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**KEEP
CALM
AND
SCAN
ON**