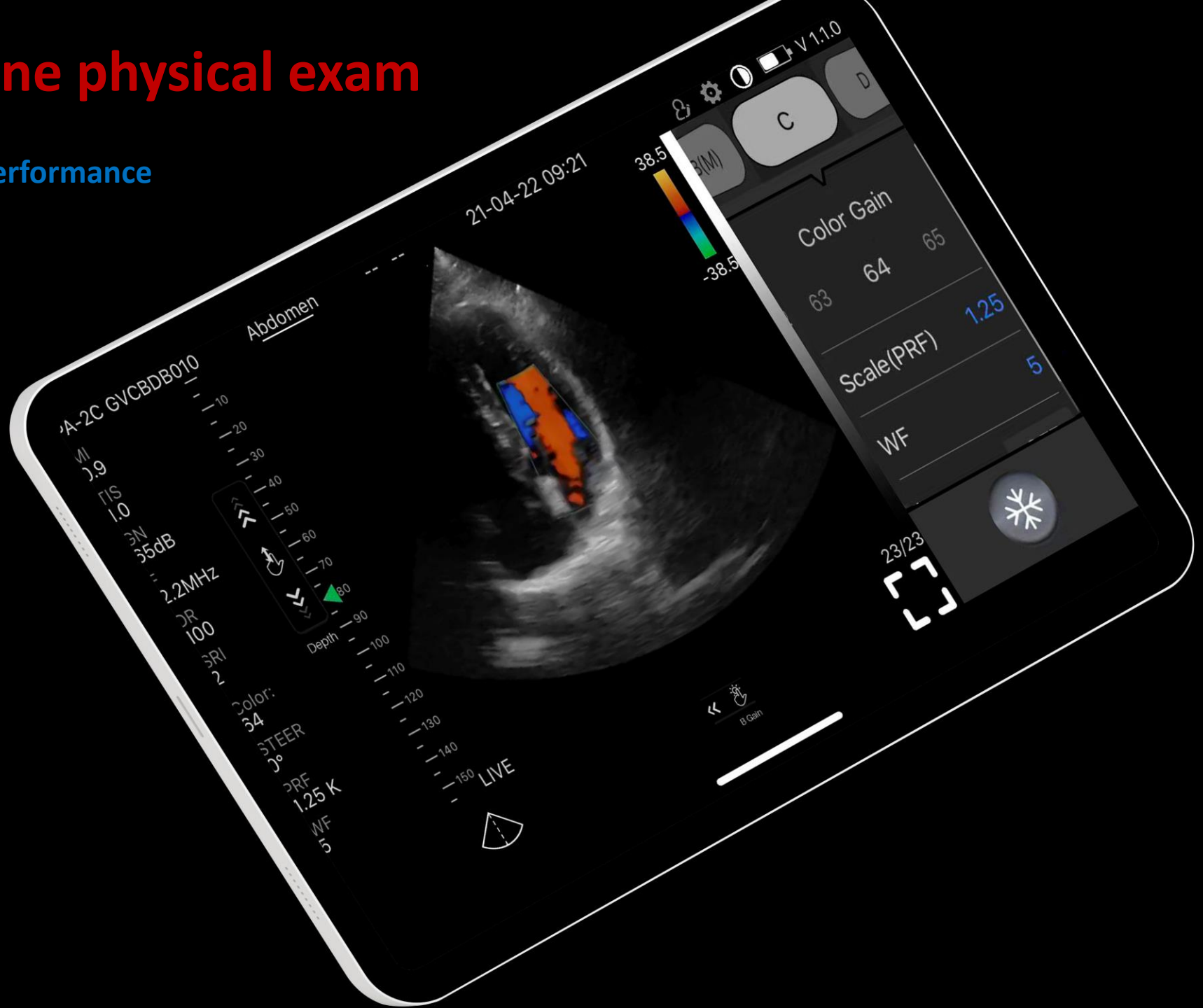
Super tool redefine physical exam

-----Smallest, low cost, High performance



Product information

- **Smallest and Ergonomic design** guarantee user whatever you are doctor or nurse can get image more comfortable and easier.

---Dimension:136×40×28mm

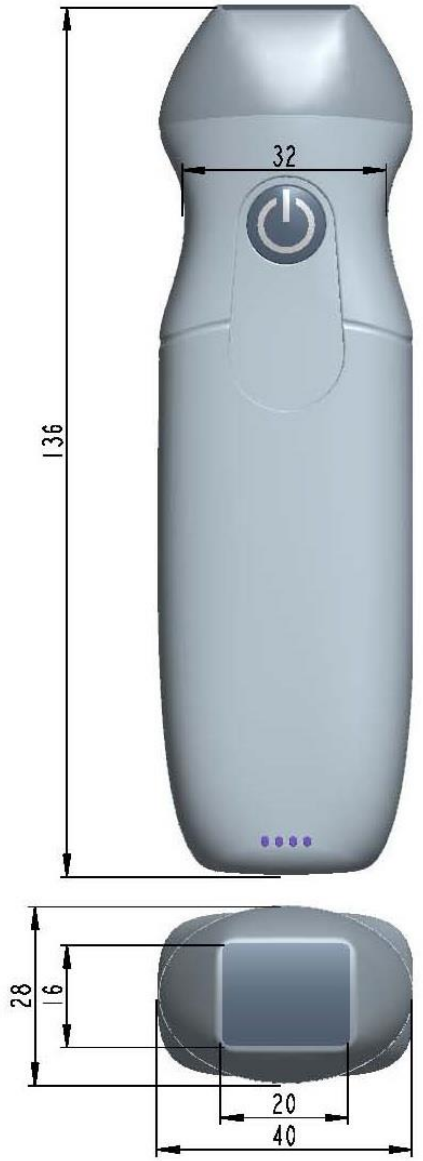
---Weight: 120g

- **Wireless and USB cable** use guarantee application scenarios

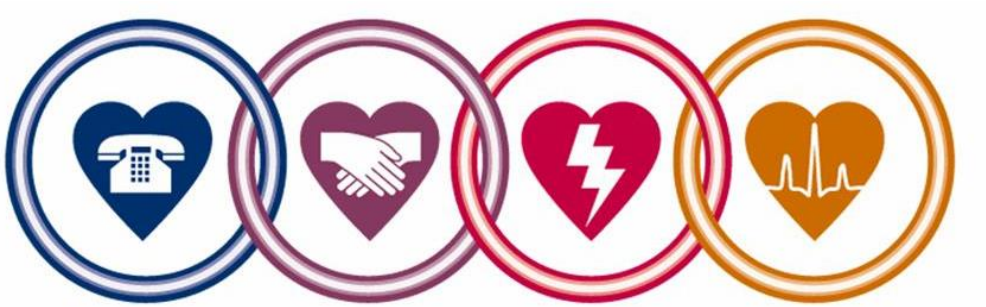
---Battery inside guarantee 2 hours work time

---USB connect directly work

- 64channels with Single Crystal Array guarantee high quality image



Powerful Clinical Assistant



Emergency → Critical Care → Cardiology/Surgery

- Shock(RUSH)
- Trauma(EFAST)
- Chest pain
- Acute abdomen

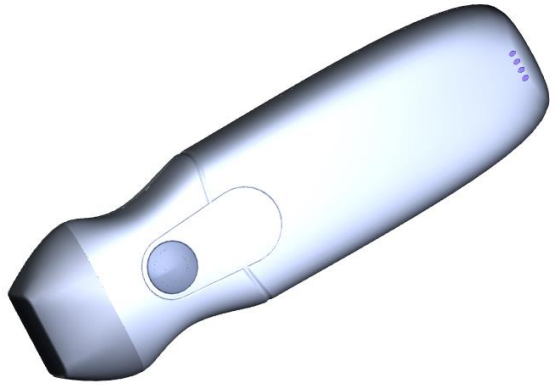
- Heart function assessment
- Blood volume assessment
- Lung water assessment
- Other organs assessment

- Bedside cardiac function assessment
- Pericardial effusion/pericardiocentesis

What PA Probe can do In Critical Care---ICU

Use ultrasound assessment, must be able to answer this questions.

- What is the left heart function?
- What is the right heart function?
- Is there any evidence or pericardial effusion, and tamponade?
- What is the volume status?.



Critical Care Ultrasound In ICU

------Basic MODE

- 2D ECHO, M-Mode
- Doppler ECHO

– Supplemented with 2D and M-mode ECHO

– Provide intracardiac hemodynamics – systolic and diastolic flow, blood velocity and volume, severity of valvular lesions, location and severity of intracardiac shunts and assessment of diastolic function

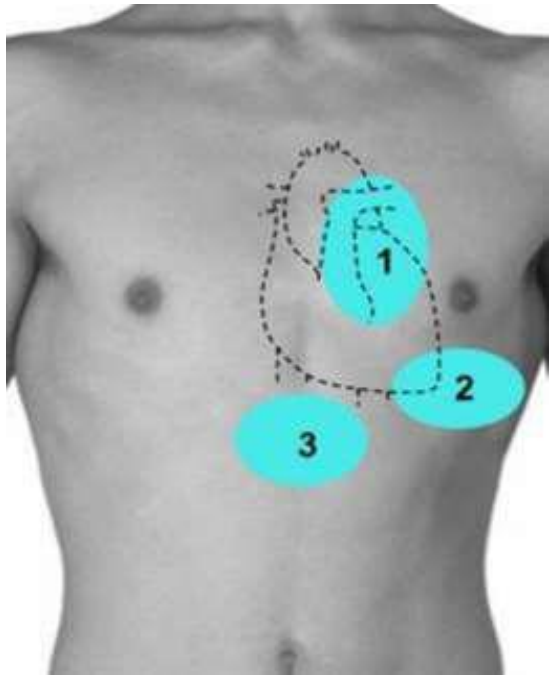
- Views

– Parastrenal long axis

– Parasternal short axis

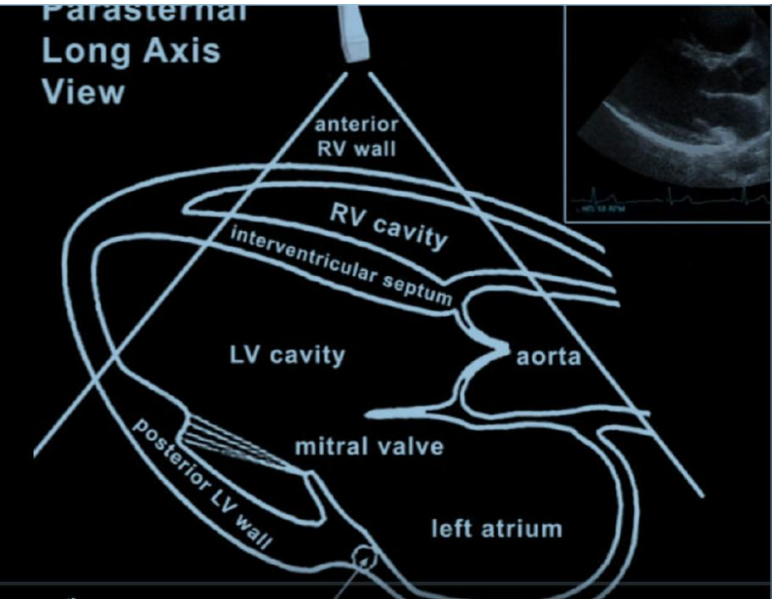
– Apical view 4 chamber view

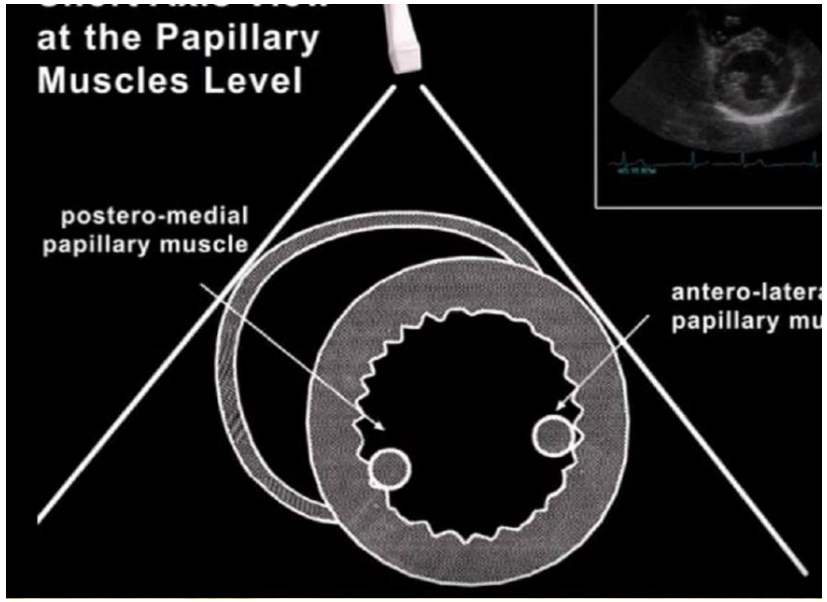
– Substernal 4 chamber view

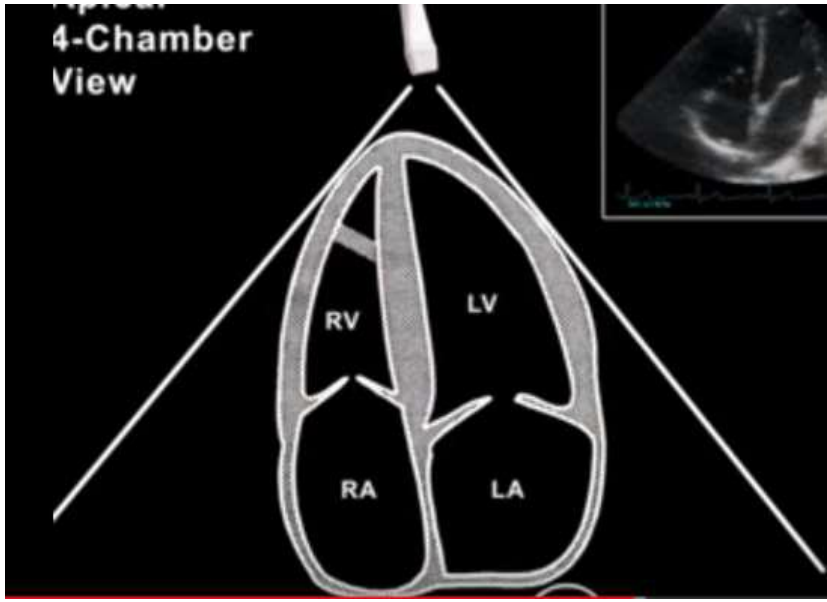


Critical Care Ultrasound In ICU

------Basic MODE







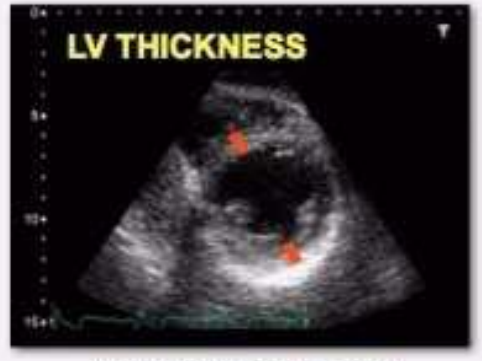
NORMAL SIZE IF NO LARGER THAN ...

X

0.5

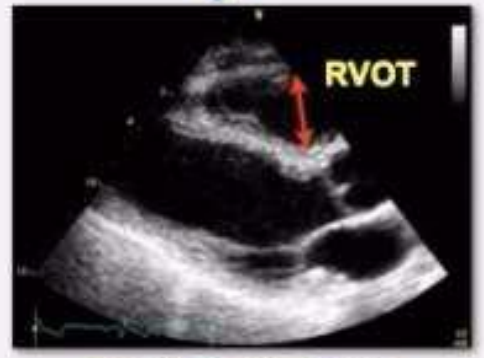
RV THICKNESS (SLAX)

1



LV THICKNESS (PSAX)

2.5



RV DIAMETER (PLAX)

3

RV DIAMETER (A4CH)

4.5

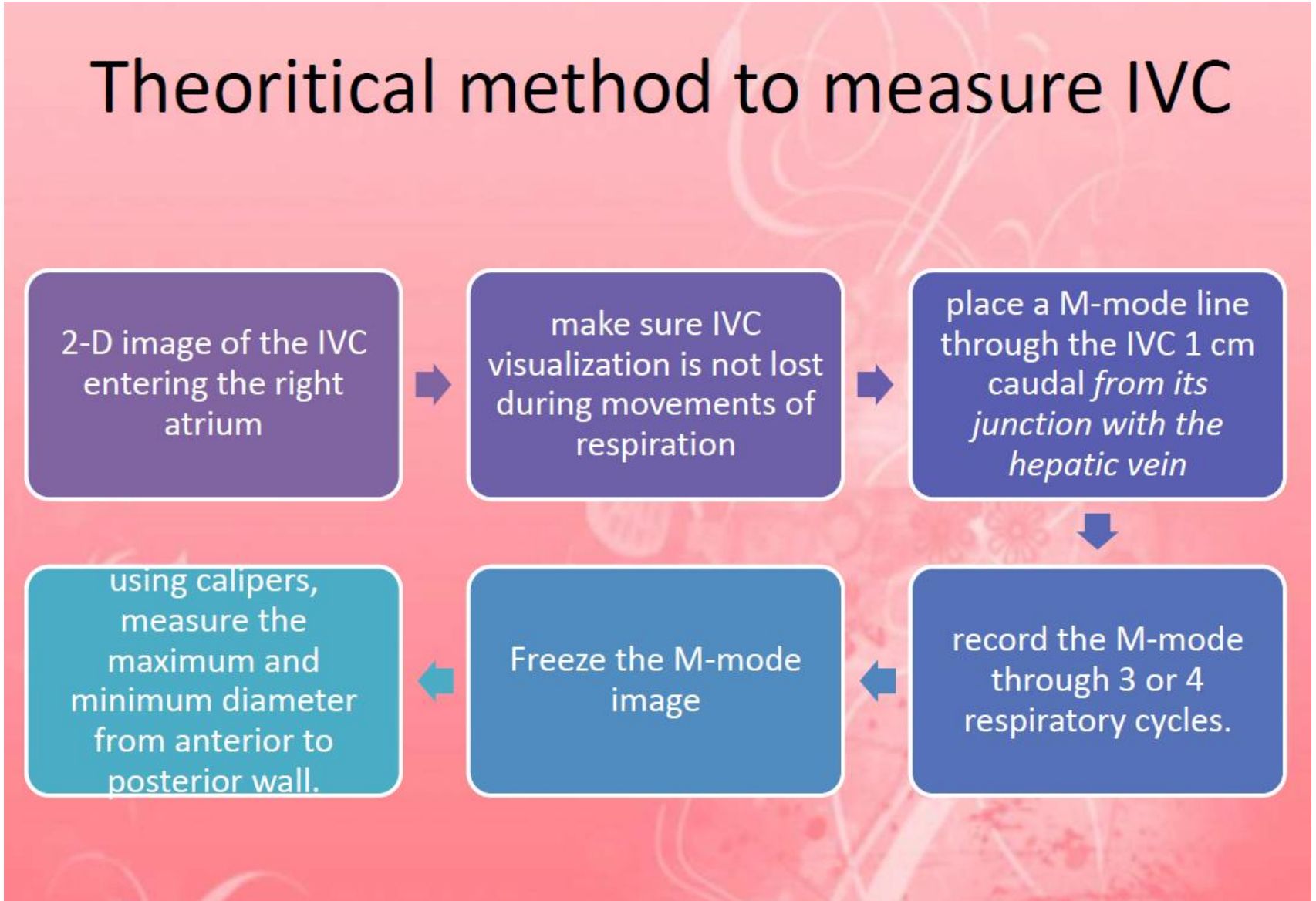
LA DIAMETER (A4CH)

5

LV DIAMETER (PLAX)

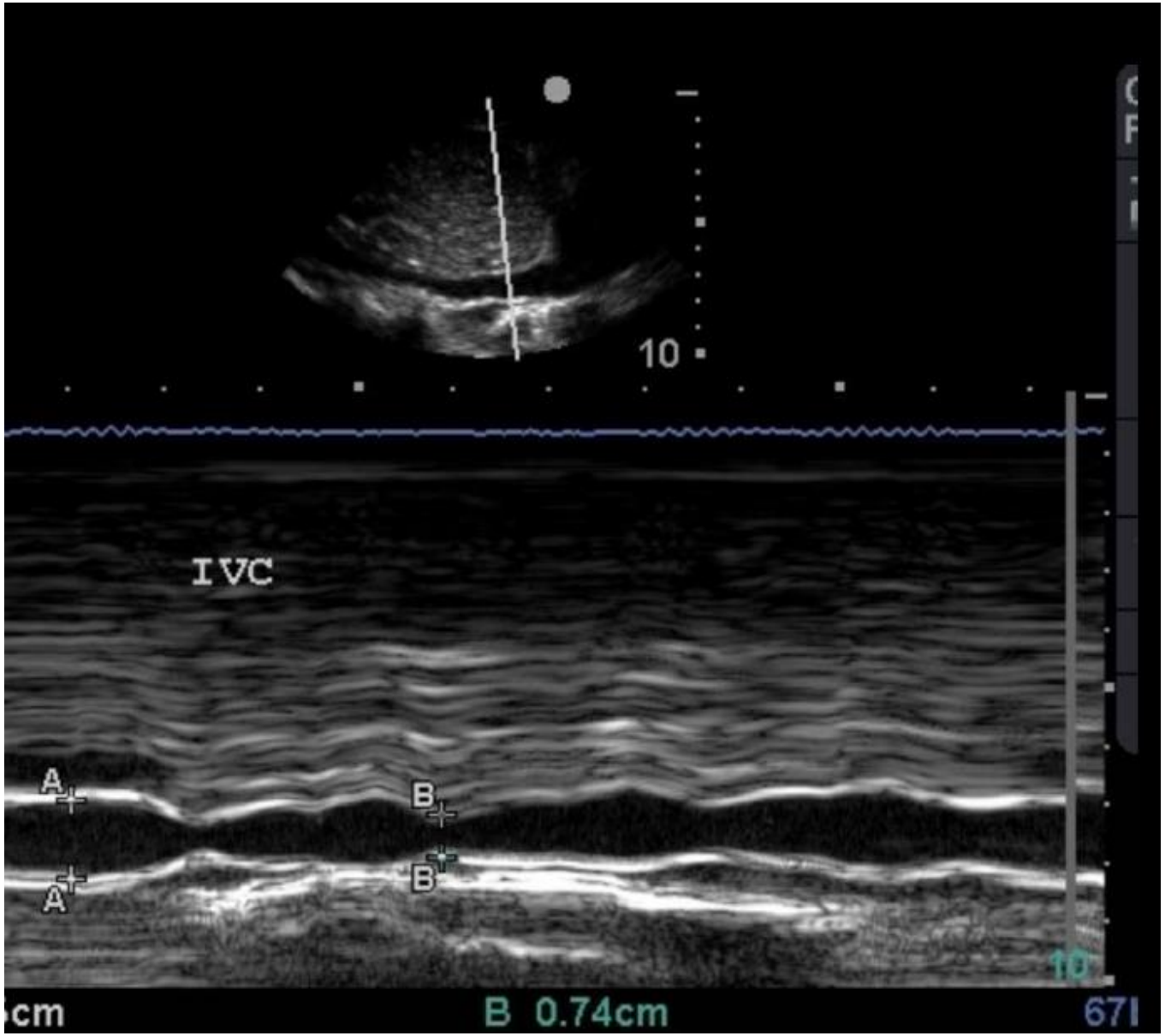
Critical Care Ultrasound In ICU

---Volume status and preload responsiveness assessment



Low CVP is increasingly is likely as

- IVC diameter (IVCD) < 1 cm
- high CVP increasingly likely as IVCD > 2cm.



Emergency(FAST and eFAST ULTRASOUND)

Focused **A**ssessment with **S**onography for **T**rauma

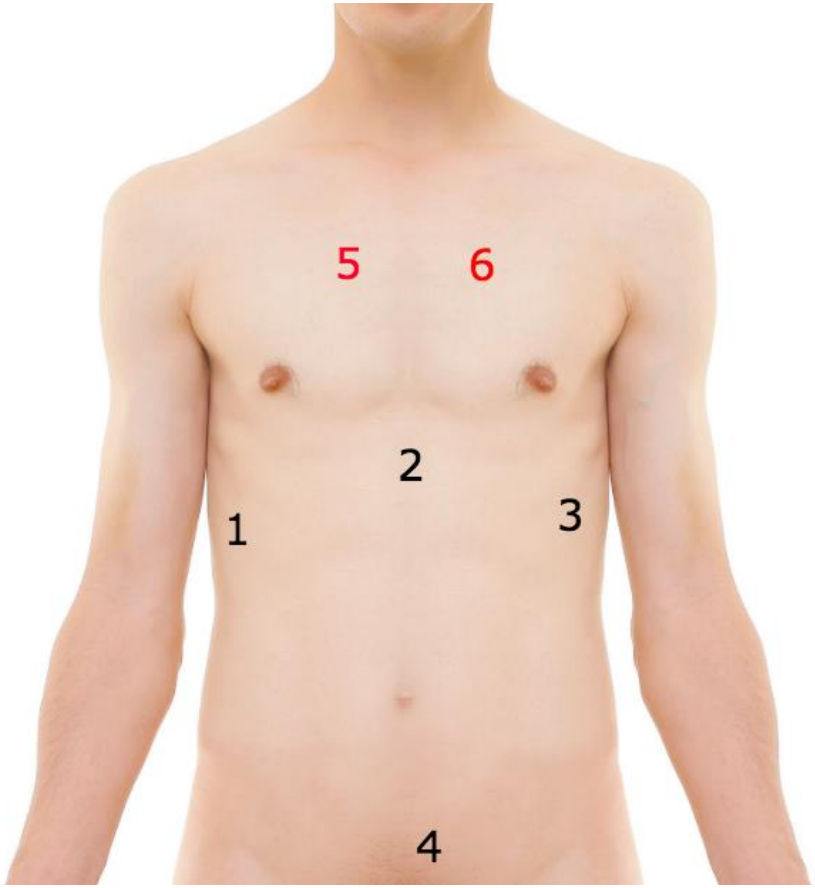
Probe selection:

The probe of choice is a **phased array probe**, as it can achieve adequate penetration while obtaining intercostal windows.

The operator ***may*** choose to switch to a **linear or high frequency probe** for the assessment of pneumothorax in certain cases as it often provides better visualization of the pleural line.

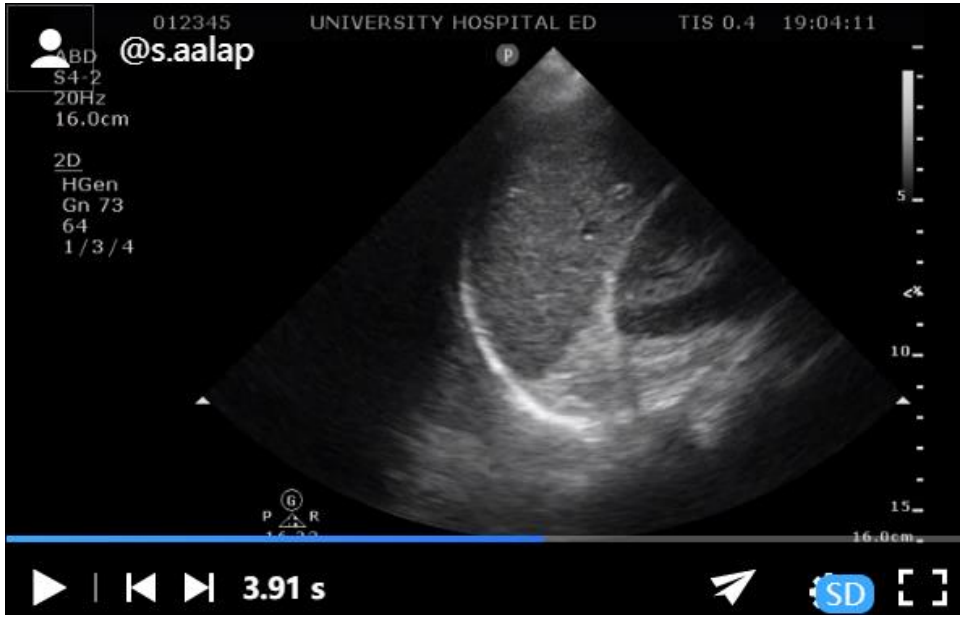
The Views

1.RUQ: hepatorenal space, subdiaphragmatic space, right paracolic gutter/inferior edge of the liver, right thoracic cavity
2.Cardiac, either subxiphoid or parasternal
3.LUQ: splenorenal space, subdiaphragmatic space, left paracolic gutter, left thoracic cavity
4.Pelvic view: (long and short axis) rectovesical in males or rectouterine pouch in female, space lateral to bladder
5.(eFAST Thoracic view, bilateral anterior chest)

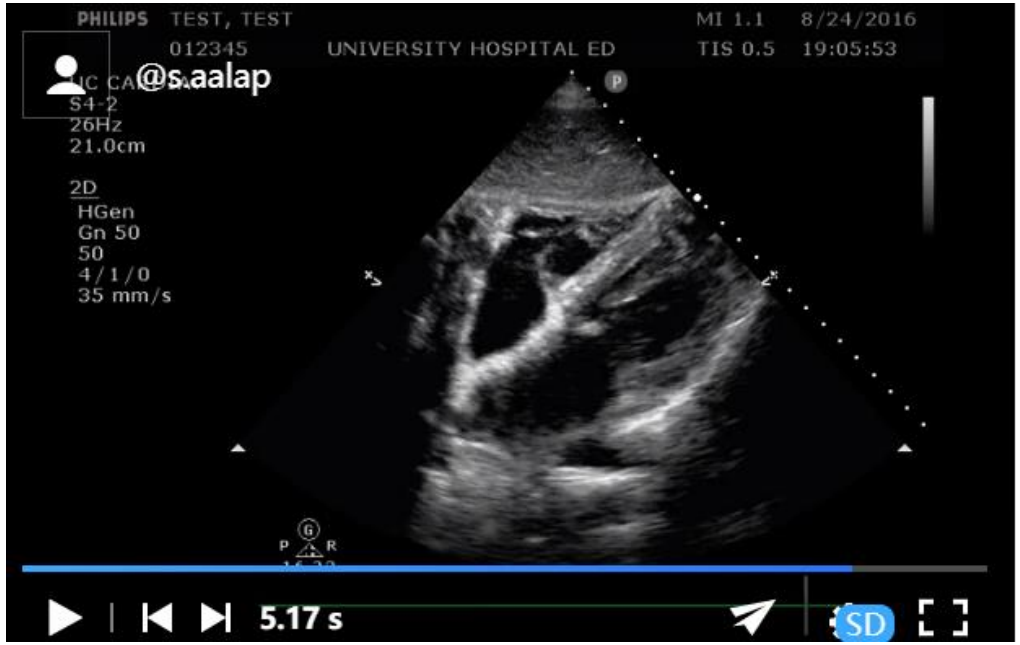


Techniques:

Normal RUQ view



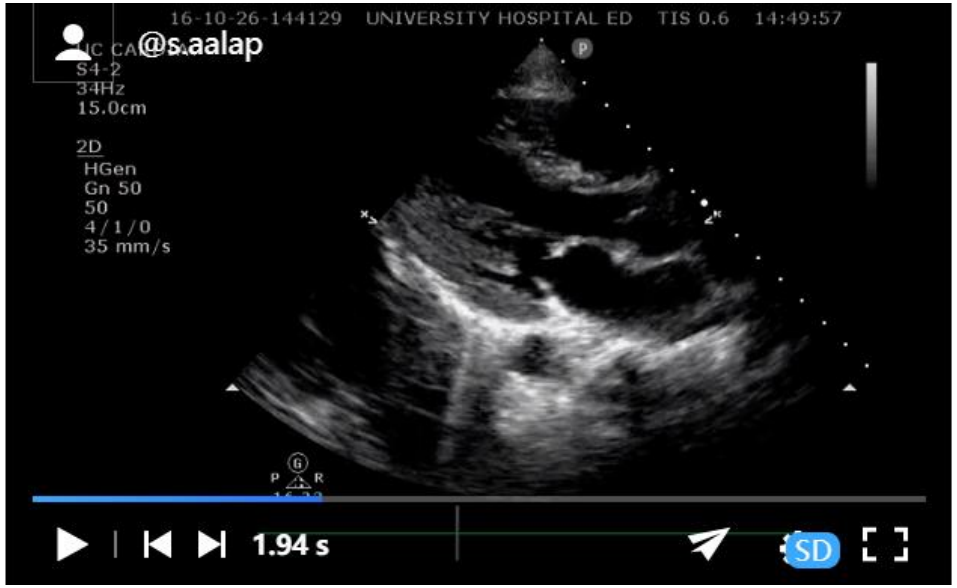
RUQ



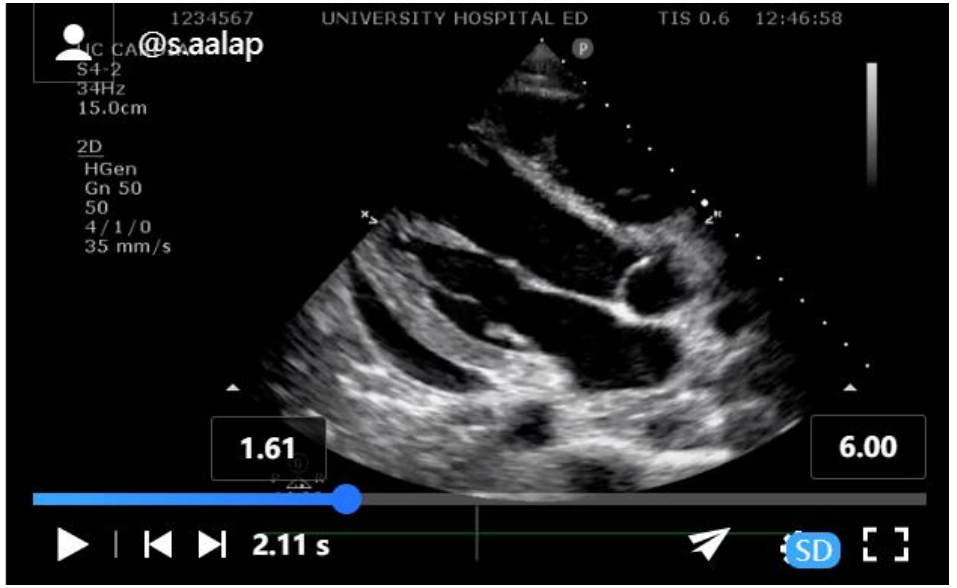
Normal subxiphoid cardiac view

Positive pericardial fluid subxiphoid cardiac view

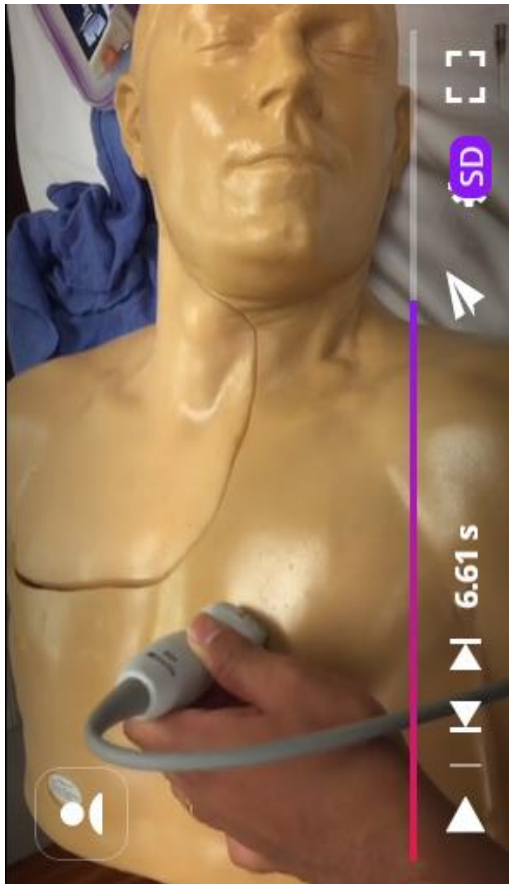
Cardiac Subxiphoid



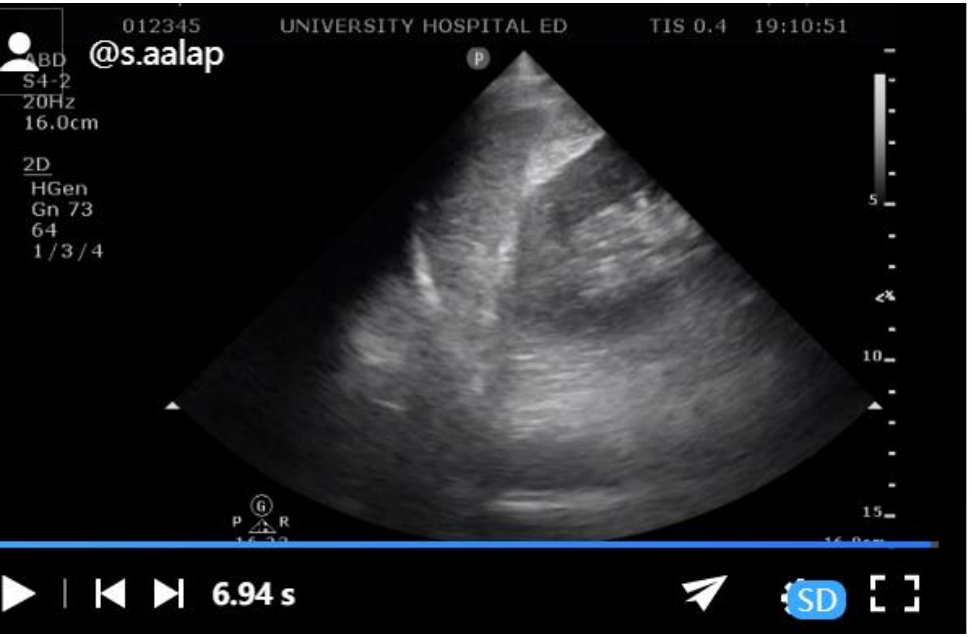
Normal parasternal long axis view



Pericardial effusion in parasternal long axis view (note fluid tracking anterior to descending aorta)



Cardiac
Parasternal Long

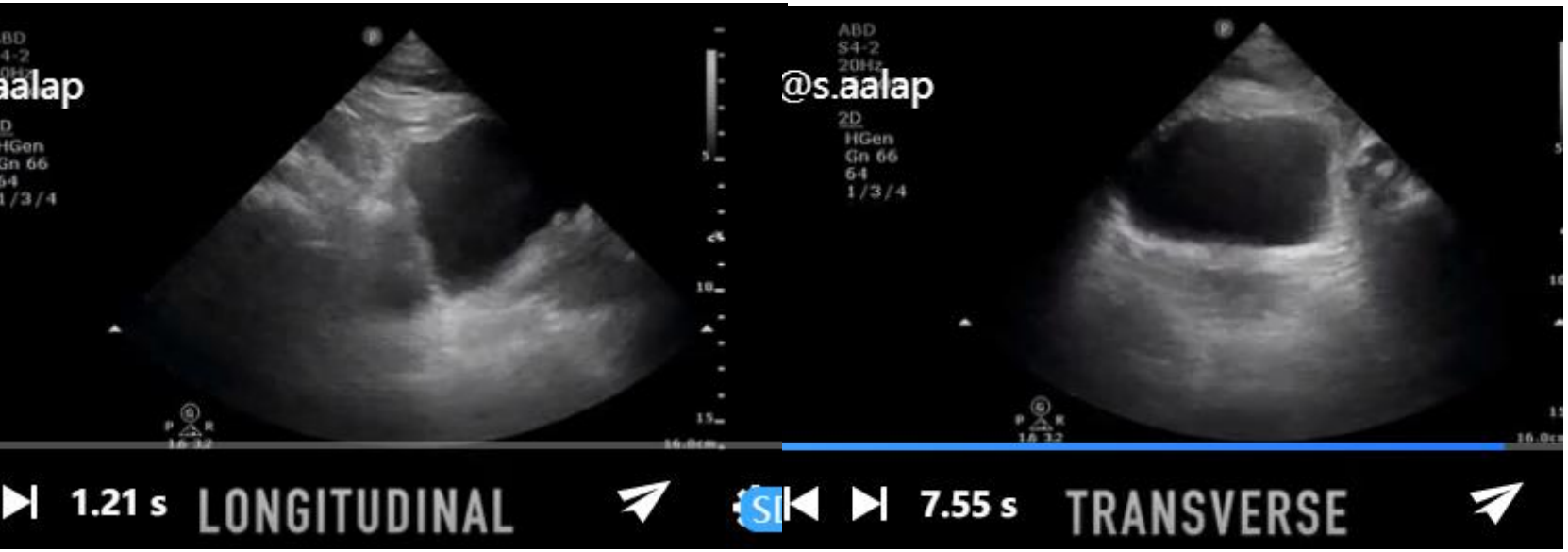


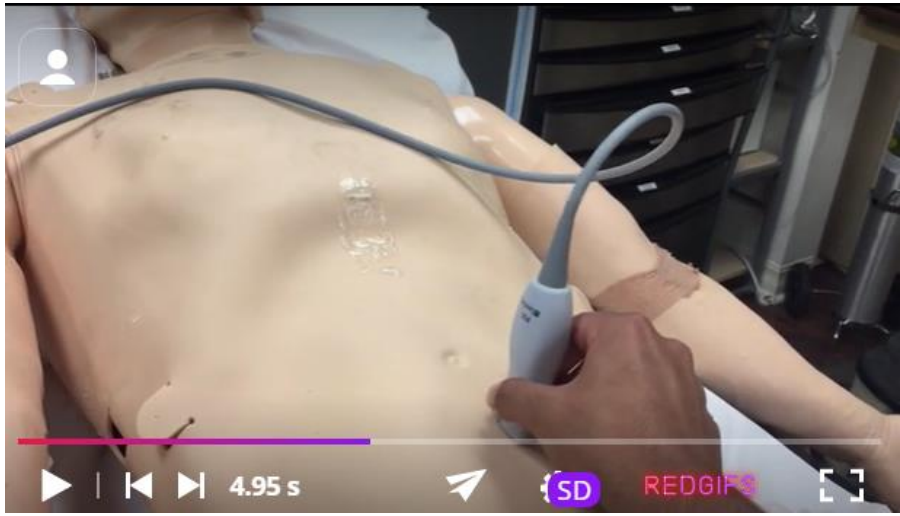
Normal LUQ view

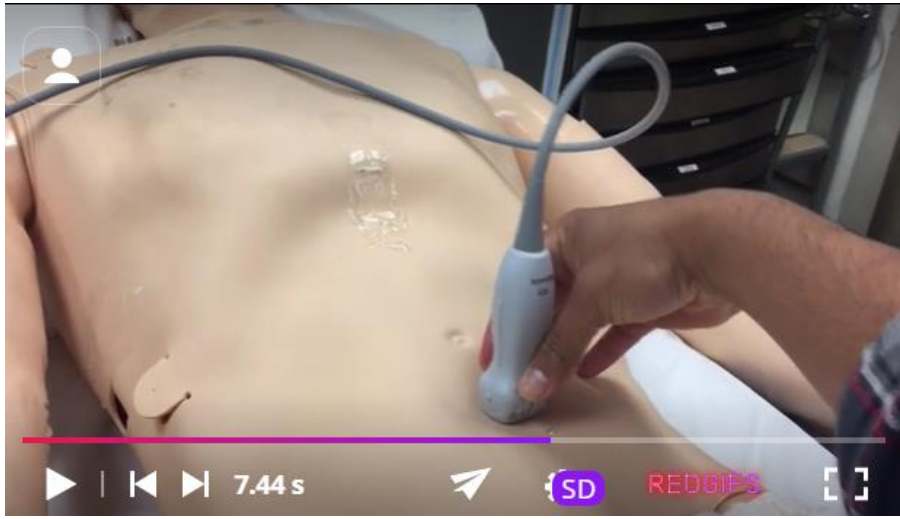
Positive intraperitoneal fluid LUQ view
(note prominent subdiaphragmatic fluid)

LUQ

Normal Pelvic/bladder view







Pelvic

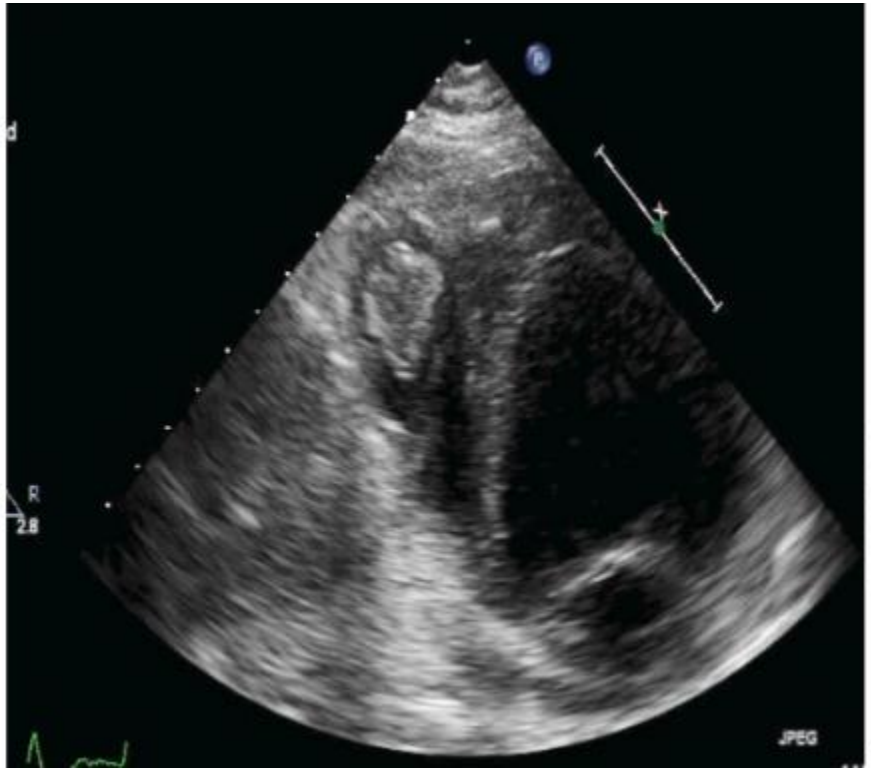
Positive intraperitoneal fluid pelvic view (longitudinal)

Thoracic (eFAST)

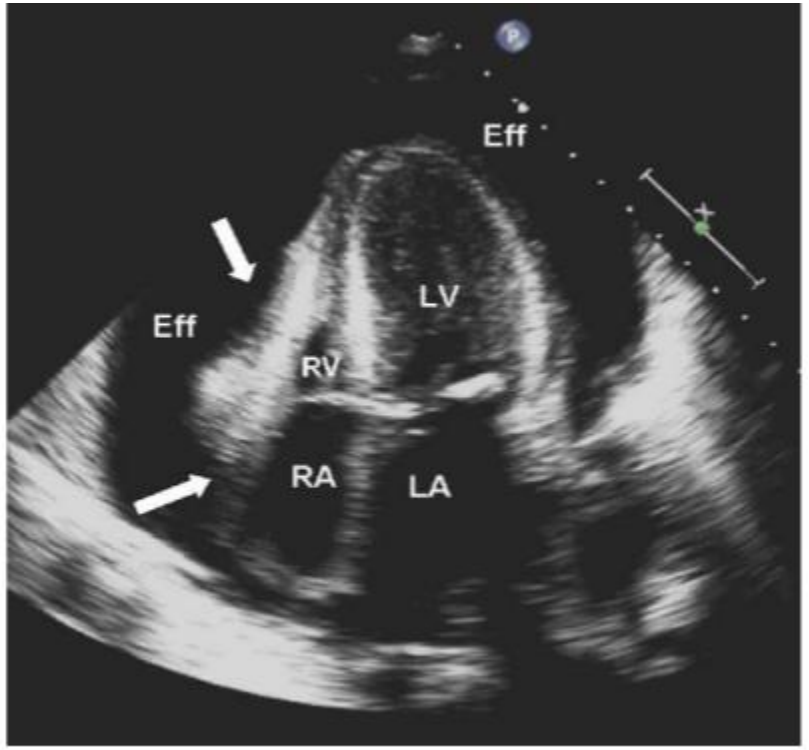
Cardiology/Surgery

Acute aortic dissection

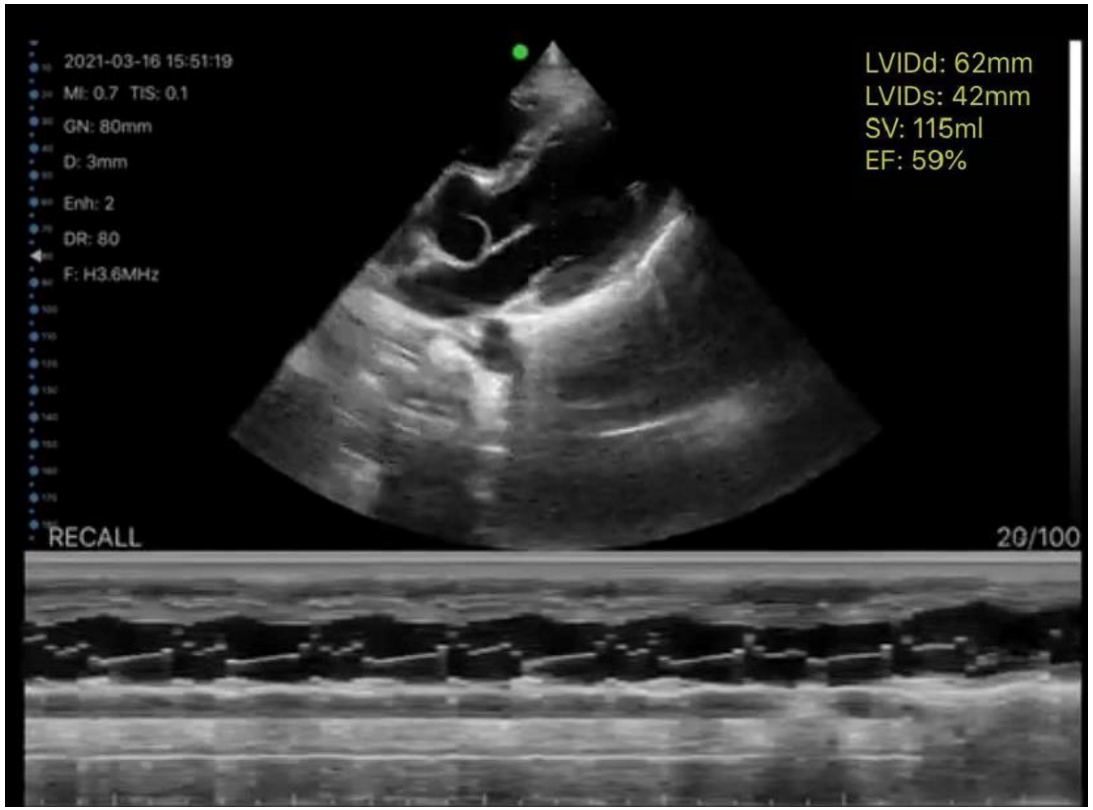
Pul embolism with RV thrombus

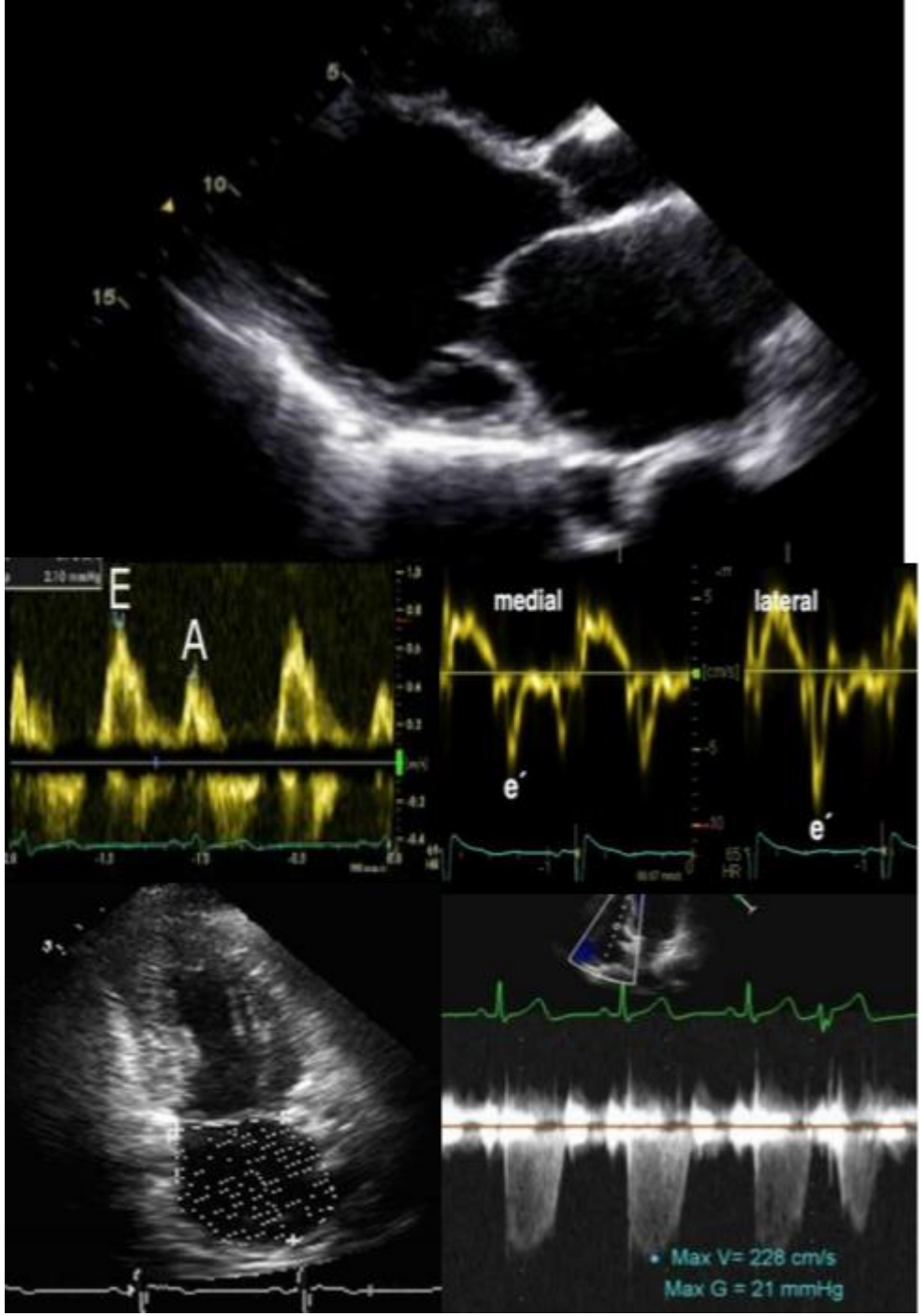


Pericarditis with tamponade

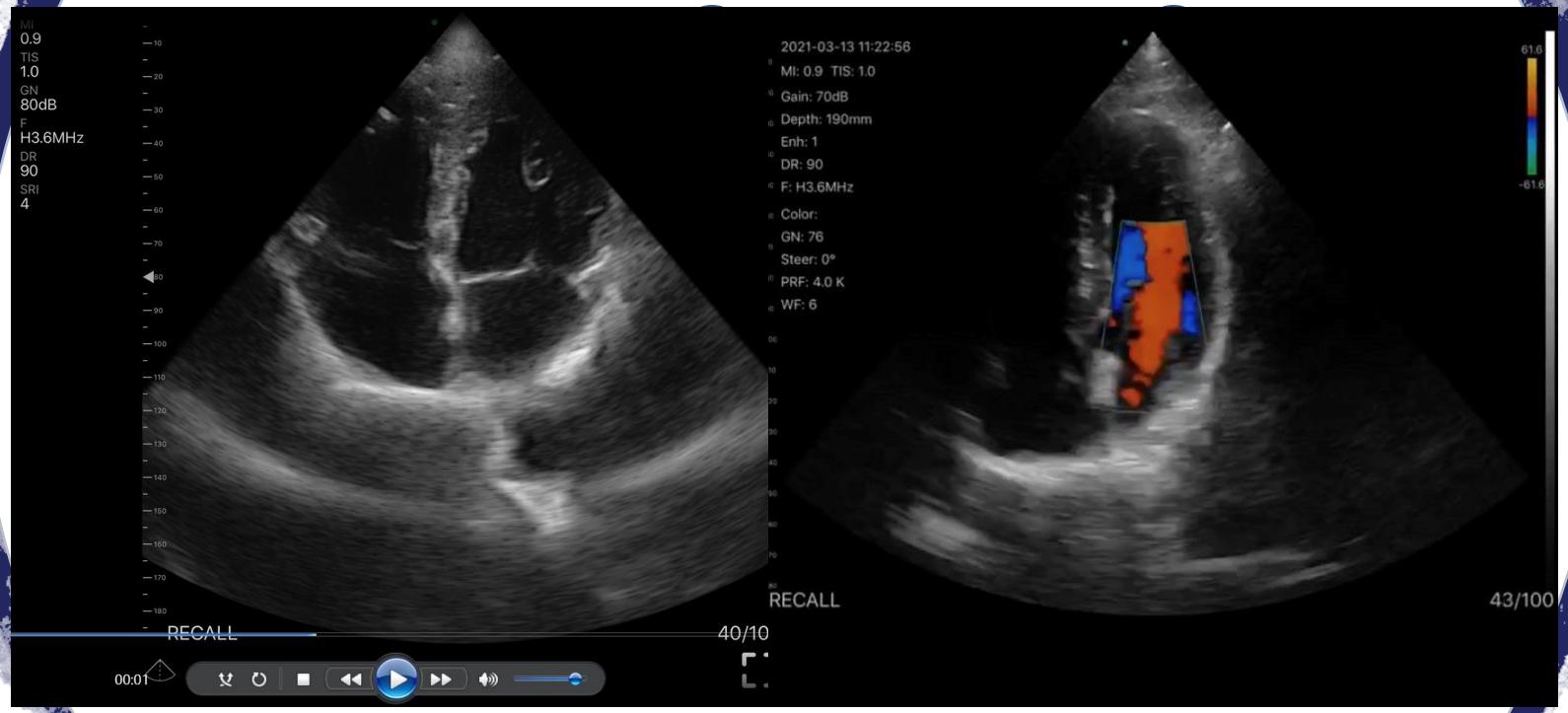


- Assessment of LV size and function in patients with suspected clinical diagnosis
- Assessment of Diastolic function
- A/E ratio
- E/e
- LA volume
- RVSP

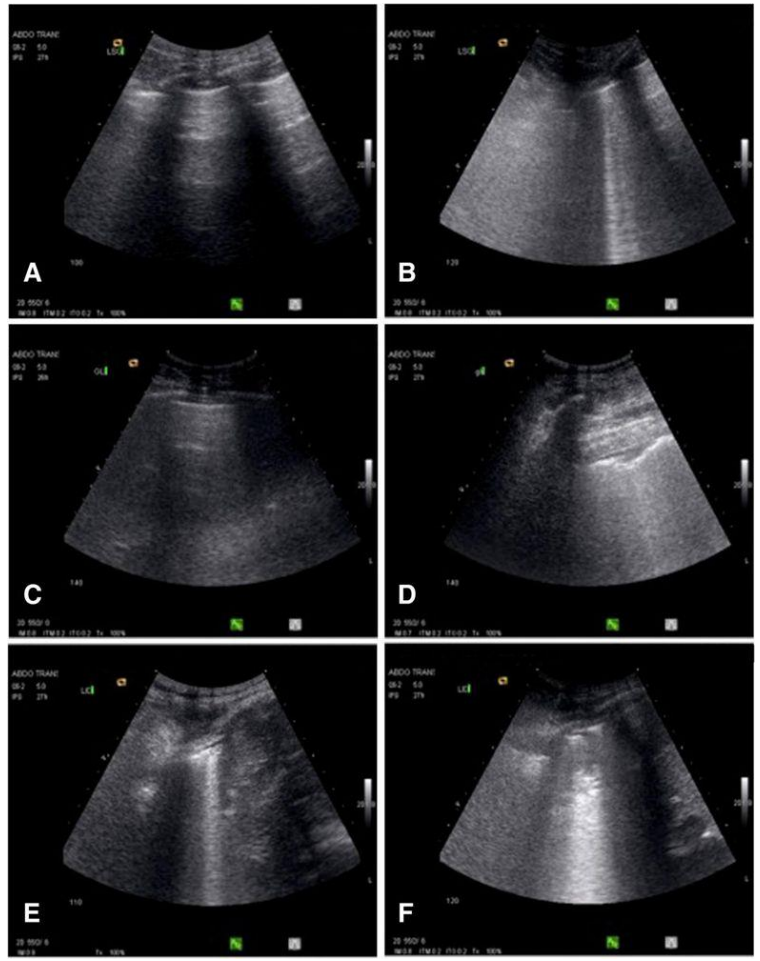




High performance cardiac application



Lung assessment



Future will be more powerful