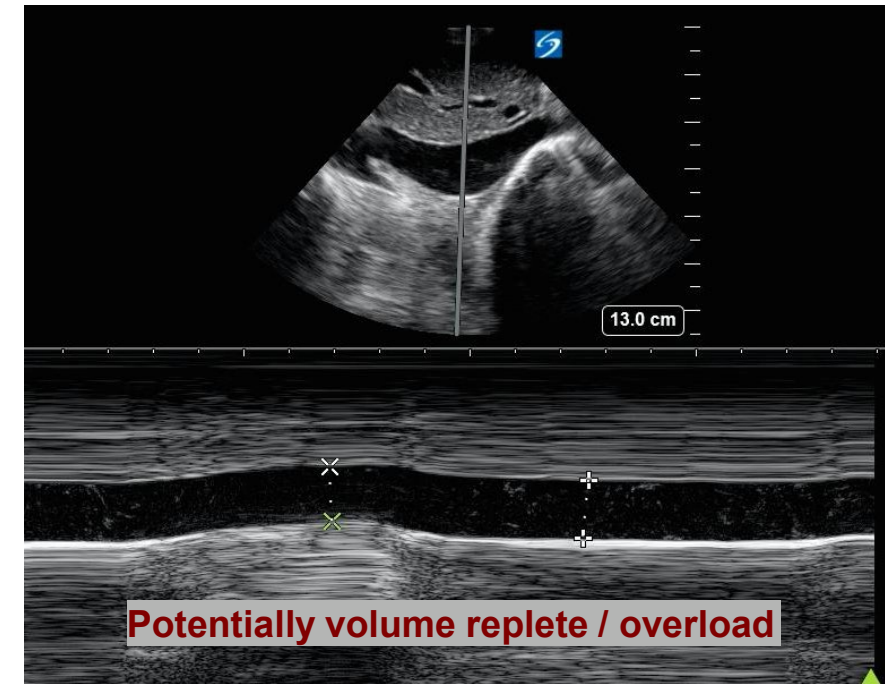
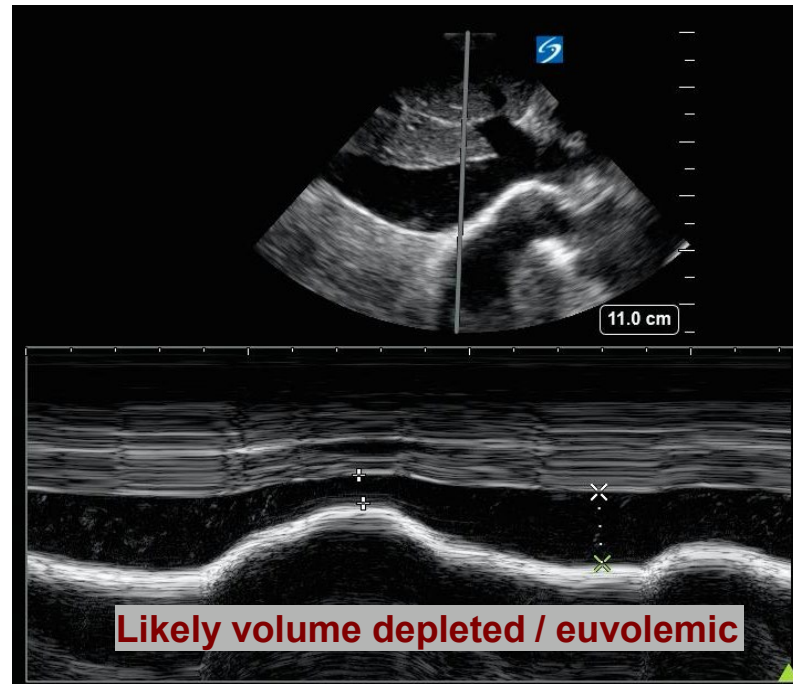


## Obtaining view

- The patient is placed flat on their back.
- Scan under the subxyphoid process until a standard 4 chamber view is obtained.
- From the subcostal 4 chamber, visualize the right atrium and turn the probe from the 9 o'clock position to the 12 o'clock position
- This view is used to assess RA pressures based on inspiratory collapse or distention of the IVC.
- Note the change in IVC diameter with respiration.
- Measure diameter change 2cm from RA-IVC junction, measure minimum and maximum.
- In spontaneously breathing patients, IVC collapse with inhalation is surrogate for CVP.
- In mechanically ventilated patients, IVC distention with inhalation is a surrogate for venous capacitance.
- Calculated by:  $IVC (\%) \text{ change} = \frac{IVCD_{max} - IVCD_{min}}{IVCD_{max}} \times 100$
- The most common error in IVC assessment is failure to identify a slit-like IVC.



Spontaneously breathing			
IVC (max) Diameter	% Collapse	IVC Shape	Volume Status
< 10 mm	> 75%	Slit, flat	Likely depleted
10 to 25 mm	0-100	Football	Unclear
> 25 mm	< 25%	Plethoric	Replete / overloaded

Mechanically ventilated			
IVC (max) Diameter	% Distention	IVC Shape	Volume Status
< 15 mm	> 20%	Varied	Likely depleted
15 to 25 mm	0-100	Football	Unclear
> 25 mm	< 10%	Plethoric	Replete / overloaded