IVC Assessment for Fluid Responsiveness

1. Position the patient supine.
2. Obtain a subxyphoid view of the heart.
   *The ultrasound indicator should be directed toward the patient’s left flank.*
3. Once you have identified the right atrium, turn the ultrasound probe 90 degrees counterclockwise.
   *The indicator should now be directed toward the patient’s head.*
4. Identify the IVC as it enters the right atrium.
5. Put the ultrasound into M-mode.
6. Place the M-mode cursor cross the IVC approximately 2 cm inferior to the junction with the RA.

7. In spontaneously breathing patients, the following measurements suggest a patient is likely to be fluid responsive:
   a. IVC measuring < 2 cm in diameter coupled with IVC collapse
      > 50% with each breath or
   b. IVC collapsibility > 12%
      \[
      \text{IVC collapsibility} = \frac{\text{max diameter} - \text{min diameter}}{\text{mean diameter}} \times 100
      \]
8. In mechanically ventilated patients who are passive on the vent, fluid responsiveness is likely if the IVC distensibility > 18%.
   \[
   \text{IVC distensibility} = \frac{\text{max diameter} - \text{min diameter}}{\text{min diameter}} \times 100
   \]