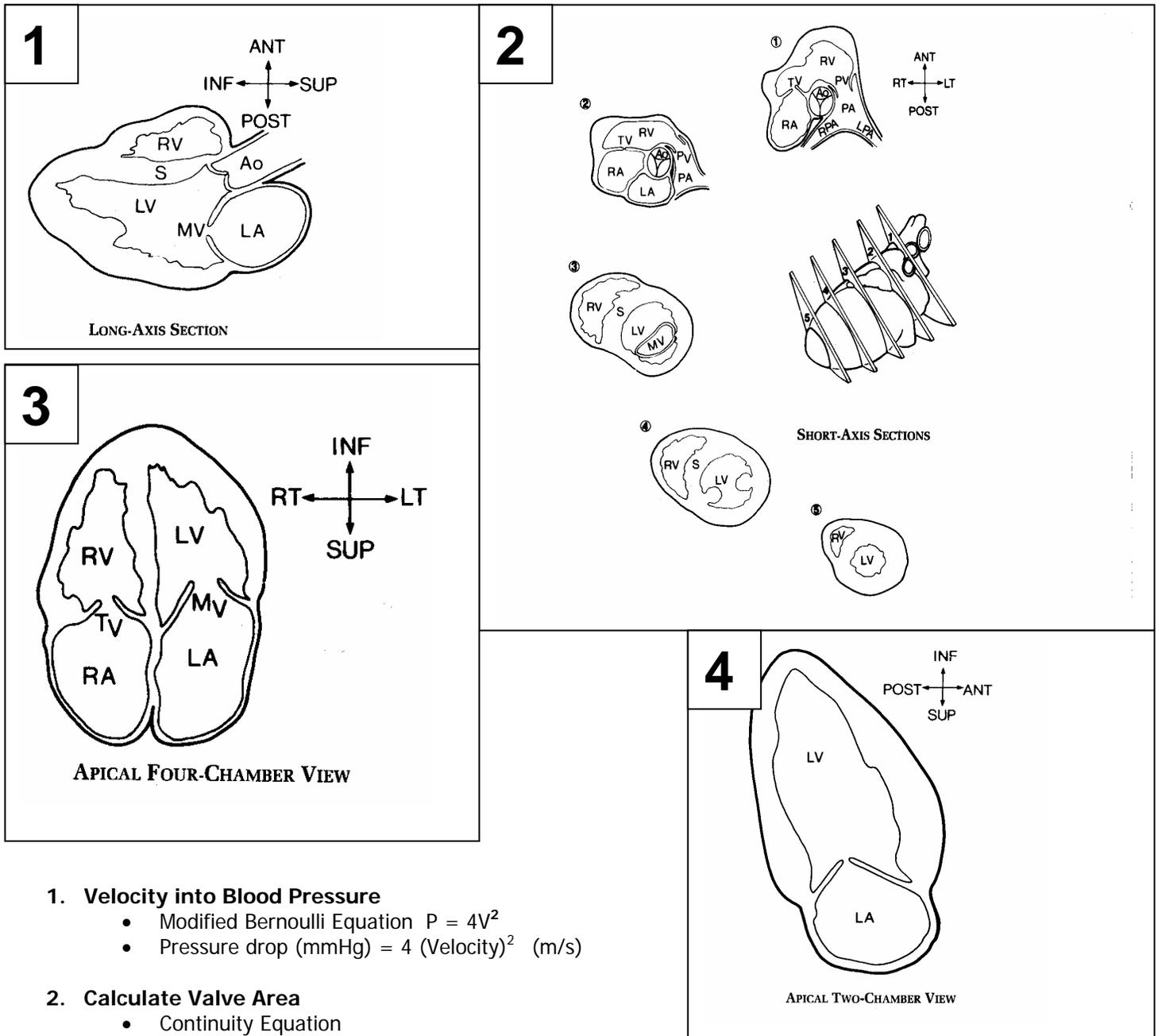


15. Echocardiogram



1. Velocity into Blood Pressure

- Modified Bernoulli Equation $P = 4V^2$
- Pressure drop (mmHg) = 4 (Velocity)² (m/s)

2. Calculate Valve Area

- Continuity Equation
- Area x Velocity = Area x Velocity
- Aortic Valve Area = $\frac{\text{LVOT Area} \times \text{LVOT Velocity}}{\text{Aortic Velocity}}$

3. Color Doppler

- Red- Towards Transducer
- Blue- Away from Transducer
- Green- Turbulance

4. Left Ventricular EF % (Teich)

- $EF = 1 - \left[\frac{(LVd)^3 - (LVs)^3}{(LVd)^3} \right]$

