University of Florida Critical Care Medicine Ultrasound Curriculum (Basic Echocardiogram competencies)


- Echocardiographic patterns: parasternal long, parasternal short, apical, subcostal
- Global LV size and systolic function
- Homogeneous/heterogeneous LV contraction pattern
- Global RV size and systolic function
- Assessment for pericardial fluid/tamponade
- IVC size and respiratory variation
- Basic color Doppler assessment for severe valvular regurgitation (as screening method only)
- Severe hypovolemia: small, hyperdynamic ventricles; small IVC with wide respiratory variations
- LV failure: Global LV systolic dysfunction; heterogeneous contractility pattern suggest of myocardial ischemia; LV cavity dilation suggestive of chronic cardiac disease
- RV failure: Acute cor pulmonale: RV dilatation and paradoxical septal motion; isolated RV dilation suggestive of RV infarct; associated findings of dilated, no collapsible IVC
- Tamponade: Pericardial effusion (regardless of size); right atrial/RV diastolic collapse; associated findings of dilated, no collapsible IVC
- Acute massive left sided valvular regurgitation: normal LV cavity size (acute valvulopathy); normal/hyperdynamic LV systolic function (LV volume overload); massive color Doppler regurgitant flow
- Circulatory arrest during resuscitation: tamponade or acute cor pulmonale (from massive pulmonary embolism); LV systolic function (cardiac standstill vs severely depressed vs hypderdynamic); global LV systolic dysfunction
- After successful resuscitation: heterogeneous contractility pattern suggestive of myocardial ischemia