My Patient Is Hypotensive... Now What Do I Do?

1) Think about cause (and treat immediately reversible ones)

- Warm skin
- Wide pulse pressure
- Low diastolic pressure

Hypotension

- Cool skin
- Narrow pulse pressure
- Low diastolic pressure

Distributive
- Septic (most common)
  - Meds/Sedation
  - Neurogenic
  - Anaphylaxis
  - Adrenal insufficiency

Low Cardiac Output
- Large IVC
- Distended neck veins

Hypovolemic
- Hemorrhage
- Third-spacing
- Fluid losses
- Over-diuresis

- Ultrasound, ECG
- Chest radiograph

Cardiogenic
- Cardiomyopathy
- Acute coronary syndrome
- Arrhythmia
- Acute valvular disease

Obstructive
- Pulmonary embolism
- Tension pneumothorax
- Cardiac tamponade

2) Assess for volume tolerance (additional volume will not hurt) and responsiveness (additional volume will improve the situation)

- Consider: comorbidities (e.g., heart failure, chronic kidney disease), severity of hypoxemia, cardiac function, volume status

- If volume tolerance and volume responsiveness are likely, move to Step 3 below

- If tolerance and responsiveness unlikely, skip to #4

- If uncertain:
  - Call for Help!
  - Use advanced tools if available (e.g., ultrasound, pulse pressure variation)

3) Give fluid bolus and reassess

- Give 500 mL Lactated Ringer’s IV and reassess

- Consider additional 500 mL boluses if blood pressure rises or urine output increases

- For patients with ARDS, limit initial resuscitation to 1-2L and be very judicious with additional fluids

4) Start norepinephrine

- Start at 0.02 mcg/kg/min; titrate to mean arterial pressure (MAP) > 65 mmHg or the patient’s typical baseline blood pressure