Denver Health Resuscitation Algorithm

Identify if the patient is in shock

Determine the type of shock

Assess the Patient
- History
- Vital signs
- Physical exam
- Labs
- Chest x-ray and eFAST

Assess Fluid Responsiveness
- Passive leg raise
- PPV / SVV
- Point of care ultrasound – IVC
- UOP / FENa
- Response to fluid challenge (500 mL)

Assess Cardiac Function
- Point of care ultrasound - chamber size
- Point of care ultrasound - wall motion
- Cardiac Output/Index from FloTrac if in use

Increase Preload (Volume)
- Restoration of circulating volume; no role for vasopressors or inotropes

Hypovolemic
- Hemorrhagic shock
- Dehydration
- Massive fluid loss (GI, burns)

Cardiogenic Shock
- Acute MI / valve failure
- Heart failure exacerbation
- Blunt cardiac injury

Support the heart (Improve contractility)
- IVF bolus if evaluation suggests fluid responsiveness
- Inotropes for decreased contractility*
- Rate optimization or cardioversion* when appropriate (Afib, SVT)
- Diuretics for extreme cases of volume overload
- Consider ECMO consult*
- with Chief/Fellow involvement

Support patient (Improve SVR)
- Crystalloid resuscitation
- Begin vasopressors when patient not fluid responsive
- If sepsis in differential:
  - Send cultures & lactate
  - Start antibiotics
  - Consider steroids if refractory shock

End Points:
- Normal hemodynamics
- Improved base deficit & lactate

Relieve the obstruction

Tension pneumothorax:
- Chest decompression / tube

Cardiac tamponade:
- IVF bolus
- Pericardiocentesis

Abdominal compartment syndrome:
- Surgical decompression vs. drain decompression

Pulmonary embolism:
- Consult to vascular center for thrombolytics or embolectomy

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