

### Sepsis



#### Definition:

≥2 criteria for systemic inflammatory response syndrome and suspected infection:

1. Temperature >100.4°F (38°C) or <96.8°F (36°C)
2. Heart rate >90 beats/min
3. Respiratory rate >20 breaths/min or  $Paco_2$  <32 mm Hg
4. White blood cell count >12,000/ $\mu$ L or <4,000/ $\mu$ L, or >10% bands

#### Start

1. **Establish team leader and call for HELP.**
2. **Check pulse and vital signs.**
  - If pulseless, initiate Advanced Cardiovascular Life Support.
3. **If hypoxic, start supplemental oxygen.**
4. **Obtain intravenous (IV) or intraosseous access.**
5. **Perform focused physical exam.**
  - Full body skin exam, including IV sites and lines
  - Mental status
  - Cardiac, pulmonary, and abdominal exams
6. **Perform focused history.**
  - AMPLE: allergies, medications, past medical history, last meal, recent events
  - Consider sending senior member for electronic chart review, including **prior culture data**
7. **Obtain diagnostic testing.**
  - Draw blood: venous blood gas, lactate, complete blood count, basic metabolic panel, liver function tests, coagulation
  - Cultures: 2 x blood cultures from 2 separate sites, sputum and urine cultures
  - Chest radiograph
  - Polymerase chain reaction for *Clostridium difficile* if diarrhea present
  - Lumbar puncture if meningitis suspected



#### Septic Shock

##### Immediate management:

Give broad spectrum antibiotics within 60 minutes

Consider 30 mL/kg IV crystalloid bolus

Consider vasopressors if patient hypotensive after initial fluids

##### Goal mean arterial pressure >65 mm Hg

- Initial vasopressor **norepinephrine** (8-12  $\mu$ g/min, titrate up to 32  $\mu$ g/min)
- Any vasopressor can be given through **secure** peripheral line if required
- Can consider **phenylephrine** push (100  $\mu$ g) to stabilize patient for transfer



#### Common inpatient infections

- Pneumonia
- Central or peripheral line infection
- Urinary tract infection
- *C. difficile*
- Wound infection
- Abdominal infections

Consider alternative or coexisting causes of shock