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 Paco₂ <32 mm Hg
4. White blood cell count >12,000/µL or <4,000/µL, or >10% bands

Immediate management:

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.
   - AMPLEx: 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:

1. Give broad spectrum antibiotics within 60 minutes
2. Consider 30 mL/kg IV crystalloid bolus
3. Consider vasopressors if patient hypotensive after initial fluids
4. Goal mean arterial pressure >65 mm Hg
   - Initial vasopressor norepinephrine (8-12 µg/min, titrate up to 32 µg/min)
   - Any vasopressor can be given through secure peripheral line if required
   - Can consider phenylephrine push (100 µg) 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