SIRS Protocol

**SIRS + Suspected Infection**

**Concern for sepsis**
(i.e. markers of end-organ dysfunction)

**COMPLETE within 3 Hours**

**Check lactate**

**Infection Control**
- Blood culture x 2 – percutaneous and each vascular access device
- Consider urine, sputum, abscess culture & LP if indicated
- Appropriate broad spectrum antimicrobials (goal within 1 hour)
- Administer gram negative coverage first
- Source control: early surgical consult if indicated

**Resuscitate**

Volume Administration:
- 30 cc/kg IBW bolus of IV crystalloid
- If MAP < 50 mmHg, consider starting vasopressors simultaneously (see below)

Then:
- Assess and document fluid responsiveness

**MAP > 65 after volume administration?**

**YES**
- If initial lactate ≥ 2 repeat lactate within 6 hours of presentation

**NO**
- Place central line, repeat lactate, continue to reassess and document fluid responsiveness

**MAP Goal > 65**

- Initiate vasopressors to target MAP > 65 mm Hg
- Place arterial line
- Start norepinephrine at 2 mcg/min IV
  - Increase by 1 mcg/min every 2 minutes until MAP > 65
- Once at norepinephrine of 10 mcg/min, consider adding:
  - Vasopressin 0.04 units/min
- **AND/OR**
  - Epinephrine 1 mcg/min:
    - Increase by 1 mcg/min every 5 min until MAP > 65
  - Consider dobutamine 5 mcg/kg/min if concern for inadequate inotropy (i.e. by qualitative ECHO or low CO/CI)
    - Increase by 1 mcg/kg/min every 10 min until MAP > 65
  - Consider hydrocortisone (100 mg IV q12h) if on chronic steroids or known adrenal suppression

- Admit to ICU

**SIRS Criteria (2 of 4)**
- Temp > 38°C or < 36°C
- HR > 90 BPM
- RR > 20 or PaCO2 < 32
- WBC > 12, < 4, or > 10% bands

**qSOFA Criteria (2 of 3)**
- SBP ≤ 100 mmHg
- Altered mental status (GCS <15)
- Respiratory rate ≥ 22

**Markers of End-Organ Dysfunction**
- qSOFA ≥ 2
- Lactate ≥ 4
- SBP < 90, MAP < 70 mmHg
- Cr > 2.0
- Bilirubin > 2.0
- Platelets < 100k
- INR > 1.5
- AMS

**Assessing Fluid Responsiveness**

Consider 500 mL volume challenge if:
- ECHO: hyperdynamic LV and/or small collapsed IVC
- NICOM: CO or CI increases by > 10% with passive leg raise or volume challenge or SVV > 13%
- Pulse pressure variation > 12% (in intubated patients with machine-delivered breaths)

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**Mechanical Ventilation**
- Vt 6-8 cc/kg
- Plateau pressure ≤ 30 cm H2O
- HOB 30-45°
- Obtain ABG 30 min post-intubation
- Wean FIO2 to SpO2 > 92%

**Glucose Control**
- Target glucose 110-180 mg/dL
- Consider starting insulin drip if > 180