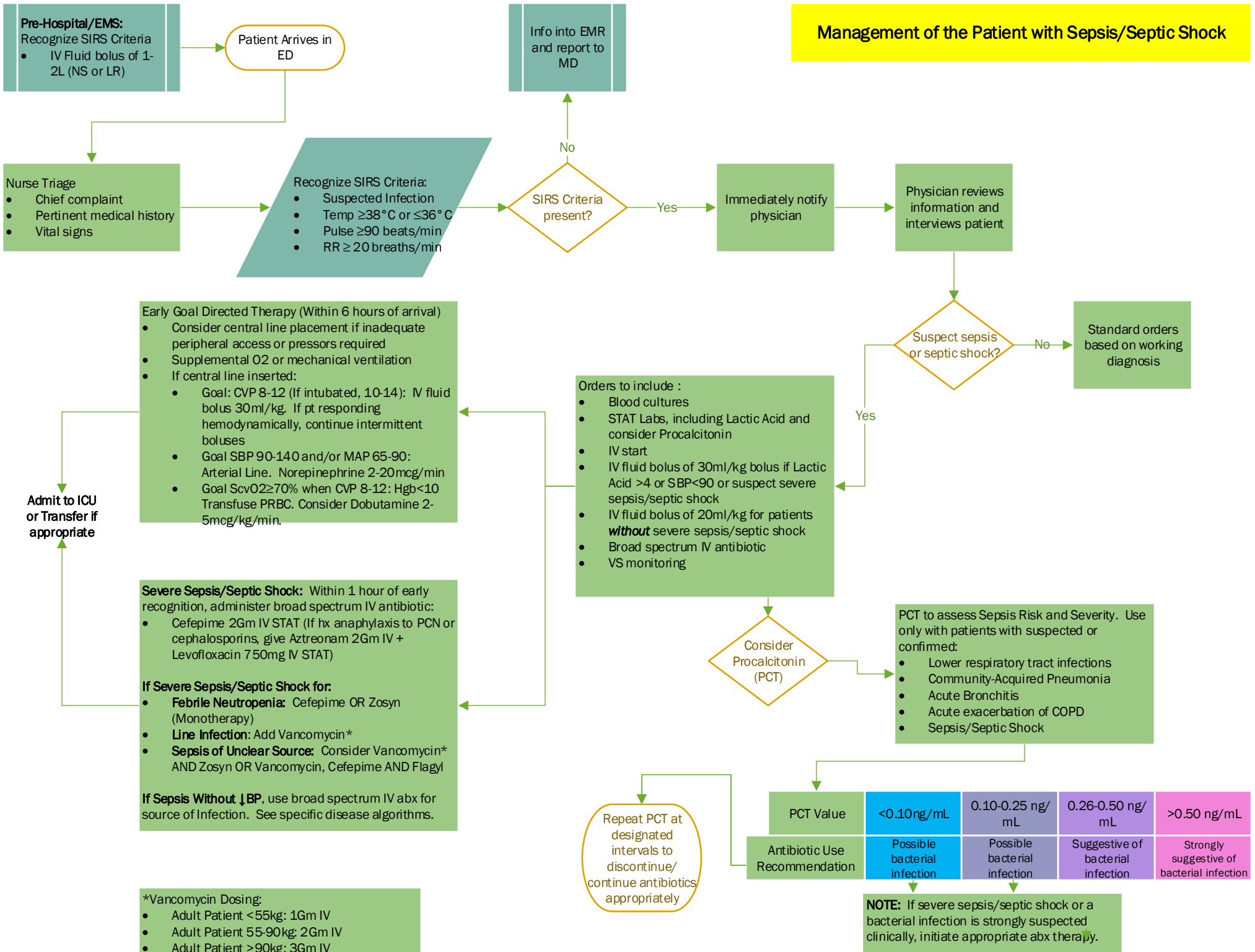


# Management of the Patient with Sepsis/Septic Shock



**Pre-Hospital/EMS:**  
Recognize SIRS Criteria

- IV Fluid bolus of 1-2L (NS or LR)

Patient Arrives in ED

**Nurse Triage**

- Chief complaint
- Pertinent medical history
- Vital signs

**Recognize SIRS Criteria:**

- Suspected Infection
- Temp  $\geq 38^{\circ}\text{C}$  or  $\leq 36^{\circ}\text{C}$
- Pulse  $\geq 90$  beats/min
- RR  $\geq 20$  breaths/min

Info into EMR and report to MD

SIRS Criteria present?

Immediately notify physician

Physician reviews information and interviews patient

Suspect sepsis or septic shock?

Standard orders based on working diagnosis

**Orders to include :**

- Blood cultures
- STAT Labs, including Lactic Acid and consider Procalcitonin
- IV start
- IV fluid bolus of 30ml/kg bolus if Lactic Acid  $>4$  or SBP $<90$  or suspect severe sepsis/septic shock
- IV fluid bolus of 20ml/kg for patients **without** severe sepsis/septic shock
- Broad spectrum IV antibiotic
- VS monitoring

Consider Procalcitonin (PCT)

**PCT to assess Sepsis Risk and Severity. Use only with patients with suspected or confirmed:**

- Lower respiratory tract infections
- Community-Acquired Pneumonia
- Acute Bronchitis
- Acute exacerbation of COPD
- Sepsis/Septic Shock

PCT Value	<0.10ng/mL	0.10-0.25 ng/mL	0.26-0.50 ng/mL	>0.50 ng/mL
Antibiotic Use Recommendation	Possible bacterial infection	Possible bacterial infection	Suggestive of bacterial infection	Strongly suggestive of bacterial infection

**NOTE:** If severe sepsis/septic shock or a bacterial infection is strongly suspected clinically, initiate appropriate abx therapy.

Repeat PCT at designated intervals to discontinue/continue antibiotics appropriately

**Early Goal Directed Therapy (Within 6 hours of arrival)**

- Consider central line placement if inadequate peripheral access or pressors required
- Supplemental O2 or mechanical ventilation
- If central line inserted:
  - Goal: CVP 8-12 (If intubated, 10-14): IV fluid bolus 30ml/kg. If pt responding hemodynamically, continue intermittent boluses
  - Goal SBP 90-140 and/or MAP 65-90: Arterial Line. Norepinephrine 2-20mcg/min
  - Goal ScvO2  $\geq 70\%$  when CVP 8-12: Hgb  $<10$  Transfuse PRBC. Consider Dobutamine 2-5mcg/kg/min.

**Severe Sepsis/Septic Shock:** Within 1 hour of early recognition, administer broad spectrum IV antibiotic:

- Cefepime 2Gm IV STAT (If hx anaphylaxis to PCN or cephalosporins, give Aztreonam 2Gm IV + Levofloxacin 750mg IV STAT)

**If Severe Sepsis/Septic Shock for:**

- **Febrile Neutropenia:** Cefepime OR Zosyn (Monotherapy)
- **Line Infection:** Add Vancomycin\*
- **Sepsis of Unclear Source:** Consider Vancomycin\* AND Zosyn OR Vancomycin, Cefepime AND Flagyl

**If Sepsis Without ↓BP,** use broad spectrum IV abx for source of Infection. See specific disease algorithms.

**\*Vancomycin Dosing:**

- Adult Patient  $<55\text{kg}$ : 1Gm IV
- Adult Patient  $55-90\text{kg}$ : 2Gm IV
- Adult Patient  $>90\text{kg}$ : 3Gm IV

Admit to ICU or Transfer if appropriate