

## Sepsis: Septic Shock

- ABCs
- Oxygen 100%

Identify the septic patient

Early antibiotics ①

Suspect Sepsis when the following exist:

1. Suspected Infection
2. At least TWO or more of the following
  - a). Temperature  $> 38^{\circ}\text{C}$  or  $< 36^{\circ}\text{C}$
  - b). Heart rate  $> 90$  /min
  - c). Respiratory rate  $> 20$  /min or  $\text{PaCO}_2 < 32$
  - d). WBC  $> 12$  or  $< 4$  or  $> 10\%$  bands (immature cells)
- AND
3. Hypoperfusion, as evidenced by serum lactate  $> 4$  or Hypotension (SBP  $< 90$  mmHG) following fluid challenges

Lactate  $> 4$  ?

No

Yes

MAP  $< 65$  ?

No

Yes

CVP  $< 8-12$  ?

No

Yes

Hematocrit  $< 25\%$  ?

No

Yes

Fluid bolus: 30 ml/kg over 20-30 min.

May repeat bolus as needed ②

MAP  $< 65$  ?

No

Yes

**Norepinephrine 2-12 mcg/min IV** ③

Transfuse ④

- Monitor Blood Sugar
- Protective lung ventilation

### Antibiotic Recommendations:

- \*Sepsis: Site unknown: **Vancomycin 15 mg/kg IVPB over 1 hr.**
- \*Pneumonia: **Ceftriaxone (Rocephin) 1 gm over 30 minutes**  
**Vancomycin 15 mg/kg IVPB over 1 hr.**
- \*Bloodstream: **Vancomycin 15 mg/kg IVPB over 1 hr.**
- \*Necrotizing Skin and Soft Tissue Infection (MRSA) :  
**Vancomycin 15 mg/kg IVPB**
- \*Intra-abdominal: **Piperacillin-tazobactam (zosyn) 4.5 gm IVPB**
- \*Urinary: **Piperacillin-tazobactam (zosyn) 4.5 gm IVPB or**  
**Ceftriaxone ( Rocephin ) 1 gm.**

1. Consult with receiving or sending physician regarding use or choice of antibiotics.

2. Fluid resuscitation endpoints: MAP  $> 70$ , Heartrate  $< 110$ . Monitor for pulmonary edema.

3. **Norepinephrine** is the preferred vasopressor, adding or substituting **Epinephrine** when additional drug is needed.

**Dopamine** may be used in patients at very low risk of arrhythmias and with a low cardiac output or low heartrate.

**Vasopressin 0.03 units/min.** may be added to raise MAP to target or to decrease **norepinephrine** dose but should not be used as the initial vasopressor.

4. Transfuse blood if the patient's hematocrit is 25 or less or hemoglobin is less than 7 -9 g/dl.