

SEPSIS: The presence or presumed presence of infection

PLUS, 2 or more of the following:

Systemic Inflammatory Response Syndrome (SIRS)

Criteria:

- 1) Temp > 38.0° C (100.3° F) or < 36° C (96.8° F)
- 2) HR > 90
- 3) Respiratory Rate > 20 or PaCO₂ < 32
- 4) WBC > 12,000 or < 4,000

AND

SEVERE SEPSIS: Sepsis with ≥ 1 organ system dysfunction

- Hypoperfusion with Lactic Acidosis (Lactate ≥ 2.1 mmol/L)
- Altered Mental Status
- Acute respiratory, renal, cardiac or liver failure
- New-onset coagulopathy or thrombocytopenia

SEPTIC SHOCK:

Sepsis with MAP < 65 or SBP < 90mmHg, unresponsive to a crystalloid bolus of 20 - 40 ml/kg IV

1) **Admit status:** Inpatient

2) **Admit to Dr.** _____

3) **Allergies** _____

4) **Consultants**

Dr. _____ for _____

Dr. _____ for _____

5) **Continuous pulse oximetry and telemetry**

6) **Vital Signs:** Temperature Q4 hours; pulse, respiratory rate and blood pressure q15 minutes until MAP > 65 X 4, then Q 1 hour if receiving vasopressors, then per ICU protocol

7) **Insert Foley catheter to gravity, if necessary.** Call Physician for urine output < 0.5 ml/kg/hour over 4 hour period

8) **Oxygenation/Ventilation**

Oxygen per protocol.

For patient on CPAP, BIPAP or mechanical ventilation, use Respiratory Failure Orders form # 9021

9) **LABS (STAT if not performed in the Emergency Department)**

Venous lactate now and Q 3 hours x 3

Blood culture X 2, prior to antibiotic

ABG

UA/C&S, prior to antibiotic

Sputum culture prior to antibiotic

CBC: and Tomorrow AM or Daily

BMP: and Tomorrow AM or Daily

INR & PTT: and Tomorrow AM or Daily

Magnesium: Now or in AM

Phosphorus: Now or in AM

CK & Troponin Q 6 hours x 3 Type and Screen BNP

Other _____

10) **TESTS:**

12-Lead EKG STAT if not done in Emergency Department In AM

PA/Lateral CXR STAT if not done in Emergency Department In AM

Portable CXR STAT if not done in Emergency Department In AM

Other _____



10) **STAT Antibiotics** - begin after cultures are obtained (Check appropriate boxes below)
Pharmacist to contact physician for dose adjustment recommendations (give full loading dose for first dose)

Suggested Empiric Therapy = one from column A + one from column B (review culture/sensitivities daily)

Column A (Gram negative coverage)	Column B (Gram positive coverage)	Column C (add for suspected pseudomonas)
<input type="checkbox"/> Piperacillin/tazobactam 3.375g IV q6hr (other source)	<input type="checkbox"/> Vancomycin 15mg/kg IV q12hr (round to the nearest 250mg) <input type="checkbox"/> Pharmacy to dose	<input type="checkbox"/> Levofloxacin 750mg IV q24hr
<input type="checkbox"/> Piperacillin/tazobactam 4.5g IV q6hr (health-care associated pneumonia)	<input type="checkbox"/> Daptomycin 6mg/kg IV q24hr (round to the nearest 100mg), (not for pneumonia)	<input type="checkbox"/> Ciprofloxacin 400mg IV q12hr (not for strep pneumonia)
<input type="checkbox"/> Meropenem 1g IV q8hr	<input type="checkbox"/> Linezolid 600mg IV q12hr (bacteriostatic vs. S. aureus)	<input type="checkbox"/> Tobramycin _____
<input type="checkbox"/> Ceftazidime 2g IV q8hr		<input type="checkbox"/> Pharmacy to dose

11) **IV Fluids:**

For MAP < 65 and/or lactate > 2.1 mmol/L: Deliver an initial minimum bolus of 20 ml/kg of 0.9% NaCl

If no bolus given or after bolus provided, continue IV fluids:

0.9% NaCl at _____ ml/hr, add _____ mEq KCl/Liter

0.45% NaCl at _____ ml/hr, add _____ mEq KCl/Liter

D5 0.45% NaCl at _____ ml/hr, add _____ mEq KCl/Liter

12) **Central Venous Pressure (CVP) Monitoring:**

Measure CVP after each fluid bolus, q4 hours, and prn change in patient status

Note: --For patient on oxygen support or room air: CVP Goal 8-12 mmHg

--For patient on positive pressure ventilation: CVP Goal 12-15 mmHg

For persistent hypotension, despite fluid resuscitation:

If CVP < 8, 0.9% NaCl bolus 500 ml IV over 30 minutes

May repeat X 2 if needed to achieve CVP ≥ 8. Call Physician if CVP does not respond to 3 boluses.

0.9% NaCl 500 ml for Central Venous Pressure monitoring system. Change Q 24 hours.

13) **Vasopressor Therapy:**

If MAP < 65 despite CVP of 8-12,

Norepinephrine infusion, initiate at 2 mcg/min IV and titrate up to 20 mcg/min to maintain MAP > 65

If Norepinephrine ineffective:

Add **Vasopressin** drip at 0.04 units/min and notify physician.

If above infusions ineffective, notify physician and add **Phenylephrine** with a brief initial infusion of _____ (100-180 mcg/min), until MAP > 65 and stable, and then titrate to _____ (40-60 mcg/min) to keep MAP > 65.

14) **ScvO2 Monitoring:**

If ScvO2 < 70% after MAP of 65 is achieved **and** Hemoglobin < 7, call physician for possible transfusion orders.

If ScvO2 < 70% after MAP of 65 achieved **and** Hemoglobin ≥ 9, add **DOBUtamine** infusion at 5 mcg/kg/min. Titrate to maximum dose of 20 mcg/kg/min to achieve ScvO2 of 70% or greater

Measure ScvO2 after adjustments to DOBUtamine, after a transfusion, q4hours, and prn. (Goal: ScvO2 ≥ 70%)

Nursing to calibrate Vigileo upon insertion and Q 24 hours.

Enter RT order for venous blood gas Q AM while Vigileo in use.



15) Corticosteroid Therapy

(If MAP <65 despite fluid bolus and vasopressor therapy)

Hydrocortisone 100 mg IV STAT, and Q8 hours X 5 days

16) Activated Protein C (Xigris)

Refer to protocol (Form 9102)

17) Glucose Management:

ACCUCHECKS: AC and HS Q 6 Hours

Insulin per sliding scale protocol (Form 9225, Adult Diabetes Insulin Order)

Insulin Drip Protocol (Form 9219, ICU Adult Insulin Infusion)

18) GI Bleeding Prophylaxis: (circle IV or PO route)

Patient is NOT routinely on a PPI: Famotidine (Pepcid) 20 mg IV or PO q12 hours

Patient IS routinely taking PPI: Pantoprazole (Protonix) 40 mg IV or PO q day

19) DVT Prophylaxis

Per DVT screening recommendations

Enoxaparin (Lovenox) 40mg sq q24h (pharmacy to adjust for CrCl<30 and upon transfer out of ICU)

[Precaution: do not use if co-administration of Drotrecogin Alfa (Xigris)]

20) Activity: Bedrest, progress as tolerated.

21) Diet:

NPO Other _____

Clear liquids, advance as tolerated to _____

Enteral feeding (use form 9209)- Oxepa is the preferred formula

Registered Dietitian consult to make recommendations

Registered Dietitian order enteral feedings

Parenteral Nutrition (use form 9210)

22) Enter suspected infection report (SIR) through Infection Control (IC)

23) Call Orders:

Temp _____

MAP < 65

If ScvO₂ < 70% after MAP of 65 is achieved **and** Hemoglobin < 7

If Norepinephrine ineffective, and need to add Vasopressin & Phenylephrine

CVP < 8 despite 3 0.9% NaCl boluses

Urine output less than 0.5 ml/kg/hour over 4 hour period

Serially increasing lactate value, and any lactate > 2.1 mmol/L

Nursing concerns

Other _____

24) Other orders and tests

_____ date _____ time _____
ED Physician

_____ date _____ time _____
Admitting Physician

