### ADULT SEPSIS ORDER SET

**Allergies:**   
- [ ] NKDA   
- [ ] List/Reaction: __________  
- [ ] Height _________  
- [ ] Weight __________

- [ ] Admit to inpatient status (I certify that inpatient services are medically necessary)
- [ ] Place in outpatient status
- [ ] Place in outpatient status and begin observation services

- [ ] PCU Admission   
- [ ] ICU Admission   
- [ ] Initiate ICU Admission Order Set

**SIRS (Systemic Inflammatory Response Syndrome)**
- [ ] Temperature > 38 or < 36 degree Centigrade ( > 100.4 or < 96.8 Fahrenheit)
- [ ] Heart rate above 90 beats per minute
- [ ] Respiratory rate > 20 or PaCO2 less than 32 mmHg
- [ ] WBC above 12,000/mm3, less than 4,000/mm3 or 10% Immature (Band) Forms

**SEPSIS**
- [ ] 2 of the 4 SIRS criteria plus a suspected or confirmed source of infection

**SEVERE SEPSIS (Sepsis and one or more organ dysfunction not considered chronic for the patient)**
- [ ] SBP < 90 mmHg or MAP < 65 mmHg (Sepsis induced hypotension)
- [ ] Lactic acid greater than the upper limits of normal laboratory results
- [ ] Urine output < 0.5mL/kg per hour for > 5 hours despite adequate fluid resuscitation or Creatinine > 2
- [ ] Bilirubin > 2 mg/dL
- [ ] Platelet count < 100,000
- [ ] Coagulopathy (INR > 1.5)
- [ ] Acute lung injury with PaO2/FiO2 < 250 in the absence of pneumonia as the infectious source
- [ ] Acute lung injury with PaO2/FiO2 < 200 in the presence of pneumonia as the infectious source

**SEPTIC SHOCK**
- [ ] Patient in severe sepsis and despite adequate fluid therapy patient is hypotensive, or lactate concentration ≥ 4

**ADMITTING DIAGNOSIS/SUSPECTED SOURCE**
- [ ] SIRS   
- [ ] Sepsis   
- [ ] Severe Sepsis   
- [ ] Septic Shock

- [ ] Pneumonia, empyema   
- [ ] Endocarditis   
- [ ] Skin/soft tissue infection
- [ ] Implanted device infection   
- [ ] Urinary tract infection   
- [ ] Meningitis
- [ ] Bone/joint infection   
- [ ] Wound infection
- [ ] Acute abdominal infection   
- [ ] Bloodstream catheter infection
- [ ] Unclear source   
- [ ] Other ________________________

- [ ] Other Diagnosis: ________________________
- [ ] Admit to Dr(s) ________________________ and add to physician’s admission list
- [ ] Other ________________________

**CONSULTS**
- [ ] Call house officer
- [ ] Dr(s) ________________________, add to consult list and call [ ] Stat or [ ] Routine; Time/date contacted ________________________
- [ ] Dr(s) ________________________, add to consult list and call [ ] Stat or [ ] Routine; Time/date contacted ________________________

**LABS AND TESTS: SEND STAT IF NOT YET DONE**
- [ ] MRSA nasal screen per protocol   
- [ ] Lactic Acid   
- [ ] Lactic Acid q6h X 24 hours, Notify physician if level is <4
- [ ] CPK   
- [ ] CKM   
- [ ] Troponin
- [ ] Other ________________________
- [ ] Blood Culture X 2 before antibiotics   
- [ ] CMP   
- [ ] PT/PTT/INR
- [ ] Sputum culture and gram stain   
- [ ] Chest X-Ray, Portable
- [ ] Other Cultures: ________________________   
- [ ] CBC With differential
- [ ] Urinalysis: UA   
- [ ] Venous blood gas q1h X 6 (if Presep catheter not utilized
- [ ] Serum Cortisol   
- [ ] C reactive protein
- [ ] ABG on room air   
- [ ] CT of _________________ Indication ________________________
- [ ] Urine Culture

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Verbal orders must be read back and verified.

_______________________  
Physician’s Signature

_______________________  
Date

_______________________  
Time

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SPGH *POS*   
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Patient Identification / Label
**IV LINES AND MONITORING**

A "Central Line" order set must be completed for all central line insertions
- Central Line not placed: see documentation
- Place arterial line when pressors are started, **If unable to place intra-arterial catheter after 3 attempts contact primary physician**
- Consent for Central Line for PreSep Technology
- Monitor ScvO2 continuously and Monitor CVP continuously
- For all Central line other than Presep: Monitor CVP continuously
- Other:

**FOR HYPOTENSION (PCU)**

IF SBP less than 90 mmHg or 40 mmHg less than normal or MAP less than 65 mmHg give a saline bolus
- Saline bolus (20-30 ml/kg minimum): Total: __________________________ over 30 minutes

If still hypotensive or lactate concentration ≥ 4mmol/L, continue goal-directed therapy.

***If blood pressure normalized consider admit to intermediate care and standard admission protocols***

**IV FLUIDS AND VASOPRESSORS (ICU)**

Initial resuscitation (first 6 hours): Begin resuscitation immediately in patients with hypotension or serum lactate level ≥ 4 mmol/L.

Resuscitation Goals: CVP 8-12 mmHg, MAP ≥ 65, Urine output ≥ 0.5 mL/kg/hr, Central venous (superior vena cava) oxygen saturation ≥ 70% or mixed venous ≥ 65%

1) If the patient is still hypotensive (SBP < 90mmHg) after a crystalloid fluid challenge of 20-30 mL/kg over 30 minutes or a blood lactate concentration ≥ 4 start:
   - Saline 500 mL over 30 minutes, repeat until CVP 8 – 12 mmHg
   - Other:

2) If the mean arterial pressure remains < 65mmHg despite achieving a CVP of 8 – 12 mmHg, initiate vasopressors: Complete Adult Vasopressor Order Set

   **(NOREPINEPHRINE IS PREFERRED VASOPRESSOR IN SEPSIS)**

**ANTIBIOTICS**

- Initiate the Antibiotic Order Set (Please check boxes of appropriate therapy)

**STEROIDS**

1) Intravenous hydrocortisone should only be given to adult septic shock patients after it has been confirmed that their blood pressure is poorly responsive to fluid resuscitation and vasopressors therapy
2) ACTH stimulation test should not be used to identify the subset of adults with septic shock who should receive hydrocortisone
3) Patients with septic shock should not receive dexamethasone if hydrocortisone is available
4) Patients should be weaned from steroids when vasopressors are no longer required.
5) Hydrocortisone dose should be ≤ 300mg / day

- Hydrocortisone __________mg IV every __________ hours

Other Meds:
- Acetaminophen 650mg PO q 4 hours PRN temp greater than 100.4
- Acetaminophen 650mg rectally q 4 hours PRN temp greater than 100.4
- __________________________
- __________________________

Verbal orders must be read back and verified.

__________________________  __________________________  __________________________
Physician’s Signature  Date  Time

SPGH *POS*  SPGH 664 rev 3/12  Patient Identification / Label
GOALS: (to be met within 6 hours of Severe Sepsis/Septic Shock)

- CVP 8-12
- SCVO2/MVO2 GREATER THAN 70%
- URINE OUTPUT GREATER THAN 0.5ML/KG/HR

**STEP #1 - Check a CVP**  
If.... Then.....

<table>
<thead>
<tr>
<th>CVP is less than 4</th>
<th>☑ Give NS 500ml IV over 20 minutes Q 2 hours X 2 doses in addition to boluses below</th>
</tr>
</thead>
<tbody>
<tr>
<td>CVP is less than 8</td>
<td>☑ Give NS 500 mL IV bolus over 30 minutes x 1 dose, repeat CVP after bolus is complete, may Repeat NS 500 mL IV bolus over 30 minutes until CVP is greater than 8 or FlowTRAC measured SVV is less than or equal to 15%</td>
</tr>
<tr>
<td>CVP is 8-14</td>
<td>☑ Start NS @ 150 mL/hour and then go to STEP 2</td>
</tr>
<tr>
<td>CVP is greater than 15</td>
<td>☐ Start Nitroglycerin IV drip at 5 mcg/min and titrate per until CVP is less than 12 or SBP less than 140</td>
</tr>
</tbody>
</table>

**STEP #2 - Check a MAP**  
If.... Then.....

| MAP less than 65 and HR less than 120 | ☑ Initiate Vasoactive Order Set (Start Norepinephrine IV drip @ 2mcg/minute (.02mcg/kg/min) and titrate per drip guidelines to keep MAP greater than 65) |
| MAP less than 65 despite being on Norepinephrine | ☑ Start Vasopressin IV drip @ 0.04 units/minute to augment Norepinephrine. DO NOT TITRATE  
☐ Initiate Vasoactive Order Set for additional vasoactive drips |
| MAP 65-100 | GO TO STEP #3 |
| MAP greater than 100 | ☐ Start Nitroglycerin IV drip at 5 mcg/min and titrate to keep MAP less than 90 |

**STEP #3 - Check ScvO2** (continuous monitoring or intermittent to be drawn from distal port of central line and processed as a venous blood gas)  
If.... Then.....

- If ScvO2 or MvO2 less than 70% and Hgb 9-9.9  
  ☐ Transfuse 1 unit PRBC
- If ScvO2 or MvO2 less than 70% and Hgb 8-8.9  
  ☐ Transfuse 2 units PRBC’s
- If ScvO2 or MvO2 less than 70% and Hgb less than 8  
  ☐ Transfuse 3 units PRBC’s
- ☐ Repeat CBC one hour after transfusion(s) complete

If.....  
Then.....

- ScvO2 or MvO2 less than 70% after transfusion(s) completed  
  ☐ Start Dobutamine Drip @ 2.5mcg/kg/min and titrate until MvO2 greater than 70%  
  ☑ Initiate Vasoactive Order Set (indicate titration parameters)

- ☐ continuous ScvO2 monitoring or intermittent sampling every 2 hours until Scv02 greater than 70% for 24 hours

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Physician’s Signature                        Date                        Time

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