

COOKEVILLE REGIONAL MEDICAL CENTER SEVERE SEPSIS/SEPTIC SHOCK CLINICAL PATHWAY

PLEASE COMPLETE THE FOLLOWING:

Time Zero: Date: _____ Time: _____
 • Patient transferred from (unit or hospital): ER Other In-house Transfer _____ floor Outside Facility / Direct Admit
 • Patient was identified as having severe sepsis/septic shock: ED Floor _____ CVICU ICU
 • Hospital Discharge status: Alive Expired

Room #: _____ Admission Date: _____ Time: _____

SEVERE SEPSIS DEFINED AS:

Known or suspected infection, 2 or more signs of SIRS, and organ dysfunction.

***SEPTIC SHOCK DEFINED AS:**

Known or suspected infection with 2 or more signs of SIRS, organ dysfunction, and hypotension which is defined as systolic B/P less than 90mmHg or MAP less than 65 or 40mmHg decrease in B/P from baseline after a30mL/Kg fluid bolus or known or suspected infection with 2 or more signs of SIRS, organ dysfunction, and hypoperfusion evidenced by a lactic acid level greater than or equal to 4.

GOALS TO ACHIEVE

INCREASED O₂ DELIVERY:

- CVP 8-12mmHg (non-vented), 12-15 (vented)
- MAP greater than or equal to 65mmHg
- ScvO₂ greater than or equal to 70%
- Blood Glucose less than 180 mg/dl
- Urine output greater than 0.5 ml/kg/hr

SEPSIS SCREEN

1. Does patient present with known or suspected infection? Yes No
2. Does patient have **at least 2** of the following SIRS Criteria? Yes No
 - Temp > 100.4 or < 96.8
 - HR > 90
 - RR > 20
 - WBC > 12,000 or < 4,000 or > 10% bands
3. Organ dysfunction criteria present? (1 or more Selected Proceed to Bundle) (Different from baseline)
 - Cardiovascular: SBP < 90 or MAP < 65 or a SBP decrease of more than 40 points
 - Respiratory: Increasing oxygen requirements
 - Renal: urine output less than 0.5ml/kg/hr for 2 hours or creatinine greater than 2
 - Metabolic: lactate > 2 mmol/L
 - Hematologic: platelets < 100,000; INR > 1.5, or a PTT>60 seconds
 - Hepatic: Bilirubin > 2mg/dl
 - CNS: altered consciousness (unrelated to primary neuro pathology)
 - Patient will NOT proceed to bundle due to patient/decision maker refusal of blood draw, fluid or antibiotic administration.

Positive Screen: Yes No Notified Provider: _____ (if positive proceed)

0-1 HOURS GOALS (3 HOUR BUNDLE)

1. Serum lactate drawn Yes No
2. Blood cultures x 2 obtained prior to antibiotics Yes No
3. Broad Spectrum Antibiotic-start AFTER obtaining blood culture? Yes No (if cannot obtain BC > 45 minutes hang abx). **Goal delivery time 60 minutes or less.**
4. 30 ml/kg crystalloid for hypotension (SBP <90, or decrease by >40 mm HG, or MAP <65) **or** lactate ≥4mmol/L
 - Patients body mass index (BMI) is _____ (if > 30 provider may choose to use ideal body weight for the 30 ml/kg crystalloid fluid volume, BMI must be documented)
 - Patients ideal body weight (IBW) is _____ (IBW Must be documented)
 - Yes No Utilized stroke volume monitoring for optimizing fluid bolus (ED/Critical Care only - see stroke volume optimizing)

Amount of fluid given in ED/Floor: _____
5. Is initial lactic acid elevated > 2 Yes No
 If yes was repeat lactic acid drawn in 2 hours? Yes No
 Lactic acid to be drawn at: Date _____ Time _____

Initials: _____ Signature: _____

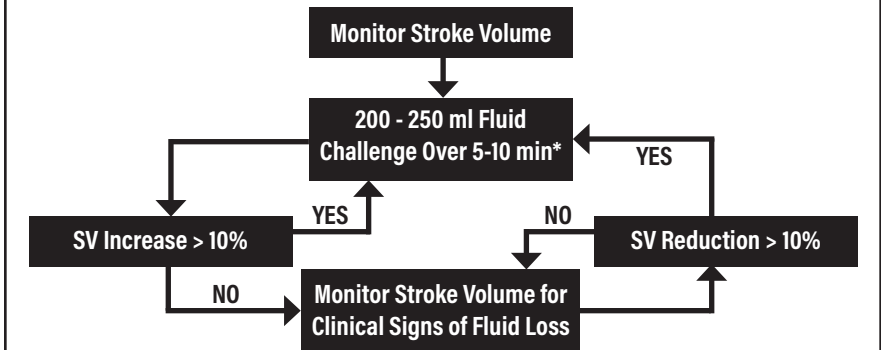
1. Was initial lactate greater than or equal to 4mmol/L? Yes No
 2. Was patient hypotensive after initial fluid bolus? Yes No
- If above 2 questions both are NO - STOP this form and continue screening every shift and PRN. If either question YES **call Code Sepsis** and proceed to Septic Shock portion of this form.

SEPTIC SHOCK

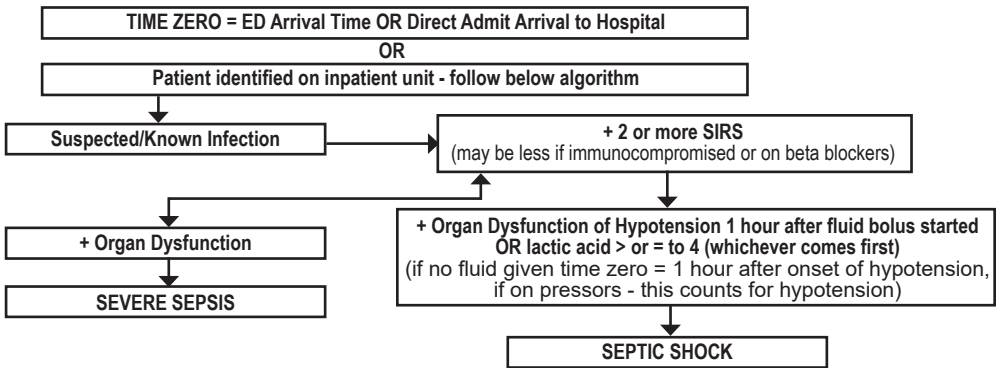
- Central Line Placed Yes No
1. Goal CVP 8-12 mmHg (non-vented), 12-15 mmHg (vented) met within 6 hours Yes No
 2. Goal MAP greater than or equal to 65 met within 6 hours Yes No (for hypotension despite volume resuscitation obtain order for pressor(s))
 3. Goal ScvO₂ greater than or equal to 70% or SvO₂ greater than or equal to 65% (if PreSep not inserted and you have a non-femoral central line draw an O₂ HGB from the distal port Stat. If not to goal draw one in 3 hours, then 6 hr until goal of 70.)
 - Baseline time _____ ScvO₂ _____
 - 3 hour time _____ ScvO₂ _____
 - 6 hour time _____ ScvO₂ _____
 4. Goal monitor fluid status utilizing stroke volume optimization Yes No

Initials: _____ Signature: _____

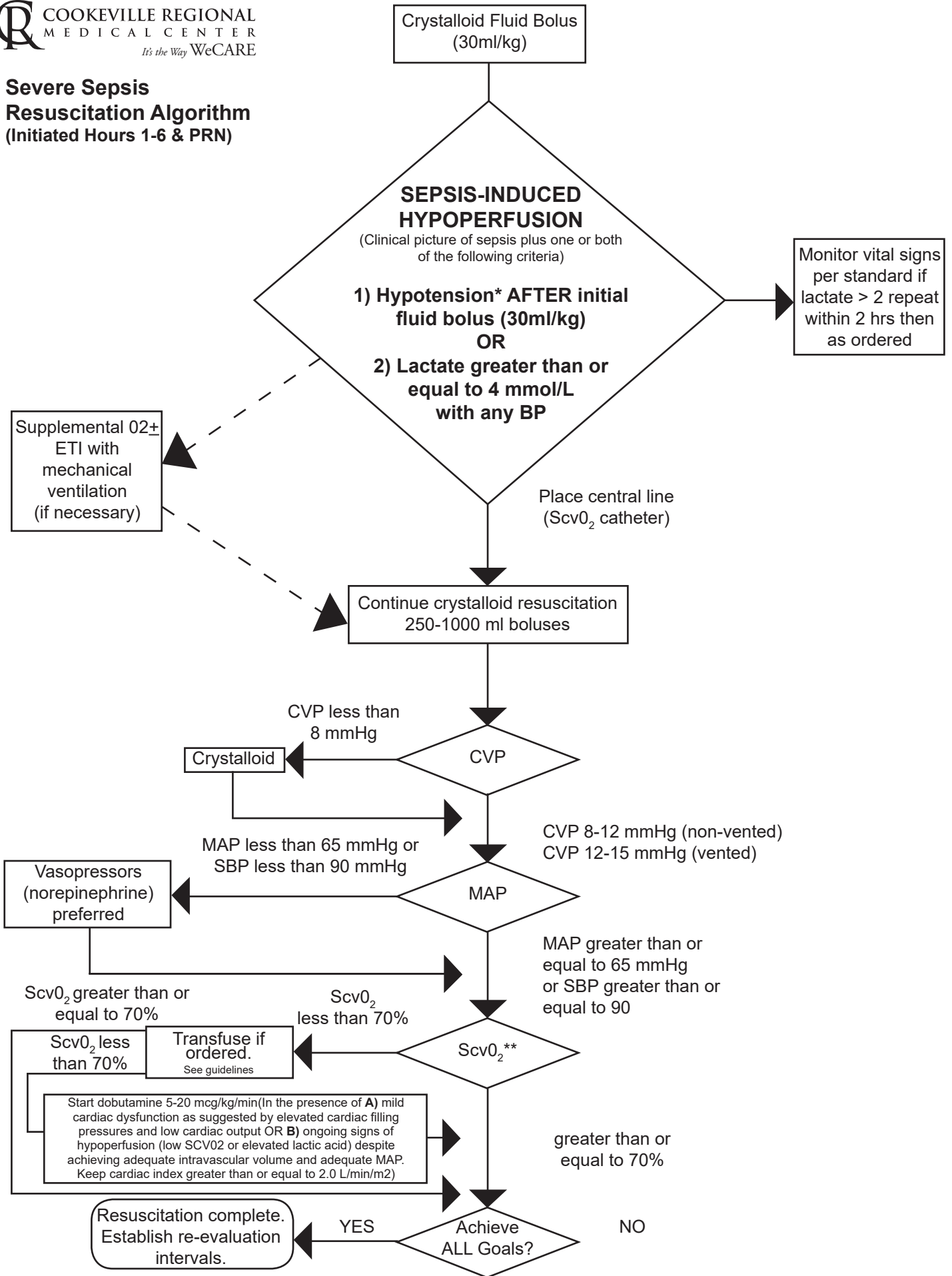
STROKE VOLUME OPTIMIZING



PATIENT ID STICKER



**Severe Sepsis
 Resuscitation Algorithm
 (Initiated Hours 1-6 & PRN)**



Cookeville Regional Medical Center
SEVERE SEPSIS / SEPTIC SHOCK PROGRESS NOTE

DATE / TIME

NOTES

1. Patient's known or suspected infection: _____

(If there is no known or suspected infection stop documentation on this form)

2. Check all that apply to your patient (2 or More Selected Proceed to Question 3) (SIRS may be less for different situations, i.e., immunocompromised patients or patients on beta blockers)

- Temperature greater than 38.3°C (100.9 F) or Less than 36°C (96.8°F)
- Heart Rate greater than 90 bpm
- Respiratory Rate greater than 20
- WBC count > 12,000 or < 4000 or >10% bands

3. Organ dysfunction criteria present? (1 or more Selected Proceed to Bundle)
(Different from baseline)

- Cardiovascular: SBP < 90 or MAP < 65 or a SBP decrease of more than 40 points
- Respiratory: Increasing oxygen requirements
- Renal: urine output less than 0.5ml/kg/hr for 2 hours or creatinine greater than 2
- Metabolic: lactate > 2 mmol/L
- Hematologic: platelets < 100,000; INR > 1.5, or a PTT>60 seconds
- Hepatic: Bilirubin > 2mg/dl
- CNS: altered consciousness (unrelated to primary neuro pathology)
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Bundle

TO BE COMPLETED WITHIN 3 HOURS:

- Initial Lactate Level: _____ Result (if not complete please order)
- Blood Cultures Peripherally x's 2 obtained (check box if cultures were obtained)
- Broad Spectrum antibiotic ordered: _____ (check box if broad spectrum were ordered)
- 30 ml/kg crystalloid for hypotension (SBP <90, or decrease by >40 mm HG, or MAP <65) or lactate ≥4mmol/L (check box if this was ordered)
 - Patients body mass index (BMI) is _____ (if > 30 provider may choose to use ideal body weight for the 30 ml/kg crystalloid fluid volume, BMI must be documented)
 - Patients ideal body weight (IBW) is _____ (IBW Must be documented)

Provider Signature: _____ Date/Time: _____

TO BE COMPLETED WITHIN 6 HOURS:

- Repeat Lactic Acid if initial lactate elevated > 2: _____ (check box if this was ordered)
- SBP <90 or MAP < 65 mm Hg after fluid resuscitation Vasopressor initiated
 - Levophed (check box if was ordered)
- For persistent hypotension after initial fluid administration (SBP <90, or decrease by >40 mm HG, or MAP <65) or if initial lactate was ≥4 mmol/L*
re-assess volume status and tissue perfusion (see page 2 of form).

Provider Signature: _____ Date/Time: _____

*Reassessment of volume status and tissue perfusion can be completed by performing a focused assessment or thorough documentation of any two of the following: CVP, ScVO2, Bedside cardiovascular ultrasound, Passive Leg Raise, or Fluid Challenge (see page 2 of form).

PATIENT ID STICKER



PROGRESS NOTE

Reassessment of volume status and tissue perfusion

(Must be completed by a Provider (Physician, PA, NP) within 6 hours for persistent hypotension after the 30mL/kg fluid administration **or** if initial lactate was ≥ 4 mmol/L)

DATE / TIME | NOTES

Reassessment of Volume status and tissue perfusion was completed post fluid administration (check box if completed)

1. Vital Signs:

BP _____ MAP _____ Pulse _____ RR _____ Temp _____

2. Cardiopulmonary Assessment

Heart _____

Lungs _____

3. Capillary Refill: _____ seconds

4. Peripheral Pulse Evaluation:

Radial _____ Dorsalis Pedis _____ Posterior Tibial _____

5. Skin Color/Condition _____

6. Urine Output _____

7. Arterial Oxygen Saturation (from ABG)

OR ONE OF THE FOLLOWING:

• **CVP measurement** _____

• **SCV02/SV02** _____

• **Echo Cardiogram or Cardiac Ultrasound** _____

• **Assessment of fluid responsiveness with passive leg raise (PLR) OR fluid challenge**

(For a passive leg raise - patient in supine position and legs lifted passively for 2 minutes and monitor if there is a change)

Stroke volume increased with PLR

Pre PLR Stroke Volume _____ Post PLR Stroke Volume _____

Stroke volume increased with fluid challenge

Pre Fluid Challenge Stroke Volume _____ Post Fluid Challenge Stroke Volume _____

Notes: _____

DEFINITION

Sepsis defined as: Known or suspected infection, 2 or more signs of SIRS.

Severe Sepsis defined as: Known or suspected infection, 2 or more signs of SIRS, and organ dysfunction.

Septic Shock defined as: Known or suspected infection with 2 or more signs of SIRS, organ dysfunction, and hypotension which is defined as: systolic B/P less than 90mmHg or MAP less than 65 or 40mmHg decrease in B/P from baseline after a 30mL/Kg fluid bolus

OR

Known or suspected infection with 2 or more signs of SIRS, organ dysfunction, and hypoperfusion evidenced by a lactic acid level greater than or equal to 4.

Persistent hypotension defined as: In the one hour following administration of crystalloid fluids, one single blood pressure reading of either SBP <90, or MAP <65, or a decrease in systolic blood pressure by >40 mmHg from the last previously recorded SBP considered normal for that specific patient.

Time Zero defined as:

The date/time on which the last criterion was met to establish the presence of severe sepsis or septic shock. If all are present on arrival to ED then time zero is ED triage time.

Physician Signature: _____

Date: _____ Time: _____

