

Date / Time Presentation: _____
 Severe Sepsis (3 Criteria Met)

Date / Time Presentation: _____
 Septic Shock (Severe Sepsis + Hypotension or Lactic Acid > 4)

INTERVENTION	Date & Time	GOAL
3 Hour Window		
Initial Lactic Acid Drawn		An initial lactate level was drawn in the time window between 6 hours prior to and 3 hours following the presentation of severe sepsis.
Blood Cultures Drawn Before Antibiotics		A blood culture was collected in the time window 48 hours prior to and 3 hours after the presentation of severe sepsis and before antibiotics administered.
Broad Spectrum Antibiotics Ordered and Started (Appropriate Monotherapy or Combination Therapy)		A broad spectrum antibiotic was administered intravenously in the time window 24 hours prior to or 3 hours following the presentation of severe sepsis.
Crystalloid Fluid Resuscitation: 30 ml/kg Rapid Infusion Bolus or greater than 125 ml/hr		ONLY if Septic Shock Present: Crystalloid fluids were administered prior to, at the time of, or after the presentation of Septic Shock AND the volume ordered was 30 mL/kg.
6 Hour Window		
Repeat Lactic Acid if Initial > 2.0 (18.0 mg/dL)		A repeat lactate level was drawn in the time window beginning at severe sepsis presentation date and time and ending 6 hours thereafter.
Vasopressor Started for Persistent Hypotension of SBP < 90 or MAP < 65 after 30 ml/kg Fluid Bolus		Documentation of administration of an intravenous vasopressor after the presentation of septic shock or at the time of septic shock. ONLY if hypotension persists one hour after crystalloids infused OR NEW hypotension.
<p style="text-align: center;"><u>Either:</u></p> <p style="text-align: center;">All 5 Parts of Focused Exam Documented by MD / APN / PA</p> <ol style="list-style-type: none"> 1. Vital Signs Reviewed 2. Cardiopulmonary Evaluation 3. Capillary Refill Examination Reviewed 4. Peripheral Pulse Evaluation Reviewed 5. Skin Evaluation Reviewed <p style="text-align: center;"><u>OR:</u></p> <p style="text-align: center;">Two of the Hemodynamic Monitoring Criteria Documented</p> <ol style="list-style-type: none"> 1. Central Venous Pressure 2. Central Venous Oxygen Measurement 3. Bedside Cardiovascular Ultrasound 4. Fluid Challenge Documented 5. Passive Leg Raise Exam 		<p>All five elements of the Focused Exam were recorded by a physician/APN/PA in a single document in the time window beginning at the crystalloid fluid administration date and time and ending six hours after the presentation of septic shock date and time.</p> <p>The Cardiopulmonary Evaluation must be performed by the physician/APN/PA.</p> <p>The nurse may perform all other assessments.</p> <p>The physician/APN/PA must document ALL components of the Focused Exam.</p> <ol style="list-style-type: none"> 1. Documentation of measurement of CVP within 6 hours after presentation of septic shock. 2. CVO2 obtained after presentation of septic shock. 3 & 4. Bedside Cardiovascular Ultrasound and/or Fluid Challenge performed in time window beginning at the crystalloid fluid administration date and time and ending six hours after presentation of septic shock date and time. 5. Passive leg raise examination was documented by a physician/APN/PA in the time window beginning at the crystalloid fluid administration date and time and ending six hours after the presentation of septic shock date and time.

THIS FORM IS NOT PART OF THE MEDICAL RECORD



**SEVERE SEPSIS / SEPTIC SHOCK
 CARE CONTINUITY & HAND-OVER
 WORKSHEET**



* N D O 2 2 5 *

DIRECTIONS: The screening tool is for use in identifying patients with severe sepsis. Screen each patient upon Triage/Admission, Each Shift and PRN with change in condition.

AGE: _____ WT.: _____ kg

*****THIS TOOL MAY BE USED IN THE ED, Med-Surg OR ICU (All three below must be met within 6 hrs of each other).**

DATE / TIME PRESENTATION/ RECOGNITION	CRITERION 1: SIRS – Systemic Inflammatory Response Syndrome (if any two or > are present, check YES): <input type="checkbox"/> YES <input type="checkbox"/> NO
	<input type="checkbox"/> Temp > 100.9 °F or < 96.8 °F
	<input type="checkbox"/> Heart rate > 90 beats/minute
	<input type="checkbox"/> Respiratory rate > 20 breaths/min
	<input type="checkbox"/> WBC > 12,000/mm ³ or < 4,000/mm ³ or > 10% bands
	<input type="checkbox"/> Systolic BP (SBP) < 90 mmHg or mean arterial BP (MAP) < 65 mmHg or a decrease in SBP 40 mmHg from the last recorded SBP considered normal for given patient

DATE / TIME PRESENTATION/ RECOGNITION	CRITERION 2: Is the patient's history suggestive of a suspected source of infection? (if any one is present, check YES): <input type="checkbox"/> YES <input type="checkbox"/> NO
	<input type="checkbox"/> Pneumonia, empyema <input type="checkbox"/> UTI <input type="checkbox"/> Acute abd. infection
	<input type="checkbox"/> Meningitis <input type="checkbox"/> Skin/soft tissue infection <input type="checkbox"/> Wound infection
	<input type="checkbox"/> Bone/joint infection <input type="checkbox"/> Blood stream catheter infection
	<input type="checkbox"/> Endocarditis <input type="checkbox"/> Implantable device infection
	<input type="checkbox"/> Immunocompromised (DM, ESRD, HIV, Cancer, etc.) <input type="checkbox"/> Other: _____

If criterion 1 and 2 are met, notify physician.

DATE / TIME PRESENTATION/ RECOGNITION	CRITERION 3: ORGAN DYSFUNCTION (if any one criteria is present, check YES): <input type="checkbox"/> YES <input type="checkbox"/> NO
	<input type="checkbox"/> Systolic BP (SBP) < 90 mmHg or mean arterial BP (MAP) < 65 mmHg or a decrease in SBP 40 mmHg from the last recorded SBP considered normal for given patient
	<input type="checkbox"/> Lactate > 2 mmol/L (18.0 mg/dL)
	<input type="checkbox"/> Creatinine > 2.0 or urine output < 0.5 ml/kg/hr for 2 hrs
	<input type="checkbox"/> Bilirubin > 2 mg/dl (34.2 mmol/L)
	<input type="checkbox"/> Platelet count < 100,000
	<input type="checkbox"/> INR > 1.5 or aPTT > 60 sec.

- Negative Screen for Severe Sepsis
- Severe Sepsis: All 3 Criterion MET. Call Physician.

Signature / Title: _____ Date / Time: _____



SEPSIS SCREENING TOOL



* N D O 4 3 0 *

Severe Sepsis Screening Tool

Directions: THIS TOOL MAYBE USED IN ED, MED-SURG, OR ICU. The screening tool is for use in identifying patients with Severe Sepsis. Screen each patient upon Triage/Admission, Each Shift, & PRN with change in condition.

All three criteria below must be met WITHIN 6 HOURS of each other.

Weight

12

I. CRITERION 1: Systemic Inflammatory Response Syndrome (SIRS)

Criterion 1: SIRS Temperature >100.9 F or <96.8 F

Signs/Symptoms Heart rate >90 beats/minute

Respiratory rate >20 breaths/minute

WBC >12,000/mm³ or <4,000/mm³ OR 10% Bands

Systolic BP(SBP) < 90mmHg or mean arterial BP(MAP) < 65mmHg or a decrease in SBP 40mmHg from last recorded SBP considered normal for given patient

If any two or greater of above are present, check YES

Yes

No

II. CRITERION 2: Patient's history suggests suspected source of infection

Pneumonia, Empyema

Meningitis

Bone/joint infection

Endocarditis

Immunocompromised (DM, ESRD, HIV, Cancer, etc)

Skin/soft tissue infection

Bloodstream catheter infection

Implantable device infection

Urinary tract infection (UTI)

Acute abdominal infection

Wound infection

Other

Other infection(s)

Is patient's history suggestive of a suspected source of infection? (If any one is present, check YES)

Yes

No

IF CRITERIA 1 & 2 ARE MET, notify physician.

III. Criterion 3: ORGAN DYSFUNCTION (If any one criteria is present, check YES)

Systolic BP(SBP) < 90mmHg or mean arterial BP(MAP) < 65mmHg or a decrease in SBP 40mmHg from last recorded SBP considered normal for given patient

Lactate > 2mmol/L (18.0 mg/dL)

Creatinine > 2.0 or urine output < 0.5 ml/kg/hr for 2 hours

Bilirubin > 2 mg/dl (34.2 mmol/L)

Platelet count < 100,000

INR > 1.5 or APTT > 60 seconds

Is any one criteria present?

Yes

No

Comments

DECISION: NEGATIVE SCREEN FOR SEVERE SEPSIS
 SEVERE SEPSIS - ALL 3 CRITERIA MET. CALL PHYSICIAN.

Severe Sepsis and Septic Shock Bundle

Severe Sepsis/Septic Shock Orderset - 3 - Hour Bundle

Diagnostics - 3 Hour Bundle

- CBC With Automated Differential Stat (required)
- Comprehensive Metabolic Panel (CMP) Stat (required)

Prothrombin Time (PT/INR) Stat (required)

aPTT (PTT) Stat (required)

Perform ISTAT Lactate level Stat

Lactic Acid Stat

Lactic Acid Stat Repeat if 1st Lactic Acid is >2 at least 2H post 1st result

Blood Culture - DrawByLab - Peripheral X2

Blood Culture - DrawByNurse - Peripheral X2(ICUs, ED, Nursery)

Blood Culture - Nurse/Doctor Draw - Central Line Stat

Urinalysis Stat

Urine Culture Stat

Respiratory Culture (if with productive cough) Stat

EKG (ED) Stat

EKG Tracing Only (EKG) Stat

XR Chest PA And LAT Stat

XR Chest Single View Stat Portable

Monitoring - 3 Hour Bundle

Notify MD if SBP (systolic BP) is < 90 mmHg (required)

Notify MD if there is decrease of 40mmHg from last recorded SBP (required)

Notify MD if MAP (Mean Arterial Pressure) is < 65mmHg (required)

Notify MD if Lactic Acid is equal to or greater than 4 mmol/L (required)

Severe Sepsis and Septic Shock Bundle

IV Fluids - 3 Hour Bundle

INSTRUCTION: Administer IV fluids ONLY IF systolic BP (SBP) < 90 mmHg or mean arterial BP (MAP) < 65 mmHg or a decrease in SBP 40 mmHg from the last recorded SBP considered normal for given patient or initial Lactate level \geq 4 mmol/L

(Choose ONE from below)

- Sodium Chloride 0.9% IV @ 30 ml/kg - Infuse 2L rapidly by bolus
- Lactated Ringers IV @ 30 ml/kg - Infuse 2L rapidly by bolus
- PLASMA-LYTE-56 IN D5W IV @ 30 ml/kg - Infuse 2L rapidly by bolus
- Notify MD to reassess fluid tolerance after infusion of 2 liters
- If pt tolerating fluids infuse each additional liter by bolus
- Notify MD to assess fluid tolerance after each liter is infused
- Infuse the entire amount of IV fluid equivalent to 30ml/kg

Severe Sepsis and Septic Shock Bundle

Medications: 3 Hour Bundle

Administer antibiotics within 1 hour from time of presentation (after blood culture is drawn)

INSTRUCTIONS: Administer appropriate broad spectrum antibiotics: Monotherapy or Combination Therapy

Add additional antibiotics as needed for clinical picture

Monotherapy

- Cefepime 2g IV Q8H X48hrs (If meningitis is suspected))
- Levofloxacin (Levaquin) 750mg/150mL IV Q24H X48hrs
- Zosyn 3.375g IV Q6H X48hrs

Criteria to add vancomycin where MRSA is known or suspected

Central venous catheter or other indwelling hardware in place

Recent (within 3 months) or current prolonged hospitalization > 2 weeks

On Chronic Dialysis

Transfer from a nursing home or subacute facility

IV drug use

- Vancomycin 1g/200mL IV Q12H X48hrs

Combination therapy include: aztreonam 2gm and vancomycin 1gm or ciprofloxacin 400mg and vancomycin 1gm

- Aztreonam (Azactam) 2 g IV Q8H X48Hrs
- Ciprofloxacin (Cipro) 400mg/200mL IV Q12H X48hrs
- Vancomycin 1g/200mL IV Q12H X48hrs

Severe Sepsis and Septic Shock Bundle

Antibiotic List for ED only

- Aztreonam (Azactam) 2 G IV One Time
- Cefepime 2g 100mL IV One Time
- Ciprofloxacin (Cipro) 400mg/200 D5W IV ONE TIME
- Levofloxacin (Levaquin) 750mg IV PB One Time
- Vancomycin (Vancocin) 1g/200ml IV One Time
- Zosyn 3.375 g IV One Time

INSTRUCTIONS: If patient's condition progresses to Septic Shock, initiate Severe Sepsis/Septic Shock - 6 Hour Bundle Orderset

******End of Severe Sepsis/Septic Shock Orderset - 3 Hour Bundle******

Severe Sepsis and Septic Shock Bundle

Severe Sepsis/Septic Shock Orderset - 6 - Hour Bundle

Diagnostics - 6 Hour Bundle

INSTRUCTION: Repeat Lactic acid level must be done within 6 hours of Severe Sepsis/Septic Shock presentation

- Perform ISTAT Lactate level Stat Repeat if 1st Lactate is >2 (18 mg/L)&/or not previously resulted
- Lactic Acid Stat Repeat if 1st Lactate is >2(18 mg/L)&/or not previously resulted

Medications 6 Hour Bundle

Order vasopressors if tissue hypo-perfusion persists in the hour after crystalloid fluid is administered at 30ml/kg as evidenced by either:

SBP < 90mmHg

MAP < 65mmHg

Decrease in SBP by 40mmHg from last recorded SBP considered normal for patient

Norepinephrine is the first line agent

If additional vasopressor support is needed, add or switch to EPINEPHrine

Vasopressin max= 0.03 units/minute and should not be used as a single agent; higher doses should be reserved for salvage therapy

Use phenylephrine only for norepinephrine associated with serious arrhythmias, high cardiac output with persistently low BP

Norepinephrine (Levophed) 8 mg/500 mL IV, 2 mcg/min

Epinephrine 2 mg/250 mL IV, 1 mcg/min

Phenylephrine 10 mg/250 ml NS IV Continuous, Titrate as directed

Vasopressin 20Units/100mL IV Drip @0.03units/min

Severe Sepsis and Septic Shock Bundle

Monitoring - 6 Hour Bundle

INSTRUCTION: LIP must document all FIVE assessments one hour after Crystalloid administration

Stat Check Vital Signs and Temperature (RN)

Stat Check Capillary Refill (RN)

Stat Perform Skin Examination (RN)

Stat Call LIP to confirm and document above nursing assessments

Stat Call LIP to perform and document Cardiopulmonary Examination

OR Any TWO of the following

Stat Central Venous Pressure Measurement (RN)

Stat Central Venous Oxygen Measurement (RN)

Stat Passive Leg Raise - call LIP

Echo Without Doppler Complete To be done at bedside Stat

Stat Fluid Challenge (RN)

******End of Severe Sepsis/Septic Shock Orderset - 6 Hour Bundle******

Nursing Assessments

	ED	ICU's	Med-Surg	L&D/ 3West/ PACU
Where?	Soarian Clinicals (Neurovascular Asst)	Soarian Clinicals (Neurovas-cular Asst)	Soarian Clinicals (Neurovas-cular Asst)	Paper & Centricity Notes (MCH)
What?	Vitals + temp, capillary refill, skin exam, peripheral pulse (RN), cardiopulm. Asst (MD)	Vitals + temp, capillary refill, skin exam, peripheral pulse (RN), cardiopulm. Asst (MD)	Vitals + temp, capillary refill, skin exam, peripheral pulse (RN), cardiopulm. Asst (MD)	Vitals + temp, capillary refill, skin exam, peripheral pulse (RN), cardiopulm. Asst (MD)
When?	Within 1 hr after fluid resuscitation	Within 1 hr after fluid resuscitation	Within 1 hr after fluid resuscitation	Within 1 hr after fluid resuscitation