Patient Units Severe Sepsis Screening Tool

Severe Sepsis = Infection + SIRS + Organ Dysfunction

**Directions:** The screening tool is for use in identifying patients with severe sepsis. Screen each patient upon admission, once per shift and PRN with change in condition.

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I. SIRS-Systemic Inflammatory Response Syndrome (two or more of the following):
- Temperature greater than or equal to 101°F or less than or equal to 96.8°F
- Heart Rate greater than 90 beats/minute
- Respiratory Rate greater than 20 breaths per minute
- WBC greater than or equal to 12,000/mm3 or less than or equal to 4,000/mm3 or greater than 0.5 K/uL bands
- Blood glucose greater than 140 ml/dL in non-diabetic patient
- Negative screen for severe sepsis (Please initial)

If check two of the above, move to II

II. Infection (one or more of following):
- Suspected or documented infection
- Antibiotic Therapy (not prophylaxis)

If check none of above – Negative screen for severe sepsis (Please initial) – answer infection question NO in I-View
If check one of the above – answer infection question YES in I-View, call physician for serum lactic acid order and move to III

III. Organ Dysfunction (change from baseline) (one or more of the following within 3 days of new infection)
- Respiratory: SaO2 less than 90% or increasing O2 requirements
- Cardiovascular: SBP less than 90mmHg OR 40mmHg less than baseline OR MAP less than 65mmHg
- Renal: urine output less than 0.5ml/kg/hr; creatinine increase of greater than 0.5mg/dl from baseline
- CNS: altered consciousness (unrelated to primary neuro pathology)
- Glasgow Coma Score less than or equal to 12
- Hematologic: platelets less than 100,000; INR greater than 1.5
- Hepatic: Serum total bilirubin greater than or equal to 4mg/dl
- Metabolic: Serum lactic acid greater than or equal to 2mEq/L

Negative screen for severe sepsis (Please initial)
If check one in section III or a severe sepsis alert fires, patient has screened positive for severe sepsis
1. Call rapid response team
2. Call physician, physician assistant or nurse practitioner and implement urgent measures protocol.
3. Initiate or ensure IV access (2 large bore IV’s if no central access)
4. Obtain a venous blood gas (peripheral draw), serum lactic acid, CBC (if it has been greater than 12 hrs since last test), two sets of blood cultures (if greater than 24 hours since last set)
5. If patient is hypotensive: Give crystalloid (NS) fluid bolus – 30ml/kg over one hour or as fast as possible until hypotension resolved, unless known EF is less than 35% or active treatment for heart failure.

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**SEPSIS INDUCED HYPOPERFUSION?**
(Clinical picture of severe sepsis plus one or both of the following criteria)
1. Hypotension AFTER initial fluid bolus (30 ml/kg) OR
2. Require vasopressor OR
3. Lactate greater than or equal to 4 mEq/L with any BP

**YES**
- Activate CODE SEPSIS
- Initiate transfer to ICU
- Meanwhile, continue crystalloid resuscitation of 250-1000ml boluses if hypotensive after the initial bolus – per physician order
- Initiate the Septic Shock Clinical Pathway on back and complete interventions

**NO**
- For Lactate less than 2.9
  - Initiate General Care Severe Sepsis Bundle on back and complete interventions
- For Lactate 3-3.9 or initial hypotension that responded to the 30 ml/kg fluid bolus, initiate transfer to IMC
  - Initiate Intermediate Care Severe Sepsis Bundle on back and complete interventions.

**RN Signature, Initial Date & Time:**

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*AA1314*
**General Care Severe Sepsis Bundle**

For patients with 2 or more SIRS + known/suspected infection + initial lactic acid 2-2.9 w/o additional organ dysfunction

- Blood cultures x 2
- Antibiotics w/in 1 hr of screening positive for sepsis. Ensure antibiotic is ordered STAT (call Rx and notify of STAT order)
- Vital signs: every 1 hr x 4, then every 4 hr x 2, then once per shift
- Lactic acid every 4 hr x 24 hr
- I & O every 2 hr (if no void w/in 4 hr, bladder scan- if greater than 200 mL perform intermittent straight cath), call MD if less than 0.5 mL/kg/hr
- Maintain/monitor for:
  - SBP greater than 90 mmHg
  - Urine output greater than 0.5 mL/kg/hr
  - Decrease in lactic acid x 3 results or normalization x2 within 12 hours

**If unable to maintain these parameters or if pt has additional organ dysfunction, call MD for possible transfer to IMC/ICU**

- Continue sepsis screen every shift and prn change in patient condition
- Complete 0 to 1 hour interventions, below

**Intermediate Care Severe Sepsis Bundle**

For patients with 2 or more SIRS + known/suspected infection + initial lactic acid 3-3.9 or had hypotension that responded to fluid bolus

- Blood cultures x 2
- Antibiotics w/in 1 hr of screening positive for sepsis. Ensure antibiotic is ordered STAT (call Rx and notify of STAT order)
- Vital signs: every 30 min x 4, then every 1 hr x 2, then every 2 hr x 4; then every 4 hr
- Lactic acid every 4 hr x 24 hr
- I & O every 2 hr (if no void w/in 4 hr, bladder scan- if greater than 200 mL perform intermittent straight cath), call MD if less than 0.5 mL/kg/hr
- Continue to administer fluid boluses per physician order to achieve/maintain the following goals:
  - SBP greater than 90 mmHg
  - Urine output greater than 0.5 mL/kg/hr
  - Decrease in lactic acid x 3 results or normalization x2 within 12 hours

**If unable to achieve these parameters or if pt has increase in lactic acid of 0.5 or more, increase in O2 requirements, mental status change, or additional organ dysfunction, call MD for possible transfer to ICU**

- Complete 0 to 1 hour interventions, below

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**Date/Time:** ____________________ to ____________________

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If hypotensive, volume resuscitate: initial 30 mL/kg as fast as possible, then additional boluses as needed per order

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Time 30 mL/kg fluid bolus infused

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Time antibiotic hung

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Initial Labs: serum lactate, additional labs as ordered by physician

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Serum lactic acid drawn

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Blood Cultures x 2

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Other cultures:

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Establish IV access (2 large bore IVs)

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Signature: ____________________________________________ Date/Time: ____________________

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If hypotensive, volume resuscitate: initial 30 mL/kg as fast as possible, then additional boluses as needed per order

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Time 30 mL/kg fluid bolus infused

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Time antibiotic hung

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Initial Labs: serum lactate, additional labs as ordered by physician

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Serum lactic acid drawn

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Blood Cultures x 2

---

Other cultures:

---

Establish IV access (2 large bore IVs)

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Signature: ____________________________________________ Date/Time: ____________________