NORTON HEALTHCARE

Sepsis Information for Providers

Early management bundle for severe sepsis/septic shock

Define sepsis

Systemic inflammatory response syndrome (SIRS) criteria

- Temperature > 38.3 C (> 100.9 F)
- Temperature < 36.0 C (< 96.8 F)
- Heart rate > 90
- Respiratory rate > 20
- White blood cells > 12,000 or < 4,000 or > 10% bands

Sepsis is:

- 2 SIRS and
- Confirmed/suspected source of infection

Severe sepsis is:*

- Sepsis and
- Organ dysfunction (any one of below)
  - Urine output < 0.5 mL/kg/h x 2h
  - SBP < 90
  - MAP < 65
  - Creatinine > 2.0
  - Bilirubin > 2 mg/dL
  - Platelets < 100,000
  - INR > 1.5 or aPTT > 60
  - Lactate > 2 mmol/L
  - Acute respiratory failure with new need for mechanical ventilation or NIPPV

Septic shock is:

- Severe sepsis and
- Persistent hypotension (two consecutive low blood pressures within the hour after crystalloid fluids)
  - SBP < 90
  - MAP < 65
  - SBP decrease > 40 from norm

  Or
  - Lactate ≥ 4 mmol/L

*All clinical criteria (SIRS, infection, organ dysfunction) must be met within six hours of each other to determine severe sepsis presentation time.

Treatment bundles

Presentation time is defined as the earliest time all criteria align within six hours.

Or

If all criteria are not met but provider documents "severe sepsis" or "septic shock," then time of documentation becomes presentation time.

Severe sepsis

Within three hours of presentation:

- Lactate
- Blood cultures
- Broad-spectrum antibiotics given (IV or IM)
- 30 mL/kg bolus for hypotension

Within six hours of presentation:

- Repeat lactate level (if initial > 2)

Septic shock

Within three hours of criteria met:

- 30 mL/kg bolus

Within six hours of presentation:

- Vasopressors if hypotension persists after fluid administration
- (Focus exam) Repeat volume status and tissue perfusion assessment after bolus has started

Additional documentation to meet volume status and tissue perfusion assessment can include two of the following: CVP, ScvO2, cardiac ultrasound, passive leg raise.

Or

Provider reference to at least five of the following: arterial oxygen saturations, capillary refill, cardiopulmonary assessment, peripheral pulses, shock index, skin color or condition, urine output or vital signs.

Documentation

Best practice/meet requirements:

- Use sepsis order sets:
  - Inpatient treatment sepsis bundle [3040030112]
  - ED treatment: suspected/severe sepsis/septic shock [16000301147]
- Order/administer 30 mL/kg crystalloid fluids for:
  - Initial hypotension (defined as two low BPs, either SBP or MAP, within six hours before through six hours after severe sepsis presentation time)
  - Lactate level ≥ 4 mmol/L
  - Documented presence of septic shock
- Bolus documentation:
  - A lesser amount can be given if provider documents the exact volume ordered and the rationale for not giving the full amount.
  - Example of documentation: "500 mL bolus ordered due to concern for fluid overload."
- Use smart phrase templates:
  - .sepseveresepsissuspected
- Excludes criteria from determining presentation of severe sepsis if SIRS criteria or organ dysfunction normal for the patient:

  Document that criteria** is:
- Normal for patient
- Due to a chronic condition
- Due to an acute condition, not an infection
- Due to a medication

**Must document specific criteria (example: HR 98 due to pain associated with hip fracture)

Sepsis pearls

- Consider drawing a third lactate if the second is higher than the initial.
- Physician documentation that patient refuses or declines the fluid bolus is appropriate to exclude patient from receiving the 30 mL/kg bolus.
- Reassessment of volume status must be completed after initiation of bolus up to six hours after presentation time.
- If you document sepsis, severe sepsis or septic shock, ensure bundle is initiated.
- The Centers for Medicare & Medicaid Services considers certain conditions to meet the infection criteria if present. Acute exacerbation of COPD and leukocytosis are examples. Contact your site coordinator for a full list of conditions.

Questions

Contact your hospital or system sepsis coordinator.

Sepsis checklist

Are the following met within six hours?

- ☐ ≥ 2 SIRS (see table below)
- ☐ Suspected or confirmed infection
- ☐ ≤ 1 organ dysfunction

Within three hours of meeting the above criteria, initiate one of the following:

- ☐ Inpatient treatment sepsis bundle [3040030112]
- ☐ ED treatment: suspected/severe sepsis/septic shock [6000301147]

Use sepsis smart phrase

- ☐ .sepseveresepsissuspected

SIRS criteria

- ☐ Temperature < 96.8 or > 100.9
- ☐ Heart rate > 90
- ☐ Respiratory rate > 20
- ☐ White blood cells < 4,000 or > 12,000 or > 10% bands

Organ dysfunction criteria

- ☐ SBP < 90, MAP < 65
- ☐ Creatinine > 2.0
- ☐ Bilirubin > 2 mg/dL
- ☐ Platelets < 100,000
- ☐ INR > 1.5, or aPTT > 60
- ☐ Lactate > 2 mmol/L
- ☐ Acute respiratory failure with new need for mechanical ventilation or NIPPV

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