

UNC Health Care System Sepsis Initiative

SEP-1 Quality Measure
Abstraction Guidelines



Is this Chart Included?

Is the patient younger than 18?

LOS greater than 120 days?

Transferred from an outside hospital?

Withhold consent for blood draw, fluid administration, or IV antibiotic administration?

Documentation of Comfort Care prior to presentation?

Documentation of comfort care within 3 hours of presentation of severe sepsis OR within 6 hours of presentation of septic shock.

Has the patient been receiving IV antibiotics for more than 24 hours before presentation of severe sepsis?

Patient expired within 3 hours of presentation of severe sepsis OR within 6 hours of presentation of septic shock.

NO!

Definitions

Septic Shock: Severe Sepsis associated with refractory hypotension (BP<90/60) despite adequate fluid resuscitation or a serum lactate level ≥ 4.0 mmol/L

Severe Sepsis: Sepsis and at least one of the signs of hypo-perfusion or organ dysfunction (often reflected by an abnormal serum lactate value) that is new and not explained by other known etiology of organ dysfunction such as a chronic condition

Documentation of the presence of severe sepsis:

Inclusion guidelines for abstraction

- R/o severe sepsis
- Suspected/possible severe sepsis
- Severe sepsis
- Differential diagnosis: Severe sepsis

Exclusion guidelines for abstraction

- Bacteremia
- Possibly septic
- Sepsis
- Septic
- Septicemia

Clinical Criteria

If no inclusion terms are documented, review clinical data to establish presence of **severe sepsis**



Three criteria, all of which must be met within 6 hours of each other:

- Documentation of suspected/possible source of infection
- **One** sign of organ dysfunction:
 - Acute respiratory failure as evidenced by a new need for mechanical ventilation: Either invasive or non-invasive
 - Lactate >2 mmol/L
 - INR > 1.5 or aPTT > 60 sec
 - Platelet Count < 100,000
 - Bilirubin >2 mg/dL
 - Creatinine > 2 or urinary output < 0.5 ml/kg/hr x 2 hrs
 - SBP < 90 / MAP < 65 or SBP decrease of more than 40 mmHg from last "normal" SBP
- **Two** or more SIRS criteria:
 - Temp >38.3 C or < 36.0 C
 - HR > 90
 - RR > 20 per min
 - WBC > 12,000 or < 4,000 or 10% bands

Source of Infection

Documented suspected source of infection:

- Can be confirmed, suspected, or possible
- Most likely MD/APN/PA documentation (Radiology reports)
- NOT looking for a diagnosis
- Nursing documentation acceptable
 - “In ED earlier today diagnosed with UTI”
 - “Currently on oral antibiotics for pneumonia”

- 2015 Premier, Inc.

Infections often associated with severe sepsis (not an all inclusive list):

- Acute abdominal infection
- Pneumonia/empyema
- Blood stream catheter infection
- Skin/soft tissue infection
- Bone/joint infection
- Suspect infection, source unknown
- Implantable device infection
- Urinary tract infection
- Meningitis
- Wound infection
- No fungal or viral infections

Three Hour Bundle

Initiated prior () to or 3 hrs following presentation of **severe sepsis** (closest to presentation)

- Initial Lactate level measurement (**6 hrs prior**)
- Blood cultures drawn prior to antibiotics (**48 hrs prior**)
- Broad spectrum or other Antibiotics administered (**24 hrs prior**)

Initiated within 3 hrs of presentation of **septic shock** only *if* persistent hypotension or initial lactate ≥ 4 mmol/L is present

- Resuscitation with **30 ml/kg** crystalloid fluids

Six Hour Bundle

Within 6 hours of presentation of **severe sepsis**

- Repeat **lactate level** measurement *only if* initial lactate level is elevated > 2 mmol/L

Within 6 hours of presentation of **septic shock**

- Administer **vasopressor** *only if* hypotension persists in the hour after conclusion of crystalloid fluid administration **OR** initial lactate ≥ 4 mmol/L
- Repeat **volume status** and **tissue perfusion** assessment

Septic Shock

There must be documentation of **severe sepsis** present

- However, if criteria for severe sepsis are not met, and there is no MD/APN/PA documentation of severe sepsis, BUT there is MD/APN/PA documentation of septic shock, this is acceptable for severe sepsis

Tissue hypoperfusion persists in the hour following crystalloid fluid administration, evidenced by either:

- SBP < 90 **or** MAP < 65 **or** a decrease in SBP by > 40 points from the last previously recorded SBP considered normal **OR** initial lactate level is ≥ 4 mmol/L (determined by 2 or more consecutive BP readings)

Documentation inclusions:

- Septic shock; r/o septic shock; suspected/possible septic shock; differential dx: Septic shock (refer to Slide #4 for exclusions)

Volume Status and Tissue Perfusion Assessment

Focused Exam including **ALL** below:

- Vital Signs
- Cardiopulmonary exam
- Capillary Refill evaluation
- Peripheral Pulse evaluation
- Skin Exam

OR

Any **2** of the following four:

- Central Venous Pressure measurement (CVP)
- Central Venous Oxygen (SvO₂/ScvO₂) measurement
- Bedside cardiovascular ultrasound
- Passive leg raise **OR** fluid challenge

Focused Exam: Documentation Guidelines

Vital Signs

- Vital signs must include **four** actual values:
 - Temperature; Pulse; Respiratory Rate; Blood Pressure (T, P,HR,R, BP)

Cardiopulmonary

- Cardiopulmonary exam must include the status of both **heart and lungs**:
 - Example: “Heart: Gallop rhythm noted, lungs crackling at both bases.”
 - Example: “Lungs clear, heart RRR.”

Capillary Refill

- Capillary refill evaluation:
 - Note needs to make reference to: “Capillary refill,” “capillary fill,” “nail bed refill,” “mottled,” or similar terms.

Peripheral Pulse

- Peripheral Pulse Evaluation:
 - Note needs to make reference to either radial pulse; dorsalis pedis pulse (DP); posterior tibialis pulse (PT).

Skin Exam

- Skin Examination:
 - Note needs to make reference to **skin color**: “flushed,” “mottled,” “pale,” “pallor,” “pink.”

Tissue Hypo-perfusion: Data Elements

- CVP and SvO₂ measurement must indicate that the reading was from a central venous catheter
- Fluid challenge is rapid infusion of 500 mL over 15 minutes or 1000 mL over 30 minutes to assess responsiveness to fluids
- Passive leg raise performed to assess response to additional fluid load
- Bedside cardiovascular ultrasound