

Database Individual Chart Measurement Tool

Instructions: Attach this tool to each chart of a patient with severe sepsis, septic shock at the time of data abstraction.

*****Important:** mark the date format you will be following: ____ (dd/mm/yy) ____ (mm/dd/yy)

1. Document whether the patient met criteria for severe sepsis or septic shock.

_____ No, does not meet criteria for either severe sepsis or septic shock. Stop data collection.

_____ Yes, met criteria for severe sepsis. Continue data collection.

_____ Yes, met criteria for septic shock. Continue data collection.

2. Record a unique number unidentifiable to others as the patient's except by a roster kept at your institution. To ensure compliance with privacy laws, we recommend simply beginning with the number 1 and increasing by a value of 1 for each new patient: 1, 2, 3, etc. _____

3. Question 3 establishes a uniform "time of presentation" for each patient depending upon their individual admission characteristics.

3a. For patients admitted to the ICU from the ED meeting criteria for severe sepsis or septic shock, record the time of triage in the emergency department as the time of presentation.

_____ Not applicable.

_____ Applicable, record time of presentation.

3b. For patients transferred to the ICU from units other than the ED:

i. If the Evaluation for Severe Sepsis Screening Tool was used, the time and date on that tool constitutes the preferred choice for time of presentation.

ii. If the Evaluation for Severe Sepsis Screening Tool was not used, but the resuscitation and management of severe sepsis was annotated as beginning on the transferring unit, record the date and time of that annotation as the time of presentation.

iii. By default, if the resuscitation and management of severe sepsis was *not* annotated as beginning on the transferring unit, record the ICU admission date and time as the time of presentation.

_____ Not applicable.

_____ Applicable; the annotated time and date for the resuscitation and management of sepsis on the transferring unit or the time on the Evaluation for Severe Sepsis Screening Tool is recorded below as the time of presentation.

_____ Applicable; the ICU admission date and time is recorded below as the time of presentation.

3c. For patients admitted to the ICU with a diagnosis other than sepsis and who subsequently develop severe sepsis or septic shock on the same ICU stay:

i. If the Evaluation for Severe Sepsis Screening Tool was used, the time and date on that tool constitutes the preferred choice for time of presentation.

ii. Otherwise, if the chart contains annotation of the time and date of the beginning of the resuscitation and management of severe sepsis, record that as the time of presentation.

iii. If no annotated time exists and the Evaluation for Severe Sepsis Screening tool was not used, mark 3c "not applicable."

- Not applicable. Stop data collection, time of presentation cannot be accurately determined. If data is being collected concurrently or prospectively, the patient may remain on the sepsis protocol without further data collection.
- Applicable, record time of presentation below.

Time of Presentation: ___ / ___ / ___ (date format as above) ___ : ___ (24 hour clock).

Note: all subsequent responses to questions 4-13 apply only to the first 24 hours after time of presentation. Items accomplished after these times are not recorded.

4. Document whether serum lactate was obtained after the time of presentation on line 3 above:

No. Yes.

4a. Record the value serum lactate value if obtained: _____ mmol/L or _____ mg/dl

4b. Record date and time of serum lactate collection:

___ / ___ / ___ (date format as above) ___ : ___ (24 hour clock).

5. Document whether the patient received a broad-spectrum antibiotic:

The patient had been started on a broad spectrum antibiotic(s) for a suspected infection and broad-spectrum coverage continued until the time of presentation. Do not record the time. Proceed to question 6.

No.

Yes.

5a. Name of Antibiotic(s): _____

5b. Date and time of first broad-spectrum antibiotic administration:

___ / ___ / ___ (date format as above) ___ : ___ (24 hour clock).

6. Document date and time of blood culture collection.

Blood cultures were collected before the patient was started on a broad-spectrum antibiotic for a suspected infection and broad-spectrum coverage continued until the time of presentation. Do not record the time. Proceed to question 6.

Not collected.

___ / ___ / ___ (date format as above) ___ : ___ (24 hour clock).

7. Answer the following questions regarding resuscitation of severe sepsis or septic shock:

7a. Document whether the patient was hypotensive and/or if serum lactate was > 4 mmol/L (36 mg/dl) on line 4a of this document:

No. Proceed to question 11.

Yes.

7b. Document the basis for the diagnosis of hypotension, if present:

SBP < 90 mm Hg

MAP < 65 mm Hg **Note:** $MAP = (2 \times \text{diastolic pressure} + \text{systolic pressure}) / 3$

SBP decrease of ≥ 40 mm Hg from known baseline

7c. Document whether initially the patient received ≥ 20 ml/kg of crystalloid or \geq an equivalent amount of colloid in response to hypotension or lactate > 4 mmol/L (36 mg/dl):

No. Yes

Cyrstalloid/Colloid Equivalency Chart:¹	
Normal Saline	20 ml/kg
Lactated Ringer's Solution	20 ml/kg
Albumin	0.24 grams/kg
4-5% Albumin	5.2 ml/kg
20-25% Albumin	1.1 ml/kg
Hetastarch	0.29 grams/kg
3% Hetastarch	9.7 ml/kg
6% Hetastarch	4.8 ml/kg
10% Hetastarch	2.9 ml/kg
Pentastarch	0.30 grams/kg
10% Pentastarch	3 ml/kg
10% Dextran-40	0.30 grams/kg (3ml/kg)
3% Dextran-60, 6% Dextran-70	0.19 grams/kg
3% Dextran-60	6.3 ml/kg
6% Dextran-70	3.1 ml/kg
Gelatins (succinylated & crosslinked 2.5, 3.0, 4.0%; urea-linked 3.5%)	0.23 grams/kg

¹Adapted from: Evidence-based Colloid Use in the Critically Ill: American Thoracic Society Consensus Statement. Am J Respir Crit Care Med. 2004. Vol 170:1247-1259. For percentage solutions, listed ml/kg are calculated from the g/kg data.

7d. Document whether MAP remained \geq 65 mm Hg after the initial fluid resuscitation described in 7c:

No. Yes

7e. Document whether the patient received vasopressors:

No. Yes.

7f. Document whether the MAP remained \geq 65 mm Hg without the use of vasopressors. If no evidence for removal of vasopressors can be found, mark item 7f "no."

- i. No. Proceed to question 8.
- ii. Yes and lactate was \leq 4 mmol/L (36 mg/dl) on line 4a of this document. Proceed to 10. question 10.
- iii. Yes and lactate was $>$ 4 mmol/L (36 mg/dl) on line 4a of this document. Proceed to 8.

8. Document date and time CVP first \geq 8 mm Hg:

CVP not obtained or never \geq 8 mm Hg.

Date: ___ / ___ / ___ (date format as above) **Time:** ___ : ___ (24 hour clock).

9. Document date and time ScvO₂ first \geq 70% (or SvO₂ \geq 65%):

ScvO₂ not obtained or never \geq 70% (or SvO₂ \geq 65%).

Date: ___ / ___ / ___ (date format as above) **Time:** ___ : ___ (24 hour clock).

10. Answer the following questions regarding low-dose steroids administration:

10a. Document whether line 7d or line 7f above has been answered affirmatively:

Yes. The bundle element is not applicable because the patient's MAP was \geq 65 and did not have persistent hypotension.

No.

10b. Document whether there is a standardized ICU policy regarding low-dose steroid administration for septic shock:

No. Yes.

10c. Document whether low-dose steroids were administered:

Note: low-dose steroids refer to a daily dose of 200–300 mg of hydrocortisone or equivalent.

___ No. Proceed to line 10d on this form.

___ Yes. Record: ___ / ___ / ___ (date format as above) ___ : ___ (24 hour clock)

10d. Indicate whether there is documentation that the patient did not qualify for low-dose steroids based upon the standardized protocol:

___ No. There is no documentation present. ___ Yes. There is documentation present.

Steroid Equivalency Chart: ²	
Steroid:	Equivalent TOTAL DAILY dose:
Hydrocortisone	200 – 300 mg
Dexamethasone	8 – 12 mg
Prednisone	50 – 75 mg
Prednisolone	50 – 75 mg
Methylprednisolone	40 – 60 mg
Cortisone	250 – 375 mg
Triamcinolone	40 – 60 mg
Betamethasone	6 – 10 mg

²Adapted from: Knoben JE, Anderson PO. *Handbook of Clinical Drug Data*, 6th ed. Drug Intelligence Pub, Inc. 1988.

11. Answer the following questions regarding Drotrecogin alfa (activated) administration:**11a. Document whether there is a standardized ICU policy regarding Drotrecogin alfa (activated) administration:**

___ No. ___ Yes.

11b. Document whether Drotrecogin alfa (activated) was administered:

___ No. Proceed to line 11c on this form.

___ Yes. Record: ___ / ___ / ___ (date format as above) ___ : ___ (24 hour clock)

11c. Indicate whether there is documentation that the patient did not qualify for Drotrecogin alfa (activated) administration based upon the standardized protocol:

___ No. There is no documentation present. ___ Yes. There is documentation present.

12. Document the median glucose value *between 6 hours and 24 hours* of the time of presentation. Exclude values obtained during the first 6 hours from the time of presentation.

Median glucose: ___ mg/dl or ___ mmol/L

12a. Document the lower limit of normal for serum glucose at your institution: ___

12b. Document the total number of measurements that fell below the lower limit of normal between 6 hours and 24 hours from the time of presentation for this patient: ___

13. Document the median inspiratory plateau pressure (IPP)* achieved within 24 hours of time of presentation:

___ Not applicable. The patient was not mechanically ventilated.

Median IPP: ___

14. Hospital discharge: ___ / ___ / ___ (date format as above) ___ : ___ (24 hour clock)

15. Status at hospital discharge: ___ Alive ___ Deceased