



Severe Sepsis and Septic Shock: Management Bundle (Composite Measure) v5.9 Measure Updates

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Agenda

The purpose of this event is to:

- Clarify the changes and rationale behind the updates to the SEP-1 measure and guidance in version 5.9 of the specification manual.
- Discuss updates to SEP-1 for patient cases with COVID-19.
- Respond to frequently asked questions.

Objective

Participants will be able to understand and interpret the updated guidance in version 5.9 of the specifications manual to ensure successful reporting for the SEP-1 measure.

Acronyms and Abbreviations

A-fib	atrial fibrillation	INR	International Normalized Ratio	PICC	peripherally inserted central catheter
AM	Before Midday	IO	intraosseous	PNA	pneumonia
APN	advanced practice nurse	IV	intravenous	QD	once a day
aPTT	Activated Partial Thromboplastin Time	kg	kilogram	r/t	related to
BP	blood pressure	MAP	mean arterial pressure	RN	Registered Nurse
CE	Continuing education	MAR	Medication Administration Record	RVR	rapid ventricular response
CM	Clinical Modification	MD	Medical doctor	SBP	systolic blood pressure
CMS	Centers for Medicare & Medicaid Services	mL	milliliter	sec	seconds
COVID	Coronavirus	mmHg	milliliter of mercury	SEP	sepsis
CXR	chest x-ray	NS	normal saline	SIRS	systemic inflammatory response syndrome
ED	emergency department	OR	Operating Room	v	version
ICD	International Statistical Classification of Diseases and Related Health Problems	PA	physician assistant	VIQR	Value, Incentives, and Quality Reporting

Webinar Questions

Please email any questions that are pertinent to the webinar topic to the [QualityNet](https://cmsqualitysupport.servicenowservices.com/qnet_qa) Inpatient Questions and Answers tool: https://cmsqualitysupport.servicenowservices.com/qnet_qa.

If your question pertains to a specific slide, please include the slide number.

If you have a question unrelated to the current webinar topic, we recommend that you first search for it in the *QualityNet* Inpatient Questions and Answers tool. If you do not find an answer, then submit your question to us via the same tool.

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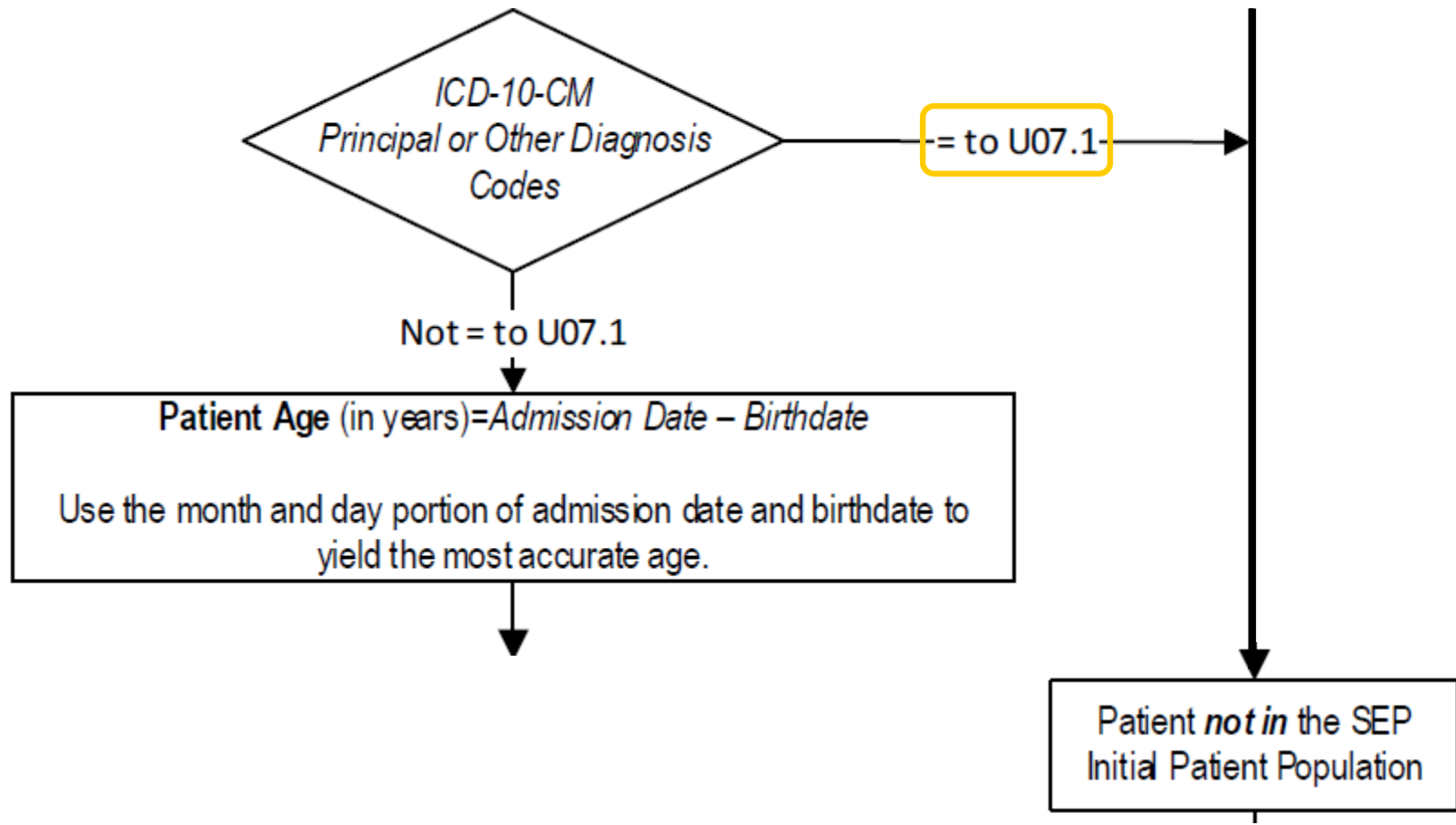
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Alphabetical Data Dictionary

Updates were made throughout the Alphabetical Data Dictionary to meet CMS's plain language guidelines.

- These updates do not change the intent of the abstraction guidance.
- Updates are highlighted in yellow.

Sepsis Initial Patient Population Algorithm v5.9



Severe Sepsis Present

New Guidance v5.9

Criteria a Documentation of an infection.

- Physician/APN/PA, nursing, or pharmacist documentation indicating a patient is receiving an IV or IO antibiotic for an infection and that antibiotic is documented as administered within six hours of criteria b and c is acceptable.

Example:

Levaquin is documented in MAR for pneumonia and nursing documentation within six hours of criteria b and c indicates the antibiotic was given).

Severe Sepsis Present

New Guidance v5.9

- If physician/APN/PA documentation within six hours following the initial documentation of an infection indicates that the infection is due to a viral, fungal, or parasitic source, do not use the initial documentation of the infection.

Severe Sepsis Present v5.9

Question #1

- Q. Would you use the infection documentation below at 1500 to establish *Severe Sepsis Present* criteria a?
- ED APN Note at 1500: “Likely pneumonia.”
- Hospitalist Note at 1830: “CXR with PNA r/t influenza.”
- A. No, disregard the infection documentation of pneumonia at 1500 because of the physician documentation within six hours after 1500 attributing pneumonia to a viral infection.

Severe Sepsis Present

COVID-19 Continued Guidance v5.9

- Select Value “2” if there is physician/APN/PA documentation that coronavirus or COVID- 19 is suspected or present.

Severe Sepsis Present

New Guidance v5.9

- Systolic blood pressure (SBP) <90 mmHg or mean arterial pressure <65mmHg.
 - **Do not use** hypotensive BPs documented from an orthostatic BP evaluation.
 - **Do not use** hypotensive BPs documented during a dialysis procedure.

Severe Sepsis Present

New Guidance v5.9

- INR >1.5 or aPTT >60 sec
 - If the medical record documentation before an elevated INR or aPTT value shows the patient received an anticoagulant medication in Appendix C Table 5.3, **do not use the** elevated INR or aPTT level as organ dysfunction. Physician/APN/PA documentation is not required. **Use** the elevated INR or aPTT level **if the patient only received the following:**
 - Heparin flushes

Severe Sepsis Present v5.9 Question #2

Q. Would you use the elevated INR value based on the below physician documentation to establish *Severe Sepsis Present* organ dysfunction?

Home Medication Record: Coumadin 2.5 QD

- Last dose 2/19/2021 at 0800

Lab Report 2/19/2021 at 1400

- INR this AM 2.5

A. No, do not use the INR of 2.5 to establish organ dysfunction because the documentation demonstrates the patient received an anticoagulant from Table 5.3 before the elevated INR.

Severe Sepsis Present

New Guidance v5.9

- **Physician/APN/PA** documentation of a term that is defined by a SIRS criteria or sign of organ dysfunction is acceptable in place of an abnormal value when **the term is** documented as normal for the patient, due to a chronic condition, due to a medication, or due to an acute condition that has a non-infectious source/process.
 - **Examples** include but are not limited to:
 - Tachypnea (Respiration >20 per minutes)
 - Tachycardia, RVR (Heart rate >90)
 - Leukopenia (White blood cell count <4,000)
 - Leukocytosis (White blood cell count >12,000)
 - Thrombocytopenia (Platelet count <100,000)
 - Hypotension (Systolic blood pressure <90 mmHg)

Severe Sepsis Present

v5.9 Question #3

- Q. Would you use the systolic blood pressure value based only on the physician documentation below to establish *Severe Sepsis Present* organ dysfunction?
- Vital Signs Flowsheet at 0900: BP 77/49
 - MD Note at 0945: “patient BP normally runs low”
- A. Yes, use the systolic BP of 77 to establish organ dysfunction because the physician documentation does not include a term that defines the abnormal value.

Knowledge Check: Severe Sepsis Present

Would you use the elevated heart rate of 125 as SIRS criteria based only on the PA documentation “chronic A-fib, rate controlled?”

- A. Yes**
- B. No**

Knowledge Check: Severe Sepsis Present

Would you use the elevated heart rate of 125 as SIRS criteria based only on the PA documentation “chronic A-fib, rate controlled?”

A. Yes

B. No

Select “Yes” because the PA documentation does not include a term that defines the elevated heart rate as being due to the chronic condition.

Severe Sepsis Present

New Guidance v5.9

- **Do not use** SIRS criteria or a sign of organ dysfunction obtained in the operating room (OR), **in** interventional radiology, **during** active delivery, **during cardiopulmonary arrest (code)**, or **during** procedural/conscious sedation.

Severe Sepsis Present

New Guidance v5.9

- Select Value “1” if there is physician/APN/PA documentation of septic shock before or instead of clinical criteria or physician/APN/PA documentation of severe sepsis.

Severe Sepsis Present

v5.9 Question #4

Q. Which allowable value would you select for *Severe Sepsis Present* based only on the documentation below?

- Severe sepsis clinical criteria met at 1315
- MD Note states at 1230: “Septic shock present now, receiving fluids now, monitoring closely.”

A. Select value “1” (Yes) for *Severe Sepsis Present* and use 1230 as the *Severe Sepsis Presentation Time* because septic shock is documented by the physician before severe sepsis clinical criteria were met.

Severe Sepsis Presentation

Date and Time New Guidance v5.9

- For patients with multiple severe sepsis presentation times, only abstract the earliest presentation time.
 - If severe sepsis or septic shock is documented multiple times within the same note, use the earliest specified time.

Severe Sepsis Presentation

Date and Time New Guidance v5.9

- If physician/APN/PA documentation states severe sepsis was present on admission or indicates the patient was admitted with severe sepsis, use the earliest time of the following for the physician/APN/PA documentation of severe sepsis:
 - Physician/APN/PA note
 - Admit order
 - Disposition to inpatient
 - Arrival to floor or unit

Administrative Contraindication to Care, Severe Sepsis New Guidance v5.9

- A more general documentation of refusal of care or documentation of patient noncompliance with care (e.g., pulling out IV) that could result in the following not being administered within the specified time frame is acceptable. Refusal or patient non-compliance is not required to actually result in one of the following not being administered.
 - Blood draws
 - IV or IO fluid administration
 - IV or IO antibiotic

Administrative Contraindication to Care, Severe Sepsis v5.9 Question #1

Q. Should you select Value “1” (Yes) or Value “2” (No) for the *Administrative Contraindication to Care, Severe Sepsis* data element based on this scenario?

- Severe Sepsis Presentation Date/Time: 1/13/2021 1200
- RN documentation at 1/13/2021 1130: “Patient agitated, screaming at staff, and swinging arms”
- Physician Notes at 1/13/2021 1230: “Discussed necessity of treatment, patient agreeable to IV antibiotics, blood draw, and IV fluids.”

A. Select Value “1” (Yes). There is nursing documentation within the specified time frame of patient noncompliance with care.

Administrative Contraindication to Care, Septic Shock New Guidance v5.9

- A more general documentation of refusal of care (e.g. central line, PICC, IO access) or documentation of patient non-compliance with care (e.g., pulling out IV) that could result in the following not being administered within the specified time frame is acceptable. Refusal or patient non-compliance is not required to actually result in one of the following not being administered.
 - Blood Draws
 - IV or IO fluid administration
 - Vasopressors

Directive for Comfort Care and Palliative Care, Septic Shock & Severe Sepsis

New Guidance v5.9

- Only **use** physician/APN/PA documentation of an inclusion term documented in the following contexts:
 - Comfort measures only recommendation
 - Order for consultation or evaluation by a hospice care service
 - Patient or patient representative request for comfort measures only
 - Plan for comfort measures only
 - Referral to hospice care service

Directive for Comfort Care and Palliative Care, Sept90ic Shock & Severe Sepsis New Guidance v5.9

- Do not use documentation of an inclusion term if it is not documented in one of the acceptable contexts.

Examples of unacceptable contexts:

- “Discussion of comfort measures”
- “Consider palliative care”

Directive for Comfort Care and Palliative Care, Septic Shock & Severe Sepsis v5.9 Question #1

Q. Would you select allowable Value “1” (Yes) or Value “2” (No) for the *Directive for Comfort Care or Palliative Care, Severe Sepsis* data element based on the documentation below?

MD documentation within time frame: “anticipating patient will be comfort care only, will meet with family.”

A. Select Value “2” (No). “Comfort care” is an acceptable inclusion term, but it is not used within one of the acceptable contexts noted in the data element.

Initial Lactate Level Collection

New Guidance v5.9

- The specified time frame within which an initial lactate must be drawn is within **six** hours prior through **three** hours following severe sepsis presentation.
 - If multiple lactate levels are drawn within the specified time frame, use the **highest** lactate **level** drawn from the *Severe Sepsis Presentation Time* **to six hours before.** **Use a lactate level drawn at the same time as the *Severe Sepsis Presentation Time* if it has the highest level.**
 - If multiple lactate levels are drawn ONLY in the **three** hours after the *Severe Sepsis Presentation Time*, use the lactate drawn with the HIGHEST level within this time frame.

Initial Hypotension New Guidance v5.9

- Select Value “2” if the target ordered volume of crystalloid fluids was completely infused before the hypotensive readings.

Knowledge Check: Initial Hypotension

Which value would you select for *Initial Hypotension* if 30 mL/kg of normal saline completed at 1500 and the only hypotensive readings included 85/51 at 1530 and 84/53 at 1545?

- A. Value “1” (Yes)**
- B. Value “2” (No)**

Knowledge Check: Initial Hypotension

Which value would you select for *Initial Hypotension* if 30 mL/kg of normal saline completed at 1500 and the only hypotensive readings included 85/51 at 1530 and 84/53 at 1545?

A. Value “1” (Yes)

B. Value “2” (No)

Select Value “2” (No) because 30 mL/kg target ordered volume completed before the hypotensive readings.

Crystalloid Fluid Administration

New Guidance v5.9

- Crystalloid fluid volumes ordered that are equivalent to 30 mL/kg are the target ordered volume.
 - If a crystalloid fluid volume equivalent to 30 mL/kg is not ordered, an ordered volume within 10% less than 30 mL/kg is acceptable for the target ordered volume.

Example:

2000 mL of normal saline was ordered and initiated in the ED. The patient's weight is not available or documented at the time of the order. After admission to critical care a weight is obtained of 74 kg. Based on this weight 30 mL/kg is 2220 mL. The target ordered volume is 2000 mL because it is within 10% less than 2220 mL ($2220 \text{ mL} - 222 \text{ mL} = 1998 \text{ mL}$).

Knowledge Check:

Crystalloid Fluid Administration

The patient weighs 90 kg and the physician only ordered 2,500 mL of NS over two hours. What is the target ordered volume of crystalloid fluids for this patient?

- A. 2700 mL
- B. 2500 mL
- C. 2430 mL
- D. 2300 mL

Knowledge Check:

Crystalloid Fluid Administration

The patient weighs 90 kg and the physician only ordered 2,500 mL of NS over two hours. What is the target ordered volume of crystalloid fluids for this patient?

A. 2700 mL

B. 2500 mL

C. 2430 mL

D. 2300 mL

Use 2500 mL as the target ordered volume. The physician only ordered 2500 mL of crystalloid fluid. Since 2500 mL is within 10% less than the 30 mL/kg volume, the target ordered volume would be 2500 mL.

Crystalloid Fluid Administration Date & Time New Guidance v5.9

- If multiple orders are written that total the target ordered volume, use the start time of the crystalloid fluid infusion that completes the target ordered volume.
 - If multiple infusions end at the same time, and complete the target ordered volume, use the start time of the infusion that was started last.

Example:

30 mL/kg = 2500 mL

Order 1: NS 2000 mL over 2 hours - started 0800

Order 2: NS 500 mL over 30 minutes - started 0930

Because both infusions end at 10:00, use 09:30, the time of the infusion that was started last, for the *Crystalloid Fluid Administration Time*.

Septic Shock Presentation Date & Time New Guidance v5.9

- For persistent hypotension, use the time of the last consecutive blood pressure reading that identifies the presence of persistent hypotension.
 - If persistent hypotension was identified by either of the following, use the time of the latest hypotensive reading in the hour for the time of persistent hypotension.
 - Two or more blood pressures were documented within the time frame and persistent hypotension is unable to be determined and a vasopressor was administered.
 - Only one blood pressure was documented within the time frame that was hypotensive and a vasopressor was administered.

Septic Shock Presentation

Date and Time v5.9 Question #1

Q. Which date and time would you use for the *Septic Shock Presentation Date* and *Time* based only on the documentation below?

- Severe sepsis presentation time: 1200
- Hour to assess for *Persistent Hypotension*: 1300 to 1400
 - BP 93/56 at 1330
 - BP 85/53 at 1350

MAR: vasopressor administered 1420

A. Use 1350 as the *Septic Shock Presentation Time* because 1350 is the time of the latest hypotensive reading in the hour for the time of persistent hypotension.

Septic Shock Presentation Date & Time New Guidance v5.9

- For patients with multiple septic shock presentation times, only abstract the earliest presentation time.
 - If septic shock is documented multiple times within the same note, use the earliest specified time.

Septic Shock Presentation Date & Time New Guidance v5.9

- If physician/APN/PA documentation states septic shock was present on admission or indicates the patient was admitted with septic shock, use the earliest time of the following for the physician/APN/PA documentation of septic shock:
 - Physician/APN/PA note
 - Admit order
 - Disposition to inpatient
 - Arrival to floor or unit

Septic Shock Presentation

Date and Time v5.9 Question #2

Q. Which date and time would you use for the *Septic Shock Presentation Date and Time* based only on the documentation below?

PA Note: “septic shock on admission.”

- PA Note date/time: 3/4/2021 1600
- Admit Order date/time: 3/3/2021 2220
- Arrival time to unit: 3/3/2021 2345

A. Use the date/time of the admit order 3/3/2021 at 2220 because the PA documentation indicates the patient was admitted with septic shock and the admit order date/time is the earliest.

Persistent Hypotension

New Guidance v5.9

- If two or more blood pressures are documented, refer to the last two consecutive blood pressures within the hour:
 - Select Value “2” if there is a normal blood pressure followed by another normal blood pressure.
 - Select Value “2” if there is a normal blood pressure followed by a low blood pressure.
 - Select Value “2” if there is a low blood pressure followed by a normal blood pressure.
 - Select Value “1” if there is a low blood pressure followed by another low blood pressure.

Persistent Hypotension

v5.9 Question #2

- Q. Which allowable value would you select for *Persistent Hypotension*?
- Hour to assess for *Persistent Hypotension* is from 0950 to 1050
 - SBP = 92 at 1020
 - SBP = 84 at 1045
- A. Select Value “2” (No). There is a normal blood pressure followed by a low blood pressure.

Persistent Hypotension New Guidance v5.9

- Select Value “1” if two or more blood pressures were documented within the time frame and *Persistent Hypotension* is unable to be determined and a vasopressor was administered.

Example:

One-hour time frame: 0800 to 0900

Blood pressures documented at 0830 of 95/60 and at 0845 of 86/54

MAR: Vasopressin started at 0930

Select Value “1”

Persistent Hypotension New Guidance v5.9

- Select Value “1” if only one blood pressure was documented within the time frame that was low and a vasopressor was administered.

Example:

One-hour time frame: 1300 to 1400

Only blood pressure documented at 1425 was 87/53

MAR: Levophed started at 1500

Select Value “1”

Persistent Hypotension

v5.9 Question #3

Q. Which allowable value would you select for *Persistent Hypotension*?

- Hour to assess for *Persistent Hypotension* is from 0950 to 1050
 - SBP = 92 at 1020
 - SBP = 84 at 1045
 - MAR: Levophed IV start time: 1130

A. Select Value “1” (Yes). There are two or more blood pressures documented within the hour, and *Persistent Hypotension* is not able to be determined. However, a vasopressor was administered.

Initial Hypotension, Persistent Hypotension, Septic Shock Present

New Guidance v5.9

- **Do not use** hypotensive BPs obtained **in** the operating room (OR), in interventional radiology, during active delivery, **during cardiopulmonary arrest (code)**, or **during** procedural/conscious sedation.
- **Do not use** hypotensive BPs documented **during a dialysis procedure.**

Initial Hypotension, Persistent Hypotension, Septic Shock Present

New Guidance v5.9

Q. Would you use the hypotensive blood pressure readings below to meet criteria?

- Code Sheet – Code start time 1610, Code stop time 1628
- Code Vital Signs:
 - 1611: BP = 63/48
 - 1620: BP = 65/47
 - 1630: BP = 75/54
 - 1640: BP = 84/57

A. You would **not use** the hypotensive readings at 1611 and 1620 because these readings were obtained during the code. You would **use** the hypotensive readings at 1630 and 1640 because these readings were not obtained during the code.

Initial Hypotension, Persistent Hypotension, Septic Shock Present

New Guidance v5.9

Q. Would you use the hypotensive blood pressure readings below to meet criteria?

- Notes – Dialysis start time 0700, Dialysis end time 0900
- Vital Signs Flowsheet:
 - 0620: BP = 82/58
 - 0645: BP = 87/56
 - 0715: BP = 85/61
 - 0800: BP = 81/54

A. You would **use** the hypotensive readings at 0620 and 0645 because these were obtained before the start of the dialysis procedure. You would **not use** the hypotensive readings at 0715 and 0800 because these were obtained during the dialysis procedure.

Initial Hypotension, Persistent Hypotension, Septic Shock Present

New Guidance v5.9

- Physician/APN/PA documentation of a term that is defined by an SBP <90 mmHg or MAP <65 mmHg is acceptable in place of an abnormal value when **the term is** documented as normal for the patient, due to a chronic condition, due to a medication, or due to an acute condition that has a non-infectious source/process.

Example:

Hypotension (Systolic blood pressure <90 mmHg).

Repeat Volume Status and Tissue Perfusion New Guidance v5.9

- Physician/APN/PA documentation attesting to performing or completing a physical examination, perfusion (re-perfusion) assessment, sepsis (severe sepsis or septic shock) focused exam, or systems review.
- Physician/APN/PA documentation indicating they performed or completed a review of at least five of the following eight parameters. Reference to the parameters must be made in physician/APN/PA documentation. Physician/APN/PA documentation does not need to reference all parameters within the same note.

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- **National credit**

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- **Florida-only credit**

- Board of Clinical Social Work, Marriage & Family Therapy and Mental Health Counseling
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Thank you

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