Hospital Inpatient Quality Reporting (IQR) Program

Inpatient Value, Incentives, and Quality Reporting (VIQR) Outreach and Education Support Contractor

Severe Sepsis and Septic Shock: Management Bundle (Composite Measure) v5.14 Review & Updates

Question and Answer Summary Document

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Subject-matter experts researched and answered the following questions after the live webinar. The questions may have been edited for grammar.

Severe Sepsis Present

Question 1: **Would the time the patient care was initiated or the scribe time take priority over the note opened time, regardless of which is earlier?**

No, you would use a specific time if it is available or you would use the note opened date and time if a specific time was not available. If a note open or start time is not available, then you would use the patient care initiated time, scribe time, etc. in priority order per the abstraction guidance under criteria a of the *Severe Sepsis Present* data element.

Question 2: **Does the update to the infection documentation mean that we would also need to use a hierarchy for the infection element? For example, if a nurse's note upon arrival states, "Sepsis is suspected at 0900," and then the physician assistant (PA) documents, "Patient is septic at 2000," which time would you use for establishing infection?**

You would use the first specified time in the scenario above if this time was within six hours of the other severe sepsis clinical criteria. If the first specified time for the infection documentation was not within six hours of the other severe sepsis clinical criteria, then you would use the second specified time in this scenario to meet criteria A (infection).

For the example provided in the question, both the nursing and PA documentation would be acceptable to meet the infection criteria A. You would use the earliest documentation of infection that is within six hours of the other clinical criteria to establish severe sepsis. For example, if criteria B and C were met within six hours of 0900, then you would use the nursing documentation of sepsis at 0900 to establish severe sepsis. The same would apply if criteria B and C were met within six hours of 2000. Then, you would use the infection documentation at 2000 to establish severe sepsis.

Question 3: **Since POA can mean present on arrival and present on admission, does it matter for purposes of infection?**

The abstraction guidance on this slide only references documentation of an infection that utilizes the acronym POA. Because facilities use that acronym in different ways, the guidance does not specify arrival or admission. As such, when an infection is documented with POA, you would use the note open time.

Question 4: **It is noted that the hover function time will not be accepted as a time for specific documentation. However, if our information technology department can find a way to print it out for validation, will it be accepted?**

If your facility and/or electronic health record uses the hover timestamp, it could be used as a specified time for documentation if a copy of the data can be provided for potential validation. Per the specification manual General Abstraction Guidelines: If a hospital uses electronic data for abstraction and is unable to provide a paper or electronic copy of these data, and the record is selected for validation, there is the potential for a mismatch to occur.

If you are unable to provide a paper or electronic copy of the data, you would continue looking for another specified time, the note open time or one of the lower priority timestamps that are mentioned in the abstraction guidance.

Question 5: **The physician documented that the patient was taking antibiotics at home. If the documentation stated that the patient was on intravenous (IV) antibiotics three days prior to arrival but did not document the antibiotic or the date and time of the antibiotic doses, could you use this for the 72 hours look-back?**

In responding to this question, we assume the 72-hour look-back period most likely references the *Broad Spectrum or Other Antibiotic Administration* data element(s). For this data element, if the documentation of the IV antibiotic given prior to arrival did not include the name, route, date, and time of administration, then you would not use that antibiotic to establish a *Broad Spectrum or Other Antibiotic Administration Date* and *Time*. If the antibiotic is missing the name, route, date, or time, you would disregard that documentation and continue looking for an IV antibiotic administration within the specified time frame that does include the name, route, date, and time of administration.

Question 6: **If the patient comes in on oral (PO) antibiotics, why wouldn't we use that for infection? For many patients, this would mean they failed home medication therapy and needed more advanced treatment.**

For purposes of abstraction, the medical record should be abstracted as it was documented. As such, you should not assume or infer that an infection was still present based on the patient being on PO antibiotics at home prior

to coming to the hospital. Abstractors would need to look for documentation of an infection to meet criteria A.

Question 7: **If an antibiotic is ordered but there is no indication as to why the antibiotic was ordered, can I still use the antibiotic order as suspicion of an infection?**

No, you would not use the antibiotic order alone without documentation that it was for treatment of infection to meet criteria A for the *Severe Sepsis Present* data elements.

If the antibiotic order did include an indication for an infection, or if there was other documentation that referred to the antibiotic being ordered or administered for the infection, then you could use that infection documentation.

Question 8: **Does bacteremia count as documentation of infection when listed as a reason for IV antibiotics?**

Documentation of bacteremia, as a reason for an IV antibiotic, is acceptable for meeting criteria A (infection) for the *Severe Sepsis Present* data element.

The *Severe Sepsis Present* data element does list bacteremia as an exclusion for physician/Advanced Practice Nurse (APN)/PA documentation of severe sepsis, which means that you would not use documentation of bacteremia alone to select Value "1" (Yes) for this data element. However, you could still use the documentation of bacteremia to meet criteria A, similar to how you would use documentation of sepsis to meet criteria A.

Question 9: **If an IV antibiotic was ordered for a fungal infection, can we use that as an indication for infection?**

No, abstraction guidance in the *Severe Sepsis Present* data element states to not use documentation of fungal infections. Therefore, you would disregard documentation of the fungal infection. If there is no documentation of a bacterial infection included in the antibiotic order, it would not be acceptable to meet criteria A.

Question 10: **Can you use nursing documentation that attributes the hypotension to hypertensive medications, which would exclude the hypotension?**

No, the *Severe Sepsis Present* data element abstraction guidance prior to the bullet point in slide 18 indicates that physician, APN, or PA documentation before or within 24 hours after *Severe Sepsis Presentation Time* is required. Therefore physician, APN, or PA documentation that the abnormal value was due to a medication is required to disregard the abnormal value. Nursing documentation, such as the patient being on a hypertension medication, is not sufficient.

Question 11: **If there is documentation that the patient has "chronic low blood pressure" and has a systolic blood pressure (SBP) less than 90 within six hours of severe sepsis presentation, would the SBP of less than 90 be excluded?**

No, you would not disregard the SBP of less than 90 based on the documentation of "chronic low blood pressure." The *Severe Sepsis Present* data element abstraction guidance requires the documentation to include the abnormal value, (e.g., the actual SBP value) or a term defined by the abnormal value (e.g., hypotension). If the abnormal value or term defined by the abnormal value was documented as due to the chronic condition, you would disregard the hypotensive readings. If the documentation only refers to "chronic low blood pressure," you would not disregard the hypotensive readings.

Question 12: **Are we now able to discount elevated creatinine for any level of chronic kidney disease (CKD), not just end stage renal disease (ESRD) on hemodialysis? Previously, lesser levels of CKD needed to list a baseline creatinine level and could only be discounted if the level was less than 0.5 greater than the baseline.**

No, guidance continues to require documentation that the patient has ESRD and is on dialysis, or documentation of chronic renal disease for creatinine levels values that are within 0.5 above the patient's documented baseline level to disregard elevated creatinine levels.

The *Severe Sepsis Present* data element also includes the abstraction guidance below which allows for an abnormal creatinine value to be disregarded if the abnormal value is documented as due to a chronic condition.

- If the systemic inflammatory response syndrome (SIRS) criteria or a sign of organ dysfunction is due to the following, do not use it. Do not make inferences. The abnormal value or reference to the abnormal value must be in the same documentation (i.e., same sentence or paragraph).
    - Normal for that patient
    - Is due to a chronic condition
    - Is due to a medication

Question 13: **What is the guidance if the provider states SIRS criteria or sign of organ dysfunction is due to an acute condition that has non-intersection source/process but uses a qualifier like "could be," "due to," or "possibly due to"?**

The abstraction guidance does not explicitly require that you confirm the abnormal SIRS criteria value or sign of organ dysfunction is due to the acute condition. The physician documentation suggesting that it could be due to an acute condition with a non-infectious source is sufficient to disregard the abnormal value.

Because it is difficult to provide a definitive response that applies to all situations, we recommended that you submit specific questions through the QualityNet Question and Answer Tool: https://cmsqualitysupport.servicenowservices.com/qnet_qa

Question 14: **If the pregnant patient is less than 20 weeks, do we treat them like non-pregnant patients?**

Yes, for the abstraction of the Sepsis (SEP)-1 measure and for the *Severe Sepsis Present* data element, you would use the criteria under the Non-Pregnant Patients column. Because the patient is less than 20 weeks pregnant, Pregnant 20 Weeks through Day Three Post-Delivery criteria would not yet apply.

Question 15: **Can the exclusion still be used if a physician modifies their note to exclude SIRS criteria or organ dysfunction, and the date and time they modified their note is outside the acceptable time frames?**

No, you would not exclude the SIRS criteria or the sign of organ dysfunction if the documentation was greater than 24 hours after the *Severe Sepsis Presentation Time.*

This guidance, found in the *Severe Sepsis Present* data element, indicates that documentation of an abnormal value for SIRS criteria or organ dysfunction, that is normal for that patient, due to a chronic condition, or due to a medication, has to be documented prior to or within 24 hours after the *Severe Sepsis Presentation Time*.

If there is documentation to this effect more than 24 hours after the *Severe Sepsis Presentation Time*, you would disregard the documentation and continue to use the SIRS criteria and organ dysfunction to meet severe sepsis.

Severe Sepsis Presentation Date and Time

Question 16: **What time would you use if you have documentation of a specific time for infection and infection without a specific time in the same note?**

The *Severe Sepsis Present* data element uses documentation of an infection to establish criteria A and provides abstraction guidance for determining the time to abstract for infection documentation. Either the specified time or note opened time could be acceptable for meeting criteria A. The intent is to identify the earliest point at which severe sepsis was identified as present based upon the earliest documentation of a suspected infection, two or more SIRS criteria, and a sign of organ dysfunction that are all within six hours of each other. If you have an infection documented multiple times within the same note, both with and without a specified time, you will start with the earliest infection documentation. You would then look for documentation of SIRS criteria and sign of organ dysfunction so that all three criteria are within six hours of each other.

Crystalloid Fluid Administration

Question 17: **Will the following scenario meet the exclusions for the *Crystalloid Fluid Administration* criteria? The volume of fluids ordered was 500 milliliters (mL). The patient did not receive a 30 mL/kilogram crystalloid bolus due to fluid overload. The same physician ordered Vancomycin per protocol, diluted with a 500 mL intravenous IV bag.**

Yes, based on the information provided, the physician ordered 500 mL and documented a reason for giving a lesser volume, fluid overload, which meets the *Crystalloid Fluid Administration* criteria. Additionally, the dilution fluids for the antibiotic (Vancomycin) are acceptable to use toward the target ordered volume in that case.

Septic Shock Present

Question 18: **What value would we select if the patient met clinical criteria for severe sepsis prior to 0600, and a PA noted septic shock was ruled out at 0600?**

If severe sepsis was met prior to or at 0600, and there was physician, APN, or PA documentation also at 0600 reflecting the patient did not have septic shock, you would select Value "1" (Yes) for the *Severe Sepsis Present* data element unless severe sepsis was met by physician/APN/PA documentation of septic shock. If severe sepsis was met by physician/APN/PA documentation of septic shock and there was physician/APN/PA documentation indicating septic shock was not present, then you would select value "2" (No) for the *Severe Sepsis Present* data element indicating severe sepsis was not present.

The *Severe Sepsis Present* data element includes the following guidance toward the end of the Notes for Abstraction.

- Select Value "2" if at the same time or within six hours after meeting clinical criteria or physician/APN/PA documentation of severe sepsis there is additional physician/APN/PA documentation indicating:
    - Patient is not septic
    - Patient does not have sepsis or severe sepsis
    - Patient does not have septic shock, and severe sepsis was met by physician/APN/PA documentation that septic shock was present.
    - Severe sepsis or septic shock is due to a viral, fungal, or parasitic infection.

Other Data Elements

Question 19: **Why does the SEP-1 algorithm state that the Blood Culture Timing is 2880 minutes from the *Severe Sepsis Presentation Time,* but the abstraction guidance states the *Blood Culture Collection Time* as**

looking back 24 hours prior, depending on when the antibiotic was administered?

The measure allows the use of blood cultures that are obtained up to 24 hours prior to antibiotic administration. The measure also allows abstraction of antibiotics given up to 24 hours prior to *Severe Sepsis Presentation Time*. This means that a blood culture that was obtained 24 hours prior to an antibiotic dose that was given 24 hours prior to the *Severe Sepsis Presentation Time* would be 48 hours or 2,880 minutes prior to the *Severe Sepsis Presentation Time*.

The algorithm calculations take this into account by accepting blood cultures that were obtained within 2880 minutes (48 hours) prior to and 180 minutes (3 hours) after the *Severe Sepsis Presentation Time*.

The *Blood Culture Collection* data element abstraction guidance focuses on the timing relationship of the blood culture to the time antibiotics are started. It provides guidance to abstract blood cultures to be collected up to 24 hours before the *Broad Spectrum or Other Antibiotic Administration* data element.

Question 20: **Has there been a change to the exclusion criteria for COVID-19? The QualityNet Q&A Tool answered, for the COVID-19 exclusion, that "symptomatic" is synonymous with "suspected." This is different from the specification manual guidance. Standard orders for COVID-19 often have an option to indicate that testing is done due to the patient being symptomatic. This Q&A answer causes the exclusion of many more patients from the measure since we must answer the *Severe Sepsis Present* data element as "No." Will CMS update the specification manual?**

The *Severe Sepsis Present* data element abstraction guidance indicates to select Value "2" (No) if there is physician/APN/PA documentation that coronavirus or COVID-19 is suspected or present. It further states that documentation of COVID-19 or coronavirus qualified with a term synonymous with "possible," "probable," "likely," or "suspected" is acceptable for selection of Value "2" (No).

You would select Value "2" (No) for the *Severe Sepsis Present* data element based on physician/APN/PA documentation that the patient is symptomatic for COVID-19 because this documentation is synonymous with "suspected," "possible," or "probable." Patients with documentation that COVID-19 is "present," "suspected," "possible," "probable," "likely" or a synonymous term are excluded because treatment for COVID-19 may not be consistent with the treatment for severe sepsis and septic shock that

SEP-1 measures because COVID-19 is a viral infection. These patients would therefore have a higher likelihood of not meeting measure requirements associated with antibiotic administration.

No changes are planned for guidance related to COVID-19 at this time.

Question 21: **Should we still include the fluids, once they have ended, when we go back and abstract "No" for the *Initial Hypotension* data element?**

If the target volume of crystalloid fluids is completely infused prior to the presence of hypotension you would select Value "2" (No) for the *Initial Hypotension* data element. In the algorithm flow you would skip entering information for the *Crystalloid Fluid Administration* date elements and move to the *Septic Shock Present* data element.

If septic shock was present, as indicated by either the presence of hypotension after the target volume of crystalloid fluids were given or severe sepsis plus an initial lactate level greater than or equal to 4 mmol/L, you will need to abstract the crystalloid fluid administration data elements. In this situation abstraction and entry of the crystalloid fluid information comes later in the algorithm flow after the *Initial Hypotension* and *Septic Shock* data elements.

Question 22: **If the patient's international normalized ratio (INR) or partial thromboplastin time (PTT) is elevated, does this mean the patient is on an anticoagulant? Should we use the abnormal value until the physician specifically states that the value is due to the medication?**

An abnormal INR or PTT result does not necessarily mean the patient is on an anticoagulant. The INR or PTT may be elevated due to organ dysfunction associated with severe sepsis. You would use the abnormal INR or PTT to meet criteria, unless there is documentation the patient received an anticoagulant medication before the elevated INR, activated partial thromboplastin clotting time (aPTT), or PTT value was obtained, or there is physician/APN/PA documentation that the abnormal value is normal for the patient due to a chronic condition or due to a medication.

We refer you to the guidance about use of INR, aPTT, and PTT values in the *Severe Sepsis Present* data element for additional information.

Question 23: **Are the SIRS criteria based on the SEP-1 or SEP-2 definitions? Is there any talk of using the quick Sepsis Related Organ Failure Assessment (qSOFA) in place of sepsis?**

The screening criteria used for the SEP-1 measure and definition are based upon the SEP-2 criteria and definition and use documentation of suspected infection, SIRS criteria, and a sign of organ dysfunction. The SEP-3 definition uses suspected infection and qSOFA criteria.

Research comparing SIRS-based criteria to qSOFA-based criteria consistently demonstrates that SIRS-based criteria are better at early identification of potential severe sepsis and septic shock, while qSOFA criteria identify patients at highest risk for mortality. The intent of the SEP-1 measure is to identify patients early in the process and then to assess the care and interventions that were provided. Therefore, the SIRS-based criteria are more consistent with the intent of the SEP-1 measure, which is early identification and early appropriate treatment. In addition, the SIRS-based criteria provide a standard, well established method that all abstractors should use to identify patients who meet criteria for inclusion in the measure. This helps ensure that the patients in the measure cohort across all hospitals are similar.

This does not prohibit a clinician from using another screening tool at the bedside that can complement sepsis care being provided in their setting. There are multiple screening tools available for use at the bedside. A measure needs a standard methodology to identify the patient population and a methodology that is most consistent with the intent of the measure. The measure stewards, developers, and CMS have considered recommendations in the *Surviving Sepsis Campaign International Guidelines for Management of Sepsis and Septic Shock 2021* and carefully reviewed the literature that compares the different screening tools and determined that, for SEP-1, the SIRS-based criteria best meet this need.