Hospital Inpatient Quality Reporting (IQR) Program

Support Contractor

SEP-1 Early Management Bundle, Severe Sepsis/Septic Shock: v5.3a Measure Updates

Presentation Transcript

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February 27, 2018
1 p.m. ET

Candace Jackson: Thank you everyone for joining today's presentation titled *SEP-1 Early Management Bundle, Severe Sepsis/Septic Shock: v5.3a Measure Updates*. I am Candace Jackson, the Project Lead for the Hospital Inpatient Quality Reporting Program with the Hospital Inpatient Values, Incentives, and Quality Reporting Outreach and Education Support Contractor. I will be the moderator for today's event. Before we begin, I would like to make our first few regular announcements. This program is being recorded. A transcript of the presentation, along with the questions and answers, will be posted to the inpatient web site, *www.QualityReportingCenter.com* and to the *QualityNet* site at a later date. If you are registered for this event, a reminder email, as well as the slides, were sent out to your email about a few hours ago. If you did not receive that email, you can download the slides at our inpatient web site, and again, that is *www.QualityReportingCenter.com*. If you have a question as we move through the webinar, please type your question into the chat window. We will not be using the raised hand feature for today's webinar. For presenters to best answer your questions, we request that, at the beginning of your question, please type the slide number into the chat window with it. As time allows, we will have a short answer-and-question session at the conclusion of the webinar. Applicable questions that are not answered during the question-and answer -session at the end of the webinar will be posted to the *QualityReportingCenter.com* web site at a later date. I would now like to welcome and introduce our guest speaker for today, Noel Albritton. Noel is a registered nurse and performs as the Lead Solutions Specialist for the Hospital Inpatient and Outpatient Process and Structural Measure Development and Maintenance Team at Telligen. Prior to working on the hospital inpatient measure development and maintenance contract, he worked in the direct hospital environment, as well as mental health and correctional studies. Through persistent improvements to the SEP-1 measure, and by always focusing on an end goal of quality care, Noel’s team at Telligen has been instrumental in improving their sepsis and septic shock patient care. With constantly improving efforts, his team continued to work diligently to improve abstraction guidance for the SEP-1 measure. I would now like to turn the presentation over to Noel. Noel, the floor is yours.

Noel Albritton: Thank you, Candace. Hello and thank you for joining us today to review the updates for the SEP-1 and specification manual version 5.3a.

Our objectives for the presentation today are to explain the changes to the measure and guidance in version 5.3a and identify and understand the rationale behind the version 5.3a updates.

Here's a list of acronyms that we will be using throughout the presentation today.

To begin, CMS, the measure steward, and the measure writers have been listening to feedback related to SEP-1 from abstractors, facilities, and organizations. Recommendations and comments have been carefully considered and evaluated in relation to published evidence, where available. The revisions to the measure for manual version 5.3a illustrate the outcome of this evaluation. Note there are many factors involved in this process that potentially limit the ability to implement every change considered. However, CMS, the measure steward, and the measure writers continue to evaluate feedback and recommendations and ways to improve upon the measure. The fundamental purpose of the SEP-1 measure, as with all CMS measures, is to identify opportunities for improvement in patient care that are consistent with published evidence and best practices. This fundamental principal is the basis for consideration of all revisions to the measure, while maintaining a balance with the effort involved in abstracting information from medical records. I also want to remind everyone that, when you're submitting questions through the online tool, please keep in mind that the words and your question are the only thing that the measure writer is evaluating. If your medical record provides additional or conflicting times or information, then you cannot base your abstraction on the answers given. As measure writers, we are not looking at the entire patient's medical record. The answers we give are reference knowledge and not a final fact.

Sepsis will be publicly reported beginning with the July 2018 *Hospital Compare* release. The preview period for the hospitals is anticipated to be from May 4, 2018, through June 2, 2018, with the actual release to be July

25, 2018. The quarters that will be publicly reported for this release will be first quarter 2017 through the third quarter 2017. With each release, the most recent quarter is added, and older quarters removed, so a full rolling year's worth of performance data are included, similar to other chart abstracted measures. The first full year of data will be in October 2018 when the full 2017 will be reported.

To start the review of version 5.3a updates, a new data element, a clinical trial, has been added. In order to select Yes for this data element, there must be a signed consent form for a clinical trial and there must be documentation on the signed consent form that, during the hospital stay, the patient was enrolled in a clinical trial in which patients with the same condition as the measure set were being studied. Therefore, only patients enrolled in a clinical trial studying the treatment or interventions of patients with sepsis, severe sepsis, or septic shock should be captured by this data element. The clinical trial data element was added from recommendations from facilities and abstractors. Selecting Yes will result in the case being excluded from the measure population.

The algorithm flow prior to version 5.3a required abstraction of the initial lactate level collection data elements, followed by the broad spectrum or other antibiotic administration data elements. The version 5.3a algorithm flow has been updated so that the broad spectrum or other antibiotic administration data elements will be abstracted first and then the blood culture data elements. This change affects cases with a broad spectrum or other antibiotic administration time that is greater than 24 hours prior to this severs sepsis presentation time. These cases will now be excluded prior to abstracting the initial lactate level collection data elements. The previous algorithm flow required the initial lactate collection data elements to be collected before the broad spectrum or other antibiotic administration data elements. This prevented some cases from being excluded at the broad spectrum or other antibiotic administration data elements because the case did not pass the initial lactate level collection data element.

To provide further clarification for the administrative contraindication to care severe sepsis and administrative contraindication to care septic shock data elements, this slide provides some examples of an authorized patient advocate. Please remember the examples on this slide are not all inclusive and state regulations may impact how your facility determines an appropriate authorized patient advocate. The first example of an authorized patient advocate is a power of attorney. Depending on your location and how this is documented, it may state healthcare proxy, medical or healthcare power of attorney, or similar title. If documentation of a previous authorized power of attorney is not available, a reasonable authorized patient advocate may be deemed the decision maker for the patient. This is most often reflected as a spouse or a child of the patient.

On this bullet point, an exception was added to the data element broad spectrum or other antibiotic administration. It indicates that only IV antibiotics administered in the 24 hours prior to three hours after the severe sepsis presentation are acceptable, with one exception. There's explicit documentation indicating IV access could not be established, antibiotics administered via intramuscular or intraosseous routes, and started within 24 hours prior to three hours after severe sepsis presentation are acceptable. When this exception applies, the date and time of the IM or IO antibiotics administered is used for the broad spectrum or other antibiotic administration date and time data elements. The exception for IM or IO antibiotics was added based on feedback from abstractors and facilities.

In this example, the patient has a severe sepsis presentation date and time of 1/5/2018 at 1600. The ED nurse documents failed IV attempts times two, awaiting PICC placement. The physician ordered Ceftriaxone IM and the MAR shows Ceftriaxone IM was administered within the specified timeframe for the data element. Since the nurse clearly documented IV access could not be established and the IM antibiotic was administered within the specified timeframe, this would be acceptable.

The same concept regarding IV antibiotics and the exception for IM and IO antibiotics also applies to the broad spectrum or other antibiotic

selection data element. If the broad spectrum or other antibiotics administration time is within three hours of the severe sepsis presentation time, the broad spectrum or other antibiotic selection data element must be abstracted. To suffice this data element, an acceptable antibiotic from Table 5.0, or combination antibiotics from Table 5.1, must be administered within three hours of the severe sepsis presentation time. The same exception previously discussed also applies. If there is explicit documentation that IV access could not be established, antibiotics administered IM or IO can be used to suffice the broad spectrum or other antibiotic selection data element as well.

An additional option for selecting value four in crystalloid fluid administration has also been added. value four may be selected if the patient, or authorized patient advocate, refuses IV fluid prior to or within six hours following the presentation of septic shock. This refusal may reflect a complete refusal of IV fluids or the refusal of a portion of IV fluids by the patient or the authorized patient advocate. This new guidance was added because current algorithm flows did not take into account a refusal of fluids until after crystalloid fluid administration and septic shock present is entered. As a result, a patient who refused fluids will fail the measure because fluids were not given per the refusal, but the opportunity to exclude the patient based on the refusal occurs after crystalloid fluids are assessed. The change allows the refusal of fluids to be taken into consideration at the point crystalloid fluids are being assessed. When the refusal of fluid occurs prior to or within six hours following the septic shock presentation, value four can be selected for crystalloid fluid administration and the case will be excluded.

In this example of the refusal of fluids, the severe sepsis presentation time is 1/5/2018 at 1200. Initial hypotension is at 1645, which would then require 30 mL of crystalloid fluids to be administered for the severe sepsis patient with initial hypotension. Thirty mL/kg are ordered and started at 1700 and the physician documents septic shock. The physician then notes at 1830 that the patient does not want any more fluids. Since the refusal is greater than six hours after the acceptable timeframe for the administrative

contraindication to care, severe sepsis data element, and the crystalloid fluid administration is abstracted prior to the administrative contraindication of care septic shock data element, by selecting value four at crystalloid fluid administration, the case will take into account the patient refusal.

In order to select value one for crystalloid fluid administration the fluids must be ordered, initiated, and completely infused. Per the data element, to determine if the fluids were completely infused, either a rate duration or an end-time must be documented either in the order or by the nurse at the time of administration. Although documentation must reflect the fluids were completely infused, there is no specified timeframe for when they have to be infused by.

Another update for the crystalloid fluid administration data element is a bullet point regarding weight-based dosing using the documented ideal body weight. This update to the crystalloid fluid administration data element was suggested by physicians and facilities due to the considerable weight-based volume of fluids required for patients with a BMI greater than 30. It is important to note that using the ideal body weight for patients with obesity is at the discretion of the physician, APN, or PA, rather than a requirement for crystalloid fluid administration. I would also like to point out that the measure does not provide a specific formula for calculating the ideal body weight. Also, the abstractor should not perform the calculation to determine the ideal body weight. The ideal body weight should be documented in the medical record in order to determine if the target ordered volume of crystalloid fluids were administered. Also, other terms, such as predicted body weight, dosing weight, or adjusted body weight, are also acceptable in place of the ideal body weight.

To further clarify the required documentation for the ideal body weight for crystalloid fluid administration, the following three conditions must be documented. The ideal body weight value must be documented in the medical record. Again, abstractors should not calculate it. The ideal body weight may be documented by the clinician or the ideal body weight may be located elsewhere in the medical record. In some EHR's, the ideal body

weight value may be automatically calculated. The clinician must document the patient is obese or has a BMI greater than 30. The clinician must also document they are using the ideal body weight to determine the volume of fluid.

Two examples demonstrate clear documentation that the volume of crystalloid fluids ordered is based on the patient's ideal body weight. In the first example, the APN includes the required documentation, including the patient's BMI that is greater than 30 and ideal body weight, indicating the value of the target ordered volume is based on the ideal body weight. In the second example, the PA documentation also includes the required documentation identifying the patient has obesity and the target ordered volume is based on the patient's ideal body weight. In order to determine the 30 mL/kg volume based on this example, the ideal body weight must be documented elsewhere in the medical record. If the ideal body weight was not documented in the medical record, the ideal body weight would not be used to determine if the target ordered volume was administered.

The crystalloid fluid administration bullet point regarding a target ordered volume of crystalloid fluids that is within 10% of 30 mL/kg volume remains the same for version 5.3a as in the previous manual. To clarify, only an ordered volume within 10% of 30 mL/kg meets this bullet point. This bullet point does not apply to cases in which the physician, APN, or PA ordered 30 mL/kg of crystalloid fluids, but it was not completely infused. Per the example, the patient weighed 70 kilograms, which would require 2100 milliliters to equal 30 milliliters per kilogram. However, a single physician order for 2000 mL was present in the medical record. Since 2000 milliliters is within 10% of the 30 milliliters per kilogram volume, and no further accessible orders for crystalloid fluids are present, the ordered volume that is within 10% of 30 milliliters per kilogram would suffice the crystalloid fluid administration data element.

To further clarify, a volume within 10% of the 30 mL/kg volume is only acceptable if that volume is ordered. Administering a volume less than 30 milliliters per kilogram, when a 30 milliliters per kilogram volume has been ordered, is not acceptable. Therefore, if the patient requires 2400

milliliters to equal 30 milliliters per kilogram and the physician ordered 2400 milliliters, 2400 milliliters must be initiated and infused. Administering any volume less than the ordered amount is not acceptable.

Two new exceptions have been added to the crystalloid fluid administration data element. The first exception addresses fluids administered prior to arrival to the hospital. To use crystalloid fluids administered prior to arrival to the hospital, there must be documentation of administration in the medical record that contains the type, the volume, the start time, and either a rate duration or end time of the fluids. A physician, APN, or PA order for fluids administered prior to the hospital is no longer required. This new update was added due to abstractor and facility feedback regarding the difficulty of locating physician, APN, and PA orders for prior-to-arrival fluids.

The second exception for crystalloid fluid administration addressed crystalloid fluids administered in the operating room. Similar to the previous exception discussed, crystalloid fluid administered in the OR by a physician, APN, or PA are acceptable without an order if the infusion start time, type of fluid, the volume of fluid, and the infusion rate duration or end time is documented. This exception was also added to crystalloid fluid administration based on abstractor and facility feedback regarding how crystalloid fluids are administered within the OR. Therefore, a physician, APN, or PA is administering fluids in the OR without writing an order for fluids, the documentation of the administration of fluids including the start time, type, the volume, the rate duration or end time is acceptable.

Also new for the crystalloid fluid administration data element, the Isolyte fluid has been added to the inclusion guidelines for abstraction listed. Other types of crystalloid fluids, or balanced crystalloid fluids, are also acceptable, as the inclusion guidelines for abstraction is not an all-inclusive list. Also for crystalloid fluid administration, the previous guidance not to use crystalloid solutions given to dilute medications has been removed.

As the example demonstrates, crystalloid fluids given to dilute medications should be used toward the target ordered volume if the fluids are ordered, administered within the appropriate timeframe, and at an acceptable rate, and meet the other requirements of the crystalloid fluid administration data element. The rational for this update was based on abstractor feedback making a case for fluids used to dilute medications to be acceptable toward the target ordered volume.

The previous guidance for crystalloid fluid administration, provided in the additional notes for abstraction, manual version 5.2a, to abstract crystalloid fluids administered within six hours prior to six hours after initial hypotension, has been removed. For version 5.3a, crystalloid fluids started within six hours prior through three hours after initial hypotension are acceptable. If a single order is written for the target ordered volume, the start time of the first infusion for the order needs to be within the timeframe. If multiple orders are written to meet the target ordered volume, the start time of each infusion needs to be within the timeframe. This update is the result of feedback received regarding the timing of fluids in relation to initial hypotension and septic shock, since the crystalloid fluid administration time is required to be prior to or within three hours of the septic shock presentation time or initial hypotension, whichever comes first. Also, in version 5.3a, crystalloid fluids started within six hours before and initial lactate level result greater than or equal to four or documentation of septic shock are now acceptable. While the timeframe for starting fluids for the initial lactate level result greater than four or documentation of septic shock was removed in version 5.3a, fluids started more than three hours after septic shock present will not pass the measure per the algorithm logic. Again, to note, the previous guidance pertaining to the specification manual 5.2a that included a timeframe of six hours prior to six hours after a triggering, event such as an initial lactate level greater than four or documentation of septic shock, have been removed.

The term “triggering events” is often used when referring to the event that sparked initiation of the target ordered volume of crystalloid fluids. We

previously discussed the timeframe to start crystalloid fluids when initial hypotension is present. If the triggering event for crystalloid fluids is an initial lactate level greater than four or physician documentation of septic shock, the appropriate time window for abstracting the initiation of fluids is within six hours prior to the triggering event to three hours after septic shock presentation date and time. For the presence of multiple triggering events, the suggested recommendation is to use the earliest trigger to establish a timeframe. Using the earliest trigger is consistent with the measure intent of early identification and treatment of severe sepsis and septic shock. The example reflects an initial hypotension time of 1100 and an initial lactate greater than four at 1400. So, using the earliest triggering event, we would abstract crystalloid fluids started six hours prior through three hours after initial hypotension.

Updates to the initial hypotension data element have resulted from feedback regarding patients that may have had a single transient hypotensive blood pressure reading that resulted in value one or Yes being selected for initial hypotension when no further hypotensive blood pressures were documented. Therefore, the criteria for determining initial hypotension has been updated to two hypotensive blood pressures within the timeframe. The timeframe is six hours prior to the severe sepsis presentation to six hours after, which has not changed, and two hypotensive blood pressures that do not have to be consecutive. Also, the hypotensive blood pressure readings must be from two different measurements, meaning the readings were obtained at different times. A hypotensive MAP and a systolic blood pressure from the same blood pressure reading would not be two different measurements. Simply, if two hypotensive blood pressures are documented in the timeframe prior to the completion of the crystalloid fluids, value one may be selected for initial hypotension. It's also important to note the second hypotensive blood pressure reading within the timeframe constitutes the initial hypotension. The time of the second blood pressure is used for the specified timeframe when abstracting other data elements.

Guidance previously addressed in version 5.2a additional notes for abstraction for the initial lactate level result have been added to the data element for version 5.3a. If the initial lactate level result is documented by the physician, APN, or PA as due to a condition that is not an infection or a medication, value one should be selected for the initial lactate level result data element.

The first addition to the severe sepsis present data element are two new sub-bullet points for the organ dysfunction criteria, creatinine. The first new sub-bullet point refers to physician, APN, PA documentation that the patient has end stage renal disease and is on hemodialysis or peritoneal dialysis. If the physician, APN, PA documentation is present in the medical record, all reported creatinine should be disregarded and not used as evidence of organ dysfunction. This update was suggested since patients with documented end stage renal disease and on dialysis are most likely to have frequently fluctuating creatinine levels. We address these patients specifically with physicians this bullet point. Note the documentation of end stage renal disease and dialysis are required, but they are not required to be included in the same physician, APN, or PA documentation in order to disregard the elevated creatinine values.

The second sub-bullet point related to the creatinine under organ dysfunction is the sub-bullet point referring to physician, APN, PA documentation of chronic renal disease and a documented baseline creatinine. If the reported creatinine value is greater than 0.5 above the documented baseline, the creatinine should be used as organ dysfunction. If the physician documented the patient has CKD, but does not document a baseline value or range, the sub-bullet point would not apply. Also, the documentation of CKD and the baseline creatinine are not required to be in the same documentation as the creatinine elevated greater than 0.5 above baseline. Similar to the previous sub-bullet point discussed, this update was added based on measure steward and physician feedback regarding patients with chronic kidney disease specifically.

Despite the change to initial hypotension or two hypotensive blood pressure readings are required, the criteria for hypotension, as a sign of

organ dysfunction, has not changed. Only one hypotensive blood pressure reading is needed for severe sepsis present, criteria C, evidence of organ dysfunction. So, to be clear, while the initial hypotension data element has been updated to require two hypotensive blood pressures, organ dysfunction, or severe sepsis present, continues to only require one hypotensive blood pressure reading.

Also, for the severe sepsis present data element, if there is documentation the patient was given an anticoagulant medication in Appendix C, Table 5.3, the INR or aPTT should not be used as organ dysfunction. Also, physician, APN, or PA documentation of the patient given an anticoagulant is not required. This updated guidance and additional table was added due to the increased possibility of fluctuating INR or aPTT levels when patients are receiving these particular anticoagulants. This addition contributes to our goal of ensuring the specifications manual makes clinical sense.

These examples demonstrate documentation showing the patient was given an anticoagulant medication. With the documentation that the patients in the examples were given an anticoagulant that is on Table 5.3, any reported INR or aPTT value would not be used as evidence of organ dysfunction. The first example demonstrates an anticoagulant was given in the hospital. Note this documentation includes an administration date and time for the anticoagulant to demonstrate the medication was given. The second example reflects an anticoagulant on a home medication record. With anticoagulant documented on the home med rec, a medication would be considered given unless otherwise stated as not given.

In version 5.3a, physician, APN, and PA documentation, prior to or within 24 hours after the severe sepsis presentation time, indicating SIRS criteria or a sign of organ dysfunction is due to an acute condition or an acute on chronic condition, should be used. The version 5.3a manual update is considerably different. SIRS criteria or a sign of organ dysfunction that is documented as due to an acute condition or acute on chronic condition should be used unless there is further documentation in the medical record considering the acute condition or acute on chronic condition to be due to

a non-infectious source. The rational for this revision is based on the number of acute issues severe sepsis in general has the potential to cause. Therefore, SIRS criteria or organ dysfunction related to an acute condition may be used because the acute condition is potentially the result of severe sepsis. However, we will also discuss ways in which SIRS criteria or organ dysfunction documented as due to an acute condition may be disregarded in a few moments.

Here are a few examples. First, the documentation of an elevated lactate secondary to a seizure, the elevated lactate should be used as a sign of organ dysfunction. Also, if the APN documents acute kidney injury, creatinine 2.9, the elevated creatinine should be used as a sign of organ dysfunction. The third example includes acute respiratory failure with a BiPAP placed continuously, which may be due to a medication or may be caused by an acute COPD exacerbation. Although the sign of organ dysfunction can still be disregarded in version 5.3a, if documented by the physician, APN, or PA as due to a chronic condition or medication, this documentation also includes an acute condition, acute COPD exacerbation, that is possibly causing the acute respiratory failure. Therefore, the initiation of the mechanical ventilation, which is a BiPAP in this case, should be used as a sign of organ dysfunction. Similar to example three, an acute condition, chronic condition, and a sign of organ dysfunction is included in the documentation of example four. Without documentation indicating the cause of the acute condition and without documentation that the patient is on dialysis, the elevated creatinine should be used for organ dysfunction since this documentation attributes the elevated creatinine to be possibly due to the acute condition. The elevated creatinine should be used as organ dysfunction.

The next bullet point and the data element allows the physician, APN, or PA documentation indicating an acute condition is due to a non-infectious source or process. If documented within the specified timeframe, the SIRS criteria for organ dysfunction can be excluded. The bullet point also provides guidance for determining if the source of the acute condition is caused by an underlying infection by referring to criteria A in the severe

sepsis present data element. So, if a SIRS criterion or a sign of organ dysfunction is documented and due to an acute condition and further physician, APN, or PA documentation considers the acute condition to be caused by a non-infectious source, the SIRS criteria or sign of organ dysfunction would not be used. For example, if an elevated lactate is documented as secondary to a seizure, post brain injury, the elevated lactate would not be used due to the documentation specifying the acute condition, the seizure, that caused the elevated lactate was due to a non-infectious source or the brain injury. This bullet point requires the physician, APN, or PA to include the source of the acute condition in the same documentation. If the documentation indicating the source of the acute condition is not present, the SIRS criteria or a sign of organ dysfunction should be used.

Another example of the previous bullet point: The APN documents acute kidney injury, Creatinine 2.9. Further physician documentation identifies the acute kidney injury is due to dehydration, which is a non-infectious source. Therefore, the elevated creatinine would not be used as organ dysfunction because the acute condition causing the elevated creatinine is documented as due to a non-infectious source.

The bullet point referred to on the previous slide pertains to if there is an indication in the physician, APN, and PA documentation that the source of the acute condition is non-infectious. As a next step, you will have to determine whether the source of the acute condition noted in the same physician, APN, PA documentation is infectious or not. You would use the severe sepsis present criteria A to determine if the source of the acute condition is infectious. The guidance directs you to the bullet point one, two, and three on this slide, which are also under criteria A in the severe sepsis present data element, to determine if the source of the acute condition is non-infectious.

To further clarify documentation that may support a condition to be infectious, the APN documents the SIRS criteria and the references and acute condition. The PA later documents the acute condition is due to a source that may or may not be related to an infection. The antibiotic order

with an indication for diverticulitis supports this source is related to an infection and, therefore, the elevated white blood cell count would be used as SIRS criteria.

This bullet point was added to the severe sepsis present data element to provide guidance for the documentation of severe sepsis that considers the condition to be due to a viral, fungal, or parasitic cause. This particular bullet point directly relates to cases where severe sepsis is only met by physician, APN, or PA documentation and the physician, APN, PA documentation considered severe sepsis to be due to a viral, fungal, or parasitic infection. In this scenario, the physician, APN, PA documentation of severe sepsis is simply disregarded, and abstraction continues. The bullet point allows for the severe sepsis documented as due to a viral, fungal, or parasitic infection to be disregarded without excluding the case from the measure. This is because the measure is seeking the earliest presentation of severe sepsis related to a bacterial infection rather than a viral, fungal, or parasitic infection. Therefore, the abstractor would continue to review the medical record for severe sepsis.

This bullet point has been revised to include further documentation that may be used to indicate severe sepsis is not present. Previously, physician, APN, PA documentation indicating severe sepsis was not present was acceptable, but lack guidance regarding other variations and documentation that may also indicate severe sepsis is not present. For version 5.3a, if severe sepsis clinical criteria are met or there's physician, APN, PA documentation of severe sepsis and within six hours there is additional physician, APN, PA documentation indicating the patient is not septic, does not have sepsis, or there’s further documentation that severe sepsis is due to a viral, fungal, or parasitic infection, value two, No, should be selected for severe sepsis present. Upon selecting value two for severe sepsis present, the case will be excluded because only the first presentation of severe sepsis is abstracted. The first example demonstrates PA documentation of severe sepsis and further documentation within six hours stating the patient is not septic. So, value two would be selected and the case would be excluded. Likewise, in the second example, the severe

sepsis clinical criteria are met and within six hours the physician further documents severe sepsis is due to a viral condition. So, value two is selected for severe sepsis present in this scenario as well.

Further additions to the severe sepsis present data element include not using vital signs documented in the operating room and not using SIRS criteria or organ dysfunction due to an artificial intervention. The first bullet point only includes vital signs documented while the patient is in the OR. Vital signs documented outside of the OR, such as in a recovery unit, are not excluded based on this bullet point. As far as excluding SIRS criteria or organ dysfunction due to an artificial intervention, physician, APN, PA documentation is not required, but rather, as the example demonstrates, if the respiratory rate is 24 and the respiratory ventilation is set at 24, the respiratory rate of 24 would not be used. If the respiratory ventilation was set at 24 and the respiratory rate was 28, the respiratory rate of 28 could be used since it is greater than the rate of the artificial intervention. Only artificial interventions purposely used to maintain your vital signs should be disregarded per this bullet point. A patient with hypotension documented during dialysis would not meet this particular bullet point because dialysis is not an artificial intervention used to maintain the blood pressure.

To further clarify the appropriate timeframe to extract when severe sepsis is documented as present on admission, the time documented that reflects when the patient arrived to the inpatient floor or unit should be used. For example, if the physician documents severe sepsis was present on admission, with an admission order at 0900, status change to inpatient at 0920, and documentation of patient's arrival to the unit at 0945, 0945 would be abstracted for the severe sepsis presentation time. The time of arrival to the floor or unit for admission is used because admission orders and other admission documentation may be documented earlier. Therefore, with the documentation specific that a diagnosis was present on admission, the actual admission time to the floor or unit is abstracted.

The positive and negative qualifier table has been added to the severe sepsis present and septic shock present data elements. For documentation

of an infection, severe sepsis, or septic shock accompanied by a qualifier, the table should be used. The qualifier table was added to the severe sepsis present and septic shock present data elements due to a qualifier often being included in the medical record documentation. Documentation containing a positive qualifier should be used to meet criteria. Documentation containing a negative qualifier should not be used to meet criteria. For example, if there's physician documentation, possible severe sepsis, this documentation would be used to select Yes to the severe sepsis present data element. It is important to remember that this is not an all-inclusive table. Other positive and negative qualifiers could also be used in the same way.

Documentation using a qualifier may determine how the documentation of severe sepsis or septic shock is to be abstracted. The qualifier is a word or a word group that limits or modifies the meaning of another word or word group. The first example (during an exam in the ED, the patient found to have severe sepsis) does not include a qualifier, but simply states severe sepsis is present. The second example (during an exam in ED, severe sepsis suspected) includes the qualifier “suspected” which would allow Yes to be selected or severe sepsis present. The third example (during an exam in ED, severe sepsis unlikely) includes the qualifier “unlikely” which would negate the presence of severe sepsis. So, this documentation would not be used to select Yes to severe sepsis.

This topic relates both to severe sepsis present and septic shock present. The bullet points regarding order sets, protocols, and checklists, has been revised. The title or heading of an order set, protocol, checklist, alert, screening tool, etc., reflecting an infection, SIRS criteria, sepsis, severe sepsis, or septic shock should not be used to meet criteria. The examples demonstrate an order-set title and an alert heading. These are commonly seen, but neither the title or the heading reflects physician, APN, or PA documentation or nursing documentation. Therefore, the title or heading alone would not be used.

This new guidance clarifies what documentation within an order set protocol, etc., is acceptable. The documentation within an order set,

protocol, checklist, screening tool, etc., can be used if the documentation or value within the order set, protocol, or checklist is the earliest date and time documented for the criteria. So, within a screening tool, the physician selected an option indicating severe sepsis is present. As long as that is the earliest presentation date and time for severe sepsis, the documentation within the screening tool should be used.

Similar to previous discussions regarding severe sepsis, this bullet point has also been revised for septic shock to include further documentation that may be used to indicate septic shock is not present. Previously, physician, APN, PA documentation indicating septic shock was not present was acceptable, but lacked guidance regarding other variations and documentation that may also indicate septic shock is not present. In version 5.3a, if septic shock clinical criteria are met. or there's physician, APN, PA documentation of septic shock, and within six hours there's additional physician, APN, PA documentation indicating the patient is not septic or does not have sepsis or there's further documentation that septic shock is due to a viral, fungal or parasitic infection, value two may be selected for septic shock present. The first example demonstrates PA documentation of septic shock and further physician documentation within six hours stating the patient is not septic. So, value two would be selected in this case. Likewise, in the second example, the septic shock clinical criteria are met and within six hours a physician further documents septic shock is due to a viral condition. So, value two is selected for septic shock in the scenario as well.

To provide further clarification for selecting value one for septic shock present, value one can be selected for septic shock present by one of three ways: if there's physician, APN, or PA documentation of septic shock, or if Yes is selected for severe sepsis present and the initial lactate level result is greater than or equal to four, or if Yes is selected for severe sepsis present and persistent hypotension is present. It's also important to note that the documentation of septic shock data element is not necessarily used for determining septic shock present. Upon abstracting septic shock present, the earliest presentation date and time, whether met by physician,

APN, or PA documentation of septic shock or by septic shock clinical criteria, would be used to extract the septic shock presentation time.

If the patient is in the operating room during the hour to assess for persistent hypotension, value two might be selected for persistent hypotension. The data element provides guidance for not using blood pressure values documented while the patient is in the OR. This is due to the medications and numerous other factors that may influence the patient's blood pressure in the OR setting. Secondly, persistent hypotension should be assessed in the hour following the completion of crystalloid fluids, irrespective of when crystalloid fluids are completely infused. Therefore, upon completion of the target ordered volume of crystalloid fluids, persistent hypotension should be assessed. If persistent hypotension is found greater than six hours after the severe sepsis presentation time, severe sepsis and persistent hypotension would not be used to select value one for septic shock present. That concludes our review of manual version 5.3a updates. Thank you again for participating and I will turn it back over to you, Candace.

Candace Jackson: Thank you, Noel, and that was a lot of useful information. I'm sure it will be beneficial for everyone. We do now have time for our Q&A session and we will go through as many Q&As as we can in the next 20 to 30, 25 minutes. So, to start it off, I think we'll start with a general question. When are these updates effective?

Noel Albritton: Thanks, Candace. This is Noel. The version 5.3a manual is effective for discharges starting January 1, 2018, through June 30, 2018.

Candace Jackson: Thank you. Noel. Our next question: Does the ED note have to say severe sepsis or septic shock present on admission or can documentation of a diagnosis of severe sepsis or septic shock in the ED note be used as present on admission? Noel or Bob?

Noel Albritton: Hi, Candace. This is Noel again. So, if severe sepsis is documented as present on admission, then the admission date and time to the floor unit would be used. If severe sepsis is simply documented within the ED note,

not saying present on admission, then the date and time severe sepsis was documented in the ED note would be used.

Candace Jackson: Thank you. Our next question: Can we use pancytopenia, neutropenia, without having a lab result included and will we still able to exclude the elevated or low results?

Noel Albritton: This is Noel again. Pancytopenia or neutropenia are terms referencing the abnormal lab value. So, if the reference to the abnormal lab value is documented as due to a chronic condition or medication or normal for the patient, then you could exclude those abnormal lab values. The terms pancytopenia, neutropenia, or those references alone would not be used to meet the criteria.

Candace Jackson: Thank you. Our next question: Initial hypotension, do the two low vital signs need to be in the same timeframe or can one be six hours before and one in the six hours after severe sepsis presentation?

Noel Albritton: Okay. So, for initial hypotension, the timeframe is six hours prior to severe sepsis presentation to six hours after severe sepsis presentation. So, the two hypotensive blood pressures simply need to be within that 12-hour span. So, it doesn't have to be prior to or after, it can be both, simply two blood pressures within that timeframe.

Candace Jackson: Thank you. Our next question: Can you clarify page 46? So, I am assuming that they mean slide 46. Severe sepsis present on admission, it notes to use the earliest documented hospital admission time. Are we always to use the documented patient arrival to floor rather than the admit order time or admission registration time? If we have two times of arrival to floor, which time do we use? Do we use the earlier time?

Noel Albritton: This is Noel again. So, you would use the time that the patient, or the time that most accurately reflects when the patient arrived to the floor unit, rather than the order time. If you have two times that reflect when the patient arrived to the floor or unit, you would abstract the earliest one of those times to get the earliest severe sepsis presentation time possible.

Candace Jackson: Thank you. Our next question: Will a procalcitonin become part of this measure in the future? Our physicians are using this as a marker instead of lactic since lactic acid can be elevated for numerous other reasons.

Bob Dickerson: Hi, this is Bob. So, procalcitonin is currently not part of the measure. As far as I know, there are no plans to add this, unless there is some literature that would surface indicating that this is a good marker for sepsis. The Surviving Sepsis Campaign guidelines most recent ones published in, for 2016, were published early in 2017, referenced the use of procalcitonin for determining when it's appropriate to either deescalate or stop antibiotics. Those guidelines do not recommend procalcitonin as a marker for identifying the presence of severe sepsis or septic shock.

Candace Jackson: Thank you, Bob. Our next question: Does the ED note have to say severe sepsis or septic shock present on admission or can there be documentation of severe sepsis or septic shock as a diagnosis in the ED note and it qualify as present on admission?

Noel Albritton: This is Noel again. The documentation was severe sepsis or septic shock within the ED note that does not say present on admission. You would simply use the specified time that severe sepsis or septic shock is documented and, if a specified time is not available, then you would use the note open time. If it is documented as present on admission, then you could use the admission time to the floor unit.

Candace Jackson: Thank you, Noel. Our next question: Why are direct admissions who present from nursing homes with homes with infections, severe sepsis, septic shock, not considered a transfer?

Bob Dickerson: So, the data related to transfer from another hospital or ASC is really to identify patients that were in a setting like a healthcare setting, such as a hospital, that may have received some treatment prior to the transfer in relation to severe sepsis or septic shock. When patients are identified in a nursing home, that aligns more closely with patients in the community or at home being identified as having an infection or severe sepsis or septic

shock. So, it's not considered the same as a transfer from another acute care setting, which is what the transfer data element is trying to capture.

Candace Jackson: Thank you, Bob. Our next two questions are in regard to slide 19. So, if we could go to that slide. Our first question: Does the physician have to document obesity, or can this be assumed from a documented BMI that is automatically calculated within the chart?

Bob Dickerson: This is Bob again. So, what we're really looking for here is documentation from the physician that they have identified the patient is obese or has an elevated body mass index to the point where they are using that as a determinant for using the ideal body weight to calculate the fluid volume. So, the physician does need to include in their documentation, whether it be an order or a note, that they are using the fact that the patient is obese as a reason for using ideal body weight to calculate the volume.

Candace Jackson: Thank you Bob. Our next question is on slide 19. Will there be a standard defined equation for IBF or ideal body weight?

Bob Dickerson: This is Bob again. This is a great question. We're not defining how ideal body weight is determined in the specifications manual and a lot of… That is primarily based upon the fact that different EHRs may use slightly different formulas for determining that and, whatever method is used by a given EHR to identify the ideal body weight, that is the ideal body weight then that the clinician has to base their order on and that's what should be used. So, there is not going to be any type of specified formula required. It's just whatever is calculated by your system or, if your EHR does not calculate it, the ideal body weight is calculated by your clinician.

Candace Jackson: Since we're on that topic, I do have one more question about ideal body weight. Does the 10% lower apply to the ideal body weight calculation also?

Noel Albritton: Hi, this is Noel again. So, the physician bases the target ordered volume off of the ideal body weight and then orders a volume that's within 10% of the target ordered volume that's based on the ideal body weight then, yes,

it would apply. The physician would just have to document appropriately to use the ideal body weight to determine the target ordered volume first.

Candace Jackson: Thank you, Noel. Our next four questions are related to slide 18. So, if we could go to slide 18, please? The first question for slide 18, total fluid bolus does not have to be infused over a certain timeframe, correct?

Noel Albritton: Yes. That is correct. There is the timeframe and crystalloid fluid administration is specific to the start of your fluids and it does not specify a timeframe for when those fluids must be completed. However, you have to be able to determine that the fluids were completely infused in order to use them toward your target ordered volume.

Candace Jackson: Our next question on that same slide: With initial hypotension, required IV fluid, IVF, must be initiated within three hours of initial hypotension. In regard to septic shock being met clinically or with an initial lactic acid of 4.0 or greater or MD, APN, PA documentation of septic shock, 30 mL/kg IVF is required within three hours of presentation. The notice statement on slide 18 states (that) complete infusion does not need to occur within the appropriate timeframe. Clarification is greatly needed as to what the statement is specifically referencing.

Bob Dickerson: This is Bob and correct me if I miss something on this one because I know you guys deal with these kinds of questions quite a lot. The intent is that the infusion needs to be started within that appropriate timeframe, so started within three hours following presentation, but it doesn't have to be completely infused within that timeframe. So, it could be started at 2.5 hours after a presentation time, but the infusion may be a large enough volume that goes over two hours, in which case it would be finished after the timeframe and that's okay as long as it is started in that appropriate timeframe.

Candace Jackson: Thank you, Bob. Our last question on slide 18: If the nurse only documents 30 mL/kg infused, does this count toward target volume infused, even though a total volume number was not stated?

Noel Albritton: Hi, Candace, it's Noel. I suppose, in order to determine this, there would have to be a volume ordered or a volume within the physician's order. So, nursing documentation of 30 mL/kg infused alone would not be sufficient. The order would need to be complete, which includes the volume, as well as documentation of administration of the fluids, which would include start time, and you have to be able to determine if the fluids were completely infused as well. So, alone, nurse documentation of 30 mL/kg infused would not suffice.

Candace Jackson: Thank you, Noel. Our next question: Are there any benchmarks for the SEP-1 metric?

Bob Dickerson: This is Bob and, currently, we do not have any benchmarks published. I know that CMS is working on developing a benchmarks report that will have… The plan is to have the overall performance for the measure and then a breakdown by the bundle and I believe the tentative target release for that is in May of this year. Don't hold me 100% to that month, but that is tentatively what we're planning and there should be more information coming out about that.

Candace Jackson: Thank you, Bob. Our next two questions are in regard to slide number 26. So, if we could go to slide 26, please? The first question is, for slide number 26, on crystalloid fluids given to dilute medications. Would this apply only to a rate of 125 milliliters per hour?

Noel Albritton: Hi, it's Noel again. Yes, it would only apply to fluids given at greater than 125 milliliters per hour, as well as meeting the other requirements of the crystalloid fluid administration data element, such as a complete order and documentation of the infusion as well.

Candace Jackson: Thank you, Noel. Our next question on slide 26: So, now we may include normal saline administered with antibiotics?

Noel Albritton: Yes. At this point, it's not specific to antibiotics, it's specific to just medications in general. Crystalloid fluids given to dilute medications, including antibiotics, can be used or should be used towards the target

ordered volume. If they're given further data element meeting the order requirements and administration requirements, they are acceptable.

Candace Jackson: Thank you. On that same subject, our next question: What about crystalloid fluids that are ordered as boluses? Can I take 10% of those boluses? Example: patient fluid requirement is 1800 milliliters. The orders are one-liter bolus followed by 500 milliliter bolus. Does that suffice for targeted volume receipt?

Noel Albritton: Hi, this is Noel again. Okay, so as far as the volume ordered within 10% of 30 mL/kg, this is specific to the physician's order of the fluids. So, if the patient required 1800 milliliters to equal a target ordered volume, administering 1500 milliliters would not be sufficient. The physician could order, let's say, 1700 milliliters and that would suffice the volume within 10% of 30 mL/kg, but you wouldn't just take a lesser volume unless the physician actually ordered that volume that was within 10% of 30 mL/kg.

Candace Jackson: Thank you, Noel. Our next question is in regard to slide 21. We're back to a question about ideal body weight. Do they have to document both that the patient is obese and that they are using ideal body weight, or can they document one or the other?

Bob Dickerson: This is Bob. Yes, they need to document that the patient is obese because that is what specifies the reason that they're using ideal body weight and then they need to document that they are using, or reference that they're using, ideal body weight upon which to base the volume they're ordering.

Candace Jackson: Thank you, Bob. Our next two questions are in relation to hypotensive blood pressures. The first question: The first hypotensive blood pressure should be when the fluids are started. Is that correct?

Noel Albritton: Hi, it's Noel again. No. So, initial hypotension will be when the second hypotensive blood pressure is documented within the timeframe and, then, to base your crystalloid fluid administration timeframe off of that second hypotensive blood pressure that represents initial hypotension.

Candace Jackson: Our second hypotensive question: Does the two hypotensive blood pressures criteria also apply to hypotension used to determine organ dysfunction?

Noel Albritton: This is Noel again. So, no, only one hypotensive blood pressure is required for organ dysfunction. So, one of the two hypotensive blood pressures used for initial hypotension may meet organ dysfunction but, as far as the requirements, there's two hypotensive blood pressures for organ, sorry, two hypotensive blood pressures for initial hypotension and one hypotensive blood pressure for organ dysfunction.

Candace Jackson: Thank you, Noel. Our next question: What if there is documentation of chronic renal disease and the baseline is reported as 1.3? So, I'm assuming that they are referring to the creatinine. Would a reading of 1.8 still count as organ dysfunction or does it have to be over 2?

Noel Albritton: Okay, so, the bullet point under creatinine that references chronic renal disease and a documented baseline refers to not using the creatinine unless it is documented at 0.5 greater than the documented baseline. So, if your documented baseline is 1.3 and your current creatinine is 1.8, you would not use that creatinine unless it was like 1.81 greater. It would have to be 0.5 greater. So, it doesn't have to necessarily be 2, but it has to be greater than 1.80.

Candace Jackson: Thank you, Noel. Our next question is in regard to slide… Go ahead, Bob.

Bob Dickerson: Yes. We may want to get back with the caller regarding that question on the creatinine because the specifications do indicate that a creatinine greater than 2 is the organ dysfunction criteria and this is kind of a tricky question because they identify a baseline that is lower than the elevated value for determining organ dysfunction. So, we may want to consult with the measure stewards on this and get back to folks on that question. It's a very confusing question. It may not seem like it, but it is when you look at the bigger picture of how this all fits in.

Candace Jackson: All right. Thank you, Bob. Our next question, slide 35, if we could go to that slide? In what timeframe do anticoagulant meds need to be given?

Noel Albritton: So, this is Noel again. This bullet point does not contain a timeframe for the documentation that the patient is receiving anticoagulant. So, potentially needs to be documented within the medical record for the current stay.

Candace Jackson: Our next question is on slide 36. If it is a home med, do you need the last dose given time or date?

Noel Albritton: So, for an anticoagulant on the home medication record, you wouldn't necessarily need the last dose given. Simply document that they take an anticoagulant at home. However, if the anticoagulant was given in the hospital, then you would look for a date and time that it was last given just to demonstrate it was given.

Candace Jackson: Our next question is on slide 37. If the doctor documents a patient has SIRS, we take that as a yes, SIRS criteria are present. Correct?

Noel Albritton: So, for this question, the physician documentation, the patient has SIRS would not be used to meet the SIRS criteria. The SIRS criteria and severe sepsis present data element is looking for the actual abnormal values that are documented within six hours of the other two criteria and severe sepsis present. So, the physician documentation, the patient has SIRS alone would not be used.

Candace Jackson: Thank you. Thank you, Noel, and we are going to end our Q&A session with a couple more general questions. The first one: Is there an additional note for abstraction version 5.3a document with the additional information given today?

Noel Albritton: Hi, this is Noel again. No, there is not an additional note for abstraction for version 5.3a and we are not planning on that as far as I'm aware, so, not at this time.

Candace Jackson: Our last question: Do we apply this update retrospectively to quarter four 2017 abstraction?

Noel Albritton: This is Noel again. No, you would not. So, version 5.3a of the manual would only apply to patients discharged January 1, 2018, through June 30, 2018.

Candace Jackson: Thank you, Noel, and that concludes our question and answer session. I want to remind everyone that the whole questions and answers that were submitted today through the chat feature will be published to our *Quality Reporting Center* web site at a later date. I would now like to turn the presentation over to Dr. Debra Price who will go over our CEU instructions and conclude our event for today.

I'd like to thank everyone again for joining our event. Deb?

Debra Price: Well, thank you for that introduction. And now I will start talking about the continuing education credit. This is Debra Price. Today's webinar has been approved for 1.5 continuing education credits by the boards listed on this slide. We are now a nationally accredited nursing provider and, as such, all nurses report their own credits to their respective boards using our national provider number shown on the last bullet here. It's number 16578. It is your responsibility to submit this form to your accrediting body.

We now have an online CE certificate process. You can receive the CE certificate two different ways or two different times. One: If you registered for the webinar through ReadyTalk, you will get a survey at the end of our slides. The survey will allow you to get your certificate. However, you will only be able to get that certificate if you were the one that registered. The second way to get a certificate is, within 48 hours, we will be sending out a separate survey. When you receive the survey, please give people who are in your room listening, but did not register through ReadyTalk, please give them the survey. They take the survey and then they will get the certificate themselves.

After the completion of the survey, you click the Done button on the bottom of the page and another page will open. You will need to choose to register as either a New User or an Existing User. If you've been receiving

certificates with us all along and you haven't had any problems, go ahead and click on the Existing User link. If you have never received a certificate or if you've had problems in the past getting your certificate, please register as a New User using a personal email. Just a note that healthcare facilities have firewalls that are continually being upgraded and you may have a firewall up on this event that wasn't up last week if you attended any of our other events.

If you do not immediately receive an email to the address you registered with after the survey, that means that there is a firewall up. What you'll need to do is go back and register as a New User using your personal email address.

This is what the survey will look like. It will pop up again at the end of the event and, again, we will send you a survey within 48 hours. You see in the bottom right-hand corner, the little Done button? That's what you're going to click on when you are finished with the survey.

This is the page that pops up when you click the Done button. This is what I was talking about previously where you have two links, a New User link and an Existing User link. New User is if you have never gotten a certificate from us or if you've had problems in the past getting a certificate. Use the New User link and make sure you fill in the form for your personal email. If you have been receiving certificates all along, please click on the Existing User link.

This is what the New User screenshot looks like. So, if you clicked on the New User link, you put your first name, your last name, your personal email, and a phone number that will be identified with that email. Remember, again, to use a personal email because hospitals and other healthcare facilities have firewalls that are constantly changing and being upgraded.

This is what the Existing User screen looks like. If you've been receiving certificates all along, please fill in your User Name which is your email address, complete with what's ever after the @ sign. So, it would be your

complete email address and whatever password you used when you registered. If you don’t remember what your password is, then you'll have to get back with us and we'll have to reset your password.

I hope you do not have any problems getting your certificates. If you do, my email will be on the survey today. as well as the survey you're going to receive in 48 hours. Thank you for your time and have a great rest of the day.