Hospital Inpatient Quality Reporting (IQR) Program

Support Contractor

SEP-1 Early Management Bundle, Severe Sepsis/Septic Shock: v5.5a Measure Updates and v5.0b Through v5.2b Analysis Results

Presentation Transcript

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Candace Jackson: As a reminder, we do not recognize the raised-hand feature in the chat tool during webinars. Instead, you can submit any questions pertinent to the webinar topic to us via the chat tool. All questions received via the chat tool during this webinar that pertain to this webinar topic will be reviewed, and a Q&A summary will be made available at a later date. To maximize the usefulness of the Q&A summary, we will consolidate the questions received during this event and focus on the most important and frequently asked questions. These questions will be addressed in the question-and-answer summary to be published at a later date. Any questions received that are not related to the topic of the webinar will not be answered in the chat tool nor in the question-and-answer summary for the webinar. To obtain answers to questions that are not specific to the content of this webinar, we recommend that you go to the *QualityNet* Q&A tool. You can access the Q&A tool using the link on this slide. There, you can research for questions unrelated to the current webinar topic. If you do not find your question there, then you can submit your question to us via the Q&A tool, which again, you can access at the link on this slide.

Thank you, everyone, for joining today's presentation titled, *SEP-1 Early Management Bundle, Severe Sepsis/Septic Shock: v5.5a Measure Updates and v5.0b through v5.2b Analysis Results*. I am Candace Jackson, your 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 website, *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 was 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 website, and again, that is *www.QualityReportingCenter.com*. I would now like to welcome and introduce our guest speakers for today: Noel Albritton, Lead Solutions Specialist; Dino Omerhodzic, Senior Health Informatic Solutions Coordinator; and Bob Dickerson, Lead Program Analyst I from

the Hospital Inpatient and Outpatient Process and Structural Measure Outpatient Development and Maintenance Support Contractor.

The objectives for the presentation today are to explain the changes to the measure and guidance in manual version 5.5a and to identify and understand the rationale behind the version 5.5a update.

This slide provides a list of the acronyms that will be used throughout today's presentation.

In today's presentation, the sepsis subject-matter experts will touch on multiple aspects of the SEP-1 measure, including public reporting, numerator and algorithm changes, abstraction guidance changes, and analysis of the SEP-1 measure from specifications manual version 5.0b through version 5.2a.

I would now like to turn the presentation over to Dino and Noel. Dino, the floor is yours.

Dino Omerhodzic: Thank you, Candace. To begin, CMS, the measure stewards and the measure writers have been listening to feedback related to SEP-1 from abstractors, facilities, and organizations. The revisions to the measure for manual version 5.5a illustrate the outcome of evaluating this feedback. There are many factors involved in this process to potentially limit the ability to implement every change considered. However, CMS, the measure stewards, and the measure writers continue to evaluate feedback, and recommendations, and ways to improve upon the measure.

Throughout today's presentation, yellow highlighting is used to denote new guidance as for the 5.5a specifications manual. The first updates we will discuss today are for the numerator statement. These updates were made in order to simplify and clarify the numerator statement, as well as improve alignment with the algorithm flow without making further substantive changes. As you will notice on this slide, clarification was added to state the repeat lactate level measurement is only necessary if the initial lactate is elevated. Also, clarification was added to demonstrate crystalloid fluid administration is necessary within three hours of initial

hypotension or three hours of septic shock. Similarly, the addition of, "within six hours of septic shock presentation only if hypotension persists after fluid administration" was added for vasopressor administration. Lastly, the time frame of, "within six hours of septic shock presentation" was added to include the general time frame for the repeat volume status and perfusion assessment.

Next, we will review several updates to the SEP-1 algorithm. As you will recall, after the abstraction of the *Repeat Lactate Level* [*Collection*] data element, the previous version of the algorithm arrived at a point in the algorithm to abstract *Initial Hypotension*, *Initial Lactate Level Result*, or *Documentation of Septic Shock* prior to proceeding to the *Crystalloid Fluid Administration*. For version 5.5a, after abstracting the *Repeat Lactate Level* data element, cases will proceed to abstract *Initial Hypotension*. If Value "1" (Yes) is selected for *Initial Hypotension*, the case continues to *Initial Hypotension Date* and *Time*, then *Crystalloid Fluid Administration*. If Value "2" (No) is selected for *Initial Hypotension*, the case will proceed to [the off page connector] "M," which is the abstraction of *Septic Shock Present*.

For cases where Value "1" (Yes) is selected for *Initial Hypotension*, and the *Crystalloid Fluid Administration* data elements are abstracted, the *Initial Hypotension* timing calculation is performed to determine if the *Crystalloid Fluid Administration Date* and *Time* were within 180 minutes of the *Initial Hypotension Date* and *Time*. Compared to the previous algorithm flow, you will notice the abstraction of *Persistent Hypotension* for cases with *Initial Hypotension* has been moved up in the algorithm. For version 5.5a, cases with *Initial Hypotension* will proceed directly from the abstraction of *Crystalloid Fluid Administration* to the abstraction of *Persistent Hypotension*. If Value "1" or Value "2" is selected for *Persistent Hypotension*, the case continues to [the off page connector] "M" where the *Septic Shock Present* data element is abstracted. If Value "3" or Value "4" is selected for *Persistent Hypotension*, the case then proceeds [to the] denominator.

Also updated for version 5.5a, after abstracting the data elements related to *Septic Shock*, cases will proceed to *Crystalloid Fluid Administration* abstraction. If Value "1" (Yes) had already been selected for *Initial Hypotension*, and *Crystalloid Fluid Administration* was abstracted, ideally, the responses already selected for the *Crystalloid Fluid Administration* data elements will be automatically prefilled by your abstraction tool, upon reaching this point, based on your previous abstraction of these data elements. However, if the patient did not have initial hypotension, *Crystalloid Fluid Administration* will now be abstracted at this point after abstracting the *Septic Shock Present* data elements. Also clarified in version 5.5a, the triggering events for *Crystalloid Fluid Administration* include *Initial Hypotension* and *Septic Shock*. Therefore, only cases with Value "1" (Yes) selected for *Initial Hypotension* or *Septic Shock Present* will proceed to *Crystalloid Fluid Administration*. We will discuss the changes to the *Crystalloid Fluid Administration* data element in more depth later in the presentation.

Several new bullet points have been added to the *Administrative Contraindication to Care, Septic Shock* and *Severe Sepsis* data elements. The first new bullet point provides further clarification regarding an authorized patient advocate. Per this new guidance, an authorized patient advocate is someone who is authorized to make decisions on behalf of the patient when the patient is unable to make [his/her] own decisions. Of note, it is up to each facility's policy to determine who may be an authorized patient advocate. This guidance was added due to receiving questions regarding who may represent an authorized patient advocate.

Also new for the *Administrative Contraindication to Care, Septic Shock* and *Severe Sepsis* data elements. If there is a signed AMA form or documentation by the nurse or physician/APN/PA, indicating the patient left AMA prior to or within six hours of the presentation time, Value "1," or Yes, would be selected. Several bullet points have also been added to assist with this abstraction. First, the documentation is not required to explicitly state, "left against medical advice." As the example on the slide points out, the documentation, "Patient is refusing to stay for continued

care," would be sufficient to select Value "1," or Yes. Secondly, if the documentation stated the patient left prior to being given discharge instructions, it would not suffice for leaving AMA. Third, if a signed AMA form is available, the form is not required to be signed by the patient to suffice selecting Value "1" (Yes) for this data element. Lastly, if there is documentation of leaving AMA, and a documentation of another discharge disposition, the documentation of leaving AMA within the specified time frame would continue to be used, and Value "1" (Yes) would be selected. Similar to the previous slide, this guidance was added, based on abstractor feedback regarding these particular scenarios.

For the *Blood Culture Collection Acceptable Delay* data element, the exclusion guidelines for abstraction and several existing bullet points have been updated to improve clarity. First, due to questions received regarding whether oral antibiotics given prior to blood culture collection will suffice the *Blood Culture Collection Acceptable Delay* data element, the exclusion guidelines for abstraction were updated to clarify that oral antibiotics will not suffice the *Blood Culture Collection Acceptable Delay* data element. This first bullet point in the notes for abstraction has been updated to clarify that only the scenarios listed within the data element will suffice the *Blood Culture Collection Acceptable Delay* data element in cases where the blood culture was drawn after the *Broad Spectrum or Other Antibiotic Administration Date* and *Time*.

The following sub-bullet points from the *Blood Culture Collection Acceptable Delay* data element have also been updated for further clarity. In the first sub-bullet point, if the patient had a prophylactic antibiotic in the 24 hours before severe sepsis presented, and then had a blood culture collection after the prophylactic antibiotic, Value "1" (Yes) would be selected for the *Blood Culture Collection Acceptable Delay* data element. In the second sub-bullet point, if the patient was started on an antibiotic in the 24 hours prior to severe sepsis presenting for an infection, and the blood culture was collected after the antibiotic was started, Value "1" (Yes) would be selected for the *Blood Culture Collection Acceptable* [*Delay*] data element.

Continuing with the updates to the sub-bullet points within the *Blood Culture Collection Acceptable Delay* data element, the first sub-bullet point on this slide refers to antibiotics started prior to arrival at the hospital. If the antibiotics were started prior to hospital arrival and within 24 hours before severe sepsis present, and a blood culture was collected after the antibiotics were started, Value "1" (Yes) would be selected. Lastly, if the physician, APN, or PA documents a reason why waiting to start the antibiotics would be detrimental for the patient, physician/APN/PA documented reason must be clear. A couple of examples have been provided in the data elements demonstrating a clear reason why waiting [to] administer the antibiotic would be detrimental. In both examples provided on the slide, we can see that the physician documentation clearly states the condition is worsening and there is a concern for waiting to administer antibiotics.

Next, we will review several updates for the *Crystalloid Fluid Administration* data element, beginning with the definition and suggested data collection question. As you will remember, both the definition and suggested data collection question previously contained the specific time frame for *Crystalloid Fluid Administration*, based on *Initial Hypotension*, initial lactate levels are greater or equal to four, or *Documentation of Septic Shock.* With the updates to manual version 5.5a, both the definition and suggested data collection question were simplified to only include "within the specified time frame and complete infusion of the target order volume." We will discuss the specified time frame referenced here in a few minutes.

Similar to the definition and suggested data collection question for *Crystalloid Fluid Administration,* allowable Values "1" through "3" have also been updated to simply include "within the specified time frame." For allowable Value "1," fluids ordered and initiated within the specified time frame, as well as documented as completely infused, are required. It is important to note, neither this allowable value nor the abstraction guidance require the fluids to be completely infused within the specified time frame. The fluids must simply have a rate, duration, or end time documented in

order to determine that they completely infused. For allowable Value "2," if less than the target volume of fluids were ordered OR initiated within the specified time frame, or the target order volume was not completely infused, Value "2" would be selected. Value "3" would be selected for cases where crystalloid fluids were not initiated within the specified time frame.

As we have already mentioned, the specified time frame for *Crystalloid Fluid Administration*, this new bullet point in the notes for abstraction provides the details of the specified time frame. With *Initial Hypotension* [*Date* and *Time*] and *Septic Shock* [*Presentation Date* and *Time*] being a triggering event for *Crystalloid Fluid Administration*, crystalloid fluids started within the six hours before through three hours after the *Initial Hypotension Date* and *Time*, or *Septic Shock Presentation Date* and *Time* are acceptable. If both initial hypotension and septic shock are present, crystalloid fluids administered within six hours before through three hours after the earliest of either initial hypotension or septic shock would be used. As the example on this slide demonstrates, with an *Initial Hypotension Date* and *Time* for 0730 and *Septic Shock Presentation Date* and *Time* of 0645, only crystalloid fluids started within the six hours before 0645 through three hours after 0645 would be used toward the target volume.

Also, for *Crystalloid Fluid Administration*, this new bullet point further clarifies that only fluids ordered and initiated within the specified time frame can be used to select Value "1" (Yes). Fluid not ordered or initiated within the specified time frame would not be used for the target volume of crystalloid fluids. Also, this new bullet point further clarifies that the target ordered volume must be completely infused to select Value "1." However, as I previously said, the target ordered volume is not required to be completely infused within the specified time frame. If the target ordered volume is not completely infused, then Value "2" (No) would be selected.

The *Crystalloid Fluid Administration* data element also includes new guidance for determining which weight to use to determine the target ordered volume of crystalloid fluids. This new guidance provides the

priority order and an effort to provide clearer guidance for which weight to be used. First, if the second weight is documented in the order for crystalloid fluids, that weight should be used. Second, if the weight is not documented in crystalloid fluid order, use the weight documented closest to and prior to the order for crystalloid fluids. Third, if a weight is not available for the first or second option, use the weight documented closest to and after the order for crystalloid fluids.

Also, to clarify the guidance, due to questions received from abstractors, the guidance related to the use of Ideal Body Weight has been updated. The language regarding the use of Ideal Body Weight has been reformatted to clearly provide all of the conditions necessary to use the Ideal Body Weight. First, in order to use Ideal Body Weight, all of these conditions must be met: there must be physician/APN/PA documentation that the patient is obese or has a BMI greater than 30; there must also be physician/APN/PA documentation stating the Ideal Body Weight is being used to determine the target order volume of crystalloid fluids; lastly, the Ideal Body Weight must be present in the medical record. The abstractor should not calculate the Ideal Body Weight. We have also received questions as to whether other weight terms are acceptable. The last bullet point on this slide was added to version 5.5a to clarify that the terms predicted weight, dosing weight, and adjusted body weight are acceptable in place of Ideal Body Weight. It is important to note that if one of these weight terms is used, the same documentation requirements for the Ideal Body Weight still apply.

Guidance has also been added to the *Crystalloid Fluid Administration* data element to assist in the abstraction of fluids when ordered rate and the documented infusion rate or end time are different. The example demonstrates a case where fluids were ordered at 150 milliliters per hour. However, nursing documentation documented a start time of 1500 and an end time of 1800 for the 1000 mL bolus. Per this guidance, the documented start and end time would be used to reflect the actual administration rather than the ordered rate of 150 mL/hour.

Similar to the *Crystalloid Fluid Administration* data element, the *Crystalloid Fluid Administration Date* and *Time* data elements have also been updated with clarifying guidance. The definition and suggested data collection question have been updated in version 5.5a to include "within the specified time frame." The bullet point defining the specified time frame for *Crystalloid Fluid Administration* has also been added to the *Crystalloid Fluid Administration Date* and *Time* data elements. Again, as a reminder, the time frame for *Crystalloid Fluid Administration* includes only fluids ordered and initiated within the six hours before through three hours after the *Initial Hypotension Date* and *Time* or *Septic Shock Presentation Date* and *Time*.

Based on the updated guidance for *Crystalloid Fluid Administration*, as well as the updated algorithm flow, the *Documentation of Septic Shock* data element was removed from version 5.5a. For the next part of our presentation, I will turn it over to Noel.

Noel Albritton: Thanks, Dino. I will continue with our review of the update for manual version 5.5a. For *Initial Hypotension*, the definition and suggested data question collection have also been updated to only state, "within the specified time frame." If you recall, in the previous versions of the manual, the time frame of six hours prior to or within six hours following the *Severe Sepsis Presentation Time* was included in the definition and suggested data collection question. To improve clarity and continuity within the measure, both the definition and suggested data collection question were simplified to only include "within the specified time frame."

Similar changes have also been made to the allowable values for *Initial Hypotension*. For both allowable Values "1" and "2," the time frame of six hours prior to or within six hours after the *Severe Sepsis Presentation Time* was removed. Again, this was to simplify the allowable values by stating within the specified time frame rather than repeatedly restating, "within the specified time frame."

The first bullet point on this slide was added to the notes for abstraction for *Initial Hypotension*. As we previously discussed, the definition,

suggested data collection question, and allowable values will now state, "within the specified time frame." This new bullet point defines the specified time frame for *Initial Hypotension*, which continues to be the six hours prior to or within six hours after the *Severe Sepsis Presentation Date* and *Time*. Also, in order to provide greater clarity for the abstraction of *Initial Hypotension*, updated guidance was also added under the bullet point listing the criteria for determining *Initial Hypotension*. *Initial Hypotension* continues to require two hypotensive blood pressure readings within the specified time frame. The two hypotensive readings are still required to be taken at different times and are not required to be consecutive. However, new guidance for version 5.5a requires the two hypotensive blood pressure readings to be within three hours of each other in order to select Value "1" (Yes) for *Initial Hypotension*. So, if there is more than one blood pressure reading within the specified time frame, but the hypotensive readings are greater than three hours apart, Value "2" would be selected for *Initial Hypotension* because the readings are not within three hours of each other.

This next update applies to both the *Initial Hypotension* and *Persistent Hypotension* data elements. The guidance on this slide clarifies which time to use when abstracting hypotensive blood pressure readings for *Initial Hypotension* and *Persistent Hypotension*. If the time taken or obtained is available for a blood pressure reading, the taken or obtained time should be used. If the time taken or obtained is not available, then the recorded or documented time of a blood pressure would be used. It is important to note that hypotensive readings found in narrative documentation should not be used unless there is no other time that reflects when the hypotensive reading was obtained.

The next few slides, regarding *Initial Hypotension* and *Persistent Hypotension*, provide clarifying guidance for determining when to use or not use a hypotensive blood pressure reading. First, all of the physician/APN/PA documentation discussed in the sub-bullet points on this slide and the next few slides must occur prior to or within 24 hours after the *Severe Sepsis Presentation Time*. The guidance regarding

physician/APN/PA documentation that a hypotensive reading is normal for the patient due to a chronic condition or due to a medication within the specified time frame continues to allow these particular hypotensive readings to be disregarded. The updated guidance for this bullet point also states, “The abnormal value or reference to the abnormal value must be in the same documentation.”

This new sub-bullet point continues to require physician, APN, or PA documentation prior to or within 24 hours after the *Severe Sepsis Presentation Time*. If a hypotensive reading is documented as due to an acute condition that has a noninfectious source, the hypotensive reading would not be used. An example is provided with this guidance, which includes the physician documentation of a blood pressure of 85 over 50, related to blood loss. It goes on to say, “two liters lost via GI bleed.” The documentation includes the abnormal value, which is the blood pressure of 85 over 50, and acute condition, which is the blood loss, and also includes documentation of the GI bleed, which is the noninfectious source. Therefore, the hypotensive readings would not be used for determining *Initial Hypotension* in this case or *Persistent Hypotension*.

This sub-bullet point provides new guidance, based on abstractor feedback for the *Initial Hypotension* and *Persistent Hypotension* data elements. The new sub-bullet point states, “If a hypotensive value should not be used based on the above guidance, all instances of less severe values should not be used.” The above guidance referred to in this sub-bullet point is a reference to the guidance above this sub-bullet point in the data element that refers to scenarios where hypotensive readings should not be used, such as when hypotension is documented by the physician as due to a chronic condition or medication. The example on this slide is also included in the data element and demonstrates documentation of a blood pressure of 80 over 50 that is documented secondary to Lasix®. Given this new guidance, systolic blood pressure readings greater than or equal to 80 would not be used. For example, if the patient also had blood pressure readings of 82 over 53 or 87 over 60 within the specified time frame, neither of these blood pressures would be used, either.

Based on feedback from facilities and abstractors, this new guidance for *Initial Hypotension* and *Persistent Hypotension* is intended to improve clarity for determining [whether] a blood pressure reading should be used or not. As you can see, hypotensive readings documented as due to an acute condition, an acute on chronic condition, or an infection should be used.

Also, new for the *Initial Hypotension* and *Persistent Hypotension* data elements, this bullet point states, "Documentation of a term that represents or is defined by SBP <90 mmHg or MAP <65 mmHg is acceptable…." It is important to note that a term that represents or defines a systolic blood pressure less than 90 or MAP less than 65, is not referring to terms such as hypotension, would be used to meet the blood pressure criteria for either of these data elements. Both of these data elements, *Initial Hypotension* and *Persistent Hypotension*, require documentation of an actual systolic blood pressure less than 90 or MAP reading less than 65. Terms such as hypotension are acceptable to disregard hypotensive readings when documented as normal for the patient due to a chronic condition or due to a medication or an acute condition that has a noninfectious source.

This next update provides specific guidance for determining if criteria should be used or not when conflicting documentation is present in the medical record. This guidance was also added, based on feedback received from abstractors and provides specific guidance for the abstraction in these particular scenarios. As you can see by this bullet point, if within the same documentation there is physician/APN/PA documentation stating hypotension is normal for the patient due to a chronic condition or due to a medication and there is documentation that hypotension is due to or possibly due to an infection, severe sepsis, or septic shock, the hypotensive readings should be used. As an example, if the physician documents, "Hypotensive post medications, possibly r/t sepsis," the hypotensive readings would be used with the consideration that hypotension is possibly due to the infection.

Similar to the previous slide, this slide provides specific guidance for determining if hypotensive readings would be used when conflicting

documentation is in separate pieces of documentation. This bullet point states, "If within 24 hours after the *Severe Sepsis Presentation Time*, there is conflicting information within **two or more separate** pieces of physician/APN/PA documentation indicating hypotension is normal for the patient, or due to a chronic condition or medication AND due to or possibly due to an infection, Severe Sepsis, or Septic Shock, abstract based on the latest piece of documentation within the 24-hour period." An example is provided to demonstrate this guidance. If a physician note at 1200 states, "Antihypertensive discontinued due to hypotension," then at 1600 there is documentation stating, "Sepsis with hypotension and SIRS criteria," the hypotensive values should be used. The hypotensive readings are used in this scenario because the latest documentation at 1600 considered the hypotension to be related to the infection.

The definition, and suggested data collection question, and the allowable values have also been updated to state, "within the specified time frame" for the *Initial Lactate Level Collection* data element, as well. This update allows for the definition, suggested data collection question, and allowable values to be simplified and made consistent with other aspects of the measure while reducing redundancy. The specified time frame for the *Initial Lactate Level Collection* data element will be further elaborated on within the notes for abstraction, which we will discuss next.

This new guidance is added for the *Initial Lactate Level Collection* data element and includes the specified time frame, as well as clarifies which lactate should be abstracted for this data element. The time frame for the *Initial Lactate Level Collection* is six hours prior to three hours after the *Severe Sepsis Presentation Time*, which remains the same as in previous versions of the manual. However, the following new sub-bullet points provide new guidance for determining which lactate collection should be abstracted. The first sub-bullet point states, "If multiple lactate levels are drawn within the specified time frame, use the lactate drawn PRIOR to the *Severe Sepsis Presentation Time* with the HIGHEST level." In this case, if multiple lactates are drawn within the six hours prior to the *Severe Sepsis Presentation Time*, we would use the lactate collection time with the

highest level lactate results. The second sub-bullet point states, "If multiple lactate levels are drawn ONLY in the 3-hours after the *Severe Sepsis Presentation Time*, use the lactate drawn with the HIGHEST level within this time frame." In this case, multiple lactate levels are only drawn in the three hours after the *Severe Sepsis Presentation Time*, so we would use the lactate level collection time with the highest lactate level result within the three hours following the *Severe Sepsis Presentation Time*.

Guidance has also been updated for the *Initial Lactate Level Collection* and *Initial Lactate Level Date* and *Time* data elements for determining the appropriate date and time to use for the *Initial Lactate Level Collection*. This new clarifying guidance was also added based on feedback received from abstractors. Based on this new guidance, if there is more than one date and time of the documentation for the *Initial Lactate Level Collection*, follow the priority order to determine which time to abstract. First, use the laboratory documentation, indicating the date and time the lactate was drawn. Secondly, use the date and time the lactate is documented as drawn in non-narrative documentation. This documentation may be included on a sepsis flow sheet or checklist or screening tool. Lastly, use narrative documentation, indicating the lactate was drawn with an associated date and time.

A new example has been added for the *Repeat Volume Status and Tissue Perfusion Assessment Performed* data element. This new example of physician/APN/PA documentation states, "I have reassessed the patient's hemodynamic status." This physician/APN/PA documentation, if documented within the specified time frame, will suffice for physician/APN/PA documentation attesting to their performance of an exam. Therefore, with this documentation within the specified time frame, Value "1" (Yes) would be selected for the data element.

Also, new for the *Repeat Volume Status and Tissue Perfusion Assessment Performed* data element is a new parameter, shock index. To meet the *Repeat Volume Status and Tissue Perfusion Assessment Performed* data element in this way, there must be physician/APN/PA documentation indicating or attesting to performing or completing a review of at least five

of the now eight parameters. Therefore, if the physician, APN, or PA documentation indicates or attests to performing or completing a review of the shock index, along with four other parameters, Value "1" (Yes) would be selected for the *Repeat Volume Status and Tissue Perfusion Assessment Performed* data element.

The allowable values for the *Septic Shock Present* data element have also been updated to state, "is present" or "is not present." As you will recall, previously, allowable Value "1" (Yes) stated, "there is documentation of septic shock" and allowable Value "2" (No) stated, "there is no documentation of septic shock." Since the *Septic Shock Present* data element can be met by physician, APN, or PA documentation of septic shock or by meeting the clinical criteria for septic shock, the allowable values were revised to simply state, "1 (Yes), Septic Shock is present," or "2 (No), Septic Shock is not present."

Next, we will discuss several updates for the *Severe Sepsis Present* data element. For the first bullet point on this slide, one example was removed, and the example remaining was slightly reformatted for clarity. If there is physician, APN, or PA documentation, or nursing documentation, or pharmacist documentation, indicating a patient as being treated with an antibiotic for an infection and there is documentation, indicating a dose of that antibiotic was given within six hours of criteria "b" and "c," it will suffice *Severe Sepsis* [*Present*] criteria "a." The next update is regarding documentation of an infection that is documented as present on admission. In this scenario, use the earliest documented date and time that the patient arrives to the floor or unit for admission. Although this is updated language, this concept is not new but is intended to provide clarification, based on feedback we have received from abstractors.

Also, updated in the *Severe Sepsis Present* data element for manual version 5.5a, a time frame has been added to both of the sub-bullet points for the organ dysfunction criteria, creatinine. Both of these sub-bullet points require physician, APN, or PA documentation, and for manual version 5.5a, the required physician, APN, or PA documentation must occur prior to or within 24 hours of the *Severe Sepsis Presentation Time*.

For example, if there is physician documentation stating the patient has ESRD and is on dialysis, this physician documentation must be prior to or within 24 hours after the *Severe Sepsis Presentation Time* to not use the elevated creatinine values. Including a time frame for this particular documentation is meant to assist in decreasing abstraction burden rather than the abstractor reviewing the entire medical record for this particular documentation. Only documentation meeting either of these two sub-bullet points within the specified time frame should now be considered.

Also updated in manual version 5.5a, SIRS criteria or evidence of organ dysfunction obtained in the operating room should not be used. As you will recall in previous versions of the manual, only vital signs documented in the operating room were disregarded. However, based on feedback from facilities and abstractors, this guidance has been updated to include SIRS criteria and evidence of organ dysfunction rather than just the vital signs. I would like to point out this bullet point only refers to operating rooms. So, SIRS criteria or evidence of organ dysfunction documented in other procedural areas of the hospital would not be disregarded, based on this bullet point. The second bullet point on this slide was updated to state, "Disregard any documentation of SIRS criteria, organ dysfunction, an infection, Severe Sepsis, or Septic Shock in a discharge note, discharge summary, or documented after the time of discharge." Therefore in version 5.5a, if SIRS criteria, organ dysfunction, an infection, documentation of severe sepsis or septic shock are documented after discharge, the documentation would not be used.

New guidance has also been added to further clarify which time to use for lab values when abstracting severe sepsis clinical criteria. This new guidance provides a priority order that includes one priority source, which is the laboratory test value result time from the lab. If the result time from the lab is not available, the supporting sources should then be referred to. The first supporting source would be the time within the narrative note that is directly associated with the laboratory test value. The second supporting source is a time the lab value is documented in a non-narrative location, such as a flow sheet or sepsis checklist or tool. The third

supporting source would be the laboratory test sample drawn or collected time. This is a new addition for the *Severe Sepsis Present* data element, as a drawn or collection time has not previously been considered. However, in this particular scenario, the drawn or collection time would be acceptable. If the priority source and the first three supporting sources are unavailable, and the lab value is noted in a narrative note without a specified time, then the note open time would be used.

Two new infections, *C-diff* and septic, have been added to the inclusion guidelines for abstraction of infections. Documentation of either of these would be acceptable or a *Severe Sepsis Present* criteria "a." This guidance was added, based on abstractor feedback, and does not necessarily reflect these terms would not have been previously acceptable for *Severe Sepsis* [*Present*] criteria "a." The addition of these two terms is to clearly reflect these two conditions are acceptable.

Further updates have been made to the guidance within the *Severe Sepsis Present* data element, referring to the use of SIRS criteria and organ dysfunction. As you can see, physician, APN, or PA documentation prior to or within 24 hours after the *Severe Sepsis Presentation Time*, is still required. For this, guidance related to not using the SIRS criteria or evidence of organ dysfunction when documented normal for the patient due to a chronic condition or due to a medication remains. However, the updated language includes the abnormal value, reference to the value, must be in the same documentation. Again, this is not necessarily new guidance but rather revised language for further clarification.

As mentioned on the previous slide, the abnormal value or reference to the abnormal value must be in the same documentation. Here are two examples. The first example includes an H&P with documentation in the assessment section, including a history of CKD and a creatinine of 3.0. The chronic condition, which is CKD, and the sign of organ dysfunction, which is the creatinine of 3.0, are in the same documentation. Therefore, the creatinine would not be used as evidence of organ dysfunction, in this case. Similarly, the second example states, "Hypotensive after pain meds." Both the reference to the organ dysfunction, which is hypotension, and the

medication are in the same documentation. So, the hypotensive blood pressure readings would also not be used as evidence of organ dysfunction, in that case.

This sub-bullet point is similar to the previous guidance with slightly revised language. Documentation by the physician, APN, or PA prior to or within 24 hours of the *Severe Sepsis Presentation Time*, the SIRS criteria or a sign of organ dysfunction is due to an acute condition that has a noninfectious source should not be used. As this guidance includes, to determine if the source of an acute condition is infectious or noninfectious, refer to the guidance under *Severe Sepsis Present* criteria "a." Next, we will review a few examples of this scenario.

When reviewing these examples, it is important to identify the SIRS criterion or evidence of organ dysfunction, the acute condition, and the noninfectious source. For the first example, we see the lactate of 4.3 is related to the seizure. Then there is documentation that the seizure is followed by a brain injury. Based on this documentation, the lactate of 4.3 is our potential sign of organ dysfunction. The seizure is our acute condition. And, the brain injury is the noninfectious source. Therefore, the elevated lactate would not be used as evidence of organ dysfunction. The second example considers the acute kidney injury to be due to dehydration, which was caused by a medication, and the creatinine of 3.8. Again, the sign of organ dysfunction is included. There [are] two acute conditions in this case, which are AKI and dehydration, and a noninfectious source, which is the medication. Therefore, the creatinine would not be used as evidence of organ dysfunction, in this case, as well. Lastly, an APN notes that an elevated creatinine is secondary to dehydration after DKA. Then, the physician concludes that DKA was likely caused by noncompliance with medications. In this case, the organ dysfunction is due to dehydration, which is the acute condition, and then the acute condition is related to DKA. With the documentation, considering DKA to be due to be patient noncompliance of medication, this supports the condition is noninfectious. Therefore, the elevated creatinine would not be used as evidence of organ dysfunction.

This new sub-bullet point refers to the guidance located above this particular sub-bullet point within the data element where the SIRS criteria or evidence of organ dysfunction may not be used if there is physician, APN, or PA documentation prior to or within 24 hours, considering the SIRS criteria or sign of organ dysfunction to be normal for the patient due to a chronic condition, or due to a medication, or due to an acute condition as a noninfectious source. If the SIRS criteria or evidence of organ dysfunction should not be used, all instances of less severe value should not be used. For example, if the platelet count of 75 is documented as due to chemo, platelet counts greater than or equal to 75 would not be used. Therefore, if the same patient had a platelet count of 85 documented, the platelet count of 85 would not be used. The second example demonstrates a creatinine value of 2.8 is due to a chronic kidney disease. In this case, the creatinine values less than or equal to 2.8 would also not be used. For this example, if the patient had a creatinine value of 2.5, then we would also not use that. It is important to note, if a more severe value was documented, then that value could be used. For example, if the platelet count of 75 was disregarded, based on a documentation in the first example, but the patient had a platelet count of 60, later documented, the platelet count of 60 would be used since that value is more severe than 75.

Next, we will discuss new guidance, demonstrating when SIRS criteria or sign of organ dysfunction should be used. This guidance was added, based on abstractor feedback and is meant to clarify scenarios where the criteria should be used rather than disregarded. First, SIRS criteria or evidence of organ dysfunction documented as due to an acute condition should be used. Two examples are provided that demonstrate a lactate of 4.3 as related to a seizure, and AKI, and dehydration, and a creatinine of 3.8. As you can see, both the examples demonstrate acute conditions, causing the organ dysfunction. However, neither include documentation that provide possible noninfectious source that would allow us to determine the signs of organ dysfunction are not related to severe sepsis. Secondly, SIRS criteria or evidence of organ dysfunction documented as due to an acute on chronic condition should also be used. Again, two examples are provided. The first includes an acute on chronic renal failure with a

creatinine of 2.8., and the second example includes hypotension due to an acute exacerbation of chronic heart failure. Both examples demonstrate the organ dysfunction as due to the acute on chronic condition. However, neither example provides further documentation demonstrating the acute on chronic condition source that is noninfectious. Therefore, the criteria would still be used. Lastly, the SIRS criteria or evidence of organ dysfunction documented is due to an infection should be used. The example provided includes an elevated bilirubin due to cholecystitis. Cholecystitis has further supportive documentation with an antibiotic order indication. Therefore, the elevated bilirubin would continue to be used.

This updated bullet point reflects a slight revision from the previous manual. The updated guidance for version 5.5a states that documentation of a term that represents or is defined by a SIRS criteria or organ dysfunction is acceptable in place of an abnormal value. New from version 5.5a, a list of examples are provided in the data element, as well. It is important to note regarding this bullet point, terms such as tachycardia or hypotension, are acceptable to disregard elevated heart rates or hypotensive readings when documented as normal for the patient due to a chronic condition or due to a medication. This bullet point does not allow for a term, such as tachycardia or hypotension, to suffice the criteria under *Severe Sepsis Present* criteria “b” or “c.” To meet the severe sepsis clinical criteria, actual values must be documented within the specified time frame rather than a term that represents or defines the value.

Also, added to the *Severe Sepsis Present* data element are new bullet points to assist an abstraction when conflicting documentation is present. First, if within the same physician/APN/PA documentation, there is conflicting documentation, indicating the SIRS criteria or sign of organ dysfunction is normal for the patient due to a chronic condition or medication and possibly due to an infection, severe sepsis, or septic shock, the value should be used. Examples are also added to further demonstrate this guidance. In the first example, a creatinine of 4.3 and chronic kidney disease are documented, along with the inclusion of “potentially increasing due to worsening UTI.” With the inclusion of the infection

documentation, the elevated creatinine would be used for evidence of organ dysfunction. In the second example, it includes "Thrombocytopenia possibly due to NSAID use, however complicated by sepsis." Similar to the first example, with the documentation considering evidence of organ dysfunction potentially related to the infection, platelet count would be used as evidence of organ dysfunction.

Also referring to conflicting documentation, this new bullet point provides guidance when conflicting documentation is in more than one piece of documentation. If within 24 hours after the *Severe Sepsis Presentation Time*, there is conflicting information in two or more separate pieces of physician, APN, or PA documentation, indicating SIRS criteria or sign of organ dysfunction as normal for the patient due to a chronic condition or due to a medication and is due to or possibly due to an infection, severe sepsis, or septic shock, abstract, based on the latest piece of documentation within 24 hours. Two examples are also provided. The first considers respiratory rate to be due to a chronic condition, based on the documentation at 0900, as well as due to an infection at 1500. Based on the guidance in this bullet point, we would use the latest documentation, which is the 1500 in this case, to determine that the respiratory rate would be used for SIRS criteria. A second example considers hypotension with dehydration related to Lasix®. The latest documentation at 2230 considers sepsis to be a possible cause. Therefore, we would consider the latest documentation and continue to use the hypotensive readings.

Next, the guidance referring to positive and negative qualifiers has also been updated. The update states if an infection, severe sepsis, or septic shock is documented with a positive and a negative qualifier, the documentation would not be used to meet criteria. An example of this documentation may include "possible severe sepsis but unlikely, based on labs." We would not use it for documentation of severe sepsis.

Guidance within the *Severe Sepsis Presentation Date* and *Time* data elements has also been updated based on abstractor feedback and to improve clarity. In cases where severe sepsis clinical criteria are met in pre-hospital records, there's physician/APN/PA documentation of severe

sepsis in pre-hospital records, or physician/APN/PA documentation that severe sepsis was present on arrival, the arrival time to the emergency department should be abstracted. This guidance was also updated, based on abstractor feedback and to improve clarity within the *Severe Sepsis Presentation Date* and *Time* data elements. This updated bullet point states to use the earliest documented time the patient arrives to the floor or unit for admission for patients who are admitted with the following: severe sepsis clinical criteria met in pre-hospital records, but the patient is a direct admit; physician, APN, or PA documentation of severe sepsis in pre-hospital records, and the patient is direct admit; or if there is physician, APN, or PA documentation that severe sepsis was present on admission. We will use the time the patient arrives to the floor or unit for admission for the *Severe Sepsis Presentation Date* and *Time*. Thank you for joining us for the review of version 5.5a. For the next part of the presentation, I will turn it over to Bob.

Bob Dickerson: Thank you, Noel. In this next portion of the webinar, I will step through an overview of the bundle components and will then share the most recent measure performance data at the overall level and bundle level.

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Combating sepsis is a priority for CMS. And, while SEP-1 is one of the more challenging CMS national quality measures from an implementation and data collection standpoint, that does not diminish the importance of the measure, nor does it lessen the impact that sepsis has on patient mortality and healthcare costs. This negative impact sepsis has on mortality and cost of care are driving forces behind including this measure in the hospital and patient quality reporting program. Many of the measure challenges come from the fact that recognizing sepsis is difficult in many patients, and the timeliness of recognition and the initiating early

treatment is crucial to outcomes. The measure is based upon recommendations from the *Surviving Sepsis Campaign: International Guidelines for Management of Sepsis and Septic Shock*. While specific components of the SEP-1 measure have changed over time and continue to evolve with changing evidence, it fundamentally consists of four bundles of care: the severe sepsis three-hour bundle, which includes collecting serum lactate, of taking a blood culture, and starting antibiotics within three hours of severe sepsis identification; the severe sepsis six-hour bundle, which includes a repeat lactate within six hours of severe sepsis identification if the initial lactate is greater than two millimoles per liter; the septic shock three-hour bundle, which includes starting a 30 milligram per kilogram bolus of crystalloid fluids within three hours of the presence of hypotension and/or septic shock identification; and the septic shock six-hour bundle, which includes the initiation of vasopressors for patients with persistent hypotension and a repeat volume status assessment within six hours of septic shock identification.

Since last we shared information on bundle-level performance during the November 2017 SEP-1 webinar, we have four additional quarters of performance data. That'd be for the second, third, and fourth quarters of 2017, and the most recently available data from the first quarter of 2018. Now, each bar in this graph has the initial patient population split into two groups: patients [who] are eligible for the measure, based on clinical criteria or clinical documentation, and those [who] are not eligible and therefore excluded, based on a lack of clinical criteria or clinical documentation supporting severe sepsis or septic shock was not present. Those eligible are represented in light blue and those excluded represented in orange. And, we can see the number of cases that are excluded from this initial population continues to be around 50 percent. Now, new for version 5.3 were revisions to the algorithm that introduced the *Clinical Trial* data element for which patients can be excluded if they're participating in a clinical trial and a change in the sequence of the data elements that make up the severe sepsis three-hour bundle, so that the antibiotic timing exclusion occurs earlier in the algorithm.

In a breakdown of the group of patients excluded from the measure, we can see that the majority, about 72 percent, were excluded due to not meeting criteria for severe sepsis. Now, while these cases had a sepsis, severe sepsis, or septic shock ICD-10 code, the medical record documentation did not meet the SEP-1 clinical criteria for inclusion in the measure. Now, keep in mind that clinical documentation, indicating sepsis is not suspected as the cause of the abnormal vital signs or organ dysfunction, is sufficient to exclude a case. Because CMS understands that many signs of sepsis could also be signs of other conditions, the measure is designed to allow for clinicians to affirmatively exclude cases. About 18 percent were received in transfer from another hospital, and then the remaining exclusions all together represented less than 10 percent of the total cases excluded.

A breakdown of exclusion reasons for version 5.1 reveals a very similar distribution with the majority of cases not meeting severe sepsis criteria, based on the measure definitions for clinical criteria or clinical documentation.

And, a breakdown of the exclusion reasons for version 5.2[b] reveals a very similar distribution as with the two previous versions.

Now, this table displays the number of cases that were eligible for each measure bundle by quarter. Now, it's important as you look at this to keep in mind that the total eligible cases noted at the bottom of this table refers to the population who are eligible for the entire measure after all the interventions and their associated exclusions are accounted for. The number of cases eligible for each bundle refers to those patients who are eligible for only that given bundle. Now, we can see that for each quarter, the number of patients eligible for each subsequent bundle progressively grows smaller due to exclusions that occur and cases that did not pass prior to reaching the later bundles. They're, therefore, not eligible for the subsequent bundles.

SEP-1 was included in the benchmarks of care reports posted on *QualityNet* for the first time in August 2018. This slide shows the most

recent benchmarks of care report for SEP-1. And, in this, we can see an upward trend in overall measure performance with national average rate increasing from 47 percent in the first quarter of 2017 to 53.5 percent for the first quarter of 2018, which is our most recent quarter of data. Also important to note is the benchmark rate has been trending in the low to mid 80 percent range. The benchmark rate is based upon the average of the best performing hospitals, which are identified as performance rates in the top tenth percentile of all reporting hospitals. Now, the benchmark rate has an adjustment factor to account for hospitals with low volumes of cases. This adjustment helps make the benchmark rate a truly achievable rate. During the SEP-1 webinar held in January, we heard from one of the top performing hospitals, Providence Tarzana Medical Center.

Now, this slide shows the overall performance of the SEP-1 measure over the 10 quarters for which we have data. There is a progressive, albeit gradual, trend towards increased performance over time, with an overall performance rate increase of 19 percent over the 10 quarters for which we have data. And, this is what one might expect to see for the care of a complex condition, such as sepsis, that is gradually improving over time. Now, the slight dip in performance for the third quarter of 2016, we suspect, represents normal variation. Potential criticism is that performance is still relatively low and not increasing as quickly as one would expect for a well-constructed stable measure. The thing to keep in mind with SEP-1 is that this is a composite measure. So, passing SEP-1 requires meeting the requirements of all bundles for which a patient is eligible. If one bundle or bundle component is not met, the case does not pass the measure. So, let's dive a bit deeper into some of the individual bundle performance.

The severe sepsis three-hour bundle, as noted earlier, consists of three interventions: starting antibiotics, collecting serum lactate, and obtaining a blood culture, all within three hours of severe sepsis presentation. And, when we look at performance of this bundle, separate from overall performance, we can see a much higher performance rate with a gradual steady improvement over time. We've seen about a 13 percent increase in

performance of these three evidence-based interventions as a bundle over the 10 quarters for which we have data, with the greatest increase occurring during the first five quarters where it increased by about 11 percent.

The next bundle in our analysis is the severe sepsis six-hour bundle, which consists of obtaining a repeat lactate if the initial lactate is greater than two. And, for this bundle, we can see an even more marked performance over time with an overall improvement of about 35 percent over the 10 quarters of data available. Similar to the severe sepsis three-hour bundle, the greatest improvement occurred during the first six quarters of the measure or received 31 percent increase in performance.

The septic shock three-hour bundle addresses the administration of 30 mils per kilogram of crystalloid fluids. The data demonstrate when SEP-1 was implemented about an 18 percent improvement in hospitals' administration of crystalloid fluids for cases with sepsis induced hypotension and/or septic shock. Similar to the two previous bundles, the greatest improvement occurred during the first six quarters where we saw an increase of about 15 percent.

Next, let's take a look at the septic shock six-hour bundle, which for analysis purposes, we are breaking further down to vasopressor administration for patients with *Persistent Hypotension*, which we see on this slide, and the repeat volume status and fluid assessment that we'll see on the next slide. Now, vasopressor administration has been relatively high since facilities started reporting on SEP-1, and it's remained relatively steady with very small yet steady increases in performance. We feel this is a reflection that vasopressor administration has been a staple of treatment for patients with hypotension that is not fluid-responsive. And, since vasopressor use has been relatively high, we anticipate we will continue to see very gradual increases in performance for this measure component.

The last bundle component we'll take a look at is the repeat volume status and fluid assessment portion of the septic shock six-hour bundle. This has been the bundle component with the lowest rate of performance. Noteworthy increases in performance have been seen with an increase of

almost 36 percent since measure implementation with the greatest increase of about 32 percent occurring during the first seven quarters. Now, one of the challenges regarding the measure component is the wide variation in what clinicians do and document to determine patients' response to crystalloid fluids versus what the specifications require they do and document. CMS wants to measure what matters most for sepsis care. We recognize that assessments to fluid responsiveness can include consideration of many different parameters and may vary, depending on the clinical situation. Based on feedback from clinicians, facilities, and recent literature, the requirements for clinician documentation of patient assessment have been and continue to be reevaluated. Current specifications allow for clinical attestation and have decreased the number of data elements for this assessment, as well as having simplified and provided more options to meet the assessment requirements. This and other changes allow more flexibility in terms of what is acceptable to demonstrate the clinician has reassessed the patient. With these specific changes, we anticipate continued improved performance.

Bringing this all back together as previously noted, increasing performance of individual elements of care and bundles is represented overall performance. But, because the overall performance rates are a result of the combination of all individual elements and bundles being met, the high rates of performance noted from many individual elements and bundles are not directly apparent in the overall rates. In fact, with most every bundle, performance rates were at 70 percent or above. So, one must view the overall results with this in mind. Hospital performance reports with bundle-level performance are not yet available but are being developed for hospitals to download from *Hospital Compare*, and plans are for those to be available next year. While many elements of SEP-1 rely heavily on clinical assessment, decision making, and documentation, identification of and care for patients with severe sepsis and septic shock tends to be multidisciplinary. As such, I want to emphasize that SEP-1 measures hospital performance and not individual clinician performance.

This concludes our review of version 5.5a measure updates and performance of the measure. We hope this has been helpful. I would like to thank everyone again for joining us today. And Candace, I'd like to turn this back over to you now.

Candace Jackson: Thank you, Bob. And, thank you, Noel and Dino, for providing all the information that you have provided today. We—unfortunately, we won't have time for a lot of live Q&As, but we will address as many Q&As as we can in the next few minutes. And then, as we stated earlier, all the questions will be responded to and posted at a later date. So, our first question is, I have a question about how the SEP-1 measure bundle compliance is calculated. Is it simply a numerator/denominator calculation reported as a percentage? Numerator is number of patients who met all the measure elements, and denominator is all the patients who have a diagnosis of severe sepsis/septic shock.

Bob Dickerson: Hi, Candace. This is Bob. I'll take that question. Yes. The overall performance is based upon patients who have met all of the requirements for each data element and bundle element that they are eligible for. So, it is, it is a percentage of those that are eligible for the bundle that meet all of the, or eligible for the measure that meet all of their requirements that they are eligible for.

Candace Jackson: Thank you, Bob. Our next question is in regards to slide 21 and slide 23. Please clarify the statement on slide 23, the target ordered volume is not required to be completely infused within the specified time frame. If target volume is not infused within the specified time frame, will we still pass the bundle?

Noel Albritton: Hi, Candace. This is Noel. Okay. So, the target ordered volume of crystalloid fluids is required to include a rate, duration, or end time to consider the target ordered volume completely infused. However, the target ordered volume is not required to be completely infused within the time frame provided in the *Crystalloid Fluid Administration* data element. So, if you have a rate, duration, or end time for your fluids, then

you can figure out when they were completely infused. But they do not need to be completely infused within that time frame.

Candace Jackson: Thank you, Noel. Our next question. When do all of these changes become effective?

Noel Albritton: And, this is Noel again, Candace. So, we're talking about manual version 5.5a. And, this manual is effective for discharges January 1, 2019 through June 30 of 2019.

Candace Jackson: Thank you, Noel. Our next question is in regards to slides 31 and 32. Do we use the second of the two required hypotensive by reading for our initial hypotension time?

Noel Albritton: Hi. This is Noel again. Yes. For *Initial Hypotension*, the time of your second hypotensive blood pressure reading is what would be abstracted for the initial hypotension date and time.

Candace Jackson: Our next question. Does the physician need to write obese and MBI greater than 30 or just one of these two items?

Noel Albritton: Hi. This is Noel again. So, for *Crystalloid Fluid Administration*, when we're talking about using the Ideal Body Weight, one of the requirements is for physician documentation that the patient has obesity or a BMI greater than 30. So, either one of those terms documented by the physician will meet that requirement. It doesn't have to be both.

Candace Jackson: Thank you. And, our next question is related to slide 25.

If the physician documents patient is obese and no other IBW is documented, we can abstract obese as greater than 30 BMI?

Noel Albritton: Hi. This is Noel again. So, to clarify, in order to use that Ideal Body Weight to determine the target ordered volume, you would need to have clear physician documentation that they are using the Ideal Body Weight to determine a target ordered volume, and that the patient has obesity or a BMI greater than 30. So, if only the physician documents the patient has obesity or is obese and does not include any documentation to use the

Ideal Body Weight, then you would use the weight documented, not use the Ideal Body Weight to determine the target ordered volume.

Candace Jackson: Thank you, Noel. Our next question. The septic shock element was removed. Does that mean physician documentation of—physician *Documentation of Septic Shock* has also been removed?

Noel Albritton: This is Noel again. So, documentation of septic shock is still acceptable for the *Septic Shock Present* data element. The *Documentation of Septic Shock* data element was a triggering event for *Crystalloid Fluid Administration* in a previous version of the manual. At this point, with the algorithm changes, we no longer needed that trigger right there in the algorithm. So, if the *Documentation of Septic Shock* is present, and that's your earliest presentation time for septic shock, you would still use the *Documentation of Septic Shock.*

Candace Jackson: And our next question is related to slide 35.

Would reading less than 80 over 50 be used for *Initial Hypotension*?

Noel Albritton: This is Noel again. So, for this example, with a blood pressure of 80 over 50, when we're talking about more severe values, which if you had a systolic blood pressure in the 70s or 60s, a systolic less than 80 basically, that would be considered more severe. And so, in that case, you would use that systolic that is less than 80. If your systolic was in the 90s—or not 90s—but upper 80s, then you would continue to disregard it because that's actually a less severe value than 80 over 50.

Candace Jackson: Thank you, Noel. Our next question is related to slide 75.

When it states that quarter one 2018 is at 71.5 percent for septic shock three-hour bundle, does that mean the patient first passed severe sepsis three-hour plus severe sepsis six-hour? For example, is each step in the breakdown meaning they passed all prior levels, or does that mean 71.5 percent received 30 milliliters per kilogram, which is the only bundle item in septic shock three-hour bundle?

Bob Dickerson: Thanks, Candace. This is Bob. I'll take that question. Yes. In order to be eligible for one of the bundles, the patient case would have to have passed all previous bundles that they were eligible for and not be excluded, based upon any of the exclusion criteria within the measure. So, in the situation of a patient being within that 71.5 percent that met the septic shock three-hour bundle, they would have had to have also passed the sepsis three-hour bundle. If they were eligible for the sepsis six-hour bundle and needed repeat lactate, they would have had to have passed that, also. And, as you look at each one of those graphs, you can see that the, that the numbers above each bar subsequently gets smaller as we work our way through the different bundles because you, the initial bundle, you start out with the greatest number of patients eligible as patients either do not pass or excluded to the measure that then decreases for each subsequent measure. So, I hope that helps answer that question.

Candace Jackson: Thank you, Bob. Our next question, we'll keep with you Bob. Do you have a link to the benchmark report?

Bob Dickerson: That's a great question. The benchmark reports that we referenced in this presentation are available on *QualityNet*.

Candace Jackson: Thank you. On slide 42. If the ER nurses notes state lactate drawn at 1300, and the lab report says lactate was collected at 1305, which time would we use?

Noel Albritton: Hi, Candace. This is Noel again. So, in this scenario, based on the order given in the new guidance, we would use the laboratory documentation, indicating when the lactate was drawn. So, in this case, it would be 1305 would be abstracted for the *Initial Lactate* [*Level*] *Date* and *Time*.

Candace Jackson: Thank you, Noel. Our next question. If a physician's H&P falls in the appropriate time frame, states, "a review of systems completed," does this meet the criteria for reassessment?

Noel Albritton: Hi. This is Noel again. Yes. So, for the *Repeat Volume Status and Tissue Profusion Assessment Performed* data element, if there is physician documentation within that specified time frame stating they performed a

review of systems or review of systems completed, then Value "1" (Yes) could be selected for that data element.

Candace Jackson: Thank you, Noel. We do have time for a couple more questions. Slide 44.

Will "sepsis exam done" suffice to meet this element, and do our providers need to document all the sepsis parameters? Or is this element an either/or statement?

Noel Albritton: And, this is Noel again. So, if the physician documented "sepsis exam done," and that was within the specified time frame, that would suffice selecting Value "1" (Yes), for the data element. They would not be required to also document five of the now eight parameters. The data element could be met by either that physician documentation attesting to performing an exam or by documenting five of the eight parameters.

Candace Jackson: Thank you, Noel. Our next question. When I ran a *Hospital Compare* preview report, the top 10 percent rate was not 80 percent.

Bob Dickerson: Thank you, Candace. This is Bob. I can take that question. The thing to keep in mind is that the benchmarks of care reports that are posted on *QualityNet* use a different formula for determining a benchmark performance rate that are on *QualityNet*. So, you can't necessarily compare them straight across. The benchmarks of care report uses the formula that looks at the hospitals, the top 10 percent of performance of hospitals. So, it lines up all of the performance rates, and then identifies the top 10 percent, calculates an average of that. And then, there's an adjustment factor for the benchmarks of care report so that it accounts for facilities with lower volumes. So, the formulas are a little bit different. I hope that helps.

Candace Jackson: Thank you, Bob. And, that concludes our Q&A session for today. Again, [I'd] like to thank our subject-matter experts for providing this information to us today. And, I would now like to turn the presentation over to Dr. Debra Price to do a brief overview of our CEU process.

Dr. Debra Price: Thank you.

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