National Hospital Inpatient Quality Reporting Measures Specifications Manual Release Notes

For Manual Version: 5.2 **Completed: June 16, 2016**

Guidelines for Using Release Notes

The Release Notes provides modifications to the *Specifications Manual for National Hospital Inpatient Quality Measures,* Version 5.2. The information in this document is to be used as a reference and is not intended to be used to program abstraction tools. Please refer to the *Specifications Manual for National Hospital Inpatient Quality Measures* for the complete and current technical specifications and abstraction information.

The notes are organized to follow the order of the Table of Contents. The **implementation date is 01/01/2017**, unless otherwise specified. The headings are described below:

- **Impacts** - used to identify the impacted measures and portion(s) of the Manual Section, e.g., Alphabetical Data Dictionary, Measure Information Form (MIF) and Flowchart (Algorithm).
- **Description of Changes** - used to identify the section within the document where the change occurs, e.g., Definition, Data Collection Question, Allowable Values, and Denominator Statement - Data Elements.
- **Rationale** - provided for the change being made.

Data elements that cross multiple measures and contain the same changes will be consolidated.

NOTE: In addition to being called out specifically in the Release Notes document, additions are yellow highlighted in the corresponding documents. The changes in the Hospital Initial Patient Population and Clinical Data XML File Layouts have yellow highlighted cells with actual changes noted in **bold font**.

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Table of Contents *(no updates)*

Acknowledgement *(no updates)*

Introduction *(no updates)*

Using the Specifications Manual for National Hospital Inpatient Quality Measures *(no updates)*

SECTION 1 – Data Dictionary

Introduction to Data Dictionary *(no updates)*

Alphabetical Data Dictionary

Impacts:
Administrative Contraindication to Care, Septic Shock

Rationale: The Allowable Values were updated regarding witnessed consent and nursing documentation. The Notes for Abstraction were updated regarding refusal of vasopressors, IV fluids, and blood draws.

Description of Changes:
Definition
Suggested Data Collection Question
Add 'IV' before 'fluid administration'

Allowable Values
Change from:

1 (Yes)	There is documentation by a physician/APN/PA that the patient or decision-maker has refused either blood draw, fluid administration, or vasopressor administration prior to or within 6 hours following presentation of septic shock.
2 (Yes)	There is a witnessed consent form for either blood draw, fluid administration, or vasopressor administration that is marked "refused" prior to or within 6 hours following presentation of septic shock.
3 (No)	There is no physician/APN/PA documentation or witnessed consent form that the patient or decision-maker has refused either blood draw, fluid administration, or vasopressor administration prior to or within 6 hours following presentation of septic shock.

To:

1 (Yes)	There is documentation by a physician/APN/PA or nurse that the patient or decision-maker has refused either blood draw, IV fluid administration, or vasopressor administration prior to or within 6 hours following presentation of septic shock.
2 (No)	There is no physician/APN/PA or nurse documentation that the patient or decision-maker has refused either blood draw, IV fluid administration, or vasopressor administration prior to or within 6 hours following presentation of septic shock.

Notes for Abstraction
Change to:

- Only acceptable sources are physician/APN/PA or nursing documentation.
- Documentation of refusal of blood draw, IV fluid administration, or vasopressor administration that is present prior to or within 6 hours following presentation of septic shock can be used.
- Documentation of refusal of care, treatment, or medications that would result in blood draws, IV fluids or vasopressors not being administered is acceptable.
- If placement of a central line is refused, consider this refusal of vasopressors.

Suggested Data Sources
Remove:

- Witnessed consent forms

Exclusion guidelines for Abstraction
Change to:
None

Impacts:
Administrative Contraindication to Care, Severe Sepsis

Rationale: The data element was updated to remove requirement for witness signed consent and to allow nursing documentation of refusal.

Description of Changes:
Definition
Suggested Data Collection Question

Change 'fluid administration' and 'antibiotic administration' to:
'IV fluid administration' and 'IV antibiotic administration'

Allowable Values
Change from:

1 (Yes) There is documentation by a physician/APN/PA that the patient or decision-maker has refused either blood draw, fluid administration, or antibiotic administration prior to or within 6 hours following presentation of severe sepsis.

2 (Yes) There is a witnessed consent form for either blood draw, fluid administration, or antibiotic administration that is marked "refused" prior to or within 6 hours following presentation of severe sepsis.

3 (No) There is no physician/APN/PA documentation or witnessed consent form that the patient or decision-maker has refused either blood draw, fluid administration, or antibiotic administration prior to or within 6 hours following presentation of severe sepsis.

To:

1 (Yes) There is documentation by a physician/APN/PA or nurse that the patient or decision-maker has refused either blood draw, IV fluid administration, or IV antibiotic administration prior to or within 6 hours following presentation of severe sepsis.

2 (No) There is no physician/APN/PA or nurse documentation that the patient or decision-maker has refused either blood draw, IV fluid administration, or IV antibiotic administration prior to or within 6 hours following presentation of severe sepsis.

Notes for Abstraction
Change to:

- Only acceptable sources are physician/APN/PA or nursing documentation.
- Documentation of refusal of blood draw, IV fluid administration, or IV antibiotic administration that is present prior to or within 6 hours following presentation of severe sepsis can be used.
- Documentation of refusal of care, treatment, or medications that would result in blood draws, IV fluids or IV antibiotics not being administered is acceptable.

Suggested Data Sources
Remove bullet:

- Witnessed consent forms

Inclusion Guidelines for Abstraction
Add bullet:

- IV Antibiotics refused

Exclusion Guidelines for Abstraction
Change to:
None

Impacts:
Alcohol Use Status

Rationale: Language was clarified to provide better guidance to the abstractor in the Allowable Values and Notes for Abstraction. The time frame to complete the substance use screen was changed based on recommendations from the SUB Technical Advisory Panel.

Description of Changes:
Definition
Remove in first sentence:
three

Change in first sentence:
'days' to 'day'

Allowable Values
Change from:

1 The patient is screened with a validated tool within the first three days of admission and the score on the alcohol screen indicates no or low risk of alcohol related problems.
2 The patient was screened with a validated tool within the first three days of admission and the score on the alcohol screen indicates unhealthy alcohol use (moderate or high risk) benefiting from brief intervention.
3 The patient was screened with a non-validated tool within the first three days of admission and the score on the alcohol screen indicates no or low risk of alcohol related problems.
4 The patient was screened with a non-validated tool within the first three days of admission and the score on the alcohol screen indicates unhealthy alcohol use (moderate or high risk) benefiting from brief intervention.
5 The patient refused the screen for alcohol use within the first three days of admission.

6 The patient was not screened for alcohol use during the first three days of admission or unable to determine from medical record documentation.

7 The patient was not screened for alcohol use during the first three days of admission because of cognitive impairment.

To:

1 The patient is screened with a validated tool within the first day of admission and the score on the alcohol screen indicates no or low risk of alcohol related problems.

2 The patient was screened with a validated tool within the first day of admission and the score on the alcohol screen indicates unhealthy alcohol use (moderate or high risk) benefiting from brief intervention.

3 The patient was screened with a non-validated tool within the first day of admission and the score on the alcohol screen indicates no or low risk of alcohol related problems.

4 The patient was screened with a non-validated tool within the first day of admission and the score on the alcohol screen indicates unhealthy alcohol use (moderate or high risk) benefiting from brief intervention.

5 The patient refused the screen for alcohol use within the first day of admission.

6 The patient was not screened for alcohol use during the first day of admission or unable to determine from medical record documentation.

7 The patient was not screened for alcohol use during the first day of admission because of cognitive impairment.

Notes for Abstraction:
Change 'first three days of admission' in fourth, fifth, and eighth bullets to:
'first day of admission'

Change 'first 3 days of admission' in seventh and last bullet to:
'first day of admission'

Add three new bullets after eighth bullet:

- If there is documentation in the medical record indicating the patient drinks alcohol and conflicting documentation indicating the patient does not drink alcohol, select Value "6" since alcohol use status is unable to be determined.
- When there is conflicting information in the record with regard to risk, for instance, the results from a validated screening tool are documented as both low AND moderate/high risk, select Value "2" indicating the highest risk.
- Documentation of cognitive impairment overrides documentation of an alcohol use screen and therefore would not be considered "conflicting documentation." Even if the family or others tell staff the patient uses alcohol, the patient could not be counseled due to cognitive impairment. Select Value "7."

Impacts:
Bedside Cardiovascular Ultrasound Performed

Rationale: The Inclusion Guidelines for Abstraction were updated to appear in alphabetical order.

Description of Changes:
Inclusion Guidelines for Abstraction
Change list to alphabetical order

Impacts:
Blood Culture Collection

Rationale: The Notes for Abstraction were updated to clarify documentation regarding blood cultures.

Description of Changes:
Notes for Abstraction
Change first sentence in first bullet to:
Use documentation specifying a blood culture was actually drawn or collected.

Remove:
- If the patient received the first dose of antibiotics more than 24 hours prior to the time of presentation of severe sepsis, choose Value "2."

Exclusion Guidelines for Abstraction
Change to:
- Blood sent to lab
- Lab here
- Labs drawn

Impacts:
Blood Culture Collection Acceptable Delay (New Data Element)

Rationale: A new data element *Blood Culture Collection Acceptable Delay* is being added.

Description of Changes:
Index
Add in 'Element Name' column:
Blood Culture Collection Acceptable Delay

Add in 'Collected For' column:
SEP-1

Add new data element:
Blood Culture Collection Acceptable Delay

Impacts:
Blood Culture Collection Date

Rationale: The Notes for Abstraction were updated to clarify documentation regarding blood cultures.

Description of Changes:
Notes for Abstraction
Change first sentence in first bullet to:
Use documentation specifying a blood culture was actually drawn or collected.

Add new fourth bullet:
- If the patient was started on antibiotics within 24 hours before presentation of severe sepsis, begin abstracting 24 hours prior to the time the first antibiotic dose was given.

Remove in fifth bullet:
If the patient was on antibiotics at the time of presentation of severe sepsis, begin abstracting 24 hours before those antibiotics were initiated.

Remove:
- If the patient was started on antibiotics within 24 hours before presentation of severe sepsis, begin abstraction of a blood culture 24 hours before the first antibiotic dose was given.
- If the patient received the first dose of antibiotics more than 24 hours prior to the time of presentation of severe sepsis, choose "UTD."

Add in seventh bullet after the word 'drawn':
or attempted

Exclusion Guidelines for Abstraction
Change list to alphabetical order

Impacts:
Blood Culture Collection Time

Rationale: The Notes for Abstraction were updated to clarify documentation regarding blood cultures.

Description of Changes:
Notes for Abstraction
Change first sentence in first bullet to:
Use documentation specifying a blood culture was actually drawn or collected.

Add new fourth bullet:
- If the patient was started on antibiotics within 24 hours before presentation of severe sepsis, begin abstracting 24 hours prior to the time the first antibiotic dose was given.

Remove in fifth bullet:
If the patient was on antibiotics at the time of presentation of severe sepsis, begin abstracting 24 hours before those antibiotics were initiated.

Remove:
- If the patient was started on antibiotics within 24 hours before presentation of severe sepsis, begin abstraction of a blood culture 24 hours before the first antibiotic dose was given.
- If the patient received the first dose of antibiotics more than 24 hours prior to the time of presentation of severe sepsis, choose "UTD."

Add in last bullet after the word 'drawn':
or attempted

Inclusion Guidelines for Abstraction
Change list to alphabetical order

Exclusion Guidelines for Abstraction
Change list to alphabetical order

Impacts:
Broad Spectrum or Other Antibiotic Administration

Rationale: The data element was updated to provide guidance for the use of pre-hospital records and use of narrative charting.

Description of Changes:
Definition
Change to:
Documentation of administration of a broad spectrum or other antibiotic intravenously in the time window 24 hours prior to or 3 hours after *Severe Sepsis Presentation Date and Time*.

Suggested Data Collection Question
Change to:
Was a broad spectrum or other antibiotic administered intravenously in the time window 24 hours prior to or 3 hours after *Severe Sepsis Presentation Date and Time*?

Notes for Abstraction
Change first and second bullet to:
- To choose Value "1," there must be at least one dose of an intravenous (IV) antibiotic given or started in the 24 hours preceding or 3 hours after the S*evere Sepsis Presentation Date and Time*.
- If the patient received any IV antibiotic within the 24 hours preceding or 3 hours following the S*evere Sepsis Presentation Date and Time*, choose Value "1."

Add in third bullet after the word 'Presentation':
Date and

Change seventh bullet to:
- Do not cross reference between different sources to infer that an antibiotic was given intravenously if it was documented only with name/date/time given but no route indicated. The route on the MAR for an antibiotic cannot be used as the route for a dose of that same antibiotic on another form.

Add new bullets:
- Do not abstract antibiotics from narrative charting unless there is no other documentation that reflects that the same antibiotic was given during the specified timeframe.
- Use of documentation in pre-hospital records (e.g., ambulance records, nursing home records) that is considered part of the medical record is acceptable for determining presence of severe sepsis.

Suggested Data Sources
Add new bullet:
- Pre-arrival documentation that is part of the medical record

Impacts:
Broad Spectrum or Other Antibiotic Administration Date

Rationale: The data element was updated to provide guidance for the timeframe to review antibiotic doses given, use of pre-hospital records, and use of narrative charting.

Description of Changes:
Definition
Change to:
The earliest date on which an antibiotic was administered intravenously if given in the time window of 24 hours preceding or 3 hours after *Severe Sepsis Presentation Date and Time*.

Suggested Data Collection Question
Change to:
What was the earliest date on which an antibiotic was administered intravenously if given in the time window of 24 hours preceding or 3 hours after *Severe Sepsis Presentation Date and Time*?

Notes for Abstraction
Change to:

- If any antibiotics were administered intravenously (IV) within 24 hours prior to *Severe Sepsis Presentation Date and Time*, abstract the earliest date that an IV antibiotic was given. This may be the same date as the date of presentation or may be a date any time before presentation. Do not review for antibiotic doses given more than 72 hours prior to severe sepsis presentation.
  Example:
  The date and time of presentation of severe sepsis was 11-03-20xx at 10:00. Patient received a broad spectrum IV antibiotic every 6 hours, including in the time window 24 hours before severe sepsis presentation. The earliest dose of that antibiotic was given on 10-31-20xx at 11:00. The date of presentation would be 11-03-20xx, the *Broad Spectrum or Other Antibiotic Administration Date* is 10-31-20xx.
- If the patient was started on an IV antibiotic within the 3 hours following the date and time of presentation of severe sepsis, and not given antibiotics in the 24 hours prior to the date and time of presentation of severe sepsis, abstract the earliest date on which the first dose of antibiotic was given. This may be the same date as the date of presentation or may be the date after presentation.
  Example:
  The date and time of presentation of severe sepsis was 11-02-20xx at 23:00. Patient was placed on a broad spectrum IV antibiotic every 6 hours, starting on 11-03-20xx at 0100. The date of presentation would be 11-02-20xx, the *Broad Spectrum or Other Antibiotic Administration Date* is 11-03-20xx.
- If one or more than one IV antibiotic was given within the 3 hours after presentation of severe sepsis, and the patient did not receive an IV antibiotic in the 24 hours before severe sepsis presentation, abstract the dose given closest to the time of presentation of severe sepsis.
- If IV antibiotics were administered both 24 hours prior to and within 3 hours after the time of presentation of severe sepsis, abstract the earliest date that an IV dose of antibiotic was given. This may be the same date as the date of presentation or may be a

date any time before presentation. Do not review for antibiotic doses given more than 72 hours prior to severe sepsis presentation.
Examples:
- Severe sepsis presentation was 11-2-20xx at 10:00. IV cefazolin every 12 hours, was started on 11-01-20xx at 12:30. Two doses of cefazolin were given in the 24 hours prior to severe sepsis presentation and one dose within 3 hours following severe sepsis presentation. The *Broad Spectrum or Other Antibiotic Administration Date* is 11-1-20xx.
- Severe sepsis presentation was 11-2-20xx at 14:00. IV cefazolin every 12 hours, was started on 11-01-20xx at 16:00. Meropenem was started on 11-2-20xx at 1600. Two doses of cefazolin were given in the 24 hours prior to severe sepsis presentation. One dose of cefazolin and one dose of meropenem were given within the 3 hours following severe sepsis presentation. The *Broad Spectrum or Other Antibiotic Administration Date* is 11-1-20xx.

- Stop abstracting 3 hours after the presentation of severe sepsis.
- If no antibiotic was given in the 24 hours before or 3 hours after the severe sepsis presentation date and time, enter "UTD."
- Do not cross reference between different sources to infer that an antibiotic was given intravenously if it was documented only with name/date/time given but no route indicated. The route on the MAR for an antibiotic cannot be used as the route for a dose of that same antibiotic on another form.
- Antibiotic administration information should only be abstracted from documentation that demonstrates actual administration of the specific IV antibiotic within the time window of 24 hours prior to or 3 hours following the presentation of severe sepsis.
  Examples:
  - A physician order for IV antibiotics is not sufficient unless the antibiotic ordered was marked as "given" with date/time noted.
  - Do not collect antibiotics documented on an operative report unless the surgeon states that the surgeon actually administered the dose.
- Specific documentation by one person that another person administered the IV antibiotic is acceptable for determining the date of administration.
  Example:
  OR nurse, S. Smith RN, documents, "Cefazolin 1 gm IV given on 1/7/20xx at 0500 per J Doe RN." This dose can be abstracted as given if not documented by the person that gave the dose.
- If the route of an antibiotic is missing or not documented as IV, disregard that dose.
- The method of designation of administration on hand-written or pre-printed forms such as MARs or eMARs, with pre-printed scheduled times for administration, must be clearly designated as given. The methods may vary. Whatever method is used, it must be clear that the dose was administered.
- Do not abstract test doses of antibiotics.
- Do not abstract antibiotics from sources that do not represent actual administration.
  Examples that ***do not*** represent actual administration:
  Pre-Op Checklist states:
  X IV Started at 1730
  X Preop Antibiotic Given at 1800
  X Lab on Chart
  Operative report states: IV antibiotics were given prior to procedure.

- Do not abstract antibiotics from narrative charting unless there is no other documentation that reflects that the same antibiotic was given during the specified timeframe.
  Example:
  Narrative states: "Ancef 1 gram given IV prior to incision." No other doses of Ancef are documented. The dose in the narrative should be abstracted using UTD for missing data (no date and time).
- Use of documentation in pre-hospital records (e.g., ambulance records, nursing home records) that is considered part of the medical record is acceptable for determining presence of severe sepsis.

Suggested Data Sources
Add new bullet:
- Pre-arrival documentation that is part of the medical record

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Impacts:
Broad Spectrum or Other Antibiotic Administration Selection

Rationale: The data element was updated to provide additional abstraction guidance.

Description of Changes:
Definition
Change to:
The selection of the intravenous (IV) antibiotic administered within 3 hours following *Severe Sepsis Presentation Date and Time*.

Suggested Data Collection Question
Change to:
Was the intravenous (IV) antibiotic administered within 3 hours after the *Severe Sepsis Presentation Date and Time* consistent with antibiotic selection guidelines detailed in the Notes for Abstraction?

Notes for Abstraction
Change to:
- Antibiotic administration information should only be abstracted from documentation that demonstrates actual intravenous administration of the antibiotic within the 3 hours following *Severe Sepsis Presentation Date and Time*.
- If there is one IV antibiotic started or given to the patient within 3 hours after presentation of severe sepsis that is on the monotherapy table in Appendix C, Table 5.0, choose Value "1" (Table 5.0 contains the names of all broad spectrum antibiotics approved as monotherapy).
- If the administered IV antibiotics were NOT on Table 5.0, determine if the IV antibiotics are on Table 5.1 in Appendix C. Determine the class the administered IV antibiotics belong to, based on the class name in the shaded row above the antibiotic names. Next, refer to the following Combination Antibiotic Therapy Table to determine if an antibiotic from a class in both Column A and Column B were given. There must be at least one from a class in column A and at least one from a class in column B administered to select Value "1." Review the chart to see that both drugs were started or given within 3 hours of *Severe Sepsis Presentation Date and Time* and if so, choose Value "1." If both drugs were not started or given within 3 hours, choose Value "2."

- If no IV antibiotics were administered in the three hour time window, choose Value “2.”
- If an IV antibiotic from Table 5.0 or an appropriate combination of IV antibiotics from Table 5.1 is not started or given within the 3 hours following presentation of severe sepsis, but there is a lab report or physician/APN/PA documentation indicating the causative organism and susceptibility is known (see exception for *C. difficile*) and an IV antibiotic identified as appropriate to treat the causative organism is given within 3 hours following presentation of severe sepsis, choose Value "1."
- Exception for *C. difficile*: If the causative organism is identified as *C. difficile,* susceptibility testing is not required, and if the patient is receiving oral vancomycin with or without oral or IV metronidazole (Flagyl), choose Value “1.”

Combination Antibiotic Therapy Table
Remove note under table:
NOTE: Metronidazole (Flagyl) is not represented on any table because it is not approved for monotherapy and if given, must be given with 2 other combination antibiotic therapy drugs. Since giving those 2 antibiotic therapy drugs will allow Value “1” to be chosen, the metronidazole administration may be disregarded.

Inclusion Guidelines for Abstraction
Add new bullet:
- Antibiotic administered via intravenous route

Exclusion Guidelines for Abstraction
Change to:
- Give antibiotic stat
- Hang antibiotic
- Order for xx antibiotic

Impacts:
Broad Spectrum or Other Antibiotic Administration Time

Rationale: The data element was updated to provide guidance for the timeframe to review antibiotic doses given, use of pre-hospital records, and use of narrative charting.

Description of Changes:
Definition
Change to:
The earliest time at which an antibiotic was administered intravenously if given in the time window of 24 hours preceding or 3 hours after *Severe Sepsis Presentation Date and Time*.

Suggested Data Collection Question
Change to:
What was the earliest time at which an antibiotic was administered intravenously if given in the time window of 24 hours preceding or 3 hours after *Severe Sepsis Presentation Date and Time*?

Notes for Abstraction
Change to:
- If any antibiotics were administered intravenously (IV) within 24 hours prior to *Severe Sepsis Presentation Date and Time*, abstract the earliest time that an IV antibiotic was

given. This may be the same time as the time of presentation, within 24 hours prior to presentation, or a time greater than 24 hours before presentation. Do not review for antibiotic doses given more than 72 hours prior to severe sepsis presentation.
Example:

The date and time of presentation of severe sepsis was 11-03-20xx at 10:00. Patient received a broad spectrum IV antibiotic every 6 hours, including in the time window 24 hours before severe sepsis presentation. The earliest dose of that antibiotic was given on 10-31-20xx at 11:00. The time of presentation would be 11-03-20xx at 10:00, the *Broad Spectrum or Other Antibiotic Administration Time* is 10-31-20xx at11:00.

- If the patient was started on an IV antibiotic within the 3 hours following the date and time of presentation of severe sepsis, and not given antibiotics in the 24 hours prior to the date and time of presentation of severe sepsis, abstract the earliest time at which the first dose of antibiotic was given. This may be the same time as the time of presentation or may be a time after presentation.
  Example:

  The date and time of presentation of severe sepsis was 11-02-20xx at 10:00. Patient was placed on a broad spectrum IV antibiotic every 6 hours. The first dose of IV antibiotic was given immediately after the severe sepsis presentation date and time on 11-02-20xx at 13:00. The time of presentation would be 11-02-20xx at 10:00, the *Broad Spectrum or Other Antibiotic Administration Time* is 11-02-20xx at 13:00.
- If more than one IV antibiotic was given within the 3 hours after the presentation of severe sepsis, and the patient did not receive an IV antibiotic in the 24 hours before severe sepsis presentation, abstract the dose given closest to the time of presentation of severe sepsis.
- If IV antibiotics were administered both 24 hours prior to and within 3 hours after the time of presentation of severe sepsis, abstract the earliest time that an IV dose of antibiotic was given. This may be the same time as the time of presentation, within 24 hours prior to presentation, or a time greater than 24 hours before presentation. Do not review for antibiotic doses given more than 72 hours prior to severe sepsis presentation.
  Examples:
  - Severe sepsis presentation was 11-2-20xx at 10:00. IV cefazolin every 12 hours, was started on 11-01-20xx at 12:30. Two doses of cefazolin were given in the 24 hours prior to severe sepsis presentation (11-1-20xx at 12:30 and 11-2-20xx at 00:30) and one dose within 3 hours following severe sepsis presentation (11-2-20xx at 12:30). *The Broad Spectrum or Other Antibiotic Administration Time* is 11-1-20xx at 12:30.
  - Severe sepsis presentation was 11-2-20xx at 14:00. IV cefazolin every 12 hours, was started on 11-1-20xx at 16:00. Meropenem was started on 11-2-20xx at 14:30. Two doses of cefazolin were given in the 24 hours prior to severe sepsis presentation (11-1-20xx at 16:00 and 11-2-20xx at 04:00). One dose of cefazolin (11-2-20xx at 16:00) and one dose of meropenem (11-2-20xx at 14:30) were given within the 3 hours following severe sepsis presentation. The *Broad Spectrum or Other Antibiotic Administration Time* is 11-1-20xx at 16:00.
- Stop abstracting 3 hours after the presentation of severe sepsis.
- If no antibiotic was given in the 24 hours before or 3 hours after the severe sepsis presentation date and time, enter “UTD.”

- Do not cross reference between different sources to infer that an antibiotic was given intravenously if it was documented only with name/date/time given but no route indicated. The route on the MAR for an antibiotic cannot be used as the route for a dose of that same antibiotic on another form.
- Antibiotic administration information should only be abstracted from documentation that demonstrates actual administration of the specific IV antibiotic within the time window of 24 hours prior to or 3 hours following the presentation of severe sepsis.
  Examples:
  - A physician order for IV antibiotics is not sufficient unless the antibiotic ordered was marked as "given" with date/time noted.
  - Do not collect antibiotics documented on an operative report unless the surgeon states that the surgeon actually administered the dose.
- Specific documentation by one person that another person administered the IV antibiotic is acceptable for determining the date of administration.
  Example:
  OR nurse, S. Smith RN, documents, "Cefazolin 1 gm IV given on 1/7/20xx at 0500 per J Doe RN." This dose can be abstracted as given if not documented by the person that gave the dose.
- If the route of an antibiotic is missing or not documented as IV, disregard that dose.
- The method of designation of administration on hand-written or pre-printed forms such as MARs or eMARs, with pre-printed scheduled times for administration, must be clearly designated as given. The methods may vary. Whatever method is used, it must be clear that the dose was administered.
- Do not abstract test doses of antibiotics.
- Do not abstract antibiotics from sources that do not represent actual administration.
  Examples that ***do not*** represent actual administration:
  Pre-Op Checklist states:
  X IV Started at 1730
  X Preop Antibiotic Given at 1800
  X Lab on Chart
  Operative report states: IV antibiotics were given prior to procedure
- Do not abstract antibiotics from narrative charting unless there is no other documentation that reflects that the same antibiotic was given during the specified timeframe.
  Example:
  Narrative states: "Ancef 1 gram given IV prior to incision." No other doses of Ancef are documented. The dose in the narrative should be abstracted using "UTD" for missing data (no date and time).
- Use of documentation in pre-hospital records (e.g., ambulance records, nursing home records) that is considered part of the medical record is acceptable for determining presence of severe sepsis.

Suggested Data Sources
Add new bullet:

- Pre-arrival documentation that is part of the medical record

Impacts:
Capillary Refill Examination Date

Rationale: The Notes for Abstraction were updated to allow for physician attestation of the exam/reassessment and to clarify the proper date to use when no specific date was documented.

Description of Changes:
Suggested Data Collection Question
Change to**:**
On what date was a capillary refill examination documented by a physician/APN/PA in the time window beginning at the crystalloid fluid administration date and time and ending six hours after the presentation of septic shock date and time?

Notes for Abstraction
Add new second bullet:
- Documentation of what constitutes or is acceptable for a capillary refill examination is defined in the *Capillary Refill Examination Performed* data element.

Add new fourth bullet:
- If the capillary refill exam is in a physician note without a specific date documented within the note, use the date the note was started or opened.

Impacts:
Capillary Refill Examination Performed

Rationale: The Notes for Abstraction were updated to allow for physician attestation of the exam/reassessment.

Description of Changes:
Suggested Data Collection Question
Change to**:**
Was a capillary refill examination documented by a physician/APN/PA in the time window beginning at the crystalloid fluid administration date and time and ending six hours after the presentation of septic shock date and time?

Notes for Abstraction
Remove in third bullet:
'mottled,'

Add to fourth bullet:
Exceptions:
- o Documentation indicating a physician/APN/PA has reviewed, performed, or attested to reviewing or performing a capillary refill examination is acceptable.
- o Documentation indicating a physician/APN/PA has performed, or attested to performing a physical examination, perfusion (re-perfusion) assessment, or sepsis (severe sepsis or septic shock) focused exam is acceptable.

Inclusion Guidelines for Abstraction
Change list to alphabetical order

Impacts:
Capillary Refill Examination Time

Rationale: The Notes for Abstraction were updated to allow for physician attestation of the exam/reassessment and to clarify the proper time to use when no specific time was documented.

Description of Changes:
Suggested Data Collection Question
Change to**:**
At what time was a capillary refill examination documented by a physician/APN/PA in the time window beginning at the crystalloid fluid administration date and time and ending six hours after the presentation of septic shock date and time?

Notes for Abstraction
Add new second bullet:
- Documentation of what constitutes or is acceptable for a capillary refill examination is defined in the *Capillary Refill Examination Performed* data element.

Add new fourth bullet:
- If the capillary refill exam is in a physician note without a specific time documented within the note, use the time the note was started or opened.

Impacts:
Cardiopulmonary Evaluation Date

Rationale: The Notes for Abstraction were updated to allow for physician attestation of the exam/reassessment, to clarify that the evaluation does not need to be performed by a physician/APN/PA, and to clarify the proper date to use when no specific date was documented.

Description of Changes:
Definition
Remove:
by a physician/APN/PA.

Suggested Data Collection Question
Remove:
performed and

Notes for Abstraction
Add new second bullet:
- Documentation of what constitutes or is acceptable for a cardiopulmonary evaluation is defined in the *Cardiopulmonary Evaluation Performed* data element.

Add new fourth bullet:
- If the cardiopulmonary evaluation is in a physician note without a specific date documented within the note, use the date the note was started or opened.

Impacts:
Cardiopulmonary Evaluation Performed

Rationale: The Notes for Abstraction were updated to allow for physician attestation of the exam/reassessment and to clarify that the evaluation does not need to be performed by a physician/APN/PA.

Description of Changes:
Definition
Change to:
Documentation of a cardiopulmonary evaluation to assess the status of the heart and lungs by a physician/APN/PA.

Suggested Data Collection Question
Remove:
performed and

Allowable Values
Change from:

1 (Yes)	Cardiopulmonary evaluation was performed and documented by a physician/APN/PA.
2 (No)	Cardiopulmonary evaluation was not performed and documented by a physician/APN/PA, or unable to determine.

To:

1 (Yes)	Cardiopulmonary evaluation was documented by a physician/APN/PA.
2 (No)	Cardiopulmonary evaluation was not documented by a physician/APN/PA, or unable to determine.

Notes for Abstraction
Change second bullet to:

- Cardiopulmonary evaluation is done to assess the status of the heart and lungs. The notes must include reference to both the heart and lungs and the findings for each in order to choose Value "1."
  Examples:
  - "Heart: Gallop rhythm noted, lungs crackling at both bases"
  - "Lungs clear, heart RRR"

  Exceptions:
  - Documentation indicating a physician/APN/PA has reviewed, performed, or attested to reviewing or performing a cardiopulmonary evaluation is acceptable. If documented this way, specifically referencing heart and lungs, and the findings is not required.
  - Documentation indicating a physician/APN/PA has performed, or attested to performing a physical examination, perfusion (re-perfusion) assessment, or sepsis (severe sepsis or septic shock) focused exam is acceptable. If documented this way, specifically referencing heart and lungs, and the findings is not required.

Inclusion Guidelines for Abstraction
Assessment of Lungs: (Examples)

Change list title **'**Assessment of Lungs: (Examples)' to:
Assessment of Lungs/Respiratory/Pulmonary System: (Examples)

Change in fourth bullet, 'Ronchi' to:
Rhonchi

Change list to alphabetical order

Add new bullet:
- Within normal limits

Assessment of Heart: (Examples)
Change list title **'**Assessment of Heart: (Examples)' to:
Assessment of Heart/Cardiac System: (Examples)

Change list to alphabetical order

Add new bullet:
- Within normal limits

Impacts:
Cardiopulmonary Evaluation Time

Rationale: The Notes for Abstraction were updated to allow for physician attestation of the exam/reassessment, to clarify that the evaluation does not need to be performed by a physician/APN/PA, and to clarify the proper time to use when no specific time was documented.

Description of Changes:
Definition
Remove:
by a physician/APN/PA

Suggested Data Collection Question
Remove:
performed and

Notes for Abstraction
Add new second bullet:
- Documentation of what constitutes or is acceptable for a cardiopulmonary evaluation is defined in the *Cardiopulmonary Evaluation Performed* data element.

Add new fourth bullet:
- If the cardiopulmonary evaluation is in a physician note without a specific time documented within the note, use the time the note was started or opened.

Impacts:
Central Venous Oxygen Measurement

Rationale: The Notes for Abstraction were updated to clarify the time frame for abstraction, to clarify multiple measurements, and to allow measurements taken from PICC lines.

Description of Changes:
Definition
Remove:
within 6 hours after presentation of septic shock

Notes for Abstraction
Change to:

- Start abstracting at the crystalloid fluid administration date and time and stop abstracting 6 hours after the presentation of septic shock date and time.
- If there are multiple central venous oxygen measurements documented in the time window beginning at the crystalloid fluid administration date and time and ending six hours after the presentation of septic shock date and time, abstract the date and time of the measurement that was documented latest within the time window.
- Central Venous Oxygen measurement may be expressed as SvO2 or ScvO2.
- There must be documentation reflecting the oxygen reading was obtained via central venous catheter. A notation such as via “central catheter” or “CVP catheter” or “central venous oximetry catheter” with an oxygen reading or the oxygen reading recorded on a flow sheet in an area designated for central venous catheter readings is acceptable. Measurements from PICC lines (peripherally inserted central catheters) are acceptable.
- If there are no central venous oxygen measurements documented in the time window beginning at the crystalloid fluid administration date and time and ending six hours after the presentation of septic shock date and time choose Value “2.”

Inclusion Guidelines for Abstraction
Change list to alphabetical order

Impacts:
Central Venous Oxygen Measurement Date

Rationale: The Notes for Abstraction were updated to clarify the date to use when there are multiple measurements documented.

Description of Changes:
Definition
Remove:
first

Remove:
within 6 hours after the presentation of septic shock

Suggested Data Collection Question
Remove:
earliest

Remove:
first

Notes for Abstraction
Change first bullet to:

- If there are multiple central venous oxygen measurements documented in the time window beginning at the crystalloid fluid administration date and time and ending six hours after the presentation of septic shock date and time, abstract the date of the measurement that was documented latest within the time window.

Inclusion Guidelines for Abstraction
Change list to alphabetical order

Impacts:
Central Venous Oxygen Measurement Time

Rationale: The Notes for Abstraction were updated to clarify the time to use when there are multiple measurements documented.

Description of Changes:
Definition
Remove:
earliest

Remove:
within 6 hours after the presentation of septic shock

Suggested Data Collection Question
Remove:
earliest

Notes for Abstraction
Change first bullet to:

- If there are multiple central venous oxygen measurements documented in the time window beginning at the crystalloid fluid administration date and time and ending six hours after the presentation of septic shock date and time, abstract the time of the measurement that was documented latest within the time window.

Inclusion Guidelines for Abstraction
Change list to alphabetical order

Impacts:
Central Venous Pressure Measurement

Rationale: The Notes for Abstraction were updated to clarify the time frame for abstraction, to clarify multiple measurements, and to allow measurements taken from PICC lines.

Description of Changes:
Definition
Remove:
within 6 hours after the presentation of septic shock

Notes for Abstraction
Change to:

- Start abstracting at the crystalloid fluid administration date and time and stop abstracting 6 hours after the presentation of septic shock date and time.
- If there are multiple central venous pressure measurements documented in the time window beginning at the crystalloid fluid administration date and time and ending six hours after the presentation of septic shock date and time, abstract the date and time of the measurement that was documented latest within the time window.
- Central Venous Pressure measurement may be expressed as CVP, central venous pressure, or RAP, right atrial pressure. Measurements from PICC lines (peripherally inserted central catheters) are acceptable.
- There must be an indication that the reading was obtained via central venous catheter; the indication may be a notation such as “via central catheter” or “via CVP” after a

pressure reading, or the pressure reading may be recorded on a flow sheet in an area designated for central venous catheter readings.
- If there are no central venous pressure measurements documented in the time window beginning at the crystalloid fluid administration date and time and ending six hours after the presentation of septic shock date and time choose Value "2."

Inclusion Guidelines for Abstraction
Change list to alphabetical

Impacts:
Central Venous Pressure Measurement Date

Rationale: The Notes for Abstraction were updated to clarify the date to use when there are multiple measurements documented.

Description of Changes:
Definition
Change to:
The date on which a central venous pressure measurement was obtained.

Suggested Data Collection Question
Remove:
earliest

Change:
'first' to 'last'

Notes for Abstraction
Change first bullet to:
- If there are multiple central venous pressure measurements documented in the time window beginning at the crystalloid fluid administration date and time and ending six hours after the presentation of septic shock date and time, abstract the date of the measurement that was documented latest within the time window.

Inclusion Guidelines for Abstraction
Change list to alphabetical order

Impacts:
Central Venous Pressure Measurement Time

Rationale: The Notes for Abstraction were updated to clarify the time to use when there are multiple measurements documented.

Description of Changes:
Definition
Change to:
The time at which a central venous pressure measurement was obtained.

Suggested Data Collection Question
Remove:
earliest

Notes for Abstraction
Change first bullet to:

- If there are multiple central venous pressure measurements documented in the time window beginning at the crystalloid fluid administration date and time and ending six hours after the presentation of septic shock date and time, abstract the time of the measurement that was documented latest within the time window.

Inclusion Guidelines for Abstraction
Change list to alphabetical order

Impacts:
Crystalloid Fluid Administration

Rationale: The Definition, Suggested Data Collection Question, and Notes for Abstraction were updated to clarify documentation regarding fluid administration. The Allowable Values were updated to include a value for patients with a Ventricular Assist Device (VAD).

Description of Changes:
Definition
Change to:
Documentation of initiation of crystalloid fluids prior to, at the time of, or after the presentation of *Initial Hypotension*, *Initial Lactate Level Result* >=4 mmol/L, or physician/APN/PA *Documentation of Septic Shock*.

Suggested Data Collection Question
Change to:
Were crystalloid fluids initiated prior to, at the time of, or after the presentation of *Initial Hypotension*, *Initial Lactate Level Result* >=4 mmol/L, or physician/APN/PA *Documentation of Septic Shock*?

Allowable Values
Change from:

1 (Yes)	30 mL/kg of crystalloid fluids were ordered and administered prior to, at the time of, or after the presentation of initial hypotension, initial lactate >=4, or documentation of septic shock.
2 (No)	Less than 30 mL/kg of crystalloid fluids were ordered and administered prior to, at the time of, or after the presentation of initial hypotension, initial lactate >=4, or documentation of septic shock, or unable to determine volume ordered.
3 (No)	Crystalloid fluids were not administered prior to, at the time of, or after the presentation of initial hypotension, initial lactate >=4, or documentation of septic shock, or unable to determine whether or not they were administered.

To:

1 (Yes)	30 mL/kg of crystalloid fluids were ordered and initiated prior to, at the time of, or after the presentation of *Initial Hypotension*, *Initial Lactate Level Result* >=4 mmol/L, or *Documentation of Septic Shock*, and 30 mL/kg of crystalloid fluids were infused.
2 (No)	Less than 30 mL/kg of crystalloid fluids were ordered and initiated prior to, at the time of, or after the presentation of *Initial Hypotension*, *Initial Lactate Level Result* >=4 mmol/L, or *Documentation of Septic Shock*, or unable to determine volume ordered, or less than 30 mL/kg of crystalloid fluids were infused.

3 (No) Crystalloid fluids were not initiated prior to, at the time of, or after the presentation of *Initial Hypotension*, *Initial Lactate Level Result* >=4 mmol/L, or *Documentation of Septic Shock*, or unable to determine whether or not they were administered.

4 (No) There is documentation the patient has an implanted Ventricular Assist Device (VAD).

Notes for Abstraction

Change to:

- The ONLY acceptable fluids are crystalloid or balanced crystalloid solutions (such as 0.9% sodium chloride solution, normal saline, Lactated Ringers Solution, PlasmaLyte, or Normosol).
- Only abstract crystalloid fluids given for the presence of *Initial Hypotension*, OR for the presence of an *Initial Lactate Level Result* >=4 mmol/L, OR physician/APN/PA *Documentation of Septic Shock*.
- For the presence of *Initial Hypotension*, or an *Initial Lactate Level Result* >=4 mmol/L, do not abstract crystalloid fluids given more than 6 hours prior to the presence of *Initial Hypotension*, or an *Initial Lactate Level Result* >=4 mmol/L.
- Do not abstract crystalloid solutions that are used to flush IV lines or give medications such as antibiotics.
- To determine the volume, first calculate the patient weight in kilograms (kg). To do this, divide the weight in pounds by 2.2; that yields the weight in kg. Round the weight to the nearest whole number. Next, multiply the weight in kg by 30; the result is the number of mL of IV fluid that should be specified in the physician/APN/PA order.
  Examples:
  - Patient weight is 160 pounds. 160/2.2 = 72.72 kg. Round to 73 kg. 73 x 30 = 2190 (mL). Physician order is “Infuse 2400 mL 0.9% Normal Saline over the next two hours.” Choose Value “1” (2400 mL is greater than 2190).
  - Patient weight is 160 pounds. 160/2.2 = 72.72 kg. Round to 73 kg. 73 x 30 = 2190 (mL). Physician order is “Give 1000 mL Lactated Ringers over the next 4 hours.” Choose Value “2” (1000 mL is less than 2190).
- Use the weight documented closest to and prior to the order for crystalloid fluids. If a weight is not documented prior to the crystalloid fluid order, use the weight recorded closest to and after the crystalloid fluid order.
- Use the patient’s actual weight. Use estimated weight only if actual weight is not available to determine the volume of crystalloid fluids the patient should receive. Do not use ideal weight.
- When performing volume calculations based on weight, round fractions of pounds or kilograms to the nearest whole number.
- Crystalloid fluid volumes ordered that are within 10% lower than the actual volume calculated by weight are acceptable.
  Example:
  2000 mL of normal saline was ordered and initiated in the ED. The patient’s weight is not available or documented at the time of the order. After admission to critical care a weight is obtained of 74 kg. Based on this weight 30 mL/kg is 2220 mL. The 2000 mL ordered is within 10% lower of 2220 mL (2220 mL – 222 mL = 1998 mL) and is an acceptable volume.

- Medical record documentation must be clear that crystalloid fluids were actually initiated (i.e., date and time of administration is noted). Do not use physician/APN/PA orders as equivalent to actual initiation of fluids as they are not specific to initiation.
- Physician/APN/PA orders are required for the fluids. The order must include the type of fluid, the volume of fluid, and a rate or time over which the fluids are to be given. If the type of fluid, volume of fluid, rate or time over which to give the fluids is missing, choose Value “2.”
- Physician/APN/PA orders with the type of fluid, volume of fluid, and the terms "bolus" or "wide open" are acceptable without a rate or infusion duration, if a rate or time over which the IV fluids are to be given **OR** the fluid bolus completed time or end time is documented in the medical record. If a rate or time over which the IV fluids are to be given is not written in the order or not documented by nursing **OR** a fluid bolus completed time or end time is not documented, choose Value "2."
- If crystalloid fluids are only given at a usual rate, maintenance rate or at a “Keep Vein Open” (KVO) rate, which for purposes of the measure is 1000 mL over 8 hours (125 mL/hour) or less, choose Value “2.”
- Only those crystalloid fluids given at a rate greater than 125 mL/hour should be used to satisfy the 30 mL/kg infusion requirement.
- The volume of crystalloid fluids ordered may be in a single order or a series of multiple orders. If the total volume of crystalloid fluids ordered and administered (initiated and infused) is less than 30 mL/kg, choose Value “2.”
- If there is documentation the infusion was stopped prior to 30 mL/kg being completely infused, select Value “2.”
- To determine if 30 mL/kg was completely infused the volume ordered must be equivalent to 30 mL/kg, there must be an infusion start time, and an infusion rate (written in the order, or documented by nursing) or infusion end time must be known. Examples:
  - Order for 1500 mL (30 mL/kg) of normal saline over 1 hour started at 08:00. There is no infusion end time documented, and no documentation indicating the 1500 mL was not infused. The infusion end time can be determined based on the duration in the order. Select Value “1.”
  - Order for 1000 mL (30 mL/kg) normal saline bolus started at 09:30. The nurse documented an infusion rate of 1000 mL/hour. There is no fluid bolus end time documented, and no documentation indicating the 1000 mL was not infused. The infusion end time can be determined based on the rate. Select Value “1.”
  - Order for 2000 mL (30 mL/kg) normal saline bolus started at 08:30. There is no infusion rate documented and no fluid bolus end time documented. An infusion end time cannot be determined. Select Value “2.”
- It is acceptable to use documentation of infusion of crystalloid fluids in pre-hospital records (e.g., ambulance records, nursing home records) that are considered part of the medical record.
- If there is documentation that the patient has an implanted ventricular assist device (VAD) prior to or at the time of identifying need for crystalloid fluids, choose Value “4” regardless of the volume and rate of crystalloid fluids ordered.

Suggested Data Sources

Add new bullet:

- Input and Output (I&O) flowsheet

Inclusion Guidelines for Abstraction
Add under heading:
ONLY ACCEPTABLE CRYSTALLOID FLUIDS

Add new bullet:
- 0.9% Sodium Chloride Solution

Exclusion Guidelines for Abstraction
Add new bullet:
- IV fluids not listed under ONLY ACCEPTABLE CRYSTALLOID FLUIDS

Impacts:
Crystalloid Fluid Administration Date

Rationale: The Definition, Suggested Data Collection Question, and Notes for Abstraction were updated to clarify documentation regarding fluid administration. The Notes for Abstraction were updated to allow documentation from pre-hospital records.

Description of Changes:
Definition
Change to:
The earliest date on which crystalloid fluids were initiated for *Initial Hypotension*, *Initial Lactate Level Result* >=4 mmol/L, or physician/APN/PA *Documentation of Septic Shock*.

Suggested Data Collection Question
Change to:
What was the earliest date on which crystalloid fluids were initiated for *Initial Hypotension*, *Initial Lactate Level Result* >=4 mmol/L, or physician/APN/PA *Documentation of Septic Shock*?

Notes for Abstraction
Change fifth bullet to:
- In some cases, the crystalloid fluid will be infusing prior to the time of presentation of septic shock; if so, use the date the unit of fluid was started or hung.
  Examples:
  - Septic Shock presentation date and time was 07-12-20xx at 14:00. At the time of presentation of septic shock, one liter of Lactated Ringers had been hung at 13:00 on 07-12-20xx. The *Crystalloid Fluid Administration Date* was 07-12-20xx.
  - Septic Shock presentation date and time was 07-12-20xx at 14:00. Lactated Ringers solution was started on 07-12-20xx at 14:15 – there was no fluid infusing at the date and time of presentation of septic shock. The *Crystalloid Fluid Administration Date* was 07-12-20xx.
  - Septic Shock presentation date and time was 08-15-20xx at 01:00. The patient needs to receive 3000 mL (30 mL/kg). An order for 3000 mL of 0.9% Normal Saline over 2 hours is written. The total volume is given as 3 separate infusions of 1000 mL each. The first of the three infusions is started on 08-14-20xx at 22:00. The *Crystalloid Fluid Administration Date* was 08-14-20xx.
  - Septic Shock presentation date and time was 08-15-20xx at 01:00. The patient needs to receive 3000 mL (30 mL/kg). An order for 1000 mL of 0.9% Normal Saline over 60 minutes is written and started on 08-14-20xx at 22:00. An order for another 1000 mL of Normal Saline is written and started on 08-14-20xx at

23:15. A third order for 1000 mL of Normal Saline is written and started on 08-15-20xx at 00:30. The *Crystalloid Fluid Administration Date* was 08-15-20xx.

Add new bullet:

- It is acceptable to use documentation of infusion of crystalloid fluids in pre-hospital records (e.g., ambulance records, nursing home records) that are considered part of the medical record.

Impacts:
Crystalloid Fluid Administration Time

Rationale: The Definition, Suggested Data Collection Question, and Notes for Abstraction were updated to clarify documentation regarding fluid administration. The Notes for Abstraction were updated to allow documentation from pre-hospital records.

Description of Changes:
Definition
Change to:
The earliest time at which crystalloid fluids were initiated for *Initial Hypotension*, *Initial Lactate Level Result* >=4 mmol/L, or physician/APN/PA *Documentation of Septic Shock*.

Suggested Data Collection Question
Change to:
What was the earliest time at which crystalloid fluids were initiated for *Initial Hypotension*, *Initial Lactate Level Result* >=4 mmol/L, or physician/APN/PA *Documentation of Septic Shock*?

Notes for Abstraction
Change fifth bullet to:

- In some cases, the crystalloid fluid will be infusing prior to the time of presentation of septic shock; if so, use the time the unit of fluid was started or hung.
  Examples:
  - Septic Shock presentation date and time was 07-12-20xx at 14:00. At the time of presentation of septic shock, one liter of Lactated Ringers had been hung at 13:00 on 07-12-20xx. The *Crystalloid Fluid Administration Time* was 13:00.
  - Septic Shock presentation date and time was 07-12-20xx at 14:00. Lactated Ringers solution was started on 07-12-20xx at 14:15 – there was no fluid infusing at the date and time of presentation of septic shock. The *Crystalloid Fluid Administration Time* was 14:15.
  - Septic Shock presentation date and time was 08-15-20xx at 01:00. The patient needs to receive 3000 mL (30 mL/kg). An order for 3000 mL of 0.9% Normal Saline over 2 hours is written. The total volume is given as 3 separate infusions of 1000 mL each. The first of the three infusions was started on 08-14-20xx at 22:00. The *Crystalloid Fluid Administration Time* was 22:00.
  - Septic Shock presentation date and time was 08-15-20xx at 01:00. The patient needs to receive 3000 mL (30 mL/kg). An order for 1000 mL of Normal Saline over 60 minutes is written and started on 08-14-20xx at 22:00. An order for another 1000 mL of Normal Saline is written and started on 08-14-20xx at 23:15. A third order for 1000 mL of Normal Saline is written and started on 08-15-20xx at 00:30. The *Crystalloid Fluid Administration Time* was 00:30.

Add new bullet:

- It is acceptable to use documentation of infusion of crystalloid fluids in pre-hospital records (e.g., ambulance records, nursing home records) that are considered part of the medical record.

Impacts:
Decision to Admit Time

Rationale: Examples have been added to clarify documentation of the decision to admit.

Description of Changes:
Notes for Abstraction
Add to sixth bullet:
Examples that reflect a decision to admit was NOT made:

- ED physician note states "Discussed case with hospitalist." This is only documentation that a discussion occurred, there is no documentation regarding a decision to admit.
- ED physician note states "Discussed patient with Dr. Jones who recommends admission." This reflects a discussion occurred and a recommendation was made to admit, but does not indicate a decision was made to admit.
- ED physician note states "Contacted Dr. Smith for admission consult." This reflects a consult has been requested for admission, but does not indicate a decision to admit has been made.
- ED physician note states "Possible admission pending cardiology consult." This reflects a consult was ordered and admission is possible, but does not indicate a decision to admit has been made.

Examples that reflect a decision to admit was made:

- ED physician note states "Discussed case with hospitalist on call, plan to admit." The note references a discussion with another physician with "plan to admit" documented, indicating a decision to admit has been made.
- ED physician note states "Discussed case with Dr. Brown who will admit patient to ICU." The note references a discussion with another physician with "who will admit patient" documented, indicating a decision to admit has been made.

Impacts:
Directive for Comfort Care or Palliative Care, Septic Shock

Rationale: The Notes for Abstraction were updated to clarify that documentation must indicate that comfort measures are actively being considered.

Description of Changes:
Notes for Abstraction
Remove in second bullet:

- Discussion of comfort measures

Remove in third bullet:
or "2," accordingly

Change Example in third bullet to:
"Plan for consultation with hospice care" noted in progress note prior to onset of septic shock – Select "1."

Remove in third sub-bullet under fourth bullet:
or "2," as applicable

Remove in sixth bullet:
or "2," for this data element

Inclusion Guidelines for Abstraction
Add new bullets:
- Withdraw care
- Withhold care

Impacts:
Directive for Comfort Care or Palliative Care, Severe Sepsis

Rationale: The data element was updated to remove discussion of comfort measures. Comfort measures should be actively considered to meet the criteria for this data element.

Description of Changes:
Notes for Abstraction
Remove under second bullet:
o Discussion of comfort measures

Change third bullet to:
- Determine the earliest documentation of comfort measures only or palliative care by the physician/APN/PA. If any of the inclusion terms are documented by the physician/APN/PA, select Value "1."
  Example:
  "Plan for consultation with hospice care" noted in progress note prior to onset of severe sepsis – Select "1."

Remove under fourth bullet, third sub-bullet:
or "2," as applicable

Change sixth bullet to:
- If there is physician/APN/PA documentation of an inclusion term in one source that indicates the patient is Comfort Measures Only or Palliative Care, AND there is physician/APN/PA documentation of an inclusion term in another source that indicates the patient is NOT CMO or Palliative Care, the source that indicates the patient is CMO or Palliative Care would be used, select Value "1."

Inclusion Guidelines for Abstraction
Add new bullets:
- Withdraw care
- Withhold care

Impacts:
Discharge Disposition

Rationale: The Notes for Abstraction were updated to provide guidance related to "nursing home" and "skilled nursing facility."

Description of Changes:
Notes for Abstraction
Add new seventh and eighth bullets:
- If the medical record states the patient is being discharged to assisted living care or an assisted living facility (ALF) and the documentation also includes nursing home, intermediate care or skilled nursing facility, select Value "1" ("Home").

- If the medical record states the patient is being discharged to nursing home, intermediate care or skilled nursing facility without mention of assisted living care or assisted living facility (ALF), select Value "5" ("Other Health Care Facility").

Inclusion Guidelines for Abstraction - Home (Value 1)
Add a colon after the word 'at' in first bullet

Impacts:
Discharge Time

Rationale: The Notes for Abstraction were updated to provide guidance for situations when multiple times are documented.

Description of Changes:
Notes for Abstraction
Change fourth bullet to:

- If the patient was transferred out to another facility or to home, use the time the patient actually left, not the time the order was written.

Add fifth bullet:

- If there are multiple times documented when the patient left, use the earliest time.

Impacts:
Documentation of Septic Shock

Rationale: The Notes for Abstraction were updated to provide guidance on conflicting documentation and the Exclusion Guidelines for Abstraction were updated.

Description of Changes:
Notes for Abstraction
Add new bullet:

- If there is physician/APN/PA documentation of septic shock and within 6 hours there is conflicting physician/APN/PA documentation indicating the patient does not have septic shock, choose Value "2."

Suggested Data Sources
Change to:
PHYSICIAN/APN/PA DOCUMENTATION ONLY

- Consultation notes
- Emergency Department record
- History and physical
- Physician/APN/PA orders
- Progress notes

Inclusion Guidelines for Abstraction
Add new bullet:

- Differential Diagnosis: Septic Shock

Remove in fourth bullet:
septic

Exclusion Guidelines for Abstraction
Change to:
- Bacteremia
- Possibly septic
- Sepsis
- Septic
- Septicemia
- Shock (not referenced as related to severe sepsis or septic shock)

Impacts:
ED Departure Time

Rationale: The Notes for Abstraction were updated to clarify departure time from the Emergency Department.

Description of Changes:
Notes for Abstraction
Remove in second bullet:
, under the care of emergency department services

Add new thirteenth and fourteenth bullets:
- If the documented *ED Departure Time* is prior to arrival, enter "UTD."
- If the patient expired in the ED, use the time of death as the departure time.

Impacts:
Fluid Challenge Date

Rationale: The timeframe for a review of the fluid challenge documentation was updated.

Description of Changes:
Suggested Data Collection Question
Change to:
On what date was a fluid challenge performed in the time window beginning at the completion of the crystalloid fluid administration and ending six hours after the presentation of septic shock date and time?

Notes for Abstraction
Add in first bullet before 'crystalloid fluid administration':
completion of the

Change second bullet to:
- If multiple fluid challenges were done in the time window beginning at the completion of the crystalloid fluid administration and ending six hours after the presentation of septic shock date and time, abstract the date of the fluid challenge that was done latest within the time window.

Impacts:
Fluid Challenge Performed

Rationale: The Notes for Abstraction were updated to clarify the allowable fluid volumes and time frames for the fluid challenge.

Description of Changes:
Suggested Data Collection Question
Change to:
Was a fluid challenge performed in the time window beginning at the completion of the crystalloid fluid administration and ending six hours after the presentation of septic shock date and time?

Allowable Values
Change from:

1 (Yes)	Fluid challenge was performed in the time window beginning at the crystalloid fluid administration date and time and ending six hours after the presentation of septic shock date and time
2 (No)	Fluid challenge was not performed in the time window beginning at the crystalloid fluid administration date and time and ending six hours after the presentation of septic shock date and time, or unable to determine.

To:

1 (Yes)	Fluid challenge was performed in the time window beginning at the completion of the crystalloid fluid administration and ending six hours after the presentation of septic shock date and time
2 (No)	Fluid challenge was not performed in the time window beginning at the completion of the crystalloid fluid administration and ending six hours after the presentation of septic shock date and time, or unable to determine

Notes for Abstraction
Change to:

- Start abstracting at the completion of the crystalloid fluid administration and stop abstracting six hours after the presentation of septic shock date and time.
- Fluid challenge is done to assess responsiveness to fluids. It is similar to crystalloid fluid administration but is done after the crystalloid fluid administration if the patient remains hypotensive. A fluid challenge is the rapid infusion of crystalloid fluid volumes between 500 mL to 1000 mL over 15 to 30 minutes (refer to *Crystalloid Fluid Administration* data element for the acceptable crystalloid fluids).
- Select Value “1” if at least one fluid challenge was performed in the time window beginning at the completion of the crystalloid fluid administration and ending six hours after the presentation of septic shock date and time.
- Find a physician order for fluid challenge, fluid bolus, rapid fluid infusion, or similar terminology followed by specification of the IV fluid, volume, and time to infuse.
- Consult the IV fluid administration record to determine if that physician order was carried out.
- If there is no “fluid challenge” order, or no order to infuse 500 mL to 1000 mL over 15 to 30 minutes, choose Value “2.”
- If a physician/APN/PA note documents “fluid challenge infused” or “fluid challenge completed,” or similar terms indicating that a fluid challenge was done, consult the

suggested data sources to determine if the infusion was begun in the time window beginning at the completion of the crystalloid fluid administration and ending six hours after the presentation of septic shock date and time.

- If there are no fluid challenges performed beginning at the completion of the crystalloid fluid administration and ending six hours after the time and date of septic shock presentation, choose Value "2."

Impacts:
Fluid Challenge Time

Rationale: The timeframe for a review of the fluid challenge documentation was updated.

Description of Changes:
Suggested Data Collection Question
Change to:
At what time was a fluid challenge performed in the time window beginning at completion of the crystalloid fluid administration and ending six hours after the presentation of septic shock date and time?

Notes for Abstraction
Add in first bullet before 'crystalloid fluid administration':
completion of the

Remove in first bullet after 'crystalloid fluid administration':
date and time

Change second bullet to:

- If multiple fluid challenges were done in the time window beginning at the completion of the crystalloid fluid administration and ending six hours after the presentation of septic shock date and time, abstract the time of the fluid challenge that was done latest within the time window.

Impacts:
Influenza Vaccination Status

Rationale: The Definition, Allowable Values, and Notes for Abstraction have been updated to provide additional instruction regarding abstraction.

Description of Changes:
Definition:
Change third sentence to:
The main types of influenza vaccine available are: an attenuated (weakened) live vaccine given as a nasal spray and approved for healthy nonpregnant persons 2-49 years of age, a killed (inactivated) influenza vaccine administered via intramuscular (IM) needle injection for persons 6 months and older, an intradermal vaccine administered to persons 18-64 years old, or a recombinant vaccine administered IM to a person 18 years or older.

Notes for Abstraction
Change second bullet to:

- The caregiver is defined as the surrogate decision-maker, or healthcare surrogate and may be a patient's family member or any other person (e.g., home health, VNA provider, prison official or other law enforcement personnel) who is responsible for the healthcare decision-making and care of the minor patient or the adult patient when that patient is unable to make this decision on his/her own.

Add new 6th, 7th, and 8th bullets:

- If there is conflicting documentation regarding influenza vaccine refusal, select Value "5."
  Example:
  - There is documentation of refusal in the influenza immunization screening for the current admission and the patient did not receive the vaccine, but a subsequent narrative note states the patient wants to receive the vaccine, select Value "5."
- If there is conflicting documentation regarding whether the influenza vaccine is current, use documentation reflecting it is current.
  Examples:
  - There is documentation in the medical record stating "influenza vaccination status: current," but the physician H&P indicates the patient has not received an influenza vaccine this season, select Value "2."
  - There is documentation in medical record stating "influenza vaccination status: current," but the influenza vaccination date is from the previous season, select Value "2."
- If there is conflicting documentation regarding administration of the vaccine in the hospital, use documentation reflecting the vaccine was given during the admission.
  Example:
  There is documentation in the medical record indicating the vaccine was given (dated and signed as administered) during the hospital stay, but the discharge summary states order for vaccine was cancelled and patient did not receive vaccine during the hospital stay, select Value "1."

Add new 11th and 12th bullets:

- Documentation of influenza vaccine refusal from an admission or encounter that is prior to arrival cannot be used for selecting Value "3." Information for selecting Value "3" must be assessed and documented within the current admission.
- Documentation of unavailability due to problems with vaccine production or distribution from an admission or encounter that is prior to arrival cannot be used for selecting Value "6." Information for selecting Value "6" must be assessed and documented within the current admission.

Inclusion Guidelines for Abstraction

Add under sub-header:

Acceptable terms for influenza vaccines include those listed below or refer to CDC list of Influenza vaccines at http://www.cdc.gov/flu/protect/vaccine/vaccines.htm.

Add new bullets:

- Live attenuated influenza vaccine
- Quadrivalent influenza vaccine

Impacts:
Initial Hypotension

Rationale: The Allowable Values were updated to include "unable to determine" for "Value 2." The Notes for Abstraction were updated to include guidance on excluding erroneous readings.

Description of Changes:
Allowable Values
Change from:

1 (Yes)	Hypotension was present 6 hours prior to or within 6 hours following Severe Sepsis presentation.
2 (No)	Hypotension was not present 6 hours prior to or within 6 hours following Severe Sepsis presentation.

To:

1 (Yes)	Hypotension was present 6 hours prior to or within 6 hours following Severe Sepsis presentation.
2 (No)	Hypotension was not present 6 hours prior to or within 6 hours following Severe Sepsis presentation or unable to determine from medical record documentation.

Notes for Abstraction
Change second sentence in first bullet to:
Either 6 hours prior to or within 6 hours following Severe Sepsis presentation a single blood pressure reading of either:

Add new bullets:

- If there is physician/APN/PA documentation indicating a SBP <90 mmHg or MAP <65 mmHg is normal for the patient, is due to a chronic condition, is due to an acute condition that is not an infection, or is due to a medication, it should not be used. Inferences should not be made, physician/APN/PA documentation is required.
- If there is physician/APN/PA or nursing documentation indicating a low blood pressure reading is invalid, erroneous or questionable, disregard that reading when determining the presence of initial hypotension.

Impacts:
Initial Lactate Level Collection

Rationale: The Notes for Abstraction were updated to provide guidance for erroneous results and missing times on lab results.

Description of Changes:
Notes for Abstraction
Change to:

- If there are multiple lactate levels, only abstract the level drawn closest to the time of presentation of severe sepsis. If there is a lactate level both before and after presentation of severe sepsis that are the same time apart, use the level prior to presentation. That lactate level is the initial lactate level for purposes of this data element.
- If there is physician/APN/PA or nursing documentation that a lactate value is invalid, erroneous or questionable, disregard that value.
- Use documentation specifying a lactate was actually drawn or collected. Do not use documentation such as "Labs Drawn" as it is not specific for lactate level.

- Do not use a physician order for lactate levels as it does not specify that lactate level was drawn; however, you may use a physician order that has a notation “drawn” or “collected” next to it.
- If a lactate level is ordered and there is an attempt to collect it, but the attempt results in failure to collect the specimen (too dehydrated to get a vein) or the specimen was contaminated during or after the draw, select Value “1.”
- If a lactate level is drawn but there are no results in the record, choose Value “1.”
- If there is no documentation indicating a lactate was drawn or collected, but there is supportive documentation that a lactate was drawn, use the earliest supportive documentation (e.g., lactate sent to lab, lactate received, lactate result).

Suggested Data Sources
Change third bullet to:
- Physician/APN/PA notes or orders

Impacts:
Initial Lactate Level Date

Rationale: The Notes for Abstraction were updated to provide guidance for erroneous results and missing times on lab results.

Description of Changes:
Notes for Abstraction
Change to:
- If there are multiple lactate levels, only abstract the level drawn closest to the time of presentation of severe sepsis. If there is a lactate level both before and after presentation of severe sepsis that are the same time apart, use the level prior to presentation. That lactate level is the initial lactate level for purposes of this data element.
- Use documentation specifying the date a lactate was actually drawn or collected. Do not use documentation such as “Labs Drawn” as it is not specific for lactate level.
- Do not use a physician order for lactate levels as it does not specify that lactate level was drawn or reported, unless there is a notation of “drawn” or “collected” next to the order, including a date.
- If there is not a lactate draw or collected date documented, but there is supportive documentation that a lactate was drawn, use the date of the earliest supportive documentation (e.g., lactate sent to lab, lactate received date, lactate result date).
- If a lactate level is ordered and there is an attempt to collect it, but the attempt results in failure to collect the specimen (too dehydrated to get a vein) or the specimen was contaminated during or after the draw, use the date of attempted lactate level collection.

Impacts:
Initial Lactate Level Result

Rationale: The Allowable Values were updated and the Notes for Abstraction were revised to include mg/dL values in addition to mmol/L.

Description of Changes:
Allowable Values
Change from:

1 (<=2)	The initial lactate level was less than or equal to 2, or there was no initial lactate level collected

2 (>2 and <4.0)	The initial lactate level was greater than 2.0 and less than 4.
3 (>=4)	The initial lactate level was 4.0 or more or there is no result in the chart, or unable to determine the result.

To:

1 (<=2)	The initial lactate level was less than or equal to 2 mmol/L, or there is no result in the chart, or unable to determine the result.
2 (>2 and <4.0)	The initial lactate level was greater than 2 mmol/L and less than 4 mmol/L.
3 (>=4)	The initial lactate level was 4 mmol/L or more.

Notes for Abstraction

Add new first bullet:

- Lactate levels may be reported as mmol/L or mg/dL. Use the following to cross reference mmol/L and mg/dL equivalents.
  - 2 mmol/L is equivalent to 18 mg/dL
  - 4 mmol/L is equivalent to 36 mg/dL

Change Value "3" in third bullet to:
Value "1"

Remove:

- If there was no initial lactate level collected, choose Value "1."
- Continue reviewing for a repeat lactate level if the initial lactate level is elevated (>2), refer to *Repeat Lactate Level Collection*.

Impacts:
Initial Lactate Level Time

Rationale: The Notes for Abstraction were updated to provide guidance for erroneous results and missing times on lab results.

Description of Changes:
Notes for Abstraction

Change to:

- If there are multiple lactate levels, only abstract the level drawn closest to the time of presentation of severe sepsis. If there is a lactate level both before and after presentation of severe sepsis that are the same time apart, use the level prior to presentation. That lactate level is the initial lactate level for purposes of this data element.
- Use documentation specifying the time a lactate was actually drawn or collected. Do not use documentation such as "Labs Drawn" as it is not specific for lactate level.
- Do not use a physician order for lactate levels as it does not specify that lactate level was drawn, unless there is a notation next to the lactate level order indicating it was drawn or collected, with a time noted.
- If there is not a lactate draw or collected time documented, but there is supportive documentation that a lactate was drawn, use the time of the earliest supportive documentation (e.g., lactate sent to lab, lactate received time, lactate result time).
- If a lactate level is ordered and there is an attempt to collect it, but the attempt results in failure to collect the specimen (too dehydrated to get a vein) or the specimen was contaminated during or after the draw, use the time of attempted lactate level collection.

Impacts:
Passive Leg Raise Exam Date

Rationale: The Suggested Data Collection Question and Notes for Abstraction were updated to remove the requirement for physician/APN/PA documentation.

Description of Changes:
Suggested Data Collection Question
Remove:
by a physician/APN/PA

Notes for Abstraction
Remove:
- Use the passive leg raise examination date documented in physician/APN/PA notes.

Remove in third bullet:
physician/APN/PA

Suggested Data Sources
Remove:
PHYSICIAN/APN/PA DOCUMENTATION ONLY

Add two new bullets:
- Critical Care flow sheet
- Nurses notes

Impacts:
Passive Leg Raise Exam Performed

Rationale: The Suggested Data Collection Question, Allowable Values, and Notes for Abstraction were updated to remove the requirement for physician/APN/PA documentation.

Description of Changes:
Suggested Data Collection Question
Remove:
physician/APN/PA

Allowable Values
Change from:

1 (Yes)	Passive leg raise examination was documented by a physician/APN/PA in the time window beginning at the crystalloid fluid administration date and time and ending six hours after the presentation of septic shock date and time.
2 (No)	Passive leg raise examination was not documented by a physician/APN/PA in the time window beginning at the crystalloid fluid administration date and time and ending six hours after the presentation of septic shock date and time, or unable to determine.

To:

1 (Yes)	Passive leg raise examination was documented in the time window beginning at the crystalloid fluid administration date and time and ending six hours after the presentation of septic shock date and time.
2 (No)	Passive leg raise examination was not documented in the time window beginning at the crystalloid fluid administration date and time and ending six hours after the presentation of septic shock date and time, or unable to determine.

Notes for Abstraction
Remove:
- Only abstract physician/APN/PA documentation indicating a passive leg raise was performed.

Suggested Data Sources
Remove:
PHYSICIAN/APN/PA DOCUMENTATION ONLY

Add two new bullets:
- Critical Care flow sheet
- Nurses notes

Impacts:
Passive Leg Raise Exam Time

Rationale: The Suggested Data Collection Question and Notes for Abstraction were updated to remove the requirement for physician/APN/PA documentation.

Description of Changes:
Suggested Data Collection Question
Remove:
by a physician/APN/PA

Notes for Abstraction
Remove:
- Use the passive leg raise examination time documented in physician/APN/PA notes.

Remove in third bullet**:**
physician/APN/PA

Suggested Data Sources
Remove:
PHYSICIAN/APN/PA DOCUMENTATION ONLY

Add two new bullets:
- Critical Care flow sheet
- Nurses notes

Impacts:
Peripheral Pulse Evaluation Date

Rationale: The Notes for Abstraction were updated to allow for physician attestation of the exam/reassessment and to clarify the proper date to use when no specific date was documented.

Description of Changes:
Notes for Abstraction
Change second bullet to:
- Documentation of what constitutes or is acceptable for a peripheral pulse evaluation is defined in the *Peripheral Pulse Evaluation Performed* data element.

Add new fourth bullet:

- If the peripheral pulse evaluation is in a physician note without a specific date documented within the note, use the date the note was started or opened.

Impacts:
Peripheral Pulse Evaluation Performed

Rationale: The Notes for Abstraction were updated to allow for physician attestation of the exam/reassessment.

Description of Changes:
Notes for Abstraction
Add to second bullet:
Exceptions:

- Documentation indicating a physician/APN/PA has reviewed, performed, or attested to reviewing or performing a peripheral pulse evaluation is acceptable.
- Documentation indicating a physician/APN/PA has performed, or attested to performing a physical examination, perfusion (re-perfusion) assessment, or sepsis (severe sepsis or septic shock) focused exam is acceptable.

Impacts:
Peripheral Pulse Evaluation Time

Rationale: The Notes for Abstraction were updated to allow for physician attestation of the exam/reassessment and to clarify the proper time to use when no specific time was documented.

Description of Changes:
Notes for Abstraction
Change second bullet to:

- Documentation of what constitutes or is acceptable for a peripheral pulse evaluation is defined in the *Peripheral Pulse Evaluation Performed* data element.

Add new fourth bullet:

- If the peripheral pulse evaluation is in a physician note without a specific time documented within the note, use the time the note was started or opened.

Impacts:
Persistent Hypotension

Rationale: The Notes for Abstraction were updated to provide guidance related to fluid volumes and infusion end time.

Description of Changes:
Definition
Change first sentence to:
Documentation of the presence of persistent hypotension or new onset of hypotension following the administration of 30 mL/kg of crystalloid fluids in septic shock.

Change third sentence to:
In the one hour following administration of the 30 mL/kg crystalloid fluids, two or more consecutive documented blood pressure readings of either:

Suggested Data Collection Question

Change to:

Was persistent hypotension or new onset of hypotension present within one hour of the conclusion of crystalloid fluid administration?

Allowable Values

Change from:

1 (Yes)	Crystalloid fluids were administered at a volume of 30 mL/kg and persistent hypotension or new hypotension was present within one hour of conclusion of fluid administration.
2 (No)	Persistent hypotension or new hypotension was not present within one hour of the conclusion of crystalloid fluid administration at a volume of 30 mL/kg.
3 (No) or UTD	The patient was not assessed for persistent hypotension or new hypotension within the one hour after the conclusion of crystalloid fluid administration at a volume of 30 mL/kg, or Unable to Determine.
4 (Not applicable)	Crystalloid fluids were not administered, or crystalloid fluids were administered but at a volume less than 30 mL/kg.

To:

1 (Yes)	Crystalloid fluids were administered at a volume of 30 mL/kg and persistent hypotension or new onset of hypotension was present within one hour of conclusion of fluid administration.
2 (No)	Persistent hypotension or new onset of hypotension was not present within one hour of the conclusion of crystalloid fluid administration at a volume of 30 mL/kg.
3 (No) or UTD	The patient was not assessed for persistent hypotension or new onset of hypotension within the one hour after the conclusion of crystalloid fluid administration at a volume of 30 mL/kg, or Unable to Determine.
4 (Not applicable)	Crystalloid fluids were administered but at a volume less than 30 mL/kg.

Notes for Abstraction

Change to:

- Begin abstracting at the time the 30 mL/kg crystalloid fluid administration concludes; abstract for the time period that follows for the next hour only. Choose Value “1” if persistent hypotension or new onset of hypotension was present, choose Value “2” if persistent hypotension or new onset of hypotension was not present.
- If the completion time of the 30 mL/kg crystalloid fluid infusion is documented in the medical record use that time as the start for the one hour within which to determine presence of persistent hypotension or new onset of hypotension.
- If the completion time of the 30 mL/kg crystalloid fluid infusion is not documented in the medical record use the following criteria to determine the conclusion time.
    - If the order includes a time frame over which to infuse the crystalloid fluid, identify the time the fluids are started and add to that the duration identified in the order. This will represent the conclusion of crystalloid fluids.

      Example:

      An order for 1500 mL over 1 hour and the infusion is started at 10:00. Add 1 hour to the start time to determine infusion conclusion time of 11:00.

- If the order includes a rate at which to infuse the crystalloid fluids, the end time can be calculated based on the volume, the rate and the start time.
  Example:
  An order for 1500 mL at 1000 mL/hour and the infusion is started at 10:00. The time over which 1500 mL is infused is the volume divided by the rate. 1500 mL divided by 1000 mL/hour is 1.5 hours. Add 1.5 hours to the start time to determine infusion conclusion time of 11:30.
- If the order is for more than 30 mL/kg, 30 mL/kg will have been infused before the entire volume ordered is infused.
  Example:
  An order for 3000 mL over 2 hours, infusion started at 10:00. Patient weighs 80 kg, 30 mL/kg target volume is 2400 mL (as determined for *Crystalloid Fluid Administration*). Divide the total volume ordered by the infusion duration in minutes to determine the infusion rate (3000 mL/120 minutes = 25 mL/minute). Divide the 30 mL/kg target volume by the infusion rate to determine the number of minutes it takes to infuse the target volume (2400 mL/25 mL/min = 96 minutes). Add the number of minutes to infuse the target volume to the infusion start time to determine the time 30 mL/kg was completed (10:00 + 96 minutes = 11:36).
- If the order states “bolus” or “wide open” and does not include an infusion rate or time over which to infuse the fluids, an infusion rate recorded in the medical record by a nurse OR fluid bolus completed time or end time can be used to determine when the 30 mL/kg was completed.

- Acceptable crystalloid fluids are identified in the *Crystalloid Fluid Administration* data element.
- To determine if fluids were given at the volume of 30 mL/kg, first calculate the patient weight in kilograms. To do this, divide the weight in pounds by 2.2; that yields the weight in kilograms. Round the weight to the nearest whole number. Next, multiply the weight in kilograms times 30; the result is the number of mL of IV crystalloid fluids that should be specified in the physician/APN/PA order.
  Examples:
  - Patient weight is 160 pounds. 160/2.2 = 72.72 (round up to 73). That number times 30 = 2190 (mL). Physician order is “Infuse 2400 mL normal saline over the next two hours” (2400 mL is greater than 2190 and meets the 30 mL/kg requirement).
  - Patient weight is 160 pounds. 160/2.2 = 72.72 (round up to 73). That number times 30 = 2190 (mL). Physician order is “Give 1000 mL Lactated Ringers over the next 4 hours” (1000 mL is less than 2190 and does not meet the 30m L/kg requirement).
- Use the weight documented closest to and prior to the order for crystalloid fluids. If a weight is not documented prior to the crystalloid fluid order, use the weight recorded closest to and after the crystalloid fluid order.
- Use the patient’s actual weight. Use estimated weight only if actual weight is not available to determine the volume of crystalloid fluids the patient should receive. Do not use ideal weight.
- When performing volume calculations based on weight, round fractions of pounds or kilograms to the nearest whole number.

- Crystalloid fluid volumes given that are within 10% lower than the actual volume calculated by weight are acceptable.
  Example:
  2000 mL of normal saline was given in the ED. The patient's weight is not available or documented at the time of the order. After admission to critical care a weight is obtained of 74 kg. Based on this weight 30 mL/kg is 2220 mL. The 2000 mL given is within 10% lower of 2220 mL (2220 mL – 222 mL = 1998 mL) and is an acceptable volume.
- If crystalloid fluids were administered but at a volume less than 30 mL/kg, choose Value "4."
- The criteria for determining that persistent hypotension or new onset of hypotension was present are as follows:
  In the one hour following conclusion of administration of the 30 mL/kg crystalloid fluids, two or more consecutive documented blood pressure readings of either:
  - systolic blood pressure <90, or
  - mean arterial pressure (MAP) <65 or
  - a decrease in systolic blood pressure by >40 mm/Hg
- If there was no blood pressure or mean arterial pressure recorded within the one hour after crystalloid fluid conclusion time, choose Value "3."
- If there is only one blood pressure or mean arterial pressure documented within the one hour after the 30 mL/kg crystalloid fluid conclusion time and it meets criteria (e.g., SBP <90 mmHg, or MAP <65 mmHg) this is not sufficient to determine persistent hypotension is not present and is not sufficient to determine it is present, choose Value "3."
- If there is only one blood pressure or mean arterial pressure documented within the one hour after the 30 mL/kg crystalloid fluid conclusion time and it does not meet criteria (e.g., SBP ≥90 mmHg, or MAP ≥65 mmHg), choose Value "2."
- If more than one blood pressure or mean arterial pressure is documented within the one hour after the 30 mL/kg of crystalloid fluids but only one meets criteria (e.g., SBP <90 mmHg, or MAP <65 mmHg) there is no documentation of persistent hypotension being present, choose Value "2."
- Use of documentation in pre-hospital records (e.g., ambulance records, nursing home records) that are considered part of the medical record is acceptable for determining the presence of persistent hypotension.
- If there is physician/APN/PA documentation indicating a SBP <90 mmHg or MAP <65 mmHg is normal for the patient, is due to a chronic condition, is due to an acute condition that is not an infection, or is due to a medication, it should not be used. Inferences should not be made, physician/APN/PA documentation is required.
- If there is physician/APN/PA or nursing documentation indicating a low blood pressure reading is erroneous or questioning the validity of a low blood pressure reading, do not consider that reading for determining the presence of persistent or new onset of hypotension.

Impacts:
Reason for No Administration of VTE Prophylaxis

Rationale: This change is being made to specify the inclusion of patients on anticoagulants, including heparin, prior to the VTE diagnostic test. This change is also being made to specify acceptable risk assessment tools.

Description of Changes:
Definition
Suggested Data Collection Question
Change
'any time'
To:
'on the days'

Allowable Values
Change from

Y (Yes)	There is physician/APN/PA or pharmacist documentation why VTE prophylaxis was not administered any time between arrival and the performance of a *VTE Diagnostic Test*.
N (No)	There is no physician/APN/PA or pharmacist of documentation why VTE prophylaxis was not administered any time between arrival and the performance of a *VTE Diagnostic Test*, or unable to determine from medical record documentation.

To:

Y (Yes)	There is physician/APN/PA or pharmacist documentation why mechanical AND pharmacological VTE prophylaxis were not administered on the days between arrival and the *VTE Diagnostic Test* performed.
N (No)	There is no physician/APN/PA or pharmacist documentation why mechanical AND pharmacological VTE prophylaxis were not administered on the days between arrival and the *VTE Diagnostic Test* performed, or unable to determine from medical record documentation.

Notes for Abstraction
Change in third bullet, second sub-bullet under 'Exceptions' to:
- For patients receiving anticoagulant therapy, including IV heparin, the day before the VTE diagnostic test order date, select "Yes."

Add in sentence under 'Example' in fourth bullet, the word "no" before the word "pharmacological"

Remove:
- Documentation that the patient is ambulating without mention of VTE prophylaxis is insufficient. Do not infer that VTE prophylaxis is not needed unless explicitly documented.
  Example:
  There is documentation of "No VTE Prophylaxis, patient ambulating," select "Yes."
- For patients with an order for ANY prophylaxis that was not administered without a reason, select "No."

Example:

Patient has documentation of low risk for VTE and there is an order for SCDs that were not applied. Select "No."

Add new sixth bullet:

- Documentation that a formal risk assessment was administered AND the results indicated that there was no risk or low risk for VTE is acceptable as a reason for not administering VTE prophylaxis. A copy of the validated risk assessment must be included in the medical record along with the results to select "Yes."

Inclusion Guidelines for Abstraction

Change to:

Explicit documentation that the patient does not need VTE prophylaxis
ALL INCLUSIVE VALIDATED RISK ASSESSMENTS:

- Caprini DVT Risk Assessment
- Padua Prediction Score
- International Medical Prevention Registry on Venous Thromboembolism (IMPROVE)

Refer to Appendix H, Table 2.7 Anticoagulation Therapy

Exclusion Guidelines for Abstraction

Change to:

None

Impacts:

Reason for Not Initiating IV Thrombolytic

Rationale: The American Heart Association/American Stroke Association updated the criteria for the use of intravenous alteplase in acute ischemic stroke patients.

Description of Changes:

Notes for Abstraction

Remove under fourth bullet, sub-bullet under 'Acceptable examples':

o "Frail 95 year old – will not give thrombolytics due to age"

Add under fourth bullet, new sub-bullets under 'Unacceptable examples':

o "Age"
o "Stroke too mild"
o "Stroke too severe"

Impacts:

Referral for Outpatient Tobacco Cessation Counseling

Rationale: Language was clarified to provide better guidance to the abstractor in the Definition, the Notes for Abstraction and Inclusion/Exclusion Guidelines for Abstraction.

Description of Changes:

Definition:

Change second sentence to:

Outpatient counseling may include proactive telephone counseling, group counseling and/or individual counseling.

Add in third sentence:
, the HER

Notes for Abstraction:
Add to second bullet:
Note that if Value "2" is selected, the case will not pass the measure. Value "2" can be used as part of an internal performance improvement activity in order to determine if any type of referral was made rather than no referral.

Inclusion Guidelines for Abstraction:
Remove:
- E-health
- Internet structured programs

Exclusion Guidelines for Abstraction:
Add:
- E-health
- Internet structured programs

Impacts:
Repeat Lactate Level Collection

Rationale: The Allowable Values were updated and the Notes for Abstraction were revised to provide guidance regarding lab results.

Description of Changes:
Allowable Values
Change from:

1 (Yes)	A repeat lactate level was drawn in the time window beginning at severe sepsis presentation date and time and ending 6 hours thereafter.
2 (No)	A repeat lactate level was not drawn in the time window beginning at severe sepsis presentation date and time and ending 6 hours thereafter, or unable to determine, or there was no repeat lactate level drawn because there was no initial lactate level drawn.

To:

1 (Yes)	A repeat lactate level was drawn in the time window beginning at severe sepsis presentation date and time and ending 6 hours thereafter.
2 (No)	A repeat lactate level was not drawn in the time window beginning at severe sepsis presentation date and time and ending 6 hours thereafter, or unable to determine.

Notes for Abstraction
Add in first bullet:
mmol/L

Remove:
- If there was no initial lactate level drawn (answered Value "2" to *Initial Lactate Level Collection* data element), choose Value "2" for this data element.

Add new fourth bullet:

- If there is no documentation indicating a repeat lactate was drawn or collected, it is acceptable to use supporting documentation indicating that a repeat lactate was drawn (e.g., lactate sent to lab, lactate received, lactate result). If there are multiple instances of supporting documentation, use the earliest.

Impacts:
Repeat Lactate Level Date
Repeat Lactate Level Time

Rationale: The Notes for Abstraction were updated to provide guidance regarding the collection of lab results.

Description of Changes:
Notes for Abstraction
Add in first bullet:
mmol/L

Add new third bullet:

- If there is no documentation indicating a repeat lactate was drawn or collected, it is acceptable to use supporting documentation indicating that a repeat lactate was drawn (e.g., lactate sent to lab, lactate received, lactate result). If there are multiple instances of supporting documentation, use the earliest.

Inclusion Guidelines for Abstraction
Change list to alphabetical order

Impacts:
Septic Shock Present

Rationale: The Notes for Abstraction were updated to clarify the criteria for Septic Shock, provide guidance for conflicting documentation and to remove examples no longer relevant to the data element.

Description of Changes:
Notes for Abstraction
Change to:

- Presence of septic shock may be identified based upon clinical criteria or physician/APN/PA documentation of septic shock.
- The criteria for determining that Septic Shock is present are as follows:
  a. Documentation of severe sepsis present
  AND
  Persistent Hypotension in the hour after the conclusion of the 30 mL/kg *Crystalloid Fluid Administration*, evidenced by two consecutive documented recordings of:
  - systolic blood pressure (SBP) <90, or
  - mean arterial pressure <65 or
  - a decrease in systolic blood pressure by >40 mmHg. Physician/APN/PA documentation must be present in the medical record indicating a >40 mmHg decrease in SBP has occurred and is related to infection, severe sepsis or septic shock and not other causes.

  OR

b. Documentation of severe sepsis present
AND
Tissue hypoperfusion evidenced by
- *Initial Lactate Level Result* is >=4 mmol/L
Examples:
  - Patient 1 met all criteria for Severe Sepsis (answered Value “1” to Data Element *Severe Sepsis Present*). Initial lactate level was 4.4. Choose Value “1” for *Septic Shock Present.*
  - Patient 2 met all criteria for Severe Sepsis (answered Value “1” to Data Element *Severe Sepsis Present*). Blood pressure was stable at 130/76 and initial lactate level was 1.8. Choose Value “2” for this patient.
  - Patient 3 met criteria for Severe Sepsis (answered Value “1” to Data Element *Severe Sepsis Present*). Blood pressure was 88/48. Crystalloid fluids were administered (30 mL/kg) and blood pressure increased to 100/54. Choose Value “2” for this patient.
  - Patient 4 met criteria for Severe Sepsis (answered Value “1” to Data Element *Severe Sepsis Present*). Blood pressure was 84/50. Crystalloid fluids were administered (30 mL/kg) and systolic blood pressure recorded as 88/52 and 86/49. Choose Value “1” for this patient.

- For evaluation of blood pressure parameters to establish whether or not hypotension persists after crystalloid fluid administration, begin abstracting at the time that crystalloid fluid administration concludes (refer to the *Persistent Hypotension* data element); abstract for the time period that follows for the next hour only. Choose Value “1” if hypotension (systolic blood pressure <90, or mean arterial pressure <65 or a decrease in systolic blood pressure by >40 mmHg) was present in the hour after crystalloid fluid administration for two or more consecutive readings.
- Use the time vital signs were taken or obtained. If time taken or obtained is not available, use recorded or documented time.
- If there is physician/APN/PA documentation indicating a SBP <90 mmHg or MAP <65 mmHg is normal for the patient, is due to a chronic condition, is due to an acute condition that is not an infection, or is due to a medication, it should not be used. Inferences should not be made, physician/APN/PA documentation is required.
- If there is physician/APN/PA or nursing documentation that a low blood pressure reading is invalid, erroneous or questionable, disregard that reading when determining the presence of septic shock.
- If Septic Shock presentation is more than six hours after Severe Sepsis presentation, choose Value “2.”
- If the only documentation indicating presence of Septic Shock is in a discharge summary or after the discharge time, choose Value “2.”
- If criteria for Septic Shock are not met, but there is physician/APN/PA documentation of Septic Shock, choose Value “1.”
- If there is documentation of clinical criteria being met or physician/APN/PA documentation of septic shock and within 6 hours there is additional physician/APN/PA documentation indicating the patient does not have septic shock, choose Value “2.”

Inclusion Guidelines for Abstraction
Remove in fifth bullet:
Septic

Exclusion Guidelines for Abstraction
Add new bullet:
- Shock (not referenced as related to severe sepsis or septic shock)

Impacts:
Septic Shock Presentation Date

Rationale: The Notes for Abstraction were updated to clarify the criteria for Septic Shock and the use of triage date as septic shock presentation date.

Description of Changes:
Notes for Abstraction
Change to:
- Use the date on which the last sign of septic shock was noted or the last laboratory value was reported. The criteria for *Septic Shock Present* are:
  a. Documentation of severe sepsis present
     AND
     Persistent Hypotension in the hour after the conclusion of the 30 mL/kg *Crystalloid Fluid Administration*, evidenced by two consecutive documented recordings of:
     - systolic blood pressure (SBP) <90, or
     - mean arterial pressure <65 or
     - a decrease in systolic blood pressure by >40 mmHg. Physician/APN/PA documentation must be present in the medical record indicating a >40 mmHg decrease in SBP has occurred and is related to infection, severe sepsis or septic shock and not other causes.

     OR
  b. Documentation of severe sepsis present
     AND
     Tissue hypoperfusion evidenced by
     - *Initial Lactate Level Result* is >=4 mmol/L
       Examples:
       - Patient met criteria for severe sepsis and physician notes document presence of severe sepsis at 22:00 on 01-10-20xx. In the hour following completion of 30 mL/kg of crystalloid fluids blood pressure is recorded as 74/40 at 01:15 on 01-11-20xx and 76/38 at 01:30 on 01-11-20xx. *Septic Shock Presentation Date* is 01-11-20xx.
       - Postoperative patient had a blood pressure of 82/49 in the PACU for 3 hours but all other vital signs were within normal limits, and (s)he was transferred to the ICU for monitoring on 04-06-20xx at 1300. The last blood pressure and vital sign recording on 04-06-20xx occurred at 23:30 and remain unchanged. At 0200 on 04-07-20xx, pulse was noted to be elevated at 118/minute respirations 24/min, and blood pressure fell to 50/20. Physician notes “suspect septic shock from contaminated unit of blood given during surgery.” *Septic Shock Presentation Date* is 04-07-20xx.

- Physician/APN/PA documentation of septic shock or suspected septic shock is acceptable.
- For patients who enter the Emergency Department with septic shock, the *Septic Shock Presentation Date* is the date they were triaged in the Emergency Department.
- If septic shock is present on arrival to the Emergency Department or septic shock is identified in triage (all clinical criteria must be met or documented during triage), the *Septic Shock Presentation Date* is the date the patient was triaged in the Emergency Department.
- If more than one triage date is documented (e.g., "Triage started" and "Triage completed"), use the later date reflecting triage is completed.
- For patients who arrive to the ED with septic shock clinical criteria met or physician/APN/PA documentation of septic shock that bypass triage or a triage date is not documented, use the ED arrival date.
- If septic shock is in a physician note without a specific date documented within the note, use the date the note was started or opened. If the note states septic shock was present on arrival, refer to Notes for Abstraction that address septic shock present on arrival. If the note states septic shock was present on admission, use the earliest documented admission date.
- For patients with multiple episodes of septic shock, abstract only the first episode.
- If there are multiple dates documented for the last criterion to meet the definition of septic shock, and they are at variance with each other, use the earliest date.
- If the dates when the last criterion for severe sepsis was met and physician/APN/PA documentation of septic shock occurred are different, use the earliest date.

Impacts:
Septic Shock Presentation Time

Rationale: The Notes for Abstraction were updated to clarify the criteria for Septic Shock and the use of triage time as septic shock presentation time.

Description of Changes:
Notes for Abstraction
Change to:

- Use the time at which the last sign of septic shock was noted or the last laboratory value was reported. The criteria for *Septic Shock Present* are:
  a. Documentation of severe sepsis present
     AND
     Persistent Hypotension in the hour after the conclusion of the 30 mL/kg *Crystalloid Fluid Administration*, evidenced by two consecutive documented recordings of:
     - systolic blood pressure (SBP) <90, or
     - mean arterial pressure <65 or
     - a decrease in systolic blood pressure by >40 mmHg. Physician/APN/PA documentation must be present in the medical record indicating a >40 mmHg decrease in SBP has occurred and is related to infection, severe sepsis or septic shock and not other causes.

     OR
  b. Documentation of severe sepsis present
     AND

Tissue hypoperfusion evidenced by

- *Initial Lactate Level Result* is >=4 mmol/L
  Examples:
  - Patient met criteria for severe sepsis at 22:00 on 01-10-20xx. In the hour following completion of 30 mL/kg of crystalloid fluids blood pressure is recorded as 74/40 at 01:15 on 01-11-20xx and 76/38 at 01:30 on 01-11-20xx. *Septic Shock Presentation Time* is 01:30.
  - Postoperative patient had a blood pressure of 82/49 in the PACU for 3 hours but all other vital signs were within normal limits, and (s)he was transferred to the ICU for monitoring on 04-06-20xx at 1300. The last blood pressure and vital sign recording on 04-06-20xx occurred at 23:30 and remain unchanged. At 02:00 on 04-07-20xx, pulse was noted to be elevated at 118/minute respirations 24/min, and blood pressure fell to 50/20. At 02:00 intensivist physician notes “suspect septic shock from contaminated unit of blood given during surgery.” *Septic Shock Presentation Time* is 02:00.

- Physician/APN/PA documentation of septic shock or suspected septic shock is acceptable.
- If septic shock is present on arrival to the Emergency Department or septic shock is identified in triage (all clinical criteria must be met or documented during triage), the *Septic Shock Presentation Time* is the time the patient was triaged in the Emergency Department.
- If more than one triage time is documented (e.g., “Triage started” and “Triage completed”), use the later time reflecting triage is completed.
- For patients who arrive to the ED with septic shock clinical criteria met or physician/APN/PA documentation of septic shock that bypass triage or a triage time is not documented, use the ED arrival time.
- If septic shock is in a physician note without a specific time documented within the note, use the time the note was started or opened. If the note states septic shock was present on arrival, refer to Notes for Abstraction that address septic shock present on arrival. If the note states septic shock was present on admission, use the earliest documented admission time.
- For patients who enter the Emergency Department with septic shock, the *Septic Shock Presentation Time* is the time they were triaged in the Emergency Department.
- For patients with multiple episodes of septic shock, abstract only the first episode.
- If there are multiple times documented for the last criterion to meet the definition of septic shock, and they are at variance with each other, use the earliest time.
- If the times when the last criterion for severe sepsis was met and physician/APN/PA documentation of septic shock occurred are different, use the earliest time.

Impacts:
Severe Sepsis Present

Rationale: The data element was updated to provide guidance regarding suspected infections, organ dysfunction, and the use of pre-hospital records.

Description of Changes:
Notes for Abstraction
Change to:

- Presence of severe sepsis may be identified based upon clinical criteria or physician/APN/PA documentation of severe sepsis.
- In order to establish the presence of severe sepsis, there are three clinical criteria. All three clinical criteria must **be met within 6 hours of each other**. The three clinical criteria do not need to be documented in any particular order.
    a. Documentation of a suspected infection. There may be reference to "possible infection," "suspect infection," "rule out infection," or similar documentation.
        - Physician/APN/PA or nursing documentation referencing an infection, suspected infection, current treatment of an infection, or includes the word infection or form of the word infection (e.g., consider infectious vs. inflammatory process, possible infectious process, suspect infection of unknown source) is acceptable.
        - Documentation indicating the patient is taking antibiotics for an infection on arrival to the ED may be used as a suspected infection.
        - Nursing or pharmacist documentation indicating a patient is being treated with an antibiotic for an infection that is within 6 hours of criteria b or c is acceptable as a suspected infection (e.g., Levaquin is documented in MAR for pneumonia and nursing documentation indicates a dose was given within 6 hours of criteria b and c, pharmacy note that patient is on vancomycin for pneumonia).
        - If an infection is documented as present, suspected, or possible but within 6 hours following the initial documentation of the infection, there is physician/APN/PA documentation indicating the infection is not present, disregard the documentation of the infection.
          Examples:
            o Severe sepsis screening at 08:00 indicates possible infection. Physician documents at 12:30 no infection. Disregard screening documentation of possible infection.
            o Severe sepsis screening at 09:00 indicates possible infection. Physician documents at 10:30 no UTI. Disregard screening documentation of possible infection.
            o ED physician documents rule out UTI and pneumonia at 05:00. At 10:00 hospitalist documents no infection present. Disregard ED physician documentation of rule out UTI and pneumonia.
            o ED physician documents suspect UTI at 0700, possible pneumonia per chest x-ray at 09:00. At 12:30 infectious disease physician documents no UTI. Disregard ED physician documentation of suspect UTI. ED physician documentation of possible pneumonia is still valid to use for a suspected infection.

- Documentation of an infection in an active problem list is acceptable if there is information in the medical record supporting the infection is current.
- Documentation of signs or symptoms is not acceptable for a suspected infection.
- Do not assume documentation of a term or condition ending with the suffix "itis" is a bacterial infection.
- If a condition documented in the medical record does not include the word "infection," or is not in the Inclusion Guidelines for Abstraction infection list, consulting other medical resources (such as a medical dictionary) to identify whether or not the condition is an infection or is caused by an infection is acceptable.
    i. If the other medical resource indicates the condition is an infection or is caused by an infection, it may be used to meet the suspected infection criteria.
    ii. If the other medical resource indicates the condition is NOT an infection and NOT caused by an infection, it may NOT be used to meet the suspected infection criteria.
    iii. If the other medical resource indicates the condition may be or may not be an infection, OR may be caused by an infection or may be caused by something other than an infection, there must be additional documentation in the medical record supporting the condition is an infection (e.g., antibiotic ordered for the condition) to be used to meet the suspected infection criteria.
- If a condition can be either inflammation or an infection, there must be documentation that supports the condition is a bacterial infection (e.g., ceftriaxone ordered for colitis).
- Exclude documentation of viral or fungal infections.

b. Two or more manifestations of systemic infection according to the Systemic Inflammatory Response Syndrome (SIRS) criteria, which are:
- Temperature >38.3 C or <36.0 C (>100.9 F or <96.8 F)
- Heart rate (pulse) >90
- Respiration >20 per minute
- White blood cell count >12,000 or <4,000 or >10% bands

c. Organ dysfunction, evidenced by any one of the following:
- Documented systolic blood pressure (SBP) <90 mmHg, or mean arterial pressure <65 mmHg, or a systolic blood pressure decrease of more than 40 mmHg. Physician/APN/PA documentation must be present in the medical record indicating a >40 mmHg decrease in SBP has occurred and is related to infection, severe sepsis or septic shock and not other causes.
- Acute respiratory failure as evidenced by a new need for invasive or non-invasive mechanical ventilation. To use acute respiratory failure as a sign of organ dysfunction there must be:
    o Documentation of acute respiratory failure AND
    o Documentation the patient is on mechanical ventilation.

        - Invasive mechanical ventilation requires an endotracheal or tracheostomy tube. Non-invasive mechanical ventilation may be referred to as BiPAP or CPAP.
        - New need for mechanical ventilation indicates the patient was not using the same type of mechanical ventilation prior to the current acute respiratory failure.
      - Use the time at which there is documentation the patient has both acute respiratory failure and is on mechanical ventilation. If documented separately, use the time the later of the two is documented.
    - Creatinine >2.0, or urine output <0.5 mL/kg/hour for 2 consecutive hours
      - For urine output, documentation must clearly indicate that urine output is being monitored hourly to be able to use this as organ dysfunction.
    - Total Bilirubin >2 mg/dL (34.2 mmol/L)
    - Platelet count <100,000
    - INR >1.5 or aPTT >60 sec
    - Lactate >2 mmol/L (18.0 mg/dL)
- If there is physician/APN/PA documentation that SIRS criteria or a sign of organ dysfunction is normal for that patient, is due to a chronic condition, is due to an acute condition that is not an infection, or is due to a medication, it should not be used. Inferences should not be made, physician/APN/PA documentation is required.
- If there is physician/APN/PA or nursing documentation that a laboratory value is invalid, erroneous or questionable, disregard that value.
- All three clinical criteria (a, b, and c) must be met within 6 hours of each other to choose Value "1."
  Examples:
  - The physician documented "suspect catheter-related infection." The patient's temperature was 38.5 with respirations of 24, and the lactate level was 3.6. This patient meets all three criteria (a, b, and c), select Value "1."
  - The only relevant documentation, entered by an APN, was "febrile today, r/o infection." All lab tests were within normal limits except for a bilirubin level of 2.6. Temperature was 38.2 C. Blood pressure was 140/72, urine output normal. Choose Value "2" for this patient – there is a suspected infection (section a), only one abnormality from section b (temperature elevation), and an elevated bilirubin (section c).
- Use the time vital signs were taken or obtained. If time taken or obtained is not available, use recorded or documented time.
- Use the time of the reported laboratory values.
- Use of documentation in pre-hospital records (e.g., ambulance records, nursing home records) that is considered part of the medical record is acceptable for determining presence of severe sepsis.
- If there is more than one episode of severe sepsis in the record, abstract only the first episode.
- If clinical criteria for severe sepsis are not met, but there is physician/APN/PA documentation of severe sepsis, choose Value "1."

- If clinical criteria for severe sepsis are not documented and there is not physician/APN/PA documentation of severe sepsis, but there is physician/APN/PA documentation of septic shock, choose Value "1."
- If the only documentation indicating presence of Severe Sepsis is in a discharge summary or after the discharge time, choose Value "2."
- If there is documentation of clinical criteria being met or physician/APN/PA documentation of severe sepsis and within 6 hours there is additional physician/APN/PA documentation indicating the patient does not have severe sepsis, choose Value "2."

Inclusion Guidelines for Abstraction

Change to:

Severe Sepsis (PHYSICIAN/APN/PA DOCUMENTATION ONLY)

Documentation that is acceptable for severe sepsis

- Differential diagnosis: Severe Sepsis
- Possible Severe Sepsis
- Rule Out (r/o) Severe Sepsis
- Severe Sepsis

Infections

Documentation that is acceptable for a suspected infection

- The following is a list of conditions commonly associated with severe sepsis that are considered infections. (This is not an all-inclusive list.)
  - Abscess
  - Acute abdomen
  - Acute abdominal infection
  - Blood stream catheter infection
  - Bone/joint infection
  - Chronic Obstructive Pulmonary Disease (COPD) acute exacerbation
  - Endocarditis
  - Gangrene
  - Implantable device infection
  - Meningitis
  - Necrosis
  - Necrotic/ischemic/infarcted bowel
  - Pelvic Inflammatory Disease
  - Perforated bowel
  - Pneumonia, empyema
  - Purulence/pus
  - Sepsis
  - Skin/soft tissue infection
  - Suspect infection, source unknown
  - Urosepsis, Urinary tract infection
  - Wound infection

Exclusion Guidelines for Abstraction
Change to:
Severe Sepsis
Documentation that is not acceptable for severe sepsis
- Bacteremia
- Possibly septic
- Sepsis
- Septic
- Septicemia

Infections
Documentation that is not acceptable for suspected infection
- Colonization, positive screens, or positive cultures (e.g., MRSA, VRE, or for other bacteria) without physician/APN/PA documentation referencing an infection.
- Fungal infections
- History of infection, recent infection, or recurrent infection that is not documented as a current or active infection.
- Orders for tests or screens without documentation of a suspected infection.
- Results of tests without documentation of a suspected infection (e.g., infiltrates on chest x-ray, positive cultures).
- Viral infections

Impacts:
Severe Sepsis Presentation Date

Rationale: The data element was updated to provide clarification for triage time, pre-hospital records, and dates in physician notes.

Description of Changes:
Definition
Change to:
The date on which the last criterion was met to establish the presence of severe sepsis.

Suggested Data Collection Question
Change to:
What was the date on which the last criterion was met to establish the presence of severe sepsis?

Notes for Abstraction
Change to:
- Use the date the last clinical criteria for severe sepsis was noted (see *Severe Sepsis Present* data element for clinical criteria list).
  Example:
  > Patient was noted to have purulent drainage from the surgical wound on 01-10-20xx at 22:00, when the physician documented “suspect surgical wound infection.” A culture of the surgical site was obtained. At 01:30 on 01-11-20xx, blood pressure was noted to be 74/40. At 02:00, 30 minutes later, temperature was 38.4 and pulse was 118. *Severe Sepsis Presentation Date* is 01-11-20xx.
- Use the date of physician/APN/PA documentation of severe sepsis or suspected severe sepsis if *Severe Sepsis Present* clinical criteria are not met.

- If a suspected infection, severe sepsis or septic shock is in a physician note without a specific date documented within the note, use the date the note was started or opened.
- If severe sepsis is present on arrival to the Emergency Department or severe sepsis is identified in triage (all three clinical criteria must be met or documented during triage), the *Severe Sepsis Presentation Date* is the date the patient was triaged in the Emergency Department. If more than one triage date is documented (e.g., "Triage started" and "Triage completed"), use the later date reflecting triage is completed.
- For patients who arrive to the ED with severe sepsis clinical criteria met or physician/APN/PA documentation of severe sepsis, that bypass triage or a triage date is not documented, use the ED arrival date.
- Use of documentation in pre-hospital records (e.g., ambulance records, nursing home records) that is considered part of the medical record is acceptable for determining presence of severe sepsis.
- If severe sepsis is in a physician note without a specific date documented within the note, use the date the note was started or opened. If the note states severe sepsis was present on arrival refer to Notes for Abstraction that address severe sepsis present on arrival. If the note states severe sepsis was present on admission, use the earliest documented admission date.
- For patients with multiple episodes of severe sepsis, abstract only the first episode.
- If there are multiple dates documented for the last criterion to meet the definition of severe sepsis, and they are at variance with each other, use the earliest date.
- If the dates when the last criterion for severe sepsis was met and physician/APN/PA documentation of severe sepsis occurred are different, use the earliest date.
- If clinical criteria for severe sepsis are met after physician/APN/PA documentation of septic shock, enter the date the physician/APN/PA documented septic shock.
- If clinical criteria for severe sepsis are not documented and there is not physician/APN/PA documentation of severe sepsis, but there is physician/APN/PA documentation of septic shock, enter the earliest date septic shock was documented.
- If unable to determine the *Severe Sepsis Presentation Date*, enter UTD.

Impacts:
Severe Sepsis Presentation Time

Rationale: The data element was updated to provide clarification for triage time, pre-hospital records, and times in physician notes.

Description of Changes:
Notes for Abstraction
Change to:

- Use the time the last clinical criteria for severe sepsis was noted (see *Severe Sepsis Present* data element for clinical criteria list).
  Example:
  > Patient was noted to have purulent drainage from the surgical wound on 01-10-20xx at 22:00, when the physician documented "suspect surgical wound infection." A culture of the surgical site was obtained. At 01:30 on 01-11-20xx, blood pressure was noted to be 74/40. At 02:00, 30 minutes later, temperature was 38.4 and pulse was 118. *Severe Sepsis Presentation Time* is 02:00.
- Use the time of physician/APN/PA documentation of severe sepsis or suspected severe sepsis if *Severe Sepsis Present* clinical criteria are not met.

- If a suspected infection, severe sepsis or septic shock is in a physician note without a specific time documented within the note, use the time the note was started or opened.
- If severe sepsis is present on arrival to the Emergency Department or severe sepsis is identified in triage (all three clinical criteria must be met or documented during triage), the *Severe Sepsis Presentation Time* is the time the patient was triaged in the Emergency Department. If more than one triage time is documented (e.g., "Triage started" and "Triage completed"), use the later time reflecting triage is completed.
- For patients who arrive to the ED with severe sepsis clinical criteria met or physician/APN/PA documentation of severe sepsis, that bypass triage or a triage time is not documented, use the ED arrival time.
- Use of documentation in pre-hospital records (e.g., ambulance records, nursing home records) that is considered part of the medical record is acceptable for determining presence of severe sepsis.
- If severe sepsis is in a physician note without a specific time documented within the note, use the time the note was started or opened. If the note states severe sepsis was present on arrival, refer to Notes for Abstraction that address severe sepsis present on arrival. If the note states severe sepsis was present on admission, use the earliest documented admission time.
- For patients with multiple episodes of severe sepsis, abstract only the first episode.
- If there are multiple times documented for the last criterion to meet the definition of severe sepsis, and they are at variance with each other, use the earliest time.
- If the times when the last criterion for severe sepsis was met and physician/APN/PA documentation of severe sepsis occurred are different, use the earliest time.
- If clinical criteria for severe sepsis are met after physician/APN/PA documentation of septic shock, enter the time the physician/APN/PA documented septic shock.
- If clinical criteria for severe sepsis are not documented and there is not physician/APN/PA documentation of severe sepsis, but there is physician/APN/PA documentation of septic shock, enter the earliest time septic shock was documented.

Impacts:
Skin Examination Date

Rationale: The Notes for Abstraction were updated to allow for physician attestation of the exam/reassessment and to clarify the proper date to use when no specific date was documented.

Description of Changes:
Notes for Abstraction
Change second bullet to:

- Documentation of what constitutes or is acceptable for a skin examination is defined in the *Skin Examination Performed* data element.

Remove:

- The assessment of skin color may include such terms as "flushed," "mottled," "pale," "pallor," "pink," or similar terminology.

Add new fourth bullet:

- If the skin examination is in a physician note without a specific date documented within the note, use the date the note was started or opened.

Impacts:
Skin Examination Performed

Rationale: The Notes for Abstraction were updated to allow for physician attestation of the exam/reassessment and to allow for the skin examination to assess appearance or condition.

Description of Changes:
Notes for Abstraction
Add to second bullet:
, appearance, or condition

Change third bullet to:

- The assessment of skin color or appearance may include such terms as “flushed,” “mottled,” “pale,” “pallor,” “pink,” “no cyanosis,” or similar terminology. The assessment of skin condition may include such terms as “cool,” “clammy,” “warm,” “dry,” “moist,” “turgor,” “edema,” or similar terminology.
  Exceptions:
  - Documentation indicating a physician/APN/PA has reviewed, performed, or attested to reviewing or performing a skin examination is acceptable. If documented this way, reference to skin color, appearance, or condition is not required.
  - Documentation indicating a physician/APN/PA has performed, or attested to performing a physical examination, perfusion (re-perfusion) assessment, or sepsis (severe sepsis or septic shock) focused exam is acceptable. If documented this way, reference to skin color, appearance, or condition is not required.

Inclusion Guidelines for Abstraction
Add new bullets:

- Clammy
- Cool
- Cyanotic
- Dry
- Edema
- Moist
- No cyanosis
- Turgor
- Warm

Impacts:
Skin Examination Time

Rationale: The Notes for Abstraction were updated to allow for physician attestation of the exam/reassessment and to clarify the proper time to use when no specific time was documented.

Description of Changes:
Notes for Abstraction
Change second bullet to:

- Documentation of what constitutes or is acceptable for a skin examination is defined in the *Skin Examination Performed* data element.

Remove:

- The assessment of skin color may include such terms as “flushed,” “mottled,” “pale,” “pallor,” “pink,” “cyanotic,” or similar terminology.

Add new fourth bullet:

- If the skin examination is in a physician note without a specific time documented within the note, use the time the note was started or opened.

Impacts:
Tobacco Use Status

Rationale: Language was clarified to provide better guidance to the abstractor in the Notes for Abstraction.

Description of Changes:
Notes for Abstraction;
Change first bullet to:

- If there is **any conflicting** documentation about the patient’s tobacco use status, e.g., RN assessment states patient has not used any tobacco products in the past 30 days prior to admission, but there is also physician documentation in the H & P that the patient is a “smoker,” select Value “5” since tobacco use status is unable to be determined.

Add new second bullet:

- Documentation of cognitive impairment overrides documentation of a tobacco screen and therefore would not be considered "conflicting documentation." Even if the family or others tell staff the patient uses tobacco, the patient could not be counseled due to cognitive impairment. Select Value “6.”

Impacts:
Transfer From Another Hospital or ASC

Rationale: The Notes for Abstraction were updated to reflect that assisted living facilities and nursing homes are not included in the transfer from another hospital.

Description of Changes:
Notes for Abstraction
Add new sub-bullet under fourth bullet:
o Assisted living facilities and nursing homes

Change within parentheses in sixth bullet:
‘E.g.’ to ‘e.g.’
‘Documentation’ to ‘documentation’

Impacts:
Vasopressor Administration

Rationale: The Definition, Suggested Data Collection Question, Allowable Values and Notes for Abstraction were updated to include intraosseous vasopressors. The Notes for Abstraction were updated to allow documentation from pre-hospital records.

Description of Changes:
Definition
Suggested Data Collection Question
Add after ‘intravenous’:
or intraosseous

Allowable Values
Change from:

1 (Yes)	The patient was given an intravenous vasopressor in the time window beginning at septic shock presentation and ending 6 hours after the presentation of septic shock.
2 (No)	The patient was not given an intravenous vasopressor in the time window beginning at septic shock presentation and ending 6 hours after the time of presentation of septic shock.

To:

1 (Yes)	The patient was given an intravenous or intraosseous vasopressor in the time window beginning at septic shock presentation and ending 6 hours after the presentation of septic shock.
2 (No)	The patient was not given an intravenous or intraosseous vasopressor in the time window beginning at septic shock presentation and ending 6 hours after the time of presentation of septic shock.

Notes for Abstraction
Add in second bullet after 'IV':
or intraosseous (IO)

Add in fifth bullet after 'started':
or running

Add new ninth bullet:

- Use of documentation in pre-hospital records (e.g., ambulance records, nursing home records) that are considered part of the medical record is acceptable.

Impacts:
Vasopressor Administration Date
Vasopressor Administration Time

Rationale: The Definition, Suggested Data Collection Question, and Notes for Abstraction were updated to include intraosseous vasopressors. The Notes for Abstraction were updated to allow documentation from pre-hospital records.

Description of Changes:
Definition
Suggested Data Collection Question
Add after 'intravenous':
or intraosseous

Notes for Abstraction
Add in second bullet after 'IV':
or intraosseous (IO)

Add new tenth bullet:

- Use of documentation in pre-hospital records (e.g., ambulance records, nursing home records) that are considered part of the medical record is acceptable.

Impacts:
Vital Signs Review Date

Rationale: The Notes for Abstraction were updated to allow for physician attestation of the exam/reassessment and to clarify the proper date to use when no specific date was documented.

Description of Changes:
Definition
Change to:
Documentation of the date indicating a vital signs review was performed.

Notes for Abstraction
Add new second bullet:
- Documentation of what constitutes or is acceptable for a vital signs review is defined in the *Vital Signs Review Performed* data element.

Add fifth bullet:
- If the vital signs review is in a physician note without a specific date documented within the note, use the date the note was started or opened.

Impacts:
Vital Signs Review Performed

Rationale: The Notes for Abstraction were updated to allow for physician attestation of the exam/reassessment, to clarify current guidance around the proper time frame, and to clarify that vitals must be in a single entry.

Description of Changes:
Notes for Abstraction
Change to:
- Start abstracting at the crystalloid fluid administration date and time and stop abstracting six hours after the presentation of septic shock date and time.
- Vital signs review is done to assess overall status. The review must include temperature, pulse (also referred to as heart rate), respirations, and systolic and diastolic blood pressure reading.
- The vital signs review is a single entry that may make use of information recorded in the medical record at different times and in different locations but must include all four elements (Temperature, Pulse or Heart Rate, Respirations, Blood Pressure).
  Exceptions:
  - Documentation indicating a physician/APN/PA has reviewed, performed, or attested to reviewing or performing a vital signs review is acceptable. If documented this way, listing each vital sign element (Temperature, Pulse or Heart Rate, Respirations, Blood Pressure) is not required.
  - Documentation indicating a physician/APN/PA has performed, or attested to performing a physical examination, perfusion (re-perfusion) assessment, or sepsis (severe sepsis or septic shock) focused exam is acceptable. If documented this way, listing each vital sign element (Temperature, Pulse or Heart Rate, Respirations, Blood Pressure) is not required.
- If there are multiple vital signs reviews in the time window beginning at the crystalloid fluid administration date and time and ending six hours after the presentation of septic

shock date and time, abstract the date and time of the review, that was done latest within the time window.
- If there are no vital signs reviews documented in the time window beginning at the crystalloid fluid administration date and time and ending within six hours after the septic shock presentation date and time, choose Value "2."

Inclusion Guidelines for Abstraction
Change list to alphabetical order

Add new bullet:
- Vital signs review

Exclusion Guidelines for Abstraction
Change to:
None

Impacts:
Vital Signs Review Time

Rationale: The Notes for Abstraction were updated to allow for physician attestation of the exam/reassessment and to clarify the proper time to use when no specific time was documented.

Description of Changes:
Definition
Change to:
Documentation of the time indicating a vital signs review was performed.

Notes for Abstraction
Add new second bullet:
- Documentation of what constitutes or is acceptable for a vital signs review is defined in the *Vital Signs Review Performed* data element.

Add new fifth bullet:
- If the vital signs review is in a physician note without a specific time documented within the note, use the time the note was started or opened.

Impacts:
VTE Confirmed

Rationale: The clinical guidelines are being updated to specify that one subsegmental pulmonary embolus with negative Doppler results requires surveillance and not treatment.

Description of Changes:
Exclusion Guidelines for Abstraction
Add new bullet**:**
- One subsegmental pulmonary embolus with Doppler performed which was negative

---

Impacts:
VTE Prophylaxis Status

Rationale: The verbiage is being updated to clarify the appropriate timeframe for VTE prophylaxis prior to the VTE diagnostic test order date.

Description of Changes:
Definition:
Add before "*VTE Diagnostic Test*":
the day before the

Suggested Data Collection Question:
Add before "*VTE Diagnostic Test":*
day before the

Allowable Values:
Change from:

Y (Yes)	There is documentation that VTE prophylaxis was administered between the day of admission and the *VTE Diagnostic Test* order date.
N (No)	There is no documentation that VTE prophylaxis was administered between the day of admission and the *VTE Diagnostic Test* order date or unable to determine from medical record documentation.

To:

Y (Yes)	There is documentation that VTE prophylaxis was administered between the day of admission and the day before the *VTE Diagnostic Test* order date.
N (No)	There is no documentation that VTE prophylaxis was administered between the day of admission and the day before the *VTE Diagnostic Test* order date or unable to determine from medical record documentation.

Notes for Abstraction:
Change first sentence in the first bullet to:

- To determine the value for this data element, the abstractor must determine the admission date and review the chart to ascertain if VTE prophylaxis was administered the day before the *VTE Diagnostic Test* order date.

Change in second bullet, fourth sentence under 'Example' from:
'11/4/20xx' to '11/3/20xx'

Change fourth bullet to:

- If the record contains questionable information regarding the administration of VTE prophylaxis the day before the *VTE Diagnostic Test* was ordered, select "No."

Impacts:
VTE Prophylaxis Status

Rationale: A new bullet is being added under the Notes for Abstraction to provide guidance regarding appropriate VTE Prophylaxis.

Description of Changes:
Notes for Abstraction
Add new 8th bullet:

- Aspirin is only acceptable as VTE prophylaxis in total hip replacement and total knee replacement surgery.

SECTION 2 – Measurement Information

Subsection 2.1 – Severe Sepsis and Septic Shock (SEP)

Impacts:
SEP Data Elements Table

Rationale: A new data element *Blood Culture Collection Acceptable Delay* is being added.

Description of Changes:
Add in 'Name' column"
Blood Culture Collection Acceptable Delay

Add in 'Collected For' column:
SEP-1

Impacts:
Measure
SEP-1

Rationale: The Measure Information Form is being updated to reflect new evidence and the addition of a new data element.

Description of Changes:
Rationale
Add new second paragraph:
A principle of sepsis care is that clinicians must rapidly treat patients with an unknown causative organism and unknown antibiotic susceptibility. Since patients with severe sepsis have little margin for error regarding antimicrobial therapy, initial treatment should be broad spectrum to cover all likely pathogens. As soon as the causative organism is identified, based on subsequent culture and susceptibility testing, de-escalation is encouraged by selecting the most appropriate antimicrobial therapy to cover the identified pathogen, safely and cost effectively (Dellinger, 2012).

Add in third paragraph, first sentence citation:
and Rhodes, 2015

Numerator Statement
Data Elements
Add:
- *Blood Culture Collection Acceptable Delay*

Selected References
Add:
- Dellinger RP, Levy MM, Rhodes A, Annane D, et al. Surviving Sepsis Campaign: international guidelines for management of severe sepsis and septic shock: 2012. Crit Care Med. 2013;41(2):580–637.
- Owyang CG, Shah KH. (2015) Are Balanced Crystalloids the Preferred Resuscitation Fluid for Severe Sepsis and Septic Shock? Ann Emerg Med. 2015 Nov;66(5):523-5
- Raghunathan K, Bonavia A, Nathanson BH, Beadles CA, Shaw AD, Brookhart MA, Miller TE, Lindenauer PK. (2015) Association between Initial Fluid Choice and Subsequent In-hospital Mortality during the Resuscitation of Adults with Septic Shock. Anesthesiology. 2015 Sep 28. [Epub ahead of print]

- Rhodes A, Phillips G, Beale R, Cecconi M, Chiche JD, De Backer D, Divatia J, Du B, Evans L, Ferrer R, Girardis M, Koulenti D, Machado F, Simpson SQ, Tan CC, Wittebole X, Levy M. (2015) The Surviving Sepsis Campaign bundles and outcome: results from the International Multicentre Prevalence Study on Sepsis (the IMPreSS study). Intensive Care Med. 2015 Sep;41(9):1620-8.

Impacts:
Measure
SEP-1

Rationale: Denominator Statement Excluded Populations are being updated to be consistent with algorithm changes.

Description of Changes:
Denominator Statement – Excluded Populations
Change seventh and eighth bullets to:

- Patients with severe sepsis who are discharged within 6 hours of presentation
- Patients with septic shock who are discharged within 6 hours of presentation

Impacts:
Measure
SEP-1 - Algorithm

Rationale: The algorithm is being revised to incorporate changes to the measure.

Description of Changes:
Remove from Variable Key**:**
"Shock Three Hour Counter"

Change *Administrative Contraindication to Care, Severe Sepsis* right branch to "= 1" and branch continuing down to "= 2."

Change Sepsis Discharge Time right branch to ">=0 minutes and <= 360 minutes" and branch continuing down to ">360 minutes."

Remove "Initialize Shock Three Hour Counter = 0" from the initialize counter box below off-page connector H.

Add new decision box *Blood Culture Collection Acceptable Delay* to the right of Blood Culture Antibiotic Time*.* The new branch to the right is "= 2" and goes to Measure Category Assignment of "D." The branch going up is "Missing" and goes to Measure Category Assignment of "X". The branch continuing down is "= 1" and goes to "SEP-1 K" off page connector.

Change *Crystalloid Fluid Administration* branch going down to "= 1, 4."

Add new decision box *Crystalloid Fluid Administration* after *Crystalloid Fluid Administration*. The new box branch going to the right is "= 4" and goes to Measure Category Assignment of "E." The branch continuing down is "= 1" and continues to *Crystalloid Fluid Administration Date*.

Change *Administrative Contraindication to Care, Septic Shock* right branch to "= 1" and branch continuing down to "= 2."

Remove box after the *Crystalloid Fluid Admin Time* decision box:
"Add 1 to Shock Three Hour Counter"

Change Shock Presentation Time ">=0 and <=360 minutes" branch to go to *Persistent Hypotension.*

Remove the decision box for "Shock Three Hour Counter" and both branches of associated logic**.**

Subsection 2.2 – Venous Thromboembolism (VTE)

Impacts:
Measure
VTE-5

Rationale: The misspelling of the word "supratherapeutic" is being corrected.

Description of Changes:
Rationale:
Change in fourth sentence:
supertherapeutic
To:
supratherapeutic

Impacts:
Measure
VTE-6

Rationale: The references are being updated to reflect the 10th edition of the American College of Clinical Pharmacy (ACCP) recommendations.

Description of Changes:
Selected References:
Add new reference**:**

- Kearon C, Akl EA, Ornelas J, Blaivas A, Jimenez D, Bounameaux H, Huisman M, King CS, Morris T, Sood N, Stevens SM, Vintch JRE, Wells P, Woller SC, Moores CL, Antithrombotic Therapy for VTE Disease: CHEST Guideline, CHEST (2016), doi: 10.1016/j.chest.2015.11.026

Subsection 2.3 – Stroke (STK)

Impacts:
STK Initial Patient Population Algorithm

Rationale: This change adds the in-page connector that is missing to connect out-of-population arrow from Age and Length of Stay boxes to the out-of-population box in the STK Pop flow.

Description of Changes:
Stroke (STK) Initial Patient Population Flow
Change
Page connector H coming out of decision point *Length of Stay* and *Patient Age* from pentagonal shape (out-of-page connector)
To:
Circle shape (in-page connector).

Add:
H circle connector going to the box *Patient not in any STK sub-population*

Impacts:
Measure
STK-4

Rationale: The American Heart Association/American Stroke Association updated the criteria for the use of intravenous alteplase in acute ischemic stroke patients.

Description of Changes:
Rationale
Remove fifth sentence:
While controversy still exists among some specialists, the major society practice guidelines developed in the United States all recommend the use of IV t-PA for eligible patients.

Add new paragraph:
Although the benefit of t-PA has been well established, only a minority of patients with acute ischemic stroke actually receive this medication across the United States. Recent recommendations from the American Heart Association/American Stroke Association and FDA remove or make less specific many previous contraindications and warnings for therapy.

Selected References
Add:

- Demaerschalk BM, Kleindorfer DO, Adeoye OM, Demchuk AM, et. al., on behalf of the American Heart Association Stroke Council and Council on Epidemiology and Prevention. "Scientific Rationale for the Inclusion and Exclusion Criteria for Intravenous Alteplase in Acute Ischemic Stroke: A Statement for Healthcare Professionals From the American Heart Association/American Stroke Association." [In eng]. Stroke, no. 47 (Feb 2016): 581-641.

Subsection 2.4 – Global Initial Patient Population (ED, IMM, TOB, SUB) *(no updates)*

Subsection 2.5 – Emergency Department (ED) *(no updates)*

Subsection 2.6 - Prevention

2.6.1 - Immunization (IMM)

Impacts:
Measure
IMM-2

Rationale: The Selected References are being updated to reflect more recent literature.

Description of Changes:
Rationale
Add '2015' after 'Key Facts' citation in first paragraph, first sentence.

Change citation in first paragraph, second sentence, to:
(Thompson 2003)

Change citation in first paragraph, third sentence to:
(Heron 2012)

Add '2000' after 'Fedson' citation in first paragraph, fourth sentence.

Change citation in first paragraph, last sentence to:
(Kostova 2013)

Selected References

Remove:

- Centers for Disease Control and Prevention. Prevention and control of seasonal Influenza with vaccines. Recommendations of the Advisory Committee on Immunization Practices (ACIP), 2009:55 (RR 08); 1-52.
- Centers for Disease Control and Prevention. Prevention and control of Influenza with vaccines. Recommendations of the Advisory Committee on Immunization Practices (ACIP), MMWR Early Release 2010:59 July 29, 2010: 1-61.
- Centers for Disease Control and Prevention. Prevention of Influenza. Recommendations of the Advisory Committee on Immunization Practices (ACIP). *MMWR*. April 2002;51(NoRR-02):1-36.
- Centers for Disease Control and Prevention (CDC). Prevention and Control of Influenza: Recommendations of the Advisory Committee on Immunization Practices (ACIP). 2007. *MMWR.* 2007;56(RR6):1-60.
- Centers for Disease Control and Prevention. Key facts about influenza and the influenza vaccine, August 2006. Available at: http://www.cdc.gov/flu/keyfacts.htm. Accessed August 11, 2007.
- Centers for Disease Control and Prevention. Newsroom press release February 24, 2010. CDC's Advisory Committee on Immunization Practices (ACIP) Recommends Universal Annual Influenza Vaccination [Internet Cited 2010 March 3]. Available from http://www.cdc.gov/media/pressrel/2010/r100224.htm.
- Minino Am, Heron MP, Smith BL. Deaths: Preliminary Data for 2004. National vital statistics reports; vol 54 no 19. Hyattsville, MD: National Center for Health Statistics. 2006.
- Nichol KL, Wourenma J, von Sternberg T. Benefits of Influenza Vaccination for Low-, Intermediate-, and High-Risk Senior Citizens. *Arch Intern Med*. 1998;158:1769.

Add new references:

- Centers for Disease Control and Prevention. (2015). Prevention and Control of Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices, United States, 2015–16 Influenza Season. MMWR, August 7, 2015; 64(30);818-825. http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6430a3.htm
- Centers for Disease Control and Prevention. (2013). Prevention and Control of Seasonal Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices, United States, 2013-2014. MMWR, September 20, 2013; 62(RR07); 1-43. http://www.cdc.gov/mmwr/preview/mmwrhtml/rr6207a1.htm
- Centers for Disease Control and Prevention. (2015). Key facts about influenza and the influenza vaccine, October 2015. Available at: http://www.cdc.gov/flu/keyfacts.htm. Accessed October 14, 2015
- Centers for Disease Control and Prevention. (2013). Estimated Influenza Illnesses and Hospitalizations Averted by Influenza Vaccination — United States, 2012–13 Influenza Season. MMWR. 2013;62(49):997-1000.
- Darvishiana M, Gefenaitea G, Turnerc RM, Pechlivanogloua P, Van der Hoeke W, Van den Heuvelb ER, Haka E (2014). After adjusting for bias in meta-analysis seasonal influenza vaccine remains effective in community-dwelling elderly. J Clin Epidemiol 2014;67:734-744
- Heron M (2015). Deaths: Leading Causes for 2012. National Vital Statistics Reports; vol 64 no 10. Hyattsville, MD: National Center for Health Statistics. 2015.

- Kostova D, Reed C, Finelli L, Cheng P, Gargiullo PM, Shay DK, Singleton JA, Meltzer MI, Lu P, Joseph S (2013). Influenza Illness and Hospitalizations Averted by Influenza Vaccination in the United States, 2005–2011. PLoS One. 2013; 8(6): e66312
- Reed C, Chaves SS, Daily Kirley P, Emerson R, Aragon D, Hancock EB, et al. (2015). Estimating Influenza Disease Burden from Population-Based Surveillance Data in the United States. PLoS One 10(3): e0118369

2.6.2 - Substance Use (SUB)

Impacts:
Measure
SUB-1

Rationale: The denominator exclusion was changed from =<3 days length of stay to =<1 day length of stay to increase the denominator population. The time frame to complete the substance use screen was changed based on recommendations from the SUB Technical Advisory Panel.

Description of Changes:
Description
Numerator Statement

Remove:
three

Change:
'days' to 'day'

Denominator Statement - Excluded Populations
Change in third bullet:
'three days' to 'one day'

Impacts:
Algorithm

Measure(s)
SUB-1
SUB-2
SUB-3

Rationale: The denominator exclusion was changed from =<3 days length of stay to =<1 day length of stay to increase the denominator population. The time frame to complete the substance use screen was changed based on recommendations from the SUB Technical Advisory Panel.

Description of Changes:
SUB-1
Change in Numerator Statement:
'first three days' to 'first day'

SUB-1
SUB-2
SUB-3

Change Length of Stay decision point to:

- If Length of Stay is equal to or less than 1 day, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.
- If Length of Stay is greater than 1 day, continue processing and proceed to check Comfort Measures Only.

Impacts:
Measure
SUB-2

Rationale: The denominator exclusion was changed from =<3 days length of stay to =<1 day length of stay to increase the denominator population.

Description of Changes:
Denominator Statement - Excluded Populations
Change in fourth bullet:
'three days' to 'one day'

Impacts:
Measure
SUB-3

Rationale: The denominator exclusion was changed from =<3 days length of stay to =<1 day length of stay to increase the denominator population.

Description of Changes:
Denominator Statement - Excluded Populations
Change in ninth bullet:
'three days' to 'one day'

2.6.3 - Tobacco Treatment (TOB)

Impacts:
Measure
TOB-3

Rationale: The change corrects minor typographical errors in the paragraph.

Description of Changes:
Measure Analysis Suggestions:
Change:
'understand' to 'understanding'

Remove:
of treatment

SECTION 3 – Missing and Invalid Data *(no updates)*

SECTION 4 – Population and Sampling Specifications *(no updates)*

SECTION 9 – Data Transmission

Transmission Overview *(no updates)*

Transmission Alphabetical Data Dictionary *(no updates)*

Hospital Clinical Data XML File Layout

Impacts:
Administrative Contraindication to Care, Septic Shock

Rationale: The changes are being made to align with the Alphabetical Data Dictionary.

Description of Changes:
Hospital Clinical Data – Detail Elements Information
Change Suggested Data Collection Question to
Did the patient or surrogate decision-maker decline consent for blood draw, IV fluid administration, or vasopressor administration prior to or within 6 hours following presentation of septic shock?

Change Answer Values to:

1 (Yes)	There is documentation by a physician/APN/PA or nurse that the patient or decision-maker has refused either blood draw, IV fluid administration, or vasopressor administration prior to or within 6 hours following presentation of septic shock.
2 (No)	There is no physician/APN/PA or nurse documentation that the patient or decision-maker has refused either blood draw, IV fluid administration, or vasopressor administration prior to or within 6 hours following presentation of septic shock.

Impacts:
Administrative Contraindication to Care, Severe Sepsis

Rationale: The changes are being made to align with the Alphabetical Data Dictionary.

Description of Changes:
Hospital Clinical Data – Detail Elements Information
Change Suggested Data Collection Question to:
Did the patient or surrogate decision-maker decline consent for blood draw, IV fluid administration, or IV antibiotic administration prior to or within 6 hours following presentation of severe sepsis?

Change Answer Values to:

1 (Yes)	There is documentation by a physician/APN/PA or nurse that the patient or decision-maker has refused either blood draw, IV fluid administration, or IV antibiotic administration prior to or within 6 hours following presentation of severe sepsis.
2 (No)	There is no physician/APN/PA or nurse documentation that the patient or decision-maker has refused either blood draw, IV fluid administration, or IV antibiotic administration prior to or within 6 hours following presentation of severe sepsis.

Impacts:
Alcohol Use Status

Rationale: The changes are being made to align with the Alphabetical Data Dictionary.

Description of Changes:
Hospital Clinical Data – Detail Elements Information
Change in each of the Answer Values the words three days to day

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Impacts:
Blood Culture Collection Acceptable Delay

Rationale: The changes are being made to align with the Alphabetical Data Dictionary.

Description of Changes:
Hospital Clinical Data – Detail Elements Information
Add the following new data element:
Blood Culture Collection Acceptable Delay

Impacts:
Broad Spectrum or Other Antibiotic Administration

Rationale: The changes are being made to align with the Alphabetical Data Dictionary.

Description of Changes:
Hospital Clinical Data – Detail Elements Information
Change Suggested Data Collection Question to:
Was a broad spectrum or other antibiotic administered intravenously in the time window 24 hours prior to or 3 hours after *Severe Sepsis Presentation Date and Time*?

Impacts:
Broad Spectrum or Other Antibiotic Administration Date

Rationale: The changes are being made to align with the Alphabetical Data Dictionary.

Description of Changes:
Hospital Clinical Data – Detail Elements Information
Change Suggested Data Collection Question to:
What was the earliest date on which an antibiotic was administered intravenously if given in the time window of 24 hours preceding or 3 hours after *Severe Sepsis Presentation Date and Time*?

Impacts:
Broad Spectrum or Other Antibiotic Administration Selection

Rationale: The changes are being made to align with the Alphabetical Data Dictionary.

Description of Changes:
Hospital Clinical Data – Detail Elements Information
Change Suggested Data Collection Question to:
Was the intravenous (IV) antibiotic administered within 3 hours after the *Severe Sepsis Presentation Date and Time* consistent with antibiotic selection guidelines detailed in the Notes for Abstraction?

Impacts:
Broad Spectrum or Other Antibiotic Administration Time

Rationale: The changes are being made to align with the Alphabetical Data Dictionary.

Description of Changes:
Hospital Clinical Data – Detail Elements Information
Change Suggested Data Collection Question to:
What was the earliest time at which an antibiotic was administered intravenously if given in the time window of 24 hours preceding or 3 hours after *Severe Sepsis Presentation Date and Time*?

Impacts:
Capillary Refill Examination Date

Rationale: The changes are being made to align with the Alphabetical Data Dictionary.

Description of Changes:
Hospital Clinical Data – Detail Elements Information
Change Suggested Data Collection Question to:
On what date was a capillary refill examination documented by a physician/APN/PA in the time window beginning at the crystalloid fluid administration date and time and ending six hours after the presentation of septic shock date and time?

Impacts:
Capillary Refill Examination Performed

Rationale: The changes are being made to align with the Alphabetical Data Dictionary.

Description of Changes:
Hospital Clinical Data – Detail Elements Information
Change Suggested Data Collection Question to:
Was a capillary refill examination documented by a physician/APN/PA in the time window beginning at the crystalloid fluid administration date and time and ending six hours after the presentation of septic shock date and time?

Impacts:
Capillary Refill Examination Time

Rationale: The changes are being made to align with the Alphabetical Data Dictionary.

Description of Changes:
Hospital Clinical Data – Detail Elements Information
Change Suggested Data Collection Question to:
At what time was a capillary refill examination documented by a physician/APN/PA in the time window beginning at the crystalloid fluid administration date and time and ending six hours after the presentation of septic shock date and time?

Impacts:
Cardiopulmonary Evaluation Date

Rationale: The changes are being made to align with the Alphabetical Data Dictionary.

Description of Changes:
Hospital Clinical Data – Detail Elements Information
Change Suggested Data Collection Question to:
On what date was a cardiopulmonary evaluation documented by a physician/APN/PA in the time window beginning at the crystalloid fluid administration date and time and ending six hours after the presentation of septic shock date and time?

Impacts:
Cardiopulmonary Evaluation Performed

Rationale: The changes are being made to align with the Alphabetical Data Dictionary.

Description of Changes:
Hospital Clinical Data – Detail Elements Information
Change Suggested Data Collection Question to:
Was a cardiopulmonary evaluation documented by a physician/APN/PA in the time window beginning at the crystalloid fluid administration date and time and ending six hours after the presentation of septic shock date and time?

Impacts:
Cardiopulmonary Evaluation Time

Rationale: The changes are being made to align with the Alphabetical Data Dictionary.

Description of Changes:
Hospital Clinical Data – Detail Elements Information
Change Suggested Data Collection Question to:
At what time was a cardiopulmonary evaluation documented by a physician/APN/PA in the time window beginning at the crystalloid fluid administration date and time and ending six hours after the presentation of septic shock date and time?

Impacts:
Central Venous Oxygen Measurement Date

Rationale: The changes are being made to align with the Alphabetical Data Dictionary.

Description of Changes:
Hospital Clinical Data – Detail Elements Information
Change Suggested Data Collection Question to:
What was the date on which the central venous oxygen measurement was obtained within 6 hours after the presentation of septic shock?

Impacts:
Central Venous Oxygen Measurement Time

Rationale: The changes are being made to align with the Alphabetical Data Dictionary.

Description of Changes:
Hospital Clinical Data – Detail Elements Information
Change Suggested Data Collection Question to:
What was the time at which a central venous oxygen measurement was obtained within 6 hours after the presentation of septic shock?

Impacts:
Central Venous Pressure Measurement Date

Rationale: The changes are being made to align with the Alphabetical Data Dictionary.

Description of Changes:
Hospital Clinical Data – Detail Elements Information
Change Suggested Data Collection Question to:
What was the date on which the last central venous pressure measurement was obtained in the 6 hours following the presentation of septic shock?

Impacts:
Central Venous Pressure Measurement Time

Rationale: The changes are being made to align with the Alphabetical Data Dictionary.

Description of Changes:
Hospital Clinical Data – Detail Elements Information
Change Suggested Data Collection Question to:
What was the time at which a central venous pressure measurement was obtained in the 6 hours following the presentation of septic shock?

Impacts:
Crystalloid Fluid Administration

Rationale: The changes are being made to align with the Alphabetical Data Dictionary.

Description of Changes:
Hospital Clinical Data – Detail Elements Information
Change Suggested Data Collection Question to:
Were crystalloid fluids initiated prior to, at the time of, or after the presentation of *Initial Hypotension*, *Initial Lactate Level Result* >=4 mmol/L, or physician/APN/PA *Documentation of Septic Shock*?

Add Answer Code and Answer Value:
4 No

Impacts:
Crystalloid Fluid Administration Date

Rationale: The changes are being made to align with the Alphabetical Data Dictionary.

Description of Changes:
Hospital Clinical Data – Detail Elements Information
Change Suggested Data Collection Question to:
What was the earliest date on which crystalloid fluids were initiated for *Initial Hypotension*, *Initial Lactate Level Result* >=4 mmol/L, or physician/APN/PA *Documentation of Septic Shock*?

Impacts:
Crystalloid Fluid Administration Time

Rationale: The changes are being made to align with the Alphabetical Data Dictionary.

Description of Changes:
Hospital Clinical Data – Detail Elements Information
Change Suggested Data Collection Question to:
What was the earliest time at which crystalloid fluids were initiated for *Initial Hypotension*, *Initial Lactate Level Result* >=4 mmol/L, or physician/APN/PA *Documentation of Septic Shock*?

Impacts:
Fluid Challenge Date

Rationale: The changes are being made to align with the Alphabetical Data Dictionary.

Description of Changes:
Hospital Clinical Data – Detail Elements Information
Change Suggested Data Collection Question to:
On what date was a fluid challenge performed in the time window beginning at the completion of the crystalloid fluid administration and ending six hours after the presentation of septic shock date and time?

Impacts:
Fluid Challenge Performed

Rationale: The changes are being made to align with the Alphabetical Data Dictionary.

Description of Changes:
Hospital Clinical Data – Detail Elements Information
Change Suggested Data Collection Question to:
Was a fluid challenge performed in the time window beginning at the completion of the crystalloid fluid administration and ending six hours after the presentation of septic shock date and time?

Impacts:
Fluid Challenge Time

Rationale: The changes are being made to align with the Alphabetical Data Dictionary.

Description of Changes:
Hospital Clinical Data – Detail Elements Information
Change Suggested Data Collection Question to:
At what time was a fluid challenge performed in the time window beginning at the completion of the crystalloid fluid administration and ending six hours after the presentation of septic shock date and time?

Impacts:
Passive Leg Raise Exam Date

Rationale: The changes are being made to align with the Alphabetical Data Dictionary.

Description of Changes:
Hospital Clinical Data – Detail Elements Information
Change Suggested Data Collection Question to:
On what date was a passive leg raise examination documented in the time window beginning at the crystalloid fluid administration date and time and ending six hours after the presentation of septic shock date and time?

Impacts:
Passive Leg Raise Exam Performed

Rationale: The changes are being made to align with the Alphabetical Data Dictionary.

Description of Changes:
Hospital Clinical Data – Detail Elements Information
Change Suggested Data Collection Question to:
Was there documentation that a passive leg raise examination was performed in the time window beginning at the crystalloid fluid administration date and time and ending six hours after the presentation of septic shock date and time?

Impacts:
Passive Leg Raise Exam Time

Rationale: The changes are being made to align with the Alphabetical Data Dictionary.

Description of Changes:
Hospital Clinical Data – Detail Elements Information
Change Suggested Data Collection Question to:
At what time was a passive leg raise examination documented in the time window beginning at the crystalloid fluid administration date and time and ending six hours after the presentation of septic shock date and time?

Impacts:
Persistent Hypotension

Rationale: The changes are being made to align with the Alphabetical Data Dictionary.

Description of Changes:
Hospital Clinical Data – Detail Elements Information
Change Suggested Data Collection Question to:
Was persistent hypotension or new onset of hypotension present within one hour of the conclusion of crystalloid fluid administration?

Impacts:
Reason for No Administration of VTE Prophylaxis

Rationale: The changes are being made to align with the Alphabetical Data Dictionary.

Description of Changes:
Hospital Clinical Data – Detail Elements Information
Change Suggested Data Collection Question to:
Is there physician/APN/PA or pharmacist documentation why VTE prophylaxis was not administered on the days between arrival and the *VTE Diagnostic Test* performed?

Impacts:
Severe Sepsis Presentation Date

Rationale: The changes are being made to align with the Alphabetical Data Dictionary.

Description of Changes:
Hospital Clinical Data – Detail Elements Information
Change Suggested Data Collection Question to:
What was the date on which the last criterion was met to establish the presence of severe sepsis?

Impacts:
Vasopressor Administration

Rationale: The changes are being made to align with the Alphabetical Data Dictionary.

Description of Changes:
Hospital Clinical Data – Detail Elements Information
Change Suggested Data Collection Question to:
Was an intravenous or intraosseous vasopressor administered in the time window beginning at septic shock presentation and ending 6 hours after the presentation of septic shock, demonstrated by persistent hypotension after crystalloid fluid administration?

Impacts:
Vasopressor Administration Date

Rationale: The changes are being made to align with the Alphabetical Data Dictionary.

Description of Changes:
Hospital Clinical Data – Detail Elements Information
Change Suggested Data Collection Question to:
What was the date on which an intravenous or intraosseous vasopressor was administered within 6 hours following the presentation of septic shock demonstrated by persistent hypotension after crystalloid fluid administration?

Impacts:
Vasopressor Administration Time

Rationale: The changes are being made to align with the Alphabetical Data Dictionary.

Description of Changes:
Hospital Clinical Data – Detail Elements Information
Change Suggested Data Collection Question to:
What was the time at which an intravenous or intraosseous vasopressor was administered within 6 hours following the presentation of septic shock, demonstrated by persistent hypotension after crystalloid fluid administration?

Impacts:
VTE Prophylaxis Status

Rationale: The changes are being made to align with the Alphabetical Data Dictionary.

Description of Changes:
Hospital Clinical Data – Detail Elements Information
Change Suggested Data Collection Question to:
Was VTE prophylaxis administered between the admission date and the day before the *VTE Diagnostic Test* order date?

Hospital Initial Patient Population Data XML File Layout *(no updates)*

SECTION 10 – CMS Outcome/Structural Measures

Subsection 10.1 – CMS Outcome Measures *(no updates)*

Subsection 10.2 – Structural Measures *(no updates)*

APPENDICES

Appendix A – ICD-10 Code Tables (Word and Excel)

Impacts:
Table 12.10 - Organ Transplant During Current Hospitalization

Rationale: To align with the IMM-2 electronic Clinical Quality Measure (eCQM), antineoplastic codes are being removed and codes that have been identified as missing are being added.

Description of Changes:

Add codes with descriptions:

07YP0Z0 Transplantation of Spleen, Allogeneic, Open Approach
07YP0Z1 Transplantation of Spleen, Syngeneic, Open Approach
07YP0Z2 Transplantation of Spleen, Zooplastic, Open Approach
0DY50Z0 Transplantation of Esophagus, Allogeneic, Open Approach
0DY50Z1 Transplantation of Esophagus, Syngeneic, Open Approach
0DY50Z2 Transplantation of Esophagus, Zooplastic, Open Approach
0DY60Z0 Transplantation of Stomach, Allogeneic, Open Approach
0DY60Z1 Transplantation of Stomach, Syngeneic, Open Approach
0DY60Z2 Transplantation of Stomach, Zooplastic, Open Approach
0DY80Z0 Transplantation of Small Intestine, Allogeneic, Open Approach
0DY80Z1 Transplantation of Small Intestine, Syngeneic, Open Approach
0DY80Z2 Transplantation of Small Intestine, Zooplastic, Open Approach
0DYE0Z0 Transplantation of Large Intestine, Allogeneic, Open Approach
0DYE0Z1 Transplantation of Large Intestine, Syngeneic, Open Approach
0DYE0Z2 Transplantation of Large Intestine, Zooplastic, Open Approach
0UY00Z0 Transplantation of Right Ovary, Allogeneic, Open Approach
0UY00Z1 Transplantation of Right Ovary, Syngeneic, Open Approach
0UY00Z2 Transplantation of Right Ovary, Zooplastic, Open Approach
0UY10Z0 Transplantation of Left Ovary, Allogeneic, Open Approach
0UY10Z1 Transplantation of Left Ovary, Syngeneic, Open Approach
0UY10Z2 Transplantation of Left Ovary, Zooplastic, Open Approach

Remove rows in entirety:

3E03005 Introduction of Other Antineoplastic into Peripheral Vein, Open Approach
3E03305 Introduction of Other Antineoplastic into Peripheral Vein, Percutaneous Approach
3E04005 Introduction of Other Antineoplastic into Central Vein, Open Approach
3E04305 Introduction of Other Antineoplastic into Central Vein, Percutaneous Approach
3E05005 Introduction of Other Antineoplastic into Peripheral Artery, Open Approach
3E05305 Introduction of Other Antineoplastic into Peripheral Artery, Percutaneous Approach
3E06005 Introduction of Other Antineoplastic into Central Artery, Open Approach
3E06305 Introduction of Other Antineoplastic into Central Artery, Percutaneous Approach

Appendix C – Medication Tables (Word and Excel)

Impacts:
Table 5.0 - Antibiotic Monotherapy, Sepsis

Rationale: Table 5.0 has been updated to reflect the addition of two FDA-approved antibiotics and to correct a typographical error.

Description of Changes:

Add row, trade and generic name respectively:
Left column: Avycaz
Right column: Ceftazidime/avibactam

Add row, trade and generic name respectively:
Left column: Ceftazidime/avibactam
Right column: Ceftazidime/avibactam

Add row, trade and generic name respectively:
Left column: Ceftolozane/tazobactam
Right column: Ceftolozane/tazobactam

Add row, trade and generic name respectively:
Left column: Zerbaxa
Right column: Ceftolozane/tazobactam

Change all occurrences of 'Eratepenem' to:
Ertapenem

Impacts:
Table 9.1 – FDA-Approved Tobacco Cessation Medications

Rationale: Medications were removed from Table 9.1 based on recommendations from the TOB Technical Advisory Panel, since these are not recognized as FDA-approved tobacco cessation medications.

Description of Changes:
Remove:
Nicotine NA SOLN
Stop Smoking Aid
Stop Smoking Aid gum
Stop Smoking Aid lozenge

Appendix D – Glossary of Terms

Impacts: N/A

Rationale: This change is to remove references to the Children's Asthma Care Measure Set.

Description of Changes:

Remove:
Controllers - Controllers are long term control medications for asthma. Controllers reduce airway inflammation and prevent asthma exacerbations. Inhaled corticosteroids are the preferred medications for controlling mild, moderate, and severe persistent asthma. Refer to Appendix C, Table 6.1 for a listing of controller medications.

Corticosteroids - Any of the hormones produced by the adrenal cortex or their synthetic equivalents, used to achieve quick relief of asthma exacerbations or long term control of the swelling, inflammation and mucus production that occurs when the airway are irritated. Corticosteroids are available in inhaled, topical, oral, and intravenous forms.

Relievers - Relievers are used to quickly alleviate bronchoconstriction. Relievers relax the bands of muscle that surround the airways. Relievers are also known as rescue, quick relief, or short-acting medications of choice to quickly relieve asthma exacerbations. Relievers include short acting beta2 agonists and anticholinergics. Refer to Appendix C, Table 6.2 for a listing of reliever medications.

Systemic Corticosteroids - Corticosteroids are hormones produced by the adrenal cortex or their synthetic equivalents and are administered orally or intravenous. Corticosteroids are used to achieve quick relief of acute or moderate to severe asthma exacerbations. Oral corticosteroids are also used for long term control of the swelling, inflammation and mucus production in the airways.

Appendix E – Overview of Measure Information Form and Flowchart Formats *(no updates)*

Appendix F – Measure Name Crosswalk *(no updates)*

Appendix G – Resources

Impacts:
Children's Asthma, Substance Use, and Tobacco Treatment Measure Sets

Rationale: This change is to remove references to the Children's Asthma Care Measure Set.

Description of Changes:
Change title to:
Substance Use and Tobacco Treatment Measure Sets

Remove in first sentence:
Children's Asthma

Impacts:
Medication Questions

Rationale: This change is to remove references to the Children's Asthma Care Measure Set.

Description of Changes:
Remove in second paragraph:
(e.g., Children's Asthma)

Appendix H – Miscellaneous Tables *(no updates)*

Appendix P – Preview Section *(no updates)*