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|   |  | **Organizational Identifiers** |  |  |
|  | VAMCCONTROLQICBEGDTEREVDTE | Facility IDControl NumberAbstractor IDAbstraction Begin DateAbstraction End Date | Pre-fillQI pre-fillAuto-fillAuto-fillAuto-fill |  |
|  |  | Patient Identifiers |  |  |
|  | SSNFINPTNAMEFPTNAMELBIRTHDTSEXRACEETHNICITYCOHORTAGEPREGNANT | Patient SSNFINFirst NameLast NameBirth DateBirth SexRaceEthnicityCohort AgePregnant | Pre-fill: no changePre-fill: no changePre-fill: no changePre-fill: no changePre-fill: no changePre-fill: no changePre-fill: no changePre-fill: **can change**Pre-fill: no changeCalculate age at ADMDTQI pre-fill: no change |   |
|  |  | Administrative Data |  |  |

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| 1 | sexbirth | What is the patient’s reported sex assigned at birth?1. Female
2. Male
3. Intersex
4. None of the Above, Other, or Unable to Determine

 Preferred Not to Answer | 1, 2, 3, 4, 5 | **Enter the patient’s reported sex assigned at birth. Do not answer according to gender identity.****Please note that the response values for this question differ from response values used in other instrument questions. For example, this question uses value 4 for none of the above, other, or unable to determine; other instrument questions may use value 99.****Selecting value “3”:** * Intersex is a general term used to refer to individuals born with, or who develop naturally in puberty, biological sex characteristics that are typically male or female.

**Selecting value “4”:** * If the patient does not describe themselves as female, male, intersex, describes themselves in other terms, or if the medical record does not include information about the patient’s biological sex assigned at birth, select value 4.
* Consider the sex to be unable to be determined and select value 4 if there is contradictory documentation, or if the sex assigned at birth is not documented or not available.

**Suggested Data Sources:** Consultation Notes, Emergency Department Record, Face Sheet, History and Physical, Nursing Admission Notes, Progress Notes. |

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| 2 | arrvdate | Enter the **earliest** documented date the patient arrived at acute care at this VAMC. | mm/dd/yyyyAbstractor may enter 99/99/9999 if arrival date is unable to be determined

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| <= 6 months prior to or = admdt and< = dcdt |

 | **Arrival date is the EARLIEST recorded date on which the patient arrived in the hospital’s acute care setting. Acute care setting includes:*** Emergency Department
* Direct admission to cath lab, endoscopy or surgery
* Direct admission to observation
* Direct admission to a nursing floor

**ONLY ACCEPTABLE SOURCES:** \*Emergency Department record; nursing unit admission assessment/admitting note; observation record; procedure notes (such as cardiac cath, endoscopies, surgical procedures) * **Review the ONLY ACCEPTABLE SOURCES to determine the earliest date the patient arrived in the acute care setting.**

**Suggested Priority sources for patients who arrive in the ED:**1. ED Registration Date (found in Past Clinic Visits/CVP)
2. ED Progress Note - Triage Date, Arrival Date
3. ED Vital Signs, ECG date, Physician orders

**Suggested Priority sources for Non-ED Arrivals such as Direct Admit to inpatient unit or observation:**1. Nurse’s Admission Note/admission assessment
2. EADT Date

Other Arrivals (transfers from other ED or hospital inpatient/ outpatient OR Direct Admit for procedure, e.g. cath lab)1. If transferred from an ED or hospital within your hospital’s system and there is one medical record for the care provided at both facilities, use the arrival date at the first facility.
2. Use EARLIEST arrival date for procedure, e.g., cath lab, endoscopy, surgery

**Additional Guidelines for Abstraction*** Arrival date may differ from admission date. The intent is to utilize any documentation which reflects processes that occurred after arrival at the ED or after arrival to the nursing floor/observation/cath lab as a direct admit

If the earliest date documented appears to be an obvious error, this date should not be abstracted.**Example:** ED MAR has a med documented as 1430 on 11-03-20xx. All other dates in ED record are 12-03-20xx. The 11-03-20xx would not be used because it appears to be an obvious error.**Cont’d next page****Additional Guidelines cont’d*** \*The ED Record may include ED Face/Cover Sheet, Registration/sign-in forms, triage record, Consent/Authorization for treatment forms, vital sign record, physician orders, ECG reports, telemetry/rhythm strips, laboratory reports, x-ray reports, head CT scan, CTA, MRI, MRA reports

**If arrival date is unable to be determined from any of the ONLY ACCEPTABLE SOURCES, enter 99/99/9999.** |
| 3 | admdt | Admission date:  | mm/dd/yyyyPre-filled: can be modified

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| >= arrvdate and < = dcdt |

 | **Pre-filled; can be modified if abstractor determines that the date is incorrect.*** **Admission date is the date the patient was actually admitted to acute inpatient care.**
* **For patients who are admitted to Observation status and subsequently admitted to acute inpatient care, abstract the date that the determination was made to admit to acute inpatient care and the order was written. Do not abstract the date that the patient was admitted to Observation.**
* **If there are multiple inpatient orders, use the order that most accurately reflects the date that the patient was admitted.**
* **The admission date should not be abstracted from the earliest admission order without regards to substantiating documentation. If documentation suggests that the earliest admission order does not reflect the date the patient was admitted to inpatient care, this date should not be used.**

**ONLY ALLOWABLE SOURCES: Physician orders (priority data source), face sheet****Exclusion: admit to observation, arrival date** |

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| 4 | trnsfr | Is there documentation the patient was received as a transfer from an inpatient, outpatient or emergency/observation department of an outside hospital or from an ambulatory surgery center?1. Yes2. NoSelect value “2” if transferred in from community living centers (CLC), long term care (LTC) facilities, nursing homes (NHCU), or skilled nursing facilities (SNF), even if the patient was there to receive short term rehab.  | 1,2If 2, go to dcdate | **Select “Yes” in the following types of transfers:** * Transferred from any emergency department (ED) or observation (OBS) unit OUTSIDE of your hospital: applies even if the ED or OBS unit is part of your hospital’s system (e.g., your hospital’s free-standing or satellite ED), has a shared medical record or provider number, or is in close proximity.
* Transferred from an outside hospital where he/she was an inpatient or outpatient (also applies same as above)
* Long term **acute care** (LTAC): Any LTAC hospital or unit (outside or inside your hospital) **Do not include community living centers (CLC), long term care (LTC) facilities, nursing homes (NHCU), or skilled nursing facilities (SNF).**
* **Acute rehabilitation:** Rehab **UNIT** in **OUTSIDE hospital;** **free-standing rehab hospital/facility/pavilion OUTSIDE** your hospital; **OR** **rehab** **HOSPITAL INSIDE** your hospital
* **Psychiatric:** Psych **UNIT** in **OUTSIDE** **hospital; free-standing psych hospital/facility/pavilion outside** your hospital; **OR psych HOSPITAL INSIDE** your hospital
* Cath. lab, same day surgery, or other outpatient department of an outside hospital
* Disaster Medical Assistance Team (DMAT): Provides emergency medical assistance following catastrophic disaster or other major emergency

**Select “No” in the following types of transfers:*** Urgent care center
* **Psych or rehab UNIT INSIDE your hospital**
* Dialysis center (unless documented as an outpatient department of an outside hospital)
* Same Day Surgery or other outpatient department inside your hospital
* Clinic (outside or inside your hospital)
* Hospice facility (outside or inside your hospital)

**Cont’d next page*** Assisted living facilities (ALF), NHCU, and LTC
* SNF or CLC: outside or inside your hospital providing SNF or short term rehab level of care to patient
* Acute Hospital Care at Home Program (unless documented as an outside Non-VA hospital)
* Conflicting documentation and/or unable to determine type of transfer UNLESS there is supporting documentation for one setting over another

**Examples:** * One source reports patient was transferred from an outside hospital’s ED, another source reports patient was transferred in from an urgent care center. No additional documentation. Select “No.”
* One source states patient came from physician office, another source reports patient was transferred from an outside hospital’s ED, and transfer records from the outside hospital’s ED are included in the record. Select “Yes.”
* Cases other than conflicting documentation, and you are unable to determine type of transfer (e.g. “Transferred from ABC” documented and documentation is not clear whether ABC is a hospital or not.)

**Suggested Data sources:** Ambulance record, Any DMAT documentation, ED record, Face sheet, History and physical, Nursing admission assessment, progress notes, Transfer sheet |

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| 5 | trnsfrloc | What type of facility was the patient transferred from to this VAMC?1. Inpatient Acute Care – Another VAMC
2. Inpatient Acute Care – Non-VHA facility
3. Outpatient/Emergency/Observation – Another VAMC
4. Outpatient/Emergency/Observation – Non-VHA facility
5. Ambulatory Surgery Center – Another VAMC
6. Ambulatory Surgery Center – Non-VHA facility
7. Long Term Acute Care Hospital (LTACH) – Another VAMC
8. Long Term Acute Care Hospital (LTACH) – Non-VHA facility
9. Acute Rehabilitation – Another VAMC
10. Acute Rehabilitation – Non-VHA facility
11. Other
 | 1,2,3,4,5,6,7,8,9,10,11If trnsfr = 1 and transfrloc <> 11, the case is excluded; else if 11, go to trnsfroth | **Review the transfer documentation and enter the type of facility from which the patient was transferred.** **Acute Care Facilities include:*** Acute Short Term General and Critical Access Hospitals
* Cancer Hospitals
* Department of Defense and Veteran’s Administration Hospitals

**Outpatient/Emergency/Observation:*** Transferred from any emergency department (ED) or observation (OBS) unit OUTSIDE of your hospital: applies even if the ED or OBS unit is part of your hospital’s system at another location (e.g., your hospital’s free-standing or satellite ED), has a shared medical record or provider number, or is in close proximity.

**Ambulatory Surgery Center:** Cath. lab, same day surgery, or other outpatient department of an outside hospital**Long Term Acute Care Hospital (LTACH):** A LTACH is a facility that specializes in the treatment of patients with serious medical conditions that require care on an ongoing basis but no longer require intensive care or extensive diagnostic procedures. These patients typically require more care than they can receive in a rehabilitation center, skilled nursing facility, or at home. The LTACH must be an ACUTE care facility. **Do not include Long Term Care facilities, Assisted Living facilities, or nursing homes.****Acute Rehabilitation:** Inpatient Rehabilitation Facility/Hospital, Rehabilitation Unit of a Hospital, Chemical Dependency/Alcohol Rehabilitation Facility at another location. **Exclusion Statement:** Documentation that the patient was transferred from an inpatient, outpatient or emergency/observation department of an outside hospital or an outside ambulatory surgery center excludes the case from the Sepsis measure. |

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| 6 | trnsfroth | Enter the other VHA or non-VHA facility type where the patient was located prior to transfer.

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 | Text boxIf trnsfr = 1, go to end and the case is excluded. | **Enter the type of facility from which the patient was transferred in the text box. Specify whether it was a VHA or non-VHA facility.** **Exclusion Statement:** Documentation that the patient was transferred from an inpatient, outpatient or emergency/observation department of an outside hospital or from an ambulatory surgery center excludes the case from the Sepsis measure. |
| 7 | dcdt | Discharge date: | mm/dd/yyyyPre-filled: cannot be modified | **Pre-filled; cannot be modified****The computer pre-fills the discharge date from the API-PM pull list. This date cannot be modified in order to ensure the selected episode of care is reviewed.**  |
| 8 | dctm | Discharge time:  | \_\_\_\_\_UMTPre-filled: cannot be modified | **Pre-filled; cannot be modified**The computer Pre-fills the discharge time from the API-PM pull list. This time cannot be modified in order to ensure the selected episode of care is reviewed.  |

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| 9 | princode | Enter the ICD-10-CM principal diagnosis code. | \_\_ \_\_ \_\_. \_\_ \_\_ \_\_ \_\_(3 alpha-numeric characters/decimal point/four alpha-numeric charactersPre-filled: can be modified

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| **Cannot enter 000.0000, 123.4567, or 999.9999** |

 | **Will pre-fill from PTF with ability to change. Do NOT change the principal diagnosis code unless the principal diagnosis code documented in the record is not the code displayed in the software.** |
| 10 | othrcode1othrcode2othrcode3othrcode4othrcode5othrcode6othrcode7othrcode8othrcode9othrcode10othrcode11othrcode12othrcode13othrcode14othrcode15othrcode16othrcode17othrcode18othrcode19othrcode20othrcode21othrcode22othrcode23othrcode24 | Enter the ICD-10-CM other diagnosis codes:  | \_\_ \_\_ \_\_. \_\_ \_\_ \_\_ \_\_(3 alpha-numeric characters/decimal point/four alpha-numeric characters)Pre-filled: cannot be modifiedIf enabled, can enter up to 24 codesIf enabled, abstractor can enter xxx.xxxx in code field if no other diagnosis codes found. | **Will be pre-filled from PTF with up to 24 ICD-10-CM other diagnosis codes. Cannot be modified.** **If no other diagnosis codes are received from PTF, abstractor is to verify codes documented in the record and enter. If no other diagnosis codes are found in the record, enter xxx.xxxx.** |

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| 11 | prinpx(code)prinpxdt(date) | Enter the ICD-10-PCS principal procedure code and date the procedure was performed. Code Date

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 | \_\_ \_\_ \_\_ \_\_ \_\_ \_\_ \_\_(Must be 7 alpha-numeric characters)Abstractor can enter xxxxxxx in code field and 99/99/9999 in date field if there is no principal procedure

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| **Cannot enter 0000000** |

mm/dd/yyyyAbstractor can enter 99/99/9999If no principal procedure, auto-fill othrpx and othrpxdt with xxxxxxx and 99/99/9999

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| > = admdt and< = dcdt |

 | **Principal procedure= that procedure performed for definitive treatment, rather than for diagnostic or exploratory reasons, or was necessary to treat a complication. The principal procedure is related to the principal diagnosis and needs to be accurately identified.*** VA records do not identify the principal procedure; use the above definition of principal procedure to determine the correct code to enter if there are multiple procedures during the episode of care. Ask for assistance from your RM or Quality Insights if you are uncertain.

**If no procedure was performed during the episode of care, fill ICD-10-PCS code field with default code xxxxxxx. Do not enter 9999999 or 0000000 to indicate no procedure was performed.** **Date of the principal procedure is to be filled with 99/99/9999 if no procedure was performed.**If the principal procedure date is unable to be determined from the medical record documentation, or if the procedure date documented in the record is obviously in error (e.g. 02/42/20xx) and no other documentation is found that provides this information, enter 99/99/9999. |

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| 12 | othrpx1othrpx2othrpx3othrpx4othrpx5(codes)othrpxdt1othrpxdt2othrpxdt3othrpxdt4othrpxdt5(dates) | Enter the ICD-10-PCS other procedure codes and dates the procedures were performed. Code Date

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| \_\_ \_\_ \_\_ \_\_ \_\_ \_\_ \_\_ | \_\_/\_\_/\_\_\_\_ |

 | \_\_ \_\_ \_\_ \_\_ \_\_ \_\_ \_\_(Must be 7 alpha-numeric characters)Abstractor can enter xxxxxxx in code field and 99/99/9999 in date field if no other procedure was performedmm/dd/yyyyAbstractor can enter 99/99/9999

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| > = admdt and< = dcdt |

Can enter 5 codes and dates | **Can enter 5 procedure codes, other than the principal procedure code.** Enter the ICD-10-PCS codes and dates corresponding to each of the procedures performed, beginning with the procedure performed most immediately following the admission. * If no other procedures were performed, enter default code xxxxxxx in the code field and default date 99/99/9999 in the date field.
* If no other procedure was performed, it is only necessary to complete the xxxxxxx and 99/99/9999 default entries for the first code and date. It is not necessary to complete the default entry five times.
* If the date of a procedure is unable to be determined from the medical record documentation, or if the procedure date documented in the record is obviously in error (e.g. 02/42/20xx) and no other documentation is found that provides this information, enter 99/99/9999.
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| 13 | dcdispo | What was the patient’s discharge disposition on the day of discharge?1. Home* Assisted Living Facilities (ALFs) – includes assisted living care at nursing home/facility
* Court/Law Enforcement – includes detention facilities, jails, and prison
* Home – includes board and care, domiciliary, foster or residential care, group or personal care homes, retirement communities, and homeless shelters
* Home with Home Health Services
* Outpatient Services including outpatient procedures at another hospital, outpatient Chemical Dependency Programs and Partial Hospitalization

2. Hospice – Home (or other home setting as listed in #1 above)3. Hospice – Health Care Facility* General Inpatient and Respite, Residential and Skilled Facilities, and Other Health Care Facilities

4. Acute Care Facility* Acute Short Term General and Critical Access Hospitals
* Cancer and Children’s Hospitals
* Department of Defense and Veteran’s Administration Hospitals

5. Other Health Care Facility* Extended or Immediate Care Facility (ECF/ICF)
* Long Term Acute Care Hospital (LTACH)
* Nursing Home or Facility including Veteran’s Administration Nursing Facility
* Psychiatric Hospital or Psychiatric Unit of a Hospital
* Rehabilitation Facility including, but not limited to: Inpatient Rehabilitation Facility/Hospital, Rehabilitation Unit of a Hospital, Chemical Dependency/Alcohol Rehabilitation Facility

Cont’d next page* Skilled Nursing Facility (SNF), Sub-Acute Care or Swing Bed
* Transitional Care Unit (TCU)
* Veteran’s Home

6. Expired7. Left Against Medical Advice/AMA99. Not documented or unable to determine | 1,2,3,4,5,6,7,99 | **Discharge disposition: The final place or setting to which the patient was discharged on the day of discharge.*** **Only use documentation written on the day prior to discharge or the day of discharge when abstracting this data element.** For example: Discharge planning notes on 04-01-20xx document the patient will be discharged back home. On 04-06-20xx, the nursing discharge notes on the day of discharge indicate the patient was being transferred back to skilled care. Enter “5”.
* **Discharge disposition documentation in the discharge summary, a post-discharge addendum, or a late entry, may be considered if written within 30 days after discharge date and prior to the pull list date**
* **If there is documentation that further clarifies the level of care, that documentation should be used to determine the correct value to abstract.** If documentation is contradictory, use the latest documentation. For example: Discharge planner note from day before discharge states “XYZ Nursing Home”. Nursing discharge note on day of discharge states “Discharged: Home.” Select value “1”.
* 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 documentation is contradictory, and you are unable to determine the latest documentation, select the disposition ranked highest (top to bottom) in the following list.

o Acute Care Facility o Hospice – Health Care Facility o Hospice – Home o Other Health Care Facility o Home * Values “2” and “3” hospice include discharges with hospice referrals and evaluations.
* If the medical record states only that the patient is being discharged to another hospital and does not reflect the level of care that the patient will be receiving, select “4”.

**Cont’d next page** |
|  |  |  | **Discharge disposition cont’d*** 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”).
* If the medical record identifies the facility the patient is being discharged to by name only (e.g., Park Meadows) and does not reflect the type of facility of level of care, select “5”.
* Selection of option “7” (left AMA):
	+ Explicit “left against medical advice” documentation is not required (e.g., “Patient is refusing to stay for continued care”- select “7”). **For the purposes of this data element, a signed AMA form is not required.**
	+ If any source states the patient left against medical advice, select value “7”, regardless of whether the AMA documentation was written last.
	+ Documentation suggesting that the patient left before discharge instructions could be given without “left AMA” documentation does not count.
* Select value “99” or unable to determine if the medical record states only that the patient is being “discharged” and does not address the place or setting to which the patient was discharged.

**Excluded Data Sources:** Any documentation prior to the last two days of hospitalization, coding documents**Suggested Data Sources:** Discharge instruction sheet, discharge planning notes, discharge summary, nursing discharge notes, physician orders, progress notes, social service notes, transfer record  |
|  |  | **ADMITTING SERVICE** |  |  |
| 14 | admserv | **Admitting Service** |

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| **Warning if left blank** |

Text(Limit to 30 characters) | **Free text entry. In determining the Service (e.g. Surgery, Cardiology, Medicine, etc.) or facility unit (ICU, CCU, etc.) to which the patient was admitted, the abstractor should be guided by Admission Orders, Progress Notes, Discharge Summary, etc.**If unable to make a definitive decision, consult with the facility Liaison for help in determining the Admitting Service. |

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| 15 | clntrial | During this hospital stay, was the patient enrolled in a clinical trial in which patients with sepsis/septic shock were being studied?1. Yes2. No | 1,2**If 1, the case is excluded** | **ONLY ACCEPTABLE SOURCE**: **Signed consent form for clinical trial****In order to answer “Yes”, BOTH of the following must be documented:**1. **There must be a signed consent form for the clinical trial.** For the purposes of abstraction, a clinical trial is defined as an **experimental study** in which research subjects are recruited and assigned a treatment/intervention and their outcomes are measured based on the intervention received. Treatments/interventions most of include use of drugs, surgical procedures, and devices. Often a control group is used to compare with the treatment/intervention. Allocation of different interventions to participants is usually randomized; **AND** 2**. There must be documentation on the signed consent form that during this hospital stay the patient was enrolled in a clinical trial in which patients with sepsis/septic shock were being studied.** Patients may be newly enrolled in a clinical trial during the hospital stay or enrolled in a clinical trial prior to arrival and continued active participation in that clinical trial during this hospital stay.**In the following situations, select "No":**1. **There is a signed patient consent form for an observational study only**. Observational studies are non-experimental and involve no intervention (e.g., registries). Individuals are observed (perhaps with lab draws, interviews, etc.), data is collected, and outcomes are tracked by investigators. Although observational studies may include the assessment of the effects of an intervention, the study participants are not allocated into intervention or control groups.2. **It is not clear whether the study described in the signed patient consent form is experimental or observational**.3. **It is not clear which study population the clinical trial is enrolling**. Assumptions should not be made if the study population is not specified.**Exclusion Statement:** Documentation that the patient was enrolled in a clinical trial for sepsis, severe sepsis or septic shock treatment or intervention excludes the case from the Sepsis measure. |
| 16 | seppres2 | Did a physician/APN/PA document presence of severe sepsis?1. Yes
2. No, or unable to determine
 | 1,2If 2, auto-fill sepdt2 as 99/99/9999 and septm2 as 99:99 and go to shkpres | **Presence of Severe Sepsis may be identified based upon clinical criteria or physician/APN/PA documentation of severe sepsis. For the purposes of this question, look for documentation of** s**evere** s**epsis.** **Acceptable Documentation:*** **In order to select value “1”, documentation MUST say “severe sepsis”.**
* **Other Documentation Acceptable to Select value “1” (Yes):**
	+ Documentation of severe sepsis ***within an*** order set, protocol, checklist, alert, screening tool, etc., if date and time is present and is the earliest date and time severe sepsis is recorded.
	+ Documentation of severe sepsis in pre-hospital records (e.g., ambulance records, nursing home records) that is considered part of the medical record.
	+ If there is more than one presentation of severe sepsis abstract only the first presentation.
* **Documentation to Select value “2” (No)**
	+ The title or heading of an order set, protocol, checklist, alert, screening tool, etc. reflecting **physician/APN/PA s**evere **s**epsis
	+ Severe **s**epsis met by physician/APN/PA documentation only, and is documented as due to a viral, fungal, or parasitic infection
	+ Severe sepsis documented in a discharge note, discharge summary, or documented after the time of discharge.
	+ If at the same time or within six hours after physician/APN/PA documentation of **s**evere **s**epsis there is additional physician/APN/PAdocumentation indicating:
* Patient is not septic
* Patient does not have sepsis or severe sepsis
* Patient does not have severe sepsis, and severe sepsis was not met by physician/APN/PA documentation that severe sepsis was present.
* Severe **s**epsis is due to a viral, fungal, or parasitic infection.

**Cont’d next page*** For documentation of severe sepsis accompanied by a qualifier, use the table below.
* Select value “1” for documentation containing a positive qualifier.
* Select value “2” for documentation containing a negative qualifier OR documentation containing both a positive and negative qualifier.

**Qualifiers list is not all inclusive.**

|  |  |
| --- | --- |
| **Positive Qualifiers** | **Negative Qualifiers** |
| Possible | Impending |
| Rule out (r/o) | Unlikely |
| Suspected | Doubt |
| Likely | Risk for |
| Probable | Ruled out |
| Differential diagnosis | Evolving |
| Suspicious for | Questionable |
| Concern for | Monitor |
| Suggestive of | Query |
| Presumed | Less likely |

***Severe Sepsis Inclusion:*** PHYSICIAN/APN/PA DOCUMENTATION ONLY of severe sepsis ***Exclusions:*** * Bacteremia
* Septicemia

**Suggested Data Sources:** Any physician/APN/PA documentation |
| 17 | sepdt2septm2 | Enter the earliest date and time a physician/APN/PA documented the presence of severe sepsis. | mm/dd/yyyy

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| --- |
| >= arrvdate and <= dcdt/dctm |

\_\_\_\_\_UMT | **If physician/APN/PA documentation states severe sepsis was present on admission or indicates the patient was admitted with severe sepsis, use the earliest date of the physician/APN/PA documentation of severe sepsis** **based on the following criteria:** * For patients with multiple severe sepsis presentation dates and times, **only abstract the earliest presentation date and time.**

Example: Physician note states: “severe sepsis on admit.” Documentation includes Arrival time to unit 4/2/21 0344, Admit Order 4/2/21 0231, and physician note is dated and timed 4/2/21 0236. Use 4/2/21 0231 the physician admit order because documentation indicates the patient was admitted with severe sepsis and the admit order is the earliest date and time. * If severe sepsis is documented in a physician/APN/PA note without a specific date or documented using the acronym POA (Present on Admission), the following apply:
	+ If it is the only documentation of severe sepsis in the note, use the date and time the note was started or opened.
	+ If a timestamp reflecting the note opened or started date and time is unavailable, use the following sources in priority order.

1. Provider patient care initiated date and time (e.g., Seen date and time, contact date and time, etc.)2. Earliest date and time at the beginning of the note reflecting when the note was opened or started.* + If severe sepsis is documented multiple times within the same note, use the earliest specified date and time.
* **ED Patients:** Use the earliest documented arrival date and time for patient who enter the ED with physician/APN/PA documentation of
* Severe sepsis clinical criteriamet in pre-hospital records.
* severe sepsis in pre-hospital records.
* Severe sepsis was present on arrival.
* Severe sepsis was present with a documented presentation date/time that is prior to arrival.

**Cont’d next page** |
|  |  |  |  | **Severe Sepsis cont’d*** **Direct Admit Patients:** Use the earliest documented date and time patient arrives to floor or unit with physician/APN/PA documentation of severe sepsis in pre-hospital records or documentation that severe sepsis was present on admission
* If the only documentation of severe sepsis being present is in a physician/APN/PA note that severe sepsis was present on admission, use the earliest date and time of the following:
* Physician/APN/PA note
* Admit order
* Disposition to inpatient
* Arrival to floor or unit

**Suggested Data Sources:** Any physician/APN/PA documentation |
| 18 | shkpres | Is documentation of septic shock present in the record?1. Yes
2. No, or unable to determine
 | 1, 2If 2, auto-fill shkdt as 99/99/9999 and shktm as 99:99 and go to covid | **Presence of Septic Shock may be identified based upon clinical criteria or physician/APN/PA documentation of septic shock. For the purposes of this question, look for documentation of septic shock or severe sepsis with shock.** **Acceptable Documentation:*** **In order to select value “1”, documentation MUST say “septic shock” or “severe sepsis with shock.”**
* **Other Documentation Acceptable to Select value “1” (Yes):**
	+ Documentation of septic shock ***within an*** order set, protocol, checklist, alert, screening tool, etc., if date and time is present and is the earliest date and time septic shock is recorded.
	+ Documentation in pre-hospital records (e.g., ambulance records, nursing home records) that is considered part of the medical record
	+ If there is more than one presentation of septic shock or severe sepsis with shock, abstract only the first presentation.
* **Documentation to Select value “2” (No)**
	+ The title or heading of an order set, protocol, checklist, alert, screening tool, etc. reflecting **physician/APN/PA** documentation of septic shock
	+ Septic shock met by physician/APN/PA documentation only, and is documented as due to a viral, fungal, or parasitic infection
	+ Septic shock documented in a discharge note, discharge summary, or documented after the time of discharge.
	+ If at the same time or within six hours after physician/APN/PA documentation of septic shock, there is additional physician/APN/PA documentation indicating:
* Patient is not septic
* Patient does not have septic shock or severe sepsis with shock

**Cont’d next page*** Patient does not have septic shock, and septic shock was not met by physician/APN/PA documentation that septic shock was present.
* Septic shock is due to a viral, fungal, or parasitic infection.
* For documentation of septic shock accompanied by a qualifier, use the table below.
* Select value “1” for documentation containing a positive qualifier.
* Select value “2” for documentation containing a negative qualifier OR documentation containing both a positive and negative qualifier.

**Qualifiers list is not all inclusive.**

|  |  |
| --- | --- |
| **Positive Qualifiers** | **Negative Qualifiers** |
| Possible | Impending |
| Rule out (r/o) | Unlikely |
| Suspected | Doubt |
| Likely | Risk for |
| Probable | Ruled out |
| Differential diagnosis | Evolving |
| Suspicious for | Questionable |
| Concern for | Monitor |
| Suggestive of | Query |
| Presumed | Less likely |

***Septic Shock Inclusion:*** PHYSICIAN/APN/PA DOCUMENTATION ONLY of septic shock or severe sepsis with shock. ***Exclusions:*** * Bacteremia
* Septicemia

**Suggested Data Sources:** Any physician/APN/PA documentation |
| 19 | shkdtshktm | Enter the earliest date and time a physician/APN/PA of the documented the presence of septic shock. | mm/dd/yyyy

|  |
| --- |
| >= arrvdate and <= dcdt/dctm |

\_\_\_\_\_UMTIf shkpres=1 AND shkdt/shktm – sepdt2/septm2 <= 6 hours, auto-fill sepshk = 1  | **If physician/APN/PA documentation states septic shock or severe sepsis with shock was present on admission, or indicates the patient was admitted with septic shock or severe sepsis with shock, use the earliest date of the physician/APN/PA documentation of septic shock or severe sepsis with shock** **based on the following criteria:** * For patients with multiple septic shock presentation dates and times, **only abstract the earliest presentation date and time.**

Example: Physician note states: “septic shock on admit.” Documentation includes Arrival time to unit 4/2/21 0344, Admit Order 4/2/21 0231, and physician note is dated and timed 4/2/21 0236. Use 4/2/21 0231 the physician admit order because documentation indicates the patient was admitted with septic shock and the admit order is the earliest date and time. * If septic shock is documented in a physician/APN/PA note without a specific date or documented using the acronym POA (Present on Admission), the following apply:
	+ If it is the only documentation of septic shock in the note, use the date and time the note was started or opened.
	+ If a timestamp reflecting the note opened or started date and time is unavailable, use the following sources in priority order.

1. Provider patient care initiated date and time (e.g., Seen date and time, contact date and time, etc.)2. Earliest date and time at the beginning of the note reflecting when the note was opened or started.* + If septic shock is documented multiple times within the same note, use the earliest specified date and time.
* **ED Patients:** Use the earliest documented arrival date and time for patient who enter the ED with physician/APN/PA documentation of:
* Septic shock clinical criteria met in pre-hospital records.
* Septic shock in pre-hospital records.
* Septic shock was present on arrival.
* Septic shock was present with a documented presentation date/time that is prior to arrival.

**Cont’d next page****Septic Shock date and time cont’d*** **Direct Admit Patients:** Use the earliest documented date and time patient arrives to floor or unit with physician/APN/PA

documentation of septic shock in pre-hospital records or documentation that septic shock was present on admission* If the only documentation of septic shock being present is in a physician/APN/PA note that septic shock was present on admission, use the earliest date and time of the following:
* Physician/APN/PA note
* Admit order
* Disposition to inpatient
* Arrival to floor or unit

**Suggested Data Sources:** Any physician/APN/PA documentation |
| 20 | covid | At any time during the admission, is there physician/APN/PA documentation coronavirus or COVID-19 is suspected, present or confirmed?1. Yes2. No | 1,2If 1, the case is excluded | * **Physician/APN/PA documentation any time during the hospital stay that coronavirus or COVID-19 is suspected or present will exclude the case from the Sepsis Bundle measure.**
* Select value "1" (Yes) for COVID-19 o**nly if the physician/APN/PA documented the terms** **“possible” “probable” “likely” “suspected” “present” or “confirmed,” or synonomous with these terms in relation to COVID-19.**
* Select value “2” (No):
* If the physician/APN/PA refers to a previous diagnosis of COVID-19 (e.g., “recent COVID-19” or “history of COVID-19”).
* For documentation by a physician/APN/PA of COVID-19 or coronavirus qualified with a term synonymous with low suspicion, doubt, or unlikely.
* For documentation that COVID-19 is suspected or present if there is physician/APN/PA documentation that coronavirus or COVID-19 is not suspected or present within six hours following the initial documentation that coronavirus or COVID-19 is suspected or present.

**Example:** ED MD note at 07:00: “suspect COVID-19 is cause of current respiratory symptoms.” Admitting MD note at 11:15: “possible pneumonia, COVID-19 test negative.” Select value 2 because there is subsequent physician documentation within 6 hours indicating COVID-19 is not present.* If the physician/APN/PA only orders a COVID-19 test without documentation that COVID-19 is suspected, present, or confirmed, select value “2”.

**Documentation that coronavirus or COVID-19 is possible, probable, likely, suspected, present, or confirmed will exclude the case from the Sepsis Bundle Measure.** |
| 21 | sepcrit | The intent of the next set of questions is to determine if the clinical criteria for severe sepsis have been met: * SEPINF, INFDT, INFTM
* SEPSIRS, SEPSIRSDT, SEPSIRSTM
* SEPORG, SEPORGDT, SEPORGTM
 |  | **In order to establish the presence of severe sepsis by clinical criteria, all three clinical criteria (**documentation of infection, two or more manifestations of systemic infection and at least one manifestation of organ dysfunction**) must be met within six hours of each other. The three clinical criteria do not need to be documented in any particular order.** |
| 22 | sepinf | Is there physician/APN/PA or nursingdocumentation of infection in the medical record? **Documentation of conditions commonly associated with Severe Sepsis that are acceptable for infection. This is not all-inclusive.**

|  |  |
| --- | --- |
| Abscess | Meningitis |
| Acute abdomen | Necrosis |
| Acute abdominal infection | Necrotic/ischemic/infarcted/perforated bowel |
| Blood stream catheter infection | Pelvic inflammatory disease |
| Bone/joint infection | Pneumonia/empyema |
| C. difficile (C. diff) | Purulence/pus |
| COPD acute exacerbation | Sepsis/septic |
| Endocarditis | Skin/soft tissue infection |
| Gangrene | Suspect infection source unknown |
| Implantable device infection | Urosepsis/urinary tract infection (UTI) |
| Infection/infectious | Wound infection |

1. Yes
2. No or unable to determine
 | 1,2 If 2, go to sepsirs | **The intent of this question is to determine if there is physician/APN/PA or nursing documentation of the presence of infection.****Documentation of an infection:*** Physician/APN/PA or nursing documentation referencing the presence of an infection (refer to table) is acceptable.
* If an antibiotic is ordered for a condition that may be inflammation or a sign or symptom of an infection this may be considered documentation of an infection (e.g., ceftriaxone ordered for colitis; Zosyn 3.375 g IV q6hr for cough).
* Documentation of infection ***within an*** order set, protocol, checklist, alert, screening tool, etc., if date and time are present and is the earliest date and time infection is recorded.
* Physician/APN/PA order for an FDA-approved biomarker test for sepsis detection can be considered documentation of suspicion of an infection, regardless of whether the result of the test indicates sepsis. FDA-approved biomarker tests for sepsis detection include, but are not limited to, C-Reactive Protein (CRP), Procalcitonin (PCT), Interleukin-6 (IL-6).

**Exclusions: Documentation that is NOT acceptable for an infection.** * Do not use physician/APN/PA documentation of an initial infection if there is additional physician/APN/PA documentation within the following 6 hours indicating that the infection is not present or is due to a viral, fungal, or parasitic source.

**Examples of Exclusions:** * ED physician/APN/PA documents rule out UTI and pneumonia at 0500. At 1000 hospitalist documents no infection present. Disregard ED physician/APN/PA documentation of rule out UTI and pneumonia.
* Colonization, positive screens, or positive cultures (e.g., MRSA, VRE, or for other bacteria) without physician/APN/PA documentation referencing an infection.

**Cont’d next page** |
|  |  |   |  | * ED APN Note at 1500 documents “Likely pneumonia.” Hospitalist Note at 1830: “CXR with PNA r/t influenza.” disregard the infection documentation of pneumonia at 1500 because of the physician documentation within six hours after 1500 attributing pneumonia to a viral infection.
* History of infection, recent infection, or recurrent infection that is not documented as a current or active infection.
* The title or heading of an order set, protocol, checklist, alert, screening tool, etc. reflecting 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).
* Signs or symptoms of an infection without supportive documentation.
* Documentation of an infection only in a discharge note, discharge summary or documented after the time of discharge.
* For documentation of an infection accompanied by a qualifier, use the table below.
* Select Value “1” for documentation containing a positive qualifier.
* Select Value “2” for documentation containing a negative qualifier OR documentation containing both a positive and negative qualifier.

**Qualifiers list is not all inclusive.**

|  |  |
| --- | --- |
| **Positive Qualifiers** | **Negative Qualifiers** |
| Possible | Impending |
| Rule out (r/o) | Unlikely |
| Suspected | Doubt |
| Likely | Risk for |
| Probable | Ruled out |
| Differential diagnosis | Evolving |
| Suspicious for | Questionable |
| Concern for |  |

**Suggested Data Sources:** Any physician/APN/PA documentation including ED record |
| 23 | infdtinftm | Enter the earliest date and time physician/APN/PA or nursing documentation of the presence of infection is found in the medical record. | mm/dd/yyyy

|  |
| --- |
| >= arrvdate and<= dcdt/dctm |

UMT

|  |
| --- |
| < = sepdt2/septm2 (if valid date) or< = shkdt/shktm (if valid date) |

 | * Enter the earliest date and time physician/APN/PA or nursing documentation of infection is found in the medical record.
* **ED Patients:** Use the earliest documented arrival date and time for patient who enter the ED with documentation of infection in pre-hospital records or documentation that infection was present on arrival.
* **Direct Admit Patients**: Use the earliest documented date and time the patient arrives to the floor or unit with documentation of infection in pre-hospital records or documentation that infection was present on arrival.
* If the only documentation of infection being present is in a physician/APN/PA or nursing note that infection was present on admission (POA), use the earliest date and time the note was started or opened:
* If a timestamp reflecting the note opened or started date is unavailable, use the following sources in priority order:

1. Provider Patient Care initiated date and time (e.g.,  Seen date/time, Contact date/time, etc.2. Earliest date at the beginning of the note reflecting  when the note was opened or started* **Infection Documented Multiple Places:** If documented more than one time, the later documented date/time can be used if the earlier documented date/time is outside the six hours for meeting the three clinical criteria (infection, systemic infection, organ dysfunction.)
	+ **Example:** 16:00 ED Triage Note by nurse, “Family thinks patient has Urinary Tract Infection (UTI)”

17:53 Physician Progress Note, “Possible UTI.” If sepsirs and seporg components are within 6 hours of ED Triage Note, use 16:00. If sepsirs and seporg components are later and only within 6 hours of the physician progress note, use 17:53. |
| 24 | sepsirs1sepsirsdt1sepsirstm1sepsirs2sepsirsdt2sepsirstm2sepsirs3sepsirsdt3sepsirstm3sepsirs4sepsirsdt4sepsirstm4 | Is there documentation in the medical record of two (2) or more of the following manifestations (indications) of systemic infection:  For each manifestation found, enter the earliest date and time of documentation.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Manifestation (Indications) |  1,2(If 1, enable date/time) | Datemm/dd/yyyy

|  |
| --- |
| >= arrvdate and <= dcdt/dctm |

 | Time\_\_\_\_\_\_UMT |
| 1. Temperature >38.3 C or <36.0 C (>100.9 F or <96.8 F) | 1. Yes □2. No □ |  |  |
| 2. Heart rate (pulse) >90 | 1. Yes □ 2. No □ |  |  |
| 3. Respiration >20 per minute | 1. Yes □2. No □  |  |  |
| 4. White blood cell count >12,000 or <4,000 or >10% bands Enter **Report** Date/Time | 1. Yes □ 2. No □ |  |  |

 | **The intent of this question is to determine if there is documentation of two or more manifestations (indications) 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

Date and Time: For each indication of systemic infection, enter the earliest date and time documentation of that manifestation (indication) was found in the medical record.* Vitals and labs documented prior to arrival (i.e. outpatient clinic notes, CNH notes, etc) may be used if within the 6 hours prior to infection time.
* If using vitals found in an ICU flowsheet, use the time at the top of the column. The time found with the nurses’ initials is the time the data was entered into the flowsheet and not the actual time the vital was taken/completed.

To determine the laboratory test value date and time for severe sepsis criteria, use the following sources in priority order. **Primary source**: Laboratory test value result released time from lab reports**Supporting sources in priority order if primary source not available**: Time within a narrative note that is directly associated with the laboratory test valueTime the laboratory test value is documented in a non-narrative location (e.g., sepsis flow sheet)Laboratory test sample draw or collected time* If any SIRS criteria are due to the following, the value **should NOT be used.** Inferences should not be made. The abnormal value or reference to the abnormal value must be in the same documentation (i.e., same sentence or paragraph).
* Normal for that patient (e.g. “History paroxysmal atrial fibrillation, pulse frequently > 90.”)
* Is due to a chronic condition
* Is due to a medication (e.g., “Respiratory rate increased after albuterol inhaler.”)

**Cont’d next page*** If any SIRS criteria is due to an acute condition that has a non-infectious source/process**, it should NOT be used**. **Example:** “WBC < 4000 due to chemo.”
* If any SIRS criteria is due to the following, the criteria value **should be used**:
* Acute condition (“HR increased r/t acute heart failure.”)
* Acute on chronic condition (“Respiratory rate increased r/t acute exacerbation COPD”)
* Infection (“Antibiotic order indication: cholecystitis.”)
* Physician/APN/PA documentation of a term that is defined by a SIRS criteria is acceptable in place of an abnormal value when the term is documented as normal for the patient, due to a chronic condition, a medication or an acute condition that has a non-infectious source/process.
* **Examples include but not limited to:**
* Tachypnea (Respiration > 20)
* Tachycardia (Heart Rate > 90)
* Leukopenia (WBC count < 4000)
* Leukocytosis (WBC count > 12,000)
* If there is conflicting documentation within the same physician/APN/PA documentation or within two or more separate pieces of physician/APN/PA documentation indicating SIRS criteria is normal for the patient, due to a chronic condition or medication AND due to or possibly due to an infection, severe sepsis, septic shock, or severe sepsis with shock, abstract the value based on the documentation closest to and before the Severe Sepsis Presentation Time.
* **Examples:**
* Vital Signs Flowsheet indicates elevated heart rate of 125, PA documentation “chronic A-Fib, rate controlled. The elevated heart rate of 125, would be used as SIRS criteria because the PA documentation does not include a term that defines elevated heart rate as being due to a chronic condition.
* SIRS criteria **should NOT be used** if:
* Obtained in OR, interventional radiology, during active delivery, during cardiopulmonary arrest (code) or during procedural/conscious sedation
* Due to artificial intervention, e.g. ventilator rate set at 24

**Cont’d next page*** Documentation indicates value is invalid, erroneous or questionable within 24 hours after the Severe Sepsis Presentation Time

**Suggested Data Sources:** Physician/APN/PA or nursing documentation, entire ED record, nurses notes, vital signs record or flow sheet |
| 25 | seporg1seporgdt1seporgtm1seporg2seporgdt2seporgtm2seporg3seporgdt3seporgtm3seporg4seporgdt4seporgtm4seporg5seporgdt5seporgtm5seporg6seporgdt6seporgtm6seporg7seporgdt7seporgtm7seporg8seporgdt8seporgtm8seporg9seporgdt9seporgtm9 | Is there documentation of organ dysfunction in the medical record?**Indicate all that apply:****For each option found, enter the earliest date and time of documentation.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Organ dysfunction** | **1, 2****(If 1, enable date/time)** | **Date****mm/dd/yyyy**

|  |
| --- |
| >= arrvdate and <= dcdt/dctm |

 | **Time (UMT)****\_\_\_\_\_** |
| 1. Systolic blood pressure (SBP) < 90 mmHg or mean arterial pressure (MAP) < 65 mmHg | 1. Yes □ 2. No □ |  |  |
| 2. Systolic blood pressure (SBP) decrease of more than 40 mmHg (see definitions/decision (D/D) rules) | 1. Yes □2. No □  |  |  |
| 3. Acute respiratory failure as evidenced by a new need for invasive or non-invasive mechanical ventilation (see D/D rules) | 1. Yes □ 2. No □ |  |  |
| 4. Creatinine > 2.0 (see D/D rules)Enter **Report** Date/Time | 1. Yes □ 2. No □ |  |  |
| 5. Urine output < 0.5mL//kg/hour for 2 consecutive hours (see D/D rules) | 1. Yes □ 2. No □ |  |  |
| 6. Total bilirubin > 2 mg/dL (34.2 mmol/L) Enter **Report** Date/Time | 1. Yes □ 2. No □ |  |  |
| 7. Platelet count < 100,000 Enter **Report** Date/Time | 1. Yes □ 2. No □ |  |  |
| 8. INR > 1.5 or aPTT > 60 seconds(see D/D rules)Enter **Report** Date/Time | 1. Yes □ 2. No □ |  |  |
| 9. Lactate > 18.0 mg/dL (>2 mmol/L) Enter **Report** Date/Time | 1. Yes □ 2. No □ |  |  |

 | **The intent of this question is to determine if there is documentation of** at least one manifestation of **organ dysfunction.** **Date and Time:** For each indication of organ dysfunction, enter the **earliest date and time** documentation of that indication of organ dysfunction was found in the medical record.* Vitals and labs documented prior to arrival (i.e. outpatient clinic notes, CNH notes, etc) may be used if within the 6 hours prior to infection time.
* If using vitals found in an ICU flowsheet, use the time at the top of the column. The time found with the nurses’ initials is the time the data was entered into the flowsheet and not the actual time the vital was taken/completed.

**Organ dysfunction may be evidenced by any one of the following:****Value “1” SBP < 90 or MAP <65*** Mean arterial pressure (MAP) is the average arterial pressure throughout one cardiac cycle, systole, and diastole. To perfuse vital organs requires the maintenance of a minimum MAP. There are methods to calculate, but **ONLY** accept actual documentation of MAP <65.
* **Do not use** hypotensive BPs documented from an orthostatic BP evaluation.
* Do not use hypotensive BPs documented during a dialysis procedure.

**Value “2” SBP 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, septic shock, or severe sepsis with shock and not to other causes.

Value “3” acute respiratory failure as evidenced by a new need for invasive or non-invasive mechanical ventilation:* Documentation the patient is on mechanical ventilation.
* Invasive mechanical ventilation requires an endotracheal tube (ET) or tracheostomy tube.
* Non-invasive mechanical ventilation may be referred to as BiPAP, CPAP, or AVAPS.

**Cont’d next page****Organ dysfunction cont’d*** New need for mechanical ventilation indicates that either the patient had a new need for mechanical ventilation or the patient had an increased need from intermittent to continuous mechanical ventilation.

Use the date/time mechanical ventilation was started, the earliest date/time directly associated with the patient being on mechanical ventilation, or the date/time the mechanical ventilation changed from intermittent to continuous. * For example, Intubation flowsheet documents ET placement at 08:00; respiratory flowsheet documents vent settings/alarms at 08:15; and respiratory therapist note at 08:40 documents “Patient intubated and placed on mechanical ventilation at 08:30;” enter 08:30 as mechanical ventilation start time.

**Value “4” Creatinine > 2.0:*** If physician/APN/PA documentation before or within 24 hours following presentation of severe sepsis states the patient has end stage renal disease (ESRD) and is on hemodialysis or peritoneal dialysis**, do not use** any reported creatinine levels as signs of organ dysfunction. The same physician/APN/PA documentation does not need to include both. ESRD (on hemodialysis or peritoneal dialysis) and reference the creatinine levels.
* If there is physician/APN/PA documentation before or within 24 hours following presentation of severe sepsis of chronic renal disease (e.g., CKD I, II, or III, or “chronic renal insufficiency”) and the baseline creatinine is documented, use creatinine values elevated >0.5 above baseline as organ dysfunction (e.g., baseline 2.30, creatinine now 2.81).

**Value “5” urine output <0.5 mL/kg/hour for two consecutive hours:*** Only use urine output as a sign of organ dysfunction if documentation clearly indicates that urine output is being monitored hourly to be able to use this as organ dysfunction.

**Value “8” INR >1.5 or aPTT >60 sec:*** If the medical record documentation before an elevated INR or aPTT value shows the patient received an anticoagulant

 **Cont’d next page****INR cont’d**medication in Appendix C Table 5.3, **do not use** the elevated INR or aPTT level as organ dysfunction. Physician/APN/PA documentation is not required. **Examples:*** + Home Medication Record documents Coumadin 2.5 QD; Last dose 2/19/2021 at 0800; Lab Report 2/19/2021 at 1400 documents INR this AM 2.5.

Do not use the INR of 2.5 to establish organ dysfunction because the documentation demonstrates the patient received an anticoagulant before the elevated INR result.* + Lab report 1/12/21 1500 INR 2.5, medication administration record has Coumadin 2.5 QD Last dose 1/13/21 at 0900. The INR of 2.5 to establish organ dysfunction can be used, since Coumadin was administered after the elevated INR.
* Use the elevated INR or aPTT level if the patient only received Heparin flushes.
* For the following, physician/APN/PA documentation, before or within 24 hours after Severe Sepsis Presentation Time, is required:
* If a sign of organ dysfunction is due to the following, **do not use.** Do not make inferences. The abnormal value or reference to the abnormal value must be in the same documentation (i.e., same sentence or paragraph).
* Normal for that patient
* Is due to a chronic condition (e.g., “CKD, baseline creatinine 3.0.”)
* Is due to a medication (e.g. “Hypotensive due to pain meds.”)
* If a sign of organ dysfunction is due to an acute condition that has a non-infectious source/process **do not use it.** **Example:** “Lactate 4.3 r/t seizure post brain injury” (seizure is the acute condition and brain injury is the non-infectious source; the lactate level is due to the brain injury and not severe sepsis).
* If a sign of organ dysfunction is due to the following, the criteria value **should be used.**

**Cont’d next page*** **Acute condition** **Example:** Progress note states“Lactate 4.3 r/t seizure.” There is an acute condition (seizure), but the source isn’t known. This seizure could be due to sepsis, and the lactate value should be used to indicate severe sepsis is present.
* **Acute on chronic condition Example**:“Acute on chronic renal failure, creatinine 2.8.”
	+ - **Infection Example:** Physician Note: “Cholecystitis with Hyperbilirubinemia.”
* Physician/APN/PA documentation of a term that is defined by a sign of organ dysfunction is acceptable in place of an abnormal value when the term is documented as normal for the patient, due to a chronic condition, medication or an acute condition that has a non-infectious source/process.

**Examples:** Hypotension (Systolic BP < 90 mmHg); Leukocytosis (WBC > 12,000); Thrombocytopenia (Platelet count < 100,000)* To determine the laboratory test value date and time for severe sepsis criteria, use the following sources in order of priority:

**Primary source**: Laboratory test value result released time from lab reports **Supporting sources if primary source not available in order of priority:** Time within a narrative note that is directly associated with the laboratory test valueTime the laboratory test value is documented in a non-narrative location (e.g., sepsis flow sheet)Laboratory test sample draw or collected timeIf there is conflicting documentation within the same physician/APN/PA documentation or within two or more separate pieces of physician/APN/PA documentation, indicating a sign of organ dysfunction is normal for the patient, due to a chronic condition or medication or due to an acute condition with a non-infectious source AND due to or possibly due to an acute condition, acute on chronic condition, infection, severe sepsis, septic shock, or severe sepsis with shock, abstract the value based on the documentation closest to and before the Severe Sepsis Presentation Time. **Cont’d next page*** **Examples:** “Creatinine 4.3, CKD, potentially increasing due to worsening UTI,” creatinine value should be used. “Thrombocytopenia possibly due to NSAID use, however complicated by sepsis,” platelet value should be used.
* A sign of organ dysfunction **should NOT be used** if:
* Obtained in OR, interventional radiology, during active delivery, during cardiopulmonary arrest (code), or during procedural/conscious sedation
* Due to artificial interventions
* Documentation indicates value is invalid, erroneous or questionable
* Noted only in the title or heading of an order set, protocol, checklist, etc.Documented only in a discharge note, discharge summary, or after the time of discharge

**Suggested Data Sources:** Physician/APN/PA notes, ED record, hourly output record, intake/output record, laboratory results, nurses notes, vital signs record or flow sheet |
| **If infdt/tm, at least 2 of sepsirsdt/tm, and at least 1 seporgdt/tm are valid AND within 6 hours of each other then,****Step 1:  Determine earliest date/time entered for seporg.** **Step 2:  Determine earliest 2 dates/times entered for sepsirs.** **Step 3:  Set sepsisdt/sepsistm = most recent of the 3 dates/times above and infdt/tm****If seppres2=1 OR shkpres=1, AND (sepinf=2 or sepsirs = 1 is < 2 responses or no seporg = 1) OR (sepinf=1 and sepsirs = 1 is >= 2 responses and seporg = 1 is >= 1 response and infdt/tm, sepsirsdt/tm, seporgdt/tm are not within 6 hours of each other) auto-fill sepsisdt = 99/99/9999, sepsistm = 99:99 and go to sepresdt.****If seppres2=2 OR shkpres=2, AND (sepinf=2 or sepsirs = 1 is < 2 responses or no seporg = 1) OR  (sepinf=1 and sepsirs = 1 is >= 2 responses and seporg = 1 is >= 1 response and infdt/tm, sepsirsdt/tm, seporgdt/tm are not within 6 hours of each other),   go to the end** |
| 26 | sepsisdtsepsistm | Enter the earliest date and time on which the final criterion was met to establish the presence of severe sepsis. | mm/dd/yyyy

|  |
| --- |
| >= arrvdate and <= dcdt/dctm |

\_\_\_\_UMTWill be auto-filled as most recent date/time of earliest valid seporgdt/tm, earliest 2 valid sepsirsdt/tm and earliest valid infdt/tm Will be auto-filled as 99/99/9999 and 99:99 if seppres = 1, OR shkpres=1,AND **(**sepinf=2 or sepsirs = 1 is < 2 responses or no seporg = 1) OR (sepinf=1 and sepsirs = 1 is >= 2 responses and seporg = 1 is >= 1 response and infdt/tm, sepsirsdt/tm, seporgdt/tm are not within 6 hours of each other) | This question will be auto-filled based on responses to the severe sepsis clinical criteria questions, dates and times.* If all 3 clinical criteria are met within 6 hours of each other, this date and time will be auto-filled with the most recent date and time of documentation of infection OR documentation of at least two indications of systemic infection OR  documentation of at least one indication of organ dysfunction.
* If there is documentation of severe sepsis or septic shock, and not all clinical criteria are met within 6 hours of each other, this date and time will be auto-filled with 99’s and you will go to cntrasevsep.
* If there is NO documentation of severe sepsis or septic shock, or severe sepsis is not met by all three clinical criteria within 6 hours of each other, abstraction will stop here.

 |
| 27 | sepresdt | Computer to auto-fill earliest valid date entered in sepdt2, shkdt, or sepsisdt. | mm/dd/yyyy

|  |
| --- |
| >= arrvdate and <= dcdt/dctm |

 | **Computer will auto-fill the earliest valid date entered in sepdt2, shkdt, or sepsisdt.**  |
| 28 | seprestm | Computer to auto-fill earliest valid time entered in septm2, shktm, or sepsistm.  | Computer to auto-fill\_earliest time corresponding to date entered for sepresdt. \_\_\_UMT | **Computer will auto-fill the earliest valid time entered in septm2, shktm, or sepsistm.**  |

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| 29 | cntrasevsep | During the timeframe from (computer to display sepresdt/seprestm - 6 hours) to (computer to display sepresdt/seprestm + 6 hours) is there physician/APN/PA or nursing documentation that the patient or authorized patient advocate refused either a blood draw, IV fluid administration, or IV antibiotic administration?1. Yes2. No or unable to determine | 1,2If 1, go to end | **Only Acceptable Sources:** physician/APN/PA or nursing documentation* Select value “1” if there is specific documentation indicating patient or an authorized patient advocate refusal of any of the following:
* Blood draws
* IV or IO fluid administration
* IV or IO antibiotic
* If there is more general documentation of refusal of care (e.g. central line, PICC, IO access) or documentation of patient non-compliance with care (e.g., pulling out IV) that could result in blood draw, IV fluid administration, or IV antibiotic administration not being administered within the specified time frame select value “1”.
	+ For example: RN note dated outside of the timeframe indicates, “Patient disoriented, pulled out IV and refused new IV” IV antibiotic was not administered during the timeframe, select value “1”.
* Select value “1” if blood draw, IV fluid administration, or IV antibiotic administration are administered, but occur after the specified time window due to refusal of care or patient non-compliance.
* **Examples:** Severe Sepsis Presentation Date/Time: 1/13/2021 1200. RN documentation at 1/13/2021 1130: “Patient agitated, screaming at staff, and swinging arms” 1430: “PO Ativan given for agitation, awaiting central line placement” 1638 MAR documents NS fluid bolus and Vancomycin given IV.

For this example, select value “1” since there is nursing documentation of patient noncompliance with care resulting in treatment delay.* For refusal of blood draws:
* Documented refusal of blood draws is acceptable.
* Refusal of specific blood draws or blood tests that do not impact the ability to meet the requirements of the SEP-1 measure data elements should not be used.
* **Examples:** Patient refused HIV blood test;

Patient refused arterial blood gas (ABG). **Cont’d next page*** An authorized patient advocate is someone (defined by facility policy) who is authorized to make decisions on behalf of the patient when the patient is not able to; this includes someone who is legally designated and empowered to make medical decisions on the patient's behalf when the patient is unable to.
	+ Examples include: Family members; Medical power of attorney; Health care power of attorney; Durable power of attorney for health care; Someone documented as an agent for the patient; Attorney-in-fact. If documentation indicates that the patients’ family member or authorized patient advocate refused treatment, select value “1”.
* If there is a signed AMA form or documentation by a physician/APN/PA or nurse indicating the patient left AMA prior to or within six hours following presentation of severe sepsis, select value "1".
* Explicit “left against medical advice” documentation is not required. **Example:** “Patient is refusing to stay for continued care” select value “1”.
* Documentation suggesting that the patient left before discharge instructions could be given does not count as leaving against medical advice.
* An AMA form signed by the patient is not required, for the purposes of this data element.
* Do not consider AMA documentation and other disposition documentation as “contradictory.” If any source states the patient left against medical advice, select value “1”, regardless of whether the AMA documentation was written last. **Example:** AMA form signed and discharge instruction sheet states “Discharged home with belongings” select value “1”.

**Suggested Data Sources:** consultation reports, H&P, Nursing Notes, Physician/APN/PA notes**Suggested inclusions:** Declined; Does not want; Refused; Requests not to be given; Patient noncompliant |

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| 30 | cmoplc | During the timeframe from (computer to display sepresdt/seprestm - 6 hours) to (computer to display sepresdt/seprestm + 6 hours) is there physician/APN/PA documentation of comfort measures only or palliative care (see Inclusion terms below)?

|  |
| --- |
| **Inclusion (Or synonymous terms)** |
| Brain death/dead | Hospice Care |
| Comfort care | Organ harvest |
| Comfort measures | Palliative Care |
| Comfort measures only (CMO) | Palliative Consult |
| Comfort only | Terminal care |
| Do Not Resuscitate Comfort Care (DNR-CC) | Terminal extubation |
| End of life care | Withdraw care |
| Hospice | Withhold care |

1. Yes2. No | 1,2If 1, OR (if 2 AND dcdispo <> 99 and dcdt/dctm - sepresdt/seprestm < =360 minutes), go to end

|  |
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| **Hard edit**: If 1 and sepresdt/seprestm = sepshkdt/sepshktm, cmoplc2 must = 1 |

 | * **Physician/APN/PA documentation of comfort measures only, palliative care, or another acceptable inclusion term must be within the specified time frame** **listed in the question.**
* Directive for Comfort Care refers to medical treatment of a dying person where the natural dying process is permitted to occur while assuring maximum comfort. It includes attention to the psychological and spiritual needs of the patient and support for both the dying patient and the patient's family. It is not equivalent to a physician order to withhold emergency resuscitative measures such as Do Not Resuscitate (DNR).
* Palliative Care is the identification, prevention, and treatment of suffering by means of assessment of the physical, psychosocial, intellectual, and spiritual needs of the patient with a goal of supporting and optimizing the patient’s quality of life. Palliative care ensures a partnership between practitioner, patient, and family to provide support in decision making at any stage in the patient’s care.
* **Only accept terms identified in the list of inclusions or synonymous with an inclusion term. No other terminology will be accepted.**
* Only use physician/APN/PA documentation of an inclusion term documented in the following contexts:
* Comfort measures only recommendation
* Order for consultation or evaluation by a hospice care service
* Patient or patient representative request for comfort measures only
* Plan for comfort measures only
* Referral to hospice care service

Do not use documentation of an inclusion term if it is not documented in one of the acceptable contexts. **Examples of unacceptable contexts:** “Discussion of comfort measures” “Consider palliative care”**Cont’d next page****Example**: Physician documentation within the time frame: “anticipating patient will be comfort care only, will meet with family.” In this case, select value “2” for comfort care because it is not used within one of the acceptable contexts.* State-authorized portable orders (SAPOs):
* SAPOs are specialized forms or identifiers authorized by state law that translate a patient’s preferences about specific end-of-life treatment decisions into portable medical orders. **Examples:** DNR-Comfort Care form; MOLST (Medical Orders for Life-Sustaining Treatment); POLST (Physician Orders for Life-Sustaining Treatment); Out-of-Hospital DNR (OOH DNR)
* If there is a SAPO in the record that is dated and signed prior to arrival with an option in which an inclusion term is found that is checked, select value “1”.
* If a SAPO lists different options for CMO and any CMO option is checked, select value “1”.
* If one or more dated SAPOs are included in the record (and signed by the physician/APN/PA), use only the most recent one. Disregard undated SAPOs.
* For cases where there is a SAPO in the record with a CMO option selected: If the SAPO is dated prior to arrival and there is documentation on the day of arrival up to severe sepsis presentation that the patient or patient representative does not want CMO, and there is no other documentation regarding CMO found in the record, disregard the SAPO

**Example:** Patient has a POLST dated prior to arrival in his chart and ED physician states in current record “Patient is refusing comfort measures, wants to receive full treatment and be a full code.” * Documentation of an inclusion term in the following situations should be **disregarded**. Continue to review the remaining physician/APN/PA documentation for acceptable inclusion terms. If the **ONLY** documentation found is an inclusion term in the following situations, select value “2”.

**Cont’d next page** |
|  |  |  |  | * + - Documentation (other than SAPOs) that is dated prior to arrival or documentation which refers to the pre-arrival time period. **Examples:** Comfort measures only or palliative care order in previous hospitalization record; “Pt. on hospice at home” in MD ED note.
		- Inclusion term clearly described as negative or conditional. **Examples:**
		- “No comfort care"
		- "Not appropriate for hospice care"
		- “Comfort care would also be reasonable - defer decision for now”
		- “DNRCCA” (Do Not Resuscitate – Comfort Care Arrest)
		- “Family requests comfort measures only should the patient arrest.”
		- Documentation of “CMO” should be disregarded if documentation makes clear it is not being used as an acronym for Comfort Measures Only (e.g., “hx dilated CMO” – Cardiomyopathy context).
* 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 to select value “1”.

**Suggested Data Sources:** Consultation notes, Discharge summary, DNR/MOLST/POLST forms, Emergency Department record, History and physical, Physician orders, Progress notes**Excluded data source:** Restraint order sheet |

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| 31 | antibio | During the timeframe from (computer display sepresdt/seprestm - 72 hours) to (computer display sepresdt/seprestm + 3 hours) was a broad spectrum or other antibiotic administered intravenously (IV)?1. Yes2. No or unable to determine | 1,2 If 2, go to end | **Note: Only IV antibiotics administered in the 72 hours prior to or three hours after severe sepsis presentation are acceptable.** **Look for the earliest date/time on which an antibiotic was started within the specified timeframe. Refer to Table 1 for antibiotic selection options.****EXCEPTION:** * **If there is documentation indicating IV access could not be established, antibiotics administered via intramuscular (IM) or intraosseous (IO) started in the 72 hours prior to or three hours after the severe sepsis presentation is acceptable to select value “1”**

**Documentation acceptable to select value “1”*** Antibiotic started within 72 hours prior to or up to three hours after *Severe Sepsis Presentation Date and Time*.
* Pre-hospital records (e.g., ambulance records, nursing home records) that are considered part of the medical record may be used.
* Documentation that demonstrates actual administration of the antibiotic (i.e., antibiotic name, route, date and time).
* 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.

**Select value “2” in these situations:*** If no antibiotic was started within the 72 hours prior to or three hours after S*evere Sepsis Presentation Date and Time*.
* A physician/APN/PA order for antibiotics is not sufficient UNLESS the antibiotic ordered was marked as “started” or “given” with date/time noted.
* Do not cross reference between different sources to infer that an antibiotic was started 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.
* Do not abstract test doses of antibiotics.
* Do not abstract antibiotics from sources that do not represent actual administration.

**Cont’d next page** |
|  |  |  |  | **Examples** that ***do not*** represent actual administration: Pre-Op Checklist states: * + IV Started at 1730
	+ Preop Antibiotic Given at 1800

Operative report states: * IV antibiotics were given prior to procedure.
* IV antibiotics given at 0900 prior to incision.
* Do not abstract antibiotics from narrative charting unless there is no other documentation that reflects that the same antibiotic was given during the specified time frame.
* If the antibiotic name, route, date or time is missing, disregard that dose.

**Suggested Data Sources: Anesthesia record,** entire ED record, ICU flow sheet, IV flow sheet, medication administration record, nurses notes, operating room record, PACU/recovery room record, perfusion record, physician/APN/PA notes, pre-arrival documentation that is part of the medical record |

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| 32 | bionamebiodatebiotime | Beginning with the first antibiotic administered during the timeframe from (computer display sepresdt/seprestm - 72 hours) to (computer display sepresdt/seprestm + 3 hours), enter the name of each antibiotic administered during the specified timeframe. Enter the date of administration for each antibiotic.Enter the time of administration for each antibiotic.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Antibiotic name (drop down with names from Table 1 Antibiotic Selection Options) | Administration Datemm/dd/yyyy

|  |
| --- |
| <= 3 days prior to sepresdt and <= sepresdt + 1 day |

 | Administration TimeUMT

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| --- |
| <=72 hours prior to sepresdt/seprestm and <= sepresdt/seprestm +  3 hours) |

 |

  | **Note: Only IV antibiotics administered in the specified timeframe are acceptable.** **EXCEPTION:** If there is documentation indicating IV access could not be established, antibiotics administered via intramuscular (**IM)** or intraosseous (**IO**) route in the specified timeframe are acceptable.* Beginning with the first antibiotic administered during the specified timeframe, select the name of each antibiotic administered from the drop down list.
* For each antibiotic administered during the specified timeframe, enter the date and time of antibiotic administration. If the same antibiotic is administered more than once at different dates and times, enter each date and time it was given.
* Antibiotic administration information should only be abstracted from documentation that demonstrates actual administration of the antibiotic (i.e., antibiotic name, route, date and time).
* Do not abstract antibiotics from sources that do not represent actual administration.
* Do not abstract antibiotics from narrative charting unless there is no other documentation that reflects that the same antibiotic was given during the specified time frame.

**Example:** Narrative states: “Ancef 1 gram given IV prior to incision.” No other doses of Ancef are documented. Use the date and time of the note for date and time given.* Pre-hospital records (e.g., ambulance records, nursing home records) that are considered part of the medical record may be used.
* Those receiving IV antibiotics more than 24 hours prior, and not within 24 hours prior to, nor within 3 hours after the presentation of severe sepsis, will be excluded from the Sepsis Bundle measures.

**Suggested Data Sources: Anesthesia record,** entire ED record, ICU flow sheet, IV flow sheet, medication administration record, nurses notes, operating room record, PACU/recovery room record, perfusion record, physician/APN/PA notes, pre-arrival documentation that is part of the medical record |

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| **To determine auto-fill for bioadmindt/bioadmintm:****Step 1:**  For each bioname entered determine the earliest applicable dose:* If **no** biodate/biotime >= -1440 min prior to or <= 180 after sepresdt/seprestm, ignore all doses for this bioname.
* If **any** biodate/biotime >= -1440 and < 0 min prior to sepresdt/seprestm choose the earliest biodate/biotime entered for this bioname
* If **no** biodate/biotime >= -1440 and < 0 min prior to sepresdt/seprestm choose the earliest biodate/biotime that is >= 0 and <= 180 min after sepresdt/seprestm for this bioname.

 **Step 2:**  Auto-fill bioadmindt and bioadmintm:* If at least one applicable dose was found in step 1, auto-fill bioadmindt and bioadmintm = earliest biodate and biotime from step 1.
* If no applicable dose(s) for this record were found in step 1 (all ignored), auto-fill bioadmindt = 99/99/9999 and bioadmintm = 99:99 and go to end.
 |
| 33 | bioadmindtbioadmintm |

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| --- | --- | --- | --- |
| Administration Datemm/dd/yyyy

|  |
| --- |
|  <= 3 days prior to sepresdt and <= sepresdt + 1 day |

 | Administration TimeUMT

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| --- |
| <=72 hours prior to sepresdt/seprestm and <= sepresdt/seprestm +  3 hours) |

 |

Computer to auto-fill earliest applicable date and time of antibiotic administration.  | Will be auto-filled BIOADMINDT and BIOADMINTM = earliest BIODATE/BIOTIME | **Computer will auto-fill date and time of earliest antibiotic administration in accordance with CMS guidelines.** **The specified time frame for the administration of a broad spectrum or other antibiotic is 24 hours before or three hours after the Severe Sepsis Presentation Time.**If not within this timeframe the following exceptions apply:* Use the date of the earliest dose if one or more antibiotics were started within the 24 hours before the Severe Sepsis Presentation Time.

Use the earliest date an antibiotic was started if one or more antibiotics were administered both within 24 hours before and within 3 hours after the Severe Sepsis Presentation Time. This may be the same date as the date of presentation or may be a date before presentation.  |
| **If bioadmindt/bioadmintm - sepresdt/seprestm < - 1440 minutes or > 180 minutes, go to end** |

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| 34 | bloodcul | During the time frame from [(If bioadmindt/ bioadmintm - sepresdt/seprestm >= -1440 and < 0, computer to display sepresdt/seprestm - 48 hours to sepresdt/seprestm + 3 hours); else computer to display (bioadmindt/ bioadmtm - 24 hours to sepresdt/seprestm + 3 hours)], was a blood culture collected?1. Yes2. No or unable to determine | 1,2If 2, go to lactate | * If a patient **does not** receive an IV or IO antibiotic within the 24 hours before the presentation of severe sepsis, the appropriate specified time frame to collect blood cultures is:
	+ 48 hours prior to *Severe Sepsis Presentation Date* and Time through three hours following Severe Sepsis Presentation Date and Time.
* If a patient **does** receive an IV or IO antibiotic within the 24 hours before the presentation of severe sepsis, the appropriate specified time frame to collect blood cultures is:
	+ 24 hours prior to the administration of the antibiotic through three hours following *Severe Sepsis Presentation Date and Time*.
* Use documentation specifying a blood culture was actually drawn or collected. Do not use “Labs Drawn” or similar documentation, as it is not specific to blood culture.
* If a blood culture 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.” For example, select value “1” if there is documentation indicating “Blood culture attempted” or “Blood culture x3 attempts” or “Unable to collect BC” and there is a date and time directly associated with the documentation.
* If there is a time directly associated with documentation that a blood culture was collected in the appropriate time window and it is the earliest mention of a blood culture, this date and time can be used, e.g., “BC sent to lab,” “blood culture received time.” Select Value “1.”
* Do not use physician orders to determine a blood culture was collected, as they do not demonstrate collection of the blood culture.

**Include:** Blood cultures (BC), blood cultures collected**Exclude:** Blood sent to lab, lab here, labs drawn**Suggested Data Sources:** ED record, history and physical, laboratory report, microbiology report, nursing notes,physician/APN/PA progress notes |

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| 35 | bldculdtbldcultm | During the specified timeframe, enter the date and time the blood culture was collected. | mm/dd/yyyy\_\_\_\_\_\_UMT

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| If bioadmindt/bioadmintm - sepresdt/seprestm >= - 1440 minutes and <0 minutes, <= sepresdt/seprestm - 48 hours to sepresdt/seprestm + 3 hours; else <= bioadmindt/bioadmintm - 24 hours and <= sepresdt/seprestm + 3 hours |
| If bldculdt/bldcultm – sepresdt/seprestm >= -2880 and <=180 min AND bioadmindt/bioadmintm – bldculdt/bldcultm < 0, go to bldculdel; else go to lactate |

 | * Refer to the *Blood Culture Collection* data element for the appropriate specified time frame to abstract this data element.
* Use documentation specifying a blood culture was actually drawn or collected. Do not use “Labs Drawn” or similar documentation, as it is not specific to the blood culture.
* If there is a time directly associated with documentation that a blood culture was collected in the appropriate specified time frame use the earliest mention of a blood culture. For example, 08/06/2022 0412 “BC sent to lab,” 08/06/2022 0422 “blood culture received time.” Enter 08/06/2022 as the date and 0412 as the time.
* Do not use physician orders to determine that a blood culture was collected, as they do not demonstrate collection of the blood culture.
* In the event there is a failure to collect the blood culture specimen (e.g. documentation indicates “Blood culture attempted” or “Unable to collect BC;” or “Blood culture x3 attempts” etc.) or the specimen was contaminated during or after the draw, abstract the date and time at which the unsuccessful attempt was carried out.
* **If multiple blood cultures were drawn or attempted, abstract the earliest blood culture drawn or attempted** in the appropriate specified time frame.

**Include:** Blood culture drawn, blood culture to lab, blood culture received**Exclude:** Blood sent to lab, lab here, labs drawn**Suggested Data Sources:** laboratory documentation/report, nursing notes, physician/APN/PA progress notes |

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| 36 | bldculdel | Is there documentation supporting an acceptable delay in collecting a blood culture?1. Yes2. No or unable to determine | 1,2 | * **Only the following situations demonstrate an acceptable delay where the blood culture was drawn after the *Broad Spectrum or Other Antibiotic Administration Date* and *Time*.** If there is an acceptable delay, choose Value “1.”
* Surgical patients who receive a pre-op or post-op prophylactic antibiotic within 24 hours before severe sepsis was identified and had a blood culture drawn after the prophylactic antibiotic was started.
* Antibiotics were started in the hospital for an infection within 24 hours before severe sepsis was identified, and a blood culture was drawn sometime after the antibiotic dose was started.
* **Example:** ED Arrival Time: 1600

ED MD Note: “Ceftriaxone for UTI”MAR: Ceftriaxone 1g IV. Start time: 1700Severe Sepsis Presentation Time: 1800Blood Culture Collection Time: 1830Select Value “1” due to the antibiotic being administered in the hospital for an infection within the 24 hours before severe sepsis.* Antibiotics were started prior to hospital arrival within 24 hours before severe sepsis was identified, and a blood culture was drawn after the pre-hospital antibiotics were started.
* **Example**: Nursing Home MAR: Unasyn 1.5g IV. Start time: 0700

ED Arrival Time: 0900Severe Sepsis Presentation Time: 1400Blood Culture Collection Time: 1300Select Value “1” due to the antibiotic being administered before arrival to the hospital and within the 24 hours prior to severe sepsis.* A physician/APN/PA documented reason for the delay, which makes it clear that waiting to start the antibiotic would be detrimental to the patient. **Examples:**
	+ ED Physician Note: Patient condition worsening, IV Vanco ordered stat, blood and urine cultures ordered, awaiting CXR.

**Cont’d next page*** + Hospitalist Progress Note: Patient’s deteriorating condition concern for rapidly advancing infection, starting IV antibiotics now, lab on way to collect blood cultures.
* Obstetric patients given prophylactic antibiotics for ruptured membranes, group B strep, or prior to a caesarean section.
* If there is no documentation supporting an acceptable delay in the collection of a blood culture, choose Value “2.”

**Exclude: Oral (PO) antibiotics****Suggested Data Sources:** ED record, history and physical, laboratory report, medication administration records, microbiology report, nursing notes, physician/APN/PA progress notes |

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| 37 | lactate | During the timeframe from (computer display sepresdt/seprestm - 6 hours to sepresdt/seprestm + 3 hours) was an initial lactate level drawn (or collected)?1. Yes2. No | 1,2If 2, go to hypotns | * **Note: The specified time frame within which an initial lactate must be drawn is within six hours prior through three hours following severe sepsis presentation.**
	+ If multiple lactate levels are drawn within the specified time frame, use the highest lactate level drawn from the *Severe Sepsis Presentation Time* to six hours before. Use a lactate level drawn at the same time as the *Severe Sepsis Presentation Time* if it has the highest level.
	+ If multiple lactate levels are drawn ONLY in the three hours after the *Severe Sepsis Presentation Time*, use the lactate drawn with the HIGHEST level within this time frame.
* 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).
* If within 24 hours of the *Severe Sepsis Presentation Time* there is physician/APN/PA or nursing documentation that a lactate value is invalid, erroneous or questionable, disregard that value.

**Cont’d next page** |
|  |  |  |  | * 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.”

**Include:** lactate level collected, lactate level drawn, lactic acid drawn**Exclude:** labs drawn**Suggested Data Sources:** laboratory reports, nursing notes, physician/APN/PA progress notes or orders |
| 38 | LactdtLactm | Enter the date and time **of the highest value** during the timeframe from (computer display sepresdt/seprestm - 6 hours to sepresdt/seprestm), or if no lactate within that timeframe, enter the highest value from (computer display sepresdt/seprestm + 1 minute to sepresdt/seprestm + 3 hours) when the initial lactate level was drawn (or collected).* If multiple lactate levels are drawn use the following steps:
	+ Choose the highest lactate level drawn in the time frame from 6 hours prior to Severe Sepsis Presentation time through Severe Sepsis Presentation time.
	+ If no lactate is drawn prior to Severe Sepsis Presentation time, use the highest lactate level drawn in the 3 hours following Severe Sepsis Presentation time.
 | mm/dd/yyyy

|  |
| --- |
| <= 1 day prior to sepresdt and <= sepresdt + 1 day |

\_\_\_\_\_UMT

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| --- |
| <= 6 hours prior to sepresdt/seprestm and <= sepresdt/seprestm + 3 hours |

|  |
| --- |
| If lactdt/lactm > sepresdt/seprestm,Warning: Are you sure there was no lactate collected < = 6 hours prior to sepresdt/seprestm? |

 | * If there is more than one date and time of documentation for the *Initial Lactate Level Collection,* use the following order to determine which date and time to abstract.
	1. Laboratory documentation indicating date and time lactate was drawn.
	2. Non-narrative location indicating lactate was drawn with an associated date and time (e.g., sepsis flowsheet, checklist, screening).
	3. Narrative note indicating lactate is drawn with an associated date and time.
* If there is not a lactate drawn or collected date and time documented, but there is supportive documentation that a lactate was drawn, use the date and time of the earliest supportive documentation (e.g., lactate sent to lab, lactate received date and time, lactate result date).
* Use documentation specifying the date and 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 or reported, unless there is a notation of “drawn” or “collected” next to the order, including a date and 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 date and time of attempted lactate level collection.

**Include:** lactate level collected, lactate level drawn, lactic acid drawn**Exclude:** labs drawn**Suggested Data Sources:** laboratory reports, nursing notes, physician/APN/PA progress notes or orders |
| 39 | lacval | What initial lactate level result was documented in the record?1. <= 2 mmol/L (less than or equal to 2 mmol/L)2. > 2 and < 4.0 mmol/L (greater than 2 mmol/L and less than 4 mmol/L)3. >= 4 mmol/L (4 mmol/L or greater) | 1,2,3If 2, go to replactIf 3, go to lacrptdt/lacrptm, else go to hypotnsIf 3, auto-fill sepshk = 1 | * Lactate levels are most often 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
* If lactate levels are reported as mEq/L, this is also acceptable and the following conversion should be used:
	+ 1mEq/L = 1 mmol/L
* Use the result for the initial lactate level drawn in the data element *Initial Lactate Level Collection*.
* Select Value “1” if there was an initial lactate level collected but there is no result, or the result cannot be determined.
* Select Value “1” if the initial lactate was obtained in the operating room (OR), or during procedural/conscious sedation, choose Value “1.”
* If point of care (POC) results and laboratory results were obtained from the same sample, use the results that are recorded first.
* For the following, physician/APN/PA documentation before or within 24 hours after S*evere Sepsis Presentation Time* **is required:**
	+ If the elevated lactate is due to the following, **do not use it by selecting Value “1.”** Do not make inferences. The abnormal value or reference to the abnormal value must be in the same documentation (i.e., same sentence or paragraph).
* Normal for that patient
* Is due to a chronic condition
* Is due to a medication
* If the elevated lactate is due to an acute condition that has a non-infectious source/process, **do not use it by selecting Value “1”** (refer to *Severe Sepsis Present* criterion “a” to determine if the source of the acute condition is an infection).

**Example:** “Lactate 4.3 r/t seizure” and “Seizure post brain injury” (seizure is the acute condition and brain injury is the non-infectious source).**Cont’d next page*** If the elevated lactate should not be used based on the above guidance, do not use any instances of less severe values.
* If the elevated lactate is due to the following, use the lactate value.
	+ Acute condition
	+ Acute on chronic condition
	+ Infection
* Physician/APN/PA documentation of a term that is defined by an elevated lactate is acceptable in place of an abnormal value when the term is documented as normal for the patient, due to a chronic condition, due to a medication, or due to an acute condition that has a non-infectious source/process. **Examples:** Hyperlactatemia, Lactic Acidosis
* Use the lactate value if there is conflicting documentation within the same physician/APN/PA documentation indicating the elevated lactate is: normal for the patient, due to a chronic condition or medication, or due to an acute condition with a non-infectious source AND due to or possibly due to an acute condition, acute on chronic condition, infection, severe sepsis, or septic shock.
* If there is conflicting documentation within two or more separate pieces of physician/APN/PA documentation indicating the elevated lactate is: normal for the patient, due to a chronic condition or medication, or due to an acute condition with a non-infectious source AND due to or possibly due to an acute condition, acute on chronic condition, infection, severe sepsis, or septic shock, abstract based on the documentation closest to and before the Severe Sepsis Presentation Time.

**Suggested Data Sources:** laboratory reports, physician/APN/PA progress notes |
| 40 | lacrptdtlacrptm | Enter the date and time the initial lactate level was reported. | mm/dd/yyyy

|  |
| --- |
| >= lactdt and <= sepresdt + 1 day  |

\_\_\_\_\_UMT

|  |
| --- |
| >= lactdt/lactm and <= sepresdt/seprestm + 6 hours |

 | * **Report Time source**: Laboratory test value result released date/time from lab reports (Other time stamps intended to identify the result date/time from the lab are acceptable with a terminology reference such as a policy, key, or legend).
* **Supporting sources if report time source not available in order of priority:**
	+ Time within a narrative note that is directly associated with the laboratory test value
	+ Time the laboratory test value is documented in a non-narrative location (e.g., sepsis flow sheet)
	+ Laboratory test sample draw or collected time
 |
| 41 | replact | During the timeframe from (computer display lactdt/lactm to sepresdt/seprestm + 6 hours) was a repeat lactate level drawn?1. Yes2. No | 1,2 If 2, go to hypotns | * A repeat lactate level is the next lactate level drawn after the initial lactate level if the initial lactate is elevated (>2 mmol/L or > 18.0 mg/dL). The specified time window for the repeat lactate collection begins after the Initial Lactate Level Collection Time and ends six hours after the Severe Sepsis Presentation Time.
* If a repeat lactate level was drawn but not in the time window beginning after the Initial Lactate Level Collection Time and ending six hours after the Severe Sepsis Presentation Time, select value “2”.
* Do not use documentation such as “Labs Drawn” as it is not specific to the lactate level collection time. Similarly, do not use a physician order for lactate levels as it does not specify that a lactate level was drawn, unless there is a notation next to the order that it was drawn or collected.
* 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., nursing documentation indicates “lactate sent to lab”, “lactate level received”, “lactate sent, awaiting result from lab”). If there are multiple instances of supporting documentation, use the earliest.
* If a repeat 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”.

**Include:** lactate level collected, lactate level drawn, lactic acid drawn**Exclude:** labs drawn**Suggested Data Sources:** laboratory reports, nursing notes, physician/APN/PA progress notes or orders |
| 42 | replactdtreplactm | During the timeframe from (computer to display lactdt/lactm to sepresdt/seprestm + 6 hours), enter the earliest date and time the repeat lactate level was drawn (or collected). | mm/dd/yyyy

|  |
| --- |
| >= lactdt and <= sepresdt + 1 day |

\_\_\_\_\_UMT

|  |
| --- |
| > lactdt/lactm and <= sepresdt/seprestm + 6 hours |

 | * A repeat lactate level is the next lactate level drawn after the initial lactate level if the initial lactate is elevated (>2.0 mmol/L or >18.0 mg/dL). The specified time window for the repeat lactate collection begins after the Initial Lactate Level Collection Time and ends six hours after the Severe Sepsis Presentation Time. Do not use documentation such as “Labs Drawn” as it is not specific for lactate level. Similarly, 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 order that it was drawn or collected and there is a date and time noted.
* 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 date and time.
* If a repeat 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 and time of attempted lactate level collection.

**Include:** lactate level collected, lactate level drawn, lactic acid drawn**Exclude:** labs drawn, labs reported**Suggested Data Sources:** laboratory reports, nursing notes, physician/APN/PA progress notes or orders |
| 43 | hypotns | During the time frame from (computer to display sepresdt/seprestm - 6 hours) to (computer to display sepresdt/seprestm + 6 hours) is there documentation initial hypotension was present?Criteria for determining initial hypotension:* Two hypotensive blood pressure readings at different times within specified timeframe
* systolic blood pressures <90, or
	+ - mean arterial pressures (MAP), <65 or
		- a decrease in systolic BP by >40 mm/Hg

1. Yes2. No or unable to determine | 1,2If 1, auto-fill sepshk = 1 If 2, and lacval <> 3, and shkpres = 2, auto-fill sepshk = 2, and go to end, OR if 2 and lacval <> 3 and shkdt/shktm – sepdt2/spetm2 > 6 hours, auto-fill sepshk as 2 and go to end, else skip to sepshk and auto-fill as = 1 | * Determine *Initial Hypotension* using the following criteria:Two hypotensive blood pressure readings from measurements taken at different times within the specified time frame. The hypotensive blood pressure readings do not need to be consecutive but need to be within 3 hours of each other. Acceptable readings are:
* systolic blood pressures <90, or
	+ - mean arterial pressures (MAP) <65 or
		- a decrease in systolic blood pressure by >40 mm/Hg. **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 or severe sepsis and not to other causes.**
* Mean arterial pressure (MAP) is the average arterial pressure throughout one cardiac cycle, systole, and diastole. To perfuse vital organs requires the maintenance of a minimum MAP. There are methods to calculate, but **ONLY** accept actual documentation of MAP <65.
* Note: The hypotensive BP readings must be prior to the completion of the target ordered volume of crystalloid fluids.

**Hypotensive BPs Acceptable to Use:*** Documentation in pre-hospital records (e.g., ambulance records, nursing home records) considered part of the medical record that document hypotensive readings.

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|  |  |  |  | **(Acceptable BPs to use, cont’d)*** Due to the following:
* Acute condition, e.g. documented “hypotension r/t dehydration.”
* Acute on chronic condition, e.g. documented “hypotension due to acute exacerbation of chronic heart failure.”
* Infection, e.g. documented “Sepsis, hypotensive.”
* Term documented in place of abnormal value, e.g. “Hypotension (Systolic BP < 90 mmHg or MAP < 65 mmHg)” when the term is documented as normal for the patient, due to a chronic condition or medication or due to an acute condition that has a non-infectious source/process.
* If there is conflicting documentation within the same physician/APN/PA documentation or within two or more separate pieces of physician/APN/PA documentation indicating hypotension is: normal for the patient, due to a chronic condition or medication or due to an acute condition with a non-infectious source **AND** due to or possibly due to acute condition, acute on chronic condition, infection, severe sepsis or septic shock, abstract based on the documentation closest to the Severe Sepsis Presentation Time.

**Hypotensive BPs NOT acceptable to use:*** Obtained within the operating room (OR), interventional radiology, during active delivery, during cardiopulmonary arrest (code), or during procedural/conscious sedation
* Documented from an orthostatic BP evaluation (tilt test).
* Documented during a dialysis procedure.

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|  |  |  |  | **(Hypotensive BPs NOT to use, cont’d)*** Physician/APN/PA documentation before or within 24 hours after severe sepsis presentation that hypotension is normal for patient; due to chronic condition or medication, e.g. “hypotensive after pain meds.” The abnormal value or reference to the abnormal value must be in the same documentation (i.e., same sentence or paragraph).
* If the criteria for determining Initial Hypotension were met prior to arrival and the first blood pressure reading is not hypotensive on arrival to the ED or hospital.
* If the target ordered volume of crystalloid fluids was completely infused before the hypotensive readings.
* Documented as due to an acute condition that has a non-infectious source /process, e.g., “BP 85/50 r/t blood loss from GI bleed.” “Hypotension, related to dehydration, not sepsis”
* Documentation within 24 hours of severe sepsis presentation a hypotensive reading is invalid, erroneous or questionable; OR should not be used.
* Hypotensive readings not within six hours before or six hours after Severe Sepsis Presentation Time

**Suggested Data Sources:** ED Record, Nurses notes, Physician/APN/PA notes, Vital signs record or flow sheet |
| 44 | hypotnsdthypotnstm | Enter the date and time on which initial hypotension was present during the time frame from(computer to display sepresdt/seprestm - 6 hours to sepresdt/seprestm + 6 hours). | mm/dd/yyyy

|  |
| --- |
| <= 1 day prior and <= sepresdt + 1day |

\_\_\_\_\_UMT

|  |
| --- |
| <= 6 hours prior to sepresdt/seprestm and <= sepresdt/seprestm + 6 hours) |

|  |
| --- |
| **Hard edit**: If sepshk = 1 and sepshkdt/sepshktm is later than hypotnsdt/hypotnstm, hypotnstm cannot be >= crystlendt/crystlentm |

 | * **Use the earliest date and time of the second hypotensive blood pressure documented within the time period of six hours** prior to or within six hours following *Severe Sepsis Presentation Date and Time*
* For patients with more than two hypotensive blood pressures in the time period of six hours prior to or within six hours following *Severe Sepsis Presentation Date and Time,* use the date and time of the second hypotensive blood pressure documented within the time period.
* Use the date and time documented for when hypotensive blood pressure was taken or obtained. If date and time taken or obtained is not available, use recorded or documented date and time.
* If using vitals found in an ICU flowsheet, use the time at the top of the column. The time found with the nurses’ initials is the time the data was entered into the flowsheet and not the actual time the vital was taken/completed.
* **Exception for Prior to Arrival:**
* For patients who met criteria for Initial Hypotension prior to arrival and remain hypotensive when they arrive at the ED or hospital unit, use the earliest documented date and time of ED or hospital unit arrival.

Note: The hypotensive BP readings must be prior to the completion of the target ordered volume of crystalloid fluids.  |
| 45 | sepshk | Did a physician/APN/PA document presence of septic shock,severe sepsis with shock, or sepsis with shock?1. Yes2. No or unable to determine  | Will be auto-fill as 1,2If 2 and hypotns = 2, go to end; elseIf 2, go to crystl2 Will be auto-filled as 1 if shkpres = 1 and shkdt/shktm – sepdt2/septm2 < = 6 hours or if lacval = 3 or hypotns = 1Will be auto-filled as 2 if hypotns = 2, lacval <> 3, and shkpres = 2, OR hypotns = 2, and lacval <> 3, and shkdt/shktm – sepdt2/septm2 > 6 hours | **Exclude:** Bacteremia, Septicemia, Shock (not referenced as related to Severe Sepsis or Septic Shock)Septic Shock:* + - Presence of Septic Shock may be identified based upon clinical criteria **OR** physician/APN/PA documentation of Septic Shock.
		- If clinical criteria for Septic Shock are **NOT** met, but there is physician/APN/PA documentation of Septic Shock, severe sepsis with shock, or sepsis with shock, select Value “1.”
		- In order to establish the presence of Septic Shock by clinical criteria, one of the following two criteria (1 or 2) must be met:

**1.** Severe Sepsis Present **AND**  *Persistent Hypotension* evidenced by: * Persistent hypotension or new onset of hypotension was present within one hour after the target ordered volume of crystalloid fluids was completely infused.
* If there is conflicting documentation within the same physician/APN/PA documentation or within two or more separate pieces of physician/APN/PA documentation indicating hypotension is: normal for the patient, due to a chronic condition or medication or due to an acute condition with a non-infectious source AND due to or possibly due to infection, severe sepsis, septic shock, or severe sepsis with shock abstract based on the documentation closest to and before the Severe Sepsis Presentation Time.

**2.** Severe Sepsis Present **AND** Tissue hypoperfusion evidenced by * + - *Initial Lactate Level Result* is >=4 mmol/L
* If Septic Shock presentation is more than six hours after Severe Sepsis Presentation Time, select Value “2”.
* Disregard documentation of Septic Shock in a discharge note, discharge summary, or documented after the time of discharge.
* The title or heading of an order set, protocol, checklist, alert, screening tool, etc. reflecting an infection, SIRS, Sepsis, Severe Sepsis, or Septic Shock **should not be used** to meet criteria.

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  | * Documentation of a criterion or Septic Shock ***within an*** order set, protocol, checklist, alert, screening tool, etc., **may be used** if the following is true:
* The documentation or value and recorded date and time is present and is the earliest date and time recorded for the criteria.
* 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 Septic Shock.
* Choose Value “2” if at the same time or within six hours after documentation meeting clinical criteria or physician/APN/PA documentation of septic shock there is additional physician/APN/PA documentation indicating:
* Patient is not septic
* Patient does not have sepsis, severe sepsis, septic shock
* Septic shock is due to a viral, fungal or parasitic infection
* Do not use physician/APN/PA documentation of a severe sepsis or septic shock exam or assessment being performed. For example, “Septic shock assessment completed” is not acceptable.
* For documentation of Septic Shock accompanied by a qualifier, use the table below.
* Select Value “1” for documentation containing a positive qualifier.
* Select Value “2” for documentation containing a negative qualifier OR documentation containing both a positive and negative qualifier.

**Cont’d next page****Qualifiers list is not all inclusive.**

|  |  |
| --- | --- |
| **Positive Qualifiers** | **Negative Qualifiers** |
| Possible | Impending |
| Rule out (r/o) | Unlikely |
| Suspected | Doubt |
| Likely | Risk for |
| Probable | Ruled out |
| Differential diagnosis | Evolving |
| Suspicious for | Questionable |
| Concern for | Monitor |
| Suggestive of  | Query |
| Presumed | Less Likely |

**Suggested Data sources:** Any physician/APN/PA documentation |
| a) If shkdt/shktm – sepdt2/septm2 < = 6 hours, or if sepdt2 = 99/99/9999, consider shkdt/shktm as valid time.b) If lacval = 3 compare lacrptdt/lacrptm and sepresdt/seprestm and consider the latest date/time as a valid time. c) If hypotens = 1, compare hypotnsdt/hypotnstm and sepresdt/seprestm and consider the latest date/time as a valid time.From all valid times above, auto-fill sepshkdt/sephsktm with the EARLIEST time. |
| 46 | sepshkdtsepshktm | Enter the earliest date and time a physician/APN/PA documented the presence of septic shock OR the earliest date and time on which the final criterion was met to establish the presence of septic shock. | mm/dd/yyyy

|  |
| --- |
| >= sepresdt/seprestm and <= dcdt/dctm |

\_\_\_\_\_\_UMTWill be auto-filled with the earliest of the three valid dates/times, a, b, or c:a) If shkpres=1 and shkdt/shktm – sepdt2/septm2 <= 6 hours or if sepdt2 = 99/99/9999 **OR**b) If lacval = 3**OR**c) If hypotns = 1

|  |
| --- |
| **Hard edit**: If hypotns = 1 and hypotnsdt/hypotnstm is later than sepshkdt/sepshktm, sepshktm cannot be >= crystlendt/crystlentm |

  | * Use the earliest date and time on which the physician/APN/PA documented septic shock or severe sepsis with shock was present OR the earliest date and time on which the final criterion for septic shock was noted (see Septic Shock Present data element for criteria list).
* If septic shock is documented multiple times within the same note, use the earliest specified time.
* Septic Shock identified by severe sepsis present and persistent hypotension (*Septic Shock Present* criteria 1):
* Use the later date and time of either severe sepsis presentation or persistent hypotension.
* For persistent hypotension, use the date and time of the last consecutive blood pressure reading that identifies the presence of persistent hypotension.
	+ - If persistent hypotension was identified by either of the following, use the date and time of the latest hypotensive reading in the hour for the date of persistent hypotension.
* Two or more blood pressures were documented within the time frame and persistent hypotension is unable to be determined and a vasopressor was administered.
* Only one blood pressure was documented within the time frame that was hypotensive and a vasopressor was administered.
* Septic Shock identified by severe sepsis present and initial lactate >=4 (Septic Shock Present criteria 2)
* Use the later date and time of either severe sepsis presentation or the initial lactate level result.
* To determine the date and time of the Initial Lactate Level Result for Septic Shock Present criteria, use the following sources in priority order.

 1. Primary source: Lactate result released date and time from lab (Other time stamps intended to identify the result date/time from the lab are acceptable with a terminology reference such as a policy, key, or legend).**Cont’d next page*** Supporting sources in priority order if primary source not available:

1. Date and time within a narrative note that is directly associated with the lactate result 2. Date and time the lactate result is documented in a non-narrative location (e.g., sepsis flowsheet)3. Initial Lactate Level Collection Date and time4. Physician/APN/PA or nursing narrative note open date and time* For patients with multiple septic shock presentation dates/times, only abstract the earliest presentation date and time.
* Use the earliest documented arrival date and time for patients who enter the Emergency Department with the following:
* Septic shock clinical criteria met in pre-hospital records
* Physician/APN/PA documentation of septic shock in pre-hospital records
* Physician/APN/PA documentation that septic shock was present on arrival.
* Use the earliest documented date and time a patient arrives to floor or unit for patients who are direct hospital admits and one of the following is present:
* Septic shock clinical criteria met in pre-hospital records
* Physician/APN/PA documentation of septic shock in pre-hospital records
* Earliest documentation is in a physician/APN/PA note that states septic shock was present on admission
* If physician/APN/PA documentation states septic shock was present on admission or indicates the patient was admitted with septic shock, use the earliest date and time of the following:
* Physician/APN/PA note
* Admit order
* Disposition to inpatient
* Arrival to floor or unit

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|  |  |  |  |
|  |  |  |  | * If septic shock is in a physician/APN/PA note without a specific date and time documented within the note or documented using the acronym POA, the following apply:
* If it is the only documentation of septic shock in the note, use the date and time the note was started or opened.
	+ - If a timestamp reflecting the note opened or started date/time is unavailable, use the following sources in priority order.

1. Provider Patient Care Initiated date/time (e.g. Seen date/time, Contact date/time, etc.)2. Earliest date/time at the beginning of the note  reflecting when the note was opened or started* If septic shock is documented multiple times within the same note, use the earliest specified date and time.

**Suggested Data Sources**: Physician/APN/PA documentation/ Entire ED record; Intake/output records; Lab results; Nurses notes; Vital signs record or flow sheet |
| 47 | cntrasepshk | During the timeframe from (computer to display sepshktm - 6 hours) to (computer to display sepshktm + 6 hours) is there physician/APN/PA or nursing documentation that the patient or authorized patient advocate refused either a blood draw, IV fluid administration, or vasopressor administration?1. Yes2. No or unable to determine | 1,2If 1 and hypotns = 2 go to end; If 2, go to cmoplc2; else go to crystl2 | **Only Acceptable Sources:** physician/APN/PA or nursing documentation* Select value “1” if there is specific documentation indicating patient or *authorized patient advocate*  refusal of any of the following:
* Blood draws
* IV or IO fluid administration
* Vasopressors

An *authorized patient advocate* is someone (defined by facility policy) who is authorized to make decisions on behalf of the patient when the patient is not able to. This includes someone who is legally designated and empowered to make medical decisions on the patient's behalf when the patient is unable to. * If there is more general documentation of refusal of care (e.g. central line, PICC, IO access) or documentation of patient non-compliance with care (e.g., pulling out IV) that could result in blood draw, IV fluid administration, or vasopressors not being administered within the specified time frame select value “1”.
* Select value “1” if blood draw, IV fluid administration, or a vasopressor is administered, but occurs after the specified time window due to refusal of care or patient non-compliance in blood draw, IV fluid administration, or vasopressor administration.
* For refusal of blood draws:
* Documented refusal of blood draws is acceptable.
* Refusal of specific blood draws or blood tests that do not impact the ability to meet the requirements of the SEP-1 measure data elements should not be used. **Examples:** Patient refused HIV blood test;

Patient refused arterial blood gas (ABG). * If there is a signed AMA form or documentation by a physician/APN/PA or nurse indicating the patient left AMA prior to or within six hours following presentation of septic shock, select value "1".

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|  |  |  |  | * Documentation suggesting that the patient left before

discharge instructions could be given does not count as leaving against medical advice* An AMA form signed by the patient is not required, for the purposes of this data element.
* Do not consider AMA documentation and other disposition documentation as “contradictory.” If any source states the patient left AMA, select value “1” regardless of whether the AMA documentation was written last. **Example:** AMA form signed and discharge instruction sheet states “Discharged home with belongings” select value “1”.

**Inclusion Guidelines:*** Declined
* Does not want
* Refused
* Requests not to be given
 |
| 48 | cmoplc2 | During the timeframe from (computer to display sepshktm - 6 hours) to (computer to display sepshktm + 6 hours) is there physician/APN/PA documentation of comfort measures only or palliative care (see Inclusion terms below)?

|  |
| --- |
| **Inclusion (Or synonymous terms)** |
| Brain death/dead | Hospice care |
| Comfort care | Organ harvest |
| Comfort measures | Palliative Care |
| Comfort measures only (CMO) | Palliative Consult |
| Comfort only | Terminal care |
| Do Not Resuscitate Comfort Care (DNR-CC) | Terminal extubation |
| End of life care | Withdraw care |
| Hospice | Withhold care |

1. Yes2. No | 1,2If 1 and hypotns = 2, go to end; else go to crystl2

|  |
| --- |
| **Hard edit**: If 1 and sepresdt/seprestm = sepshkdt/sepshktm, cmoplc must = 1 |

 | * Physician/APN/PA documentation of comfort measures only, palliative care, or another acceptable inclusion term must be before or within the specified time frame.
* Directive for Comfort Care refers to medical treatment of a dying person where the natural dying process is permitted to occur while assuring maximum comfort. It includes attention to the psychological and spiritual needs of the patient and support for both the dying patient and the patient's family. It is not equivalent to a physician order to withhold emergency resuscitative measures such as Do Not Resuscitate (DNR).
* Palliative Care is the identification, prevention, and treatment of suffering by means of assessment of the physical, psychosocial, intellectual, and spiritual needs of the patient with a goal of supporting and optimizing the patient’s quality of life. Palliative care ensures a partnership between practitioner, patient, and family to provide support in decision making at any stage in the patient’s care.
* **Only accept terms identified in the list of inclusions or synonymous with an inclusion term. No other terminology will be accepted**
* Only use physician/APN/PA documentation of an inclusion term documented in the following contexts:
	+ Comfort measures only recommendation
	+ Order for consultation or evaluation by a hospice care service
	+ Patient or patient representative request for comfort measures only
	+ Plan for comfort measures only
	+ Referral to hospice care service
* Do not use documentation of an inclusion term if it is not documented in one of the acceptable contexts. **Examples of unacceptable contexts:** “Discussion of comfort measures” “Consider palliative care”

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|  |  |  |  | * State-authorized portable orders (SAPOs):
* SAPOs are specialized forms or identifiers authorized by state law that translate a patient’s preferences about specific end-of-life treatment decisions into portable medical orders. **Examples:** DNR-Comfort Care form; MOLST (Medical Orders for Life-Sustaining Treatment); POLST (Physician Orders for Life-Sustaining Treatment); Out-of-Hospital DNR (OOH DNR)
* If there is a SAPO in the record that is dated and signed prior to arrival with an option in which an inclusion term is found that is checked, select value “1”.
* If a SAPO lists different options for CMO and any CMO option is checked, select value “1”.
* If one or more dated SAPOs are included in the record (and signed by the physician/APN/PA), use only the most recent one. Disregard undated SAPOs.
* For cases where there is a SAPO in the record with a CMO option selected: If the SAPO is dated prior to arrival and there is documentation on the day of arrival up to severe sepsis presentation that the patient or patient representative does not want CMO, and there is no other documentation regarding CMO found in the record, disregard the SAPO.

**Example:** Patient has a POLST dated prior to arrival in his chart and ED physician states in current record “Patient is refusing comfort measures, wants to receive full treatment and be a full code.” * Documentation of an inclusion term in the following situations should be **disregarded**. Continue to review the remaining physician/APN/PA documentation for acceptable inclusion terms. If the **ONLY** documentation found is an inclusion term in the following situations, select value “2”.
	+ - Documentation (other than SAPOs) that is dated prior to arrival or documentation which refers to the pre-arrival time period. **Examples:** Comfort measures only or palliative care order in previous hospitalization record; “Pt. on hospice at home” in MD ED note.

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|  |  |  | * + - Inclusion term clearly described as negative or conditional. **Examples:**
		- “No comfort care"
		- "Not appropriate for hospice care"
		- “Comfort care would also be reasonable - defer decision for now”
		- “DNRCCA” (Do Not Resuscitate – Comfort Care Arrest)
		- “Family requests comfort measures only should the patient arrest.”
		- Documentation of “CMO” should be disregarded if documentation makes clear it is not being used as an acronym for Comfort Measures Only (e.g., “hx dilated CMO” – Cardiomyopathy context).
* 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 to select value “1”.

**Suggested Data Sources:** Consultation notes, Discharge summary, DNR/MOLST/POLST forms, Emergency Department record, History and physical, Physician orders, Progress notes**Excluded data source:** Restraint order sheet |
| 49 | crystl2 | During the timeframe from [(If hypotns = 1, and sepshk = 2, computer to display hypotnsdt/hypotnstm - 6 hours) to (hypotnsdt/hypotnstm + 3 hours) OR (If hypotns = 2 and sepshk = 1 computer to display sepshkdt/sepshktm - 6 hours) to (sepshkdt/sepshktm + 3 hours) OR (if hypotns = 1 and sepshk = 1, computer to display earliest of hypotnsdt/hypotnstm – 6 hrs) to (hypotnsdt/hypotnstm + 3 hours or sepshkdt/sepshktm - 6 hours to sepshkdt/sepshktm + 3 hours) were crystalloid fluids initiated?1. Yes2. No4. There is documentation the patient has an implanted Ventricular Assist Device (VAD) 97. Physician/APN/PA or nursing documentation no fluids were ordered because the patient was not volume or fluid responsive by clinical evidence.98. The patient or authorized patient advocate refused IV fluids. | 1,2,4,97,98If 2, 4, 97 or 98, go to end | * The specified time frame for abstraction of crystalloid fluids is within six hours prior through three hours after either Initial Hypotension Date and Time or Septic Shock Presentation Date and Time. **If both are present, use the earliest trigger event within the specified time frame.**
* Medical record documentation must be clear that crystalloid fluids were ordered and initiated such that the start date and time of administration is noted to select value “1”.
* **Include:** Crystalloid fluids such as: 0.9% saline solution, 0.9% sodium Chloride Solution, Isolyte, Lactated Ringers solution, normal saline, Normosol, PlasmaLyte, Sodium Chloride 0.45%
* **Exclude:** Crystalloid solutions that are given to flush other medications or IV lines
* Do not use physician/APN/PA orders as equivalent to actual initiation of fluids as they are not specific to initiation or start date and time.

**Crystalloid Fluid Orders:** * 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.
* The terms bolus, wide-open, or open are acceptable for a rate or infusion duration.
* If the type of fluid, volume of fluid, rate or infusion duration is missing, do not use the order toward the target ordered volume.
* **Exception for Prior to Arrival:** Documentation of crystalloid fluids administered prior to arrival to the hospital (e.g., ambulance, nursing home) that are part of the medical record are acceptable if the documentation of fluid administration contains the type, volume, start time, and either a rate, duration, or end time of the fluid infusion. A physician/APN/PA order for fluids administered prior to arrival is not required.
* **Exception for Operating Room (OR):** Crystalloid fluids administered in the OR by a physician/APN/PA are acceptable without an order if a fluid type, volume, and infusion start time, and an infusion rate or infusion end time is documented.

**Cont’d next page****Examples**: * Nursing home NP documentation is available in the medical record. Documentation indicates “Patient Hypotensive, 500ML NS Bolus ordered” and RN notes on the date of septic shock state 1430: “NS bolus started prior to ambulance transport.” Select value “1” as there is documentation crystalloid fluids were initiated.
* Crystalloid fluids administered in the OR and OR records document “1L LR bolused for hypotension” start and end time are present in the OR notes, select value “1” since documentation indicates the fluid type, volume, start time and end time, and since started in the OR no order is required to select value “1” that documentation supports crystalloid fluid initiation.
* Select value “4” if there is documentation that the patient has an implanted ventricular assist device (VAD) prior to or at the time of identifying the need for crystalloid fluids, regardless of the volume and rate of crystalloid fluids ordered.
	+ Exclude documentation the patient has a pacemaker.
* Select value “97” if there is physician/APN/PA or nursing documentation which indicates no crystalloid fluids were ordered because the patient was not volume or not fluid responsive. Documentation must indicate that invasive or noninvasive measurements of cardiac output (CO), cardiac index (CI), stroke volume (SV), or stroke volume index (SVI) were used to determine the patient was not volume or fluid responsive.
* Examples of noninvasive measurements of CO, CI, SV, or SVI may include, but are not limited to, point of care (bedside) ultrasound (POCUS), FlowTrac, or impedance measures.
* Select value “98” if physician/APN/PA or nursing documentation indicates the patient or authorized patient advocate has refused IV fluid administration prior to or within six hours following presentation of septic shock.

**Cont’d next page*** + An authorized patient advocate is someone who is authorized to make decisions on behalf of the patient when the patient is not able to. This includes someone who is legally designated and empowered to make medical decisions on the patient's behalf when the patient is unable to.
	+ **Examples:** Family members, Medical power of attorney, Health care power of attorney, Durable power of attorney
	+ for health care, Someone documented as an agent for the patient, Attorney-in-fact

**Suggested Data Sources:** Ambulance or transport vehicle records; Entire ED record; Input and Output (I&O) flowsheet; IV therapy record; Medication Administration Record; Nursing Notes; Operating Room (OR) notes; Physician/APN/PA orders  |
| 50 | crystldtcrystltm | Enter the earliest date and time on which crystalloid fluids were initiated. | mm/dd/yyyy

|  |
| --- |
| [(If hypotns = 1, and sepshk = 2, >= hypotnsdt/hypotnstm - 6 hours) and <= (hypotnsdt/hypotnstm + 3 hours) OR (If hypotns = 2 and sepshk = 1 >= sepshkdt/sepshktm - 6 hours) and <= (sepshkdt/sepshktm +3 hours) OR (if hypotns = 1 and sepshk = 1, >= hypotnsdt/hypotnstm – 6 hrs) and <= (hypotnsdt/hypotnstm + 3 hours or >= sepshkdt/sepshktm - 6 hours and <= sepshkdt/sepshktm +3 hours) |

\_\_\_\_UMT | **Enter the exact date and time that crystalloid fluids were initiated.*** Abstract the earliest date and time that the crystalloid fluid infusion began.
* If a crystalloid infusion is running at a maintenance rate (125 mL/hour or less) and the rate is increased use the date and time the infusion rate is increased.
* If crystalloid fluids are initiated via multiple physician/APN/PA orders, begin with abstracting the earliest crystalloid fluids ordered and initiated.
* For example, Time frame for acceptable crystalloid fluids is 0800 through 1700.
* IV Fluid Orders:
	+ 12:00: NaCl 0.9% IV volume 1,000 mL bolus wide-open
	+ 13:00: NaCl 0.9% IV volume 3,750 mL, rate 999 mL/hr
		- MAR:
		- 12:00: new bag 1000 mL, stop time 12:30
		- 13:00: new bag 1000 mL at 999 mL/hr
		- 14:00: new bag 1000 mL at 999 mL/hr
		- 15:00: new bag 1000 mL at 999 mL/hr
	+ Enter the crystalloid fluid infusions beginning at 12:00.
* **Do not abstract the following as the earliest date and time for crystalloid fluid initiation:**
* The date and time that fluids were ordered.
* The date and time that IV access was started.
* The physician order date and time as fluid administration start date and time.
* **Documentation of crystalloid fluids administered prior to arrival to the hospital** (e.g., ambulance, nursing home) that are part of the medical record **are acceptable if the documentation of fluid administration contains the type, volume, start time, and rate, duration, or end time of the fluid infusion.**
* A physician/APN/PA order for fluids administered prior to arrival is not required.

**Suggested Data Sources:** Ambulance or transport vehicle records; Entire ED record; IV therapy record or flowsheet; Medication Administration Record; Nursing Notes |
| 51 | weight | Enter the patient’s weight in kilograms (kg).**NOTE: Use the actual or estimated weight documented in the following priority order:**1. Weight documented in the crystalloid fluid order *(Do not use the weight documented in the footer of the order as it lists the most recent weight at the time the patient’s chart was opened for review.)*
2. Weight documented closest to and prior to the order for crystalloid fluids.
3. Weight documented closest to and after the order for crystalloid fluids.
4. Use the weight closest to the initiation of fluids (whether that is prior to or after the initiation of fluids).
 | \_\_\_ kg

|  |
| --- |
| Warning if <= 44 or >= 126 |

 | * Use the actual or estimated weight documented in the following priority order:
1. Weight documented in the crystalloid fluid order *(Do not use the weight documented in the footer of the order as it lists the most recent weight at the time the patient’s chart was opened for review.)*
2. Weight documented closest to and prior to the order for crystalloid fluids
3. Weight documented closest to and after the order for crystalloid fluids
4. Use the weight closest to the initiation of fluids (whether that is prior to or after the initiation of fluids).
* If the weight is **only** documented prior to admission and after initiation of fluids, enter the weight documented closest to the initiation of crystalloid fluids.
	+ **Example:** Patient weight is 185 ten days prior to admission and weight is 175 the day after initiation of crystalloid fluids, enter 175 since it is closest to the initiation of crystalloid fluids.
* If the weight is documented in pounds, divide the value by 2.2, round to the nearest whole number and enter the weight as kilograms.
	+ **Example:** Patient weight is 160 pounds. 160/2.2 = 72.72 kg. Round to 73 kg.
* Physician/APN/PA can use ideal body weight (IBW) to determine the target ordered volume if ***all*** of the following conditions are met. Other acceptable weight terms include predicted weight, dosing weight, and adjusted body weight.
	+ Physician/APN/PA documentation that the patient is obese (defined as BMI > 30).
* Physician/APN/PA documents IBW is used to determine the target ordered volume.
* IBW is present in the medical record, abstractors should not calculate the IBW.
 |
| 52 | crystlvol | Calculate the target volume and enter the target volume in milliliters (mL) of crystalloid fluids to be administered.   | \_\_\_\_\_\_\_mLComputer to calculate weight x 30 (round to nearest whole number) and auto-fill | * **To determine the target ordered volume:**
* Multiply the weight in kg by 30 mL; the result is the number of mL of IV fluid that should be specified in the physician/APN/PA order(s).
* Round the volume of IV fluid (mL) to the nearest whole number.

**Example:** Patient weight is 160 pounds. 160/2.2 = 72.72 kg, which is rounded to 73 kg. 73 x 30 mL = 2190 (mL).  |
| 53 | targvol | Is there documentation the target ordered volume of crystalloid fluids (computer to display crystlvol) initiated on (computer to display crystldt at crystltm) was completely infused?**Include crystalloid fluid volumes ordered that are:*** Equivalent to 30mL/kg; **OR**
* A volume within 10% less than 30 mL/kg; **OR**
* A lesser volume with the volume of fluids to be administered AND a reason for the lesser target ordered volume specifically documented by the physician/APN/PA within a single source
* Include those given at a rate of > 125 mL/hr towards the target ordered volume
* Order includes the type of fluid, volume of fluid, rate or infusion duration

1. Yes2. No | 1,2If 2, go to end | * Select value “1” if the target ordered volume is **ordered, initiated, and** **completely** **infused.**
* Evaluate all crystalloid fluids ordered and include those fluids initiated as contributing to the target ordered volume.
* The target ordered volume may be in a single order or a series of multiple orders. If crystalloid fluids are initiated via multiple physician/APN/PA orders, begin with abstracting the earliest crystalloid fluids ordered that are initiated within the specified time frame. Evaluate all crystalloid fluids ordered and include the fluids if they contribute to the target ordered volume and are initiated within the specified time frame.
* **Include crystalloid fluid volumes ordered that are:**
* **equivalent to 30 mL/kg; OR**
* **a volume (either a specific volume (e.g., 1500 mL or a weight based volume (e.g., 25 mL/kg) is within 10% less than 30 ml/kg (documentation of a reason is not required).**
	+ **Example**: The patient weighs 90 kg (90 kg x 30 mL/kg = 2700 mL) and the physician only ordered 2,500 mL of NS over two hours. Use 2500 mL as the target ordered volume since the physician only ordered 2500 mL of crystalloid fluid which is within 10% less than the 30 mL/kg volume. If 2500 mL was completely infused, select value “1”**; OR**
* **a lesser volume with a reason for the lesser target ordered volume specifically documented by the physician/APN/PA within a single source (e.g., note or order) in the medical record including all of the following:**
	+ **The volume of fluids to be administered as either a specific volume (e.g., 1500 mL) or a weight-based volume (e.g., 25 mL/kg)**
	+ **AND a reason for ordering a volume less than 30 mL/kg of crystalloid fluids. Reasons may include, but are not limited to:**
* Concern for fluid overload
* Heart failure
* Renal failure

**Cont’d next page*** Blood pressure responded to lesser volume
* A portion of the crystalloid fluid volume was administered as colloids (if a portion consisted of colloids, there must be an order and documentation that colloids were started or noted as given)
* Crystalloid fluid shortage due to supply chain issues

**Example**: Physician documentation: septic shock, renal failure, give 1500 mL NS evaluate for response.Orders: 1500 mL NS IV at 1000 mL/hr.MAR: IV NS 1500 mL at 1000 mL/hr start time 0800, end time 0930. Patient weight is 74 kg, 30 mL/kg is 2220 mL. Select value “1” because the physician identified 1500 mL as the target ordered volume (rather than 2220 mL), documented a reason for ordering less than 30mL/kg (renal failure), and 1500 mL was ordered, initiated, and documented as completed infused.* If there are multiple physician/APN/PA orders for lesser volumes with documented reasons, use the total of the lesser volumes ordered with the specified time of six hours prior through three hours after the triggering event.
* If a lesser volume is ordered and there is physician/APN/PA documentation indicating the target ordered volume is 30mL/kg within six hours after the lesser volume is ordered, use the 30 mL/kg volume as the target ordered volume.
* Only abstract fluids administered through the intravenous or intraosseous route.
* Only include crystalloid fluids or colloids (e.g., albumin, hydroxyethyl starches (HES) or Hetastarch) given at a rate greater than 125 mL/hr towards the target ordered volume. Do not use crystalloid fluids or colloids given at 125mL/hr or less toward the target ordered volume.

**Cont’d next page*** Acceptable fluids are crystalloid or balanced crystalloid solutions.
* Crystalloid fluids or balanced crystalloid fluids that are given to dilute medications may be used toward the target ordered volume. The diluting fluid needs to be named to determine if the fluid is an acceptable crystalloid fluid. The order must include the type of fluid, and a rate (>125 mL/hr) or time over which the fluids are to be given. If the volume infused without dilution fluids is the same as the target ordered volume, fluids used for diluting medications do not need to be counted.
* Crystalloid fluid volumes to which the following electrolytes have been added may be counted toward the target ordered volume requirement: potassium, magnesium, calcium, lactate, acetate, or gluconate.
* To determine if the target ordered volume was completely infused, one of the following must be documented along with the infusion start time. If one of the following is not documented, do not use the fluids toward the target ordered volume: Infusion rate (e.g., 1000 ml/hr)
* Infusion duration or time over which to infuse (e.g., 1000 mL over 30 minutes)
* Infusion end or completion time (e.g., MAR documentation of 1000 mL End Time 12:00)
* If the ordered rate or duration to infuse is different from the rate or duration over which the fluids were actually administered, use the rate, duration, or end time over which the fluids were actually administered.

**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 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”.

**Cont’d next page*** Fluid Order: 0.9% NS 1000 mL bolus at 150 mL/hr. Nurse documents a start time of 1500 and end time of 1800 for the 1000 mL bolus. Use the start and stop time documented by nursing that reflects the duration over which the fluids were actually administered
* Physician documentation: Lactate 5.0, heart failure concerns, 20 mL/kg NS now, then reevaluate.

Orders: NS 0.9% IV, 20 mL/kg over 2 hours. MAR: NS 0.9% IV 20 mL/kg, Start time 1500, Completed time 1700. Select value “1” based on the physician documentation meeting the requirements and identifying 20 mL/kg as the target ordered volume of crystalloid fluids for this patient.* Physician documentation: septic shock, renal failure, 1500 mL NS evaluate for response. Orders: 1500 mL NS IV at 1000 mL/hr; MAR: IV NS 1500 mL at 1000 mL/hr start time 0800; Patient weight is 74 kg, 30 mL/kg is 2220 mL. Select value “1” based on the physician documentation meeting the requirements for a lesser volume and identifying 1500 mL as the target ordered volume of crystalloid fluids for this patient.

**Unacceptable to include toward the target volume:*** If the type of fluid, volume of fluid, rate or infusion duration is missing, do not use the order toward the target ordered volume.
* **If the target ordered volume is not completely infused or was stopped prior to reaching the target ordered volume, choose value “2”.**

**Suggested Data Sources**: Ambulance or transport vehicle records; Entire ED record; Input and Output (I&O) flowsheet; IV therapy record; Medication Administration Record; Nursing Notes; Patient weight record; Physician/APN/PA orders |
| 54 | crystlendtcrystlentm | Enter the earliest documented date and time the target ordered volume of crystalloid fluids was completed.   | mm/dd/yyyy

|  |
| --- |
| >= crystldt and <= 1 day after crystldt |

\_\_\_\_UMT

|  |
| --- |
| > crystldt/crystltm and <= 9 hours after crystldt/crystltm |

|  |
| --- |
| **Hard edit**: Cannot be <= the earliest of hypotnsdt/hypotnstm or sepshkdt/sepshktm |

 | **Review all data sources to determine the date and time the target ordered volume of crystalloid fluids was completed. Enter the exact date and time.*** + - If the specific completion time of the target ordered volume is NOT documented 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. **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 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 target ordered volume was completed.
* **If using multiple orders toward the target ordered volume**, use the start date or time of the crystalloid fluid infusion that completed the target ordered volume
* If multiple infusions end at the same time, use the start time of the infusion that was started last. For example: 30 mL/kg = 2500 mL Order 1: NS 2000 mL over 2 hours -started 0800 and Order 2: NS 500 mL over 30 minutes -started 0930 Because both infusions end at 10:00, use 09:30, the time of the infusion that was started last, for the crystlentm

**Suggested Data Sources:** Ambulance or transport vehicle records; Entire ED record; IV therapy record or flow sheet; Medication Administration Record; Nursing Notes |

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| --- | --- | --- | --- | --- |
| 55 | pershypo | During the time frame from (computer display crystlendt at crystlentm) to (computer to display crystlendt at crystlentm + 1 hour) is there physician/APN/PA documentation that persistent hypotension or new onset of hypotension was present?**Criteria for determining persistent or new onset of hypotension:*** Two hypotensive blood pressure readings at different times within specified timeframe
* systolic blood pressures <90, or
	+ - mean arterial pressures (MAP), <65 or
		- a decrease in systolic BP by >40 mm/Hg

1. Yes2. No or Unable to determine3. No, the patient was not assessed for persistent hypotension or new onset of hypotension within one hour after the conclusion of crystalloid fluid administration at the target ordered volume. 4. Not applicable - Crystalloid fluids were administered but at a volume less than the target ordered volume | 1,2,3,4If 3 or 4 or sepshk = 2, go to end;else if 2, go to rptvolst | **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 target ordered volume of crystalloid fluids, two 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. **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**.
* Mean arterial pressure (MAP) is the average arterial pressure throughout one cardiac cycle, systole, and diastole. To perfuse vital organs requires the maintenance of a minimum MAP. There are methods to calculate, but **ONLY** accept actual documentation of MAP <65.
* Use the time the hypotensive blood pressures were taken or obtained. If time taken or obtained is not available, use recorded or documented time. Do not abstract hypotensive values from narrative charting unless there is no other documentation that reflects the time that the same hypotensive values were obtained.
* Beginning at the time the target ordered volume concludes, review for persistent hypotension for the next hour only.

**Hypotensive BPs within the hour acceptable to use:*** Due to the following:
* Acute condition, e.g. documented “persistent hypotension r/t dehydration.”
* Acute on chronic condition, e.g. documented “Persistent hypotension due to acute exacerbation of chronic heart failure.”
* Infection, e.g. documented “Sepsis, hypotensive.”
* Term documented in place of abnormal value, e.g. “Hypotension (Systolic BP < 90 mmHg or MAP < 65 mmHg).” when the term is documented as normal for the

patient, due to a chronic condition, due to a medication or due to an acute condition that has a non-infectious source/process. **Cont’d next page*** If there is conflicting documentation or within two or more separate pieces of physician/APN/PA documentation, indicating hypotension is normal for the patient, due to a chronic condition or medication, or due to an acute condition with a non-infectious source **AND** due to or possibly due to infection, severe sepsis or septic shock, abstract based on the documentation closest to and before the *Severe Sepsis Presentation Time.*
* Documentation in pre-hospital records (e.g., ambulance, nursing home) considered part of the medical record

**Also Select value “1” in the following situations:*** If two or more blood pressures were documented within the time frame and Persistent Hypotension is unable to be determined and a vasopressor was administered.
	+ For example, One-hour time frame: 0800 to 0900. Blood pressures documented at 0830 of 95/60 and at 0845 of 86/54. The Medication Administration Record indicates Vasopressin started at 0930. Select value “1”
* If only one blood pressure was documented within the time frame that was low and a vasopressor was administered
	+ For example, one-hour time frame: 1300 to 1400

Blood pressure (only one documented) at 1325 was 87/53; MAR documents: Levophed started at 1500. Select value "1".**Hypotensive BPs within the hour NOT acceptable to use:*** Obtained within the operating room (OR), interventional radiology, during active delivery, during cardiopulmonary arrest (code), or during procedural/conscious sedation.
* Documented from an orthostatic BP evaluation (tilt test).
* Documented during a dialysis procedure.
* Physician/APN/PA documentation, before or within 24 hours after severe sepsis presentation, that hypotension is normal for
* patient; due to chronic condition or medication, e.g. “hypotensive after pain meds.” The abnormal value or reference to the abnormal value must be in the same documentation (i.e., same sentence or paragraph).

**Cont’d next page*** Physician/APN/PA documentation, before or within 24 hours after severe sepsis presentation, hypotension is due to non-infectious source /process, e.g., “BP 85/50 r/t blood loss from GI bleed.” “Hypotension, related to dehydration, not sepsis.”

**Also Select value “2” in the following situations:*** If there were no BPs or only one BP recorded within the hour and that BP is normal.
* If more than two BPs, refer to the last two consecutive BPs and there is a normal BP followed by another normal BP; a normal BP followed by a low BP; or a low BP

followed by a normal BP; Example: The hour to assess for Persistent Hypotension is from 0950 to 1050. At 1020 the systolic BP is 92 and at 1045 it is 84. Select value “2” there is a normal blood pressure followed by a low blood pressure* If persistent hypotension presentation is more than six hours after the Septic Shock Presentation Time
* If within 24 hours of the Severe Sepsis Presentation Time there is physician/APN/PA or nursing documentation indicating a hypotensive reading is erroneous or questioning the validity of a hypotensive reading

**Select value “3” in the following situations:*** If there is no blood pressure or the only blood pressure within the hour is low.

**Select value “4”:*** If crystalloid fluids were administered but at a volume less than the target ordered volume

**Suggested Data Sources:** Entire ED record; Nurses notes; Physician/APN/PA notes; Vital signs record or flow sheet |

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| 56 | vasoprs | During the timeframe from (computer to display sepshkdt/sepshktm) to (computer to display sepshkdt/sepshktm + 6 hours) is there documentation an intravenous (IV)) or intraosseous (IO) vasopressor was administered?

|  |  |
| --- | --- |
| **Generic Name** | **Brand Name** |
| norepinephrine | Levophed |
| epinephrine | Adrenalin |
| phenylephrine | NeosynephrineVasculep |
| dopamine | dopamine |
| vasopressin | Vasopressin |
| angiotensin II | Giapreza |

1. Yes2. No or Unable to Determine | 1,2If 2, go to rptvolst | **Only Accept Vasopressors** **given via the IV or IO route:*** Vasopressor administration information should only be abstracted from documentation that demonstrates actual administration of the vasopressor.
	+ - Do not abstract doses from a physician order unless they are clearly designated as given on the physician order form.
		- Acceptable examples of administration include: “vasopressor running” and “vasopressor given.”
* If a vasopressor was infusing at the time of presentation of septic shock, demonstrated by persistent hypotension after crystalloid fluid administration, choose value “1”.

**Example:** septic shock patient was triaged in the ED at 08:00. The patient was receiving Levophed via an IV at the time of triage – choose value “1”. * If a vasopressor was not started or running within the acceptable time frame, select value “2”.
* A dose can be abstracted that is given by one person and documented as being given by another person if that dose is not documented by the person that actually administered it.
* Use of documentation in pre-hospital records (e.g., ambulance records, nursing home records) that are considered part of the medical record is acceptable.
* Do not abstract test doses of vasopressors.
* Do not abstract vasopressors from narrative charting unless there is no other documentation that reflects that the same vasopressor was given during the specified time frame.

**Suggested Data Sources:** Entire ED record; IV flow sheets; Medication Administration record (MAR); Nursing notes; Physician/APN/PA notes; Transport records |

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| --- | --- | --- | --- | --- | --- | --- |
| 57 | vasoprsdt vasoprstm | During the timeframe from (computer to display sepshkdt/sepshktm) to (computer to display sepshkdt/sepshktm + 6 hours) enter the date and time on which an IV or IO vasopressor was administered. | mm/dd/yyyy

|  |
| --- |
| >= sepshkdt and <= sepshkdt + 1 day |

UMT

|  |
| --- |
| >= sepshkdt/sepshktm and <= sepshkdt/sepshktm + 6 hours |

 | * Enter the date on which an intravenous or intraosseous vasopressor was administered within six hours following the presentation of septic shock, demonstrated by persistent hypotension after crystalloid fluid administration
* The specified time frame for administration of a vasopressor starts at Septic Shock Presentation Time and ends six hours after the Septic Shock Presentation Time.
* Vasopressor administration information should only be abstracted from documentation that demonstrates actual administration of the vasopressor.
* Do not abstract doses from a physician order unless they are clearly designated as given on the physician order form.
* Acceptable examples of administration include: “vasopressor running” and “vasopressor given.”
* Abstract the time the vasopressor was started if a vasopressor was infusing at the time of presentation of septic shock, or a vasopressor was infusing at the time of septic shock and multiple doses were subsequently given.

 **Example:** Septic shock patient was triaged in the ED at 08:00. At the time of triage, the patient was receiving Levophed via an IV started prior to arrival, abstract the date and time the Levophed was started prior to arrival.* If the patient received multiple doses of a vasopressor and there was no vasopressor infusing at the time of presentation of septic shock, abstract the dose given closest to the date and time of presentation of septic shock.
* A dose can be abstracted that is given by one person and documented as being given by another person if that dose is not documented by the person that actually administered it.
* Do not abstract vasopressors from sources that do not represent actual administration.
* Do not abstract vasopressors from narrative charting unless there is no other documentation that reflects that the same vasopressor was given during the specified time frame.

**Suggested Data Sources:** Entire ED record; IV flow sheets; Medication Administration record (MAR); Nursing notes; Physician/APN/PA notes; Transport records |
| 58 | rptvolst | During the timeframe from (computer to display crystldt/crystltm) to (computer to display sepshkdt/sepshktm + 6 hours) is there documentation of a repeat volume status and tissue perfusion assessment was performed ***as evidenced by any of the following three criteria***?1. Physician/APN/PA documentation of a physical exam, perfusion assessment, sepsis focused exam, or systems review. (See D/D Rules for examples.)
2. Physician/APN/PA documentation of a review of at least five of eight parameters. (See D/D Rules)
3. Physician/APN/PA or non-physician/APN/PA documentation that one of four measurements was performed/results documented and reviewed. (See D/D Rules.)

1. Yes2. No or unable to be determined  | 1,2If 2, go to end | * Start abstracting at the crystalloid fluid administration date and time and stop abstracting six hours after the presentation of septic shock date and time. This is the appropriate time window.
* **Acceptable documentation of a repeat volume status and tissue perfusion assessment may consist of any one of the following three:**

**a) Physician/APN/PA documentation indicating or attesting to performing or completing a physical examination, perfusion (re-perfusion) assessment, sepsis (severe sepsis or septic shock) focused exam, or systems review.** **Examples** of Physician/APN/PA documentation that is acceptable:* + - "I did the Sepsis reassessment”
		- Flowsheet question: "Sepsis focused exam performed?" and selection of "Yes”
		- “Review of systems completed”
		- "I have reassessed tissue perfusion after bolus given.”
		- “Sepsis re-evaluation was performed”
		- “I have reassessed the patient’s hemodynamic status”

**b) Physician/APN/PA documentation indicating they performed or completed a review of at least five of the following eight parameters.** Reference to the parameters must be made in physician/APN/PA documentation. Parameters do not need to all be contained within the same physician/APN/PA documentation.1. Arterial Oxygen Saturation - must be documented as from an arterial source, referenced as arterial oxygen saturation, oxygen saturation, pulse oximetry, Pox, or using the abbreviation SaO2 (arterial oxygen saturation) or SpO2 (oxygen saturation measured by pulse oximetry).
2. Capillary Refill - minimally includes documentation of a capillary refill test. (e.g., capillary refill three seconds, cap refill normal).

**Cont’d next page**1. Cardiopulmonary Assessment - minimally includes description of heart rate and rhythm, and results of auscultation of lungs. (e.g., heart normal rate & rhythm and lungs clear to auscultation; patient tachycardic and lungs decreased in bases.)
2. Peripheral Pulses - minimally includes documentation of presence or lack of presence bilaterally; peripheral pulses faint; unable to palpate radial pulses).
3. Shock Index (SI) - a shock index value is documented in the medical record, or there is physician/APN/PA documentation that they have reviewed the shock index.
4. Skin Color or Condition - minimally includes either a description of the skin color or condition (e.g., skin cool and clammy; peripheral cyanosis; skin pink and warm; patient appears pale; skin normal; skin normal for ethnicity.
5. Urine Output (UO) - physician/APN/PA documentation must reference urine output; Documentation of urine output volume is not required (e.g., increased or decreased urine output, oliguria, anuria, urine concentration, urine color).
6. Vital Signs - minimally includes documentation referencing heart rate (HR), respiratory rate (RR), blood pressure (BP), temp or t); Values for these vital signs are not required.

c) Documentation demonstrating one of the following was measured or performed. This documentation can be met by physician/APN/PA or non-physician/APN/PA documentation of performance of the test, a result or value. Physician/APN/PA attestation to having reviewed the test is acceptable, but not required.* 1. Central Venous Pressure (CVP)
	2. Central Venous Oxygen Saturation (ScvO2 or SvO2). If documentation indicates the oxygen saturation is not from a central line source such as a peripheral venous blood gas, do not use it.

**Cont’d next page*** 1. Echocardiogram (Cardiac echo or cardiac ultrasound). An order for an echocardiogram is not sufficient.
	2. Fluid Challenge or Passive Leg Raise. Documentation must explicitly indicate a “fluid challenge” or “passive leg raise” or “leg raise”
* **If there are no repeat volume status and tissue perfusion assessments documented within the appropriate time window, select value “2”.**

**Suggested Data Sources:** Cardiovascular ultrasound or echocardiogram report; Consultation notes, Critical Care flow sheet; ED record; History and physical; Nurses notes; Physician/APN/PA notes; Procedure notes; Respiratory Therapy notes or flow sheet; Vital signs flow sheet |
| 59 | rptvolstdtrptvolsttm | During the timeframe from (computer to display crystldt/crystltm) to (computer to display sepshkdt/sepshktm + 6 hours) enter the earliest date and time that a repeat volume status and tissue perfusion assessment was documented as performed.  | mm/dd/yyyy

|  |
| --- |
| >= crystldt and <= sepshkdt + 1 day |

\_\_\_\_\_UMT

|  |
| --- |
| >= crystldt/crystltm and <= sepshkdt/sepshktm + 6 hours |

 | * Documentation must occur or reflect the assessment was performed between Crystalloid Fluid Administration Date, Crystalloid Fluid Administration Time and six hours after Septic Shock Presentation Date, Septic Shock Presentation Time.
* Documentation of what constitutes or is acceptable for a repeat volume status and tissue perfusion assessment is defined in the *Repeat Volume Status and Tissue Perfusion Assessment Performed* data element.
* If there are multiple repeat volume status and tissue perfusion assessments performed, abstract the date and time of the earliest assessment documented within the appropriate time window.
* If the repeat volume status and tissue perfusion assessment is in a physician/APN/PA note without a specific date and time documented within the note, use the date and time the note was started or opened.

**Suggested Data Sources:** Cardiovascular ultrasound or echocardiogram report; Consultation notes, Critical Care flow sheet; ED record; History and physical; Nurses notes; Physician/APN/PA notes; Procedure notes; Respiratory Therapy notes or flow sheet; Vital signs flow sheet |
|  **IF INPT\_FE flag = 1, enable Delirium Risk** |