|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|   |  | **Organizational Identifiers** |  |  |
|  | VAMCCONTROLQICBEGDTEREVDTE | Facility IDControl NumberAbstractor IDAbstraction Begin DateAbstraction End Date | Auto-fillAuto-fillAuto-fillAuto-fillAuto-fill |  |
|  |  | Patient Identifiers |  |  |
|  | SSNFINPTNAMEFPTNAMELBIRTHDTSEXAGERACEETHNICITY | Patient SSNFINFirst NameLast NameBirth DateSexAge RACEETHNICITY | Auto-fill: no changeAuto-fill: no changeAuto-fill: no changeAuto-fill: no changeAuto-fill: no changeAuto-fill: **can change**Calculate age at ADMDTAuto-fill: no changeAuto-fill: no change |   |
|  |  | Administrative Data |  |  |
| 1 | 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

|  |
| --- |
| <= 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.

**Cont’d next page**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.* \*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.** |
| 2 | admdt | Admission date:  | mm/dd/yyyyAuto-filled: can be modified

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

 | **Auto-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** |
| 3 | 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. No | 1,2If 1, the case is excluded | **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)
* **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)
* Assisted living facilities and nursing homes
* Skilled nursing facility (SNF) care: outside or inside your hospital providing SNF level of care to patient

**Cont’d next page** |
|  |  |  |  | **(trnsfr cont’d)*** 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**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. |
| 4 | dcdt | Discharge date: | mm/dd/yyyyAuto-filled: cannot be modified | **Auto-filled; cannot be modified****The computer auto-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.**  |
| 5 | dctm | Discharge time:  | \_\_\_\_\_UMTAuto-filled: cannot be modified | **Auto-filled; cannot be modified**The computer auto-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.  |
| 6 | princode | Enter the ICD-10-CM principal diagnosis code. | \_\_ \_\_ \_\_. \_\_ \_\_ \_\_ \_\_(3 alpha-numeric characters/decimal point/four alpha-numeric charactersAuto-filled: can be modified

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

 | **Will auto-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.** |
| 7 | othrcode1othrcode2othrcode3othrcode4othrcode5othrcode6othrcode7othrcode8othrcode9othrcode10othrcode11othrcode12othrcode13othrcode14othrcode15othrcode16othrcode17othrcode18othrcode19othrcode20othrcode21othrcode22othrcode23othrcode24 | Enter the ICD-10-CM other diagnosis codes:  | \_\_ \_\_ \_\_. \_\_ \_\_ \_\_ \_\_(3 alpha-numeric characters/decimal point/four alpha-numeric characters)Auto-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 auto-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.** |
| 8 | prinpx(code)prinpxdt(date) | Enter the ICD-10-PCS principal procedure code and date the procedure was performed. Code Date

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

 | \_\_ \_\_ \_\_ \_\_ \_\_ \_\_ \_\_(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

|  |
| --- |
| **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

|  |
| --- |
| > = 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.**1. 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. |
| 9 | othrpx1othrpx2othrpx3othrpx4othrpx5(codes)othrpxdt1othrpxdt2othrpxdt3othrpxdt4othrpxdt5(dates) | Enter the ICD-10-PCS other procedure codes and dates the procedures were performed. Code Date

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

 | \_\_ \_\_ \_\_ \_\_ \_\_ \_\_ \_\_(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

|  |
| --- |
| > = 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.
 |
| 10 | 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 | 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 “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 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, select “1
* 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 **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 |  | **Discharge disposition cont’d*** 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”.
* 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.

**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,  |
| 11 | 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. |
| 12 | seppres | Did a physician/APN/PA document presence of severe sepsis?1. Yes
2. No or unable to determine
 | 1,2If 1 and lacval =3, auto-fill sepshk = 1.If 2, autofill sepdt as 99/99/9999 and septm as 99:99 and go to covid | **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.** * **In order to select Value “1”, documentation MUST say “severe sepsis”.**
* Select Value 1 if there is physician/APN/PA documentation of septic shock before or instead of physician/APN/PA documentation of 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 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/PA documentation indicating:
 |
|  |  |  |  | * Patient is not septic
* Patient does not have sepsis or severe sepsis
* Patient does not have septic shock, and severe sepsis was met by physician/APN/PA documentation that septic shock was present.
* Severe **s**epsis is due to a viral, fungal, or parasitic infection.
* 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 |  |

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

**Suggested Data Sources:** Any physician/APN/PA documentation |
| 13 | sepdtseptm | Enter the earliest date and time a physician/APN/PA documented the presence of severe sepsis. | mm/dd/yyyy

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

\_\_\_\_\_UMT | **Use the earliest date** and time **a physician/APN/PA documented severe sepsis.** * If there is **not** physician/APN/PA documentation of severe sepsis, **but there is** physician/APN/PA documentation of septic shock, enter the **earliest date and time septic shock was documented** for this data element.
* If the documented date/time of severe sepsis are **after** the documented date/time of septic shock, enter the **date and time septic shock** is documented.
* For patients with multiple severe sepsis presentation dates and times, only abstract the earliest presentation 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.

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|  |  |  |  | Severe Sepsis cont’d* **ED Patients:** Use the earliest documented arrival date and time for patient who enter the ED with physician/APN/PA documentation of severe sepsis in pre-hospital records or documentation that severe sepsis was present on arrival
* **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 |
| 14 | 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.**
* **Only the terms “suspected”, “present” or “confirmed” are acceptable to answer “yes”.**
* If the physician/APN/PA orders a test for possible or suspected COVID-19, you would select value "1" (Yes) for COVID and exclude the case.

**Documentation that coronavirus or COVID-19 is suspected, present or confirmed will exclude the case from the Sepsis Bundle Measure.** |
| 15 | 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.** |
| 16 | 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.

**Exclusions: Documentation that is NOT acceptable for an infection.** * If physician/APN/PA documentation within six hours following the initial documentation of the infection indicates that the infection is not present or is due to a viral, fungal, or parasitic source, disregard the initial documentation of the infection.

**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.
* 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 |
| 17 | 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 | * 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 |
| 18 | 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 | 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
* For the following, physician/APN/PA documentation before or within 24 hours after severe sepsis Presentation Time **is required**.
* 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.”)
* 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)
* Thrombocytopenia (Platelet count < 100,000)
* If within the same physician/APN/PA documentation, there is conflicting 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, the criteria value **should be used.**
* **Examples:**
* “Thrombocytopenia possibly due to NSAID use, however complicated by sepsis,” platelet value should be used.
* 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
* Documentation indicates value is invalid, erroneous or questionable within 24 hours after the Severe Sepsis Presentation Time

**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.**Suggested Data Sources:** Physician/APN/PA or nursing documentation, entire ED record, nurses notes, vital signs record or flow sheet  |
| 19 | 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) | 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) | 1. Yes □ 2. No □ |  |  |
| 7. Platelet count < 100,000 | 1. Yes □ 2. No □ |  |  |
| 8. INR > 1.5 or aPTT > 60 seconds (see D/D rules) | 1. Yes □ 2. No □ |  |  |
| 9. Lactate > 18.0 mg/dL (>2 mmol/L) | 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.**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 or septic 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 or tracheostomy tube.
* Non-invasive mechanical ventilation may be referred to as BiPAP or CPAP.
* 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 or the date/time the mechanical ventilation changed from intermittent to continuous.

**(Organ dysfunction cont.)****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 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.

**Example:**Home Medication Record documents Coumadin 2.5 QDLast dose 2/19/2021 at 0800Lab Report 2/19/2021 at 1400 documents INR this AM 2.5Do 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.* 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).
* If a sign of organ dysfunction is due to the following, the criteria value **should be used.**
* Acute condition **Example:** “Lactate 4.3 r/t seizure.”
* 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)* + If within the same physician/APN/PA documentation, there is conflicting documentation indicating a sign of organ dysfunction is normal for the patient, due to a chronic condition or medication AND due to or possibly due to an infection, the criteria value **should be used. Example:** “Creatinine 4.3, CKD, potentially increasing due to worsening UTI,” creatinine 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 seppres=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 cntrasevsep.** **If seppres=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** |
| 20 | 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 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 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 severe sepsis is not met by all three clinical criteria within 6 hours of each other, abstraction will stop here.

 |
| 21 | sepresdt | Computer to auto-fill earliest valid date entered in sepdt or sepsisdt. | mm/dd/yyyy

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

 | **Computer will auto-fill the earliest valid date entered in sepdt or sepsisdt**  |
| 22 | seprestm | Computer to auto-fill earliest valid time entered in septm or sepsistm.  | \_\_\_\_UMT | **Computer will auto-fill the earliest valid time entered in septm or sepsistm.**  |
| 23 | 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 | 1,2**If 1, go to end** | **Only Acceptable Sources:** physician/APN/PA or nursing documentation* Specific documentation indicating patient or authorized patient advocate has refused the following can be used to select Value “1.”
* Blood draws
* IV or IO fluid administration
* IV or IO antibiotic
* A more general documentation of refusal of care or documentation of patient non-compliance with care (e.g., pulling out IV) that could result in blood draws, IV or IO fluid administration, or IV or IO antibiotic not being administered within the specified time frame is acceptable. Example: Severe Sepsis Presentation Date/Time: 1/13/2021 1200. RN documentation at 1/13/2021 1130: “Patient agitated, screaming at staff, and swinging arms”

Physician Notes at 1/13/2021 1230: “Discussed necessity of treatment, patient agreeable to IV antibiotics, blood draw, and IV fluids.” For this example, select value “1” since there is nursing documentation within the specified time frame of patient noncompliance with care.* 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). * 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.
* 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**Inclusions:** Declined; Does not want; Refused; Requests not to be given |
| 24 | cmopall | 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?1. Yes2. No99. Not documented or time is unclear | 1,2,99If 1, OR (if 2 or 99 AND dcdispo <> 99 and dcdt/dctm - sepresdt/seprestm < =360 minutes), go to end

|  |
| --- |
| **Hard edit**: If 1 and sepresdt/seprestm = sepshkdt/sepshktm, cmopall2 must = 1 |

 | * 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. No other terminology will be accepted**

|  |
| --- |
| **Inclusion (Only acceptable terms)** |
| Brain death/dead | Organ harvest |
| Comfort care | Palliative Care |
| Comfort measures | Palliative Consult |
| Comfort measures only (CMO) | Terminal care |
| Comfort only | Terminal extubation |
| DNR-CC | Withdraw care |
| End of life care | Withhold care |
| Hospice |  |
| Hospice care |  |

 |
|  |  |  |  | * Only use physician/APN/PA documentation of an inclusion term documented in the following contexts suffices:
* 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”

**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.”
	+ - 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 |
| 25 | 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 lactate | **Note: Only IV antibiotics administered in the 72 hours prior to or three hours after severe sepsis presentation are acceptable.** **Refer to Tables 5.0 and 5.1 for acceptable antibiotics.****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.

**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 |
| 26 | 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 table with names from Table 5.0 and 5.1) | Administration Datemm/dd/yyyy

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

 | Administration TimeUMT

|  |
| --- |
| <=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, enter the name of each antibiotic administered. Refer to Table 5.0 and 5.1 to enter antibiotic names.
* For each antibiotic administered during the specified timeframe, enter the date and time of administration.
* 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 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 |
| If bioname is on Table 5.0 AND biodate/biotime >= sepresdt/seprestm and <= sepresdt/seprestm + 3 hours **OR**If bioname is <> Table 5.0 AND one bioname is on Table 5.1 from column A and biodate/biotime >= sepresdt/seprestm and <= sepresdt/seprestm + 3 hours **AND** one bioname is on table 5.1 from column B and biodate/biotime >= sepresdt/seprestm and <= sepresdt/seprestm + 3 hours, autofill antisel = 1; else auto-fill antisel = 2 and go to selcult.  |
| 27 | antisel | During the time frame from (computer to display sepresdt/seprestm to sepresdt/seprestm + 3 hours) was the antibiotic administered consistent with antibiotic selection guidelines detailed in the Definitions/Decision Rules?1. Yes2. No or unable to determine  | 1,2If 1, go to bioadmindt/ bioadmintm If 2, go to selcultWill be auto-filled as 1 if bioname is on Table 5.0 AND biodate/biotime >= sepresdt/seprestm and <= sepresdt/seprestm + 3 hours **OR**If bioname is <> Table 5.0 AND one bioname is on Table 5.1 from column A andbiodate/biotime >= sepresdt/seprestm and <= sepresdt/seprestm + 3 hours **AND** one bioname is on table 5.1 from column B  and biodate/biotime >= sepresdt/seprestm and <= sepresdt/seprestm + 3 hours; else will be auto-filled as 2 | **Note: Only IV antibiotics administered within three hours after *Severe Sepsis Presentation* *Time* are acceptable.** **EXCEPTION:** * **If there is documentation indicating IV access could not be established, antibiotics administered via intramuscular (IM) or intraosseous (IO) started within three hours after the *Severe Sepsis Presentation Time* is acceptable.**
* If one of the antibiotic(s) entered in the bioname question was on Table 5.0 and was administered within three hours after the initial presentation of severe sepsis, Value 1 (Yes) will be auto-filled.
* If the antibiotic(s) administered were not on Table 5.0, but one from Table 5.1, Column A **AND** one from Table 5.1, Column B were both administered within three hours after the initial presentation of severe sepsis, Value 1 (Yes) will be auto-filled.
* If appropriate antibiotics were administered but not within three hours after the initial presentation of severe sepsis OR if no antibiotics were administered in that timeframe, Value 2 will be auto-filled.

|  |  |
| --- | --- |
| Column A | Column B |
| Aminoglycosides **+** **OR**Aztreonam **OR**Ciprofloxacin | Cephalosporins (1st and 2nd Generation) **OR**Clindamycin IV **OR**Daptomycin **OR**Glycopeptides **OR**Linezolid **OR**Macrolides **OR**Penicillins |

 |
| 28 | selcult | Is there Physician/APN/PA documentation referencing the results of a culture from (computer to display earliest biodate/biotime - 5 days to earliest biodate/biotime)? 1. Yes
2. No
 | 1, 2If 1, go to bioadmindt/ bioadmintm If 2, go to cdiff | * **If IV antibiotic(s) from Table 5.0 or an appropriate combination of IV antibiotics from Table 5.1 are not started within the three hours following presentation of severe sepsis, and the following conditions are met, choose value "1."**
	+ There is Physician/APN/PA documentation referencing the results of a culture from within five days prior to the antibiotic start time. The documentation must:
		- Identify the date of the culture results (must be within five days prior to the antibiotic start time).
		- Identify the suspected causative organism from the culture result and its antibiotic susceptibility.
	+ The IV antibiotic(s) identified as appropriate per the physician/APN/PA documentation is started within three hours following the presentation of severe sepsis.

**Example:** Acceptable physician/APN/PA documentation: “Urine culture results from 9/10/17 show enterococcus, sensitive to vancomycin.” The patient has severe sepsis with criteria met on 9/15/17 at 15:00 and the only antibiotic started is IV vancomycin at 15:30. **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 |
| 9 | cdiff | During the timeframe from (computer to display earliest biodate/biotime - 24 hours to earliest biodate/biotime) is there physician/APN/PA documentation identifying the presence of C. difficile?1. Yes
2. No
 | 1, 2 If 2, go to bioadmindt/bioadmintm  | **If the patient has C. difficile, and IV antibiotic(s) from Table 5.0 or an appropriate combination of IV antibiotics from Table 5.1 are not started within the three hours following presentation of severe sepsis, and the following conditions are met, choose value "1."** * There is physician/APN/PA documentation within 24 hours prior to the antibiotic start time identifying the presence of C. difficile. Documentation that C. difficile is suspected or likely is acceptable.
 |
| 30 | cdifftx | During the timeframe from (computer to display sepresdt/seprestm to sepresdt/seprestm + 3 hours) is there documentation of any one of the following treatments.* + - Oral vancomycin with or without oral or IV metronidazole (Flagyl)
		- Rectal vancomycin with or without IV metronidazole (Flagyl)
		- IV metronidazole (Flagyl) monotherapy
		- Oral fidaxomicin (Dificid)
1. Yes
2. No
 | 1, 2 | Documentation of any one of the following treatments within three hours following severe sepsis presentation is acceptable. * + - Oral vancomycin with or without oral or IV metronidazole (Flagyl)
		- Rectal vancomycin with or without IV metronidazole (Flagyl)
		- IV metronidazole (Flagyl) monotherapy
		- Oral fidaxomicin (Dificid)

**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 |
| **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.
 |
| 31 | bioadmindtbioadmintm | Computer to auto-fill earliest applicable date and time of antibiotic administration.

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

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

 | Administration TimeUMT

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

 |

 | Will be autofilled per above directions  | **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** |
| 32 | 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/ bioadmintm - 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 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 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.”
* If there is supportive 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 |
| 33 | bldculdtbldcultm | During the specified timeframe, enter the date and time the blood culture was collected. | mm/dd/yyyy

|  |
| --- |
| 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 |

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

 | * 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 supportive documentation that a blood culture was collected in the appropriate specified time frame 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.”
* 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 (too dehydrated to get a vein) 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 |
| 34 | 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.
* 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.
* 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.
	+ 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 |
| 35 | 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 more than one time of documentation for the *Initial Lactate Level Collection,* use the following order to determine which time to abstract.
	1. Laboratory documentation indicating date and time lactate was drawn.
	2. Date and Time the lactate is documented as drawn in a non-narrative location (e.g., sepsis flowsheet, checklist, screening).
	3. Narrative note indicating lactate is drawn with an associated date and time.
* 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.
 |
|  |  |  |  | * 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 |
| 36 | lactdtlactm | Enter the date and time the initial lactate level was drawn (or collected). | mm/dd/yyyy

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

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

 | * 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 |
| 37 | 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 or 3, go to replact, else go to hypotnsIf 3 and seppres = 1, 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
* 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. 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 (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).* 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.

**Example**s: 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 infection, severe sepsis, or septic shock.
* Abstract based on the latest piece of documentation within 24 hours after Severe Sepsis Presentation Time if there is conflicting information 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 infection, severe sepsis, or septic shock.
* **Suggested Data Sources:** laboratory reports, physician/APN/PA progress notes
 |
| 38 | 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 (>2.0 mmol/L). 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 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.
* 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.
* 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 |
| 39 | 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 |

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|  |
| --- |
| > 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). 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 |
| 40 | 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 2, go to sepshk | * 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.

**Hypotensive BPs Acceptable to Use:*** Documentation in pre-hospital records (e.g., ambulance records, nursing home records) considered part of the medical record.
* **(cont’d next page)**
 |
|  |  |  |  | **(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.
* Conflicting documentation within the same 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.

**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.
* 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 patient 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 |
| 41 | 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 (computer to display sepresdt/seprestm + 6 hours). | mm/dd/yyyy

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

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

 | * **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* (to determine the second hypotensive blood pressure, see the *Initial Hypotension* data element).
* 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.
* **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.
 |
| 42 | sepshk | Did a physician/APN/PA document presence of septic shock or severe sepsis with shock?1. Yes2. No or unable to determine  | 1,2Will be autofilled as 1 if seppres = 1 and lacval = 3If 2 and hypotns = 2, go to end; elseIf 2, go to crystl | **Septic Shock:****Exclude:** Bacteremia, Septicemia, Shock (not referenced as related to Severe Sepsis or 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, choose 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.

**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.
 |
|  |  |  |  | * 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
* 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 |  |

**Suggested Data sources:** Any physician/APN/PA documentation |
| 43 | 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 |

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* 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 date and time from lab |
|  |  |  |  | * 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
* 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/SPN/PA documentation/ Entire ED record; Intake/output records; Lab results; Nurses notes; Vital signs record or flow sheet |
| 44 | 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 cmopall2; else go to crystl | **Only Acceptable Sources:** physician/APN/PA or nursing documentation* Specific documentation indicating patient or authorized patient advocate has refused (declined, does not want, request not to be given) the following can be used to select Value “1.”
* Blood draws
* IV or IO fluid administration
* Vasopressors
* A 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 the following not being administered within the specified time frame is acceptable. Refusal or patient non-compliance is not required to actually result in one of the following not being administered:
* Blood Draws
* IV or IO fluid administration
* Vasopressors
* 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). * 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.
 |
|  |  |  |  | * 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."
* 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 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
 |
| 45 | cmopall2 | 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?1. Yes2. No99. Not documented or time is unclear | 1,2,99If 1 and hypotns = 2, go to end; else go to crystl

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

 | * 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. No other terminology will be accepted**

|  |
| --- |
| **Inclusion (Only acceptable terms)** |
| Brain death/dead | Organ harvest |
| Comfort care | Palliative Care |
| Comfort measures | Palliative Consult |
| Comfort measures only (CMO) | Terminal care |
| Comfort only | Terminal extubation |
| DNR-CC | Withdraw care |
| End of life care | Withhold care |
| Hospice |  |
| Hospice care |  |

 |
|  |  |  |  | * 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”
* State-authorized portable orders (SAPOs): o
* 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.
		- 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 |
| 46 | crystl | 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) 98. The patient or authorized patient advocate refused IV fluids. | 1,2,4,98If 2, 4 or 98, go to end | * The specified time frame for abstraction of crystalloid fluids is within six hours prior through three hours after either of the following trigger events. If both are present, use the earliest trigger event within the specified time frame.
* Initial Hypotension Date and Time
* Septic Shock Presentation Date and Time
* **Include:** Crystalloid fluids such as: 0.9% saline solution, 0.9% sodium Chloride Solution, Isolyte, Lactated Ringers solution, normal saline, Normosol, PlasmaLyte
* **Exclude:** Crystalloid solutions that are given to flush other medications or IV lines
* Documentation of fluid initiation:
* Medical record documentation must be clear that crystalloid fluids were initiated (i.e., date and time of administration is noted).
* Do not use physician/APN/PA orders as equivalent to actual initiation of fluids as they are not specific to initiation.
* 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.
 |
|  |  |  |  | * 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, only abstract crystalloid fluids initiated within the specified time frame.
* **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, an infusion start time, and an infusion rate or infusion end time is documented.
* 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.
* Physician/APN/PA or nursing documentation indicating patient or authorized patient advocate has refused IV fluid administration prior to or within six hours following presentation of septic shock can be used to select Value “98”

**Suggested Data Sources:** Ambulance or transport vehicle records; Entire ED record; Input and Output (I&O) flowsheet; IV therapy record; Medication Administration Record; Patient weight record; Physician/APN/PA orders  |
| 47 | 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.
* The specified time frame for abstraction of crystalloid fluids is within six hours prior through three hours after either of the following trigger events. If both are present, use the earliest trigger event within the specified time frame.
* Initial Hypotension Date and Time
* Septic Shock Presentation Date and Time
* 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.
* Do not abstract the date and time that fluids were ordered or the date and time that IV access was started. Abstract the date and time that the crystalloid fluid infusion began.
* Do not use physician orders as fluid administration start date and time; use the date and time that the fluid infusion was initiated.
* If multiple infusions end at the same time, and complete the target ordered volume, use the start time of the infusion that was started last.
	+ 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 Crystalloid Fluid Administration 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 flow sheet; Medication Administration Record |
| 48 | weight | Enter the patient’s weight in kilograms (kg). | \_\_\_ kg

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

 | * To calculate the appropriate target ordered volume use the actual or estimated weight in the following priority order.
1. Weight documented in the crystalloid fluid order
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
* 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 documents the patient is obese (defined BMI >30).
* Physician/APN/PA documents IBW is used to determine target ordered volume.
* IBW must be present in the medical record, abstractors should not calculate the IBW.
* 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
 |
| 49 | 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 autofill | * To determine the target ordered volume:
* Multiply the weight in kg by 30; the result is the number of mL of IV fluid that should be specified in the physician/APN/PA order(s).
* Round the volume of IV fluid (mL) to the nearest whole number.

**Example:** Patient weight is 73 kg. 73 x 30 = 2190 (mL). Physician order is “Infuse 2400 mL 0.9% Normal Saline over the next two hours.” This is acceptable because 2400 mL is greater than 2190.  |
| 50 | 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?1. Yes2. No | 1,2If 2, go to end. | * The specified time frame for abstraction of crystalloid fluids is within six hours prior through three hours after either of the following trigger events. If both are present the specified time frame is determined by the earliest trigger.
* Initial Hypotension Date and Time
* Septic Shock Presentation Date and Time
* The target ordered volume must be **ordered and initiated** within the specified time frame if initial hypotension or septic shock is present.
* To choose Value “1,” the target ordered volume must be documented as completely infused.
* The target ordered volume does NOT need to be completely infused within the specified time frame.
* Crystalloid fluid volumes ordered that are equivalent to 30 mL/kg or within 10% less than 30 mL/kg are considered the target ordered volume.

**Examples:** * 2000 mL of normal saline was ordered and initiated in the ED. The patient’s weight is not available or documented at the time of the order. After admission to critical care a weight is obtained of 74 kg. Based on this weight 30 mL/kg is 2220 mL. The 2000 mL ordered is within 10% less than 2220 mL (2220 mL – 222 mL = 1998 mL) and is an acceptable volume.
* Patient weight is 160 pounds. 160/2.2 = 72.72 kg. Round to 73 kg. 73 x 30 = 2190 (mL). Physician order is “Give 1000 mL Lactated Ringers over the next 4 hours.” This is not acceptable because 1000 mL is less than 2190.
* If the target ordered volume is not completely infused, choose Value “2.”

  |
|  |  |  |  | * If the total volume of crystalloid fluids ordered is less than the target ordered volume, select Value “2.”
* If there is documentation the infusion was stopped prior to reaching the target ordered volume, select Value “2.”
* 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
* Infusion duration or time over which to infuse
* Infusion end or completion time

**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. Choose Value “2.”
* 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.

**Example:** * 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.
 |
|  |  |  |  | * Only include crystalloid fluids given at a rate greater than 125 mL/hour towards the target ordered volume. Do not use crystalloid fluids given at 125mL/hr. or less toward the target ordered volume.
* 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. 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.
* Only abstract fluids administered through the intravenous or intraosseous route.

**Suggested Data Sources:** Ambulance or transport vehicle records; Entire ED record; Input and Output (I&O) flowsheet; IV therapy record; Medication Administration Record; Patient weight record; Physician/APN/PA orders |
| 51 | crystlend | Enter the earliest documented time the target ordered volume of crystalloid fluids was completed.  | \_\_\_\_\_UMT | **Review all data sources to determine the time the target ordered volume of crystalloid fluids was completed. Enter the exact 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.

**Suggested Data Sources:** Ambulance or transport vehicle records; Entire ED record; IV therapy record or flow sheet; Medication Administration Record |
| 52 | pershypo | During the time frame from (computer display crystlend) to (computer to display crystlend + 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.
* Conflicting documentation indicating hypotension is 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. **AND** due to or possibly due to infection, severe sepsis or septic shock
* 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 there is a low blood pressure followed by another low blood pressure
* If one or more blood pressures were documented within the time frame and persistent hypotension is unable to be determined **but a vasopressor was administered**

**Example:** One-hour time frame: 0800 to 0900Blood 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”**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).
 |
|  |  |  |  | * 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 |
| 53 | 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.” For 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.
* Authentication on one side/page of a multi-side or multi-page form applies to all pages of the form. The sides/pages of the form must be identifiable as being from the same form.
 |
|  |  |  |  | * The method of designation of administration on hand-written or pre-printed forms, such as MARs or eMARs, must be clearly designated as given. The methods may vary. Whatever method is used, it must be clear that the dose was administered.
* 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 |
| 54 | 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

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

 | * 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, or the vasopressor was infusing at the time of septic shock and multiple doses were subsequently given, abstract the date and time the vasopressor that was infusing at the time of presentation of septic shock was initiated.

 **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.
* Only abstract from an undated MAR if it has a patient sticker on it and it is titled first day or initial MAR. If an undated MAR is designated as the initial or first day MAR and it does not have a patient sticker on it, use UTD for the date.
* Authentication on one side/page of a multi-side or multi-page form applies to all pages of the form. The sides/pages of the form must be identifiable as being from the same form.
* The method of designation of administration on hand-written such as MARs or eMARs, must be clearly designated as given. The methods may vary. Whatever method is used, it must be clear that the dose was administered.
* 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 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 |
| 55 | 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 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 other documentation 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.
* A repeat volume status and tissue perfusion assessment may consist of any one of the following three criteria:
* **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).
3. 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; pat
4. Peripheral Pulses - minimally includes documentation of presence or lack of presence bilaterally; peripheral pulses faint; unable to palpate radial pulses).
5. 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.
6. 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.
7. 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).
8. 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.* 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.
	3. Echocardiogram (Cardiac echo or cardiac ultrasound). An order for an echocardiogram is not sufficient.
	4. 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, choose 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 |
| 56 | rptvolstdtrptvolsttm | During the timeframe from (computer to display crystldt/crystltm) to (computer to display sepshkdt/sepshktm + 6 hours) enter the date and time on which a repeat volume status and tissue perfusion assessment was documented by a physician/APN/PA. | mm/dd/yyyy

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

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

 | * Physician/APN/PA 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 for Physician/APN/PA documentation only:** Consultation notes; ED record; History and physical; Progress notes |
|  **IF INPT\_FE flag = 1, enable Delirium Risk** |