# 2022 HE Updated Data Element Algorithms

#### **Acute Kidney Injury** Is there a diagnosis of START an acute kidney injury (AKI) documented?\* Yes Νo Did the onset of symptoms Report begin after the patient Element Value arrived at your hospital?\*\* "2. No" Did the patient have a SCr Report 3.0 times their baseline Element Value documented? "2. No" Yes Did the patient have an increase Report Element Value in serum creatinine to $\geq 4.0 \text{mg/dl} (\geq 353.6 \mu \text{mol/l})?$ "1. Yes" Yes Report Was there initiation of renal replacement Element Value therapy\*\*\* OR, in patients < 18 years, "1. Yes" decrease in eGFR to < 35ml/min per 1.73 m? Yes No Report AMERICAN COLLEGE OF SURGEONS Element Value Inspiring Quality: Highest Standards, Better Outcomes "1. Yes"

#### 2022 NTDS Hospital Event Algorithm

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for ≥ 24 hours? Yes Νo Did the patient Report experience anuria Element Value "1. Yes" for ≥ 12 hours Yes Νo Report Report Element Value Element Value "1. Yes" "2. No"

Was the patient's urine

output < 0.3 ml/kg/h

\*The NTDS definition is consistent with the March 2012 KIDGO Guideline. Please refer to that or the TPM/TMD for additional information regarding Stage 3 AKI

\*\*Exclude if AKI was present on arrival at your hospital. Exclude patients with renal failure that were requiring chronic renal replacement therapy prior to injury.



\*\*\* If the patient or family refuses treatment (e.g., dialysis,) the condition is still considered to be present if a combination of oliguria and creatinine are present.

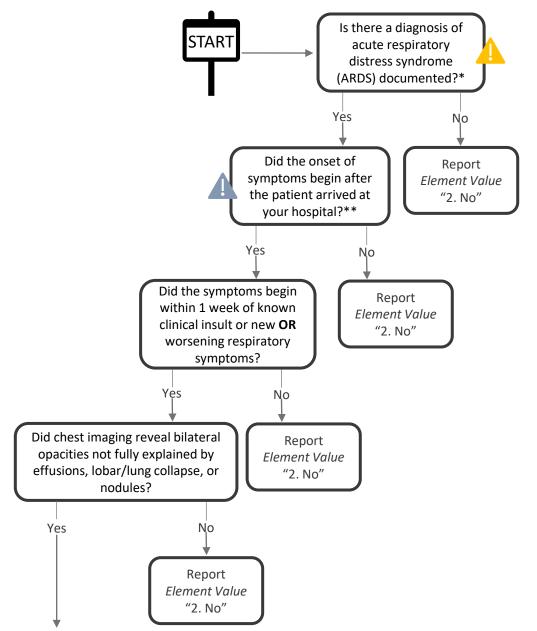


#### Acute Respiratory Distress Syndrome (ARDS) (pg. 1 of 2)

Continue to page 2

#### 2022 NTDS Hospital Event Algorithm

Consistent with the most recent version of the 2022 NTDS Data Dictionary Refer to complete NTDS definition for additional information





\*The NTDS definition of ARDS is consistent with the 2012 New Berlin Definition.



\*\*Exclude if ARDS was present on arrival at your hospital.

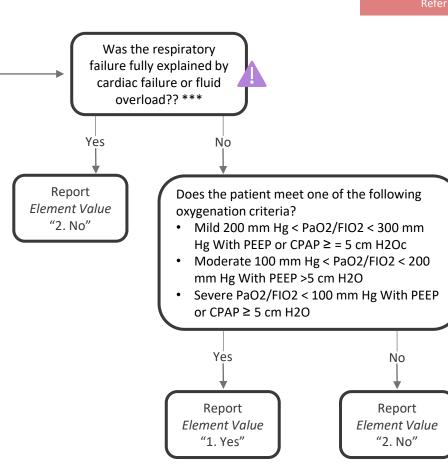


#### Acute Respiratory Distress Syndrome (ARDS) (pg. 2 of 2)

Yes

### 2022 NTDS Hospital Event Algorithm

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1

\*\*\*Need objective assessment (e.g., echocardiography) to exclude hydrostatic edema if no risk factor present.

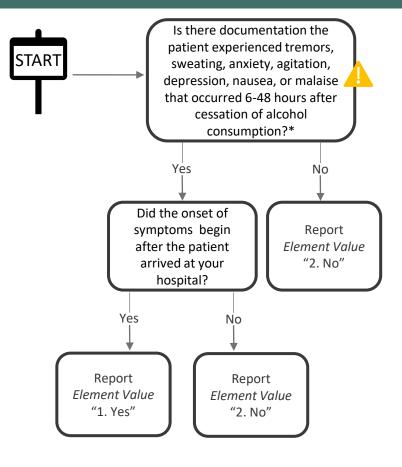




### Alcohol Withdrawal Syndrome

#### 2022 NTDS Hospital Event Algorithm

Consistent with the most recent version of the 2022 NTDS Data Dictionary Refer to complete NTDS definition for additional information





\*Note that a diagnosis of alcohol withdrawal syndrome is not required by the NTDS definition.

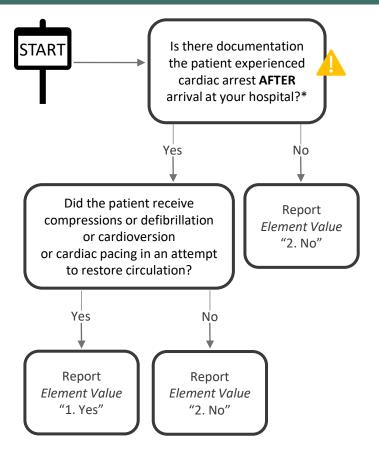




#### Cardiac Arrest with CPR

#### 2022 NTDS Hospital Event Algorithm

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\*Cardiac arrest is the sudden cessation of cardiac activity after hospital arrival. The patient becomes unresponsive with no normal breathing and no signs of circulation. If corrective measures are not taken rapidly, this condition progresses to sudden death.

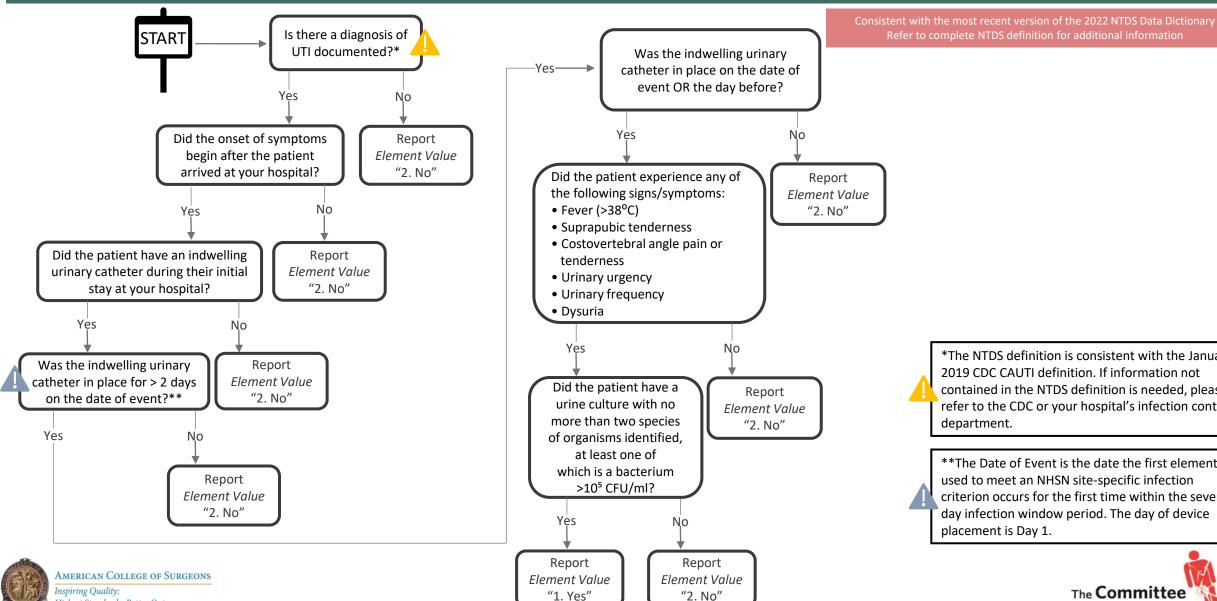
EXCLUDE patients whose ONLY episode of cardiac arrest with CPR was on arrival to your hospital.





#### Catheter-associated Urinary Tract Infection (CAUTI) SUTI 1a (Patients >1 year of age)

#### 2022 NTDS Hospital Event Algorithm



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Refer to complete NTDS definition for additional information

\*The NTDS definition is consistent with the January 2019 CDC CAUTI definition. If information not contained in the NTDS definition is needed, please refer to the CDC or your hospital's infection control department.

\*\*The Date of Event is the date the first element used to meet an NHSN site-specific infection criterion occurs for the first time within the sevenday infection window period. The day of device placement is Day 1.

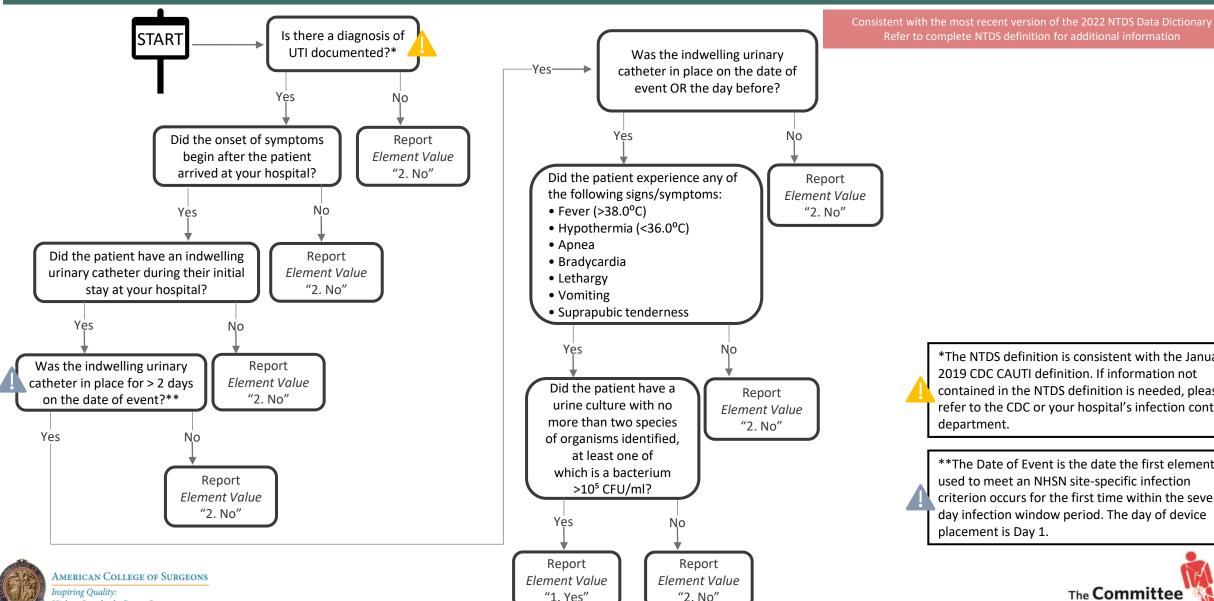


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#### Catheter-associated Urinary Tract Infection (CAUTI) SUTI 2 (Patients ≤ 1 year of age)

#### 2022 NTDS Hospital Event Algorithm

Refer to complete NTDS definition for additional information



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\*The NTDS definition is consistent with the January 2019 CDC CAUTI definition. If information not contained in the NTDS definition is needed, please refer to the CDC or your hospital's infection control department.

\*\*The Date of Event is the date the first element used to meet an NHSN site-specific infection criterion occurs for the first time within the sevenday infection window period. The day of device placement is Day 1.



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#### Central Line-Associated Blood Stream Infection (CLABSI) (pg. 1 of 3)

Inspiring Quality:

#### 2022 NTDS Hospital Event Algorithm

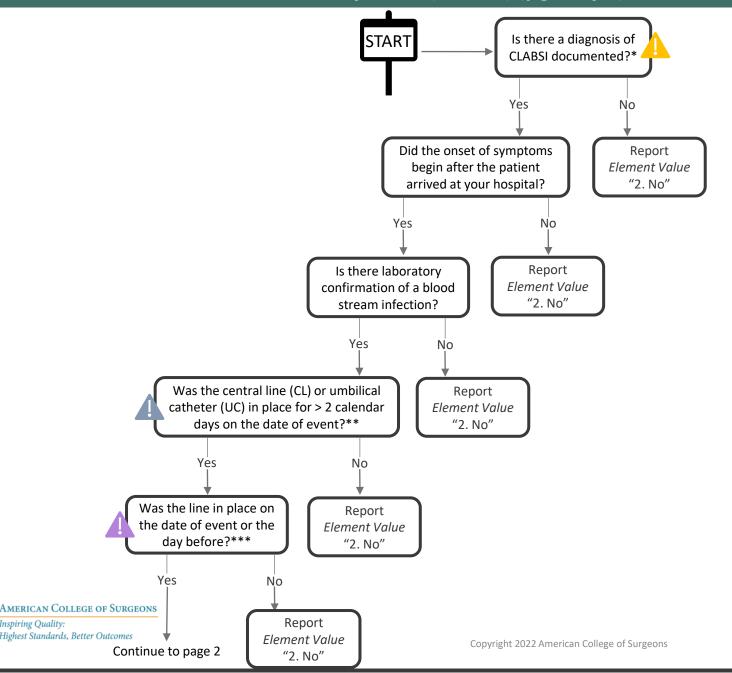
Consistent with the most recent version of the 2022 NTDS Data Dictionary Refer to complete NTDS definition for additional information

\*The NTDS definition is consistent with the January 2016 CDC CLABSI definition. If information not contained in the NTDS definition is needed, please refer to the CDC or your hospital's infection control department.

\*\*The Date of Event is the date the first element used to meet an NHSN site-specific infection criterion occurs for the first time within the sevenday infection window period. The day of device placement is Day 1.

\*\*\*If a CL or UC was in place for > 2 calendar days and then removed, the date of event of the LCBI must be the day of discontinuation or the next day to be a CLABSI. If the patient is admitted or transferred into a facility with an implanted central line (port) in place, and that is the patient's only central line, day of first access in an inpatient location is considered Day 1. "Access" is defined as line placement, infusion or withdrawal through the line. Such lines continue to be eligible for CLABSI once they are accessed until they are either discontinued or the day after patient discharge (as per the Transfer Rule.) Note that the "de-access" of a port does not result in the patient's removal from CLABSI surveillance.





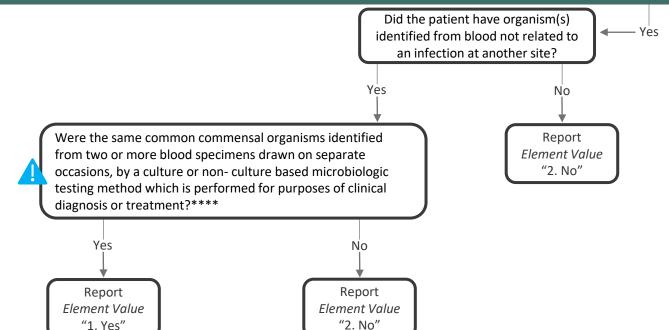


#### Central Line-Associated Blood Stream Infection (CLABSI) (pg. 2 of 3) 2022 NTDS Hospital Event Algorithm LCBI 1: Did the patient have a Consistent with the most recent version of the 2022 NTDS Data Dictionary Yes Refer to complete NTDS definition for additional information recognized pathogen identified from one or more blood specimens? \*\*\*\*Criterion elements must occur within the Infection Window Period, the 7-day Yes No time period which includes the collection date of the positive blood, the 3 calendar Did the patient have LCBI 2: Did the patient have at least days before and the 3 calendar days after. organism(s) identified in blood one of the following signs or not related to an infection at symptoms: fever (>38°C), chills, or another site? hypotension? Yes No Yes No Did the patient have Report organism(s) identified Element Value See LCBI 2 LCBI 3: Is the patient < 1 from blood not related "1. Yes" years of age? to an infection at another site? Yes Yes No No Were the same common commensal organisms identified Report See LCBI 3 from two or more blood specimens drawn on separate Element Value occasions, by a culture or non-culture based microbiologic "2. No" testing method which is performed for purposes of clinical diagnosis or treatment?\*\*\*\* Did the patient have at least one of the following signs or symptoms: fever (>38° C), hypothermia (<36°C), apnea, or bradycardia? No Yes Yes Report No See LCBI 3 Element Value "1. Yes" AMERICAN COLLEGE OF SURGEONS Report Inspiring Quality: The Committee Element Value Highest Standards, Better Outcomes on Trauma Copyright 2022 American College of Surgeons "2. No" Continue to page 3

#### Central Line-Associated Blood Stream Infection (CLABSI) (pg. 3 pf 3)

#### 2022 NTDS Hospital Event Algorithm

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\*\*\*\*Criterion elements must occur within the Infection Window Period, the 7-day time period which includes the collection date of the positive blood, the 3 calendar days before and the 3 calendar days after.

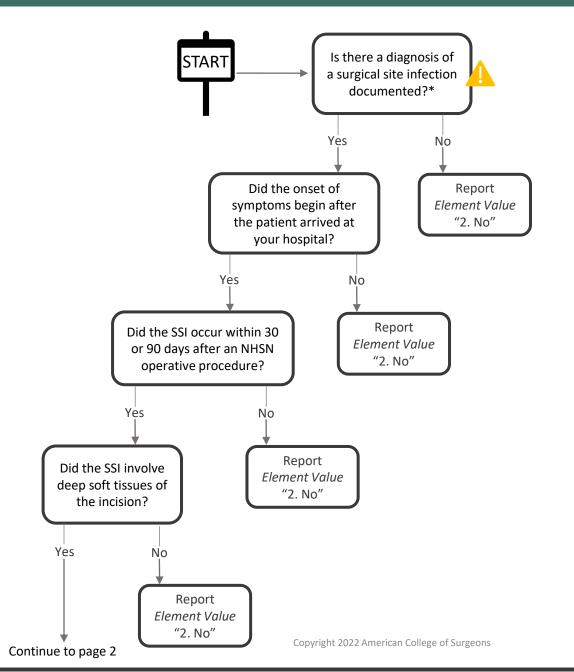




#### Deep Surgical Site Infection (Deep SSI) (pg. 1 of 2)

#### 2022 NTDS Hospital Event Algorithm

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\*The NTDS definition is consistent with the January 2019 CDC SSI definition. If information not contained in the NTDS definition is needed, please refer to the CDC or your hospital's infection control department.





#### Deep Surgical Site Infection (Deep SSI) (pg. 2 of 2)

2022 NTDS Hospital Event Algorithm

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Did the patient have at least one of the following:

- a. Purulent drainage from the deep incision.
- b. A deep incision that spontaneously dehisces, or is deliberately opened or aspirated by a surgeon, attending physician\*\* or other designee

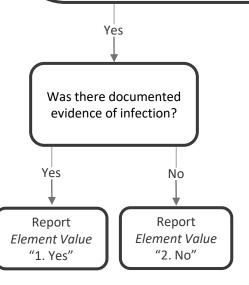
#### **AND**

organism(s) identified from the deep soft tissues of the incision by a culture or non-culture based microbiologic testing method which is performed for purposes of clinical diagnosis or treatment (for example, not Active Surveillance Culture/Testing (ASC/AST)) or culture or non-culture based microbiologic testing method is not performed. A culture or non-culture based test from the deep soft tissues of the incision that has a negative finding does not meet this criterion.

#### AND

Patient has at least *one* of the following signs or symptoms: fever (>38°C); localized pain or tenderness.

c. An abscess or other evidence of infection involving the deep incision that is detected on gross anatomical or histopathologic exam, or imaging test.



Report
Element Value
"2. No"

\*\*The term attending physician for the purposes of application of the NHSN SSI criteria may be interpreted to mean the surgeon(s), infectious disease, other physician on the case, emergency physician, or physician's designee (nurse practitioner or physician's assistant).



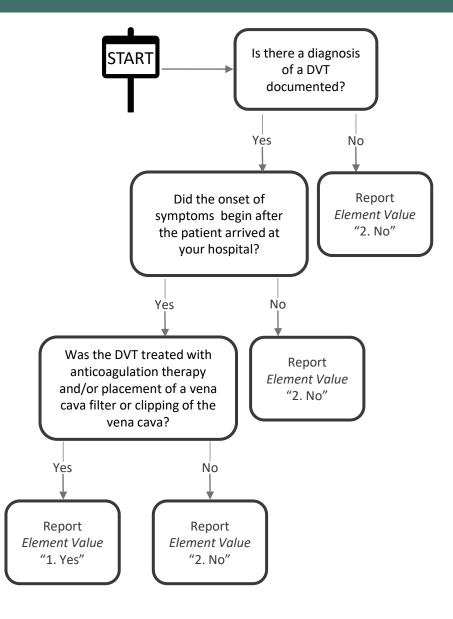


Yes

## Deep Vein Thrombosis (DVT)

#### 2022 NTDS Hospital Event Algorithm

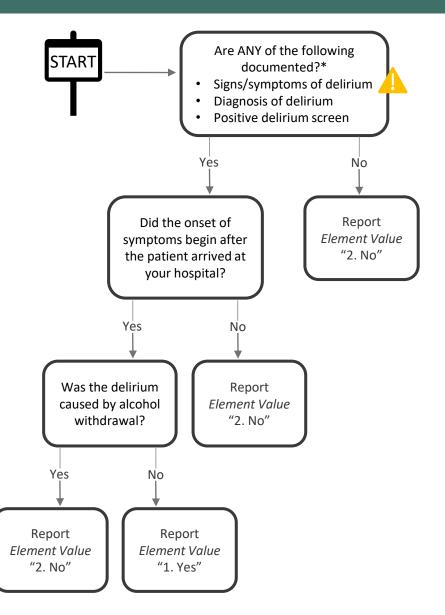
Consistent with the most recent version of the 2022 NTDS Data Dictionary Refer to complete NTDS definition for additional information







Consistent with the most recent version of the 2022 NTDS Data Dictionary Refer to complete NTDS definition for additional information



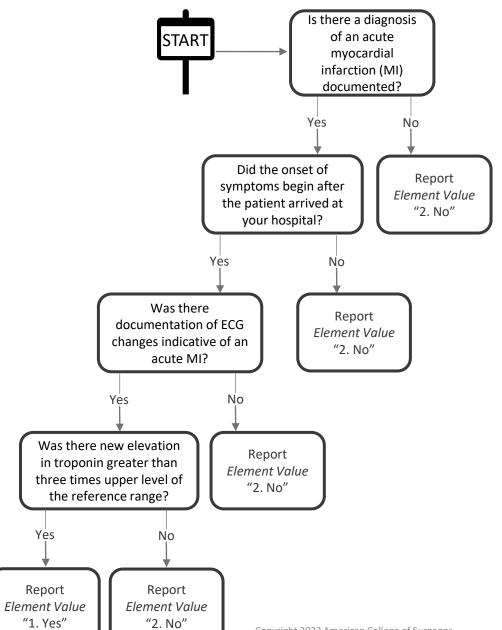


\*Delirium can often be traced to one or more contributing factors, such as a severe or chronic medical illness, changes in your metabolic balance (such as low sodium), medication, infection, surgery, or alcohol or drug withdrawal.





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#### Organ/Space Surgical Site Infection (O/S SSI) Did the patient have at least ONE of the Is there a diagnosis of START following: a surgical site infection Purulent drainage from a drain that is documented?\* placed into the organ/space? Organisms identified from fluid or tissue Yes No in the organ/space by a culture or nonculture based microbiologic testing method which is performed for purposes Did the onset of symptoms begin Report of clinical diagnosis or treatment after the patient arrived at your Element Value An abscess or other evidence of infection hospital? "2. No" involving the organ/space that is detected on gross anatomical or histopathologic Yes No exam, or imaging test evidence suggestive of infection Did the SSI occur within 30 or 90 Report days after an NHSN operative Yes Element Value procedure? "2. No" Was the specific Report Yes Element Value organ/space infection "2. No" site listed in Table 3? Did the SSI involve any part Report of the body deeper than the Element Value Yes No fascial/muscle layers, that "2. No" was opened or manipulated during the Report Report operative procedure? Element Value Element Value "1. Yes" "2. No"

#### 2022 NTDS Hospital Event Algorithm

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\*The NTDS definition is consistent with the January 2019 CDC SSI definition. If information not contained in the NTDS definition is needed, please refer to the CDC or your hospital's infection control department.



No

Report

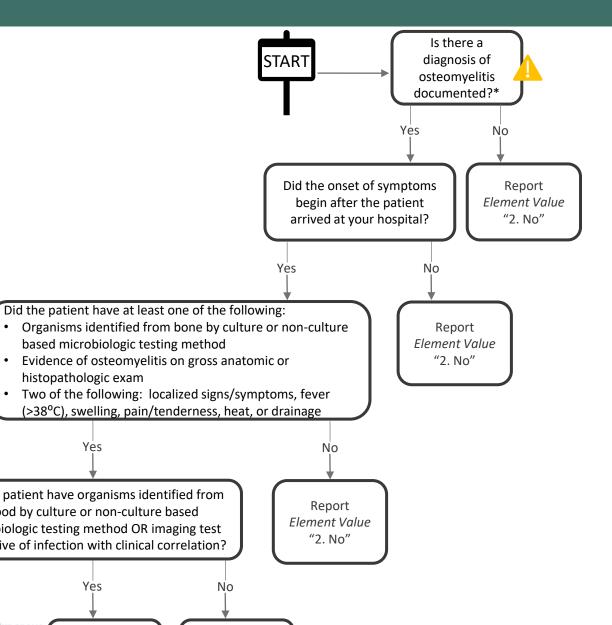
Element Value "2. No"

Yes

#### Osteomyelitis

#### 2022 NTDS Hospital Event Algorithm

Refer to complete NTDS definition for additional information



\*The NTDS definition is consistent with the January 2020 CDC Bone and Joint Infection definition. If information not contained in the NTDS definition is needed, please refer to the CDC or your hospital's infection control department.



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Report Element Value "1. Yes"

based microbiologic testing method

histopathologic exam

Yes

Did the patient have organisms identified from

blood by culture or non-culture based

microbiologic testing method OR imaging test

suggestive of infection with clinical correlation?

Yes

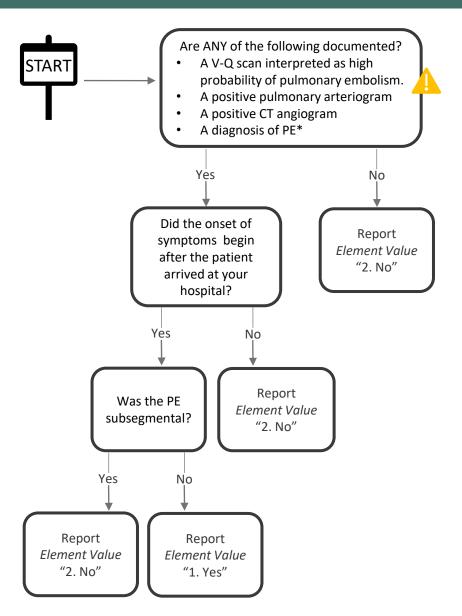
Report Element Value "2. No"

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### Pulmonary Embolism (PE)

#### 2022 NTDS Hospital Event Algorithm

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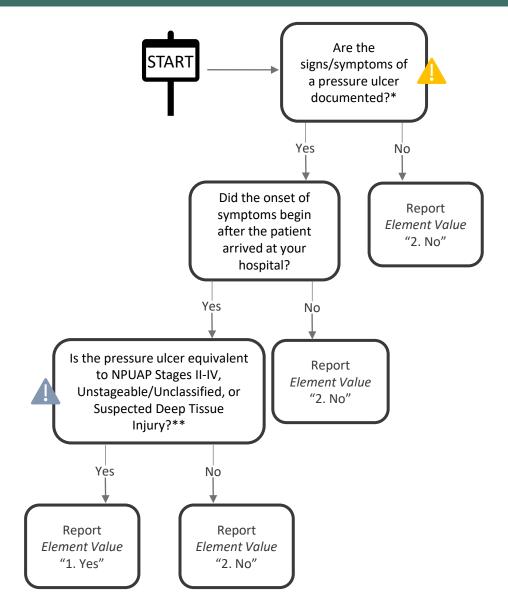


\*Subsegmental PEs are excluded from the NTDS definition of PE.





consistent with the most recent version of the 2022 NTDS Data Dictionar Refer to complete NTDS definition for additional information



\*A pressure ulcer is a localized injury to the skin and/or underlying tissue usually over a bony prominence, as a result of pressure, or pressure in combination with shear. A number of contributing or confounding factors are also associated with pressure ulcers; the significance of these factors is yet to be elucidated.

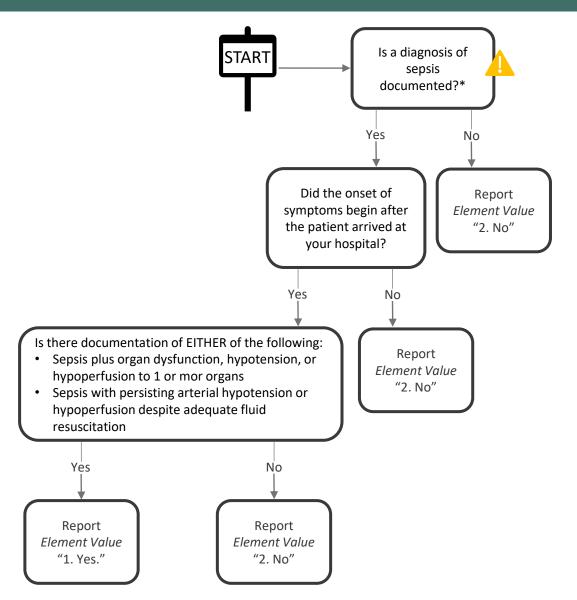


\*\*The NTDS definition is consistent with the NPUAP 2014





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\*The NTDS definition is consistent with the American College of Chest Physicians and the Society of Critical Care Medicine October 2010.





Stroke/CVA (pg. 1 of 2)

• Change in level of consciousness

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Hemiplegia

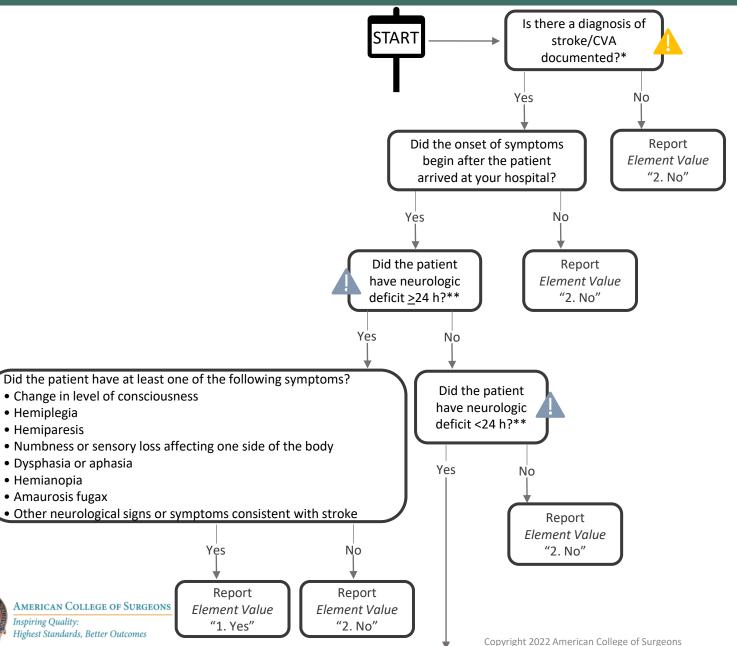
Hemiparesis

 Hemianopia Amaurosis fugax

• Dysphasia or aphasia

#### 2022 NTDS Hospital Event Algorithm

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\*A focal or global neurological deficit of rapid onset and NOT present on admission caused by a clot obstructing the flow of blood flow to the brain (ischemic stroke). Or by a blood vessel rupturing and preventing blood flow to the brain (hemorrhagic stroke). Or a transient ischemic attack which is temporary caused by a temporary clot.

\*\*Although the neurologic deficit must not present on admission, risk factors predisposing to stroke (e.g., blunt cerebrovascular injury, dysrhythmia) may be present on admission.



Inspiring Quality: "1. Yes" Highest Standards, Better Outcomes

Yes

Report

Element Value

Continue to page 2

### Stroke/CVA (pg. 2 of 2)

#### 2022 NTDS Hospital Event Algorithm

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Did the patient have at least one of the following symptoms?

- Change in level of consciousness
- Hemiplegia
- Hemiparesis
- Numbness or sensory loss affecting on side of the body

Yes

- Dysphasia or aphasia
- Hemianopia
- Amaurosis fugax
- Other neurological signs or symptoms consistent with stroke

Yes

Were ANY of the following documented with no other readily identifiable non-stroke causes AND a confirmed diagnosis:

- A new hemorrhage or infarct consistent with stroke documented by neuroimaging?
- Therapeutic intervention(s) for stroke performed?
- Death from neurologic deficit

Yes

Report
Element Value
"1. Yes"

Report
Element Value
"2. No"





No

Report

Element Value

"2. No"

#### Superficial Incisional Surgical Site Infection (S/I SSI)

Report

Element Value

"2. No"

#### 2022 NTDS Hospital Event Algorithm

Consistent with the most recent version of the 2022 NTDS Data Dictionary Refer to complete NTDS definition for additional information

Is there a diagnosis of START a surgical site infection documented?\* Did the patient have at least ONE of the following: Purulent drainage from the superficial incision Yes Organisms identified from an aseptically-obtained specimen from the superficial incision or sub cutaneous tissue by a culture or non-culture based microbiologic testing method which is Did the onset of symptoms Report performed for purposes of clinical diagnosis or treatment begin after the patient Element Value A superficial incision that was deliberately opened by a surgeon, "2. No" arrived at your hospital? attending physician or other designee and culture or nonculture-based testing is not performed AND at least one of the following signs or symptoms: pain or tenderness; localized Yes No swelling; erythema; or heat Did the SSI occur within 30 Report Yes No days after an NHSN Element Value operative procedure? "2. No" Report Report Element Value Element Value Yes No "1. Yes" "2. No"

\*The NTDS definition is consistent with the January 2019 CDC SSI definition. If information not contained in the NTDS definition is needed, please refer to the CDC or your hospital's infection control department.

- \*\*There are two specific types of superficial incisional SSIs:
- 1. Superficial Incisional Primary (SIP) a superficial incisional SSI that is identified in the primary incision in a patient that has had an operation with one or more incisions (e.g., C- section incision or chest incision for CBGB)
- 2. Superficial Incisional Secondary (SIS) a superficial incisional SSI that is identified in the secondary incision in a patient that has had an operation with more than one incision (e.g., donor site incision for CBGB)



Report

Element Value "2. No"

Did the SSI only involve

the skin and

subcutaneous tissue of

the incision?\*\*

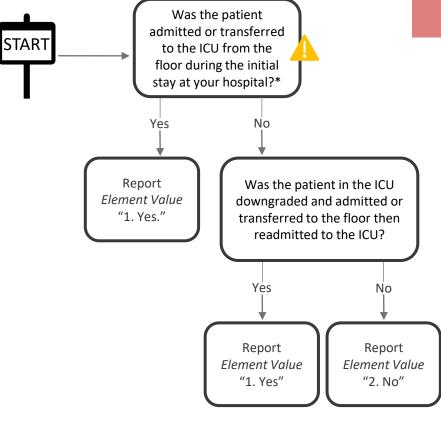
Yes

The Committee

#### **Unplanned Admission to the ICU**

#### 2022 NTDS Hospital Event Algorithm

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\*Floor is defined as any other ward that is not an ICU. "Floor" also includes step-down units, intermediate care units, and the operating room for the purposes of this definition.

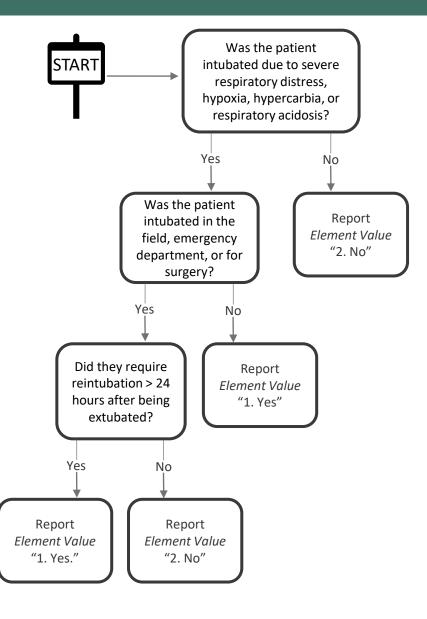
EXCLUDE: Patients with a planned post-operative ICU stay. This means that it was known prior to surgery that the patient would require post-operative ICU care.

INCLUDE: Patients who required ICU care due to an event that occurred during surgery or in the PACU.





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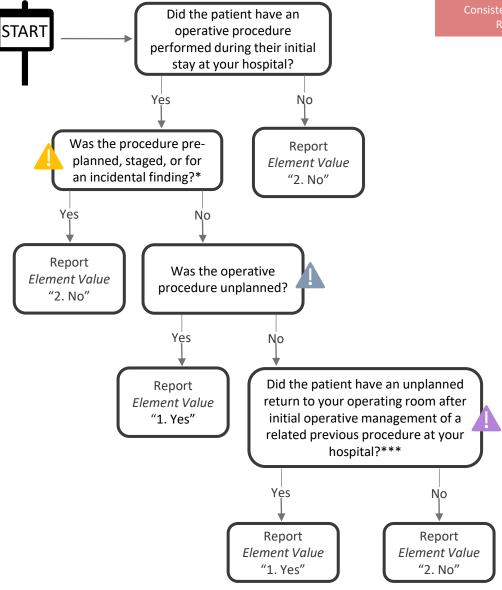




#### **Unplanned Visit to the Operating Room**

#### 2022 NTDS Hospital Event Algorithm

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\*A pre-planned procedure is a procedure indicated in the patient's original plan of care.

\*\*An unplanned procedure is a procedure that was not indicated in the patient's original plan of care.

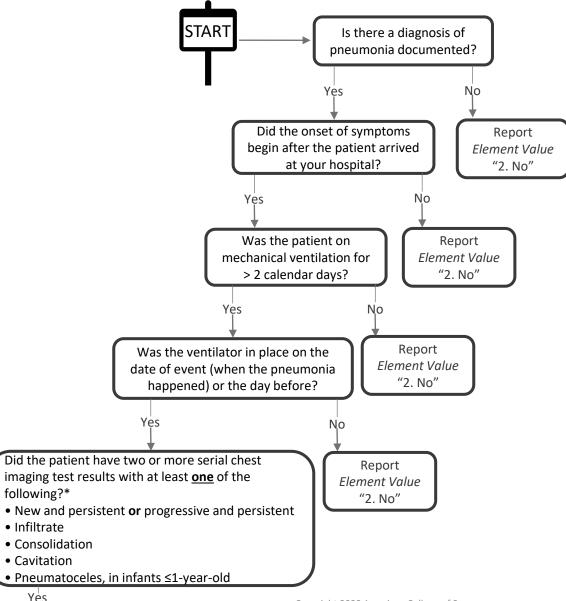
EXCLUDE: Non-urgent tracheostomy and percutaneous endoscopic gastrostomy.

\*\*\*EXCLUDE: operative management of related procedures performed prior to arrival at your hospital.





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card

\*NOTE: In patients without underlying pulmonary or cardiac disease (for example: respiratory distress syndrome, bronchopulmonary dysplasia, pulmonary edema, or chronic obstructive pulmonary disease), one definitive chest imaging test result is acceptable.



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## Ventilator-Associated Pneumonia (VAP) PNU2 Bacterial or Filamentous Fungal Pathogens (pg. 2 of 2)

#### 2022 NTDS Hospital Event Algorithm

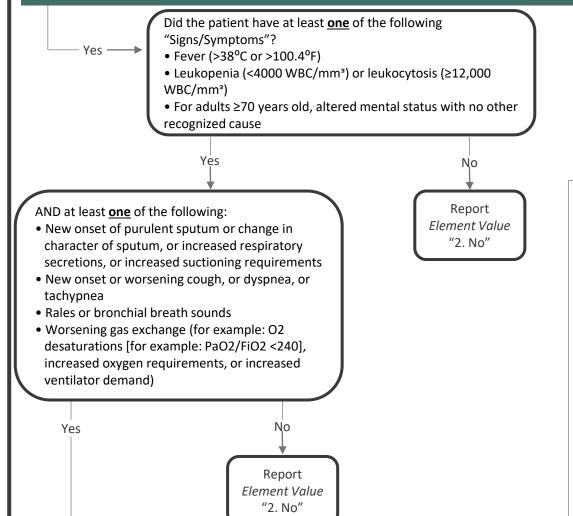
Consistent with the most recent version of the 2022 NTDS Data Dictionary Refer to complete NTDS definition for additional information

Did the patient have at least **one** of the following "Laboratory" findings?

- Organism identified from blood
- Organism identified from pleural fluid
- Positive quantitative culture or corresponding semi-quantitative culture result from minimally contaminated LRT specimen (specifically, BAL, protected specimen brushing or endotracheal aspirate)
- ≥5% BAL-obtained cells contain intracellular bacteria on direct microscopic exam (for example: Gram's stain)
- Positive quantitative culture or corresponding semi-quantitative culture result of lung tissue
- Histopathologic exam shows at least one of the following evidences of pneumonia:
  - Abscess formation or foci of consolidation with intense PMN accumulation in bronchioles and
    - alveoli
  - Evidence of lung parenchyma invasion by fungal hyphae or pseudohyphae

Report
Element Value
"1. Yes"

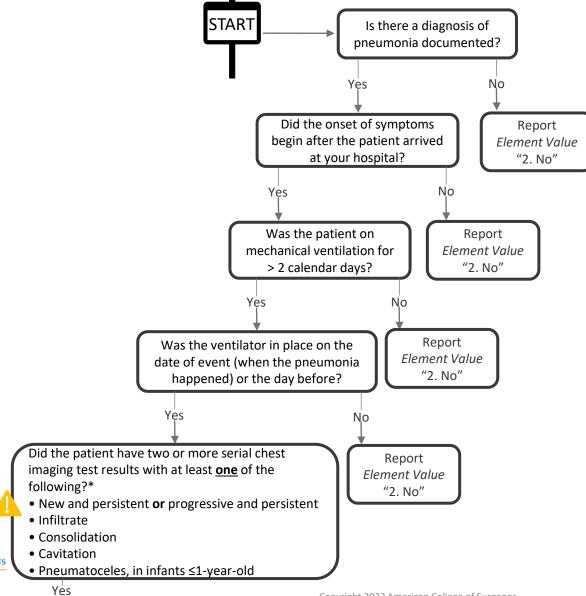
Report Element Value "2. No"







Consistent with the most recent version of the 2022 NTDS Data Dictionary Refer to complete NTDS definition for additional information



\*NOTE: In patients without underlying pulmonary or cardiac disease (for example: respiratory distress syndrome, bronchopulmonary dysplasia, pulmonary edema, or chronic obstructive pulmonary disease),

one definitive chest imaging test result is acceptable.



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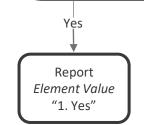
## Ventilator-Associated Pneumonia (VAP) PNU2 Viral, Legionella, and other Bacterial Pneumonias (pg. 2 of 2)

#### 2022 NTDS Hospital Event Algorithm

Consistent with the most recent version of the 2022 NTDS Data Dictionary
Refer to complete NTDS definition for additional information

Did the patient have at least **one** of the following?

- Virus, Bordetella, Legionella, Chlamydia or Mycoplasma identified from respiratory secretions **OR**
- Tissue by a culture or nonculture based microbiologic testing method which is performed for purposes of clinical diagnosis or treatment (for example: not Active Surveillance Culture/ Testing (ASC/AST).
- Fourfold rise in paired sera (IgG) for pathogen (e.g., influenza viruses, *Chlamydia*)
- Fourfold rise in *Legionella* pneumophila serogroup 1 antibody titer to ≥1:128 in paired acute **AND**
- Convalescent sera by indirect IFA.
- Detection of L. pneumophila serogroup 1 antigens in urine by RIA or EIA



Report Element Value "2. No"

Did the patient have at least one of the following? • Fever (>38°C or >100.4°F) • Leukopenia (<4000 WBC/mm³) or leukocytosis (≥12,000 WBC/mm³) • For adults ≥70 years old, altered mental status with no other recognized cause Report Did the patient have at least **one** of the following? Element Value • New onset of purulent sputum or change in "2. No" character of sputum, or increased respiratory secretions, or increased suctioning requirements • New onset or worsening cough, or dyspnea, or tachypnea • Rales or bronchial breath sounds • Worsening gas exchange (for example: O2 desaturations [for example: PaO2/FiO2 <240], increased oxygen requirements, or increased ventilator demand) No Yes Report Element Value "2. No"

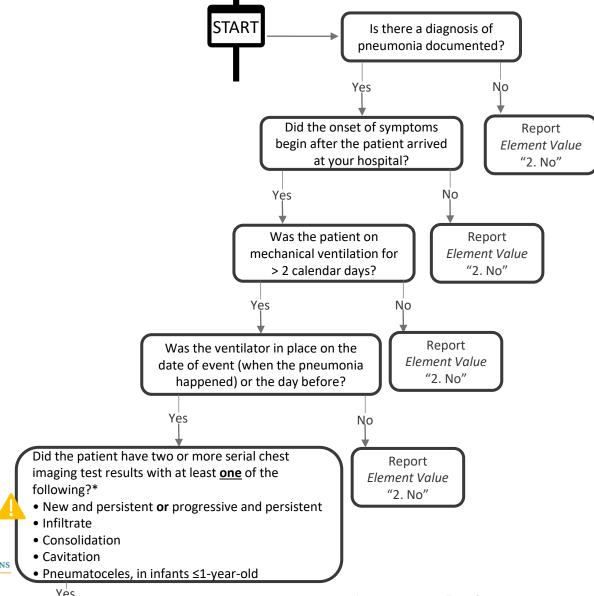




## Ventilator-Associated Pneumonia (VAP) PNU3 Immunocompromised Patients (pg. 1 of 2)

#### 2022 NTDS Hospital Event Algorithm

Consistent with the most recent version of the 2022 NTDS Data Dictionary Refer to complete NTDS definition for additional information



\*NOTE: In patients without underlying pulmonary or cardiac disease (for example: respiratory distress syndrome, bronchopulmonary dysplasia, pulmonary edema, or chronic obstructive pulmonary disease), one definitive chest imaging test result is acceptable.





#### Ventilator-Associated Pneumonia (VAP) PNU3 Immunocompromised Patients (pg. 2 of 2)

#### 2022 NTDS Hospital Event Algorithm

Consistent with the most recent version of the 2022 NTDS Data Dictionary Refer to complete NTDS definition for additional information

Did the patient have at least **one** of the following?

- Fever (>38°C or >100.4°F)
- For adults ≥70 years old, altered mental status with no other recognized cause
- New onset of purulent sputum or change in character of sputum, or increased respiratory secretions, or increased suctioning requirements
- New onset or worsening cough, or dyspnea, or tachypnea
- Rales or bronchial breath sounds
- Worsening gas exchange (for example: O2 desaturations [for example: PaO2/FiO2 < 240], increased oxygen requirements, or increased ventilator demand)
- Hemoptysis
- Pleuritic chest pain

Did the patient have at least **one** of the following?

Yes —

- •Identification of matching Candida spp. from blood and one of the following: sputum, endotracheal aspirate, BAL or protected specimen brushing.
- Evidence of fungi from minimally-contaminated LRT specimen (e.g., BAL or protected specimen brushing) from one of the following:
  - Direct microscopic exam
  - Positive culture of fungi
  - Non-culture diagnostic laboratory test

OR

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• Any of the "LABORATORY CRITERIA" defined under PNU2

Report Element Value "2. No"

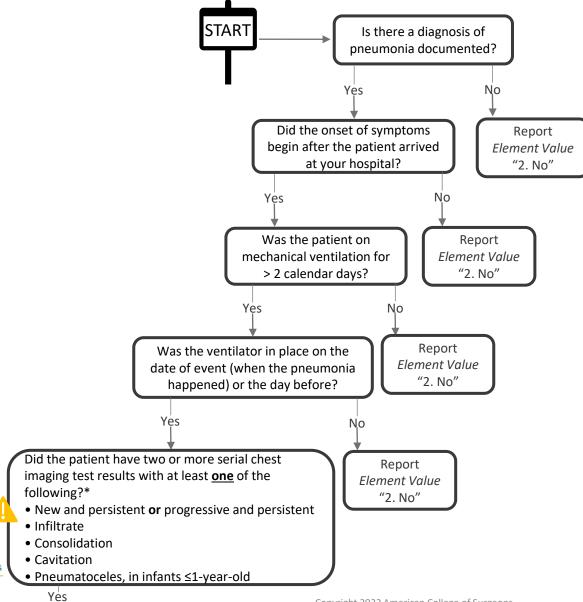
Report Element Value AMERICAN COLLEGE OF SURGEONS "1. Yes"

Yes

Report Element Value "2. No"



Consistent with the most recent version of the 2022 NTDS Data Dictionary Refer to complete NTDS definition for additional information



\*NOTE: In patients without underlying pulmonary or cardiac disease (for example: respiratory distress syndrome, bronchopulmonary dysplasia, pulmonary edema, or chronic obstructive pulmonary disease), one definitive chest imaging test result is acceptable.

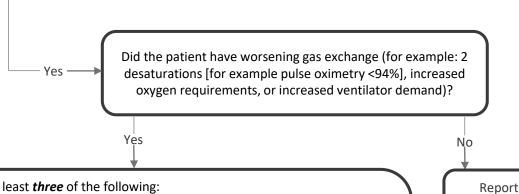


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#### Ventilator-Associated Pneumonia (VAP) ALTERNATE CRITERIA (PNU1), for infants ≤ 1-year-old (pg. 2 of 2)

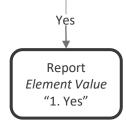
#### 2022 NTDS Hospital Event Algorithm

Refer to complete NTDS definition for additional information



Did the patient have at least *three* of the following:

- Temperature instability
- Leukopenia (≤4000 WBC/mm3) or leukocytosis (>15,000 WBC/mm3) and left shift (>10% band forms)
- New onset of purulent sputum or change in character of sputum, or increased respiratory secretions or increased suctioning requirements
- Apnea, tachypnea, nasal flaring with retraction of chest wall or nasal flaring with grunting
- Wheezing, rales, or rhonchi
- Cough
- Bradycardia (<100 beats/min) or tachycardia (>170 beats/min)



Report Element Value "2. No"





Element Value

"2. No"

## Ventilator-Associated Pneumonia (VAP) ALTERNATE CRITERIA (PNU1), for children > 1-year-old or $\leq$ 12-years-old

Is there a diagnosis of

Report

Element Value

"2. No"

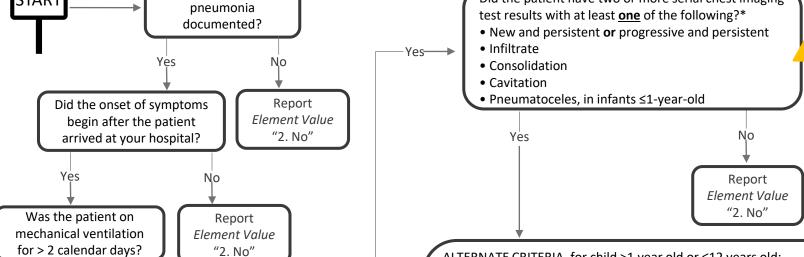
Report

Element Value

"2. No"

2022 NTDS Hospital Event Algorithm

Consistent with the most recent version of the 2022 NTDS Data Dictionary Refer to complete NTDS definition for additional information



ALTERNATE CRITERIA, for child >1 year old or ≤12 years old: Did the patient have at least **three** of the following:

• Fever (>38. 0°C or >100. 4°F) or hypothermia (<36. 0°C or <96. 8°F)

Did the patient have two or more serial chest imaging

- Leukopenia (≤4000 WBC/mm3) or leukocytosis (≥15,000 WBC/mm3)
- New onset of purulent sputum or change in character of sputum, or increased respiratory secretions, or increased suctioning requirements
- New onset or worsening cough, or dyspnea, apnea, or tachypnea.
- Rales or bronchial breath sounds
- Worsening gas exchange (for example: O2 desaturations [for example pulse oximetry <94%], increased oxygen requirements, or increased ventilator demand)

Report
Element Value
"1, Yes"

Report
Element Value
"2, No"

\*NOTE: In patients without underlying pulmonary or cardiac disease (for example: respiratory distress syndrome, bronchopulmonary dysplasia, pulmonary edema, or chronic obstructive pulmonary disease), one definitive chest imaging test result is acceptable.



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Yes

START

Yes

Was the ventilator in

place on the date of

event (when the

pneumonia happened)

or the day before?