

# CDC/NHSN Patient Safety Component Manual

## Summary of Revisions, January 2018

Below is a summary of significant modifications for the NHSN Patient Safety Component Manual, which will go into effect January 1, 2018. Chapters not listed are without significant changes.

### Modifications affecting > 1 chapter (module)

#### Clarifications:

The Latin abbreviations of “i.e.,” and “e.g.,” have been deleted and replaced with “specifically” and “for example” throughout the manual. Many users did not understand the difference and the meanings are important. “Specifically” means that the items that follow are the only items included, while “for example” means that the list of items may be a partial listing.

### Chapter 2: Identifying HAIs in NHSN

#### Additions:

- Abbreviations were added for Secondary BSI Attribution Period (SBAP), Date of Event (DOE) and Location of Attribution (LOA)
- General Instruction #4 as a reminder to refer to individual protocols for pathogen exclusions that apply to site specific definitions (BSI, PNEU, UTI, ENDO, GIT, IAB, etc.)
- A note to the Date of Event section is added to stress the importance of accurate date of event determination since it impacts the determinations of HAI vs. POA, Repeat Infection Timeframe (RIT), location of attribution and device association.
- Reminder that date of event may be, but is not always, the date of the diagnostic test which is used to set the infection window period.
- Example # 6 added to Pathogen Assignment section that addresses the importance of verifying a BSI was indeed a primary BSI and not secondary BSI to a site-specific event.

#### Clarifications:

- Reminder that Chapter 2 guidance is not applicable when performing SSI, VAE or LabID event surveillance and an update to Table 1. Specific protocols for these events are to be referenced for guidance.
- Exclusion for reporting an event that is detected as a result of organ procurement procedures is now determined based on the date of documentation of evidence of consent AND the patient is being supported for organ donation purposes.
- Flow Diagram has been updated to include guidance when an event is identified in an RIT of the same type of event.

## Chapter 4: Bloodstream Infection

Please note that the BSI chapter has been reformatted. The definitions are included earlier in the chapter and we have reorganized the data grouping like terms and concepts in the hopes of making it more user friendly. We are interested to hear your feedback about these changes. Please feel free to send any comments via email to [NHSN@cdc.gov](mailto:NHSN@cdc.gov) to let us know your thoughts.

### Additions:

Central line = “No” CLABSI Exclusions in 2018:

An LCBI meeting CLABSI criteria in the presence of Extracorporeal life support, (ECMO) OR Ventricular assist device (VAD) and/or in the presence of a diagnosis, during the current admission, of Epidermolysis bullosa (EB) or documentation of known or suspected Munchausen Syndrome by Proxy (MSBP) (a.k.a. factitious disorder imposed on another) an LCBI is reported but will NOT be considered central line associated (not a CLABSI).

In such cases, it is required in 2018 to mark the “Central Line” risk factor field “No”. NHSN has added **two optional fields** to the BSI event form. Marking the appropriate device field, **ECMO or VAD**, “Yes” is optional. The optional fields will become required in 2020.

- NHSN plans to add **EB** and **MSBP** to the BSI event form for use in **2019** that will also become required fields in 2020.

**Note:** Meeting LCBI criteria results in setting a BSI RIT and central line days should be included in denominator device counts.

**BSI Event Form:**

**OPTIONAL**

**New in 2018** →

**New in 2018** →

Any hemodialysis catheter present:	Yes	No
Extracorporeal life support present (e.g. ECMO):	Yes	No
Ventricular assist device (VAD) present:	Yes	No

- Added new term “Eligible Central Line” to define a device that terminates at or near the heart or in a great vessel which is used for infusion, blood draw(s) or hemodynamic monitoring that has been in place and accessed for > 2 days on the BSI DOE.
- Definitions specific to BSI: secondary BSI, secondary BSI attribution period, eligible central line, eligible BSI organism
- Added the following comment back to protocol (accidentally omitted in 2017): In MBI-LCBI 1, 2 and 3, “No other organisms” means there is no identification of a non-MBI-LCBI pathogen (such as *S. aureus*) or 2 matching common commensals (such as coagulase-negative staphylococci) collected from the blood on separate occasions that would otherwise meet LCBI criteria. If this occurs, the infection does not meet MBI-LCBI criteria.
- Secondary BSIs do not create a BSI RIT, example added

- Guidance on meeting another site-specific criterion within an RIT for the same type of event, examples provided under Scenarios and Pathogen Assignment.
- Guidance for reporting morphology (for example Gram-positive bacilli) as available on the NHSN organism list when the lab does not provide genus and species.
- Atrial catheters (also known as transthoracic intra-cardiac catheters, those catheters inserted directly into the right or left atrium via the heart wall) are added to the list of devices that are NOT central lines.

#### Clarifications:

1. Re-formatted Chapter 4 protocol to group like concepts and improve the flow of information to facilitate CLABSI investigations.
2. Clarified inpatient locations for making determinations about central line access and added examples.
3. Date of event (DOE) notes for LCBI 1 and LCBI 2/3: LCBI 1 DOE is always the collection date of the first positive blood specimen that identifies an eligible BSI organisms. LCBI 2/3 DOE is always determined by the date the first element used to meet the definition occurs for the first time within the IWP whether it is an eligible symptom or the blood specimen.
4. Combined MBI definitions into a one-page table, clarified use of ANC and WBC and provided formula for manual ANC calculations when not provided by the lab.
5. Combined tables 3, 5 and 6 with examples, reference table and rationale to simplify terminology for making determinations about central line access. All eligible intravascular devices handled the same regarding access.
6. Clarified documentation requirements for patient injection exclusion, grouped with other central line = 'No' exclusions.
7. Count only one central line day per patient per calendar day regardless of how many central lines the patient may have.
8. Differences in Endocarditis IWP, RIT, SBAP and pathogen assignment provided.
9. Matching organism exceptions, added Streptococcus example.
10. Data validation must be performed for three consecutive months and be within +/-5% in order to use electronic data collection method.
11. Updated Table B1 Secondary BSI Guide: GIT added criterion 2b for yeast only, VASC criterion 1 only for use in SSIs, removed criteria 3 & 5.
12. An excluded pathogen in the presence of at least one matching pathogen cannot be assigned as a secondary BSI pathogen to site-specific infection for which the pathogen exclusion is in effect. The excluded pathogen must be investigated and deemed a secondary BSI to another site-specific infection or a primary BSI pathogen.

#### Deletions:

1. Replaced definitions with Key Terms & Abbreviations as noted above
2. Removed location of attribution information-referenced chapter 2.
3. Removed Table 4

## Chapter 5: Central Line Insertion Practices (CLIP)

### Additions:

“If an insertion attempt is unsuccessful, report a new CLIP event only if a new site preparation was performed.” This addition provides guidance for those scenarios where multiple attempts are made within same prepped area.

## Chapter 6: Pneumonia

### Additions:

- The ventilator definition language has been updated to provide accuracy and clarity.
- Endotracheal aspirate specimen (collected via endotracheal or tracheostomy tube) is considered a minimally contaminated specimen and is available for use in meeting PNU2 and PNU3 criteria. Endotracheal aspirate was added to Table 5.
- An additional algorithm and flow diagram footnote (# 14) is added to provide guidance in determining acceptable imaging test evidence for use in meeting the PNEU definition (PNU1, 2, 3).
- The flowcharts and algorithms were updated to reflect the above mentioned additions

### Clarification:

- The ventilator definition language has been updated to provide accuracy and clarity.

## Chapter 7: Urinary Tract Infection

### Additions:

Reference to [Chapter 2 Identifying Healthcare Associated Infections in NHSN](#) and [Chapter 16 NHSN Key Terms](#) for definitions

- Note under definitions: UTI is a primary site of infection and is not considered secondary to another site of infection.
- Added to CAUTI definition -day of device placement\*  
\*If the Indwelling Urinary Catheter was in place prior to inpatient admission, the catheter day count that determines device –association begins with the admission date to the first inpatient location.
- Catheter - associated ABUTI is reportable if the location is in the facility’s reporting plan.

### Clarifications:

- In SUTI 1a criterion 2 clarification for fever, age and device association: To use fever in a patient > 65 years of age, the indwelling urinary catheter needs to be in place > 2 calendar days on the **date of event**.

### Deletions:

- In SUTI 1a: removed (day of device placement = Day 1)
- Transfer rule examples and Location of attribution is now located in Chapter 2
- Removed definitions of POA, HAI and DOE (located in Chapter 2)
- In USI removed “or tissue surrounding the retroperitoneal”

## Chapter 9: Surgical Site Infection (SSI) Event

### Additions:

- Updated SSI Event Reporting Instruction #1 to include verbiage on latent infections excluded from SSI criteria.
- Added into the appendix: “LUNG” as a specific event code following Ventricular Shunt (VSHN) procedure.
- SSI Data Analyses: Changes have been made to the SSI SIR under the new 2015 baseline and updated risk adjustment calculations. These changes are summarized in the new SIR Guide: <https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/nhsn-sir-guide.pdf>

### Clarifications:

- Definition for Date of Event (DOE): added additional guidance surrounding DOE and tissue level as well as timeframe for elements.
- NHSN Outpatient Operative Procedure definition verbiage updated.
- Trauma definition updated to include verbiage surrounding cases requiring multiple trips to the OR.
- SSI Event Reporting Instruction #11 is updated to provide clarification surrounding invasive manipulation/accession of operative site.

### Deletion:

- The reference to “period of wellness” was removed from the SSI Event Reporting Instruction #3 because it does not apply to PATOS.

## Chapter 10: Ventilator- Associated Event (VAE)

### Addition:

- Delafloxacin was added to the Appendix: List of Antimicrobials Agents Eligible for IVAC, PVAP

### Clarifications:

- The ventilator definition language has been updated to provide accuracy and clarity.
- The requirement that the daily minimum PEEP and FiO2 represent the lowest setting maintained for at least 1 hour has been changed to the lowest setting maintained for > 1 hour. This change does not impact how the daily minimum values are determined, the language simply more clearly aligns with the guidance provided in the protocol for determining if a setting is eligible for use.
- Exclusion for reporting a VAE detected as a result of organ procurement procedures is now determined based on the date of documentation of evidence of consent AND the patient is being supported for organ donation purposes. If the date of event (date of onset of worsening oxygenation) is on or after the date of documentation of evidence of consent the event should not be reported as a VAE.
- PVAP Criterion 3 can be met based on lower respiratory specimen cytology findings suggestive of infection.

### Deletion:

- IVAC plus rates are no longer referenced as appropriate for use in public reporting, inter-facility comparisons, and pay-for-reporting/pay-for-performance programs in keeping with promotion of antimicrobial stewardship.

- The requirement to complete the APRV field and collection of APRV denominator days is now optional. Patients on an APRV mode remain eligible for inclusion in VAE surveillance.

## Chapter 12: MDRO & CDI

### Addition:

- Reporting instruction for multi-step CDI testing methodology added immediately following CDI Laboratory Assay definition:  
When using a multi-testing methodology for CD identification, the final result of the last test finding which is placed onto the patient medical record will determine if the CDI laboratory assay definition is met.
- Note: The CDI standardized infection ratio (SIR) for facilities using a multi-step algorithm will be risk adjusted based on the *last* test in the algorithm. Refer to the NHSN December 2017 newsletter for more information.

## Chapter 14: Antimicrobial Use and Resistance

### Addition:

Delafloxacin was added as a new drug to the AU Option.

## Chapter 16: Key Terms

### Addition:

- New terms added - Apnea and Temperature instability.

### Clarifications:

- Device-associated infection - Device Day 1 clarified for patients with a ventilator or urinary catheter.
- Vital signs – definition expanded to include statements regarding Apnea and Temperature instability.

## Chapter 17: Surveillance Definitions

### Additions:

-BONE- Provided Reporting Instructions:

- “If a patient meets both organ space JNT and BONE report the SSI as BONE.”
- “After an HPRO or a KPRO if a patient meets both organ space PJI and BONE report the SSI as BONE.”

-JNT-Provided Reporting Instruction “If a patient meets both organ space JNT and BONE report the SSI as BONE”

-ENDO:

- Enterococcus spp. has been added as an available organisms for meeting Criteria 4a and 5a (typical infectious endocarditis organism)

- Requirement that typical infectious endocarditis organism in ENDO criteria 4a and 5a be collected from 2 or more blood specimens drawn on separate occasions on “same or consecutive days” is changed to on separate occasions “with no more than 1 calendar day between specimens”
- Definition of “cardiac vegetation” expanded to include “ventricular assist devices (VAD) components within the heart”

-GIT- Updated GIT Criterion 1 to allow blood as an element when there is evidence of gastrointestinal tract infection. This update allows the same limited blood pathogens that are already in place for GIT criterion 2c.

-IAB- “Retroperitoneal space” has been added to IAB as an intraabdominal space and removed from USI.

-IAB- Criterion 3 now includes hypotension and elevated transaminase levels.

-IAB- Reporting Instruction added that states biliary ductal dilatation is considered an equivocal finding for cholangitis.

**Clarification:**

**SKIN-** Criterion 2: Clarified that if 2 or more common commensals are identified from the SKIN specimen, then at least one pathogen must also be identified in order to use the SKIN specimen to meet criteria.

**Deletion:**

**VASC-** In the Reporting Instructions, removed Ventricular Assist Devices from the list of sites from which a specimen of pus, if identified with an organism that matches an organism identified in a blood specimen during the bloodstream infection (BSI) window period, can exclude the BSI from being central-line associated. Such an infection should be considered as potential Soft Tissue Infection (ST) to which the BSI may be considered secondary.