



NHSN Device-Associated Module: CLABSI & CAUTI

Housekeeping

- **This call is being recorded.**
- **Please use chat box for questions.**
- **Questions will be answered at the end.**

Agenda

- **NHSN background**
- **Reporting requirements**
- **Numerator (case) data**
 - **Central Line Associated Blood Stream Infection (CLABSI) Definitions**
 - **Catheter Associated Urinary Tract Infections (CAUTI) Definitions**
- **Denominator data**
 - **Definitions, data entry**
- **Resources**

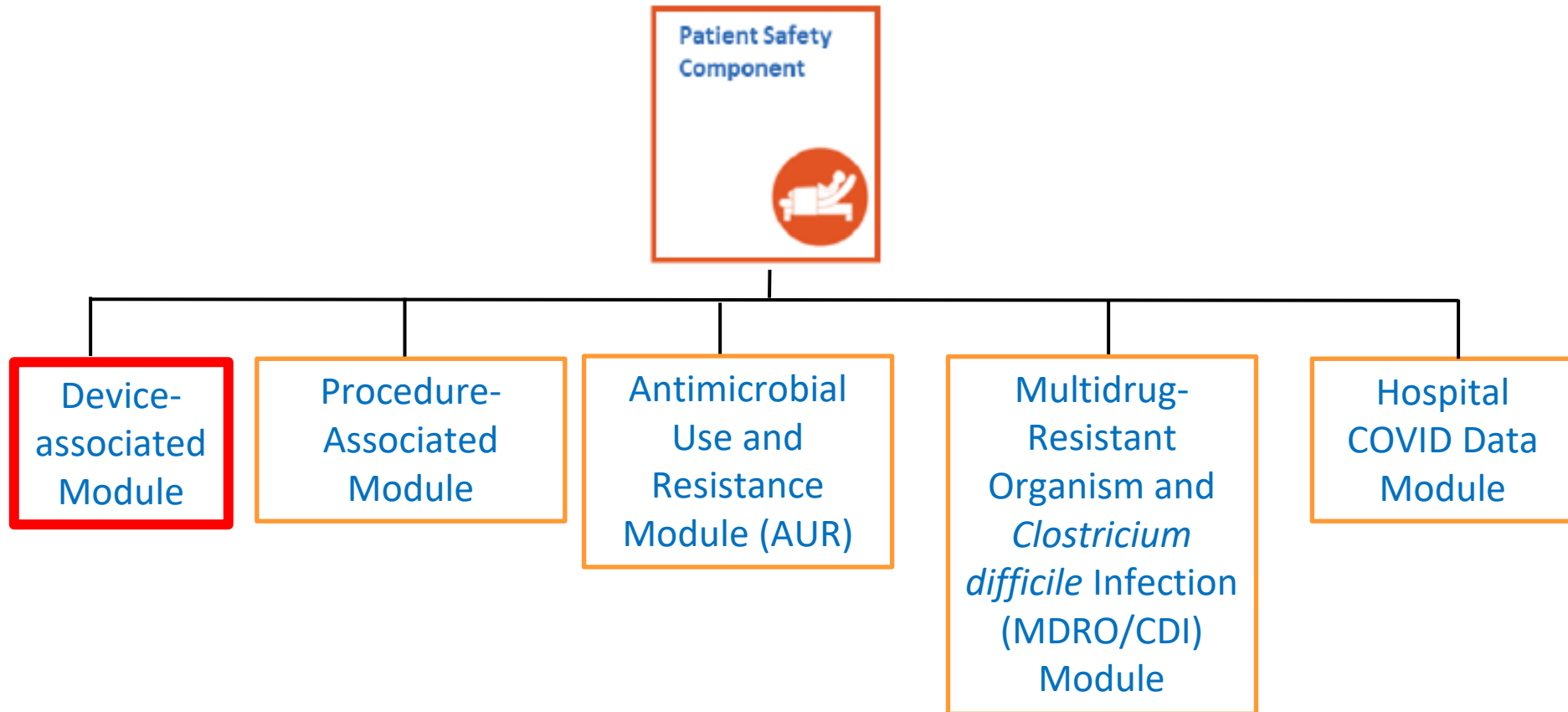


NHSN Background

National Healthcare Safety Network (NHSN)



National Healthcare Safety Network (NHSN)



The logo consists of a red square with the letters 'TN' in white, serif font. Below the red square is a thin white horizontal line, and below that is a dark blue horizontal bar. A small 'TM' trademark symbol is located at the bottom right corner of the blue bar.

TN

Central Line Associated Blood Stream Infection (CLABSI)

The logo for Tennessee, featuring the letters 'TN' in white, serif font, centered within a red square. A thin white horizontal line is positioned below the red square, and a dark blue horizontal bar is at the very bottom of the logo area.

TN

2024 CLABSI Updates

CLABSI 2024 Protocol

- **Addition: Update to the Blood Specimen Collection guidance and the use of accession numbers to determine separate occasions.**
- **Clarification:**
 - **Clarified the use of next-generation sequencing (NGS) as a non-culture based testing method to meet laboratory confirmed bloodstream infection criteria 1 (LCBI 1).**
 - **Clarification provided that an eligible organism in the blood specimen is the only element needed to meet LCBI 1 criterion.**

CLABSI 2024 Protocol

- **Provided clarification on the use of a single common commensal to meet LCBI 2 and LCBI 3 criteria as well as secondary bloodstream infection (BSI) criteria.**
- **Provided clarification in the reporting instructions concerning the addition of laboratory confirmed bloodstream infection (BSI) and mucosal barrier injury laboratory confirmed bloodstream infection (MBI LCBI) events during a bloodstream infection (BSI) repeat infection timeframe (RIT).**

CLABSI 2024 Protocol

- Clarified the use of the number of predicted events in the calculation of the standardized infection ratio (SIR).
 - Clarification on the use of necrotizing enterocolitis (NEC) as an exception for secondary BSI attribution.
 - Clarification provided to the examples used for secondary BSI attribution.
- **Deletion:** Removed additional guidance provided used to determine if blood specimens meet the separate occasion blood collection requirement.



CLABSI Reporting Requirements

TDH/CMS CLABSI Reporting Requirements

Facility Type	Location(s)
Acute Care Hospitals	<input type="checkbox"/> Adult/Pediatric ICUs <input type="checkbox"/> Neonatal ICUs <input type="checkbox"/> Adult/Pediatric Medical, Surgical, and Medical/Surgical Wards
Long-term Acute Care (LTAC) Facilities	<input type="checkbox"/> Adult/Pediatric ICUs & Wards



Central Line Definition

Central Line

- **NHSN definition**: An intravascular catheter that terminates at or close to the heart OR in one of the great vessels AND is used for infusion, withdrawal of blood, or hemodynamic monitoring.
- **Great vessels:**
 - Aorta
 - Pulmonary artery
 - Superior vena cava
 - Inferior vena cava
 - Brachiocephalic veins
 - Internal jugular veins
 - Subclavian veins
 - External iliac veins
 - Common iliac veins
 - Femoral veins
 - In Neonates, the umbilical artery/vein

Central Line (cont.)

- **Neither the type of device nor the insertion site is used to determine if a device is considered a CL for NHSN reporting purposes.**
- **At times, an CL may migrate from its original central location after confirmation of proper placement.**
 - **Once a line has been designated a CL, it remains a CL, regardless of migration, until removed from the body or patient discharge, whichever comes first.**
 - **CL days are included for any CLABSI surveillance conducted in that location.**

Central Line (cont.)

- **An introducer is an intravascular catheter and depending on the location of its tip and use, may be considered a central line.**
- **A non-lumened intravascular catheter that terminates at or close to the heart or in a great vessel that is not used for infusion, withdrawal of blood or hemodynamic monitoring is not considered a CL for NHSN reporting purposes (for example non-lumened pacemaker wires.**
- **Note: there are some pacemaker wires that do have lumens, which may be considered a central line.**

Central Line (cont.)

- **The following devices are not considered central lines:**
 - **Arterial catheters (unless in the pulmonary artery, aorta or umbilical artery)**
 - **Arteriovenous fistula**
 - **Arteriovenous graft**
 - **Atrial Catheters (transthoracic intra-cardiac catheters, inserted directly into the right or left atrium via the heart wall.)**
 - **Extracorporeal membrane oxygenation (ECMO)**
 - **Hemodialysis reliable outflow (HERO) dialysis catheters**
 - **Intra-aortic balloon pump (IABP) devices**
 - **Peripheral IV or Midlines**
 - **Ventricular Assist Device (VAD)**

Types of Central Lines

- **Permanent central line:**
 - **Tunneled catheters, including tunneled dialysis catheters**
 - **Implanted catheters (including ports)**
- **Temporary central line:**
 - **A non-tunneled, non-implanted catheter**
- **Umbilical catheter:**
 - **A vascular catheter inserted through the umbilical artery or vein in a neonate. All umbilical catheters are central lines**

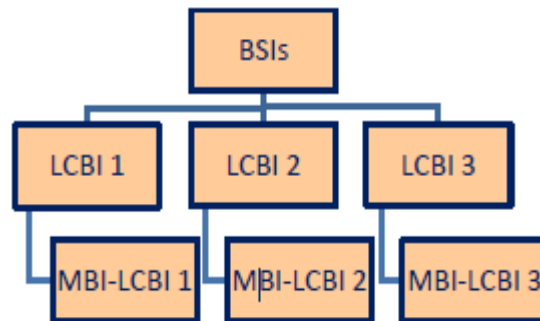
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CLABSI Definitions

BSI Definitions

- **Primary bloodstream infection (BSI)**
 - **Laboratory-confirmed bloodstream infection (LCBI) that is not secondary to an infection at another body site**
 - **LCBI 1, LCBI 2, LCBI 3**
- **Mucosal Barrier Injury Laboratory-Confirmed Bloodstream Infection (MBI-LCBI)**
 - **MBI-LCBI1, MBI-LCBI2, MBI-LCBI3**



Central Line-Associated BSI (CLABSI)

- **A laboratory confirmed bloodstream infection (LCBI)**
 - **Eligible BSI pathogen is identified**
 - **Pathogen eligible to use to meet LCBI or MBI-LCBI criteria.**
 - **Not an excluded pathogen.**
 - **Contact NHSN if the pathogen is not in the NHSN organism list.**
 - **Eligible CL is present on the LCBI DOE or the day before.**
 - **CL that has been in place for more than two consecutive calendar days-following the first access of the CL, in an inpatient location, during the current admission**
 - **Remain eligible for CLABSI events until the day after removal from the body or patient discharge, whichever comes first.**

Associating the Use of CL to BSI Events (CLABSI)

- Patient B is eligible for a CLABSI on April 4 (CL day 3).
 - It was accessed on April 2 and was in place for greater than 2 days which made it an eligible CL on April 4 and April 5.
 - It was also removed on April 4, so on April 6 it is no longer an eligible central line.
 - The port was completely removed from the body, not just de-accessed.

Date	31-Mar	1-Apr	2-Apr	3-Apr	4-Apr	5-Apr	6-Apr
Patient B: CL/Port Status	CL/Port in	CL/Port in	CL/Port in	CL/Port in	CL/Port in CL/Port out	No device	No device
Accessed	No	No	Yes	Yes	Removed	-	-
Eligible for CLABSI event	No	No	No	No	Yes-eligible CL	Yes-eligible CL	No
	-	-	CL Day 1	CL Day 2	CL Day 3	-	-
<p>Patient B is eligible for a CLABSI on 4/4 (CL Day 3) through 4/5. An accessed device (CL or port) is in place > 2 consecutive calendar days making it an eligible CL on 4/4 (CL day 3). A BSI with a DOE on the day of or the day after device removal or patient discharge is considered device associated (CLABSI).</p>							

Central Line-Associated BSI (CLABSI)

- **Eligible Central Line Days**
 - The number of days a central line is accessed to determine if an LCBI is a CLABSI.
- **Denominator device days**
 - The count of central lines on an inpatient unit that is recorded in the monthly summary data.
 - This count begins on the first day the central line present, regardless of access.

LCBI 1 –Lab Confirmed Blood Stream Infection

<p>LCBI 1</p> <p>If LCBI 1 criterion is met, consider MBI-LCBI 1</p>	<p>Patient of any age has a recognized bacterial or fungal pathogen, not included on the NHSN common commensal list:</p> <ol style="list-style-type: none">1. Identified from one or more blood specimens obtained by a culture <p>OR</p> <ol style="list-style-type: none">2. Identified to the genus or species level by non-culture based microbiologic testing (NCT)* methods (for example, T2 Magnetic Resonance [T2MR] or next-generation sequencing (NGS)). Note: <i>If blood is collected for culture within 2 days before, or 1 day after the NCT, disregard the result of the NCT and use only the result of the CULTURE to make an LCBI surveillance determination. If no blood is collected for culture within this time period, use the result of the NCT for LCBI surveillance determination.</i> <p>AND</p> <p>Organism(s) identified in blood is not related to an infection at another site (See Appendix: Secondary BSI Guide).</p> <p>*For the purposes of meeting LCBI 1, NCT is defined as a methodology that identifies an organism directly from a blood specimen without inoculation of the blood specimen to any culture media.</p>
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Case Study 1

- **HD 8: Mrs. D, 50 y.o. has been in ICU for one week with a CL, that was placed on admission. She develops a fever. A non-culture blood test is done and is positive for *Klebsiella pneumoniae*.**
- **HD 9: She becomes disoriented. Blood culture and urine cultures are collected. Blood culture is + for *Klebsiella pneumoniae* and Urine culture is negative.**

Case Study 1

Hospital Day	First Diagnostic Test	IWP	Date of Event	RIT
7				
8	NCT	CL in use since admission. Fever. NCT + for <i>Klebsiella pneumoniae</i>		
9	BC	BC + <i>Klebsiella pneumoniae</i> , UC-neg		
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				

Case Study 1

Hospital Day	First Diagnostic Test	IWP	Date of Event	RIT
7				
8		CL in use since admission. Fever. NCT + for <i>Klebsiella pneumoniae</i>		
9	BC	BC + <i>Klebsiella pneumoniae</i> , UC-neg	HAI	
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				

LCBI 1 CLABSI HAI
DOE HD 9
RIT HD 9 thru day 22
Pathogen: *K. pneumoniae*

LCBI 2 (all ages)

LCBI 2

If LCBI 2
criterion is
met,
consider
MBI-LCBI 2

Patient of any age has at least **one** of the following signs or symptoms: fever (>38.0°C), chills, or hypotension

AND

Organism(s) identified in blood is not related to an infection at another site
(See [Appendix: Secondary BSI Guide](#)).

AND

The same NHSN common commensal is identified by culture from two or more **blood specimens** collected on separate occasions (see [Blood Specimen Collection](#)).

For common commensal organisms, see the Common Commensal tab of the NHSN Organism List accessed via the [spreadsheet](#) or refer to the new [NHSN Terminology Browser](#).

Case Study 2

- **HD 1: Jack is admitted to ICU. A central line was placed on admission.**
- **HD 3: Developed a fever of 39°C.**
- **HD 4: Pt. confused, hypotensive, blood cultures drawn and grew CNS (common commensal)**
- **HD 5: BC repeated, grew *S. epidermidis* (common commensal)**
- **HD 8: Central line discontinued.**

Case Study 2

Hospital day/date	First Diagnostic Test	IWP	Date of Event	RIT
1 Admit ICU		CL placed		
2				
3		Fever 39°C.		
4	BC	Confused, hypotensive BC + CNS		
5	BC	BC+ <i>S. epi</i>		
6				
7				
8		CL discontinued		
9				
10				
11				
12				
13				
14				
15				
16				

Case Study 2

Hospital day/date	First Diagnostic Test	IWP	Date of Event	RIT
1 Admit ICU		CL placed		
2				
3		Fever 39°C.	HAI	14 days with DOE = day 1
4	BC	Confused, hypotensive BC + CNS		
5	BC	BC+ <i>S. epi</i>		
6				
7				
8		CL discontinued		
9				
10				
11				
12				
13				
14				
15				
16				

HAI CLABSI
 LCBI 2
 Symptom. 2 common
 commensals
 DOE HD 3
 Pathogen -*S. epi*

LCBI 3 (Patients \leq 1 Year Old)

LCBI 3

If LCBI 3
criterion is
met,
consider
MBI-LCBI 3

Patient \leq 1 year of age has at least one of the following signs or symptoms:
fever ($>38.0^{\circ}\text{C}$), hypothermia ($<36.0^{\circ}\text{C}$), apnea, or bradycardia

AND

Organism(s) identified in blood is not related to an infection at another site
(See [Appendix: Secondary BSI Guide](#)).

AND

The same NHSN common commensal is identified by a culture from two or more blood
specimens collected on separate occasions (see [Blood Specimen Collection](#)).

For common commensal organisms, see the Common Commensal tab of the NHSN Organism
List accessed via the [spreadsheet](#) or refer to the new [NHSN Terminology Browser](#).

Case Study 3

- **HD 1: Baby boy Sam was admitted to NICU after being born 1 month premature, CL placed**
- **HD 4: He had new onset of bradycardia.**
- **HD 5: He developed a low-grade fever of 37.8^c and 2 blood specimens were drawn separately both growing *S. capitis*.**

Case Study 3

Hospital day/date	First Diagnostic Test	IWP	Date of Event	RIT
1		Admit NICU, CL placed		
2				
3				
4		Bradycardia,	DOE	
5	Blood specimen	BS + <i>S. capitis</i> x2, Temp 37.7°		
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				

Case Study 3

Hospital day/date	First Diagnostic Test	IWP	Date of Event	RIT
1		Admit NICU, CL placed		
2				
3				
4		Bradycardia,	DOE	
5	Blood specimen	BS + <i>S. capitis</i> x2, Temp 37.7 ^c		
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				

This is a HAI CLABSI,
DOE HD 4, IWP HD 2-8.
Symptom-Bradycardia,
2 matching common
commensals.

Blood Specimen Collection Considerations

- **In LCBI 2 and 3, the phrase “two or more blood specimens drawn on separate occasions” criterion is met:**
 - **If there is blood collected from at least two separate blood draws on the same or consecutive days**
 - **the blood cultures are assigned separate specimen numbers, processed individually, and are reported separately in the final laboratory report**

Sameness of Organisms

- **For LCBI criteria 2 and 3, if the common commensal is identified to the species level for one blood specimen, and a companion blood specimen is identified with only a descriptive name, which is complementary to the companion culture (in other words, to the genus level), then it is assumed the pathogens are the same.**
- **Colony morphology, biotype, and antibiogram comparisons should not be used to determine the ‘sameness’ of organisms because laboratory testing capabilities and protocols vary between facilities.**

Sameness of Organisms

- **To reduce reporting variabilities due to differences in laboratory practice only genus and species identification should be used, and they should only be reported once.**
- **A pathogen identified to the species level should be reported along with the antibiogram, if available. If the sensitivities differ for the same organisms in separate specimens, always report the more resistant panel.**

Sameness of Organisms

- **Reporting Speciated and Unspeciated Organisms Identified from Blood Specimens**

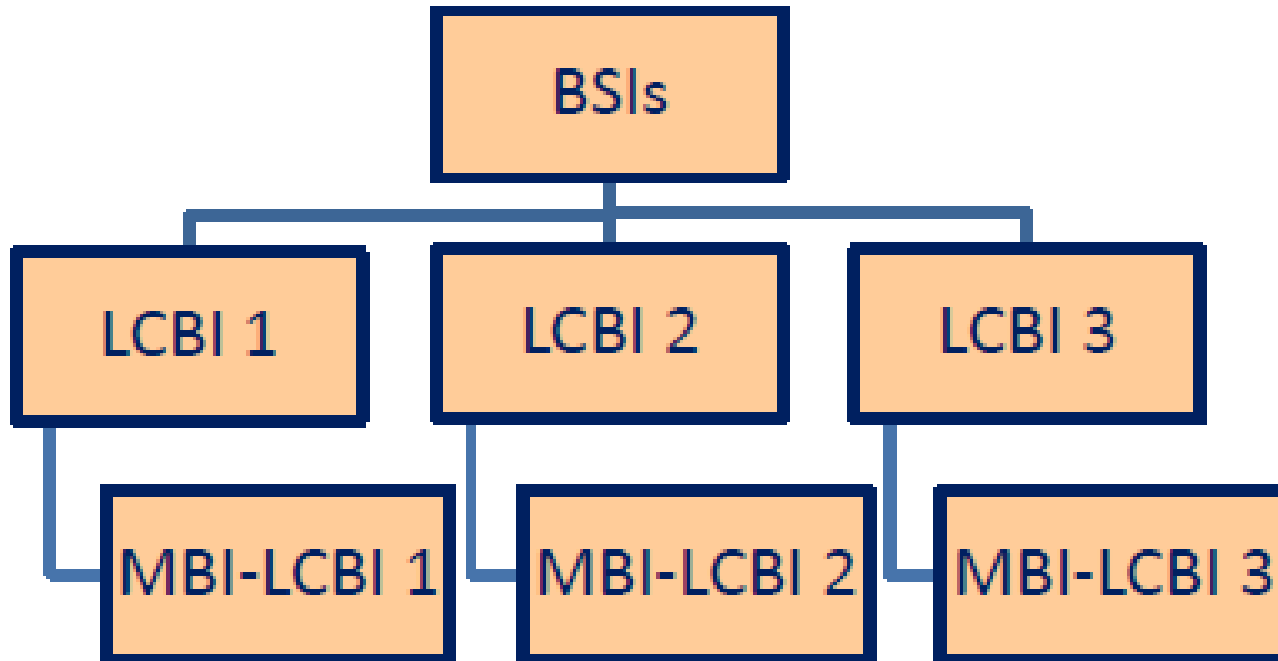
Culture Report	Companion Culture Report	Report as...
Coagulase-positive staphylococci	<i>S. aureus</i>	<i>S. aureus</i>
<i>S. epidermidis</i>	Coagulase-negative staphylococci	<i>S. epidermidis</i>
<i>Enterococcus</i> spp.	<i>E. faecium</i>	<i>E. faecium</i>
<i>Bacillus</i> spp. (not anthracis)	<i>B. cereus</i>	<i>B. cereus</i>
<i>S. salivarius</i>	<i>Strep viridans</i>	<i>S. salivarius</i>

Note: When identification to the species level is not provided, the genus of the organism will be reported to NHSN. When identification to the genus level is not provided, report the organism as available on the NHSN all organism list (for example, Gram-positive bacilli).

Blood Specimen Collection Considerations

- **Specimen Collection Considerations:**
 - **Blood specimens drawn through central lines can have a higher rate of contamination than blood specimens collected through peripheral venipuncture.**
 - **However, all positive blood specimens, regardless of the site from which they were drawn or the purpose for which they were collected, must be included when conducting in-plan CLABSI surveillance.**
 - **Catheter tip cultures cannot be used in place of blood specimens for meeting LCBI criteria.**

MBI-LCBI



Mucosal Barrier Injury LCBI (MBI-LCBI)

MBI-LCBI 1	MBI-LCBI 2	MBI-LCBI 3
Patient of any age fully meets LCBI 1 criterion	Patient of any age fully meets LCBI 2 criterion	Patient ≤1 year of age fully meets LCBI 3 criterion
with at least one blood specimen	with at least two matching blood specimens	
with ONLY intestinal organisms from the NHSN MBI organism list*	with ONLY Viridans Group <i>Streptococcus</i> and/or <i>Rothia spp.</i> alone but no other organisms†	
identified by culture or non-culture based microbiologic testing method	identified by culture	
<u>AND</u>		
Patient meets at least <u>one</u> of the following:		
<ol style="list-style-type: none"> 1. Is an allogeneic hematopoietic stem cell transplant recipient within the past year with one of the following documented during same hospitalization as positive blood specimen: <ol style="list-style-type: none"> a. Grade III or IV gastrointestinal graft versus host disease [GI GVHD] OR b. ≥1-liter diarrhea in a 24-hour period (or ≥20 mL/kg in a 24-hour period for patients <18 years of age) with onset on or within the 7 calendar days before the date the positive blood specimen was collected. OR 2. Is neutropenic, defined as at least two separate days with ANC[†] and/or WBC values <500 cells/mm³ collected within a 7-day time period which includes the collection date of the positive blood specimen, the 3 calendar days before and the 3 calendar days after (See Table 5). 		

Mucosal Barrier Injury LCBI (MBI-LCBI)

1. If a patient meets both MBI-LCBI 1 and MBI-LCBI 2 or MBI-LCBI 3 criteria (specifically has Viridans Group *Streptococcus* or *Rothia* spp. and only MBI organisms in the blood specimen), report organisms as MBI-LCBI 1 with the recognized pathogen as pathogen #1 and the common commensal as pathogen #2.
2. Any combination of ANC and/or WBC values can be used to meet neutropenic criteria provided they are collected on separate days within the 7-day period that includes the date of the positive blood specimen, the 3 calendar days before and the 3 calendar days after.
3. When a blood specimen positive for an organism not included on the NHSN MBI organism list is collected during the BSI RIT of an MBI-LCBI, the initial MBI-LCBI event is edited to an LCBI and the identified non-MBI organism is added.

*See the MBI organism tab on the NHSN Organism List accessed via the [spreadsheet](#) or refer to the new [NHSN Terminology Browser](#) for eligible MBI organisms.

†Eligible positive blood specimens must be collected on separate occasions and limited to the following:

- Viridans Group *Streptococcus* identified in at least two sets of blood specimens
- *Rothia* spp. identified in at least two sets of blood specimens
- Viridans Group *Streptococcus* and *Rothia* spp. identified in at least two sets of blood specimens

Examples of Neutropenia in MBI-LCBI Criteria

		Day -7	Day -6	Day -5	Day -4	Day -3	Day -2	Day -1	Day 1*	Day 2	Day 3	Day 4
Pt. A	WBC	100	800	400	300	ND	ND	320	400 + BC* x 1 <i>Candida</i> spp.	ND	550	600
Pt. B	ANC	ND	410	130	ND	ND	120	110	ND +BC* x 2 viridans strep plus fever >38°C	110	300	320
Pt. C	WBC	100	800	400	300	ND	ND	ND	600 + BC* x 1 <i>Candida</i> spp.	230	ND	400

ND = not done; *Collection date of positive blood specimen; Highlight = ANC/WBC < 500 cells/mm³; red font = ANC/WBC value used to meet neutropenic criteria

Rationale for Table 5:

Patient A meets MBI-LCBI 1 criteria with neutropenia: Positive blood specimen with intestinal organism (*Candida* spp.) and neutropenia*. In this case, the WBC values on Day 1 = 400, and Day -1 = 320 are used.

Patient B meets MBI-LCBI 2 criteria with neutropenia: At least two positive blood specimens with *viridans group streptococci*, fever >38°C and neutropenia*. In this case, the ANC values on day -1 = 110 and Day -2 = 120 are used.

Case Study 4

- **HD 1: admit to oncology unit, port in place**
- **HD 3: accessed port**
- **HD 6: ANC level of 320cells/mm³**
- **HD 7: two BC's drawn +*E. coli***
- **HD 8: WBC level 410cells/mm³**

Case Study 4

Admit date 9/1, oncology

Hospital Day	First Diagnostic Test	IWP	Date of Event	RIT	Secondary BSI Attribution Period
3		Port accessed			
4					
5					
6		ANC 320 cells/mm ³			
7	BC	BC x 2+ <i>E. coli</i>			
8		WBC 410 cells/mm ³			
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

Case Study 4

Admit date 9/1, oncology

Hospital Day	First Diagnostic Test	IWP	Date of Event	RIT	Secondary BSI Attribution Period
3		Port accessed			
4					
5					
6		ANC 320 cells/mm ³			
7	BC	BC x 2+ <i>E. coli</i>	HAI		
8		WBC 410 cells/mm ³			
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

HAI CLABSI
 MBI-LCBI Criterion 1:2
 (neutropenia) with *E. coli*
 DOE HD 7
 RIT HD 7-HD 10

Case Study 4a

- HD 1 admit to oncology unit, port in place
- HD 3 accessed port
- HD 6 ANC level of 320cells/mm³
- HD 7 two BC's drawn +*E. coli*
- HD 8 WBC level 410cells/mm³
- **HD 15 BC + *S. aureus***

Case Study 4a

Admit date 9/1, oncology

Hospital Day	First Diagnostic Test	IWP	Date of Event	RIT	Secondary BSI Attribution Period
3		Port accessed			
4					
5					
6		ANC 320 cells/mm ³			
7	BC	BC x 2+ <i>E. coli</i>	HAI		
8		WBC 410 cells/mm ³			
9					
10					
11					
12					
13					
14					
15		BC + <i>S. aureus</i>			
16					
17					
18					
19					
20					

Case Study 4a

Admit date 9/1, oncology

Hospital Day	First Diagnostic Test	IWP	Date of Event	RIT	Secondary BSI Attribution Period
3		Port accessed			
4					
5					
6		ANC 320 cells/mm ³			
7	BC	BC x 2+ <i>E. coli</i>	HAI		
8		WBC 410 cells/mm ³			
9					
10					
11					
12					
13					
14					
15		BC + <i>S. aureus</i>			
16					
17					
18					
19					
20					

HAI CLABSI
 MBI-LCBI Criterion 1:2
 (neutropenia) with *E. coli* on
 DOE HD 7
 RIT HD 7-HD 20
 Must edit MBI-LCBI to
 LCBI 1 and add *S. aureus*

Case Study 4b

- HD 1 admit to oncology unit, port in place
- HD 3 accessed port
- HD 6 ANC level of 320cells/mm³
- HD 7 two BC's drawn +*E. coli*
- HD 8 WBC level 410cells/mm³
- **HD 15 BC + *S. aureus* (attributed to another site of infection)**

Case Study 4b

Hospital Day	RIT	IWP	IWP	RIT	Secondary BSI Attribution Period
3		Port accessed			
4					
5					
6		ANC 320 cells/mm ³			
7		BC x 2+ <i>E. coli</i> (HAI-DOE)			
8		WBC 410 cells/mm ³			
9			Erythema, Pain		
10			Skin Culture- + <i>S. Aureus</i>		
11					
12					
13					
14					
15			BC+ <i>S. Aureus</i>		BC+ <i>S. Aureus</i>
16					
17					
18					
19					
20					
21					
22					

Case Study 4b

Hospital Day	RIT	IWP	IWP	RIT	Secondary BSI Attribution Period
3		Port accessed			
4					
5					
6		ANC 320 cells/mm ³			
7		BC x 2+ <i>E. coli</i> (HAI-DOE)			
8		WBC 410 cells/mm ³			
9			Erythema, Pain		
10			Skin Culture- + <i>S. Aureus</i>		
11					
12					
13					
14					
15			BC+ <i>S. Aureus</i>		BC+ <i>S. Aureus</i>
16					
17					
18					
19					
20					
21					
22					

HAI CLABSI
 MBI-LCBI Criterion 1:2
 (neutropenia) with *E. coli* on DOE HD 7
 RIT HD 7-HD 20

Skin 2a with secondary BSI-
 DOE HD 9 *S. aureus*



CLABSI Event

BSI event with central line meets an exclusion

- **The event is reported to NHSN but is NOT considered central line associated.**
- **The Central Line field is marked “Yes”**
 - **If an eligible central line was in place on the BSI DOE and is still in place on the BSI DOE or the day before**
- **The events do not contribute to the CLABSI SIR measure.**

BSI event with central line meets an exclusion

- **In each instance where the date of event of subsequent positive blood specimens are outside of the established BSI RIT, meeting the exclusion criteria,**
 - **the subsequent positive blood specimens must be investigated as primary or secondary to another site-specific infection.**
 - **The CLABSI exclusion criteria must be met again in a new BSI IWP to determine if the positive blood specimen is central line associated.**

Summary of CLABSI Exclusions

- **CLABSI exclusions:**
 - **Extracorporeal life support (ECLS or ECMO)**
 - **Ventricular Assist Device (VAD)**
 - **Patient injection**
 - **Epidermolysis bullosa (EB) Limited to the genetic form in Pediatric population**
 - **Munchausen Syndrome by Proxy (MSBP)**
 - **Pus at the vascular site**

Reporting Instructions

- **Group B *Streptococcus* identified in blood, with a DOE during the first 6 days of life, is not reported as a CLABSI.**
- **Do not report a LCBI that has a DOE within a BSI RIT. Any additional pathogens identified meeting LCBI criteria are added to the initial event.**
- **Do not report an MBI-LCBI that has a DOE within a BSI RIT. Any additional pathogens identified meeting MBI-LCBI criteria are added to the initial BSI event.**

Reporting Instructions

- **Only primary BSI's create a 14-day BSI RIT.**
- **Secondary's BSI's do not create a 14-day RIT.**
- **POA positive blood specimen are not reported to NHSN, but if another positive blood specimen is collected within 14 days, is imperative a determination is made for the original blood specimen in order to make the correct determination about the subsequent blood specimen.**

Report a CLABSI Event

Primary Bloodstream Infection (BSI)

Page 1 of 4 *required for saving **required for completion

Facility ID:		Event #:	
*Patient ID:		Social Security #:	
Secondary ID:		Medicare #:	
Patient Name, Last:		First:	Middle:
*Gender: F M Other		*Date of Birth:	
Ethnicity (Specify):		Race (Specify):	
*Event Type: BSI		*Date of Event:	
Post-procedure BSI: Yes No		Date of Procedure:	
NHSN Procedure Code:		ICD-10-PCS or CPT Procedure Code:	
*MDRO Infection Surveillance: <input type="checkbox"/> Yes, this infection's pathogen & location are in-plan for Infection Surveillance in the MDRO/CDI Module <input type="checkbox"/> No, this infection's pathogen & location are not in-plan for Infection Surveillance in the MDRO/CDI Module			
*Date Admitted to Facility:		*Location:	
Risk Factors			
*If ICU/Other locations, Central line: Yes No *If Specialty Care Area/Oncology, Permanent central line: Yes No Temporary central line: Yes No		Check all that apply: Yes <input type="checkbox"/> No <input type="checkbox"/> *Any hemodialysis catheter present Yes <input type="checkbox"/> No <input type="checkbox"/> *Extracorporeal life support present (ECLS or ECMO) Yes <input type="checkbox"/> No <input type="checkbox"/> *Ventricular-assist device (VAD) present Yes <input type="checkbox"/> No <input type="checkbox"/> *Known or suspected Münchhausen Syndrome by Proxy	

Report a CLABSI Event

- NHSN Home
- Alerts
- Dashboard ▶
- Reporting Plan ▶
- Patient ▶
- Event ▶**
- Procedure ▶
- Summary Data ▶
- COVID-19 ▶
- Import/Export
- Surveys ▶



Add Event

Mandatory fields marked with *

Fields required for record completion marked with **

Fields required when in Plan marked with >

- Add**
- Find
- Incomplete

on

ID *: TDH Central (ID 15813) ▼

ID *: 2022

Secondary ID:

Last Name:

Middle Name:

Gender *: M - Male ▼

Report a CLABSI Event

Patient Information

Facility ID *: TDH Central (ID 15813) ▼

Patient ID *: 2022

Secondary ID:

Last Name:

Middle Name:

Gender *: M - Male ▼

Ethnicity: NOHISP - Not Hispanic or Not Latino ▼

Race: American Indian/Alaska Native Asian
 Black or African American Native Hawaiian/Other Pacific Islander
 White

Event #:

Social Security #:

Medicare #:

First Name:

Date of Birth *: 01/02/1960

Event Information

Event Type *: BSI - Bloodstream Infection ▼

Date of Event *: 01/12/2022

Post-procedure:

MDRO Infection Surveillance *: No, this infection's pathogen/location are not in-plan for Infection Surveillance in the MDRO/CDI Module ▼

Location *: MEDSURGE - HEM/ONC MEDSURG ▼

Location of attribution

Date Admitted to Facility >: 01/03/2022

Report a CLABSI Event

Permanent Central Line *:

Temporary Central Line *:

Any hemodialysis catheter present *:

Location of Device Insertion:

Date of Device Insertion: 

Extracorporeal life support present (e.g. ECMO) *:

Ventricular assist device (VAD) present *:

Select all that apply: If any option(s) from below are selected 'Yes', then mark the "Central Line" risk factor field 'Yes' if an eligible central line was also in place.

Known or suspected Munchausen Syndrome by Proxy during current admission *:

Observed or suspected patient injection into vascular line(s) within the BSI infection window period *:

Epidermolysis bullosa during current admission *:

Matching organism is identified in blood and from a site-specific specimen, both collected within the infection window period and pus is present at one of the following vascular sites from which the specimen was collected *:

Vascular site? *:

Report a CLABSI Event

Specific Event >: LCBI - Laboratory confirmed bloodstream infection

Specify Criteria Used *

Signs & Symptoms (check all that apply)

Any patient

- Fever
- Chills
- Hypotension

<=1 year old

- Fever
- Hypothermia
- Apnea
- Bradycardia

Laboratory (check one)

- Recognized pathogen(s) from one or more blood specimens
- Common commensal from >= 2 blood specimens

Underlying Conditions for MBI-LCBI (check all that apply)

- Allo-SCT with Grade >= 3 GI GVHD
- Allo-SCT with diarrhea
- Neutropenia

Died **: N - No

COVID-19 *: Y - Yes

Discharge Date: 01/28/2022

Pathogens Identified: Y - Yes If Yes, specify below ->

Antibiogram results are required for certain organisms

Pathogens

Pathogen 1: Escherichia coli - EC 22 drugs required

> <u>AMK</u> <input checked="" type="radio"/> S <input type="radio"/> R <input type="radio"/> I <input type="radio"/> N	> <u>AMP</u> <input checked="" type="radio"/> S <input type="radio"/> R <input type="radio"/> I <input type="radio"/> N	> <u>AMPSUL</u> <input type="radio"/> S <input checked="" type="radio"/> R <input type="radio"/> I <input type="radio"/> N	<u>AMXCLV</u> <input type="radio"/> S <input checked="" type="radio"/> R <input type="radio"/> I <input type="radio"/> N	> <u>AZT</u> <input type="radio"/> S <input checked="" type="radio"/> R <input type="radio"/> I <input type="radio"/> N	> <u>CEFAZ</u> <input type="radio"/> S <input type="radio"/> R <input checked="" type="radio"/> I <input type="radio"/> N	> <u>CEFEP</u> <input type="radio"/> S <input type="radio"/> R <input type="radio"/> I/S-DD <input checked="" type="radio"/> N	
> <u>CEFOT</u> <input checked="" type="radio"/> S <input type="radio"/> R <input type="radio"/> I <input type="radio"/> N	<u>CEFTRX</u> <input checked="" type="radio"/> S <input type="radio"/> R <input type="radio"/> I <input type="radio"/> N	> <u>CEFTAVI</u> <input checked="" type="radio"/> S <input type="radio"/> R <input type="radio"/> N	> <u>CEFTAZ</u> <input checked="" type="radio"/> S <input type="radio"/> R <input type="radio"/> I <input type="radio"/> N	> <u>CEFTOTAZ</u> <input checked="" type="radio"/> S <input type="radio"/> R <input type="radio"/> I <input type="radio"/> N	> <u>CIPRO</u> <input checked="" type="radio"/> S <input type="radio"/> R <input type="radio"/> I <input type="radio"/> N	<u>LEVO</u> <input checked="" type="radio"/> S <input type="radio"/> R <input type="radio"/> I <input type="radio"/> N	<u>MOXI</u> <input checked="" type="radio"/> S <input type="radio"/> R <input type="radio"/> I <input type="radio"/> N
> <u>COL</u> <input type="radio"/> I <input type="radio"/> R <input checked="" type="radio"/> N	<u>PB</u> <input type="radio"/> I <input type="radio"/> R <input checked="" type="radio"/> N	> <u>DORI</u> <input type="radio"/> S <input checked="" type="radio"/> R <input type="radio"/> I <input type="radio"/> N	<u>IMI</u> <input type="radio"/> S <input checked="" type="radio"/> R <input type="radio"/> I <input type="radio"/> N	<u>MERO</u> <input type="radio"/> S <input checked="" type="radio"/> R <input type="radio"/> I <input type="radio"/> N	> <u>DOXY</u> <input checked="" type="radio"/> S <input type="radio"/> R <input type="radio"/> I <input type="radio"/> N	<u>MINO</u> <input type="radio"/> S <input type="radio"/> R <input type="radio"/> I <input checked="" type="radio"/> N	<u>TETRA</u> <input type="radio"/> S <input type="radio"/> R <input type="radio"/> I <input checked="" type="radio"/> N

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TN

Device-Associated Denominator Data

Reporting Denominators

- **Options for collecting denominator data**
 - **Manual Collection Daily**
 - **Manual Collection *Weekly***
 - **Not available for specialty care areas/oncology or NICUs**
 - **Must have an average of at least 75 device days per month in the preceding 12 months to be eligible**

Daily Denominator Data Collection



Form Approved
OMB No. 0920-0666
Exp. Date: 01/31/24
www.cdc.gov/nhsn

Denominators for Intensive Care Unit (ICU)/Other Locations (not NICU or SCA)

Page 1 of 1

*required for saving						
Facility ID:		*Location Code:	*Month:	*Year:		
Date	*Number of Patients	**Number of patients with 1 or more central lines	**Number of patients with a urinary catheter	**Number of total patients on a ventilator	Number of patients on APRV	Number of Episodes of Mechanical Ventilation
1						
2						
3						
4						
5						
6						

Record numbers each day, then enter monthly totals in NHSN.

Daily Denominator Data Collection



Form Approved
 OMB No. 0920-0666
 Exp. Date: 12/31/2024
 www.cdc.gov/NHSN

Denominators for Specialty Care Area (SCA)/Oncology (ONC)

Page 1 of 1

*required for saving Facility ID:		*Location Code:		*Month:	*Year:		
Date	*Number of Patients	**Number of patients with at least 1 central line (if patient has both, count as Temporary only)		**Number of patients with a urinary catheter	**Number of Total patients on a ventilator	Number of patients on APRV	Number of Episodes of Mechanical Ventilation
		Temporary	Permanent				
1							
2							
3							
4							
5							
6							

Record numbers each day, then enter monthly totals in NHSN.

Daily Denominator Data Collection



Form Approved
OMB No. 0920-0666
Exp. Date: 12/31/24
www.cdc.gov/nhsn

Denominators for Neonatal Intensive Care Unit (NICU)

Page 1 of 4

*Required for saving

**Conditionally required according to the events indicated in Plan

Facility ID:		*Location Code:					*Month:					*Year:														
Birth Weight Categories																										
Date:	≤750 g					751-1000 g					1001-1500 g					1501-2500 g					>2500 g					
	Pt*	**CL	**VNT	UrC	EMV	Pt*	**CL	**VNT	UrC	EMV	Pt*	**CL	**VNT	UrC	EMV	Pt*	**CL	**VNT	UrC	EMV	Pt*	**CL	**VNT	UrC	EMV	
1.																										
2.																										
3.																										
4.																										
5.																										
6.																										
7.																										
8.																										
9.																										
10.																										

In NICUs, the number of patients with at least one central line is stratified by birth weight in five categories because the risk of BSI varies by birth weight.

Weekly Denominator Data Collection

- **Number of patients (patient days) and patients with devices in place (central lines/urinary catheters) are collected daily or on a designated day each week, at the same time each day.**
- **Collect and enter in NHSN:**
 - **Monthly total for patient-days, device days based on daily collection**
 - **Patient days (based on weekly sample)**
 - **Central line days (based on weekly sample)**
 - **Urinary catheter days (based on weekly sample)**

Reporting Denominators

– Electronic Collection

- **Must validate electronic data against manually collected data for 3 months and it must be within 5% (+/-) of the manually collected once a day counts.**
- **Perform the validation of electronic counts separately for each location conducting CLABSI surveillance.**

Who Records the Denominators?

Note:

Whoever collects this information should receive training at regular intervals to ensure accuracy

- The IP can go to the unit and look at the patient or chart
 - What about weekends?
Holidays?
- Use unit clerk to record at same time every day
- Charge nurse can record during end-of-shift report

Adding Summary Data

NHSN - National Healthcare Safety Network

NHSN Home

Alerts

Dashboard

Reporting Plan ▶

Patient ▶

Event ▶

Procedure ▶

Summary Data ▶

Import/Export

Surveys ▶

Analysis ▶

Users ▶

Facility ▶

Group ▶

Logout



Add Patient Safety Summary Data

Summary Data Type:

Continue

Back

Add

Find

Incomplete

Delete AUR Data

Adding Summary Data

Mandatory fields marked with *

Facility ID *: TDH Central (ID 15813) ▼

Location Code *: 3NORTH - 3NORTH SURGWARD ▼

Month *: December ▼

Year *: 2021 ▼

Denominator Data		
		Report No Events
Total Patient Days:	<input type="text" value="740"/>	
Central Line Days:	<input type="text" value="202"/>	CLABSI: <input checked="" type="checkbox"/>
Urinary Catheter Days:	<input type="text" value="320"/>	CAUTI: <input checked="" type="checkbox"/>
Ventilator Days:	<input type="text"/>	VAE: <input type="checkbox"/> PedVAE: <input type="checkbox"/> PedVAP: <input type="checkbox"/>
APRV Days:	<input type="text"/>	
Episodes of Mechanical Ventilation:	<input type="text"/>	

Sample Values For Estimating Denominator Data		
		Check Box(es) if Sampling Used
Sample Patient Days:	<input type="text"/>	
Sample Central Line Days:	<input type="text"/>	<input type="checkbox"/>
Sample Urinary Catheter Days:	<input type="text"/>	<input type="checkbox"/>

Check the "Report No Events" box(s) if no CLABSI and/or CAUTI events occurred in that month and location, or CMS will not receive the data

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TN

Catheter associated Urinary Tract Infection (CAUTI)

CAUTI 2024 Protocol

- **No significant changes.**

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CAUTI Reporting Requirements

TDH/CMS CAUTI Reporting Requirements

Facility Type	Location(s)
Acute Care Hospitals	<input type="checkbox"/> Adult/Pediatric ICUs <input type="checkbox"/> Adult/Pediatric Medical, Surgical, and Medical/Surgical Wards
Long-term Acute Care (LTAC) Facilities	<input type="checkbox"/> Adult & Pediatric ICUs & Wards
Inpatient Rehabilitation Facilities (IRF)	<input type="checkbox"/> Adult & Pediatric Wards (freestanding IRFs or within acute care hospitals)



TM

CAUTI Definitions

Indwelling Urinary Catheter

- **NHSN definition:** A drainage tube that is inserted into the urinary bladder through the urethra, is left in place, and is connected to a drainage bag (including leg bags). These devices are also often called Foley Catheters.
 - Indwelling urinary catheters that are used for intermittent or continuous irrigation are included in CAUTI surveillance.
 - Condom or straight in-and-out catheters are not included nor are nephrostomy tubes, ileoconduits, or suprapubic catheters unless an indwelling urinary catheter (IUC) is also present.



SUTI 1 a Catheter-associated UTI

SUTI 1a

Catheter-associated Urinary Tract Infection (CAUTI) in any age patient

Patient must meet 1, 2, and 3 below:

1. Patient had an indwelling urinary catheter that had been in place for more than 2 consecutive days in an inpatient location on the date of event AND was either:
 - Present for any portion of the calendar day on the date of event[†],
 - OR
 - Removed the day before the date of event[‡]
2. Patient has at least **one** of the following signs or symptoms:
 - fever (>38.0°C)
 - suprapubic tenderness*
 - costovertebral angle pain or tenderness*
 - urinary urgency ^
 - urinary frequency ^
 - dysuria ^
3. Patient has a urine culture with no more than two species of organisms identified, at least one of which is a bacterium of $\geq 10^5$ CFU/ml (See [Comments](#)). All elements of the SUTI criterion must occur during the IWP (See IWP Definition [Chapter 2 Identifying HAIs in NHSN](#)).

SUTI 1 a Catheter-associated UTI

† When entering event into NHSN choose “INPLACE” for Risk Factor for IUC

‡ When entering event into NHSN choose “REMOVE” for Risk Factor for IUC

*With no other recognized cause (see [Comments](#))

^ These symptoms cannot be used when catheter is in place. An IUC in place could cause patient complaints of “frequency” “urgency” or “dysuria”.

Note:

- Fever is a non-specific symptom of infection and cannot be excluded from UTI determination because it is clinically deemed due to another recognized cause.

Associating Catheter Use to UTI

Indwelling Urinary Catheter = IUC	March 29 th	March 30 th	March 31 st	April 1 st	April 2 nd	April 3 rd	April 4 th	April 5 th	April 6 th
Patient A	IUC (Day 1)	IUC (Day 2)	IUC (Day 3)	IUC (Day 4)	IUC removed (Day 5)	IUC inserted (Day 6)	IUC (Day 7)	IUC removed (Day 8)	NO IUC
Patient B	IUC (Day 1)	IUC (Day 2)	IUC (Day 3)	IUC (Day 4)	IUC removed (Day 5)	NO IUC	IUC (Day 1)	IUC (Day 2)	IUC (Day 3)

- If after an IUC removed and a new IUC is inserted before a full calendar day has passed, the indwelling urinary catheter device day count, to determine eligibility for a CAUTI, will continue uninterrupted
- If, after an IUC removed, the patient is without an IUC for at least 1 full calendar day (NOT to be read as 24 hours), then the IUC day count will start anew.

Case Study 1

- **HD 1: 66 y.o. to OR from ER for exploratory lap; IUC inserted in OR. Transferred to 5W surgical ward post-op.**
- **HD 2: Patient is stable. IUC in place.**
- **HD 4: IUC remains in place. Complaining of pain in right lower back. WBC increased to 19,000. He has cloudy, foul-smelling urine. Urine collected for culture positive for $>10^5$ CFU/ml *E.coli*.**

Case Study 1

Hospital day/date	First Diagnostic Test	IWP	Date of Event	RIT	Secondary BSI Attribution Period
1 Admit , 5W		IUC inserted			
2					
3					
4	UC	c/o pain rt. lower back, WBC 19000, cloudy foul smelling urine UC +10 ⁵ <i>E. coli</i>			
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					

Case Study 1

Hospital day/date	First Diagnostic Test	IWP	Date of Event	RIT	Secondary BSI Attribution Period
1 Admit , 5W		IUC inserted			
2					
3					
4	UC	c/o pain rt. lower back, WBC 19000, cloudy foul smelling urine UC +10 ⁵ <i>E. coli</i>	HAI		
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					

HAI CAUTI
 SUTI criterion 1-a
 DOE HD 4
 RIT HD 4-17
 C/o pain Rt. Lower back /CVA

Symptomatic Non-Catheter associated UTI (SUTI – 1 b)

SUTI 1b

Non-Catheter-associated Urinary Tract Infection (Non-CAUTI) in any age patient

Patient must meet 1, 2, and 3 below:

1. One of the following is true:
 - Patient has/had an indwelling urinary catheter, but it has/had not been in place for more than two consecutive days in an inpatient location on the date of event[†]
OR
 - Patient did not have an indwelling urinary catheter in place on the date of event nor the day before the date of event[†]
2. Patient has at least one of the following signs or symptoms:
 - fever (>38°C)
 - suprapubic tenderness*
 - costovertebral angle pain or tenderness*
 - urinary frequency ^
 - urinary urgency ^
 - dysuria ^
3. Patient has a urine culture with no more than two species of organisms identified, at least one of which is a bacterium of $\geq 10^5$ CFU/ml. (See [Comments](#)) All elements of the SUTI criterion must occur during the IWP (See IWP Definition [Chapter 2 Identifying HAIs in NHSN](#)).

Symptomatic Non-Catheter associated UTI (SUTI – 1 b)

† When entering event into NHSN choose “NEITHER” for Risk Factor for IUC

*With no other recognized cause (see [Comments](#))

^These symptoms cannot be used when IUC is in place. An IUC in place could cause patient complaints of “frequency” “urgency” or “dysuria”.

Note:

- Fever is a non-specific symptom of infection and cannot be excluded from UTI determination because it is clinically deemed due to another recognized cause.

Case Study 2

- **HD 1: 55 y.o. male admitted to 3 east**
- **HD 4: c/o dysuria, UC +10⁵ E.Coli**
- **HD 5: FC inserted**
- **HD 6: UC no growth**
- **HD 8: UC +10⁵ *S. aureus*, Temp. 39°C**
- **HD 10: BC + *E. coli***

Case Study 2

Hospital day/date	First Diagnostic Test	IWP	Date of Event	RIT	Secondary BSI Attribution Period
1 Admit 3E		No IUC			
2		No IUC			
3		No IUC			
4	UC	UC 10 ⁵ <i>E. coli</i> , dysuria	HAI		
5		IUC inserted			
6		IUC, UC, No growth			
7		IUC			
8				IUC, UC 10 ⁵ <i>S. aureus</i> . Temp 39C	
9					
10					BC+ <i>E. Coli</i>
11					
12					
13					
14					
15					
16					
17					

Case Study 2

Hospital day/date	First Diagnostic Test	IWP	Date of Event	RIT	Secondary BSI Attribution Period
1 Admit 3E		No IUC			
2		No IUC			
3		No IUC			
4	UC	UC 10 ⁵ <i>E. coli</i> , dysuria	HAI		
5		IUC, inserted			
6		IUC, UC, No growth			
7		IUC			
8				IUC cath, UC 10 ⁵ <i>S. aureus</i> . Temp 39 ^c	
9					
10		Non-catheter associated SUTI 1b with 2 nd BSI DOE HD 4 UTI RIT HD 4-17 Pathogens: <i>S. aureus</i> , <i>E.coli</i>			BC+ <i>E. coli</i>
11					
12					
13					
14					
15					
16					
17					

SUTI -2 (≤ 1 year of age only)

<p>Ⓒ SUTI 2</p> <p>CAUTI or Non-CAUTI in patients 1 year of age or less</p>	<p>Patient must meet 1, 2, <u>and</u> 3 below:</p> <ol style="list-style-type: none">1. Patient is ≤ 1 year of age (with* or without an indwelling urinary catheter)2. Patient has at least <u>one</u> of the following signs or symptoms:<ul style="list-style-type: none">• fever ($>38.0^{\circ}\text{C}$)• hypothermia ($<36.0^{\circ}\text{C}$)• apnea*• bradycardia*• lethargy*• vomiting*• suprapubic tenderness*3. Patient has a urine culture with no more than two species of organisms identified, at least one of which is a bacterium of $\geq 10^5$ CFU/ml. (See Comments) <p>All elements of the SUTI criterion must occur during the IWP (See IWP Definition Chapter 2 Identifying HAIs in NHSN).</p>
---	--

SUTI -2 (≤ 1 year of age only)

‡ If patient had an IUC in place for more than two consecutive days in an inpatient location and the IUC was in place on the date of event or the previous day the CAUTI criterion is met. If no such IUC was in place, UTI (non-catheter associated) criterion is met.

*With no other recognized cause (See [Comments](#))

Note: Fever and hypothermia are non-specific symptoms of infection and cannot be excluded from UTI determination because they are clinically deemed due to another recognized cause.

Case Study 3

- **HD 1: 2 month old admitted NICU for diarrhea, IUC catheter inserted**
- **HD 5: Temp 35.8^c**
- **HD 6: Urine culture is positive for *E. coli* $\geq 10^5$**

Case Study 3

Hospital day/date	First Diagnostic Test	IWP	Date of Event	RIT	Secondary BSI Attribution Period
1 admit NICU		IUC inserted, diarrhea			
2					
3					
4					
5		Temp. 35.8°			
6	UC	UC + $\geq 10^5$ <i>E. coli</i>			
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					

Case Study 3

Hospital day/date	First Diagnostic Test	IWP	Date of Event	RIT	Secondary BSI Attribution Period
1 admit NICU		IUC inserted, diarrhea			
2					
3					
4					
5		Temp. 35.8	HAI		
6	UC	UC + $\geq 10^5$ <i>E. coli</i>			
7					
8					
9					
10					
11		SUTI 2, Catheter associated, HAI IWP HD 3-HD 9, DOE HD 5 Pathogen: <i>E. coli</i>			
12					
13					
14					
15					
16					
17					
18					

Asymptomatic Bacteremic UTI (ABUTI) (in any age patient)

©

Patient must meet 1, 2, and 3 below:

1. Patient with* or without an indwelling urinary catheter has no signs or symptoms of SUTI 1 or 2 according to age.
2. Patient has a urine culture with no more than two species of organisms identified, at least one of which is a bacterium of $\geq 10^5$ CFU/ml (see [Comment](#) section below).
3. Patient has organism identified** from blood specimen with at least **one** matching bacterium to the bacterium at $\geq 100,000$ CFU/ml identified in the urine specimen, or is eligible [LCBI criterion 2](#) (without fever) and matching common commensal(s) in the urine. All elements of the ABUTI criterion must occur during the Infection Window Period (See Definition [Chapter 2 Identifying HAIs in NHSN](#)).

*Patient had an IUC in place for more than two consecutive days in an inpatient location on the date of event, and IUC was in place on the date of event or the day before.
Catheter - associated ABUTI is reportable if CAUTI is in the facility's reporting plan for the location.

** Organisms identified by a culture or non-culture based microbiologic testing method which is performed for purposes of clinical diagnosis or treatment (e.g., not Active Surveillance Culture/Testing (ASC/AST)).

Case Study 4

- **1/10 Mr. L admit CCU for MI, IUC inserted**
- **1/24 Elevated wbc's, No UTI s/s, +BC with *S. aureus* and + UC with $> 10^5$ *S. aureus***
- **1/28 IUC removed, discharged home**

Case Study 4

Hospital Day	First Diagnostic Test	IWP	Date of Event	RIT	Secondary BSI Attribution Period
1		IUC inserted			
2					
3					
4					
5	BC,UC	BC + <i>Staph aureus</i> , UC +10 ⁵ <i>Staph aureus</i>			
6					
7					
8					
9		IUC removed, discharged home			
10					
11					
12					
13					
14					
15					
16					
17					
18					

Case Study 4

Hospital Day	First Diagnostic Test	IWP	Date of Event	RIT	Secondary BSI Attribution Period
1		IUC inserted			
2					
3					
4					
5	BC,UC	BC + <i>S.aureus</i> , UC +10 ⁵ <i>S. aureus</i>	HAI		
6					
7					
8					
9		IUC removed, discharged home			
10					
11					
12					
13					
14					
15					
16					
17					
18					

HAI-ABUTI Catheter Associated
 IWP-HD 2-HD 8
 RIT- HD 5-HD18
 SBAP HD 2-HD 18
 Pathogen: *S. aureus*

Notes on the Definitions

- “Mixed flora” is not available in the NHSN master organism list and cannot be reported as a pathogen to meet the NHSN UTI criteria. Additionally, “mixed flora” represents at least two species of organisms and cannot be used to meet the NHSN UTI criteria. Any additional organisms recovered from the same culture would be in addition to the mixed flora, meaning there are at least three organisms present making the culture ineligible for use to meet NHSN UTI criteria.

The following excluded organisms cannot be used to meet the UTI definition:

- Any *Candida* species as well as a report of “yeast” that is not otherwise specified
- mold
- dimorphic fungi or
- parasites

An acceptable urine specimen may include the above organisms if one bacterium with $\geq 100,000$ CFU/ml is also present. Additionally, these non-bacterial organisms identified from a blood culture cannot be deemed secondary to a UTI since the above non-bacterial organisms are excluded as organisms in the UTI definition.

Notes on the Definitions

- Suprapubic tenderness documentation - whether elicited by palpation (tenderness-sign) or provided as a subjective complaint of suprapubic pain (pain-symptom)- found in the medical record is acceptable to meet SUTI criterion if documented in the medical record during the Infection Window Period.

Lower abdominal pain or bladder or pelvic discomfort are examples of symptoms that can be used as suprapubic tenderness. Generalized “abdominal pain” in the medical record is too general and not to be interpreted as suprapubic tenderness as there are many causes of abdominal pain.

Left, right, or bilateral lower back or flank pain are examples of symptoms that can be used as costovertebral angle pain or tenderness. Generalized “low back pain” is not to be interpreted as costovertebral angle pain or tenderness.



CAUTI Event

Report a CAUTI Event

NHSN Home

- Alerts
- Dashboard ▶
- Reporting Plan ▶
- Patient ▶
- Event** Add
- Procedure ▶
- Summary Data ▶
- COVID-19 ▶
- Import/Export
- Surveys ▶
- Analysis ▶
- Users ▶
- Facility ▶

Add Event

Mandatory fields marked with *

Fields required for record completion marked with **

Fields required when in Plan marked with >

on

Facility ID *: TDH Central (ID 15813) ▼

Patient ID *:

Secondary ID:

Last Name:

Middle Name:

Gender *:

Ethnicity:

Race: American Indian/Alaska Native Asian
 Black or African American Native Hawaiian/Other Pacific I
 White

Report a CAUTI Event

Patient Information

Facility ID * : TDH Central (ID 15813) ▼

Patient ID * : 2022

Secondary ID :

Last Name :

Middle Name :

Gender * : F - Female ▼

Ethnicity :

- Race: American Indian/Alaska Native Asian
 Black or African American Native Hawaiian/Other Pacific Islander
 White

Event # :

Social Security # :

Medicare # :

First Name :

Date of Birth * : 03/22/1996

Event Information

Event Type * : UTI - Urinary Tract Infection ▼

Date of Event * : 01/17/2022

Post-procedure: N - No ▼

MDRO Infection Surveillance * : No, this infection's pathogen/location are not in-plan for Infection Surveillance in the MDRO/CDI Module ▼

Location * : 6EAST_W - REHAB ▼

Date Admitted to Facility * : 01/10/2022

Location of attribution

Risk Factors

Urinary Catheter * : INPLACE - Urinary catheter in place > 2 days on the date of event ▼

Location of Device Insertion: 2NO - MEDSURGE ▼

Date of Device Insertion: 01/11/2022

INPLACE or REMOVE (if NEITHER, not a CAUTI)

Event Details

Specific Event * : SUTI - Symptomatic UTI ▼

Report a CAUTI Event

SUTI or ABUTI, with relevant criteria

Event Details

Specific Event *: SUTI - Symptomatic UTI

Specify Criteria Used *

Signs & Symptoms

Any patient

- Fever
- Urgency
- Frequency
- Dysuria
- Suprapubic tenderness
- Costovertebral angle pain or tenderness
- Abscess
- Pain or tenderness
- Purulent drainage from affected area
- Other evidence of infection found on invasive procedure, gross anatomic exam, or histopathologic exam

<=1 year old

- Fever
- Hypothermia
- Apnea
- Bradycardia
- Lethargy
- Vomiting
- Suprapubic tenderness

Laboratory & Diagnostic Testing

- Positive culture with no more than 2 species of organisms, at least one of which is a bacterium of $\geq 10^5$ CFU/ml
- Organism(s) identified from blood specimen

Secondary Bloodstream Infection *: N - No

COVID-19 *: Y - Yes

Died **: N - No

Discharge Date: 01/29/2022

Pathogens Identified *: Y - Yes If Yes, specify below ->

Antibiogram results are required for certain organisms

Pathogens

Pathogen 1: Klebsiella pneumoniae - KP 21 drugs required

<p>* <u>AMK</u></p> <p><input checked="" type="radio"/> S <input type="radio"/> R</p> <p><input type="radio"/> I <input type="radio"/> N</p>	<p>* <u>AMPSUL</u></p> <p><input checked="" type="radio"/> S <input type="radio"/> R</p> <p><input type="radio"/> I <input type="radio"/> N</p>	<p><u>AMXCLV</u></p> <p><input type="radio"/> S <input checked="" type="radio"/> R</p> <p><input type="radio"/> I <input type="radio"/> N</p>	<p>* <u>AZT</u></p> <p><input type="radio"/> S <input checked="" type="radio"/> R</p> <p><input type="radio"/> I <input type="radio"/> N</p>	<p>* <u>CEFAZ</u></p> <p><input type="radio"/> S <input type="radio"/> R</p> <p><input checked="" type="radio"/> I <input type="radio"/> N</p>	<p>* <u>CEFEP</u></p> <p><input type="radio"/> S <input type="radio"/> R</p> <p><input type="radio"/> I/S-DD <input checked="" type="radio"/> N</p>
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Questions?

Upcoming Webinars

- **MDRO/CDI Events**
 - **Monday January 29th, 10 a.m. CT**
- **SSI EVENTS**
 - **Monday, February 5th, 10a.m. CT**
- **AUR Events**
 - **Monday, February 12th, 10 a.m. CT**
- **VAE/PedVae**
 - **Tuesday, February 20th, 10 a.m. CT**
- **NHSN Analysis**
 - **Monday, February 26th, 10 a.m. CT**

Upcoming Trainings

- **Case Study Sessions**
 - **A link to register will be sent out at a later date.**



Resources

Contact

- **TDH HAI Program:**
 - HAI.Health@tn.gov

- **NHSN:**
 - NHSN Website: <http://www.cdc.gov/nhsn>

NHSN Resources

- **CLABSI:** <http://www.cdc.gov/nhsn/acute-care-hospital/clabsi/index.html>
- **CAUTI:** <http://www.cdc.gov/nhsn/acute-care-hospital/CAUTI/index.html>
- **NHSN HAI Checklists:** <https://www.cdc.gov/nhsn/hai-checklists/index.html>
- **Patient Safety Component Manual**
 - **CLABSI:**
http://www.cdc.gov/nhsn/PDFs/pscManual/4PSC_CLABScurrent.pdf
 - **CAUTI:** <http://www.cdc.gov/nhsn/PDFs/pscManual/7pscCAUTIconcurrent.pdf>
- **Patient Safety Component Forms**
 - **CLABSI:**
<http://www.cdc.gov/nhsn/acute-care-hospital/clabsi/index.html#dcf>
 - **CAUTI:**
<http://www.cdc.gov/nhsn/acute-care-hospital/CAUTI/index.html#dcf>