NHSN Surgical Site Infection Surveillance in 2017

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Objectives

Upon completion of the program, participant will be able to...

- Identify SSIs and key terms using case studies
- Describe SSI 2017 changes
- Complete SSI Event form and the SSI Denominator for Procedure Form
- Understand how to link an SSI event to a procedure record
- Apply NHSN SSI criteria to case scenarios

All objectives will be reviewed within the context of 2017 NHSN updates.
SSI – Why they matter

- Estimated HAI SSI infections in United States 157,500 per year (1)
- Estimated 8,205 deaths associated with SSI each year (2)
- Estimated 11% of all deaths in intensive care units are associated with SSI (2)

SSI – Why they matter (cont.)

- SSI are the most common health care associated infection and account for $3.2 billion in attributable cost per year in acute care hospitals. \(^{(3)}\)
- Estimated additional 11 days of hospitalization for each SSI per patient. \(^{(3)}\)
- SSI are the most frequent cause (20%) of unplanned readmissions after surgery. \(^{(4)}\)

NHSN Website – SSI section
www.cdc.gov/nhsn/
Trainings - for SSI Surveillance

- **Surgical Site Infections (SSI) Training** [CBT - 60 min]
- **New! SSI Surveillance and Case Studies - March 2015** [Video - 182 min]
  - YouTube link - SSI Surveillance and Case Studies
  - CDC Streaming Video - SSI Surveillance and Case Studies
  - Slideset - SSI Surveillance and Case Studies
- **New! ICD-10 PCS and CPT Transition - January 2016** [Video - 8 min]
  - YouTube link - ICD-10 PCS and CPT Transition
  - CDC Streaming Video - ICD-10 PCS and CPT Transition
- **New! Patient Safety Component (PSC) Annual Survey - January 2016** [Video - 6 min]
  - YouTube link - Completing the 2015 Facility Survey
  - CDC Streaming Video - Completing the 2015 Facility Survey
- **New! Surgical Site Infections (SSI) Event form for PATOS - January 2016** [Video - 6 min]
  - YouTube link - SSI Event Form for PATOS - January 2016
  - CDC Streaming Video - SSI Event Form for PATOS - January 2016

**Additional Training**
- **Introduction to Procedure-associated Module Training**
- **New! General NHSHN Definitions, Rules, Tools, Re-tools - March 2016** [Video - 57 min]
  - YouTube link - General NHSHN Definitions, Rules, Tools, Re-tools
  - CDC Streaming Video - General NHSHN Definitions, Rules, Tools, Re-tools
  - Slide set - General NHSHN Definitions, Rules, Tools, Re-tools
- **New! NHSHN Definition and Rules Changes for January 2016** [Video - 6 min]
  - YouTube link - NHSHN Definition and Rules Changes
  - CDC Streaming Video - NHSHN Definition and Rules Changes

**Analysis Training**
- **Data Entry and Analysis Training**

**Continuing Education**
- **Obtaining Continuing Education for NHSHN Training Events**
Protocols - for SSI Surveillance

Surveillance for Surgical Site Infection (SSI) Events

Resources for NHSN Users Already Enrolled

- **Training**
  - Protocols
    - Surgical Site Infection (SSI) Event, January 2017 (PDF: 965 KB)
    - NHSN Overview, January 2017 (PDF: 70 KB)
    - Identifying Healthcare-associated Infections (HAI) in NHSN, January 2017 (PDF: 882 KB)
    - Patient Safety Monthly Reporting Plan, January 2017 (PDF: 55 KB)

- **Frequently Asked Questions**
- Data Collection Forms
- CMS Supporting Materials
- Supporting Materials
FAQs - for SSI Surveillance

National Healthcare Safety Network (NHSN)

Surveillance for Surgical Site Infection (SSI) Events

Resources for NHSN Users Already Enrolled

- Training
- Protocols
- Frequently Asked Questions

For full details on protocol definitions and the application of these definitions, please review the applicable protocol and Chapter 2, "Identifying Healthcare-associated Infection (HAI) for NHSN Surveillance," in the NHSN Module.

New FAQs for 2016:
- FAQs: Surgical Site Infections (SSI) April 2016
- FAQs: SSI Procedure Codes April 2016
- FAQs: Anaerobic April 2016
- FAQs: Annual Survey April 2016
- FAQs: CDA
- FAQs: Locations April 2016
- FAQs: Miscellaneous April 2016

Data Collection Forms
- CMS Supporting Materials
- Supporting Materials
- Analysis Resources
Forms and Table of Instructions

- Surgeon for Antimicrobial Use and Antimicrobial Resistance Options
- Surveillance for UTI (CAUTI)
- Surveillance for C. difficile, MRSA, and other Drug-resistant Infections
- Surveillance for BSI (CLABSI)
- Surveillance for CLIP
- Surveillance for SSI Events
- Surveillance for VAE
- Surveillance for PNEU (pedVAP)
- Surveillance for Healthcare Personnel Exposure
- Surveillance for Healthcare Personnel Vaccination
- Blood Safety Surveillance
- Long-term Acute Care Hospitals (Facilities)

### Frequently Asked Questions

#### Data Collection Forms

- **57.120 Surgical Site Infection (SSI) January 2017**
  - Customizable form
  - Table of Instructions for SSI Event form 57.120
- **57.121 Denominator for Procedure January 2017**
  - Customizable form
  - Table of Instructions for Denominator for Procedure form 57.121
- **57.122 Denominator for Custom Procedure January 2016**
  - Customizable form
- **57.105 Patient Safety Component—Annual Facility Survey form January 2017**
  - Table of Instructions for Patient Safety Component - Annual Hospital Survey 57.103
- **57.106 Patient Safety Monthly Reporting Plan form January 2017**
  - Customizable form
  - Table of Instructions for Monthly Reporting Plan form 57.106
- **57.115 HAI Custom Event form January 2017**
  - Customizable form

**Not to be used for CLABSI, CAUTI, SSI, VAE, pediatric VAP, or labID events.**

To be used in conjunction with CDC/NHSN Surveillance Definitions for Specific Types of Infections, January 2017 NHSN Patient Safety Manual.
CMS Supporting Materials

- Healthcare Facility HAI Reporting Requirements to CMS via NHSN Current and Proposed Requirements September 2015 (PDF - 105 KB)
- Reporting Requirements and Deadlines in NHSN per CMS Current Rules September 2015 (PDF - 161 KB)
- Centers for Medicare and Medicaid Services (CMS) Hospital Inpatient Quality Reporting Program
- CMS Hospital Compare tool
- Operational Guidance for Reporting Surgical Site Infection Data to CDC's NHSN for the Purpose of Fulfilling CMS's Hospital Inpatient Quality Reporting (IQR) Program Requirements November 2014 (PDF - 106 KB)
- How to Report No Procedure or SSI Events for the CMS Inpatient Quality Reporting Program June 2012 (PDF - 186 KB)
- Helpful Tips for SSI Reporting for the Centers for Medicare and Medicaid Services' Hospital Inpatient Quality Reporting Program (CMS Reporting Program) December 2014 (PDF - 28 KB)
- Using the "SIIR-Complex 30-Day SSI Data for CMS IPPS" Output Option July 2014 (PDF - 175 KB)
- Operational Guidance for PPS-Exempt Cancer Hospitals to Report Surgical Site Infection (SSI) Data to CDC's NHSN for the Purpose of Fulfilling CMS's PPS-Exempt Cancer Hospital Quality Reporting (PCHQR) Program Requirements November 2014 (PDF - 124 KB)
- Changing a CCN within NHSN (updated July 2015) (PDF - 297 KB)
SSI - Supporting Materials

2017 Operative Procedure Code Documents

The documents listed below should be used for procedures performed in 2017.

- ICD-10-PCS Procedure Code Mapping to NHSN Operative Procedure Codes
- Additional Guidance for use with NHSN Operative Procedure Codes
  - ICD-10-PCS & CPT Codes - Guidance for HPRO & KPRO Procedure Details
  - FUSN ICD-10-PCS Codes - Guidance for Spinal Level and Approach
  - ICD-10 CM Diagnostic Codes
  - ICD-10 CM/PCS Codes for ‘prior infection at hip or knee joint’ denominator form question

Use ICD-10-PCS/CM diagnosis or procedure codes included in this spreadsheet to determine if patient meets criteria for ‘prior infection at index joint’.
Monthly Reporting Plan

- Plans are the roadmap to your data.
- Only data included in Plans will be used by CDC in aggregate data analysis (i.e., only “in-Plan” data).
- Plans drive much of the business logic of the NHSN application.
- Must have one for every month of the year.
- Must fully follow the definitions. Report superficial, deep and organ space SSIs.
SSI - Active Surveillance Methods

Review of medical records or surgery clinic patient records

- Admission, readmission, ED, and OR logs
- Patient charts for signs and symptoms of SSI
- Lab, X-ray, other diagnostic test reports
- Nurses and physician notes
- Visit the ICU and wards – talk to primary care staff
Post-discharge SSI Surveillance Methods

- Surgeon and/or patient surveys by mail or phone
- Review of postoperative clinic records
- Line list of all readmission with diagnosis
- Line list of ED admissions with diagnosis
- ICD-10-PCS Discharge/Procedure codes*
- Notification between facilities

Criteria must be met regardless of where the SSI is detected!
Denominator data are collected using this form.

SSI data are collected using this form.
Identifying Healthcare-associated Infections (HAI) for NHSN Surveillance

To standardize the classification of an infection as present on admission (POA) or a healthcare-associated infection (HAI), the following objective surveillance definitions and guidance will be used for NHSN surveillance:

- 7-day Infection Window Period
- Date of Event
- POA
- HAI
- 14-day Repeat Infection Timeframe (RIT)
- Secondary Bloodstream Infection Attribution Period
- Pathogen Assignment Guidance

Secondary BSI attribution period, as defined in this chapter, does not apply to SSI, VAE, LabID or primary BSI events (Table 1).

- SSI surveillance uses a 30 or 90-day surveillance period. Since the Infection Window Period and RIT do not apply, the secondary BSI attribution period, by name, also cannot apply. However, a 17-day period that includes the date of SSI event, 3 days prior and 13 days after, is still used to attribute a BSI as secondary to an SSI. The requirements included in the BSI Event protocol, Appendix B, Secondary Bloodstream Infection (BSI) Guide must be met to determine that a BSI is secondary to an SSI.
An NHSN operative procedure is a procedure

- that is included in the ICD-10-PCS or CPT NHSN operative procedure code mapping

- takes place during an operation where at least one incision (including laparoscopic approach and cranial Burr holes) is made through the skin or mucous membrane, or reoperation via an incision that was left open during a prior operative procedure

- takes place in an operating room [OR], defined as a patient care area that met the Facilities Guidelines Institute’s (FGI) or American Institute of Architects’ (AIA) criteria for an operating room when it was constructed or renovated [9]. This may include an operating room, C-section room, interventional radiology room, or a cardiac catheterization lab.
Date of Event

Date of event (DOE): For an SSI the date of event is the date when the first element used to meet the SSI infection criterion occurs for the first time during the surveillance period.
Date of Event (DOE) for SSIs that progress to a deeper level during surveillance period

SSIs are always reported at the deepest level that they occur within the surveillance period.
If during the surveillance period a patient’s initial SSI meets criteria for a deeper level, then the date of event should be the date for the deepest level.

For example:
Day 1 – COLO procedure
Day 6 – DOE for meeting a superficial incisional SSI
Day 25 – DOE for the meeting an organ space IAB SSI

Only report one SSI with the DOE for the organ space IAB.
Pathogen Assignment

- The Pathogen Assignment Guidance found in Chapter 2 “Identifying HAIs” is based on Repeat Infection Timeframes (RIT) which is not used with SSIs.
- SSI are procedure based and have long surveillance periods (30 to 90 days).
- SSIs can progress to a deeper level during a surveillance period and a new pathogen can be found.
- Excluded organisms: Organisms belonging to the following genera cannot be used to meet any NHSN definition: Blastomyces, Histoplasma, Coccidioides, Paracoccidioides, Cryptococcus and Pneumocystis. These organisms are typically causes of community-associated infections and are rarely known to cause healthcare-associated infections, and therefore are excluded.
Wound Closure Examples

Primary Closure

Closure other than primary
Packing and wound VACs

Closure other than primary
Case 1

A 56-year-old female undergoes an XLAP and COLO procedure and has multiple trocar sites closed primarily but one that is left open.
Is this procedure primarily closed?

A. Yes

B. No
Case 1 - Rationale

The skin is closed at some points along the skin incision.

Thus, if any portion of the incision is closed at the skin level, by any manner, a designation of primary closure should be assigned to the surgery.

If a procedure has multiple incision/laparoscopic trocar sites and any of the incisions are closed primarily then the procedure technique is recorded as primarily closed.
Secondary BSI Scenarios

Scenario 1: The secondary BSI attribution period for SSI is a 17-day period that includes the date of event, 3 days prior, and 13 days after. At least one organism from the blood specimen matches an organism identified from the site-specific infection that is used as an element to meet the NHSN site-specific infection criterion.

Scenario 2: An organism identified in the blood specimen is an element that is used to meet the NHSN site-specific infection criterion.
BSI Secondary to an SSI

Secondary BSI Attribution Period: The secondary BSI attribution period for SSI is a 17-day period that includes the date of event, 3 days prior and 13 days after.

This 13 days after can fall outside of the surveillance period based on the Date of Event.

- Example: DOE occurs on day 29 of a 30 day surveillance period the secondary BSI window will extend beyond the 30 day surveillance window.
Why does SSI have its own secondary BSI attribution period?

For other HAIs the Secondary BSI attribution period is determined by using the Infection Window Period and the Repeat Infection Timeframe. These two definitions do not apply to SSIs.
### SSI Secondary BSI Attribution Period

(3 days before Date of Event + 13 days after Date of Event)

<table>
<thead>
<tr>
<th>Hospital Day</th>
<th>SSI Secondary BSI Attribution Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td></td>
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<tr>
<td>10</td>
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<tr>
<td>11</td>
<td></td>
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<tr>
<td>12</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>DOE for an SSI</td>
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<tr>
<td>14</td>
<td></td>
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<td>26</td>
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</tr>
</tbody>
</table>
PATOS

Infection Present at Time of Surgery

- Infection Present at Time of Surgery (PATOS) denotes that there is evidence of an infection or abscess at the start of or during the index surgical procedure (in other words, it is present preoperatively).
- This field is a required field and it is found on the SSI event form not on the denominator for procedure form.
- The evidence of infection or abscess must be noted/documentated intraoperatively in an intraoperative note (immediate postoperative note).
Infection Present at Time of Surgery

- Only select PATOS = YES if it applies to the depth of SSI that is being attributed to the procedure (e.g., if a patient had evidence of an intraabdominal infection at the time of surgery and then later returns with an organ space SSI the PATOS field would be selected as a YES. If the patient returned with a superficial or deep incisional SSI the PATOS field would be selected as a NO).

- The patient does not have to meet the NHSN definition of an SSI at the time of the primary procedure but there must be notation that there is evidence of infection or abscess present at the time of surgery.
PATOS – INFECTION PRESENT AT THE TIME OF SURGERY

<table>
<thead>
<tr>
<th>Event Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Specific Event:</td>
</tr>
<tr>
<td>□ Superficial Incisional Primary (SIP)  □ Deep Incisional Primary (DIP)</td>
</tr>
<tr>
<td>□ Superficial Incisional Secondary (SIS)  □ Deep Incisional Secondary (DIS)</td>
</tr>
<tr>
<td>□ Organ/Space (specify site): ______________________</td>
</tr>
</tbody>
</table>

*Infection present at the time of surgery (PATOS): □ Yes □ No

The patient does not have to meet the NHSN definition of an SSI at the time of the primary procedure but there must be notation that there is evidence of an infection or abscess present at the time of surgery.
PATOS – Quick Learn

Resources for NHSN Users Already Enrolled

- Surgical Site Infections (SSI) Training (CBT - 60 min)
- New! SSI Surveillance and Case Studies - March 2016 [Video - 182 min]
  - YouTube link - SSI Surveillance and Case Studies
  - CDC Streaming Video - SSI Surveillance and Case Studies
  - Slideset - SSI Surveillance and Case Studies [PDF - 5 MB]
- New! ICD-10 PCS and CPT Transition - January 2016 [Video - 8 min]
  - YouTube link - ICD-10 PCS and CPT Transition
  - CDC Streaming Video - ICD-10 PCS and CPT Transition
- New! Patient Safety Component (PSC) Annual Survey - January 2016 [Video - 6 min]
  - YouTube link - Completing the 2015 Facility Survey
  - CDC Streaming Video - Completing the 2015 Facility Survey
- New! Surgical Site Infections (SSI) Event form for PATOS - January 2016 [Video - 6 min]
  - YouTube Link - SSI Event Form for PATOS - January 2016
  - CDC Streaming Video - SSI Event Form for PATOS - January 2016
Case 2

- Patient was admitted with perforated diverticulum and CT showed multifocal abscess collections in the lower abdomen and pelvis, to OR for COLO. Surgeon documented abscesses and purulence throughout abdomen.

- One week later the patient meets criterion for Organ/Space IAB SSI.
Does this patient meet the criteria for PATOS?

1. PATOS = NO
2. PATOS = YES

✓ 2. PATOS = YES
This SSI is related to an infection that was PATOS therefore an ongoing process and this event does not have to be reported to NHSN.

1. TRUE
2. FALSE
Case 2 - Rationale

The PATOS field would be selected as **YES** on the SSI event since there was evidence of infection at the time of surgery and the subsequent SSI developed at the same level.

Infections that meet SSI criteria and have the PATOS field as a YES are reported to NHSN if you are following that procedure in your plan.
NHSN Inpatient and Outpatient Operative Procedures

**NHSN Inpatient Operative Procedure:** An NHSN operative procedure performed on a patient whose date of admission to the healthcare facility and the date of discharge are different calendar days.

**NHSN Outpatient Operative Procedure:** An NHSN operative procedure performed on a patient whose date of admission to the healthcare facility and date of discharge are the same calendar day.
Mapping of NHSN operative procedures for “ICD-10-PCS and CPT codes” is located in the SSI section under “Supporting Materials”
Confirm that the codes that are being used are most up to date version on the NHSN website.

2017 Operative Procedure Code Documents

The documents listed below should be used for procedures performed in 2017:

- ICD-10-PCS Procedure Code Mapping to NHSN Operative Procedure Codes [XLSX - 626 KB]

Additional Guidance for use with NHSN Operative Procedure Codes

- ICD-10-PCS & CPT Codes - Guidance for HPRO & KPRO Procedure Details [XLSX - 47 KB]
  This guidance document may be used for completing the NHSN procedure details for HPRO - hip arthroplasty and/or KPRO - knee arthroplasty operative procedures.
- FUSN ICD-10-PCS Codes - Guidance for Spinal Level and Approach [XLSX - 31 KB]
  This supplemental guidance may be used to complete the spinal level and approach fields in the Operative Procedure Details section for FUSN procedures.
- ICD-10 CM Diabetes Diagnostic Codes [XLSX - 16 KB]
  ICD-10-CM codes included in this spreadsheet are acceptable for use to answer "YES" to "Diabetes Mellitus" for completing the NHSN Operative Procedure Details.
- ICD-10-CM/PCS Codes for 'prior infection at hip or knee joint' denominator form question [XLSX - 20 KB]
  Use ICD-10-PCS/CM diagnosis or procedure codes included in this spreadsheet to determine if patient meets criteria for 'prior infection at index joint.'
Updated NHSN Operative Procedure Code Mappings (updated 11/01/2016)

This document replaces prior documents listing operative procedure codes associated with the NHSN Surgical Site Infection (SSI) Procedure-associated Protocol.

Codes have been validated using current procedure code references in consultation with a trained coding professional. Codes are accurate at the time of posting.

A valid ICD-10-PCS procedure code may be entered instead of (or in addition to) the NHSN Procedure Category name.

Procedure codes may be entered in the following manner:

- If the ICD-10-PCS procedure code is entered first, the NHSN Procedure Code name (e.g., COLO) will be auto-filled by the application.
- If the NHSN Procedure Code name is entered first, the user will need to manually enter the correct ICD-10-PCS procedure code.
- If there is a mismatch between the NHSN Procedure Code name and the ICD-10 PCS procedure code, the application will produce an error message.

NOTE: Although the procedure code field is optional, procedure codes may used in the application when entering NHSN procedures and SSI events.

New Features of the Updated Mapping Document (see corresponding numbers in screenshot below)

1. Accompanying description for each operative procedure code.
2. Each column can be sorted and filtered.
3. Combined list of codes from all operative procedure categories, as well as individual worksheets for each operative procedure category (orange tab).
4. Index tab (purple tab) that contains hyperlinks to each operative procedure code worksheet.

Layout of Workbook

- The procedure categories are listed in alphabetical order along the bottom tabs (see purple outline below), starting with AAA and ending with XLAP.
- The ICD-10-PCS procedure codes are listed in numerical order (see black outline below).

AVSD -- Shunt for dialysis - Arteriovenousostomy for renal dialysis

Instructions (version 11012016)  ALL ICD-10-PCS Codes Combined  Index  AAA (ICD-10)  AMP (ICD-10)  APPY (ICD-10)  AVSD (ICD-10)
Example of the ICD-10-PCS document

<table>
<thead>
<tr>
<th>ICD-10 CODES</th>
<th>Code Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0D9J0Z</td>
<td>Drainage of Appendix with Drainage Device, Open Approach</td>
</tr>
<tr>
<td>0D9J0ZZ</td>
<td>Drainage of Appendix, Open Approach</td>
</tr>
<tr>
<td>0D9J0Z</td>
<td>Drainage of Appendix with Drainage Device, Percutaneous Endoscopic Approach</td>
</tr>
<tr>
<td>0D9J4ZZ</td>
<td>Drainage of Appendix, Percutaneous Endoscopic Approach</td>
</tr>
<tr>
<td>0D9J4ZZ</td>
<td>Repair Appendix, Open Approach</td>
</tr>
<tr>
<td>0D9J4ZZ</td>
<td>Repair Appendix, Percutaneous Endoscopic Approach</td>
</tr>
<tr>
<td>0DTJ0Z</td>
<td>Resection of Appendix, Open Approach</td>
</tr>
<tr>
<td>0DTJ4ZZ</td>
<td>Resection of Appendix, Percutaneous Endoscopic Approach</td>
</tr>
</tbody>
</table>
How to search for a code
Completing the Denominator for Procedure Information Form
Denominator Data

- The collection period is one month.
- Complete a Denominator for Procedure record for every operation meeting the NHSN operative procedure definition that was done during that month if it is in your Monthly Reporting Plan.
- Submit data within a month of the end of a 30 day surveillance period or one month from the 90 day surveillance period.
Reporting Instruction

If procedures in more than one NHSN operative procedure category are done *through the same incision* during the same trip to the OR, create a record for each procedure that you are monitoring in the Monthly Reporting Plan, and use the total time for the duration for each record.

Example: Patient had a coronary artery bypass graft with a chest incision only (CBGC) and also a mitral valve replacement (CARD). The time from PST to PF was 5 hours. A *Denominator for Procedure* form is completed for the CBGC and another for the CARD, indicating the duration as 5 hours and 0 minutes on each form.
Reporting Instruction - 24 Hour Rule (SSI Protocol 9-20)

If a patient goes to the operating room more than once during the same admission and another procedure is performed through the same incision and if the start time of the second procedure is within 24 hours of the finish time of the original operative procedure, report only one Denominator for Procedure form for the original procedure, combining the durations for both procedures based on the procedure start times and finish times for both procedures.

Example: Patient had colon surgery (COLO) performed on Tuesday morning which had a duration of 3 hours and 10 minutes. On Tuesday evening, he was returned to the OR where the COLO incision was opened and a XLAP was performed to repair a bleeding vessel. The duration of the second procedure was 1 hour and 10 minutes.

Report only one COLO with a combined duration of 4 hours and 20 minutes. Do not report the XLAP procedure.
If the wound class has changed, report the higher wound class. If the ASA class has changed, report the higher ASA class.

Note: When the patient returns to the OR within 24 hours of the end of the first procedure assign the surgical wound closure technique that applies when the patient leaves the OR from the first operative procedure.
Denominator Reporting Instructions

For operative procedures that can be performed via separate incisions during same trip to operating room (i.e., AMP, BRST, CEA, FUSN, FX, HER, HPRO, KPRO, LAM, NEPH, OVRY, PVBY), separate Denominator for Procedure forms are completed.

To document the duration of the procedures, indicate the procedure/surgery start time to procedure/surgery finish time for each procedure separately or, alternatively, take the total time for the procedures and split it evenly between procedures.

SSI Chapter : Denominator Data Reporting Instructions
ICD-10-PCS or CPT Codes

Procedure codes remain as optional fields.
Entering Codes into the application.

Procedure Information

NHSN Procedure Code*: COLO - Colon surgery

Select button for system used
- ICD-10 PCS: 0DTN4ZZ
- CPT Code:

Procedure Date*: [ ]

Link/Unlink to Event

Procedure is not Linked
Example of a CPT code entry
Example of a code error entry

Alert

NHSN Procedure Code COLO does not match the ICD-10-PCS/CPT procedure code entered (0D190K4/SB). Select OK and verify your entry.
Example of a code error entry

The code entered, 0RQJOZZ, does not map to an NHSN operative procedure. Select OK and enter a valid code.
Procedure Details – Wound Class

Wound class is an assessment of the likelihood and degree of contamination of a surgical wound at the time of the operation.

It should be assigned by a person directly involved in performing the operation; rarely by the IP.

NHSN does not make wound class determinations for specific scenarios.

C = Clean
CC = Clean – Contaminated
CO = Contaminated
D = Dirty or Infected
Wound Class

Procedures that can never be coded as clean wound class

The procedures that can never be entered as clean are: APPY, BILI, CHOL, COLO, REC, SB and VHYS. In the application clean is not on the drop down menu.

A CSEC, HYST, or OVRY can be a clean wound class based on the particular events and findings of an individual case.

Wound class should be set by someone who is part of the surgical team based on the findings of each specific case.
# Procedure Details – Trauma

<table>
<thead>
<tr>
<th>Procedure Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Outpatient: Yes  No</td>
</tr>
<tr>
<td>*Wound Class: C  CC  CO  D</td>
</tr>
<tr>
<td>ASA Score: 1 2 3 4 5</td>
</tr>
<tr>
<td>*Trauma: Yes  No</td>
</tr>
<tr>
<td>*Duration: ______ Hours ______ Minutes</td>
</tr>
<tr>
<td>*General Anesthesia: Yes  No</td>
</tr>
<tr>
<td>*Emergency: Yes  No</td>
</tr>
<tr>
<td>*Diabetes Mellitus: Yes  No</td>
</tr>
<tr>
<td>*Closure Technique: Primary  Other than primary</td>
</tr>
<tr>
<td>*Height: ______ feet ______ inches</td>
</tr>
<tr>
<td>(choose one) ______ months  ______ years</td>
</tr>
<tr>
<td>*Weight: ______ lbs/______ kg</td>
</tr>
<tr>
<td>Surgeon Code: ____________</td>
</tr>
</tbody>
</table>

**Trauma: Required.**

If this operation was done because of a recent blunt or penetrating trauma, select Yes. If the bowel is nicked or perforated during an operative procedure this should not be listed as a trauma case.
Emergency Definition Updated

Emergency Procedure:
A procedure that is documented per the facilities protocol to be an Emergency or Urgent procedure.
**Procedure Details – Scope**

<table>
<thead>
<tr>
<th>Procedure Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Outpatient: Yes  No</em></td>
</tr>
<tr>
<td><em>Wound Class: C  CC  CO  D</em></td>
</tr>
<tr>
<td>ASA Score: 1 2 3 4 5</td>
</tr>
<tr>
<td><em>Trauma: Yes  No</em></td>
</tr>
<tr>
<td><em>Scope: Yes  No</em></td>
</tr>
<tr>
<td><em>Diabetes Mellitus: Yes  No</em></td>
</tr>
<tr>
<td><em>Closure Technique: Primary  Other than primary</em></td>
</tr>
<tr>
<td><em>(choose one) ________ meters</em></td>
</tr>
<tr>
<td><em>Height: ________ feet  ________ inches</em></td>
</tr>
<tr>
<td><em>Weight: ________ lbs/kg (circle one)</em></td>
</tr>
<tr>
<td>CSEC: <em>Duration of Labor: _____ hours</em></td>
</tr>
</tbody>
</table>

**Scope: Required.**
Check **Y** if the NHSN operative procedure was a laparoscopic procedure performed using a laparoscope or robotic assist approach, otherwise check **N**.

**Select Yes** if scope used to harvest donor vessel during a CBGB.
Scope field on denominator entry
Scope field on denominator entry
Additional Fields Required for Specific Procedures
Additional Fields for Specific Procedures

There are 4 procedures for which additional risk factors are collected:

– Cesarean Section – CSEC
– Spinal Fusion – FUSN
– Hip Arthroplasty – HPRO
– Knee Arthroplasty – KPRO

When any of these procedures are included in the Monthly Reporting Plan, the corresponding additional fields must be completed.
Spinal Level and Approach for FUSN

<table>
<thead>
<tr>
<th>Spinal Level (check one)</th>
<th>Approach/Technique (check one)</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Atlas-axis</td>
<td>□ Anterior</td>
</tr>
<tr>
<td>□ Atlas-axis/Cervical</td>
<td>□ Posterior</td>
</tr>
<tr>
<td>□ Cervical</td>
<td>□ Anterior and Posterior</td>
</tr>
<tr>
<td>□ Cervical/Dorsal/Dorsolumbar</td>
<td>□ Transoral</td>
</tr>
<tr>
<td>□ Dorsal/Dorsolumbar</td>
<td></td>
</tr>
<tr>
<td>□ Lumbar/Lumbosacral</td>
<td></td>
</tr>
</tbody>
</table>

- Additional Guidance for use with NHSN Operative Procedure Codes
  - ICD-10-PCS & CPT Codes - Guidance for HPRO & KPRO Procedure Details
    [XLSX - 47 KB]
    This guidance document may be used for completing the NHSN procedure details for HPRO – hip arthroplasty and/or KPRO – Knee arthroplasty operative procedures.
  - FUSN ICD-10-PCS Codes – Guidance for Spinal Level and Approach
    [XLSX - 31 KB]
    This supplemental guidance may be used to complete the spinal level and approach fields in the Operative Procedure Details section for FUSN procedures.
  - ICD-10 CM Diabetes Diagnostic Codes
    [XLSX - 16 KB]
If the procedure is an HPRO or KPRO, indicate here which type of HPRO or KPRO was performed.

Circle one: HPRO  KPRO

ICD-10-PCS Supplemental Procedure Code for HPRO/KPRO: ____________

*Check one:  □ Total  □ Hemi  □ Resurfacing (HPRO only)

If Total:  □ Total Primary  □ Total Revision

If Hemi:  □ Partial Primary  □ Partial Revision

If Resurfacing (HPRO only):  □ Total Primary  □ Partial Primary

*If total or partial revision, was the revision associated with prior infection at index joint?  □ Yes  □ No
Guidance for these fields found in “Supporting Materials” section

**Supporting Materials**

**2017 Operative Procedure Code Documents**

The documents listed below should be used for procedures performed in 2017.

- [ICD-10-PCS Procedure Code Mapping to NHSN Operative Procedure Codes](#) [XLSX - 626 KB]

- Additional Guidance for use with NHSN Operative Procedure Codes
  - [ICD-10-PCS & CPT Codes - Guidance for HPRO & KPRO Procedure Details](#) [XLSX - 47 KB]
  - This guidance document may be used for completing the NHSN procedure details for HPRO - hip arthroplasty and/or KPRO - Knee arthroplasty operative procedures.
  - [FUSEN ICD-10-PCS Codes - Guidance for Spinal Level and Approach](#) [XLSX - 31 KB]
  - This supplemental guidance may be used to complete the spinal level and approach fields in the Operative Procedure Details section for FUSEN procedures.
  - [ICD-10 CM Diagnostic Codes](#) [XLSX - 16 KB]
  - ICD-10-CM codes included in this spreadsheet are acceptable for use to answer "YES" to "Diabetes Mellitus" for completing the NHSN Operative Procedure Details.
  - [ICD-10-CM/PCS Codes for 'prior infection at hip or knee joint' denominator form question](#) [XLSX - 20 KB]
  - Use ICD-10-PCS/CM diagnosis or procedure codes included in this spreadsheet to determine if patient meets criteria for 'prior infection at index joint'.

These documents are intended to provide guidance on how to properly complete the NHSN Operative Procedure Code Details section for procedures performed in 2017.
Definitions of Surgical Site Infections

Superficial Incisional SSI

Infection occurs within 30 days after any NHSN operative procedure (where day 1 = the procedure date)
AND
involves only skin and subcutaneous tissue of the incision
AND
patient has at least one of the following:
a. purulent drainage from the superficial incision.

b. organisms identified from an aseptically-obtained specimen from the superficial incision or subcutaneous tissue 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).
Superficial Incisional SSI

c. superficial incision that is deliberately opened by a surgeon, attending physician** or other designee and culture or non-culture based testing is not performed.

AND

patient has at least one of the following signs or symptoms: pain or tenderness; localized swelling; erythema; or heat.

d. diagnosis of a superficial incisional SSI by the surgeon or attending physician** or other designee.

** 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).
Superficial Incisional SSI
Reporting Instructions

- Diagnosis/treatment of cellulitis (redness/warmth/swelling), by itself, does not meet criterion “d” for superficial incisional SSI. Conversely, an incision that is draining or that has organisms identified by culture or non-culture based testing is not considered a cellulitis.

- A stitch abscess alone (minimal inflammation and discharge confined to the points of suture penetration) is not considered an SSI.

- A localized stab wound or pin site infection is not considered an SSI.

- **Note:** a laparoscopic trocar site for an NHSN operative procedure is not considered a stab wound.
Reporting Instruction

Multiple tissue levels are involved in the infection:
The type of SSI (superficial incisional, deep incisional, or organ/space) reported should reflect the deepest tissue layer involved in the infection during the surveillance period.
<table>
<thead>
<tr>
<th>Code</th>
<th>Operative Procedure</th>
<th>Code</th>
<th>Operative Procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAA</td>
<td>Abdominal aortic aneurysm repair</td>
<td>LAM</td>
<td>Laminectomy</td>
</tr>
<tr>
<td>AMP</td>
<td>Limb amputation</td>
<td>LTP</td>
<td>Liver transplant</td>
</tr>
<tr>
<td>APPY</td>
<td>Appendix surgery</td>
<td>NECK</td>
<td>Neck surgery</td>
</tr>
<tr>
<td>AVSD</td>
<td>Shunt for dialysis</td>
<td>NEPH</td>
<td>Kidney surgery</td>
</tr>
<tr>
<td>BILL</td>
<td>Bile duct, liver or pancreatic surgery</td>
<td>OVRY</td>
<td>Ovaltine surgery</td>
</tr>
<tr>
<td>CEA</td>
<td>Carotid endarterectomy</td>
<td>PRST</td>
<td>Prostate surgery</td>
</tr>
<tr>
<td>CHOL</td>
<td>Gallbladder surgery</td>
<td>REC</td>
<td>Rectal surgery</td>
</tr>
<tr>
<td>COLO</td>
<td>Colon surgery</td>
<td>SB</td>
<td>Small bowel surgery</td>
</tr>
<tr>
<td>CSEC</td>
<td>Cesarean section</td>
<td>SPLE</td>
<td>Splenic surgery</td>
</tr>
<tr>
<td>GAST</td>
<td>Gastric surgery</td>
<td>THOR</td>
<td>Thoracic surgery</td>
</tr>
<tr>
<td>HTP</td>
<td>Heart transplant</td>
<td>THYR</td>
<td>Thyroid and/or parathyroid surgery</td>
</tr>
<tr>
<td>HYST</td>
<td>Abdominal hysterectomy</td>
<td>VHYS</td>
<td>Vaginal hysterectomy</td>
</tr>
<tr>
<td>KTP</td>
<td>Kidney transplant</td>
<td>XLAP</td>
<td>Exploratory Laparotomy</td>
</tr>
</tbody>
</table>

**Note:** Superficial incisional SSIs are only followed for a 30-day period for all procedure types.

Only for Deep Incisional and Organ/Space SSI
SIP and SIS

**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)

**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)
Case 3

1/15 - 68 year-old patient had a colostomy takedown (COLO).

1/22 - The abdominal ostomy site had purulent drainage and the surgeon removed a few staples and probed the site. The surgeon noted the fascia was intact.
Should this be reported to NHSN?

1. No. This was the old colostomy site and doesn’t count as an SSI.

2. No. This is a skin and soft tissue infection and not an SSI.

3. SSI – SIP

4. SSI – DIP
Case 3 - Rationale

Superficial incisional SSI

Must meet the following criteria:

- Infection occurs within 30 days after any NHSN operative procedure (where day 1 = the procedure date) 
- AND
- involves only skin and subcutaneous tissue of the incision
- AND
- patient has at least one of the following:
  - a. purulent drainage from the superficial incision.
  - b. organisms identified from an aseptically-obtained specimen from the superficial incision or subcutaneous tissue 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).
  - c. superficial incision that is deliberately opened by a surgeon, attending physician** or other designee and culture or non-culture based testing is not performed.
  - AND
  - patient has at least one of the following signs or symptoms: pain or tenderness; localized swelling; erythema; or heat.
  - d. diagnosis of a superficial incisional SSI by the surgeon or attending physician** or other designee.
Case 4

2/15 - 62 year-old female admitted and underwent a total knee arthroplasty (KPRO)

2/17 - Patient discharged

3/9 - Patient is seen in the physician office after the patient tripped and fell at home. There is drainage noted from the superficial incision. A culture is collected from the drainage. The culture grows coagulase-negative staphylococci (CoNS).
What would be reported?

1. SSI – SIP attributable to the KPRO
2. SSI – DIP attributable to the KPRO
3. Nothing. The wound culture grew common skin flora only.
4. Nothing. The patient fell at home, therefore you cannot attribute an SSI to the KPRO procedure.
Case 4 - Rationale

Common commensals are not excluded from SSI determination.

Culture results of “mixed flora” or “mixed cutaneous flora” cannot be reported to NHSN as there is no such pathogen option in this list of pathogens.

Numerator Reporting Instruction #12:
An SSI that otherwise meets the NHSN definitions should be reported to NHSN without regard to post-operative accidents, falls, inappropriate showering or bathing practices, or other occurrences that may or may not be attributable to patients’ intentional or unintentional postoperative actions.
Deep Incisional SSI
Deep Incisional SSI

Must meet the following criteria:

Infection occurs within 30 or 90 days after the NHSN operative procedure (where day 1 = the procedure date) according to the list in Table 2

AND

involves deep soft tissues of the incision (e.g., fascial and muscle layers)

AND

patient has 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 is 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) or culture or non-culture based microbiologic testing method is not performed

AND

patient has at least one of the following signs or symptoms: fever (>38°C); localized pain or tenderness. A culture or non-culture based test that has a negative finding does not meet this criterion.

C. an abscess or other evidence of infection involving the deep incision that is detected on gross anatomical or histopathologic exam, or imaging test
DIP and DIS

Deep incisional primary (DIP)

Deep Incisional Primary (DIP) – a deep incisional SSI that is identified in a 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)

Deep incisional secondary (DIS)

Deep Incisional Secondary (DIS) – a deep 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)
Sample of Complete NHSN Case Review Request

Please let NHSN know what your question(s) are and what your thoughts are regarding the case

Ex: This is a complicated case and our team is trying to figure out whether it meets criteria for a Deep Incisional SSI- can you help us confirm?

What NHSN needs from the user:

OR procedures and dates of all procedures including reoperations
  – Whether operative procedures are coded as NHSN operative procedures or not
  – If return to OR via same incision, was it within 24 hours of finish time of prior operative procedure?
Signs and symptoms?
Tissue levels involved- Superficial, Deep and/or Organ/Space?
Was any imaging testing performed and described?
Fluid collections or drainage?
  – CT guided drainage performed? Drainage from JP drain? Drainage from wound?
  – Purulent? How was the drainage described?
Culture Results
  – What site was the specimen collected from?
  – What tissue level (depth) was the specimen collected from? If you are unsure NHSN recommends consulting with the surgeon/physician to make that determination.
Other evidence of infection?
Case 5

11/1 - Patient is admitted to the hospital for an HPRO – revision. No evidence of infection at the time of the surgery.

11/4 - Postoperative course is unremarkable; patient discharged.

11/18 - Patient is readmitted with complaints of pain and swelling since 11/16. To OR for left hip I&D. Serous fluid was cultured from the fascial layer.

11/19 - Culture result returned and is positive for Staph epidermidis in broth only.
Is this an SSI?

1. Yes, meets criteria

2. No, the culture was grown in broth only
What infection should be reported?

1. SSI-SIP
2. SSI-SIS
3. SSI-DIP
4. SSI-DIS
5. SSI-PJI
Case 5 – Rationale
Deep Incisional SSI - Criterion b

Deep incisional SSI
Must meet the following criteria:
Infection occurs within 30 or 90 days after the NHSN operative procedure (where day 1 = the procedure date) according to the list in Table 2
AND
involves deep soft tissues of the incision (e.g., fascial and muscle layers)
AND
patient has 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 is 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) or culture or non-culture based microbiologic testing method is not performed
AND
patient has at least one of the following signs or symptoms: fever (>38°C); localized pain or tenderness. A culture or non-culture based test that has a negative finding does not meet this criterion.
c. an abscess or other evidence of infection involving the deep incision that is detected on gross anatomical or histopathologic exam, or imaging test
Case 5 – different scenario

11/1 - Patient is admitted to the hospital for an HPRO – revision.

11/4 - Postoperative course is unremarkable; patient discharged.

11/18 - Patient is readmitted with complaints of pain and swelling since 11/16. To OR for left hip I&D. Serous fluid was cultured from the fascial layer.

11/19 - Culture result returned negative.
What infection should be reported?

1. SSI-SIP
2. SSI-DIP
3. SSI-Organ space
4. Nothing – does not meet SSI criteria
Case 5 – Rationale

Deep Incisional SSI - Criterion b

Deep incisional SSI
Must meet the following criteria:

- Infection occurs within 30 or 90 days after the NHSN operative procedure (where day 1 = the procedure date) according to the list in Table 2
- Involves deep soft tissues of the incision (e.g., fascial and muscle layers)
- Patient has at least one of the following:
  - Purulent drainage from the deep incision.
  - A deep incision that spontaneously dehisces, or is deliberately opened or aspirated by a surgeon, attending physician** or other designee and organism is 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) or culture or non-culture based microbiologic testing method is not performed)
  - Patient has at least one of the following signs or symptoms: fever (>38°C); localized pain or tenderness. A culture or non-culture based test that has a negative finding does not meet this criterion.
  - An abscess or other evidence of infection involving the deep incision that is detected on gross anatomical or histopathologic exam, or imaging test.
Case 6

12/15 – A 55 year-old patient underwent an extended right hemicolecctomy (COLO) procedure.

12/20 – Patient discharged.

12/28 – Patient presents to ED complaining of abdominal distention and pain. CT of abdomen and pelvis show a postoperative fluid collection. Return to OR for XLAP: Surgeon evaluated the intraabdominal fluid collection. Fluid collection drained. No mention of purulence or infection noted at time of fluid drainage and no cultures were collected.
What infection should be reported?

1. SSI-SIP
2. SSI-DIP
3. SSI-Organ/Space IAB
4. SSI-Organ/Space GIT
5. No SSI
Case 6 – Rationale

Deep Incisional SSI - Criterion b not met

Deep incisional SSI
Must meet the following criteria:
Infection occurs within 30 or 90 days after the NHSN operative procedure (where day 1 = the procedure date) according to the list in Table 2
AND
involves deep soft tissues of the incision (e.g., fascial and muscle layers)
AND
patient has 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 is 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) or culture or non-culture based microbiologic testing method is not performed

AND

patient has at least one of the following signs or symptoms: fever (>38°C); localized pain or tenderness. A culture or non-culture based test that has a negative finding does not meet this criterion.

c. an abscess or other evidence of infection involving the deep incision that is detected on gross anatomical or histopathologic exam, or imaging test.
Organ/Space SSI
Organ/Space SSI

Must meet the following criteria:

Infection occurs within 30 or 90 days after the NHSN operative procedure (where day 1 = the procedure date) according to the list in Table 2

AND

infection involves any part of the body deeper than the fascial/muscle layers, that is opened or manipulated during the operative procedure

AND

patient has at least one of the following:

a. purulent drainage from a drain that is placed into the organ/space (e.g., closed suction drainage system, open drain, T-tube drain, CT guided drainage)

b. organisms are identified from an aseptically-obtained fluid or tissue in the organ/space 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)).

c. an abscess or other evidence of infection involving the organ/space that is detected on gross anatomical or histopathologic exam, or imaging test evidence suggestive of infection

AND

meets at least one criterion for a specific organ/space infection site listed in Table 3. These criteria are found in the Surveillance Definitions for Specific Types of Infections chapter 17.
Organ Space SSI

- 2 different criteria must be met for Organ/Space SSI
  - SSI organ/space criteria **AND**
  - Those of the specific site of the organ/space operated on

| Event Details: Specify Criteria Used | Required. Check each of the elements of the definition that were used to identify the specific type of SSI. Specific organ/space event types have their own unique criteria which must be met. They are found in the Surveillance Definitions chapter. |

SSI event form Table of Instructions
Gross Anatomical Exam

Definition is found in key terms:

- Evidence of infection elicited or visualized on physical examination or observed during an invasive procedure. Includes physical examination of a patient during admission or subsequent assessments of the patient, may include findings noted during a medical/invasive procedure dependent upon the location of the infection as well as the NHSN infection criterion.

- Examples:
  - An intraabdominal abscess will require an invasive procedure to actually visualize the abscess.
  - Visualization of pus or purulent drainage from drains within an abscess is acceptable.
  - Abdominal pain elicited on physical exam post CSEC or hysterectomy, is sufficient evidence of infection detected without an invasive procedure.
### Organ/Space SSI

**Specify Criteria Used (check all that apply):**

**Signs & Symptoms**
- ✓ Drainage or material†
- ✓ Abscess
- ✓ Other evidence of infection found on invasive procedure, gross anatomic exam, or histopathologic exam†
- □ Pain or tenderness
- □ Swelling or inflammation
- □ Erythema or redness
- □ Heat
- □ Fever
- □ Incision deliberately opened/drained
- □ Wound spontaneously dehisces
- □ Sinus tract
- □ Hypothermia
- □ Apnea
- □ Bradycardia
- □ Lethargy
- □ Cough
- □ Nausea
- □ Vomiting
- □ Dysuria

**Laboratory**
- ✓ Organism(s) identified
- □ Culture or non-culture based testing not performed
- □ Organism(s) identified from blood specimen
- □ Organism(s) identified from ≥ 2 periprosthetic specimens
- □ Other positive laboratory tests†
- ✓ Imaging test evidence of infection

**Clinical Diagnosis**
- □ Physician diagnosis of this event type
- □ Physician institutes appropriate antimicrobial therapy†

† per specific site criteria
# Organ/Space SSI

Table 3. Specific Sites of an Organ/Space SSI.

<table>
<thead>
<tr>
<th>Code</th>
<th>Site</th>
<th>Code</th>
<th>Site</th>
</tr>
</thead>
<tbody>
<tr>
<td>BONE</td>
<td>Osteomyelitis</td>
<td>MED</td>
<td>Mediastinitis</td>
</tr>
<tr>
<td>BRST</td>
<td>Breast abscess or mastitis</td>
<td>MEN</td>
<td>Meningitis or ventriculitis</td>
</tr>
<tr>
<td>CARD</td>
<td>Myocarditis or pericarditis</td>
<td>ORAL</td>
<td>Oral cavity (mouth, tongue, or gums)</td>
</tr>
<tr>
<td>DISC</td>
<td>Disc space</td>
<td>OREP</td>
<td>Other infections of the male or female reproductive tract</td>
</tr>
<tr>
<td>EAR</td>
<td>Ear, mastoid</td>
<td>PJI</td>
<td>Periprostatic Joint Infection</td>
</tr>
<tr>
<td>EMET</td>
<td>Endometritis</td>
<td>SA</td>
<td>Spinal abscess without meningitis</td>
</tr>
<tr>
<td>ENDO</td>
<td>Endocarditis</td>
<td>SINU</td>
<td>Sinusitis</td>
</tr>
<tr>
<td>GIT</td>
<td>GI tract</td>
<td>UR</td>
<td>Upper respiratory tract</td>
</tr>
<tr>
<td>IAB</td>
<td>Intraabdominal, not specified</td>
<td>USI</td>
<td>Urinary System Infection</td>
</tr>
<tr>
<td>IC</td>
<td>Intracranial, brain abscess or dura</td>
<td>VASC</td>
<td>Arterial or venous infection</td>
</tr>
<tr>
<td>JNT</td>
<td>Joint or Bursa</td>
<td>VCUF</td>
<td>Vaginal cuff</td>
</tr>
<tr>
<td>LUNG</td>
<td>Other infections of the lower respiratory tract</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Criteria for these sites can be found in the Surveillance Definitions for Specific Types of Infections chapter).

Note: Appendix contains a list of all NHSN operative procedure groups and the site specific SSIs that that may be attributable for each group.

Specific sites of infection must be used to differentiate organ/space SSI and their criteria must also be met. Use HAI definitions (Chapter 17).
## APPENDIX. SSI specific event types attributed to each NHSN procedure category.

<table>
<thead>
<tr>
<th>Procedure code</th>
<th>Specific Event Code</th>
</tr>
</thead>
</table>
| AAA - Abdominal aortic aneurysm repair | DIP - Deep Incisional Primary  
ENDO - Endocarditis  
GIT - Gastrointestinal tract  
IAB - Intraabdominal, not specified elsewhere  
SIP - Superficial Incisional Primary  
VASC - Arterial or venous infection |
| AMP - Limb amputation | BONE - Osteomyelitis  
DIP - Deep Incisional Primary  
JNT - Joint or bursa  
SIP - Superficial Incisional Primary |
| APPY - Appendix surgery | DIP - Deep Incisional Primary  
GIT - Gastrointestinal tract  
IAB - Intraabdominal, not specified elsewhere  
SIP - Superficial Incisional Primary |
| AVSD - AV shunt for dialysis | DIP - Deep Incisional Primary  
SIP - Superficial Incisional Primary  
VASC - Arterial or venous infection |
Numerator Reporting Instruction #2

Attributing SSI to an NHSN procedure when there is evidence of infection at the time of the primary surgery:

The Present on Admission (POA) definition does not apply to the SSI protocol. If evidence of infection is present at the time of the procedure and the patient meets the NHSN SSI criteria during the SSI surveillance period, an SSI is attributed to the procedure. A high wound class is not an exclusion for a patient later meeting criteria for an SSI, but in most cases is included as a risk factor for SSI in risk modeling.
Patient presents to ED with acute abdomen and is admitted to the OR on the same day for colon resection (COLO). Peritoneal abscess noted at time of surgery. Abdominal abscesses drained and thorough abdominal washout was performed, incision loosely closed with some packing between staples and a JP drain is placed in an adjacent stab wound.

2/4 – Patient discharged wounds healing well.

2/8 – Patient presents to ED with fever, abdominal pain, and sent to CT for CT guided drainage of an abscess which is (+) for *E.coli*.

This is reported as an SSI-IAB (meets IAB criterion 1)

The PATOS field would be entered as a YES
SSI following invasive manipulation/accession of the operative site

If during the post-operative period the surgical site has an invasive manipulation/accession for diagnostic or therapeutic purposes (e.g., needle aspiration, accession of ventricular shunts, accession of breast expanders) and there is no evidence of an infection at that time, if an SSI develops following this manipulation/accession, the infection is not attributed to the operation.

This reporting instruction does NOT apply to closed manipulation (e.g., closed reduction of a dislocated hip after an orthopedic procedure).

Invasive manipulation does not include wound packing, changing of wound packing materials or staple removal as part of postoperative care.
When a patient with an SSI has had more than one operation...

If a patient has several NHSN operations prior to an SSI, report the operation that was performed most closely in time prior to the infection date. This does not apply when 2 operative procedures are done within the same 24 hour period via the same incision.

Example: Patient underwent a COLO on 10/02/16. Two weeks later on 10/18/16, he returns to OR for an XLAP via the same incision. He developed an incisional SSI on 10/30/16. This SSI is attributed to the second procedure the XLAP, not the COLO.
Different operative procedure categories performed via same incision during same trip to the OR:

First, attempt to determine the procedure that is thought to be associated with the infection.

**Example:** If the patient had a CBGC and CARD-AVR done at the same time and returns and meets criteria with an infected valve, then the SSI will be linked to the CARD-AVR.

If it’s not clear (as in the case of a superficial incisional SSI), use the NHSN Principal Operative Procedure Selection Lists to select which operative procedure to report.

**Categories with the highest risk of SSI are listed before those with lower risks**
NHSN Principal Operative Procedure Category Selection Lists

Patient has both a COLO procedure and HYST procedure via the same incision

Within 30 days the patient develops purulent drainage at the incision site.

Documentation states that muscle/fascia and organ/space tissue layers are intact

The patient meets criteria for a Superficial Incisional SSI attributable to the COLO procedure
<table>
<thead>
<tr>
<th>Priority</th>
<th>Code</th>
<th>Abdominal Operations</th>
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<tbody>
<tr>
<td>1</td>
<td>LTP</td>
<td>Liver transplant</td>
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<tr>
<td>2</td>
<td>COLO</td>
<td>Colon surgery</td>
</tr>
<tr>
<td>3</td>
<td>BILI</td>
<td>Bile duct, liver or pancreatic surgery</td>
</tr>
<tr>
<td>4</td>
<td>SB</td>
<td>Small bowel surgery</td>
</tr>
<tr>
<td>5</td>
<td>REC</td>
<td>Rectal surgery</td>
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<tr>
<td>6</td>
<td>KTP</td>
<td>Kidney transplant</td>
</tr>
<tr>
<td>7</td>
<td>GAST</td>
<td>Gastric surgery</td>
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<tr>
<td>8</td>
<td>AAA</td>
<td>Abdominal aortic aneurysm repair</td>
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<tr>
<td>9</td>
<td>HYST</td>
<td>Abdominal hysterectomy</td>
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<td>10</td>
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<td>Cesarean section</td>
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<tr>
<td>11</td>
<td>XLAP</td>
<td>Laparotomy</td>
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<td>12</td>
<td>APPY</td>
<td>Appendix surgery</td>
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<td>13</td>
<td>HER</td>
<td>Herniorrhaphy</td>
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<td>14</td>
<td>NEPH</td>
<td>Kidney surgery</td>
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<td>15</td>
<td>VHYS</td>
<td>Vaginal Hysterectomy</td>
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<tr>
<td>16</td>
<td>SPLE</td>
<td>Spleen surgery</td>
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<tr>
<td>17</td>
<td>CHOL</td>
<td>Gall bladder surgery</td>
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## Tennessee Checklists (for Chapter 17 NHSN criteria)


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<thead>
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<th>Type</th>
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<td>V7-Gastrointestinal System Infection 1.1.201</td>
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<tr>
<td>V14-Urinary Tract Infection UTI 1.1.1</td>
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</tr>
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</table>
IAB – Intraabdominal Infection, Not Specified Elsewhere (Including Gallbladder, Bile Ducts, Liver [Excluding Viral Hepatitis], Spleen, Pancreas, Peritoneum, Subphrenic or Subdiaphragmatic Space, or Other Intraabdominal Tissue or Area Not Specified Elsewhere) (Revised January 1, 2017)

**DEFINITION:** Intraabdominal infections must meet at least ONE □ of the following criteria:

- **Criterion 1:** (Revised January 1, 2017)
  - Patient has organism(s) identified from at least ONE △ of the following:
    - abscess from intraabdominal space
    - purulent material from intraabdominal space

- **Criterion 2:** (Revised January 1, 2017)
  - Patient has at least ONE △ of the following:
    - an abscess seen during ONE □ of the following:
      - gross anatomic exam
      - histopathologic exam
    - other evidence of intraabdominal infection on ONE □ of the following:
      - gross anatomic exam
      - histopathologic exam

**OR**

- Patient has BOTH □ of the following:
  - Patient has ONE △ of the following:
10/8 - Patient admitted and underwent laparoscopic hysterectomy (HYST). Wound class 2.

10/15 - Readmitted with abdominal pain. CT showed fluid and air in pelvis. To OR for COLO where purulence was noted in the deep pelvic area.
Does this patient meet criteria for an organ space SSI?

1. Yes

2. No
Case 7 – Rationale

Organ/Space SSI
Must meet the following criteria:

- Infection occurs within 30 or 90 days after the NHSN operative procedure (where day 1 = the procedure date) according to the list in Table 2
- AND
- Infection involves any part of the body deeper than the fascial/muscle layers, that is opened or manipulated during the operative procedure
- AND
- Patient has at least one of the following:
  - a. Purulent drainage from a drain that is placed into the organ/space (e.g., closed suction drainage system, open drain, T-tube drain, CT guided drainage)
  - b. Organisms are identified from an aseptically-obtained fluid or tissue in the organ/space 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)).
  - c. An abscess or other evidence of infection involving the organ/space that is detected on gross anatomical or histopathologic exam, or imaging test evidence suggestive of infection
- AND
- Meets at least one criterion for a specific organ/space infection site listed in Table 3. These criteria are found in the Surveillance Definitions for Specific Types of Infections chapter.
What site specific SSI does this patient have?

1. SSI-DIP
2. SSI-IAB
3. SSI-OREP
4. Not an SSI

✓
OREP- **Deep pelvic tissue infection** or other infection of the male or female reproductive tract (epididymis, testes, prostate, vagina, ovaries, uterus, chorioamnionitis, excluding vaginitis, endometritis or vaginal cuff infections)

OREP Criterion 2:
Patient has an abscess or other evidence of infection of affected site on gross anatomic or histopathologic exam.
Why isn’t this an SSI-IAB?

IAB – Intraabdominal, not specified elsewhere including gallbladder, bile ducts, liver (excluding viral hepatitis), spleen, pancreas, peritoneum, subphrenic or subdiaphragmatic space, or other intraabdominal tissue or area not specified elsewhere

Site Definitions Chapter; Chapter 17
Case 7 – different scenario

10/8 - Patient admitted and underwent laparoscopic hysterectomy (HYST). Wound class 2.

10/15 - Readmitted with abdominal pain. CT showed fluid and air in pelvis. To OR for COLO where purulence was noted in the deep pelvic area.

What should be reported?

A. One SSI – DOE 10/15 – attributed to 10/8 HYST

B. One SSI – DOE 10/23 – attributed to 10/15 COLO

C. One SSI – DOE 10/23 – attributed to 10/8 HYST

D. Two SSI’s – DOE’s 10/15 SSI attributed to 10/8 HYST and 10/23 SSI attributed to 10/15 COLO

✓
Case 7 – Rationale

In this scenario, the patient has two SSI’s:

**SSI 1**: DOE 10/15 attributed to the 10/8 HYST (Organ/Space OREP Criterion 2)

**SSI 2**: DOE 10/23 attributed to the 10/15 COLO (Organ/Space IAB Criterion 2a). This event will be PATOS = YES since there was purulence in the deep pelvic area (organ/space) noted on 10/15
SSI Surveillance Period

Each return trip to the OR via the same site ends the surveillance period from prior infection and resets the new surveillance period.

SSIs are always attributed to the most recent trip to the OR.
Case 8

3/9 – 49 year-old patient goes to OR for a XLAP and COLO procedure.


3/18 – Temperature noted of 100.5. CT of abdomen findings: severe colon thickening - correlate with enteritis/colitis. Blood cultures obtained. Physician initiates and documents antimicrobial treatment for gastrointestinal tract infection.

3/20 – Blood cultures return positive *P. aeruginosa*.
Does this patient meet criteria for an SSI?

1. Does not meet SSI criteria
2. SSI Organ/Space, specific site GIT, with a secondary BSI
3. SSI Organ/Space, specific site IAB, with a secondary BSI
4. SSI Organ/Space, specific site GIT without secondary BSI
Rationale Case 8- GIT Criterion 2d

Patient has at least two of the following signs or symptoms compatible with infection of the organ or tissue involved: fever (>38.0°C), nausea*, vomiting*, pain* or tenderness*, odynophagia*, or dysphagia*

And at least one of the following:

d. imaging test evidence suggestive of infection (e.g., endoscopic exam, MRI, CT scan), which if equivocal is supported by clinical correlation (i.e., physician documentation of antimicrobial treatment for gastrointestinal tract infection).

*With no other recognized cause

P. aeruginosa is not an MBI organism – must investigate blood cx as secondary to another source or as primary LCBI
Clinical Correlation

From Key Terms:
Physician documentation of antimicrobial treatment for site-specific infection.
GIT Criteria 2c

Updated

GIT-Gastrointestinal tract infection (esophagus, stomach, small and large bowel, and rectum) excluding gastroenteritis, appendicitis, and C. difficile infection

Gastrointestinal tract infections, excluding gastroenteritis and appendicitis, must meet at least one of the following criteria:

1. Patient has an abscess or other evidence of infection on gross anatomic or histopathologic exam of gastrointestinal tract.
2. Patient has at least one of the following signs or symptoms compatible with infection of the organ or tissue involved: fever (>38.0°C), nausea*, vomiting*, pain or tenderness*, odynophagia*, or dysphagia*

And at least one of the following:

a. organism(s) identified from drainage or tissue obtained during an invasive procedure or from drainage from an aseptically-placed drain 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).

b. organism(s) seen on Gram stain or fungal elements seen on KOH stain or multinucleated giant cells seen on microscopic examination of drainage or tissue obtained during an invasive procedure or from drainage from an aseptically-placed drain.

(AND)
c. organism(s) identified from blood 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). The organism(s) identified in the blood must contain at least one MBI organism (See Appendix A of the BSI protocol)

Imaging test evidence suggestive of gastrointestinal infection (e.g., endoscopic exam, MRI, CT scan), which if equivocal is supported by clinical correlation (i.e., physician documentation of antimicrobial treatment for gastrointestinal tract infection).

d. imaging test evidence suggestive of infection (e.g., endoscopic exam, MRI, CT scan), which if equivocal is supported by clinical correlation (i.e., physician documentation of antimicrobial treatment for gastrointestinal tract infection).

* With no other recognized cause

Reporting instruction

- Report only GI-GIT using the event date as that of GI-GIT if the patient meets criteria for both GI-GE and GI-GIT
Case 8 - Rationale

Why not IAB – Intraabdominal infection as the specific site of SSI?

- The infection is in the gastrointestinal tract and not involving the intraabdominal space
- GIT focuses on infections of the gastrointestinal tract
- Therefore, GIT is the appropriate choice site of SSI in this case
Case 9

2/12 – 72 year old underwent Total Knee Replacement (KPRO)

3/25 – Patient presents to ED for knee pain and swelling. Patient’s knee is aspirated and one synovial fluid specimen is collected. Patient is admitted. Culture returns positive for MRSA.

3/26 – Patient to OR for I&D. Synovial fluid specimen is collected. Culture returns positive for MRSA.

3/27 – Blood cultures are collected. Blood cultures return positive for MRSA.
Which site specific organ space definition should be reviewed for this case?

1. PJI – periprosthetic joint infection
2. JNT- joint
Does this meet site specific PJI criteria?

1. Yes – Two periprosthetic specimens were collected and had a matching pathogen

2. No – The 3/25 knee aspiration was an invasive manipulation
PJPI – Periprosthetic Joint Infection (for use as Organ/Space SSI following HPRO and KPRO only)

Joint or bursa infections must meet at least one of the following criteria:

1. Two positive periprosthetic specimens (tissue or fluid) with at least one matching organism, identified by culture or non-culture based microbiologic testing method which is performed for purposes of clinical diagnosis and treatment (e.g., not Active Surveillance Culture/Testing (ASC/AST)).

2. A sinus tract communicating with the joint.

3. Having three of the following minor criteria:
   a. elevated serum C-reactive protein (CRP; >100 mg/L) and erythrocyte sedimentation rate (ESR; >30 mm/hr.)
   b. elevated synovial fluid white blood cell (WBC; >10,000 cells/μL) count OR ++ (or greater) change on leukocyte esterase test strip of synovial fluid
   c. elevated synovial fluid polymorphonuclear neutrophil percentage (PMN% >90%)
   d. positive histological analysis of periprosthetic tissue (>5 neutrophils (PMNs) per high power field)
   e. organisms identified from a single positive periprosthetic specimen (tissue or fluid) by culture or non-culture based microbiologic testing method which is performed for purposes of clinical diagnosis and treatment (e.g., not Active Surveillance Culture/Testing (ASC/AST)).
Case 9 – Rationale

This patient meets criteria for Organ/Space PJI criterion 1.
  – Both cultures were periprosthetic specimens.
  – MRSA was isolated from both cultures.

The two cultures do not have to be collected at the same time.

Since the infection was suspected at time of the 3/25 aspiration, the aspiration would not be considered an invasive manipulation.
What is the date of event for this SSI?

1. March 25
2. March 26
3. March 27
Does this patient have a BSI secondary to the PJI SSI?

1. YES
2. NO

Rationale: The (+) blood culture is matching and it occurred within the secondary BSI attribution period for an SSI.
Case 10

11/15 - A 58 year-old male with a history of Crohn’s disease is admitted for a palliative tumor debulking (COLO).

11/26 - Patient noted with abdominal pain and CT of the abdomen reveals a fluid collection in the LLQ of the intraabdominal space.

11/27 - Interventional Radiology performs CT-guided drainage of the fluid collection. 250 mL of purulent fluid is drained. No cultures were collected and no mention of abscess. MD initiates antibiotics and the patient is discharged.
Should this patient’s chart be reviewed to see if they meet criteria for an organ space SSI?

1. Yes
2. No
Case 10 Rationale

Must meet the following criteria:

Infection occurs within 30 or 90 days after the NHSN operative procedure (where day 1 = the procedure date) according to the list in Table 2

AND

infection involves any part of the body deeper than the fascial/muscle layers, that is opened or manipulated during the operative procedure

AND

patient has at least one of the following:

a. purulent drainage from a drain that is placed into the organ/space (e.g., closed suction drainage system, open drain, T-tube drain, CT guided drainage)

b. organisms are identified from an aseptically-obtained fluid or tissue in the organ/space 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)).

c. an abscess or other evidence of infection involving the organ/space that is detected on gross anatomical or histopathologic exam, or imaging test evidence suggestive of infection

AND

meets at least one criterion for a specific organ/space infection site listed in Table 3. These criteria are found in the Surveillance Definitions for Specific Types of Infections chapter 17.
Does this patient meet criteria for general Organ/Space SSI?

1. Yes
2. No
Does this patient meet criteria for a site-specific Organ/Space SSI infection?

1. Yes
2. No
Case 10 Rationale - IAB

Intraabdominal infections must meet at least one of the following criteria:

1. Patient has organism(s) identified from an abscess or from purulent material from intraabdominal space 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)).

2. Patient has at least one of the following:
   - abscess or other evidence of intraabdominal infection on gross anatomic or histopathologic exam
   - organism(s) identified from blood 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)). The organism(s) identified in the blood must contain at least one MBI organism.
Purulence

NHSN does not define purulent drainage as there is no standard, clinically agreed upon definition.

Generally, thick/viscous, creamy/opaque fluid discharge with or without blood seen at the site or documentation of pus/purulence by a medical professional would be accepted evidence of purulent drainage.

At this time NHSN does not use any gram stain results such as WBCs or Poly’s to define purulence for the SSI protocol.
Case 11

11/1 – 45 year-old female with a thalamic abscess goes to OR for CRAN. Abscess evacuated.

11/25 – Readmit with slight dehiscence noted at craniotomy incision site. No symptoms noted. Return to OR for irrigation and closure of dehisced wound (Not coded as an NHSN operative procedure). Cultures collected and negative. Does not meet criteria for SSI attributable to the CRAN at this time.

11/27 – Discharged.

11/29 – Admit to ED where purulence noted at incision site. An incisional culture is collected and results positive for Staph epidermidis.
Does the patient meet criteria for infection on 11/29?

1. Yes - SIP SSI attributable to 11/1 CRAN

2. Yes – SIP SSI attributable to 11/25 non-NHSN operative procedure

3. Does not meet criteria for SSI
Case 11- Rationale

Each trip to the OR for a procedure via the same site ends the surveillance period for prior NHSN procedure.

SSIs are always attributed to the most recent trip to the OR for an NHSN operative procedure.

You cannot apply SSI criteria to a non-NHSN operative procedure.
Non – NHSN Operative Procedures

Always determine the ICD-10 PCS or CPT codes assigned to a procedure to determine if the procedure qualifies for SSI surveillance.

You cannot apply SSI criteria to a non-NHSN operative procedure.
Completing the SSI Event Form (Numerator)
Reporting SSIs

Complete a Surgical Site Infection (SSI) form for each patient found to have an SSI using the definitions.

* Fields are required fields
SSI Form – Patient Demographics

Required fields are highlighted

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<thead>
<tr>
<th>Field</th>
<th>Required for Saving</th>
<th>Required for Completion</th>
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<td>Patient ID</td>
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<td>Secondary ID</td>
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<tr>
<td>Date of Birth</td>
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<tr>
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<td>Race (Specify):</td>
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<tr>
<td>Event Type: SSI</td>
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<td></td>
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<tr>
<td>Date of Event</td>
<td></td>
<td>ICD-10-PCS or CPT Procedure Code:</td>
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<tr>
<td>NHSN Procedure Code:</td>
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SSI Form –
Basic SSI Information

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<tr>
<th>Event Type: SSI</th>
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<tbody>
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<td>NHSN Procedure Code:</td>
<td>ICD-10-PCS or CPT Procedure Code:</td>
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<tr>
<td>Date of Procedure:</td>
<td>Outpatient Procedure: Yes  No</td>
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<tr>
<td>MDRO Infection Surveillance:</td>
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</table>

- Yes, this infection’s pathogen & location are in-plan for Infection Surveillance in the MDRO/CDI Module
- No, this infection’s pathogen & location are not in-plan for Infection Surveillance in the MDRO/CDI Module

| Date Admitted to Facility: | Location: |

Enter the date the patient was admitted to the hospital when the operation was performed (not the date of readmission) and the location where the patient was housed after leaving the OR / PACU.

Note: Location and ICD/CPT code fields are optional fields.
## SSI – Event Details

<table>
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<th>Event Details</th>
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<td><em>Specific Event:</em></td>
</tr>
<tr>
<td>☐ Superficial Incisional Primary (SIP)</td>
</tr>
<tr>
<td>☐ Superficial Incisional Secondary (SIS)</td>
</tr>
<tr>
<td><strong>Organi/Space (specify site):</strong> MED</td>
</tr>
<tr>
<td><em>Infection present at the time of surgery (PATOS):</em> ☐ Yes ☐ No</td>
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**Note:** PATOS is a field on the SSI Event Form Only.
**SSI – Event Details**

*Specify Criteria Used (check all that apply):*

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<thead>
<tr>
<th>Signs &amp; Symptoms</th>
<th>Laboratory</th>
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</thead>
<tbody>
<tr>
<td>Drainage or material†</td>
<td>Organism(s) identified</td>
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<tr>
<td>Pain or tenderness</td>
<td>Culture or non-culture based testing not performed</td>
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<tr>
<td>Swelling or inflammation</td>
<td>Organism(s) identified from blood specimen</td>
</tr>
<tr>
<td>Erythema or redness</td>
<td>Organism(s) identified from ≥ 2 periprosthetic specimens</td>
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<tr>
<td>Heat</td>
<td>Other positive laboratory tests†</td>
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<tr>
<td>Fever</td>
<td>Imaging test evidence of infection</td>
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<tr>
<td>Incision deliberately opened/drained</td>
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</tr>
<tr>
<td>Wound spontaneously dehisces</td>
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</tr>
<tr>
<td>Abscess</td>
<td></td>
</tr>
<tr>
<td>Other evidence of infection found on invasive procedure</td>
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<tr>
<td>gross anatomic exam, or histopathologic exam†</td>
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</tr>
<tr>
<td>Other signs &amp; symptoms†</td>
<td></td>
</tr>
</tbody>
</table>

†per specific site criteria

Select the specific elements of the criterion that were used to identify this infection.
SSI – Event Details

A  SSI was identified before the patient was discharged from the facility following the operation.

P  SSI was identified only as part of post-discharge surveillance, including ED visit without readmission. If readmitted, use RF or RO as appropriate.

RF SSI was identified due to patient readmission to the facility where the operation was performed.

RO SSI was identified due to patient admission to a facility other than where the operation was performed.

Detected: Required. Check the box to indicate when/how the SSI was identified.

*Detected: □ A (During admission) □ P (Post-discharge surveillance) □ RF (Readmission to facility where procedure performed) □ RO (Readmission to facility other than where procedure was performed)

*Secondary Bloodstream Infection: Yes No **Died: Yes No SSI Contributed to Death: Yes No

Discharge Date: *Pathogens Identified: Yes No *If Yes, specify on pages 2-3.

As a part of Confidentiality, the voluntarily provided information obtained in this surveillance system that would permit identification of any individual or institution is collected with a guarantee that it will be held in strict confidence, will be used only for the purposes stated, and will not otherwise be disclosed or released without the consent of the individual, or the institution in accordance with Sections 21, 22, 309(d) of the Public Health Service Act, USG 242b, 242b, and 309(d).
## SSI – Event Details

<table>
<thead>
<tr>
<th>Secondary Bloodstream Infection: Yes</th>
<th>No</th>
<th>Died: Yes</th>
<th>No</th>
<th>SSI Contributed to Death: Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discharge Date:</td>
<td></td>
<td>Pathogens Identified: Yes</td>
<td>No</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*SSI Contributed to Death: Required only if the patient died. If patient died, check Y if such evidence is available (e.g., death/discharge note, autopsy report, etc.), otherwise check N.*
Linking Procedures
Denominator for Procedure and SSI records must be LINKED so that the correct risk factor data are matched to the SSI for a given patient.
Linking Procedure and SSI Event

1. Enter the Denominator for Procedure record

2. Enter the SSI record

3. Link the two records
When SSI is selected from the Event Type field, the link button automatically appears on the screen and message indicates that the event is not linked. Click on the button. Don’t need to enter the procedure data.
Linking Procedure and SSI Event

A new screen appears listing all the operative procedures this patient has had.

Check the box next to the appropriate procedure, and click on the “Link/Unlink” button.
After linking an SSI to its corresponding procedure, the remainder of the SSI form must still be completed and the record saved for linking to occur.
After clicking SAVE...

All data are linked together
Alerts – Missing Procedure Event
Missing Procedure Alert

NHSN - National Healthcare Safety Network

Incomplete/Missing List

In the image, there is a table listing incomplete and missing procedures. The table includes columns for Month/Year, Procedures, Setting, and No Procedures Performed. Examples include:

- 06/2013: HPRO - Hip prosthesis, IN - Inpatient, No Procedures Performed
- 06/2013: Hyst - Abdominal hysterectomy, IN - Inpatient, No Procedures Performed
- 07/2013: FUSN - Spinal fusion, IN - Inpatient, No Procedures Performed
- 07/2013: HYST - Abdominal hysterectomy, IN - Inpatient, No Procedures Performed
- 08/2016: HPRO - Hip prosthesis, IN - Inpatient, No Procedures Performed

The table is part of a larger interface that allows for sorting and filtering of data.
Missing Procedure-Associated Events