

2023 COLO Procedure/SSI Medical Record Abstraction Tool Instructions

1. Patient and Medical Record Identifiers

Complete patient identifiers and demographics. Select all NHSN operative procedure categories performed during index COLO procedure. Document ICD-10-PCS and/or CPT Codes for index COLO procedure.

2. NHSN Operative Procedure Criteria

COLO procedure is included in the ICD-10-PCS and/or CPT NHSN operative procedure code mapping and is performed in an OR/equivalent where at least one (1) incision was made through skin/mucous membrane (including laparoscopic approach), or entry is through an existing incision (such as an incision that was left open during a prior operative procedure).

Notes:

- **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
- “OR equivalent” may include C-section room, interventional radiology room, or cardiac catheterization lab meeting FGI or AIA criteria. (See NHSN PSC Manual SSI Chapter 9 for details.)

3. Document COLO Procedure Risk-Adjustment Variables in Medical Record at Time of Procedure for Comparison to NHSN

- Closure Technique:
 - Primary Closure:
 - o The closure of the skin level during the original surgery, regardless of the presence of wires, wicks, drains, or other devices or objects extruding through the incision. This category includes surgeries where the skin is closed by some means. 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.
 - o **Note:** If a procedure has multiple incision/laparoscopic trocar sites and any of the incisions are closed primarily then the procedure technique is recorded as primary closed. (See NHSN PSC Manual SSI Chapter 9 for details.)
 - Non-primary Closure:
 - o The closure of the surgical wound in a way which leaves the skin level completely open following the surgery. For surgeries with non-primary closure, the deep tissue layers may be closed by some means (with the skin level left open), or the deep and superficial layers may both be left completely open. Wounds with non-primary closure may or may not be described as “packed” with gauze or other material, and may or may not be covered with plastic, “wound vacs,” or other synthetic devices or materials.
- Diabetes:
 - o The NHSN SSI surveillance definition of diabetes indicates that the patient has a diagnosis of diabetes requiring management with insulin or a non-insulin anti-diabetic agent. This includes:
 - o Patients with “insulin resistance” who are on management with anti-diabetic agents.
 - o Patients with gestational diabetes.
 - o Patients who are noncompliant with their diabetes medications.
 - o The ICD-10-CM diagnosis codes that reflect the diagnosis of diabetes are also acceptable for use to answer YES to the diabetes field question on the denominator for procedure entry if they are documented during the admission where the procedure is performed. These codes are found on the Surgical Site Infection (SSI) Events page section of the NHSN website under [“Operative Procedure Code Documents”](#).
 - o The NHSN definition of diabetes excludes patients with no diagnosis of diabetes. The definition also excludes patients who receive insulin for perioperative control of hyperglycemia but have no diagnosis of diabetes.
- ASA Physical Status (ASA Score):

- o *Assessment by the anesthesiologist of the patient's preoperative physical condition using the American Society of Anesthesiologists' (ASA) Physical Status Classification System. Patients are assigned an ASA score of 1-6 at time of surgery. Patients with an ASA score of 1-5 are eligible for NHSN SSI surveillance. Patients that are assigned an ASA score of 6 (a declared brain-dead patient whose organs are being removed for donor purposes) are **not** eligible for NHSN SSI surveillance.*
- General Anesthesia:
 - o *The administration of drugs or gases that enter the general circulation and affect the central nervous system to render the patient pain free, amnesic, unconscious, and often paralyzed with relaxed muscles. This does not include conscious sedation.*
- Scope:
 - o *An instrument used to reach and visualize the site of the operative procedure. In the context of an NHSN operative procedure, use of a scope involves creation of several small incisions to perform or assist in the performance of an operation rather than use of a traditional larger incision (specifically, open approach).*
 - o *If a procedure is coded as **open** and **scope**, then the procedure should be reported to NHSN as **Scope = NO**. The open designation is considered a higher risk procedure. For information related to how ICD-10-PCS and CPT codes can be helpful in answering the scope question see NHSN PSC Manual SSI Chapter 9 for details.*
- Emergency:
 - o *A procedure that is documented per the facility's protocol to be an Emergency or Urgent procedure.*
- Trauma:
 - o *Blunt or penetrating injury occurring prior to the start of the procedure. Note: Complex trauma cases may require multiple trips to the OR during the same admission to repair the initial trauma. In such cases, trauma = Yes.*
- Age:
 - o *Patient's age, in years, at time of COLO procedure*
- Weight:
 - o *The patient's most recent weight documented in the medical record in pounds (lbs) or kilograms (kg) prior to otherwise closest to the procedure.*
- Wound Class:
 - o *Wound Class is an assessment of the degree of contamination of a surgical wound at the time of the surgical procedure.*
 - o *Wound class should be assigned by a person involved in the surgical procedure (for example, surgeon, circulating nurse, etc.) based on the wound class schema that is adopted within each organization.*
 - o *For COLO, if Wound Class=C the procedure is not eligible for SSI surveillance*
 - o *The three wound classes available for COLO include:*
 - o **Clean-Contaminated (CC), Contaminated (CO), or Dirty or Infected (D)**
- Duration of operative procedure:
 - o *The interval in hours and minutes between the Procedure/Surgery Start Time and the Procedure/Surgery Finish Time, as defined by the Association of Anesthesia Clinical Directors (AACD).*
 - o *Procedure/Surgery start time (PST) is when the procedure is begun (for example, incision for a surgical procedure).*
 - o *Procedure/Surgery finish time (PF) is when all instruments and sponge counts are completed and verified, post-op x-rays in OR are done, all dressings and drains are secured, and physicians/surgeons have completed all procedure-related activities on the patient.*
 - o *If patient goes to OR again and another procedure is performed through the same incision or into the same surgical space within 24 hours of the original procedure finish time and during the same admission, count as only one procedure (report one Denominator for Procedure form for the original procedure) combining the durations for both procedures and using the higher of the wound class and ASA scores. Assign the surgical wound closure technique that applies when the patient leaves the OR from the first operative procedure (see NHSN PSC Manual SSI Chapter 9 for details – Denominator Reporting Instruction #7).*

4. Document Subsequent Surgery / Invasive Procedure During COLO SSI Surveillance Period.

Was a subsequent surgery performed through the same incision or into the same surgical space beyond 24 hours after the original procedure finish time but within the 30-day SSI surveillance period following the original procedure, OR was the surgical site otherwise entered or manipulated invasively (see NHSN PSC Manual SSI Chapter 9 for details – SSI Event Reporting Instruction #10) at any time during the 30-day SSI surveillance period [Date of procedure=Day 1]?

Table 1. SSI Definition Criteria

Using the NHSN SSI Definitions criteria below, determine which depth of SSI criteria were met, if any, and the date of SSI event. For an SSI, the DOE is the date when the first element used to meet the SSI infection criterion occurs for the first time during the SSI surveillance period. The date of event must fall within the SSI surveillance period to meet SSI criteria.

Note: Available criteria for SSI may progress (for example, superficial incisional to deep incisional); review the entire SSI event and record the **DEEPEST** level of SSI during the SSI surveillance period. Enter the outcome in Section 5a and complete the rest of the section as appropriate.

NHSN SSI Definitions: Use checklist to establish elements met:

| Superficial Incisional COLO SSI | Deep incisional COLO SSI | Organ/Space COLO SSI |
|--|--|---|
| <input type="checkbox"/> Date of event occurs within 30 days following the COLO procedure (where day 1 = the procedure date) | <input type="checkbox"/> Date of event occurs within 30 days following the COLO procedure (where day 1 = the procedure date) | <input type="checkbox"/> Date of event occurs within 30 days following the COLO procedure (where day 1 = the procedure date) |
| AND | AND | AND |
| <input type="checkbox"/> Involves only skin and/or subcutaneous tissue of the incision | <input type="checkbox"/> Involves deep soft tissues (for example, fascia and/or muscle layers) of the incision | <input type="checkbox"/> Involves any part of the body deeper than the fascial/muscle layers that is opened or manipulated during the operative procedure |
| AND | AND | AND |
| <input type="checkbox"/> At least one of the boxes: | <input type="checkbox"/> At least one of the boxes: | <input type="checkbox"/> At least one of the boxes: |
| <input checked="" type="radio"/> purulent drainage from superficial incision | <input checked="" type="radio"/> purulent drainage from deep incision | <input checked="" type="radio"/> purulent drainage from a drain placed into the organ/space (for example, closed suction drainage system, open drain, T-tube drain, CT guided drainage) |
| <input checked="" type="radio"/> organism(s) 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 | | <input checked="" type="radio"/> organism(s) are identified from 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 |

| | | |
|--|---|--|
| <ul style="list-style-type: none"> ○ surgeon, physician* or physician designee deliberately opened superficial incision <p>AND</p> <ul style="list-style-type: none"> ○ culture or non-culture based testing is <u>not</u> performed <p>AND</p> <ul style="list-style-type: none"> ○ patient has at least one of the following signs or symptoms: <ul style="list-style-type: none"> ○ localized pain or tenderness ○ localized swelling ○ erythema ○ heat | <ul style="list-style-type: none"> ○ a deep incision that is deliberately opened or aspirated by a surgeon, physician* or physician designee or spontaneously dehisces <p>AND</p> <ul style="list-style-type: none"> ○ organism(s) identified from the deep soft tissues of the incision by a culture or non-culture based microbiologic testing method which is performed for purposes of clinical diagnosis or treatment <p>OR</p> <ul style="list-style-type: none"> ○ culture or non-culture based microbiologic testing method is <u>not</u> performed. A culture or non-culture based test from the deep soft tissues of the incision that has a negative finding does not meet this criterion. <p>AND</p> <ul style="list-style-type: none"> ○ patient has at least one of the following: <ul style="list-style-type: none"> ○ fever (>38.0°C) ○ localized pain or tenderness | |
| <ul style="list-style-type: none"> ○ diagnosis of superficial incisional SSI by a physician* or physician designee | <ul style="list-style-type: none"> ○ abscess or other evidence of infection involving the deep incision detected on (at least one of) <ul style="list-style-type: none"> ○ Gross anatomical exam*** ○ Histopathologic examination ○ Imaging test | <ul style="list-style-type: none"> ○ abscess or other evidence of infection involving the organ/space detected on (at least one of) <ul style="list-style-type: none"> ○ Gross anatomical exam*** ○ Histopathologic examination ○ Imaging test evidence definitive or equivocal for infection |
| | | <p>AND</p> <p><input type="checkbox"/> Meets at least one criterion for a specific organ/space infection site; specifically for COLO: IAB, GIT, USI, or OREP.</p> <p>Document using NHSN Checklist.</p> |
| <p>*Note: The term physician for the purpose of application of the NHSN SSI criteria may be interpreted to mean a surgeon, infectious disease physician, emergency physician, or other physician on the case, or physician's designee (nurse practitioner or physician's assistant).</p> <p>*** Definition of terms are provided in Key Terms (NHSN General Key Terms Chapter 16) and Frequently Asked Questions, which can be accessed at https://www.cdc.gov/nhsn/pdfs/pscmanual/16psckeyterms_current.pdf and https://www.cdc.gov/nhsn/faqs/faq-index.html</p> | | |
| Reporting Notes: | | |
| <p>➤ Do not report stitch abscess, localized stab wound, pin site infection, or cellulitis alone (see NHSN PSC Manual SSI Chapter 9 for full details, Table 1).</p> | <p>➤ The type of SSI (SI, DI, or O/S) reported and the date of event assigned must reflect the deepest tissue level where SSI criteria are met during the SSI surveillance period.</p> | <p>➤ If a patient has evidence of an infection during the index operative procedure, subsequent infection meeting NHSN SSI criteria is considered an SSI for NHSN reporting purposes. For guidance on PATOS determination, see PATOS reporting instruction below [SSI Event Reporting Instruction #3].</p> |

5. Outcome of 2023 COLO SSI audit

5(A): Select **Outcome** (a), (b), or (c); if (b) is selected, define depth, date of SSI event, and determine which point during the surveillance period the SSI was identified.

5(B): **Infection present at time of surgery (PATOS):** PATOS is a YES/NO field on the SSI event form. PATOS denotes that there is evidence of infection visualized (seen) during the surgical procedure to which the subsequent SSI is attributed. The evidence of infection must be noted intraoperatively and documented within the narrative portion of the operative note or report of surgery to be eligible for PATOS (pre/post op diagnoses, 'indication for surgery', and other headings routinely included in an operative note are not eligible with answering PATOS).

6. Attribution of SSI to the Procedure

Note to validator: Each NHSN operative procedure sets a surveillance period. If a patient returns to the OR for an NHSN operative procedure and the same surgical site is entered, the surveillance period for the prior NHSN operative procedure ends and a new SSI surveillance period begins.

If within the surveillance period following an NHSN operative procedure a non-NHSN operative procedure is performed, and all three tissue levels are entered, the SSI surveillance period for the NHSN operative procedure ends. If all three tissue levels are not entered, the SSI surveillance period continues for the tissue levels not entered during the non-NHSN operative procedure.

For details on SSI following invasive manipulation or accessions of the operative site, refer to NHSN PSC Manual SSI Event Chapter 9 (SSI Event Reporting Instruction #10).

In the context of multiple concurrent NHSN Operative Procedures through the same incision/laparoscopic sites, the SSI is attributed to the procedure that is thought to be associated with the infection and if procedure attribution is not clear, as is often the case when the infection is an incisional SSI, then NHSN guidance is to refer to SSI Event Reporting Instruction #9 and use the NHSN Principal Operative Procedure Category Selection List (Table 4*) to select the operative procedure to which the SSI should be attributed. For organ/space SSIs, the specific location of infection should be examined for attribution. If the facility has documentation to support SSI attribution should go to a specific procedure (for example, an abscess is completely localized to the site of the liver procedure following COLO and BILI), then the facility can make the determination to assign the SSI event to the procedure they feel indicated. Otherwise, if the documentation is not clear, then NHSN guidance is to refer SSI Event Reporting Instruction #9. (*See Table 4 below)

| *NHSN Principal Operative Procedure Category Selection List, from NHSN SSI Chapter 9, Table 4. | | |
|--|----------|---|
| Priority | Category | Abdominal Operative Procedures |
| 1 | LTP | Liver transplant |
| 2 | COLO | Colon surgery |
| 3 | BILI | Bile duct, liver, or pancreatic surgery |
| 4 | SB | Small bowel surgery |
| 5 | REC | Rectal surgery |
| 6 | KTP | Kidney transplant |
| 7 | GAST | Gastric surgery |
| 8 | AAA | Abdominal aortic aneurysm repair |
| 9 | HYST | Abdominal hysterectomy |
| 10 | CSEC | Cesarean section |
| 11 | XLAP | Laparotomy |
| 12 | APPY | Appendix surgery |
| 13 | HER | Herniorrhaphy |
| 14 | NEPH | Kidney surgery |
| 15 | VHYS | Vaginal hysterectomy |
| 16 | SPLE | Spleen surgery |

| | | |
|----|------|----------------------|
| 17 | CHOL | Gall bladder surgery |
| 18 | OVRY | Ovarian surgery |

9. Classify the outcome results as Correctly Classified, Over-reported HAI or Underreported HAI. Select the reason from the table the SSI was classified incorrectly. Provide details as necessary for clarification.

Examples of reasons for misreporting:

Symptoms were not documented or recognized in the procedure surveillance period
 Organ/space site-specific criteria were not met or applied inappropriately
 SSI was attributed to the wrong procedure
 Incorrect tissue level was assigned to the SSI event