2022 COLO Procedure/SSI Medical Record Abstraction Tool Instructions

1. Patient and Medical Record Identifiers

Complete patient identifiers and demographics. Describe in words all procedures performed during index COLO procedure (for example, colon resection, colostomy formation, appendectomy). 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:
    - *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.*
    - ***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:
    - *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:
  - *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:*
    - *Patients with "insulin resistance" who are on management with anti-diabetic agents.*
    - *Patients with gestational diabetes.*
    - *Patients who are noncompliant with their diabetes medications.*
  - *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". 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):

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- *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*:*
  - *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:
  - *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). 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:
  - *A procedure that is documented per the facility's protocol to be an Emergency or Urgent procedure.*
- Trauma:
  - *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.*
- Weight:
  - *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:
  - *Wound Class is an assessment of the degree of contamination of a surgical wound at the time of the surgical procedure.*
  - *Wound class should is 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.*
  - *For COLO, if Wound Class=C the procedure is not eligible for SSI surveillance*
  - *The three wound classes available for COLO include:*
    - ***Clean-Contaminated (CC)**, **Contaminated (CO)**, or **Dirty or Infected (D)***
- Duration of operative procedure:
  - *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).*
    - *Procedure/Surgery start time (PST) is when the procedure is begun (for example, incision for a surgical procedure).*
    - *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.*
  - *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 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).*

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 <u>beyond 24 hours after the original procedure finish time</u> 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) at any time during the 30-day SSI surveillance period [Date of procedure=Day 1]?

5. **Additional / Post-Discharge Infection Surveillance**

Was there any documentation of surgical infection within the SSI surveillance period, including while hospitalized or post-discharge, for example, communication from patient or other hospital, visits to the ED or clinic? (***NOTE:*** *Reporting an SSI to the surgical facility IP is required when SSI is detected at a different facility*).

6. Document SSI Definition Criteria

- *Using the NHSN SSI Definitions criteria (see following), document which depth of SSI criteria were met and the date of SSI event.*
  Date of event (DOE)/infection date: 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. Use the open space in 5 above and the checklist that follows to document information for decision-making. Enter outcome of audit in part 7A, and for SSIs, continue to part 7B for attribution assignment.*

NHSN SSI Definitions: Use checklist to establish elements met:

Superficial Incisional COLO SSI	**Deep incisional COLO SSI**	**Organ/Space COLO SSI**
☐ Date of event occurs within 30 days after the COLO procedure (where day 1 = the procedure date)	☐ Date of event occurs within 30 days after the COLO procedure (where day 1 = the procedure date)	☐ Date of event occurs within 30 days after the COLO procedure (where day 1 = the procedure date)
AND	**AND**	**AND**
☐ Involves only skin and/or subcutaneous tissue of the incision	☐ Involves deep soft tissues (for example, fascia and/or muscle layers) of the incision	☐ Involves any part of the body deeper than the fascial/muscle layers that is opened or manipulated during the operative procedure
AND	**AND**	**AND**
☐ At least one of the boxes:	☐ At least one of the boxes:	☐ At least one of the boxes:
○ purulent drainage from superficial incision	○ purulent drainage from deep incision	○ purulent drainage from a drain placed into the organ/space (for example, closed suction drainage system, open drain, T-tube drain, CT guided drainage)
○ 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		○ 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
○ surgeon, physician* or physician designee deliberately opened superficial incision **AND** ○ culture or non-culture based testing is <u>not</u> performed **AND** ○ patient has at least one of the following signs or symptoms: ○ localized pain or tenderness ○ localized swelling ○ erythema ○ heat	○ a deep incision that spontaneously dehisces, or is deliberately opened or aspirated by surgeon, physician*, or physician designee **AND** ○ organism(s) identified from the deep soft tissues of the incision by a culture or non-culture based microbiologic testing method which is performed for purposes of clinical diagnosis or treatment **OR** ○ 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.	

	AND O patient has at least one of the following: ○ fever (>38.0°C) ○ localized pain or tenderness	
O diagnosis of superficial incisional SSI by a physician* or physician designee	O abscess or other evidence of infection involving the deep incision that is found on (at least one of) ○ Gross anatomical exam*** ○ Histopathologic examination ○ Imaging test	O abscess or other evidence of infection involving the organ/space that is found on (at least one of) ○ Gross anatomical exam*** ○ Histopathologic examination ○ Imaging test evidence suggestive of infection
		AND ☐ Meets at least one criterion for a specific organ/space infection site; specifically for COLO: IAB, GIT, USI, or OREP. **Document using NHSN Checklist.**

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).*
**** 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*

Reporting Notes:

➢ *Do not report stitch abscess, localized stab wound, pin site infection, or cellulitis alone (see NHSN PSC Manual SSI Chapter 9 for full details).*	➢ *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.*	➢ *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. (See PATOS reporting instruction below).*

7. Outcome of 2021 COLO SSI audit

7(A): Select (a), (b), or (c); if (b) is selected, define depth and date of SSI event.

7(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).

8. Attribution of SSI to the Procedure

Note to validator: *In the context of serial invasive manipulations (including surgery) affecting the same operative site, an infection is attributed to the most recent intervention (if the most recent intervention is an NHSN operative procedure, then the infection would be deemed an SSI and attributed to that procedure).*

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
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
Post-procedure surveillance did not include review of readmission diagnosis