

HIGH DESERT HEALTH SYSTEM AMBULATORY SURGICAL CENTER

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| SUBJECT: XIII-127 POST OPERATIVE SURGICAL SITE INFECTION SURVEILLANCE | POLICY #: 1105 |
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| DATE APPROVED: 09/06/2018 | |

PURPOSE: Surveillance of Post-operative Surgical Site Infections (SSI) is performed to identify and determine the incidence and rate of SSI occurrence in patients in order to analyze for trends and/or prevention potential.

POLICY: Post-operative SSI Surveillance will be performed for all surgeries using the Centers for Disease Control and Prevention (CDC) National Health and Safety Network (NHSN) SSI criteria and definitions. Reports will be submitted quarterly to the ASC Medical Advisory Committee (MAC) for analysis and review.

I. SCOPE OF SURVEILLANCE:

- A. The Infection Preventionist (IP RN), or designee, contracted with the ASC is to conduct surveillance of targeted surgeries listed by the ASC MAC and for other SSI reported as suspected by healthcare staff or identified by other active surveillance of surgeries (see IV. & V.)
- B. Surgical procedures to be included are those, which have taken place in the ASC, where at least one incision (including laparoscopic approach) is made through the skin or mucous membrane, or reoperation via an incision that was left open during a prior operative procedure.
- C. All patients having any of the procedures meeting criteria in "B." above are monitored for signs of SSI (see IV. below).
- D. SSI surveillance is conducted for 30 and 90 days post-operatively as indicated per the CDC's NHSN criteria.
- E. Reporting Period: The date of the procedure indicates the reporting period to which the SSI will be attributed for categorization and reporting purposes.
- F. Date of event: An SSI date of event is the date when the last element used to meet the SSI infection criterion occurred.

II. SURGICAL WOUND CLASSIFICATIONS:

Surgical wounds are classified at the completion of the operation by a member of the surgical team as Clean, Clean Contaminated, Contaminated or Dirty, per the ASC Wound Classification Policy and CDC NHSN definitions and criteria.

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III. PATIENT INSTRUCTIONS

Patients receive instruction at time of discharge from ASC staff regarding signs of SSI and of the need to notify the ASC or HDHS health care teams if symptoms occur.

IV. POST DISCHARGE SSI SURVEILLANCE

- A. ASC Nursing staff contact patients post discharge to determine whether any symptoms of SSI have been observed. Patients are contacted within 24 to 72 hours and, if symptomatic for any adverse post-operative symptoms, they will be contacted a second time within 7 days. Patients will be requested to seek medical attention if SSI symptoms are present. The operating physician and IP RN or designee will be notified of any suspected SSI.
- B. Patients will be evaluated for evidence of SSI by providers at the time of their post-operative clinic visit(s). See Table 1.
- C. Other nursing or medical ancillary staff who are aware of a suspect SSI diagnosis in a patient are to notify the IP RN or designee of the suspected finding.
- D. A Post-Operative Wound Infection Report forms is requested to be completed by providers or nursing staff for any SSI identified post operatively. The form is to be returned to the IP RN Office (see Table 2) by fax or mail. A suspect SSI report may also be made by verbal or phone report to the IP RN or designee.

V. COLLECTION OF DATA BY INFECTION PREVENTIONIST FOR SSI SURVEILLANCE

- A. Methods utilized to collect data to identify patients with SSIs include review of the following:
 1. Laboratory report copies of Culture and Sensitivity reports.
 2. Phone, verbal or written notices from Physicians\Nurses\Medical ancillary staff of patients with diagnosed\suspected infections.
 3. Post-Operative Wound Infection Report forms completed for SSI identified by Providers, or nurses or are forwarded to the IP RN or desginee.
 4. Review of ASC and Ambulatory Care medical records of patients suspected or diagnosed with an SSI infection for consideration and inclusion in the statistical report.
 5. ASC Sterile Processing records.
 6. OR environmental care records (cleaning logs, humidity logs, etc.).
 7. Other environmental events within the ASC (water intrusion, etc.)
- B. Data collection will be retrospective and concurrent.

VI. DEFINITION OF SURGICAL SITE INFECTION:

The CDC NHSN Surgical Site Infection Criteria is used for surveillance of patients as follows:

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A. Surgical Site Infection (SSI):

Infection occurs within 30 days or 90 days after the operation, per NHSN criteria.

B. SI - Superficial Incisional SSI:

Infection occurs within 30 days after operative procedure,
and
involves only skin and subcutaneous tissue of the incision,
and
patient has at least one of the following:

1. Purulent drainage from the superficial incision.
2. Organisms isolated from an aseptically-obtained culture of fluid or tissue from the superficial incision.
3. Superficial incision that is deliberately opened by a surgeon, attending physician** or other designee and is culture positive or not cultured *and* patient has at least one of the following signs or symptoms: pain or tenderness; localized swelling; redness; or heat. A culture negative finding does not meet this criterion.
4. Diagnosis of a superficial incisional SSI by the surgeon or attending physician or designee.

The following do not qualify as criteria for meeting the NHSN definition of superficial SSI:

1. A stitch abscess alone (minimal inflammation and discharge confirmed to the points of suture penetration)
2. A localized stab wound or pin site infection. It would be considered either a skin or soft tissue infection, depending on its depth
3. Diagnosis of "cellulitis", by itself, does not meet criterion d for superficial incisional SSI.
4. Circumcision

C. DI - Deep Incisional SSI:

Infection occurs within 30 or 90 days after the NHSN operative procedure (where day 1 = the procedure date)

and

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

and

patient has at least one of the following:

1. Purulent drainage from the deep incision.
2. A deep incision that spontaneously dehisces or is deliberately opened by a surgeon, attending physician or other designee and is culture-positive or not cultured
and
patient has at least one of the following signs or symptoms: fever (>38°C); localized pain or tenderness. A culture-negative finding does not meet this criterion.

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3. An abscess or other evidence of infection involving the deep incision that is detected on direct examination, during invasive procedure, or by histopathology examination or imaging test.

D. O/S- Organ/Space SSI:

Infection occurs within 30 or 90 days after the NHSN operative procedure (where day 1 =the procedure date) according to the NHSN criteria.

and

infection involves any part of the body, excluding the skin incision, fascia, or muscle layers, that is opened or manipulated during the operative procedure

and

patient has at least one of the following:

1. Purulent drainage from a drain that is placed into the organ/space.
2. Organisms isolated from an aseptically-obtained culture of fluid or tissue in the organ/space.
3. An abscess or other evidence of infection involving the organ/space that is detected on direct examination, during invasive procedure, or by histopathologic examination or imaging test
and
meets at least one criterion for a specific organ/space infection site listed in NHSN criteria for Specific Sites of an Organ/Space SSI.

E. Multiple Tissue Levels:

The type of SSI (superficial incisional, deep incisional, or organ/space) reported should reflect the deepest tissue layer involved in the infection

F. Attributing SSI when several are performed on different dates:

If a patient has several procedures performed on different dates prior to an infection, report the operative procedure code of the operation that was performed most closely in time prior to the infection date, unless there is evidence that the infection was associated with a different operation.

VII. SSI LINE LIST/LOG

The IP RN will submit to the ASC MAC a line list/log of all SSI identified. See attached sample log below (Table 3).

VIII. ANALYSIS OF THE DATA

- A. IP RN will analyze data and provide recommendations of all SSI identified.
- B. Infections identified in patients will be included in a monthly/quarterly SSI Infection line listing to be presented to the ASC MAC quarterly (Tables 3 & 4).
 1. Post-Op SSI Rate =
$$\frac{\# \text{ Post- Op SSI} \times 100}{\# \text{ Surgical Procedures}}$$
 2. Rate per Wound Classification =
$$\frac{\# \text{ Post-Op SSI/wound class} \times 100}{\# \text{ Total Surgeries in wound class}}$$

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- C. Monthly line lists and quarterly and annual reports are to be analyzed in the ASC MAC for any trends, sentinel events, possible outbreaks, etc. Comments, recommendations and actions are to be documented in the committee minutes. Data is analyzed and compared to previous quarters/years as indicated.
- D. Targeted Surveillance and will be made per determinations of the ASC MAC.

REFERENCES:

Centers for Disease Control and Prevention National Health and Safety Network, Surgical Site Infection Surveillance Criteria, January 2014.

Culver DH, Horan TC, Gaynes RP, et al, Surgical wound infection rates by wound class, operative procedure, and patient risk index: National Nosocomial Infectious Surveillance System. Am J Med 1991; 91 (3B): 152S 157s

ATTACHMENTS:

- Table 1A: Assessment for Post Op Surgical Site Infection
- Table 1B: Algorithm outlining work flow for Assessment for Post Op Surgical Site Infections
- Table 2: Post-Operative Wound Infection Report
- Table 3: Surgical Site Infection (SSI) Surveillance Report Line Listing/Log
- Table 4: Post-Operative Surgical Wound Infection Rates

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| Original Date: 07/01/2003 |
| Reviewed: 09/06/2018 |
| Next Review Date: 06/06/2021 |
| Previous Review Dates: 03/31/09; 07/05/14; 11/21/17; 08/20/18 |
| Previous Revise Dates: 04/08/09; 07/07/14; 08/27/18 |