

Surgical Site Infection (SSI) Case Study

Case 1:

- 1/8 40-year-old female undergoes an abdominal hysterectomy (HYST)
- 1/15 patient returns with lower aspect of incision with “thick yellow drainage”. Culture was performed and negative. Antibiotic was given at the time.

Questions:

1. Does this patient have an SSI?
 - a. Yes – If yes, what type?
 - b. No – If no, why?
2. How long would you monitor this this patient for a deep or organ space SSI?
 - a. 30 days
 - b. 60 days
 - c. 90 days

Case 1 Part 2:

- 2/5 patient returns with significant abdominal pain and a CT of the abdomen/pelvis is performed and indicates pelvic fluid collection.
- 2/6 Patient taken to VIR for drainage of the fluid collection and 5ml of purulent drainage is aspirated and sent for culture. Culture results with E.coli.

Questions:

1. Does this patient have an SSI?
 - a. No, still in the RIT for the previous SSI on 1/15
 - b. Yes, Organ Space SSI
 - c. Yes, Deep Incision SSI
2. If Organ Space, which Specific Type of Infection definition is met?
 - a. IAB
 - b. GI
 - c. OREP
3. If Yes, what is the DOE?
 - a. 1/15
 - b. 2/5

Case 2:

- 12/20 - 30yr old male admitted following MVA, CT scan showed moderate hemoperitoneum.
 - Shortly after admission the patient became hemodynamically unstable.
 - Patient was rushed to the OR where the following procedures were performed:
 - Splenectomy (SPLE),
 - repair liver laceration (BILI),
 - colon resection with primary anastomosis (COLO),
 - drainage of abdominal wall hematoma
 - Operative note: upon opening the fascia, a large abdominal wall hematoma was encountered. The peritoneum was entered, and we encountered a large amount of blood and fecal spillage. Drains were placed in the right and left upper quadrants through separate stab wounds prior to completion of the case. The midline fascia was closed with running suture and the skin was closed with staples.
- 12/30 – Patient discharged home.

Question:

1. What would you assign PATOS as?
 - a. PATOS = Yes
 - b. PATOS = No

Case 2 Part 2:

- 1/5- Patient admitted to a different acute care hospital with abdominal pain and distension. The patient is nauseous, diaphoretic, febrile (T=38.3°C), and hypotensive on arrival.
- A CT of the abdomen/pelvis reports multiple fluid collections throughout the abdomen, which are suspicious for early abscess formation.
- Patient taken to the OR for a re-exploration of the abdomen under general anesthesia. Procedures performed:
 - exploratory laparotomy (XLAP)
 - colon re-anastomosis (COLO)
 - abdominal washout (XLAP)
 - drain placement.
- Operative Note: The abdomen was entered through the prior midline incision. Upon entering the abdominal cavity, a large amount of murky fluid consistent with peritonitis was encountered. The abdominal fluid was aspirated and sent for culture.
- Based on the details of the procedure, the ICD-10-PCS codes map as an NSHN COLO procedure.
- The abdominal fluid culture resulted positive for *E. coli* and *E. faecium*.

Questions:

1. What SSI criteria would be most appropriate to apply?
 - a. Not an SSI
 - b. Organ/space SSI – IAB
 - c. Organ/space SSI – OREP
 - d. Deep incisional SSI
2. Which procedure is the SSI attributed to?
 - a. 12/20 COLO
 - b. 12/20 BILI
 - c. 12/20 SPLE
 - d. 1/5 COLO
3. Which hospital would report the SSI to NHSN, and what designation would be selected in the “Detected” field on the SSI Event form?
 - a. Second hospital, A (during admission)
 - b. First hospital, P (post-discharge surveillance)
 - c. First hospital, RO (readmission to facility other than where procedure was performed)
 - d. Second hospital, RF (readmission to facility where procedure performed)