Definitions of Surgical Site Infections - Surveillance

Superficial SSI (Incisional)

A superficial SSI must meet the following criterion:

1. Infection occurs within 30 days after the operative procedure;
2. And involves only skin and subcutaneous tissue of the incision;
3. And patient has at least one of the following:
   - Purulent discharge from the superficial incision.
   - Organisms isolated from an aseptically obtained culture of fluid or tissue from the superficial incision.
   - At least one of the following signs or symptoms of infection: pain or tenderness, localised swelling, redness, or heat and superficial incision is deliberately opened by surgeon, unless the incision is culture negative.
   - Diagnosis of superficial incisional SSI by surgeon or trained healthcare worker.

The following are not reported as superficial incisional SSI:

- Stitch abscess (minimal inflammation and discharge confined to the points of suture penetration).
- Infected burn wound.
- Incisional SSI that extends into the fascial and muscle layers (deep incisional SSI).
Definitions of Surgical Site Infections - Surveillance

Deep SSI (Incisional)

A deep incisional SSI must meet the following criterion:

1. Infection occurs within 30 days after the operative procedure if no implant is left in place or within 90 days if implant is in place and the infection appears to be related to the operative procedure;

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

3. And patient has at least one of the following:
   - Purulent discharge from the deep incision but not from the organ/space component of a surgical site.
   - A deep incision spontaneously dehisces or is deliberately opened by a surgeon when the patient has at least one of the following signs or symptoms: fever (>38°C) or localised pain or tenderness, unless the incision is culture negative.
   - An abscess or other evidence of infection involving the deep incision is found on direct examination, during re-operation, or by histopathological or radiological examination.
   - Diagnosis of a deep incisional SSI by surgeon or trained healthcare worker.

Classify infection that involves both superficial and deep incision sites as deep incisional SSI.
Definitions of Surgical Site Infections - Surveillance

Organ/Space SSI:
An organ/space SSI involves any part of the body, excluding the skin incision, fascia, or muscle layers that is opened or manipulated during the operative procedure. Specific sites are assigned to organ/space SSI to further identify the location of the infection. An example is an appendicectomy with subsequent diaphragmatic abscess, which would be reported as an organ/space SSI at the intra-abdominal specific site.

An organ/space SSI must meet the following criterion:
1. Infection occurs within 30 days after the operative procedure if no implant is left in place or within 90 days if implant is in place and the infection appears to be related to the operative procedure.
2. 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.
3. And at least one of the following:
   • Purulent discharge from a drain that is placed through a stab wound into the organ/space.
   • Organisms isolated from an aseptically obtained culture of fluid or tissue in the organ/space.
   • An abscess or other evidence of infection involving the organ/space that is found on direct examination, during re-operation, or by histopathological or radiological examination.
   • Diagnosis of an organ/space SSI by surgeon or trained healthcare worker.

Occasionally an organ/space infection drains through the incision. Such an infection generally does not involve re-operation and is considered a complication of the incision. Therefore, it is classified as a deep incisional SSI.
Classification of Surgical Site Infection (SSI) Surveillance

Skin

Superficial Incisional SSI

Subcutaneous Tissue

Deep Incisional SSI

Deep Soft Tissue (fascia and muscle)

Organ/Space SSI

Organ/Space specific infections:
- Arterial or venous
- Breast abscess/Mastitis
- Endocarditis
- Intra-abdominal
- Intracranial/brain abscess
- Joint or bursa
- Mediastinitis
- Meningitis/Ventriculitis
- Myocarditis/Pericarditis
- Osteomyelitis
- Lower respiratory tract
- Urinary tract
- Reproductive tract
- Upper respiratory tract/Pharyngitis
- Vaginal cuff

Incisional SSI

Superficial Incisional SSI

Deep Incisional SSI

Organ/Space SSI