

Case definitions of Surgical Site Infections (SSIs) in the PREZIES Surveillance

Superficial Incisional SSI

Infection occurs within 30 days after surgery and involves only skin or subcutaneous tissue of the incision, and at least one of the following:

1. Purulent drainage from the superficial incision
2. At least one of the following signs or symptoms: pain or tenderness, localized swelling, redness or heat, AND
Microorganisms are isolated from an aseptically obtained culture of fluid or tissue from the superficial incision.
3. At least one of the following signs or symptoms: pain or tenderness, localized swelling, redness or heat, AND
The superficial incision is deliberately opened by the surgeon
AND
Microorganisms are isolated from an aseptically obtained culture from the superficial incision or no culture is taken.

Deep Incisional SSI

Infection occurs within 30 days after surgery if no implant is left in place, or within 90 days¹ if an implant is in place and the infection is related to the surgery. Infection involves deep soft tissues (e.g. fascial and muscle layers) of the incision and at least one of the following:

1. Purulent drainage from the deep incision, excluding organ-space component of surgical site²
2. An abscess or other evidence of infection involving the deep soft tissues is found on direct examination, during reoperation, or by histopathological or radiological examination
3. At least one of the following signs or symptoms: pain or tenderness, localized swelling, redness or heat, or fever (>38°C)
AND
A deep incision that spontaneously dehisces or is deliberately opened by a surgeon
AND
Microorganisms are isolated from an aseptically obtained culture from the deep soft tissues or no culture is taken³

Organ-Space SSI⁴

Infection occurs within 30 days after surgery if no implant is left in place or within 90 days¹ if an implant is in place. Infection involves any part of the anatomy (e.g. organs or organ spaces) other than the incision that was opened or manipulated during an operation and at least one of the following:

1. Purulent drainage from a drain that is placed through the stab wound into the organ/space
2. An abscess or other evidence of infection involving organ-space, which is found on direct examination, during reoperation, or by histopathological or radiological examination
3. Microorganisms are isolated from an aseptically obtained culture from the organ/space³

Notes:

¹ For the SSI incidence surveillance: refer to the PREZIES-protocol for specification of follow-up period per operating procedure

² An infection that involves both superficial is reported as deep incision sites as a deep incisional SSI.

³ Criterion 3 not applicable for colorectal surgery followed by anastomotic leakage or perforation.

⁴ In the PREZIES surveillance Organ-space and deep SSIs are grouped under the umbrella term 'deep SSI'.