

## APPENDIX 1 Definition of Surgical Site Infections (SSI)

The following definitions are that used by PHE in their Surgical Site Infection Surveillance Service and based on the definitions established by the US Centres for Disease Control and Prevention (CDC)<sup>1,2</sup>.

Superficial incisional infection (involving only the skin or subcutaneous tissue of the incision) occurring within 30 days of surgery with the presence of at least one of the following:

1. purulent drainage, with or without laboratory confirmation
2. organisms isolated from the culture of aseptically obtained fluid or tissue, or from a swab and pus cells are present
3. at least two of the following symptoms and signs
  - pain or tenderness
  - localised swelling
  - redness
  - heat

**and** the superficial incision is opened by a surgeon to manage the infection, unless the incision is culture-negative **or** the clinician diagnose a superficial incisional infection

Deep incisional procedural-related infection (involving the fascial and muscle layers) occurring within 30 days of surgery if no implant is in place, or within 1 year if implant is in place with the presence of at least one of the following:

1. purulent drainage from the deep incision, but not from the organ/space component of the surgical site
2. organisms isolated from the culture of aseptically obtained fluid or tissue, or from a swab and pus cells are present
3. a deep incision spontaneously dehisces or is deliberately opened by a surgeon when the patient has a fever (>38°C) or localised pain/tenderness (unless site is culture-negative)
4. an abscess or other evidence of infection involving the deep incision is found by direct examination, during re-operation, or by histopathological or radiological examination
5. the clinician diagnose a deep incisional surgical site infection

Organ or space infection (involving any part of the anatomy i.e. organ or space, other than the incision, which was opened or manipulated during the operation) occurring within 30 days of surgery if no implant is in place, or within 1 year if implant is in place with the presence of at least one of the following:

1. purulent drainage from a drain that is placed through a stab wound into the organ/space
  2. organisms isolated from the culture of aseptically obtained fluid or tissue, or from a swab and pus cells are present
  3. an abscess or other evidence of infection involving the organ/space is found by direct examination, during re-operation, or by histopathological or radiological examination
  4. the clinician diagnoses an organ/space infection
- \* Infection that involves both superficial and deep incision sites should be reported as deep incisional SSI
- \* Organ/space SSI draining through the incision should be reported as a deep incisional SSI

### **References**

1. Public Health England. Protocol for the surveillance of surgical site infection. Version 6 June 2013. Public Health England. 2013. Available at [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/364412/Protocol\\_for\\_surveillance\\_of\\_surgical\\_site\\_infection\\_June\\_2013.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/364412/Protocol_for_surveillance_of_surgical_site_infection_June_2013.pdf)
2. Horan TC, Gaynes RP, Martone WJ et al. CDC definitions of nosocomial surgical site infections, 1992: a modification of CDC definitions of surgical wound infections. Am J Infect Control 1992; 20: 271-4.