

Table III. Recommended Definitions for a Surgical Site Infection (SSI), Hospital Acquired Infection (HAI), and Periprocedural Urinary Tract Infections (UTI) ^{b,c,d}

A. Superficial Incisional SSI

1. Infection occurs within 30 days after the operation
and
2. Infection involving only skin or subcutaneous tissue of the incision
and
3. *At least one* of the following:
 - a. Purulent drainage, with or without laboratory confirmation, from the superficial incision.
 - b. Organisms isolated from an aseptically obtained culture of fluid or tissue from the superficial incision.
 - c. At least one of the following signs or symptoms of infection: pain or tenderness, localized swelling, redness or heat, *and* superficial incisions deliberately opened by surgeon, *unless* incision is culture-negative.
 - d. Diagnosis of superficial incisional SSI by the surgeon or attending physician.
4. *Do not* report the following conditions as SSI:
 - a. Stitch abscess (minimal inflammation and discharge confined to the points of suture penetration).
 - b. Infection of an episiotomy or newborn circumcision site.
 - c. Infected burn wound.
 - d. Incisional SSI that extends into the fascial and muscle layers (see Deep Incisional SSI).

Note: Specific criteria are used to identify infected episiotomy, circumcision sites and burn wounds.

B. Deep Incisional SSI

1. Infection occurs within 30 days after the operation if no implant is left in place *or* within one year if implant is in place *and* the infection appears to be related to the operation
and
2. Infection involves deep soft tissues (e.g., fascial and muscle layers) of the incision.
and
3. *At least one* of the following:
 - a. Purulent drainage from the deep incision but not from the organ/space component of the surgical site.
 - b. A deep incision spontaneously dehisced or is deliberately opened by a surgeon when the patient has at least one of the following signs or symptoms: fever (>38 C), localized pain, or tenderness, unless site is culture negative.

- c. An abscess or other evidence of infection involving the deep incision is found on direct examination, during reoperation, or by histopathologic or radiologic examination.
- d. Diagnosis of a deep incisional SSI by a surgeon or attending physician.

Notes:

- Report infection that involves both superficial and deep incision sites as deep incisional SSI.
- Report an organ/space SSI that drains through the incision as a deep incisional SSI.

C. Organ/Space SSI

1. Infection occurs within 30 days after the operation if no implant is left in place **or** within one year if implant is in place **and** the infection appears to be related to the operation.

and

2. Infection involves any part of the anatomy (e.g., organs or spaces), other than the incision, which was opened or manipulated during an operation.

and

3. **At least one** of the following:
 - a. Purulent drainage from a drain that is placed through a stab wound into the organ/space.
 - b. Organisms isolated from an aseptically obtained culture of fluid or tissue in the organ/space.
 - c. An abscess or other evidence of infection involving the organ/space that is found on direct examination, during reoperation, or by histopathologic or radiologic examination.
 - d. Diagnosis of an organ/space SSI by a surgeon or attending physician.

D. UTI

An infection after an endoscopic procedure must meet the following criteria:

1. Patient has fever ($>38^{\circ}$ C), **and/or** flank pain with no other recognized periprocedural cause.

and

2. **At least one** of the following:
 - a. Patient has a positive urine culture, that is, $\geq 10^5$ microorganisms per cc of urine with no more than two species of microorganisms.
 - b. Surgeon and/or surgical team diagnosis of a post-endoscopic infection.
 - c. Surgeon and/or surgical team institutes appropriate therapy for a post-endoscopic infection.

E. Symptomatic Urinary Tract Infection (SUTI)

A UTI must meet *at least one* of the following criteria:

1. Patient has *one or more* of the following signs or symptoms with no other recognized periprocedural cause: fever ($>38^{\circ}$ C), urgency, frequency, dysuria, or suprapubic tenderness.

and

2. Patient has a positive urine culture, that is, $\geq 10^5$ microorganisms per cc of urine with no more than two species of microorganisms where there are no indwelling catheters, stents or drains.

3. Patient has *two or more* of the following signs or symptoms with no other recognized periprocedural cause: fever ($>38^{\circ}$ C), urgency, frequency, dysuria, or suprapubic tenderness.

and

4. *At least one* of the following:

- a. Positive dipstick for leukocyte esterase and/or nitrate.
- b. Pyuria (urine specimen with \geq white blood cell (WBC)/mm³ or ≥ 3 WBC/high-power field of unspun urine).
- c. Organisms seen on Gram's stain of unspun urine.
- d. At least 2 urine cultures with repeated isolation of the same uropathogen (gram-negative bacteria or *Staphylococcus saprophyticus*) with ≥ 2 colonies/mL in non-voided specimens.
- e. $\leq 10^5$ colonies/mL of a single uropathogen (gram-negative bacteria or *S saprophyticus*) in a patient being treated with an effective antimicrobial agent for a urinary tract infection.
- f. Physician diagnosis of a urinary tract infection.
- g. Physician institutes appropriate therapy for a urinary tract infection.

F. Bloodstream Infection (BSI)

1. Patient has a recognized pathogen^j cultured from one or more blood cultures.

and

2. Organism cultured from blood is *not* related to an infection at another site.

3. Patient has *at least one* of the following signs or symptoms: fever ($> 38^{\circ}$ C), chills, or hypotension.

and

4. Signs and symptoms and positive laboratory results are *not* related to an infection at another site.

G. Prosthetic Infection

1. Symptoms or signs consistent with a prosthetic device or periprosthetic infection including: pain and tenderness, erosion, sinus tract communicating with the prosthesis, and/or acute hematogenous infection consistent with pathogens cultured from the periprosthetic site.
2. Recognized pathogen^j cultured from one or more sites, including: skin, the prosthetic device, and/or surrounding tissues.
3. Physician diagnosis of a prosthetic infection.

^gModified from Horan, T. C., et al. "CDC/NHSN surveillance definition of healthcare-associated infection and criteria for specific types of infections in the acute care setting." 2008. *Am J Infect Control* **36**(5): 309-332.

^hMangram AJ, et al. 1999

ⁱCommon skin contaminants may include diptheroids (*Corynebacterium* spp), *Bacillus* (not *B anthracis*) spp, *Propionibacterium* spp, coagulase-negative staphylococci (including *S epidermidis*), viridans group streptococci, *Aerococcus* spp, *Micrococcus* spp

^j"recognized pathogen" does *not* include organisms considered common skin contaminants. A few of the recognized GU pathogens include *Enterococcus* spp, *E coli*, *Pseudomonas* spp, *Klebsiella* spp, *Candida* spp, and others.