



## Key Terms

**80% Rule** See CDC Location.

**Access-associated bacteremia** See Dialysis access-associated infection types.

**ASA Score** Assessment by the anesthesiologist of the patient's preoperative physical condition using the American Society of Anesthesiologist' (ASA) Classification of Physical Status. Patient is assigned one of the following which is used as one element of the SSI Basic Risk index:

- 1 Normally healthy patient
- 2 Patient with mild systemic disease
- 3 Patient with severe systemic disease that is not incapacitating
- 4 Patient with an incapacitating systemic disease that is a constant threat to life
- 5 Moribund patient who is not expected to survive for 24 hours with or without the operation

**Birthweight** Birthweight is the weight of the infant at the time of birth and should not be changed as the infant gains weight.

**Catheter-associated Urinary Tract Infection (CAUTI)** CAUTI is a urinary tract infection (UTI) that occurs in a patient who had an indwelling urinary catheter in place within the 48-hour period before the onset of the UTI. NOTE: There is no minimum period of time that the catheter must be in place in order for the UTI to be considered catheter-associated. See also Indwelling urinary catheter and Device-associated infection.

**CDC Location** A CDC-defined designation given to a patient care area housing patients who have similar disease conditions or who are receiving care for similar medical or surgical specialties. Each facility location that is monitored is "mapped" to one CDC Location. The specific CDC Location code is determined by the type of patients cared for in that area according to the **80% Rule**. That is, if 80% of patients are of a certain type (e.g., pediatric patients with orthopedic problems) then that area is designated as that type of location (in this case, an Inpatient Pediatric Orthopedic Ward).



<b>Central line</b>	<p>An intravascular catheter that terminates at or close to the heart or in one of the great vessels which is used for infusion, withdrawal of blood, or hemodynamic monitoring. The following are considered great vessels for the purpose of reporting central-line BSIs and counting central-line days in the NHSN system: Aorta, pulmonary artery, superior vena cava, inferior vena cava, brachiocephalic veins, internal jugular veins, subclavian veins, external iliac veins, and common femoral veins.</p> <p>NOTE: An introducer is considered an intravascular catheter</p> <p>NOTE: In neonates, the umbilical artery/vein is considered a great vessel.</p> <p>NOTE: Neither the insertion site nor the type of device may be used to determine if a line qualifies as a central line. The device must terminate in one of these vessels or in or near the heart to qualify as a central line.</p> <p>NOTE: Pacemaker wires and other nonlumened devices inserted into central blood vessels or the heart are <u>not</u> considered central lines, because fluids are not infused, pushed, nor withdrawn through such devices.</p>
<b>Central Line-associated Bloodstream Infection (CLABSI)</b>	<p>A CLABSI is a primary bloodstream infection (BSI) in a patient that had a central line within the 48-hour period before the development of the BSI and that is not related to an infection at another site. NOTE: There is <u>no minimum period of time</u> that the central line must be in place in order for the BSI to be considered central line-associated. See also Central line and Device-associated infection.</p>
<b>Clean (Wound Class)</b>	See Wound Class
<b>Clean Contaminated (Wound Class)</b>	See Wound Class
<b>Contaminated (Wound Class)</b>	See Wound Class
<b>Date of Event</b>	<p>In the case of an infection event, the date when the first signs or symptoms of infection (clinical evidence) appeared, or the date the specimen used to meet the infection criterion was collected, whichever came first. In the case of a process of care event, the date the process or intervention was done (e.g., day a central line was inserted is the date of CLIP event). See also Transfer rule.</p>
<b>Deep incisional primary (DIP) SSI</b>	<p>A deep incisional SSI that is identified in the primary incision in a patient that has had an operation with <u>one or more</u> incisions (e.g., C-section incision or chest incision for CBGB).</p>
<b>Deep incisional</b>	<p>A deep incisional SSI that is identified in the secondary incision in a patient that</p>



<b>secondary (DIS) SSI</b>	has had an operation with <u>more than one</u> incision (e.g., donor site [leg] incision for CBGB).
<b>Device-associated infection</b>	An infection in a patient with a device (e.g., ventilator, central line or indwelling urinary catheter) that was used within the 48-hour period before onset of infection. If the interval is longer than 48 hours, there must be compelling <u>evidence that the infection was associated with device use</u> . NOTE: There is no minimum period of time that the device must be in place in order for the infection to be considered device-associated.
<b>Device days</b>	A daily count of the number of patients with a specific device in the patient care location during a time period. To calculate device days, for each day of the month, <u>at the same time each day</u> , record the number of patients who have the specific device (e.g., central line, ventilator, or indwelling urinary catheter). At the end of the month sum the daily counts and enter into NHSN the total for each type of device.
<b>Died</b>	The patient died during this facility admission.
<b>Dialysis event types (Outpatient hemodialysis only)</b>	<p><u>Hospitalization</u> if patient stayed overnight in a hospital, not just those related to infections or those where patient was directly admitted from the dialysis unit. Each time a patient is hospitalized, enter it as a new event. If a patient is hospitalized and returns to the dialysis unit on IV antimicrobials, both will be included in the same event – do not enter a second event.</p> <p><u>In-unit IV antimicrobial start</u> if patient is given IV antimicrobial agents in the dialysis unit for any reason, not just those with vancomycin or for a vascular access problem. If IV antimicrobials are stopped for less than 21 days and then restarted, this is NOT considered a new event. However, if IV antimicrobials are stopped for 21 or more days and then restarted, this is considered a new event.</p> <p><u>Positive blood culture</u> if the patient blood culture is positive, even if they did not have an associated hospitalization or in-unit IV antimicrobial start. Include blood cultures taken as an outpatient or within 1 day after a hospital admission. If the patient had an associated hospitalization or in-unit IV antimicrobial start, use the appropriate rule (above) for entering the event; if the patient had neither, enter a new event for positive blood culture occurring 21 or more days after the first.</p>
<b>Dialysis access-associated infection types (Outpatient hemodialysis only)</b>	<p><u>Local access infection</u>: Pus, redness, or swelling of the vascular access site and access-associated bacteremia was not present <u>and</u> patient was hospitalized or had initiation of an IV antimicrobial agent.</p> <p><u>Access-associated bacteremia</u>: Blood culture positive with source identified as the vascular access site or unknown.</p>



**Vascular access infection:** Either local access infection or access-associated bacteremia.

<b>Dirty or Infected (Wound Class)</b>	See Wound Class
<b>Duplicate isolate (in AUR protocol)</b>	An isolate of the same species of bacteria, regardless of antimicrobial susceptibility pattern, in the same patient, regardless of specimen site, during a given reporting period (i.e., calendar month).
<b>Duplicate isolate (in MDRO/CDAD protocol)</b>	Any MDRO isolate from the same patient after an initial isolation of the specific MDRO during a calendar month, regardless of specimen source.
<b>Event contributed to death</b>	The event either directly caused death or exacerbated an existing disease condition which then led to death.
<b>Event date</b>	See Date of event.
<b>Healthcare-associated infection (HAI)</b>	A localized or systemic condition resulting from an adverse reaction to the presence of an infectious agent(s) or its toxin(s). There must be no evidence that the infection was present or incubating at the time of admission to the acute care setting. See also Chapter 17.
<b>Implant</b>	A nonhuman-derived object, material, or tissue that is permanently placed in a patient during an operative procedure and is not routinely manipulated for diagnostic or therapeutic purposes. Examples include: porcine or synthetic heart valves, mechanical heart, metal rods, mesh, sternal wires, screws, cements, and other devices.
<b>Indwelling urinary catheter</b>	A drainage tube that is inserted into the urinary bladder through the urethra, is left in place, and is connected to a closed collection system; also called a Foley catheter. Does not include straight in-and-out catheters.
<b>Infant</b>	A patient who is $\leq 1$ year of age.
<b>Infection date</b>	See Date of event.
<b>Infusion</b>	The introduction of a solution through a blood vessel via a catheter lumen. This may include continuous infusions such as nutritional fluids or medications, or it may include intermittent infusions such as flushes or IV antimicrobial



administration, or blood, in the case of transfusion or hemodialysis.

**Inpatient location**

See Location

**Intensive care unit (ICU)**

A nursing care area that provides intensive observation, diagnosis, and therapeutic procedures for adults and/or children who are critically ill. An ICU excludes nursing areas that provide step-down, intermediate care or telemetry only. Specialty care areas are also excluded (see definition).

The type of ICU is determined by the kind of patients cared for in that unit. That is, if 80% of patients are of a certain type (e.g., patients with trauma), then that ICU is designated as that type of unit (in this case, trauma ICU). When an ICU houses roughly equal populations of medical and surgical patients, it is called a medical/surgical ICU.

**Local access infection**

See Dialysis access-associated infection types.

**Location**

The patient care area to which a patient is assigned while receiving care in the healthcare facility.

NOTE: Only locations where patients are housed overnight (i.e., inpatient locations) and where denominator data are collected can be used for reporting infection events when the Device-associated Module is included on a Monthly Reporting Plan. For such months, operating rooms (including cardiac cath labs, c-section rooms, and interventional radiology) and outpatient locations are not valid locations.

See also CDC Location.

**Location of attribution**

The location to which the event is being attributed. See also Date of event and Transfer rule.

**Multiple procedures**

More than one NHSN operative procedure performed through the same incision during the same trip to the operating room.

**Neonatal intensive care unit (NICU)**

**NICU  
(Level II/III)**

Combined nursery housing both Level II and III newborns and infants.

NOTE: Level II is an NHSN Step Down Neonatal ICU and provides care for preterm infants with birth weight  $\geq 1500$ g. Care provided includes resuscitation and stabilization of preterm and/or ill infants before transfer to a facility at which newborn intensive care is provided.



<b>NICU (Level III)</b>	<p>A hospital unit organized with personnel and equipment to provide continuous life support and comprehensive care for extremely high-risk newborn infants and those with complex and critical illness. Level III is subdivided into 4 levels differentiated by the capability to provide advanced medical and surgical care.</p> <p>NOTE: The categories of Level III, listed below, are classifications from the American Academy of Pediatrics, Definitions of hospital-based newborn services<sup>1</sup>. These classifications are <u>all</u> considered Level III nurseries in NHSN.</p> <p>Level IIIA - Hospital or state-mandated restriction on type and/or duration of mechanical ventilation.</p> <p>Level IIIB - No restrictions on type or duration of mechanical ventilation. No major surgery.</p> <p>Level IIIC - Major surgery performed on site (eg, omphalocele repair, tracheoesophageal fistula or esophageal atresia repair, bowel resection, myelomeningocele repair, ventriculoperitoneal shunt). No surgical repair of serious congenital heart anomalies that require cardiopulmonary bypass and /or ECMO for medical conditions.</p> <p>Level IIID - Major surgery, surgical repair of serious congenital heart anomalies that require cardiopulmonary bypass, and/or ECMO for medical conditions.</p>
<b>Neonate</b>	<p>A patient who is an infant <math>\leq 30</math> days of age.</p>
<b>NHSN inpatient</b>	<p>A patient whose date of admission to the healthcare facility and the date of discharge are <u>different</u> calendar days.</p>
<b>NHSN operative procedure</b>	<p>A procedure:</p> <ol style="list-style-type: none"><li>1) that is performed on a patient who is an NHSN inpatient or an NHSN outpatient</li><li>2) takes place during an operation where a surgeon makes at least one incision through the skin or mucous membrane, including laparoscopic approach, and <u>closes the incision</u> before the patient leaves the operating room, and</li><li>3) that is included in Table 1, Chapter 9.</li></ol>
<b>NHSN outpatient</b>	<p>A patient whose date of admission to the healthcare facility and the date of discharge are the <u>same</u> day.</p>
<b>Non-autologous transplant</b>	<p>See Transplant</p>
<b>Operating room (OR)</b>	<p>A patient care area that meets the American Institute of Architects (AIA) criteria for an operating room<sup>2</sup>. This may include an operating room, C-Section room, interventional radiology room or a cardiac catheterization lab, among other areas.</p>



<b>Operation</b>	A single trip to the operating room (OR) where a surgeon makes at least one incision through the skin or mucous membrane, including laparoscopic approach, and <u>closes the incision</u> before the patient leaves the OR.
<b>Patient days</b>	A daily count of the number of patients in the patient care location during a time period. To calculate patient days, for each day of the month, <u>at the same time each day</u> , record the number of patients. At the end of the month, sum the daily counts and enter the total into NHSN.
<b>Permanent central line</b>	A central line that is tunneled, including certain dialysis catheters and implantable catheters (including ports).
<b>Post-procedure pneumonia (PPP)</b>	A pneumonia that meets one of the criteria for pneumonia and occurs after an inpatient operation takes place, but prior to discharge.
<b>Secondary bloodstream infection (BSI)</b>	A culture-confirmed BSI associated with a documented HAI at another site (i.e. meets CDC criteria of infection at another site such as UTI). If the primary infection is cultured, the Secondary BSI must yield culture of same organism and exhibit same antibiogram as the primary HAI site. For example, if blood culture is positive in a patient with a healthcare-associated UTI and organisms and antibiograms of both blood and urine specimens are identical, infection is reported as UTI with secondary BSI. Secondary BSI is not reported separately. If, on the other hand, an organ/space SSI is identified by CT scan and no culture is used to meet the criteria for SSI-GIT, <u>and</u> a blood culture grows <i>Bacteroides fragilis</i> , then the SSI-GIT is recorded as an SSI with a secondary BSI. The pathogen for the SSI is recorded as <i>Bacteroides fragilis</i> .
<b>Specialty care area (SCA)</b>	Hospital location in which specialized care of the following types is provided: <ul style="list-style-type: none"><li>• Bone marrow transplant</li><li>• Solid organ transplant</li><li>• Inpatient acute dialysis</li><li>• Hematology/Oncology</li><li>• Long term acute care</li></ul>
<b>SSI risk index</b>	A score used to predict a surgical patient's risk of acquiring a surgical site infection. The risk index score, ranging from 0 to 3, is the number of risk factors present among the following: <ul style="list-style-type: none"><li>• a patient with an American Society of Anesthesiologists' physical status classification score of 3, 4, or 5<sup>1</sup>,</li><li>• an operation classified as contaminated or dirty infected<sup>4</sup>, and</li><li>• an operation lasting longer than the duration cut point in minutes, where the duration cut point varies by the type of operative procedure performed.</li></ul>





Current duration cut point values can be found in the most recent NHSN Report.

<b>Superficial incisional primary (SIP) SSI</b>	A superficial incisional SSI that is identified in the primary incision in a patient that has had an operation with one or more incisions (e.g., C-section incision or chest incision for CBGB).
<b>Superficial incisional secondary (SIS) SSI</b>	A superficial incisional SSI that is identified in the secondary incision in a patient that has had an operation with more than one incision (e.g., donor site [leg] incision for CBGB).
<b>Surveillance cultures</b>	Those cultures reported as part of infection control surveillance such as stool cultures for vancomycin-resistant enterococci (VRE), not for use in patient diagnosis. Also called active surveillance cultures or testing.
<b>Temporary central line</b>	A central line that is not tunneled.
<b>Transfer rule</b>	If a device-associated infection develops within 48 hours of transfer from one inpatient location to another in the same facility, the infection is attributed to the transferring location.
<b>Transplant:</b>	<p>Human cells, tissues, organs, or cellular- or tissue-based products that are placed into a human recipient via grafting, infusion, or transfer. Examples include: heart valves, organs, ligaments, bone, skin, corneas, and bone marrow cells.</p> <ul style="list-style-type: none"><li>• <u>Autologous</u> or “autograft” transplants are products that originate from the patient’s own body.</li><li>• <u>Non-autologous</u> or “allograft” transplants are tissues or other products derived from another human body, either a donor cadaver or a live donor.</li></ul>
<b>Umbilical catheter</b>	A central line inserted through the umbilical artery or vein in a neonate.
<b>Vascular access infection</b>	See Dialysis access-associated infection types.
<b>Ventilator</b>	<p>A device to assist or control respiration continuously, inclusive of the weaning period, through a tracheostomy or by endotracheal intubation.</p> <p>NOTE: Lung expansion devices such as intermittent positive pressure breathing (IPPB); nasal positive end-expiratory pressure (PEEP); continuous nasal positive airway pressure (CPAP, hypoCPAP) are not considered ventilators unless</p>





delivered via tracheostomy or endotracheal intubation (e.g., ET-CPAP).

**Ventilator-associated  
Pneumonia  
(VAP)**

A VAP is pneumonia (PNEU) that occurs in a patient who was intubated and ventilated at the time, of or within 48 hours before, the onset of the PNEU. NOTE: There is no minimum period of time that the ventilator must be in place in order for the PNEU to be considered ventilator-associated. See also Ventilator and Device-associated infection.

**Wound Class**

An assessment of the degree of contamination of a surgical wound at the time of the operation. The wound class system used in NHSN is an adaptation of the American College of Surgeons wound classification schema<sup>4</sup>. Wounds are divided into four classes:

Clean: An uninfected operative wound in which no inflammation is encountered and the respiratory, alimentary, genital, or uninfected urinary tracts are not entered. In addition, clean wounds are primarily closed and, if necessary, drained with closed drainage. Operative incisional wounds that follow nonpenetrating (blunt) trauma should be included in this category if they meet the criteria.

Clean-Contaminated: Operative wounds in which the respiratory, alimentary, genital, or urinary tracts are entered under controlled conditions and without unusual contamination. Specifically, operations involving the biliary tract, appendix, vagina, and oropharynx are included in this category, provided no evidence of infection or major break in technique is encountered.

Contaminated: Open, fresh, accidental wounds. In addition, operations with major breaks in sterile technique (e.g., open cardiac massage) or gross spillage from the gastrointestinal tract, and incisions in which acute, nonpurulent inflammation is encountered are included in this category.

Dirty or Infected: Includes old traumatic wounds with retained devitalized tissue and those that involve existing clinical infection or perforated viscera. This definition suggests that the organisms causing postoperative infection were present in the operative field before the operation.

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<sup>1</sup> Anonymous. New classification of physical status. *Anesthesiology* 1963;24:111.

<sup>2</sup> American Academy of Pediatrics, Policy Statement: Levels of neonatal care. *Pediatrics*, 2004;114 (5): 1341-1347.

<sup>3</sup> Facility Guidelines Institute et al., *Guidelines for Design and Construction of Health Care Facilities*, 2006 ed. (Washington: The American Institute of Architects, 2006).



<sup>4</sup> Mangram AJ, Horan TC, Pearson ML, Silver LC, Jarvis WR, and the Hospital Infection Control Practices Advisory Committee. Guideline for prevention of surgical site infection, 1999. *Infect Control Hosp Epidemiol* 1999;20:247-80.