Key Terms

21% Rule	See Dialysis Event types.
80% Rule	See CDC Location.
Access-related bloodstream infection	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.
Aseptically obtained	Obtained in a manner to prevent introduction of organisms from the surrounding tissues into the specimen being collected.
Birthweight	Birthweight is the weight of the infant at the time of birth and should not be changed as the infant gains weight. The birthweight categories are as follows: A = ≤750 g; B = 751-1000 g; C = 1001-1500 g; D = 1501-2500 g; E = >2500 g.
Catheter-associated Urinary Tract Infection (CAUTI)	CAUTI is a healthcare-associated 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, Device-associated infection and Healthcare-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).

Central line

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-associated 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, common iliac veins, and femoral veins (not femoral arteries).
NOTE: In neonates, the umbilical artery/vein is considered a great vessel.
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.
NOTE: Pacemaker wires and other nonlumened devices inserted into central blood vessels or the heart are not considered central lines, because fluids are not infused, pushed, nor withdrawn through such devices.
NOTE: An introducer is considered an intravascular catheter, and depending on the location of its tip, may be a central line.
NOTE: Intraaortic balloon pumps (IABP) are not considered central lines because they are not generally used for infusion or withdrawal of blood, but are used instead for therapeutic purposes. Neither are lines used for extracorporeal membrane oxygenation (ECMO).

Central Line-associated Bloodstream Infection (CLABSI)

A CLABSI is a healthcare-associated 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 no minimum period of time that the central line must be in place in order for the BSI to be considered central line-associated. See also Central line, Device-associated infection and Healthcare-associated infection.

Clean (Wound Class)

See Wound Class.

Clean Contaminated (Wound Class)

See Wound Class.

Contaminated (Wound Class)

See Wound Class.

Date of Event

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.

Deep incisional primary (DIP) SSI

A deep 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).

Deep incisional secondary (DIS) SSI

A deep 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).

Device-associated infection

A healthcare-associated 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 evidence that the infection was associated with device use 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. See also Healthcare-associated infection.

Device days

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, at the same time each day, record the number of patients who have the specific device (e.g., central line, ventilator, or indwelling urinary catheter). When denominator data are available from electronic databases (e.g., ventilator days from respiratory therapy), these sources may be used as long as the counts are not substantially different (+/- 5%) from manually collected counts. At the end of the month sum the daily counts and enter into NHSN the total for each type of device.

Device-associated denominator data should be collected at the same time each day. When denominator data are available from electronic databases (e.g., ventilator days from respiratory therapy), these sources may be used as long as the counts are not substantially different (+/- 5%) from manually collected counts.

Dialysis access-associated infection types (Outpatient hemodialysis only)

Local access site infection: Pus, redness, or swelling of the vascular access site and bloodstream infection was not present.

Access-related bloodstream infection: Blood culture positive with suspected source identified as the vascular access site or uncertain.

Vascular access infection: Either local access site infection or access-related bloodstream infection.

Dialysis event types (Outpatient hemodialysis only)

IV antimicrobial start: Include **all** outpatient IV antimicrobial starts, not just IV vancomycin starts and not just starts for vascular access problems. There must be 21 or more days from the end of the first IV antimicrobial start to the beginning of

a second IV antimicrobial start for two starts to be considered separate dialysis events. If IV antimicrobials are stopped for less than 21 days and then restarted, the second start is NOT considered a new dialysis event.

Positive blood culture: Include **all** positive blood cultures collected as an outpatient or collected within 1 calendar day after a hospital admission. The date of a blood culture result is based on the date the blood specimen was collected, not the date the laboratory reported the result. There must be 21 or more days between positive blood cultures for each positive blood culture to be considered a separate dialysis event. If positive blood cultures occur less than 21 days apart, the second positive blood culture(s) is NOT considered a new dialysis event.

Pus, redness, or increased swelling at the vascular access site: Include each new episode where the patient has one or more symptoms of pus, redness or increased swelling at a vascular access site. There must be 21 or more days between the onset of a first and second episode of pus, redness, or increased swelling at a vascular access site to be considered separate dialysis events. If an episode of pus, redness, or increased swelling at a vascular access site resolves and then recurs within 21 days, the recurrence is NOT considered a new dialysis event.

Dialysis vascular access types (for Outpatient hemodialysis only)

Nontunneled central line: a central venous catheter that is fixed in place at the point of insertion and travels directly from the skin entry site to a vein and terminates close to the heart or one of the great vessels, and provides vascular access for hemodialysis.

Tunneled central line: a central venous catheter that travels a distance under the skin from the point of insertion before terminating at or close to the heart or one of the great vessels, and provides vascular access for hemodialysis.

Graft: a surgically created connection between an artery and a vein created with implanted synthetic tubing for the purpose of creating a permanent vascular access for hemodialysis.

Fistula: a surgically created connection between an artery and a vein for the purpose of creating a permanent vascular access for hemodialysis.

Other access device: includes hybrid access devices (e.g., HeRO™), ports, and any other vascular access devices not in the above definitions being used for hemodialysis.

Died

The patient died during this facility admission. For outpatient hemodialysis (Dialysis Event module): the patient died in relation to the event or problem, with or without hospital admission.

Dirty or Infected (Wound Class)

See Wound Class.

Duplicate isolate (in AUR protocol) 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).

Duplicate isolate (in MDRO/CDI protocol - LabID Event option) Any MDRO isolate from the same patient after an initial isolation of the specific MDRO during a calendar month, regardless of specimen source.

Emergency Operative Procedure An operative procedure on a patient whose condition did not allow time for the standard preoperative preparations normally done prior to a scheduled operation (e.g., stable vital signs, adequate antiseptic skin preparation, colon decontamination in advance of colon surgery, etc.). See also NHSN operative procedure.

Event contributed to death The event either directly caused death or exacerbated an existing disease condition which then led to death.

Event date See Date of event.

Fistula See Dialysis vascular access types.

Graft See Dialysis vascular access types.

Healthcare-associated infection (HAI) 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, unless a change in pathogen or symptoms strongly suggests the acquisition of a new infection. See also Chapter 17.

Hospital type Major teaching – Hospital that is an important part of the teaching program of a medical school and the majority of medical students rotate through multiple clinical services.

Graduate – Hospital is used by the medical school for graduate training programs only (i.e., residency and/or fellowships).

Limited – Hospital is used in the medical school's teaching program to only a limited extent.

Nonteaching – Hospital is not affiliated with a medical school.

Implant 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 but are not limited to: porcine or synthetic heart valves, mechanical heart, metal rods, mesh, sternal wires, screws, cements, and other devices.
Indwelling urinary catheter	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.
Infant	A patient who is ≤ 1 year of age.
Infection date	See Date of event.
Infusion	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	See NHSN inpatient.
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 according to the 80% Rule. 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 (except for Dialysis Event surveillance). Operating rooms (including cardiac cath labs, c-section rooms, and interventional radiology) and outpatient locations are not valid locations for these types of surveillance. See also CDC Location.

Location of attribution	The location to which the event is being attributed. See also Date of event and Transfer rule.
Neonatal intensive care unit (NICU)	There are two types of NICU in NHSN: combined Level II/III NICU and Level III NICU.
NICU (Level II/III)	Combined nursery housing both Level II and III newborns and infants. NOTE: In NHSN, a Level II nursery is considered a Step Down Neonatal Nursery ward, which provides care for preterm infants with birthweights of ≥ 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.
NICU (Level III)	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. NOTE: The categories of Level III, listed below, are classifications from the American Academy of Pediatrics, Definitions of hospital-based newborn services[1]. These classifications are all considered Level III NICUs in NHSN. Level IIIA – Hospital or state-mandated restriction on type and/or duration of mechanical ventilation. Level IIIB – No restrictions on type or duration of mechanical ventilation. No major surgery. 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. Level IIID - Major surgery, surgical repair of serious congenital heart anomalies that require cardiopulmonary bypass, and/or ECMO for medical conditions.
Neonate	A patient who is ≤ 30 days of age.
NHSN inpatient	A patient whose date of admission to the healthcare facility and the date of discharge are different calendar days. NOTE: A patient who is admitted to an inpatient location as an "observation" patient is identified as an inpatient on the first and subsequent days for the purposes of counting a location's total patient days and device days.

NHSN operative procedure

A procedure:
1) that is performed on a patient who is an NHSN inpatient or an NHSN outpatient; and
2) takes place during an operation, which is defined as a single trip to an operating room (OR) where a surgeon makes at least one incision through the skin or mucous membrane, including laparoscopic approach, and closes the incision before the patient leaves the OR; and
3) that is included in Table 1, Chapter 9.
NOTE: If the skin incision edges do not meet because of wires or devices or other objects extruding through the incision, the incision is not considered primarily closed and therefore the procedure is not considered an operation. Further, any subsequent infection is not considered a procedure-associated infection (i.e., not an SSI or PPP).

NHSN outpatient

A patient whose date of admission to the healthcare facility and the date of discharge are the same day.

Non-autologous transplant

See Transplant.

Nontunneled central line

See Dialysis vascular access types.

Operating room (OR)

A patient care area that meets the American Institute of Architects (AIA) criteria for an operating room[2]. This may include an operating room, C-Section room, interventional radiology room or a cardiac catheterization lab, among other areas.

Operation (Procedure)

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 closes the incision before the patient leaves the OR. NOTE: If the skin incision edges do not meet because of wires or devices or other objects extruding through the incision, the incision is not considered primarily closed and therefore the procedure is not considered an operation. Further, any subsequent infection is not considered a procedure-associated infection (i.e., not an SSI or PPP). See also NHSN operative procedure.

Other access device

See Dialysis vascular access types.

Outpatient

See NHSN outpatient.

Patient days

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, at the same time

each day, record the number of patients. When patient days are available from electronic databases these sources may be used as long as the counts are not substantially different (+/- 5%) from manually collected counts. At the end of the month, sum the daily counts and enter the total into NHSN.

Permanent central line

A central line that is tunneled, including certain dialysis catheters and implantable catheters (including ports).

Post-procedure pneumonia (PPP)

A pneumonia that meets one of the criteria for pneumonia (PNEU) and occurs after an inpatient operation takes place, but prior to discharge.

Procedure

See Operation.

Secondary bloodstream infection (BSI)

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 a same organism as the primary HAI site, regardless of antibiogram. For example, if blood culture is positive in a patient with a healthcare-associated SUTI and at least one organism of both blood and urine specimens is the same, infection is reported as SUTI with secondary BSI, regardless of the antibiograms of the organism. Secondary BSI is not reported separately. Report the shared organism(s) to the genus/species level only once, and if antibiogram data are available, report the results from the most resistant panel. Also, report any additional organisms found in either of the cultures. If, on the other hand, for example, an organ/space SSI is identified by CT scan and no surgical site culture is used to meet the criteria for SSI-IAB, and a blood culture grows *Bacteroides fragilis*, then the SSI-IAB is recorded as an SSI with a secondary BSI. The pathogen for the SSI is recorded as *Bacteroides fragilis*. See IAB criteria in Chapter 17 of the NHSN Manual, CDC/NHSN Surveillance Definition of Healthcare-Associated Infection and Criteria for Specific Types of Infections in the Acute Care Setting. See also the Secondary BSI Guide containing the Positive Blood Culture flowchart which is posted under NHSN Guides within the NHSN Resource Library for this most up-to-date information.

Specialty care area (SCA)

Hospital location in which specialized care of the following types is provided:

- Bone marrow transplant
- Solid organ transplant
- Inpatient acute dialysis
- Hematology/Oncology
- Long term acute care

See also Chapter 15 for descriptions.

SSI risk index

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:

- a patient with an American Society of Anesthesiologists' physical status classification score of 3, 4, or 5[1],
- an operation classified as contaminated or dirty/infected[4], and
- an operation lasting longer than the duration cut point in minutes, where the duration cut point varies by the type of operative procedure performed. NOTE: As of 2010, NHSN began using standardized infection ratios (SIR) based on operative procedure category-specific multivariate risk models rather than risk index-stratified SSI rates. For duration cut point values and risk index-stratified SSI rates, see NHSN Report: Data summary for 2006 through 2008, issued December 2009 found at http://www.cdc.gov/nhsn/dataStat.html.

Superficial incisional primary (SIP) SSI

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). See also Chapter 9 for criteria.

Superficial incisional secondary (SIS) SSI

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). See also Chapter 9 for criteria.

Surveillance cultures

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 (AST).

Temporary central line

A central line that is not tunneled or implanted.

Transfer rule

If an HAI develops within 48 hours of transfer from one inpatient location to another in the same facility, the infection is attributed to the transferring location. Likewise, if an HAI develops within 48 hours transfer from one inpatient facility to another, the infection is attributed to the transferring facility. Facilities should share information about such HAIs with the transferring facility to enable reporting.

Transplant

Human cells, tissues, organs, or cellular- or tissue-based products that are placed into a human recipient via grafting, infusion, or transfer. Examples include the following: heart valves, organs, ligaments, bone, skin, corneas, and bone marrow cells.

- *Autologous* or "autograft" transplants are products that originate from the patient's own body.
- *Non-autologous* or "allograft" transplants are tissues or other products derived from another human body, either a donor cadaver or a live donor.

Trauma Blunt or penetrating injury.

Tunneled central line See Dialysis vascular access types.

Umbilical catheter A central line inserted through the umbilical artery or vein in a neonate.

Vascular access infection See Dialysis access-associated infection types.

Ventilator A device to assist or control respiration continuously, inclusive of the weaning period, through a tracheostomy or by endotracheal intubation.
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 delivered via tracheostomy or endotracheal intubation (e.g., ET-CPAP).

Ventilator-associated Pneumonia (VAP) A VAP is a healthcare-associated 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, Device-associated infection and Healthcare-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[4]. 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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[1]Anonymous. New classification of physical status. Anesthesiology 1963;24:111.

[2]American Academy of Pediatrics, Policy Statement: Levels of neonatal care. Pediatrics, 2004;114 (5): 1341-1347.

[3]Facilities Guidelines Institute. Guidelines for design and construction of health care facilities. American Society for Healthcare Engineering; Chicago IL; 2010.

[4]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.