Key Terms

80% rule

See CDC location.

ASA score

Assessment by the anesthesiologist of the patient's preoperative physical condition using the American Society of Anesthesiologists' (ASA) Classification of Physical Status.[1] Patient is assigned one of the following scores which may be used as one element of SSI risk adjustment:

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. NOTE: If coded as expired or as organ donor, report as ASA = 5.

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.

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).

For detailed instructions on how to map locations, see "Instructions for Mapping Patient Care Locations in NHSN" in the Locations and Descriptions chapter.

Clean (Wound class)

See Wound class.

Clean Contaminated (Wound class)

See Wound class.

Contaminated (Wound class) See Wound class.

Date of event For an HAI (excludes VAE), the date of event is the date when the last element used to meet the CDC/NHSN site-specific infection criterion occurred. Synonyms: infection date, date of infection. In the case of a process of care event, the date the process or intervention was done (e.g., the day a central line was inserted is the date of CLIP event). See also Date of onset (for VAE only) and Transfer rule.

Date of onset For a VAE, the date of onset is the date of worsening oxygenation. This is further defined as the first calendar day in which the daily minimum PEEP or FiO_2 increased above the thresholds outlined in the VAE algorithm. Beginning in 2013, this term will be used for VAE reporting only and this definition will no longer be a synonym for Date of event.

Device-associated infection An infection meeting the HAI definition is considered a device-associated (e.g., associated with the use of a ventilator, central line or indwelling urinary catheter) HAI if the device was in place for >2 calendar days when all elements of a CDC/NHSN site-specific infection criterion were first present together. An HAI occurring on the day of device discontinuation or the following calendar day is considered a device-associated HAI if the device had been in place already for >2 calendar days. For a patient who already has a device in place on hospital admission, day of first access is considered Day 1. See also Healthcare-associated infection.

See also Table 1 at the end of this chapter for examples of new key terms for 2013.

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). At the end of the month sum the daily counts and enter into NHSN the total for each type of device.

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, validated for a minimum of 3 months.

Died The patient died during this facility 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 and location after an initial isolation of the specific MDRO during a calendar month, regardless of specimen source, except unique blood source.
Emergency operative procedure	A nonelective, unscheduled 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.
Fever	See Vital signs.
General anesthesia	General anesthesia is defined as the administration of drugs or gases that enter the general circulation and affect the central nervous system to render the patient pain free, amnesic, unconscious, and often paralyzed with relaxed muscles.
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). An infection is considered an HAI if all elements of a CDC/NHSN site-specific infection criterion were first present together on or after the 3rd hospital day (day of hospital admission is day 1). For an HAI, an element of the infection criterion may be present during the first 2 hospital days as long as it is also present on or after day 3. All elements used to meet the infection criterion must occur within a timeframe that does not exceed a gap of 1 calendar day between elements. HAI Definitions chapter contains the site-specific criteria for HAI and examples of how to apply the HAI definition. See also Table 1 at the end of this chapter for examples of new key terms for 2013.

Hypotension See Vital signs.

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 drainage bag (including leg bags), also called a Foley catheter. This does not include suprapubic, condom, or straight in-and-out catheters or nephrostomy tubes. This definition includes indwelling urethral catheters that are used for intermittent or continuous irrigation.

Infant A patient who is ≤ 1 year (≤ 365 days) 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 (a 50/50 to 60/40 mix), it is called a medical/surgical ICU.

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 Location, Date of event, Transfer rule and Table 1 at the end of this chapter containing examples of new key terms for 2013.

Neonatal intensive care unit (NICU)

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. There are two types of NICU in NHSN: combined Level II/III NICU and Level III NICU.

NOTES:

1. In NHSN, a Level II nursery is considered a Step Down Neonatal Nursery ward (not an NICU).
2. The categories of Level II, listed below, are classifications from the American Academy of Pediatrics definitions of hospital-based newborn services.[2]

   Level II neonatal care (special care nursery) are subdivided into 2 categories on the basis of their ability to provide assisted ventilation including continuous positive airway pressure.

   Level IIA has the capabilities to:

   - Resuscitate and stabilize preterm and/or ill infants before transfer to a facility at which newborn intensive care is provided.
   - Provide care for infants born at >32 weeks' gestation and weighing ≥1500 g (1) who have physiologic immaturity such as apnea of prematurity, inability to maintain body temperature, or inability to take oral feedings or (2) who are moderately ill with problems that are anticipated to resolve rapidly and are not anticipated to need subspecialty services on an urgent basis.
   - Provide care for infants who are convalescing after intensive care.

   Level IIB has the capabilities of a level IIA nursery and the additional capability to provide mechanical ventilation for brief durations (<24 hours) or continuous positive airway pressure.
3. The categories of Level III, listed below, are classifications from the American Academy of Pediatrics definitions of hospital-based newborn services.[2] These classifications are all considered Level III NICUs in NHSN.

   Level III (subspecialty) NICUs are subdivided into 3 categories.

   Level IIIA has the capabilities to:

   - Provide comprehensive care for infants born at >28 weeks' gestation and weighing >1000 g.
   - Provide sustained life support limited to conventional mechanical ventilation.
   - Perform minor surgical procedures such as placement of central venous catheter or inguinal hernia repair.

Level IIIB NICU has the capabilities to provide:

- Comprehensive care for extremely low birth weight infants (≤1000 g and ≤ 28 weeks' gestation).
- Advanced respiratory support such as high-frequency ventilation and inhaled nitric oxide for as long as required.
- Prompt and on-site access to a full range of pediatric medical subspecialists.
- Advanced imaging, with interpretation on an urgent basis, including computed tomography, magnetic resonance imaging, and echocardiography.
- Pediatric surgical specialists and pediatric anesthesiologists on site or at a closely related institution to perform major surgery such as ligation of patent ductus arteriosus and repair of abdominal wall defects, necrotizing enterocolitis with bowel perforation, tracheoesophageal fistula and/or esophageal atresia, and myelomeningocele.

Level IIIC NICU has the capabilities of a level IIIB NICU and also is located within an institution that has the capability to provide ECMO and surgical repair of complex congenital cardiac malformations that require cardiopulmonary bypass.

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

- that is performed on a patient who is an NHSN inpatient or an NHSN outpatient;
  and
- takes place during an operation (defined as 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 primarily* before the patient leaves the OR); *and*
- that is included in Table 1 of the SSI chapter of this manual.

See also NHSN inpatient, NHSN outpatient, operating room, operation and primary closure.

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

Onset date See Date of onset.

Operating room (OR) A patient care area that met the American Institute Architects (AIA) or Facilities Guideline Institute (FGI) criteria for an operating room when it was constructed or renovated.[3] This may include an operating room, C-Section room, interventional radiology room or a cardiac catheterization lab, among other areas.

Operation An 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 primarily***** before the patient leaves the OR.

*****Primary closure is defined as closure of all tissue levels, regardless of the presence of wires, wicks, drains, or other devices or objects extruding through the incision. However, regardless of whether anything is extruding from the incision, if the skin edges are not fully reapproximated for the entire length of the incision (e.g., are loosely closed with gaps between suture/staple points), the incision is not considered primarily closed and therefore the procedure would not be considered an operation. In such cases, any subsequent infection would not be considered an SSI, although it may be an HAI if it meets criteria for another specific infection site (e.g., skin or soft tissue infection).

Operative procedure See NHSN operative procedure.

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. At the end of the month, sum the daily counts and enter the total into NHSN.

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, validated for a minimum of 3 months.

Permanent central line A central line that is tunneled catheter, including certain dialysis catheters, or an implantable catheter (including ports).

Primary closure Closure of all tissue levels, regardless of the presence of wires, wicks, drains, or other devices or objects extruding through the incision. However, regardless of whether anything is extruding from the incision, if the skin edges are not fully

reapproximated for the entire length of the incision (e.g., are loosely closed with gaps between suture/staple points), the incision is not considered primarily closed and therefore the procedure would not be considered an operation. In such cases, any subsequent infection would not be considered an SSI, although it may be an HAI if it meets criteria for another specific infection site (e.g., skin or soft tissue infection).

Procedure See Operation.

Scope An instrument used to visualize the interior of a body cavity or organ. In the context of an NHSN operative procedure, use of a scope involves creation of several small incisions to perform or assist in the performance of an operation rather than use of a traditional larger incision (i.e., open approach). Robotic assistance is considered equivalent to use of a scope for NHSN SSI surveillance. See also Instructions for Completion of *Denominator for Procedure* form and both Numerator Data and Denominator Data reporting instructions of the SSI chapter of this manual.

Secondary bloodstream infection (BSI) See Appendix 1 of the CLABSI chapter.

Specialty care area (SCA) Hospital location in which specialized care of the following types is provided:

- Solid organ transplant
- Inpatient acute dialysis

See also the CDC Locations and Descriptions chapter.

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 sum of the number of risk factors present among the following:

- a patient with an American Society of Anesthesiologists' physical status classification score[1] of 3, 4, or 5,
- 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. See also ASA score and Wound class.

Surveillance cultures

Those cultures reported as part of infection prevention and control surveillance such as stool cultures for vancomycin-resistant *enterococci* (VRE) and/or nasal swabs for methicillin-resistant *Staphylococcus aureus* (MRSA) surveillance, not for use in patient diagnosis. Also called active surveillance cultures or testing (ASC/AST).

Teaching hospital

There are 3 types of teaching hospital defined in NHSN:

- **Major:** Facility has a program for medical students and post-graduate medical training.
- **Graduate:** Facility has a program for post-graduate medical training (i.e., residency and/or fellowships).
- **Undergraduate:** Facility has a program for medical students only.

Temperature

See Vital signs.

Temporary central line

A central line that is not tunneled or implanted.

Transfer rule

If all elements of an HAI are present within 2 calendar days of transfer from one inpatient location to another in the same facility (i.e., on the day of transfer or the next day), the HAI is attributed to the transferring location.

Likewise, if all elements of an HAI are present within 2 calendar days of transfer from one inpatient facility to another, the HAI is attributed to the transferring facility. Receiving facilities should share information about such HAIs with the transferring facility to enable reporting.

See also Table 1 at the end of this chapter for examples of new key terms for 2013.

Trauma

Blunt or penetrating injury.

Umbilical catheter

A central vascular device inserted through the umbilical artery or vein in a neonate.

Vital signs If a specific value for a vital sign is not stated in a CDC/NHSN HAI definition criterion, the facility should use the vital sign parameters as stated in its policies and procedures for clinical documentation. For example, if a facility has a policy to adjust temperature readings to reflect core temperatures, then the adjusted temperature value used for clinical decision making should be used for its HAI surveillance as well.

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).

Wound class An assessment of the degree of contamination of a surgical wound at the time of the operation. Wound class should be assigned by a person involved in the surgical procedure, e.g., surgeon, circulating nurse, etc. 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. *Includes female and male reproductive tracts.

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.

[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.

Table 1: ***Examples of new key terms for 2013: Healthcare-associated infection (HAI), device-associated HAI, and transfer rule***

Key Terms	Day 1	Day 2	Day 3	Day 4	Infection is…
HAI	Admit from ED to ICU	ICU All elements of infection criterion first present together			Not an HAI
HAI	Direct admit to ICU	ICU	ICU All elements of infection criterion first present together		HAI attributable to ICU
HAI	Admit from ED to ICU	ICU An element of infection criterion present	ICU All elements of infection criterion first present together		HAI attributable to ICU
Device Associated	Device inserted	Device in place	Device in place All elements of infection criterion first present together		Device associated
Device Associated	Device inserted	Device in place All elements of infection criterion first present together			Not device associated
Device Associated	Device inserted	Device in place part of day only	All elements of infection criterion first present together		Not device associated

Key Terms	Day 1	Day 2	Day 3	Day 4	Infection is…
Device Associated	Device inserted	Device in place An element of infection criterion present	Device in place All elements of infection criterion first present together		Device associated
Device Associated	Device that has been in place for 4 days is removed	No device in place	All elements of infection criterion first present together		Not device associated
Device Associated	Device that has been in place for 4 days is removed	All elements of infection criterion first present together			Device associated
Transfer Rule	ICU ► 3W	3W All elements of Infection criterion first present together	3W		Attributable to ICU
Transfer Rule	ICU ► 3W	3W	3W All elements of infection criterion first present together		Attributable to 3W
Transfer Rule	3W ► Home	Home All elements of Infection criterion first present together	Home		Attributable to 3W
Transfer Rule	3W ► Inpatient Rehabilitation Facility (IRF)	IRF	IRF All elements of infection criterion first present together		Attributable to IRF