The National Healthcare Safety Network (NHSN) Manual

Outpatient Procedure Component

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1. Introduction

The National Healthcare Safety Network (NHSN) Outpatient Procedure Component (OPC) was developed amid increasing interest in the public health impact of infections and other outcomes related to outpatient procedures that are performed in settings such as Ambulatory Surgery Centers (ASCs), Hospital Outpatient Departments (HOPDs), and physicians' offices. Though outbreak investigations by state health departments and the Centers for Disease Control and Prevention (CDC) have shown that serious adverse outcomes of outpatient procedures do occur, there are no national estimates of the number of healthcare associated infections (HAIs) or other adverse outcomes originating in ASCs or HOPDs. As of 2010, there were more than 5,300 Medicare-certified ASCs in the U.S., which represents an approximate 50% increase since 2002. Also, a majority (89%) of acute care hospitals provided outpatient surgery services in 2009 (http://www.medpac.gov/chapters/Jun10DataBookSec8.pdf, chart 8-8 and 8-15).

The OPC provides surveillance methods to identify and track process and outcomes measures of outpatient procedures that are performed in freestanding ASCs. It is anticipated that some or all event types of the OPC may also be available for future use in HOPDs. However, more work is needed to address how to implement the OPC without requiring duplicative or burdensome new reporting requirements in addition to the surgical site infection (SSI) and CMS, Hospital Outpatient Quality Reporting measures that are already being reported by HOPDs.[1]

2. Overview of Event Types to be reported in the NHSN Outpatient Procedure Component

Three event types are included in the NHSN Outpatient Procedure Component (OPC) and planned for implementation beginning January 1, 2014: Same Day Outcome Measures, Prophylactic Intravenous (IV) Antibiotic Timing, and Surgical Site Infection (SSI). A fourth event type to track near term emergency department visits and hospitalizations remains under development and will not be available in 2014.

Event Type:

1) Four Same Day Outcome Measures: Reporting of facility-level outcome measures that occur on the same day as the outpatient procedure. These quality measures were developed by the Ambulatory Surgery Center Quality Collaboration (ASC QC), endorsed by the National Quality Forum (NQF), and adopted as required parts of the Centers for Medicare and Medicaid Services' ASC Quality Reporting Program*. The four distinct measures include:
   - Patient burn
   - Patient fall
   - Wrong site, wrong side, wrong patient, wrong procedure, wrong implant
   - Hospital transfer/admission

   *In CMS' ASC Quality Reporting Program, these measures are specified as number ASC-1 (Patient Burn), ASC-2 (Patient Fall), ASC-3 (Wrong Site, Side, Patient, Procedure, Implant), and ASC-4 (Hospital Transfer/Admission). https://www.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FPage%2FQnetTier2&cid=1228772497737

2) Prophylactic Intravenous (IV) Antibiotic Timing (process): Reporting of a facility-level process measure that occurs on the same day as the outpatient procedure. This quality measure was developed by the Ambulatory Surgery Center Quality Collaboration (ASC QC) and endorsed by the National Quality Forum (NQF). Prophylactic IV Antibiotic Timing is specified as measure ASC-5 in CMS' ASC Quality Reporting Program.

   - Surgical Site Infection (SSI) for Outpatient Procedures (SSI-OP): Surveillance for SSI among ASC patients using a simplified version of the NHSN SSI Event protocol of the Patient Safety Component. SSI surveillance in the OPC will consist of targeted surveillance of SSI by NHSN operative procedure category.

3. Facility Requirements for Participation

a) Eligible facilities: For 2014, the facility must be certified as an Ambulatory Surgery Center (ASC) as defined in the Code of Federal Regulations 42 CFR § 416.2. Thus, a facility must have its own CCN (CMS certification number) to participate in the OPC. **Appendix A** includes the CMS definitions of an ASC and HOPD that should be used to determine eligibility for enrollment in the OPC.

b) Enroll the facility in NHSN: Each participating ASC will need to enroll as a unique NHSN facility (i.e., obtain a unique NHSN organization ID), regardless of whether it is affiliated with an acute care hospital or other institution. Each enrolled ASC should represent a single physical location with a unique CCN.
   - Enrolling in NHSN is a multiple step process. Online guidance is available here: http://www.cdc.gov/nhsn/startEnroll.html

c) Submit an *OPC Monthly Reporting Plan*:
   - For each calendar month of reporting, the facility must enter an *OPC Monthly Reporting Plan* and indicate which Event Types of the Component the ASC will be participating in for the specified month.
   - At least one event type must be indicated in any month; but any combination (or all) of the three event types can be reported in each month:
     - Four Same Day Outcome Measures(all four must be included)
     - Prophylactic IV Antibiotic Timing
     - Surgical Site Infections (for any or all of the eligible procedures)
   - See *Table 1: Instructions for Completing the OPC Monthly Reporting Plan* for additional guidance.

d) Submit an OPC Monthly Denominators and Summary Form
   - At the end of each calendar month of reporting, the facility must enter the specified denominator information on this form.
   - See *Table 2: Instructions for Completing the OPC Monthly Denominators and Summary Form* for additional guidance.

e) Use the OPC Event Form to report all patients who had the events under surveillance for the given month:
   - Use a single event form per patient admission, where multiple events can be reported for a single admission
   - See *Table 3: Instructions for Completing the OPC Event Form* for additional guidance.

Note: see reporting instructions for the relevant event types of the OPC protocol for further guidance.

4. Reporting Instructions for the Four Same Day Outcome Measures

The NHSN reporting instructions for the Same Day Outcome Measures are intended to be consistent with those in the ASC Quality Measures: Implementation Guide Version 1.7 published by the ASC Quality Collaboration. The Four Same Day Outcome Measures are:

1. Patient Burn
2. Patient Fall
3. Wrong Site, Side, Patient, Procedure or Implant
4. Hospital Transfer/Admission

Reporting Instructions for the Four Same Day Outcome Measures: 1) Patient Burn; 2) Patient Fall; 3) Wrong Site / Side / Patient / Procedure / Implant; and 4) Hospital Transfer/Admission

a) Indicate on the *OPC Monthly Reporting Plan* that the ASC is participating in surveillance for the Four Same Day Outcome Measures.

b) At the end of the reporting month, enter the total number of ASC Admissions for the specified month on the *OPC Monthly Denominators and Summary Form.*

c) Use the *OPC Event Form* to enter information about same day outcomes that occur during a patient's admission to an ASC.

- **Patient Burn.** For each patient who experiences a burn prior to discharge from the ASC, complete an *OPC Report Form* and check the "Patient Burn" box.
- **Patient Fall in the ASC**. For each patient who experiences a fall within the confines of the ASC, complete an *OPC Report Form* and check the "Patient Fall" box.
- **Wrong Site, Side, Patient, Procedure or Implant**. For each patient who experiences a Wrong Site, Side, Patient, Procedure, or Implant outcome during the admission to the ASC, complete *OPC Report Form* and check the appropriate box. The Form allows for designation of multiple Wrong events, for example Wrong Site and Wrong Procedure.
- **Hospital Transfer/Admission**. For each patient who experiences a hospital transfer/admission upon discharge from the ASC, complete an *OPC Report Form* and check the box for "Hospital Transfer/Admission."
- Definitions for these terms are provided in the *Appendix A: OPC Definitions.*
- Record information about multiple different types of Same Day Outcome Measures (*e.g.*, a patient experiences a fall and a burn during the same admission) on the same form.
- If a patient experiences the same type of Same Day Outcome Measure more than once during the same admission (*e.g.*, a patient has multiple wrong site procedures or multiple falls), that type of event only needs to be recorded once for that admission.
- If an admitted patient does not experience any of the outcomes described, an *OPC Event Form* should not be entered.
- Data sources for events include outpatient facility medical records, incident/occurrence reports, and variance reports.

- See the *Tables 1-3: Instructions for Completing the OPC Monthly Reporting Plan, Instructions for Completing the OPC Monthly Denominators Summary,* and *Instructions for Completing the OPC Report Form* for further guidance.

Please refer to Appendix C for Frequently Asked Questions regarding these measures.

5. Reporting Instructions for the Prophylactic IV Antibiotic Timing Measure

The NHSN reporting instructions for the Prophylactic IV Antibiotic Timing measure are intended to be consistent with those in the ASC Quality Measures: Implementation Guide Version 1.7, published by the ASC Quality Collaboration.

a) Indicate on the *OPC Monthly Reporting Plan* that the ASC is participating in reporting for Prophylactic IV Antibiotic Timing.

b) At the end of the reporting month complete the *OPC Monthly Denominators and Summary Form* by entering the total number of admissions that had an order for a prophylactic IV antibiotic that were administered on time, the total number that had an order for a prophylactic IV antibiotic that were NOT administered on time, and the total number of admissions for which a prophylactic IV antibiotic was not ordered for the specified month. The sum of these numbers should be the total number of admissions to the ASC for the specified month. See the *Table 2: Instructions for Completing the OPC Monthly Denominators and Summary Form.*

c) When determining these numbers, please refer to the **Table** in this section for the list of antibiotics included in the measure.

d) Antibiotic administration is intravenous (IV) if it is administered within a vein, including as a bolus, infusion or IV piggyback.

e) An antibiotic is considered to be prophylactic if it is given to prevent surgical site infection and is included on the list of antibiotics specified for this measure. Please see the **Table** for the list of antibiotics included in this measure.

f) To determine whether an ordered prophylactic IV antibiotic was administered on time:
   - Record the time that the antibiotic infusion was initiated
   - Record the time that the procedure began.
     - The start time is the time the initial surgical incision is made.
     - For procedures involving a tourniquet, the start time is the time the tourniquet is inflated.
     - For procedures that do not involve an incision, the start time is the time the needle is inserted or the time the endoscope is introduced.
   - Calculate the time in minutes between the time that the antibiotic infusion was initiated and the time that the procedure began
   - Refer to the **Table** to determine if the time between infusion and the start of the procedure is appropriate for the given prophylactic IV antibiotic

g) For each patient **<u>who did not meet</u>** the appropriate timing requirements for the ordered antibiotic, check the "Prophylactic IV antibiotic was NOT administered on time" box on the *OPC Event Report Form.*

h) We strongly encourage the use of *Appendix E: Prophylactic IV Antibiotic Timing Sheet*, or a similar standard tool to assist tracking of patients with orders for prophylactic IV antibiotics and the time of administration.

i) The measure does not apply to re-dosing of IV antibiotics that occurs during the procedure. It only tracks the timing of preoperative IV antibiotics. Likewise, oral antibiotics are not tracked.

Table 1: Appropriate IV Antibiotic Timing for Antibiotics Included in the Prophylactic IV Antibiotic Timing Measure	
Appropriate Timing of IV Antibiotic Infusion	**Antibiotic**
Yes if initiated within one hour (60 minutes) prior to beginning of the procedure	Ampicillin/sulbactam, Aztreonam, Cefazolin, Cefmetazole, Cefotetan, Cefoxitin, Cefuroxime, Clindamycin, Ertapenem, Erythromycin, Gentamicin, Metronidazole, Neomycin
Yes if initiated within two hours (120 minutes) prior to the beginning of the procedure	Ciprofloxacin*, Gatifloxacin*, Levofloxacin*, Moxifloxacin*, Vancomycin
*Fluoroquinolones	

Please refer to Appendix D for Frequently Asked Questions concerning Prophylactic IV Antibiotic Timing

6. Reporting Instructions for Surgical Site Infection Surveillance for Outpatient Procedures (SSI-OP)

Introduction: SSI surveillance for outpatient procedures (SSI-OP) through the Outpatient Procedure Component replaces use of the SSI Event chapter of the Patient Safety Component for ambulatory surgery centers (ASCs) that participate in NHSN SSI surveillance. SSI-OP simplifies data collection to the minimum requirements needed for SSI surveillance in ASCs. Enrollment in SSI-OP by ASCs is voluntary unless required by state law. ASCs should check with their state health department if unsure about NHSN reporting requirements.

SSI-OP is not available for use in hospital outpatient departments (HOPDs) at this time; **Appendix A** includes the CMS definitions of an ASC and HOPD that should be used to determine eligibility for enrollment in the OPC. Facilities that are ineligible for SSI-OP surveillance should use the Patient Safety Component, SSI Event chapter for NHSN SSI surveillance.

The OPC supports SSI surveillance for a defined set of NHSN operative procedure categories. The NHSN operative procedure categories that are supported in the OPC are listed in **Table 2** and include BRST, CHOL, COLO, FX, HER, HPRO, HYST, KPRO, LAM, and VHYS. Though some States have mandated NHSN SSI surveillance among outpatients for additional types of outpatient surgeries, including abdominal aortic aneurysm repair, coronary artery bypass grafts and other major cardiac surgeries, peripheral vascular bypass graft surgeries, and carotid endarterectomies, there is no evidence that these procedures are commonly performed on an outpatient basis, and to the OPC will not support SSI surveillance for these procedures at this time.

Settings for SSI-OP surveillance: ASCs where eligible NHSN outpatient procedures (**Table 2**) are performed.

Facility Reporting Requirements for SSI-OP:

Requirements for targeted surveillance of SSI by NHSN operative procedure category:

a) For each calendar month under surveillance, indicate in the *OPC Monthly Reporting Plan* the NHSN operative procedure(s) in **Table 2** that are under surveillance for SSI.
b) A facility can track as many of the NHSN Outpatient Procedure Categories in **Table 2** as it wants.
c) At the end of each calendar month, indicate in the *OPC Monthly Denominators and Summary* the total number of admissions that had a primary CPT code in each NHSN operative procedure category under surveillance, as defined in **Table 2**.
d) Conduct post-discharge surveillance according to the standard methodology described in **Appendix F**.
e) The surveillance period for superficial SSI is 30 days after the procedure for all procedure categories. The surveillance period for deep and organ/space SSI is either 30 or 90 days, depending on the procedure category, as instructed in **Table 2**.

f) Complete the SSI Section of the *OPC Event* form for each patient under SSI-OP surveillance who meets the NHSN criteria for SSI, as described below in the section about criteria and reporting instructions for superficial, deep, or organ/space SSI.

g) See the OPC tables of instructions for detailed information about completing the *OPC monthly Reporting Plan*, *Monthly Denominators and Summary*, and SSI information for the *OPC Event Form*.

Table 2. NHSN Operative Procedure Category Mappings to CPT Codes with Required Follow-up Period for Deep Incisional and Organ/Space SSIs; the Required Follow-up Period is 30 days for all Superficial SSIs.

Legacy Code	NHSN Operative Procedure Category	Primary CPT Codes	Required follow-up period for Deep Incisional and Organ/Space SSI	Required follow-up period for Superficial SSI
BRST	Breast surgery	19101, 19112, 19120, 19125, 19126, 19300, 19301, 19302, 19303, 19304, 19305, 19306, 19307, 19316, 19318, 19324, 19325, 19328, 19330, 19340, 19342, 19350, 19355, 19357, 19361, 19364, 19366, 19367, 19368, 19369, 19370, 19371, 19380	90 days	30 days
CHOL	Gallbladder surgery	47480, 47562, 47563, 47564, 47600, 47605, 47610, 47612, 47620	30 days	30 days
COLO	Colon surgery	44140, 44141, 44143, 44144, 44145, 44146, 44147, 44150, 44151, 44160, 44204, 44205, 44206, 44207, 44208, 44210	30 days	30 days
FX	Open reduction of fracture	23615, 23616, 23630, 23670, 23680, 24515, 24516, 24538, 24545, 24546, 24575, 24579, 24586, 24587, 24635, 24665, 24666, 24685, 25337, 25515, 25525, 25526, 25545, 25574, 25575, 25607, 25608, 25609, 25652, 27236, 27244, 27245, 27248, 27254, 27269, 27283, 27506, 27507, 27511, 27513, 27514, 27535, 27536, 27540, 27758, 27759, 27766, 27769, 27784, 27792, 27814, 27822, 27826, 27827, 27828	90 days	30 days
HER	Herniorrhaphy	49491, 49492, 49495, 49496, 49500, 49501, 49505, 49507, 49520, 49521, 49525, , 49550, 49553, 49555, 49557, 49560, 49561, 49565, 49566, 49568, 49570, 49572, 49580, 49582, 49585, 49587, 49590, 49650, 49651, 49652,	90 days	30 days

		49653, 49654, 49655, 49656, 49657, 49659, 55540		
HPRO	Arthroplasty of hip	27125, 27130, 27132, 27134, 27137, 27138, 27236, 27299	90 days	30 days
HYST	Abdominal hysterectomy	58150, 58152, 58180, 58200, 58210, 58541, 58542, 58543, 58544, 58548, 58570, 58571, 58572, 58573, 58951, 58953, 58954, 58956	30 days	30 days
KPRO	Arthoplasty of knee	27438, 27440, 27441, 27442, 27443, 27445, 27446, 27447, 27486, 27487	90 days	30 days
LAM	Laminectomy	(*CPT codes will be available for this category by 2014*)	30 days	30 days
VHYS	Vaginal hysterectomy	(*CPT codes will be available for this category by 2014*)	30 days	30 days

NHSN Criteria and Reporting Instructions for Superficial, Deep, or Organ/Space SSI

A **superficial incisional SSI** must meet the following criteria:

1. Infection occurs within 30 days after the operative procedure
   and
2. involves only skin and subcutaneous tissue of the incision
   and
3. the patient has at least one of the following:
   a. purulent drainage from the superficial incision
   b. organisms isolated from an aseptically obtained culture of fluid or tissue from the superficial incision
   c. superficial incision that is deliberately opened by a surgeon or other healthcare provider and is culture-positive or not cultured,
      and
      patient has at least one of the following signs or symptoms of infection: pain or tenderness; localized swelling; redness; or heat. A culture-negative finding does not meet this criterion
   d. diagnosis of superficial incisional SSI by the surgeon or attending physician.

Note: Do not report the following as superficial incisional SSI:

- A stitch abscess (minimal inflammation and discharge confined to the points of suture penetration)
- A localized stab wound infection
- "Cellulitis;" cellulitis, by itself does not meet criterion d. for superficial incisional SSI.

A **deep incisional SSI** must meet the following criteria:

1. Infection occurs within 30 days after the NHSN operative procedure for CHOL, COLO, HYST, LAM, and VHYS (see **Table 2**); within 90 days after the operative procedure for BRST, FX, HER, HPRO, or KPRO (see **Table 2**); or within 30 days after any procedure with a primary CPT code that is not specified in **Table 2**
   and
2. involves deep soft tissues of the incision (*e.g.*, fascial and muscle layers)
   and
3. patient has at least one of the following:
   a. purulent drainage from the deep incision
   b. a deep incision that spontaneously dehisces or is deliberately opened by a surgeon or other healthcare provider and is culture-positive or not cultured
      and
      the patient has at least one of the following signs or symptoms: fever (>38°C); localized pain or tenderness. A culture-negative finding does not meet this criterion.
   c. an abscess or other evidence of infection involving the deep incision that is found on direct examination, during invasive procedure, or by histopathologic examination or imaging test.

An **organ/space SSI** must meet the following criteria:

1. Infection occurs within 30 days after the NHSN operative procedure for CHOL, COLO, HYST, LAM, and VHYS (see **Table 2**); within 90 days after the operative procedure for BRST, FX, HER, HPRO, or KPRO (see **Table 2**); or within 30 days after any procedure with a primary CPT code that is not specified in **Table 2**
   and
2. infection involves any part of the body, excluding the skin incision, fascia, or muscle layers, that is opened or manipulated during the operative procedure
   and
3. The patient has at least one of the following:
   a. purulent drainage from a drain that is placed 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 invasive procedure, or by histopathologic examination or imaging test

An **organ/space SSI** involves any part of the body, excluding the skin incision, fascia, or muscle layers, that is opened or manipulated during the operative procedure. See **Table 3** for examples of common Organ/Space SSIs associated with the corresponding NHSN Operative Procedure Categories.

Table 3. Examples of common organ/space SSIs, by NHSN operative procedure category.	
NHSN Operative Procedure Categories	**Examples of Common Organ/Space SSIs**
Orthopedic: HPRO, KPRO, FX, LAM	Osteomyelitis, periprosthetic joint infection, other joint or bursa infections
Spinal: LAM	Osteomyelitis, disc space, spinal abscess
Breast surgery (BRST)	Breast abscess or mastitis
Gastrointestinal or other abdominal surgeries: gallbladder surgeries, colon surgeries, herniorrhaphies	GI tract, hepatitis, intraabdominal abscess or other intraabdominal infections
Abdominal or vaginal hysterectomies (HYST, VHYS)	Endometritis, vaginal cuff infections, other infections of the reproductive or urinary tract

SSI Reporting Instructions for Specific Scenarios:

- **Multiple CPT codes assigned during a single admission to the ASC**: Always use the primary CPT code assigned to the admission as the basis for recording monthly denominator totals, determining the period of SSI surveillance, and attributing SSI. Example:
  - An ASC is participating in SSI surveillance for NHSN procedure categories HER and CHOL. A patient has a combined procedure, for which the primary CPT code is assigned to the CHOL and a secondary CPT code is assigned to the HER. The ASC should count one procedure toward the total number of CHOL procedures for the month and zero toward the total number of HER procedures. The postoperative surveillance period should be that which applies to the primary CPT code.

- **SSI at multiple sites or SSI that involves multiple tissue layers**: It is possible for multiple SSIs to occur after a single procedure (e.g., SSI at multiple laparoscopic incision sites) or after multiple procedures during a single admission (e.g., multiple hernia procedures). The type of SSI (superficial, deep, or organ/space) reported should be the deepest tissue layer involved in the infection(s); do not report more than one SSI for a single patient admission:
    - Classify infection that involves both superficial and deep incision sites as deep incisional SSI.
    - Classify infection that involves both superficial incision and organ/space sites as organ/space SSI.
    - Classify infection that involves both deep incision and organ/space sites as organ/space SSI.
- **Multiple admissions**: A patient could have SSI that occurs during the surveillance period after multiple, separate ASC admissions. In this scenario, assign the SSI to the primary CPT code for the admission that most closely precedes the date that the SSI is identified. For example:
    - The patient has an initial admission to an ASC, a second admission 7 days later. An SSI is identified 20 days after the initial admission and 13 after the second admission. Assign the SSI to the primary CPT code for the second admission.

Required data elements when reporting SSI (Superficial Incisional, Deep Incisional, and Organ/Space SSI) on the *Outpatient Procedure Event Form*

(See *Tables of Instructions, Instructions for Completing the Outpatient Procedure Event Form* for additional guidance)

- The date that the SSI was identified
- The primary CPT code of the procedure
- The type of SSI (Superficial Incisional, Deep Incisional, or Organ/Space)
- The type of notification, or how the ASC first learned of the SSI. *These do not constitute criteria for determination that an SSI occurred, only how the ASC learned of the SSI.* Notification may be by:
    - Surgeon
    - An admitting inpatient facility
    - Attending physician, other than surgeon
    - Patient or family member
    - Routine follow-up call by the ASC / outpatient facility
- Specify any criteria that were used to identify the specific type of SSI, including:
    - Purulent drainage
    - Incision deliberately opened or drained by surgeon or other healthcare provider
    - Pain or tenderness
    - Localized swelling
    - Wound spontaneously dehisces
    - Redness
    - Heat
    - Abscess

  - Fever (>38°C)
  - Positive culture of the surgical site
  - Not cultured
  - Imaging test evidence of infection
  - Histopathologic evidence of infection
  - Diagnosis of superficial incisional SSI by a surgeon or attending physician
  - Other evidence of infection found on direct exam or during invasive procedure
- Any pathogen(s) that were identified from microbiologic culture of the infection site.

Appendix A: Outpatient Procedure Component (OPC) Definitions

Admission: A patient is considered admitted upon completion of registration for entry into the facility.

Ambulatory Surgery Center (ASC): NHSN uses the Code of Federal Regulations definition of an Ambulatory Surgery Center (ASC), 42 CFR § 416.2, which states: ASC means any distinct entity that operates exclusively for the purpose of providing surgical services to patients not requiring hospitalization and in which the expected duration of services would not exceed 24 hours following an admission. The entity must have an agreement with CMS to participate in Medicare as an ASC, and must meet the conditions set forth in 42 CFR § 416.

Discharge: A patient is considered discharged when they leave the confines of the outpatient facility.

HOPD: For clarification purposes, we also include the definition of a Hospital Outpatient Department (HOPD), which is also based on the Code of Federal Regulations. 42 CFR 440.20 states: An HOPD is a location that provides outpatient hospital services, meaning preventive, diagnostic, therapeutic, rehabilitative, or palliative services that:

1. Are furnished to outpatients;
2. Are furnished by or under the direction of a physician or dentist; and
3. Are furnished by an institution that—
    i. Is licensed or formally approved as a hospital by an officially designated authority for State standard-setting; and
    ii. Meets the requirements for participation in Medicare as a hospital; and
4. May be limited by a Medicaid agency in the following manner: A Medicaid agency may exclude from the definition of "outpatient hospital services" those types of items and services that are not generally furnished by most hospitals in the State.

Hospital Transfer or Admission: Any transfer or admission from an ASC or HOPD directly to an acute care hospital including the hospital emergency room. Directly means upon discharge from the outpatient facility. This measure applies regardless of the reason for the hospital transfer/admission, and no direct hospital transfers/admissions should be excluded based on an assessment about whether the transfer/admission is or is not related to the outpatient facility admission. This measure excludes patients who are discharged from the outpatient facility and then later go to a hospital emergency room or acute care hospital, even if they do so on the same date as the outpatient facility admission.

Patient Burn: Any unintended tissue injury that occurs prior to discharge from the outpatient facility and is caused by any of the six recognized mechanisms: scalds, contact, fire, chemical, electrical or radiation. Examples of devices that can cause burns include warming devices, prep solutions, electrosurgical units or lasers.

Patient Fall: A sudden, uncontrolled, unintentional, and downward displacement of the body to the ground or other object, and that occurs within the confines of the outpatient facility. This definition excludes falls resulting from violent blows or other purposeful actions. It also excludes falls that do not occur within the confines of the outpatient facility, such as in a parking lot.

Wrong (for the Wrong Site, etc. measure): Not being in accordance with the intended site, side, patient, procedure, or implant.

Appendix B: Statistical Analyses

Four Same Day Outcome Measures

For the four Same Day Outcome Measures (Patient Burn, Patient Fall, Wrong Site / Side / Patient / Procedure / Implant, and Direct Hospital Transfer/Admission), the denominator will be the total number of admissions to the ASC as reported on the *OPC Monthly Denominators and Summary Form.*

Numerator data for each of the Four Same Day Outcome Measures will be the number of admissions for which a given Same Day Outcome Measures event is recorded on the *OPC Event Form.* **Note**: there will be no double counting of the same type of Same Day Outcome Measure; e.g., even if a patient falls twice during the same admission to an ASC, that admission will only count as 1 "Patient Fall" in the facility numerator for that measure.

The NHSN application will provide monthly, quarterly, and annual facility-specific rates for each of the Four Same Day Outcome Measures:

1. Patient Burn Rate = Number of Admissions with a Patient Burn / Overall Number of Admissions to the ASC
2. Patient Fall Rate = Number of Admissions with a Patient Fall / Overall Number of Admissions to the ASC
3. Wrong Site, Side, Patient, Procedure, Implant Rate = Number of Admissions with a Wrong Site (etc.) Event / Overall Number of Admissions to the ASC
4. Hospital Transfer/Admission Rate = Number of Admissions with a Direct Hospital Transfer or Admission / Overall Number of Admissions to the ASC

Prophylactic IV Antibiotic Timing Measure

For the Prophylactic IV Antibiotic Timing Measure, the denominator will be the total number of admissions to the ASC that had an order for a prophylactic IV antibiotic, as reported on the *OPC Monthly Denominators and Summary Form.*

The NHSN application will provide monthly, quarterly, and annual facility-specific rates for the Prophylactic IV Antibiotic Timing Measure:

- Percentage of Patients who Received Timely Prophylactic IV Antibiotics = 1 – (Number of Admissions without On-Time Prophylactic IV Antibiotic Administration / Overall Number of Admissions that had an Order for a Prophylactic IV Antibiotic)

SSI Surveillance by NHSN Operative Procedure Category

For each NHSN operative procedure category under surveillance (**Table 2**), as recorded on the *OPC Monthly Reporting Plan*, the denominator for calculation of a facility's SSI rate will be the total number of patients who were admitted to the ASC and had a primary CPT code that maps to the specified NHSN Outpatient Procedure, as recorded on the *OPC Monthly Denominators and Summary Form.* Note:

because only the primary CPT code will be used for tracking SSI in the Outpatient Procedure Component, a patient admission that has multiple procedures within the same NHSN outpatient procedure category will only count once in the facility denominator for that procedure category.

The numerator for calculation of a facility's SSI rate will be the total number of patients in the denominator who developed an SSI, as reported on the *OPC Event Form.*

For each NHSN Outpatient Procedure type that the facility is tracking for SSI, the NHSN application will provide the Crude SSI rate = Number of SSIs / Number of Patients who were Admitted to the ASC and Received the Specified Outpatient Procedure type

Appendix C: Frequently Asked Questions for Four Same Day Outcome Measures

Frequently Asked Questions Regarding the Patient Burn Measure

Do all ASCs have conditions that would result in a patient burn?

Yes, because the definition of burn in this measure is comprehensive, every ASC has the potential for a patient to experience a burn during an episode of care.

Did the ASC Quality Collaboration consider stratifying by type of burn?

Stratification by type of burn was considered, but consensus of the workgroup was that a burn is an unexpected outcome in an ASC and should not occur regardless of the source, degree or type of burn.

Frequently Asked Questions for Patient Fall in the ASC

Should we count assisted falls under this measure?

Yes, assisted falls are considered falls for the purposes of this measure.

What about falls in the parking lot? Should those be counted?

The physical plant and location of ASCs is highly variable. In order to assure that the measure would be applicable to all settings, reportable falls are limited to those which occur within the confines of the facility itself. Falls in the parking lot should not be counted.

Should we count falls that are not witnessed?

All documented patient falls are counted, regardless of whether they are witnessed or not.

Frequently Asked Questions for Wrong Site, Wrong Side, Wrong Patient, Wrong Procedure, Wrong Implant

Isn't the incidence of wrong site, etc. surgery low in surgery centers?

While the incidence of wrong-site surgeries is low, the potential for wrong-site (bilateral options) and the impact on patient care associated with each incident make this a priority in ASCs.

Do you count a block (preoperative or intraoperative) given on the incorrect side?

Yes, you count any procedure that was done on the wrong side.

Do you count an injection of local anesthetic given on the incorrect side?

Yes, you count this as a wrong side event.

Should the administration of topical anesthetic drops in the wrong eye be considered a wrong site event?

No, administration of topical anesthetic drops in the wrong eye should not be counted as a wrong site event. Such an occurrence would be considered a medication administration variance.

Frequently Asked Questions for Hospital Transfer/Admission

Should patients who go to a hospital emergency room sometime after their discharge be counted?

To allow consistent reporting, only patients who are directly transferred or directly admitted to the hospital upon their discharge from the ASC are counted for purposes of this measure.

Do we count ASC patients who are admitted to the hospital sometime after their discharge from the ASC secondary to a complication of surgery?
No, only patients who are directly transferred or admitted to the hospital upon their discharge from the ASC should be counted. This helps ensure the rates reported are consistent.

Do we capture data for all ASC patients who are directly transferred or admitted to the hospital setting regardless of reason?
Yes, all transfers or admissions to the hospital that take place upon discharge from the ASC should be counted, regardless of the reason for the transfer or admission.

Do we count patients who are transferred to the hospital setting in an automobile upon discharge?
Yes. All transfers or admissions upon discharge from the ASC are counted, regardless of the mode of transportation.

How could a facility benefit from this measure?
If transfers/admissions are determined to be at a level higher than expected, ASCs could assess their center's guidelines for patient and/or procedure selection. If commonalities are found in patients who are transferred or admitted, guidelines may require revision.

Appendix D: Frequently Asked Questions for Prophylactic IV Antibiotic Timing

What is the goal for this measure?
A reasonable goal for this measure is an on-time administration rate in the 99%-100% range.

For prophylactic antibiotics, do we only count those ordered for IV administration? Not eye drops when used for the same purpose?
Only patients with orders that specify an intravenous route of administration should be counted.

If an antibiotic is ordered that is not included in the list of prophylactic antibiotics for this measure, should we count it?
No, the only antibiotics that are considered for inclusion in this measure are those that are included in the definition of "prophylactic antibiotic".

If an antibiotic is ordered for the prophylaxis of spontaneous bacterial endocarditis (SBE), should we count it?
No, only antibiotics administered for the prophylaxis of surgical site infection are included for measurement.

What happens when two or more prophylactic antibiotics are given to the same patient for the same procedure?
The infusion of all prophylactic IV antibiotics ordered for surgical site infection would need to be initiated within the one-hour time frame (two hours for vancomycin or fluoroquinolones). In cases involving more than one antibiotic, all antibiotics must be initiated within the appropriate time frame in order for the case to meet criteria.

Does the timing of the antibiotic start at the completion of the antibiotic or the start of the antibiotic?
The timing begins at the time the antibiotic infusion is initiated. To meet the intent the antibiotic should be initiated within one hour of the initial surgical incision or the beginning of the procedure (two hours for vancomycin or fluoroquinolones).

Do you include patients who do not have an order for prophylactic IV antibiotics?
Patients without an order for prophylactic IV antibiotics are not included.

If the order for the antibiotic is given after the procedure has started, should the case be counted?
If the order for the antibiotic is given after the procedure has started, the case should not be included. The denominator for this measure specifically requires a preoperative order.

This measure is difficult to track. Why did you develop an IV antibiotic timing measure?
This measure was developed to harmonize with a similar measure under Surgical Care Improvement Project (SCIP). Evidence shows initiating prophylactic antibiotics within one hour of incision, procedure, or tourniquet results in better outcomes.

Is tourniquet time a substitute for incision time?
Tourniquet time is included based on published studies that demonstrate higher tissue concentrations of prophylactic antibiotics when the administration is prior to tourniquet inflation. The use of tourniquet

time is consistent with the American Academy of Orthopedic Surgery Advisory Statement that recommends infusion prior to inflation of a proximal tourniquet, rather than prior to incision.

How was the list of antibiotics developed?
This prophylactic antibiotic timing measure has been specifically designed to harmonize with, and be complementary to, similar measures developed to evaluate physician performance in this area. Therefore, the list of antibiotics included in this measure is the same list of antibiotics designated in the measures submitted by the ACS/AMA PCPI/NCQA for measurement of physician performance.

How do I collect data for this measure?
A sample data collection log is available in Appendix E.

Appendix E: Sample Data Collection Log: Prophylactic IV Antibiotic Timing

Date of Service	PT Identifier	Antibiotic Ordered	Infusion Start Time	Procedure Start Time	Elapsed Time	Timely Administration	
						YES	NO

Appendix F: Post-Discharge Surveillance Toolkit

Standard post-discharge surveillance toolkit (*see Appendix F)*

A standard post-discharge SSI surveillance method is required for the OPC. The ASC should generate a procedure line list, by surgeon, at the end of each surveillance period (30 or 90 days depending on the procedure type). Line lists should be sent to surgeons for their review. Using the procedure line list as a guide, surgeons will indicate which of their patients were recognized (or suspected) to have experienced post-procedure SSI. Surgeons will then return completed worksheets back to the appropriate ASC staff, who will confirm whether the suspected SSI(s) correctly meet NHSN criteria as specified in the OPC protocol. SSIs that are confirmed to meet the NHSN criteria must be entered into NHSN via the usual pathway.

This toolkit was developed by NHSN to assist your facility in obtaining information from surgeons about potential SSIs. Based on NHSN protocol, operative procedures must be followed for either a 30- or 90-day surveillance period after the operation in order to identify a potential SSI (**Table**). If a facility has already developed a standardized process to generate a procedure list for surgeons' review, that facility may continue to use that process, as long as it otherwise meets the requirements of this Post-Discharge Surveillance Toolkit.

This toolkit includes a **Post-discharge SSI Worksheet** that will allow surgeons or their designee to document whether any of their patients developed a suspected superficial, deep, or organ/space surgical site infection. This worksheet is generic and can be used for any surgical procedure that your facility is following.

We have also included detailed instructions for obtaining a **Procedure Line List by Surgeon** using the analysis options in NHSN. This line list should be run at the end of every month (or 90-day period for select procedures) and will provide surgeons with a detailed list of each procedure they performed at your facility during the previous 30 (or 90) days.

The Procedure Line List and the Post-discharge SSI Worksheet can be sent to surgeons' offices at the end of every surveillance period (30 or 90 days). Using the Procedure Line List as a guide, surgeons will complete one Worksheet for each patient who developed an SSI. All completed Worksheets should be sent back to the appropriate ASC staff to confirm that the documented SSIs correctly meet NHSN criteria. If the SSIs are confirmed, the infections must be entered into NHSN via the usual pathway.

Instructions for the office staff on how to complete the Post-discharge SSI Worksheets can be customized based on your facility's preferences. A sample Worksheet, Procedure Line List, and set of office instructions are also included below.

IMPORTANT POINTS:

- Your facility must include either a Surgeon Code or Surgeon Name for each procedure entered in NHSN in order to generate the Procedure Line List by surgeon.
- The Procedure Line List and the Worksheets should not be mailed until at least 30 or 90 days after the last surgical procedure so that the correct time period following the surgery has passed.

SAMPLE LETTER: Post-discharge Surgical Site Infection Surveillance

Dear Office Staff,

We are requesting your assistance with post-discharge surgical site infection surveillance. Please review the records for each patient included on the line list.

- If a patient did not develop any surgical site infection check the "No Evidence of SSI box."
- If a patient developed an infection, please fill out the enclosed "Post-discharge Surgical Site Infection Worksheet."

Note: Please make enough copies of the blank Post-discharge Surgical Site Infection Worksheet so that one worksheet can be completed for each patient with an SSI.

- Return this line list and any completed worksheets by [insert date]

The worksheets and line list can be sent back via fax or mail. If you have any questions, please feel free to call.

Thank you for your assistance in ensuring our compliance with post-discharge SSI surveillance.

Jane Smith RN, CIC
DHQP Memorial Hospital
1600 Clifton Road
Atlanta, GA 30329
FAX: 000-000-0000
Phone: 000-000-0000

SAMPLE LINELIST: Post-discharge Surgical Site Infection Surveillance: August 2011

Patient Last Name	Patient First Name	Date of Birth	Gender	Procedure ID	Procedure Date	Procedure Code	Surgeon Code	No Evidence of SSI
Smith	Jane	10/20/1944	F	27467	01/30/2011	COLO	0103	
Greene	Rachel	07/27/1949	F	27486	01/16/2011	COLO	0103	
Blakeman	Mark	12/01/1927	M	27497	01/30/2011	COLO	0103	
Fields	Rebecca	01/15/1960	F	27525	01/31/2011	COLO	0103	
Hunter	Sean	09/23/1933	M	27531	01/24/2011	COLO	0103	
Smith	Mary	07/16/1970	F	35014	01/09/2011	HYST	0103	
Jones	SeQuisha	06/29/1972	F	35015	01/02/2011	HYST	0103	
Archin	Latoya	09/03/1967	F	35016	01/07/2011	HYST	0103	

Post-discharge Worksheet for Suspected SSI

Patient Demographics:	
Patient Name (Last, First):	
Primary CPT Code of Procedure:	Date of Procedure:
Date SSI Identified:	
Was the SSI identified on admission to a hospital? Y N If Yes, name of facility: _____	
Select the infection type and associated criteria (if known) from the options below:	
□ **A. Superficial Incisional SSI:** Involves only the skin and subcutaneous tissue of the incision	
Criteria met (check all that apply): □ Purulent drainage from the superficial incision □ Organisms isolated from an aseptically obtained culture of fluid or tissue from the superficial incision □ Physician diagnosis □ *Localized pain or tenderness, swelling, redness, or heat ***If checked, please answer the following regarding the incision (check all that apply):** □ Deliberately opened by surgeon or other healthcare provider □ Not opened by surgeon □ Culture-positive[1] □ Not cultured	
□ **B**. **Deep Incisional SSI:** Involves deep soft tissues (e.g., fascia and muscle layers) of the incision and does not involve the organ/space	
Criteria met (check all that apply): □ Purulent drainage from the deep incision □ Abscess or other evidence of infection on direct exam, during an invasive procedure, or by histopathologic exam or imaging test □ *Fever (>38°C), localized pain or localized tenderness ***If checked, please answer the following (check all that apply):** □ Spontaneously dehisces or is deliberately opened by surgeon or other healthcare provider □ Culture- positive[1] □ Not cultured	
□ **C. Organ/Space:** Involves any part of the body, excluding skin incision, fascia, or muscle layers, that is opened or manipulated during the operative procedure	
Criteria met (check all that apply): □ Purulent drainage from a drain that is placed into the organ/space □ Organisms isolated from an aseptically-obtained culture of fluid or tissue in the organ/space □ Abscess or other evidence of infection involving the organ/space that is found on direct examination or imaging test	
[1] specify where the lab specimen was sent for testing: _____	
Additional comments:	
Signature:	**Date:**

References

1. Centers for Medicare and Medicaid Services. Hospital Outpatient Quality Reporting Specifications Manual Version 6.0a. 2012; http://www.qualitynet.org/dcs/ContentServer?cid=1196289981244&pagename=QnetPublic%2FPage%2FQnetTier2&c=Page.