NATIONAL QUALITY FORUM

Measure Evaluation 4.1
January 2010

This form contains the measure information submitted by stewards. Blank fields indicate no information was provided. Attachments also may have been submitted and are provided to reviewers. The sub-criteria and most of the footnotes from the evaluation criteria are provided in Word comments and will appear if your cursor is over the highlighted area (or in the margin if your Word program is set to show revisions in balloons). Hyperlinks to the evaluation criteria and ratings are provided in each section.

TAP/Workgroup (if utilized)**:** Complete all yellow highlighted areas of the form. Evaluate the extent to which each sub-criterion is met. Based on your evaluation, summarize the strengths and weaknesses in each section.

Note: *If there is no TAP or workgroup, the SC also evaluates the* sub-criteria *(yellow highlighted areas)*.

Steering Committee: Complete all pink highlighted areas of the form. Review the workgroup/TAP assessment of the sub-criterion, noting any areas of disagreement; then evaluate the extent to which each major criterion is met; and finally, indicate your recommendation for the endorsement. Provide the rationale for your ratings.

Evaluation ratings of the extent to which the criteria are met
C = Completely (unquestionably demonstrated to meet the criterion)
P = Partially (demonstrated to partially meet the criterion)
M = Minimally (addressed BUT demonstrated to only minimally meet the criterion)
N = Not at all (NOT addressed; OR incorrectly addressed; OR demonstrated to NOT meet the criterion)
NA = Not applicable (only an option for a few sub-criteria as indicated)

(for NQF staff use) **NQF Review** #: PSM-008-10 **NQF Project:** Ambulatory Care - Additional Outpatient Measures 2010

MEASURE DESCRIPTIVE INFORMATION
De.1 Measure Title: Surgical Site Infection Rate - Ambulatory Surgery
De.2 Brief description of measure*:* The measure identifies the percentage of ambulatory surgery admissions developing a post-operative surgical site infection within 30 days after the operation, or within 1 year of the operation if an implant was placed.
1.1-2 Type of Measure: outcome **De.3 If included in a composite or paired with another measure, please identify composite or paired measure** Not applicable
De.4 National Priority Partners Priority Area: safety **De.5 IOM Quality Domain**: safety **De.6 Consumer Care Need:** Staying Healthy

CONDITIONS FOR CONSIDERATION BY NQF	
Four conditions must be met before proposed measures may be considered and evaluated for suitability as voluntary consensus standards:	**NQF Staff**
A. The measure is in the public domain or an intellectual property (measure steward agreement) is signed. *Public domain only applies to governmental organizations. All non-government organizations must sign a measure steward agreement even if measures are made publicly and freely available.* **A.1 Do you attest that the measure steward holds intellectual property rights to the measure and the right to use aspects of the measure owned by another entity (e.g., risk model, code set)?** Yes **A.2 Indicate if Proprietary Measure** (*as defined in measure steward agreement*)**:**	**A** **Y☐** **N☐**

A.3 **Measure Steward Agreement:** agreement signed and submitted A.4 **Measure Steward Agreement attached:** NQF Steward Agreement Addendum ASC QC 2010-634020048841735222.doc	
B. The measure owner/steward verifies there is an identified responsible entity and process to maintain and update the measure on a schedule that is commensurate with the rate of clinical innovation, but at least every 3 years. Yes, information provided in contact section	**B** Y☐ N☐
C. The intended use of the measure includes both public reporting and quality improvement. ►**Purpose:** public reporting, quality improvement 0,0,0,	**C** Y☐ N☐
D. The requested measure submission information is complete. Generally, measures should be fully developed and tested so that all the evaluation criteria have been addressed and information needed to evaluate the measure is provided. Measures that have not been tested are only potentially eligible for a time-limited endorsement and in that case, measure owners must verify that testing will be completed within 12 months of endorsement. D.1**Testing:** Yes, fully developed and tested D.2 **Have NQF-endorsed measures been reviewed to identify if there are similar or related measures?** Yes	**D** Y☐ N☐
(for NQF staff use) **Have all conditions for consideration been met?** **Staff Notes to Steward** (*if submission returned*)**:**	**Met** Y☐ N☐
Staff Notes to Reviewers (*issues or questions regarding any criteria*)**:**	
Staff Reviewer Name(s):	

TAP/Workgroup Reviewer Name:	
Steering Committee Reviewer Name:	
1. IMPORTANCE TO MEASURE AND REPORT	
Extent to which the specific measure focus is important to making significant gains in health care quality (safety, timeliness, effectiveness, efficiency, equity, patient-centeredness) and improving health outcomes for a specific high impact aspect of healthcare where there is variation in or overall poor performance. *Measures must be judged to be important to measure and report in order to be evaluated against the remaining criteria.* (evaluation criteria) **1a. High Impact**	Eval Rating
(for NQF staff use) **Specific NPP goal**:	
1a.1 **Demonstrated High Impact Aspect of Healthcare:** frequently performed procedure, patient/societal consequences of poor quality, high resource use, a leading cause of morbidity/mortality 1a.2 1a.3 **Summary of Evidence of High Impact:** The importance of surgical site infections (SSIs) as a major contributor to patient injury, mortality, as well as increased resource utilization and health care costs has been well documented.1-5 For example, in the 1990s, patients developing SSI had longer and costlier hospitalizations. They were twice as likely to die, 60% more likely to spend time in an ICU, and more than five times more likely to be readmitted to the hospital. The excess direct costs attributable to SSI were $3,089 (CI95, $2,139-$4,163).2 Postdischarge SSIs lead to an average of 4.6 additional ambulatory encounters.3 1a.4 **Citations for Evidence of High Impact:** 1 Mangram AJ, Horan TC, Pearson ML, Silver LC, Jarvis WR, The Hospital Infection Control Practices Advisory Committee. Guideline for prevention of surgical site infection, 1999. Infect Control Hosp Epidemiol. 1999;20(4):247-278. 2 Kirkland KB, Briggs JP, Trivette SL, Wilkinson WE, Sexton DJ. The impact of surgical-site infections in the 1990s: attributable mortality, excess length of hospitalization, and extra costs. Infect Control Hosp	**1a** C☐ P☐ M☐ N☐

Epidemiol. 1999 Nov;20(11):725-30.

3 Sands K, Vineyard G, Platt R. Surgical site infections occurring after hospital discharge. J Infect Dis. 1996 Apr;173(4):963-70.

4 Kaye KS, Anderson DJ, Sloane R, Chen LF, Choi Y, Link K, Sexton DJ, Schmader KE. The effect of surgical site infection on older operative patients. J Am Geriatr Soc. 2009 Jan;57(1):46-54.

5 National Nosocomial Infections Surveillance (NNIS). Data summary from October 1986-April 1996, issued May 1996: a report from the National Nosocomial Infections Surveillance (NNIS) System. Am J Infect Control. 1996;24:380-388.

1b. Opportunity for Improvement

1b.1 Benefits (improvements in quality) envisioned by use of this measure: At the present time, the ambulatory surgical center industry does not have a universally accepted method of defining and tracking surgical site infection. By adopting a standard approach, facilities will be able to more accurately benchmark their outcomes and performance, and implement improvement strategies when needed.

1b.2 Summary of data demonstrating performance gap (variation or overall poor performance) across providers:
No published data comparing the rate of SSI among ambulatory surgical centers could be located. The lack of baseline comparative data pre-empts an assessment for variation in performance.

1b.3 Citations for data on performance gap:
Not applicable.

1b.4 Summary of Data on disparities by population group:
This measure is not designed to measure population disparities.

1b.5 Citations for data on Disparities:
Not applicable.

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1c. Outcome or Evidence to Support Measure Focus

1c.1 Relationship to Outcomes (*For non-outcome measures, briefly describe the relationship to desired outcome. For outcomes, describe why it is relevant to the target population*)**:** In the 1990s, CDC estimated 27 million surgical procedures were performed in the United States each year. Among surgical patients, SSIs were the most common
(38%) nosocomial infection. 1 Data suggest that more than 2% of the operations performed each year in the hospital setting are complicated by an SSI. 2

Recent data suggests that approximately 60 percent of surgical procedures are performed in the outpatient setting3, with an estimated 53.3 million surgical and nonsurgical procedures were performed in 2006.4 Despite the significant shift in surgical volume to the outpatient setting, SSI rates in ambulatory patients have not been well documented.

1c.2-3. Type of Evidence: evidence based guideline

1c.4 Summary of Evidence (*as described in the criteria; for outcomes, summarize any evidence that healthcare services/care processes influence the outcome*)**:**
There is a substantial body of evidence showing that providers can influence the rate of surgical site infection through processes including, but not limited to, timely administration of prophylactic intravenous antibiotics and appropriate surgical site hair removal. This body of evidence is the foundation for a number of NQF endorsed quality measures whose intent is to reduce the rate of surgical site infection.

1c.5 Rating of strength/quality of evidence (*also provide narrative description of the rating and by*

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whom)**:**
Category IB. Strongly recommended for implementation and supported by some experimental, clinical, or epidemiological studies and strong theoretical rationale. HICPAC

1c.6 Method for rating evidence: Category I recommendations, including IA and IB, are those recommendations that are viewed as effective by HICPAC and experts in the fields of surgery, infectious diseases, and infection control. Both Category IA and IB recommendations are applicable for, and should be adopted by, all healthcare facilities; IA and IB recommendations differ only in the strength of the supporting scientific evidence.

Category II recommendations are supported by less scientific data than Category I recommendations; such recommendations may be appropriate for addressing specific nosocomial problems or specific patient populations.

No recommendation is offered for some practices, either because there is a lack of consensus regarding their efficacy or because the available scientific evidence is insufficient to support their adoption.

1c.7 Summary of Controversy/Contradictory Evidence: There are occasional studies seen suggesting that current processes intended to reduce the rate of surgical site infection are not effective. See, for example:

Hawn MT, Itani KM, Gray SH, Vick CC, Henderson W, Houston TK. Association of timely administration of prophylactic antibiotics for major surgical procedures and surgical site infection. J Am Coll Surg. 2008 May;206(5):814-19. This study compared the timely versus untimely administration of prophylactic antibiotics for elective major surgical procedures in hospitals and found that the rates of surgical site infection (SSI) were similar regardless of whether or not the antibiotics were received timely.

1c.8 Citations for Evidence (*other than guidelines***):** Selected references include:

Matuschka PR, Cheadle WG, Burke JD, et al. A new standard of care: administration of preoperative antibiotics in the operating room. Am Surg. 1997;63:500-503.

Classen DC, Evans RS, Pestotnik SL, Horn SD, Menlove RL, Burke JP. The timing of prophylactic administration of antibiotics and the risk of surgical-wound infection. New England Journal of Medicine. 1992;326(5):281–286.

Alexander JW, Fischer JE, Boyajian M, Palmquist J, Morris MJ. The influence of hair-removal methods on wound infections. Arch Surg. 1983 Mar;118(3):347-52.

Balthazar ER, Colt JD, Nichols RL. Preoperative hair removal: a random prospective study of shaving versus clipping. South Med J. 1982 Jul;75(7):799-801.

Kjonniksen I, Andersen BM, Sondenaa VG, Segadal L. Preoperative hair removal--a systematic literature review. AORN J. 2002 May;75(5):928-38, 940.

Powis SJ, Waterworth TA, Arkell DG. Preoperative skin preparation: clinical evaluation of depilatory cream. Br Med J. 1976 Nov 13;2(6045):1166-8.

Tanner J, Moncaster K, Woodings D. Preoperative hair removal to reduce surgical site infection. Cochrane Database Syst Rev. 2006 Jul 19;3:CD004122.

Thur de Koos P, McComas B. Shaving versus skin depilatory cream for preoperative skin preparation. A prospective study of wound infection rates. Am J Surg. 1983 Mar;145(3):377-8.

Kirby JP, Mazuski JE. Prevention of surgical site infection. Surg Clin North Am. 2009 Apr;89(2):365-89.

1c.9 **Quote the Specific guideline recommendation (***including guideline number and/or page number***):** "Use CDC definitions of SSI (Table 1) without modification for identifying SSI among surgical inpatients and outpatients." (page 268) AND "For outpatient case-finding, use a method that accommodates available resources and data needs." (page 268) 1c.10 **Clinical Practice Guideline Citation:** Mangram AJ, Horan TC, Pearson ML, Silver LC, Jarvis WR, The Hospital Infection Control Practices Advisory Committee. Guideline for prevention of surgical site infection, 1999. Infect Control Hosp Epidemiol. 1999;20(4):247-278. 1c.11 **National Guideline Clearinghouse or other URL:** http://www.cdc.gov/ncidod/dhqp/pdf/guidelines/SSI.pdf 1c.12 **Rating of strength of recommendation (***also provide narrative description of the rating and by whom***):** Category IB 1c.13 **Method for rating strength of recommendation** (*If different from* USPSTF system*, also describe rating and how it relates to USPSTF)***:** Category I recommendations, including IA and IB, are those recommendations that are viewed as effective by HICPAC and experts in the fields of surgery, infectious diseases, and infection control. Both Category IA and IB recommendations are applicable for, and should be adopted by, all healthcare facilities; IA and IB recommendations differ only in the strength of the supporting scientific evidence. This method was the standard approach used by HICPAC at the time the guideline was issued in 1999. 1c.14 **Rationale for using this guideline over others:** Nationally recognized and de facto guideline for surgical site infection in the United States.	
TAP/Workgroup: What are the strengths and weaknesses in relation to the sub-criteria **for** *Importance to Measure and Report?*	**1**
Steering Committee: Was the threshold criterion, *Importance to Measure and Report***, met?** **Rationale:**	**1** **Y☐** **N☐**
2. SCIENTIFIC ACCEPTABILITY OF MEASURE PROPERTIES	
Extent to which the measure, as specified, produces consistent (reliable) and credible (valid) results about the quality of care when implemented. (evaluation criteria)	Eval Rating
2a. MEASURE SPECIFICATIONS	
S.1 **Do you have a web page where current detailed measure specifications can be obtained?** S.2 **If yes, provide web page URL:** **2a. Precisely Specified**	
2a.1 **Numerator Statement (***Brief, text description of the numerator - what is being measured about the target population, e.g. target condition, event, or outcome***):** Ambulatory Surgery Center (ASC) admissions developing a post-operative surgical site infection (SSI) detected through surveillance within 30 days after the operation, or within 1 year of the operation if an implant was placed. 2a.2 **Numerator Time Window (***The time period in which cases are eligible for inclusion in the numerator***):** Within 30 days after the operation or within 1 year of the operation if an implant was placed.	**2a-specs** **C☐** **P☐** **M☐** **N☐**

2a.3 Numerator Details (*All information required to collect/calculate the numerator, including all codes, logic, and definitions***):**
Numerator Exclusions: None

DEFINITIONS:
Admission: completion of registration upon entry into the facility.

Surgical Site Infection (CDC): Superficial incisional or deep incisional or organ space surgical site infection (SSI).

Superficial incisional SSI: Infection occurs within 30 days after the operation and infection involves only the skin or subcutaneous tissue of the incision and at least one of the following: 1. purulent drainage with or without laboratory confirmation, from the superficial incision; 2. organisms isolated from an aseptically obtained culture of fluid or tissue from the superficial incision; 3. at least one of the following signs or symptoms of infection: pain or tenderness, localized swelling, redness or heat and superficial incision is deliberately opened by a surgeon, unless incision is the culture negative; 4. diagnosis of superficial incisional SSI by the surgeon or attending physician.

Deep incisional SSI: Infection occurs within 30 days after the operation if no implant is left in place or within one year if implant is in place and the infection appears to be related to the operation and infection involves deep soft tissues (e.g., fascial and muscle layers) of the incision and at least one of the following: 1. purulent drainage from the deep incision but not from the organ/space component of the surgical site, 2. a deep incision spontaneously dehisces or is deliberately opened by a surgeon when the patient has at least one of the following signs or symptoms: fever over 38 C, localized pain or tenderness, unless site is the culture is negative, 3. an abscess or other evidence of infection involving the deep incision is found on direct examination, during reoperation or by histopathologic or radiological examination, 4. diagnosis of a deep incisional SSI by a surgeon or attending physician. Notes: 1. Report infection that involves both superficial and deep incision sites as deep incisional SSI. 2. Report an organ/space SSI that drains through the incision as a deep incisional SSI.

Organ/space SSI: Infection occurs within 30 days after the operation if no implant is left in place or within 1 year if implant is in place and the infection appears to be related to the operation and infection involves any part of the anatomy (e.g., organs or spaces), other than the incision, which was opened or manipulated during an operation and at least one of the following: 1. Purulent drainage from a drain that is placed through a stab wound into the organ/space. 2. Organisms isolated from an aseptically obtained culture of fluid or tissue in the organ/space. 3. An abscess or other evidence of infection involving the organ/space that is found on direct examination, during reoperation, or by histopathologic or radiologic examination. 4. Diagnosis of an organ/space SSI by a surgeon or attending physician.

Implant: A nonhuman-derived implantable foreign body that is permanently placed in a patient during an operative procedure and is not routinely manipulated for diagnostic or therapeutic purposes. Screws, wires, and mesh that are left permanently are considered implants.

Surveillance: An inquiry (e.g., questionnaire, phone call, etc) made of EACH operating practitioner which requires the surgeon to indicate “yes” or “no” for the presence of a post-operative infection in each of the patients on whom an operation was performed in the ASC. This inquiry (questionnaire, phone call, etc) shall include any patients whose operation involved an implant seen within the prior year. Surveillance should be initiated no sooner than 30 days after the operation to allow reporting for a full 30 day post operative period.

Operation: For the purposes of this measure, operation means any surgery or procedure performed in an operating or procedure room in the ASC; this includes endoscopic and pain management procedures.

2a.4 Denominator Statement (*Brief, text description of the denominator - target population being measured***):**
All ASC admissions that have an operation performed.

2a.5 Target population gender: Male, Female
2a.6 Target population age range: All ages

2a.7 Denominator Time Window (*The time period in which cases are eligible for inclusion in the denominator***):**
Within 30 days after the operation or within 1 year of the operation if an implant was placed.

2a.8 Denominator Details (*All information required to collect/calculate the denominator - the target population being measured - including all codes, logic, and definitions***):**
DEFINITIONS:
Admission: completion of registration upon entry into the facility.

Operation: For the purposes of this measure, operation means any surgery or procedure performed in an operating or procedure room in the ASC; this includes endoscopic and pain management procedures.

2a.9 Denominator Exclusions (*Brief text description of exclusions from the target population***):** Admissions with an infection detected intraoperatively; Admissions who have a operation involving a wound (clean or dirty) that is present on admission; stitch abscesses; infected burn wounds; IV site infections.

2a.10 Denominator Exclusion Details (*All information required to collect exclusions to the denominator, including all codes, logic, and definitions***):**
Information can be collected from the medical record and documentation produced during the encounter, including nursing notes and the operative report.

Stitch Abscess: Minimal inflammation and discharge confined to the points of suture penetration

2a.11 Stratification Details/Variables (*All information required to stratify the measure including the stratification variables, all codes, logic, and definitions***):**
This measure is not stratified.

2a.12-13 Risk Adjustment Type: Other (specify) Risk adjustment not included in measure specifications

2a.14 Risk Adjustment Methodology/Variables (*List risk adjustment variables and describe conceptual models, statistical models, or other aspects of model or method***):**
Not applicable

2a.15-17 Detailed risk model available Web page URL or attachment:

2a.18-19 Type of Score: rate/proportion
2a.20 Interpretation of Score: better quality = lower score
2a.21 Calculation Algorithm (*Describe the calculation of the measure as a flowchart or series of steps***):**
The number of infections reported is divided by the number of admissions who had an operation performed during the reporting period, yielding the rate of surgical site infections for the reporting period.

2a.22 Describe the method for discriminating performance *(e.g., significance testing)***:**
Facilities reporting data may compare their performance to the average performance. Alternatively, facilities may compare their performance to a percentile ranking (such as the 50th percentile (median)) to determine their relative performance.

2a.23 Sampling (Survey) Methodology *If measure is based on a sample (or survey), provide instructions for obtaining the sample, conducting the survey and guidance on minimum sample size (response rate)*:
The measure is not based on a sample.

2a.24 Data Source (*Check the source(s) for which the measure is specified and tested)*
organizational policies and procedures, paper medical record/flowsheet, Management data

2a.25 Data source/data collection instrument (*Identify the specific data source/data collection instrument, e.g. name of database, clinical registry, collection instrument, etc.***):**
No specific collection instrument is required. Facilities may use any collection instrument that allows tracking of all ASC admissions with an operation performed for a period of 30 days following the operation

(or within 1 year of the operation if an implant was placed).

2a.26-28 Data source/data collection instrument reference web page URL or attachment:

2a.29-31 Data dictionary/code table web page URL or attachment:

2a.32-35 Level of Measurement/Analysis (*Check the level(s) for which the measure is specified and tested)*
Facility/Agency

2a.36-37 Care Settings (*Check the setting(s) for which the measure is specified and tested)*
Ambulatory Care: Ambulatory Surgery Center

2a.38-41 Clinical Services (*Healthcare services being measured, check all that apply*)
Other Ambulatory surgical facility services

TESTING/ANALYSIS

2b. Reliability testing

2b.1 Data/sample *(description of data/sample and size)***:** Our due diligence established that the data collection for this measure is in keeping with the definitions and surveillance protocols established by the Centers for Disease Control, currently used to collect data regarding surgical site infections for the National Healthcare Safety Network. We do not have access to the CDC's data sample or size. However, we believe the NHSN currently represents de facto national standards, as it has been in existence since the 1970's, first as the National Nosocomial Infections Surveillance (NNIS) System, and now as the National Healthcare Safety Network (NHSN).

2b.2 Analytic Method *(type of reliability & rationale, method for testing)***:**
Our due diligence established that the data collection for this measure is in keeping with the definitions and surveillance protocols established by the Centers for Disease Control, currently used to collect data regarding surgical site infections for the National Healthcare Safety Network. We do not have access to the analytic method used by the CDC to establish reliability. However, we believe the NHSN currently represents de facto national standards, as it has been in existence since the 1970s, first as the National Nosocomial Infections Surveillance (NNIS) System, and now as the National Healthcare Safety Network (NHSN).

2b.3 Testing Results *(reliability statistics, assessment of adequacy in the context of norms for the test conducted)***:**
Our due diligence established that the data collection for this measure is in keeping with the definitions and surveillance protocols established by the Centers for Disease Control, currently used to collect data regarding surgical site infections for the National Healthcare Safety Network. We do not have access to the testing method used by the CDC to establish reliability. However, we believe the NHSN currently represents de facto national standards, as it has been in existence since the 1970s, first as the National Nosocomial Infections Surveillance (NNIS) System, and now as the National Healthcare Safety Network (NHSN).

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2c. Validity testing

2c.1 Data/sample *(description of data/sample and size)***:** Our due diligence established that the data collection for this measure is in keeping with the definitions and surveillance protocols established by the Centers for Disease Control, currently used to collect data regarding surgical site infections for the National Healthcare Safety Network. We do not have access to the CDC's data sample or size. However, we believe the NHSN currently represents de facto national standards, as it has been in existence since the 1970s, first as the National Nosocomial Infections Surveillance (NNIS) System, and now as the National Healthcare Safety Network (NHSN).

2c.2 Analytic Method *(type of validity & rationale, method for testing)***:**
Our due diligence established that the data collection for this measure is in keeping with the definitions

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and surveillance protocols established by the Centers for Disease Control, currently used to collect data regarding surgical site infections for the National Healthcare Safety Network. We do not have access to the analytic method used by the CDC to establish reliability. However, we believe the NHSN currently represents de facto national standards, as it has been in existence since the 1970s, first as the National Nosocomial Infections Surveillance (NNIS) System, and now as the National Healthcare Safety Network (NHSN). 2c.3 **Testing Results** *(statistical results, assessment of adequacy in the context of norms for the test conducted)*: Our due diligence established that the data collection for this measure is in keeping with the definitions and surveillance protocols established by the Centers for Disease Control, currently used to collect data regarding surgical site infections for the National Healthcare Safety Network. We do not have access to the testing method used by the CDC to establish reliability. However, we believe the NHSN currently represents de facto national standards, as it has been in existence since the 1970s, first as the National Nosocomial Infections Surveillance (NNIS) System, and now as the National Healthcare Safety Network (NHSN).	
2d. Exclusions Justified 2d.1 **Summary of Evidence supporting exclusion(s):** Our due diligence established that the data collection for this measure is in keeping with the definitions established by the Centers for Disease Control and used to collect data regarding surgical site infections for the National Healthcare Safety Network. 2d.2 **Citations for Evidence:** Mangram AJ, Horan TC, Pearson ML, Silver LC, Jarvis WR, The Hospital Infection Control Practices Advisory Committee. Guideline for prevention of surgical site infection, 1999. Infect Control Hosp Epidemiol. 1999;20(4):247-278. 2d.3 **Data/sample** *(description of data/sample and size)*: Our due diligence established that the exclusions for this measure are in keeping with the exclusions established by the Centers for Disease Control. We do not have access to the data sample and size used by the CDC to establish the definition exclusions. However, we believe the CDC definition for SSI currently represents the de facto national standard. 2d.4 **Analytic Method** *(type analysis & rationale)*: Broad expert agreement and professional consensus. 2d.5 **Testing Results** *(e.g., frequency, variability, sensitivity analyses)*: Our due diligence established that the exclusions for this measure are in keeping with the exclusions established by the Centers for Disease Control. We do not have access to the testing results used by the CDC to establish the definition exclusions. However, we believe the CDC definitions for SSI currently represent the de facto national standard.	**2d** **C☐** **P☐** **M☐** **N☐** **NA☐**
2e. Risk Adjustment for Outcomes/ Resource Use Measures 2e.1 **Data/sample** *(description of data/sample and size)*: Measure is not risk adjusted 2e.2 **Analytic Method** *(type of risk adjustment, analysis, & rationale)*: Measure is not risk adjusted 2e.3 **Testing Results** *(risk model performance metrics)*: Measure is not risk adjusted 2e.4 **If outcome or resource use measure is not risk adjusted, provide rationale:** An evidence-based risk adjustment strategy for the full spectrum of procedures performed in the ambulatory surgical center setting has not been developed or validated.	**2e** **C☐** **P☐** **M☐** **N☐** **NA☐**
2f. Identification of Meaningful Differences in Performance	**2f** **C☐**

2f.1 Data/sample from Testing or Current Use *(description of data/sample and size)*: This measure was pilot tested in 148 ambulatory surgery centers for 3 consecutive months. Pilot sites included 14 ambulatory surgical centers from 10 states and 134 ambulatory surgery centers from one management organization with ASCs in multiple states. The pilot sites included both multi-specialty and single-specialty centers. Data was collected for 3 consecutive months from 14 ASCs with a total of 18,044 admissions. In addition, Data was collected for 3 consecutive months from one organization with a total of 291,290 admissions. Total sample was 309,334 admissions. **2f.2 Methods to identify statistically significant and practically/meaningfully differences in performance** *(type of analysis & rationale)*: When data for a sufficiently large sample of providers is available, percentiles may be established and used for discriminating performance. **2f.3 Provide Measure Scores from Testing or Current Use** *(description of scores, e.g., distribution by quartile, mean, median, SD, etc.; identification of statistically significant and meaningfully differences in performance)*: The average surgical site infection rate per month ranged from 0.00% to 0.79%.	**P☐ M☐ N☐**
2g. Comparability of Multiple Data Sources/Methods **2g.1 Data/sample** *(description of data/sample and size)*: Not applicable **2g.2 Analytic Method** *(type of analysis & rationale)*: Not applicable **2g.3 Testing Results** *(e.g., correlation statistics, comparison of rankings)*: Not applicable	**2g C☐ P☐ M☐ N☐ NA☐**
2h. Disparities in Care **2h.1 If measure is stratified, provide stratified results** *(scores by stratified categories/cohorts)*: Not applicable **2h.2 If disparities have been reported/identified, but measure is not specified to detect disparities, provide follow-up plans:** Not applicable	**2h C☐ P☐ M☐ N☐ NA☐**
TAP/Workgroup: What are the strengths and weaknesses in relation to the sub-criteria **for** *Scientific Acceptability of Measure Properties*?	**2**
Steering Committee: Overall, to what extent was the criterion, *Scientific Acceptability of Measure Properties*, **met?** **Rationale:**	*2* **C☐ P☐ M☐ N☐**
3. USABILITY	
Extent to which intended audiences (e.g., consumers, purchasers, providers, policy makers) can understand the results of the measure and are likely to find them useful for decision making. (evaluation criteria)	Eval Rating
3a. Meaningful, Understandable, and Useful Information **3a.1 Current Use:** in use **3a.2 Use in a public reporting initiative (disclosure of performance results to the public at large)** (*If used in a public reporting initiative, provide name of initiative(s), locations, Web page URL(s). If not publicly reported, state the plans to achieve public reporting within 3 years*): Our organization publishes a public quality report on our website at www.ascquality.org. At this time, the quality report presents aggregated results for the six ASC facility-level measures developed by the ASC QC	**3a C☐ P☐ M☐ N☐**

and endorsed by the NQF. It is our hope that the Surgical Site Infection Rate measure would ultimately be endorsed and subsequently incorporated in this public reporting project. In the interim, selected organizations among our participants collect the data for this measure on a voluntary basis, submit it to the ASC QC for aggregation and subsequent internal reporting. If the measure is not endorsed, our leadership will need to determine whether the value of publicly reporting measure results overrides the lack of NQF endorsement for the measure itself. 3a.3 **If used in other programs/initiatives (***If used in quality improvement or other programs/initiatives, name of initiative(s), locations, Web page URL(s). If not used for QI, state the plans to achieve use for QI within 3 years***):** Surgical site infections are commonly tracked in most ASCs as part of QI and risk management programs. At this time, no uniform specifications are used. The ASC Association's Outcomes Monitoring Project (http://www.ascassociation.org/omp/index.asp) allows ASCs to report surgical site infections, and the results of the survey are shared with participants to allow for external benchmarking and QI. Over 500 ASCs participate in the Outcomes Monitoring Project. **Testing of Interpretability** (*Testing that demonstrates the results are understood by the potential users for public reporting and quality improvement*) 3a.4 **Data/sample** *(description of data/sample and size)***:** Our environmental scan and due diligence indicate that ambulatory surgical facilities are familiar with benchmarking their performance for a variety of outcomes (not limited to surgical site infection)using a number of standard methods, including mean performance and percentile rankings. 3a.5 **Methods** *(e.g., focus group, survey, QI project)***:** Environmental scan of our participants during the measure development process. 3a.6 **Results** *(qualitative and/or quantitative results and conclusions)***:** Ambulatory surgical facilities are familiar with benchmarking their performance for a variety of outcomes (not limited to surgical site infection) using a number of standard methods, including mean performance and percentile rankings.	
3b/3c. Relation to other NQF-endorsed measures 3b.1 **NQF # and Title of similar or related measures:** NQF # 0299 Surgical Site Infection Rate	
(for NQF staff use) **Notes on similar/related** endorsed **or submitted measures:**	
3b. Harmonization If this measure is related to measure(s) already endorsed by NQF (e.g., same topic, but different target population/setting/data source or different topic but same target population): 3b.2 **Are the measure specifications harmonized? If not, why?** The key definitions have been harmonized. The target population for this measure is the ambulatory surgical patient population. The differences in the measures reflect differences in care settings, as well as difference in the surgical care mix performed in the inpatient versus ambulatory setting. For example, NQF #0299 is heavily weighted toward types of procedures that are less common in the ambulatory setting. It also requires the use of ICD-9 procedure codes, a code set which is not used for outpatient reporting.	**3b** C☐ P☐ M☐ N☐ NA☐
3c. Distinctive or Additive Value 3c.1 **Describe the distinctive, improved, or additive value this measure provides to existing NQF-endorsed measures:** Not applicable: The target population is the ambulatory surgery center patient population, which differs from the inpatient target population for NQF measure #299. The differences in the measures reflect differences in care settings, as well as difference in the mix of surgical services performed in the inpatient versus ambulatory setting. For example, NQF #299 is heavily weighted toward types of procedures that are less common in the ambulatory setting. It also requires the use of ICD-9 procedure codes, a code set which is not used for outpatient reporting. 5.1 **Competing Measures If this measure is similar to measure(s) already endorsed by NQF (i.e., on the**	**3c** C☐ P☐ M☐ N☐

same topic and the same target population), describe why it is a more valid or efficient way to measure quality: Not applicable.	
TAP/Workgroup: What are the strengths and weaknesses in relation to the sub-criteria **for** *Usability?*	**3**
Steering Committee: Overall, to what extent was the criterion, *Usability*, **met?** **Rationale:**	**3** **C☐** **P☐** **M☐** **N☐**
4. FEASIBILITY	
Extent to which the required data are readily available, retrievable without undue burden, and can be implemented for performance measurement. (evaluation criteria)	Eval Rating
4a. Data Generated as a Byproduct of Care Processes 4a.1-2 **How are the data elements that are needed to compute measure scores generated?** data generated as byproduct of care processes during delivery, other Post-operative surveillance for surgical site infection	**4a** **C☐** **P☐** **M☐** **N☐**
4b. Electronic Sources 4b.1 **Are all the data elements available electronically?** (*elements that are needed to compute measure scores are in defined, computer-readable fields, e.g., electronic health record, electronic claims*) No 4b.2 **If not, specify the near-term path to achieve electronic capture by most providers.** Implementation of an integrated electronic health record in both ambulatory surgical settings and physician offices.	**4b** **C☐** **P☐** **M☐** **N☐**
4c. Exclusions 4c.1 **Do the specified exclusions require additional data sources beyond what is required for the numerator and denominator specifications?** No 4c.2 **If yes, provide justification.**	**4c** **C☐** **P☐** **M☐** **N☐** **NA☐**
4d. Susceptibility to Inaccuracies, Errors, or Unintended Consequences 4d.1 **Identify susceptibility to inaccuracies, errors, or unintended consequences of the measure and describe how these potential problems could be audited. If audited, provide results.** The measure relies on self-reporting by the surgeon or proceduralist. Potential errors of omission could be detected through chart audit, review of pharmacy records or patient feedback.	**4d** **C☐** **P☐** **M☐** **N☐**
4e. Data Collection Strategy/Implementation 4e.1 **Describe what you have learned/modified as a result of testing and/or operational use of the measure regarding data collection, availability of data/missing data, timing/frequency of data collection, patient confidentiality, time/cost of data collection, other feasibility/ implementation issues:** Surveillance to acquire the numerator data requires careful recordkeeping and physician inquiry at regular intervals. 4e.2 **Costs to implement the measure** (*costs of data collection, fees associated with proprietary measures*)**:** No additional cost would be incurred by the majority of facilities offering ambulatory surgery, as this is an	**4e** **C☐** **P☐** **M☐** **N☐**

existing process (though not conducted in a standardized fashion) in the majority of facilities. 4e.3 **Evidence for costs:** Not applicable. 4e.4 **Business case documentation:** Not applicable.	
TAP/Workgroup: What are the strengths and weaknesses in relation to the sub-criteria **for** *Feasibility*?	**4**
Steering Committee: Overall, to what extent was the criterion, *Feasibility*, **met?** **Rationale:**	**4** **C☐** **P☐** **M☐** **N☐**
RECOMMENDATION	
(for NQF staff use) **Check if measure is untested and only eligible for time-limited endorsement.**	**Time-limited ☐**
Steering Committee: Do you recommend for endorsement? **Comments:**	**Y☐** **N☐** **A☐**

CONTACT INFORMATION

Co.1 **Measure Steward (Intellectual Property Owner)**
Co.1 **Organization**
ASC Quality Collaboration | 5686 Escondida Blvd S | St. Petersburg | Florida | 33715

Co.2 **Point of Contact**
Donna | Slosburg, BSN, LHRM, CASC | donnaslosburg@ascquality.org | 727-867-0072

Measure Developer If different from Measure Steward
Co.3 **Organization**
ASC Quality Collaboration | 5686 Escondida Blvd S | St. Petersburg | Florida | 33715

Co.4 **Point of Contact**
Donna | Slosburg, BSN, LHRM, CASC | donnaslosburg@ascquality.org | 727-867-0072

Co.5 **Submitter If different from Measure Steward POC**
Donna | Slosburg, BSN, LHRM, CASC | donnaslosburg@ascquality.org | 727-867-0072- |ASC Quality Collaboration

Co.6 **Additional organizations that sponsored/participated in measure development**

ADDITIONAL INFORMATION

Workgroup/Expert Panel involved in measure development
Ad.1 **Provide a list of sponsoring organizations and workgroup/panel members' names and organizations. Describe the members' role in measure development.**
The ASC Quality Collaboration workgroup members meet via teleconference to develop, critique, and modify candidate measures, and to offer sites willing to participate in testing. No contractors are used.

AAAHC: Naomi Kuznets, PhD
Ambulatory Surgery Foundation: Debra Stinchcomb, BSN, CASC, David Shapiro, MD, Sarah Martin, RN, BS, CASC and Marian Lowe
AMSURG: Deby Samuels, Lorri Smith RN, BSN and Linda Brooks-Belli
AOA/HFAP: Monda Shaver, RN, BSN, CPHIT and Susan Lautner, RN, BSN, MSHL
AORN: Bev Kirchner BSN, CNOR, CASC and Bonnie Denholm, RN, MS, CNOR
ASCOA: Ann Geier RN, MS, CNOR, CASC
ASC Quality Collaboration: Donna Slosburg, BSN, LHRM, CASC

HCA: Kathy Wilson The Joint Commission: Michael Kulczycki and Kathleen Domzalski NATIONAL: Rhonda Arnwine, MBA and Terry Hawes, RN, BHA Novamed: Cassandra Speier NUETERRA: Rachelle Babin RN, BSN Surgical Care Affiliates: Kim Wood, MD Symbion: Steve Whitmore and Gina Throneberry RN, MBA, CASC USPI: David Zarin, MD, Julie Gunderson RN, MM, CPHQ and Clint Chain, RN, BSN
Ad.2 If adapted, provide name of original measure: **Ad.3-5 If adapted, provide original specifications URL or attachment**
Measure Developer/Steward Updates and Ongoing Maintenance **Ad.6 Year the measure was first released:** 2010 **Ad.7 Month and Year of most recent revision:** 2009-11 **Ad.8 What is your frequency for review/update of this measure?** Annually, or more frequently if indicated **Ad.9 When is the next scheduled review/update for this measure?** 2010-11
Ad.10 Copyright statement/disclaimers: Not applicable.
Ad.11 -13 Additional Information web page URL or attachment:
Date of Submission (*MM/DD/YY*)**:** 04/07/2010