Open Letter to the Ambulatory Surgical Center Community

RE: ASC Quality Measures Endorsed by the National Quality Forum

The ASC Quality Collaboration (ASCQC) is a cooperative effort of organizations and companies interested in ensuring that ASC quality data is measured and reported in a meaningful way. The ASCQC was formed early in 2006 to initiate the process of developing standardized ASC quality measures. The organization’s stakeholders include ASC corporations, ASC associations, professional societies and accrediting bodies with a focus on health care quality and safety. Current contributors to the activities of the ASCQC include the Accreditation Association on Ambulatory Health Care; Ambulatory Surgery Foundation; Ambulatory Surgical Centers of America; American College of Surgeons; American Osteopathic Association, Division of Healthcare Facilities Accreditation Program; AmSurg; Association of periOperative Registered Nurses; Florida Society of Ambulatory Surgery Centers; Health Inventures; Hospital Corporation of America, Ambulatory Surgery Division; Nueterra Healthcare; Outpatient Ophthalmic Surgery Society; Surgical Care Affiliates; Symbion; The Joint Commission; and United Surgical Partners International.

The ASCQC encourages the use of standardized ASC quality measures that have been endorsed by the National Quality Forum. These measures are described in detail in this implementation guide. We hope you will find these measures useful not only for internal quality improvement and external benchmarking, but also for meeting any future Medicare requirements for quality reporting, discussions on pay-for-reporting or pay-for-performance, responding to state data collection initiatives, and collaborating with organizations providing consumer information.

Additional information regarding the ASCQC can be found on the www.ascquality.org website.

Sincerely,

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On behalf of the ASC Quality Collaboration
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The quality measures presented in this guide are the intellectual property of the ASC Quality Collaboration.
BACKGROUND

ASC Quality Measure Development by the ASC Quality Collaboration

When the ASC Quality Collaboration was formed, it undertook a detailed evaluation of existing nationally endorsed quality measures to determine which could be directly applied to the outpatient surgery facility setting. This survey included the measures and standards of the following organizations: National Quality Forum (NQF), Surgical Care Improvement Project (SCIP), The Joint Commission, Accreditation Association for Ambulatory Health Care (AAAHC), Ambulatory Care Quality Alliance (AQA), Agency for Healthcare Research and Quality (AHRQ), and Surgical Quality Alliance (SQA). Though several existing measures addressed surgical care, none had been developed specifically for the ASC setting.

Finding no nationally endorsed measures designed for public reporting and accountability specific to facilities performing outpatient surgery, the ASCQC developed a number of facility-level measures of ASC quality. These measures were based on those already commonly used by the ASC community for internal quality assessment and external benchmarking. The ASCQC focused on outcomes and processes that ASC facilities could influence or impact, outcomes that ASC facilities would be aware of given their limited contact with the patient, and outcomes that would be understandable and important to key stakeholders in ASC care - including patients, providers and payers. The ASCQC made no attempt to limit these measures to any particular patient population or procedure in order to allow broad participation and reporting of quality measures.

After refining these standardized measures, the ASCQC piloted them in a sample of ASCs and was able to confirm their feasibility and usability. On November 15, 2007, five ASC facility-level measures were endorsed by the NQF after having gone through rigorous evaluation and consensus building. The five facility-level ASC quality measures are:

- Patient Burn
- Prophylactic IV Antibiotic Timing
- Patient Fall in the ASC
- Wrong Site, Side, Patient, Procedure or Implant
- Hospital Transfer/Admission

On October 17, 2008, a sixth ASC facility-level measures was endorsed by the NQF after having gone through rigorous evaluation and consensus building. The sixth facility-level ASC quality measure is:

- Appropriate Surgical Site Hair Removal

About the National Quality Forum

National Quality Forum (NQF) is a voluntary consensus standard setting organization established to standardize health care quality measurement and reporting through its consensus development process. The mission of the NQF is to improve the quality of American health care by setting national priorities.
and goals for performance improvement, endorsing national consensus standards for measuring and publicly reporting on performance, and promoting the attainment of national goals through education and outreach programs.

The NQF’s consensus development process is rigorous. The six ASCQC facility-level measures went through the following steps prior to being endorsed:

1) Evaluation by a Technical Advisory Panel
2) Evaluation by a Steering Committee
3) Public and NQF member comments
4) NQF member vote
5) Consensus Standards Approval Committee review
6) Approval by the Board of the National Quality Forum

To learn more about the NQF and its activities, please visit the NQF website at: http://www.qualityforum.org/.

The Tax Relief and Health Care Act

The Tax Relief and Health Care Act of 2006, a law passed by Congress, permits CMS to develop a quality measure reporting system for ambulatory surgical centers for services furnished on or after January 1, 2009. The Act allows CMS to impose a payment penalty of up to 2 percent for any ASC that fails to submit the required data.

At this time, CMS has issued, but not finalized, its proposals for the ASC quality reporting system. The final rule is expected at the end of October or early November 2011.
INTRODUCTION TO THE IMPLEMENTATION GUIDE

The ASCQC has developed this implementation guide to help ASCs implement and collect data for the six NQF-endorsed ASC facility-level quality measures.

The measures developed by the ASCQC include both outcome measures and process measures. An outcome measure assesses patients for a specific result of health care intervention. A process measure evaluates a particular aspect of the care that is delivered to the patient.

Of the six ASCQC measures, four are outcome measures. These measures include 1) patient falls, 2) patient burns, 3) hospital transfer/admission and 4) wrong site/wrong side/wrong patient/wrong procedure/wrong implant. The fifth and sixth measures are infection control process measures that evaluate the timing of the administration of intravenous antibiotics for prophylaxis of surgical site infection and appropriate surgical site hair removal.

In the material that follows, the details regarding each measure are presented first in tabular form, followed by additional supporting information. The table displayed below shows both the general format for sharing key information regarding the measure as well as an explanation of each element.

<table>
<thead>
<tr>
<th>Name of Measure</th>
<th>Measure Type</th>
<th>States whether the measure is an outcome measure or a process measure.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intent</td>
<td></td>
<td>A brief description of what is measured.</td>
</tr>
<tr>
<td>Numerator/Denominator</td>
<td></td>
<td>Numerator: Patient population experiencing the outcome or process of care being measured. Denominator: The patient population evaluated.</td>
</tr>
<tr>
<td>Inclusions/Exclusions</td>
<td></td>
<td>Numerator Inclusions: Patients to be included in the patient population experiencing the outcome or process of care being measured. Numerator Exclusions: Patients to be excluded from the patient population experiencing the outcome or process of care being measured. Denominator Inclusions: Patients included in the population to be evaluated. Denominator Exclusions: Patients to be excluded from the population to be evaluated.</td>
</tr>
<tr>
<td>Data Sources</td>
<td></td>
<td>The documents that typically contain the information needed to determine the numerator and denominator.</td>
</tr>
<tr>
<td>Definitions</td>
<td></td>
<td>Specific definitions for the terms included in the numerator and denominator statements.</td>
</tr>
</tbody>
</table>

To report each measure, count the number of patients meeting the numerator criteria and the number of patients meeting the denominator criteria. To calculate your results as a percentage, divide the numerator by the denominator and multiply by 100. Although the frequency with which these assessments are performed can certainly vary, we suggest you collect the data on a monthly basis.

Frequently Asked Questions about the ASCQC Quality Measures:

Do we count patients who are treated at the ASC, but not in an OR/procedure room? An example would be patients who come for a YAG Capsulotomy.

All ASC admissions are counted.

Do the measures offer opportunity for improvement?

Given there is little in the literature on ASC performance and outcomes, implementing these measures will provide a better understanding of the true incidence of these outcomes. The use of common definitions will allow for standardized reporting of this information on a nationwide basis. This would
allow ASCs to benchmark their results and focus their quality improvement efforts.

**Why are these measures important to ASC industry?**
These measures are important for several reasons:

1) There is very little in the literature that is specific to ASC performance and outcomes yet these adverse outcomes are significant and do occur. However, the frequency of these events is not currently known and only data collection will help determine the actual rate of occurrence.

2) Since most ASCs track some of these outcomes, they already recognize these as important measures of quality and therefore there is a greater opportunity for acceptance by the ASC industry, a greater chance that systems are in place to track, and a greater chance for compliance with reporting. Current utilization and statistics for internal quality improvement purposes attests to usability and measurability in the industry.

3) The outcomes and processes can be applied to any setting that performs outpatient surgery such as hospital outpatient departments, freestanding ASCs, and physician’s offices - allowing the opportunity to apply these measures across patient care different settings.

**Are these measures required?**
No, the measures are not required at this time.

**Should the surgery center wait until CMS makes the final decision before we implement these measures?**
You may choose to wait until CMS finalizes its policies regarding the ASC quality reporting system. However, by implementing these measures now, ASCs have the opportunity to gain valuable experience and possibly improve their performance before the measures are collected and publicly reported.

**Will these measures be the same as those implemented by CMS?**
It is not possible to predict which measures CMS will decide to implement.

**Will these measures replace those currently used by my management company?**
No, these measures do not impact the requirements of your management company. However, your management company may choose to adopt these if CMS does so.

**How frequently will the data be collected?**
The frequency of data collection will vary in accordance with current state mandates and future federal mandates. CMS has not finalized its data reporting requirements at this time.

**Does quality reporting violate HIPAA?**
No, patient-specific identifiers are not included in the collected data.

**How will the measures be updated?**
These measures are updated by re-evaluating and updating the specifications on an annual or as needed basis.

**Who can I contact with questions?**
If your question is not answered after you read the implementation guide, you can access [www.ascquality.org](http://www.ascquality.org) for more information.
### Appropriate Surgical Site Hair Removal

<table>
<thead>
<tr>
<th>Measure Type</th>
<th>Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intent</td>
<td>To capture the number of admissions (patients) who have appropriate surgical site hair removal.</td>
</tr>
</tbody>
</table>
| Numerator/Denominator | Numerator: ASC admissions with surgical site hair removal with a razor or clippers from the scrotal area, or with clippers or depilatory cream from all other surgical sites.  
Denominator: All ASC admissions with surgical site hair removal. |
| Inclusions/Exclusions | Numerator Inclusions: ASC admissions with surgical site hair removal with a razor or clippers from the scrotal area, or with clippers or depilatory cream from all other surgical sites.  
Numerator Exclusions: None  
Denominator Inclusions: None  
Denominator Exclusions: ASC admissions who perform their own hair removal. |
| Data Sources | Potential data sources include records such as a pre-surgical checklist, nursing notes, operating room record, and operative report documenting the method of hair removal. Clinical logs designed to capture information relevant to preoperative hair removal are also potential sources. |
| Definitions | Admission: completion of registration upon entry into the facility. |

**Rationale**

Razors can cause microscopic cuts and nicks to the skin, not visible to the eye. Use of razors prior to surgery increases the incidence of wound infection when compared to clipping, depilatory use or no hair removal at all. (Seropian. *Am J Surg*. 1971;121:251)

**Clinical Practice Guidelines**

The CDC’s guidelines for the prevention of surgical site infection include recommendations which specifically address preoperative hair removal practices. The CDC guidelines state that providers should not remove hair preoperatively unless the hair at or around the incision site will interfere with the operation. If hair is removed, it should be removed immediately before the operation, and preferably with electric clippers. See the Guideline for Prevention of Surgical Site Infection, 1999. Hospital Infection Control Practices Advisory Committee. Infect Control Hosp Epidemiol. 1999;20:250-78

AORN’s standards of recommended practice are in alignment with this measure.

**Frequently Asked Questions for Appropriate Hair Removal**

*What is the goal for this measure?*

The goal for this measure is to assure that patients requiring hair removal at the surgical site have hair removed with clippers or depilatory cream.

*Why can’t we shave patients?*

Evidence indicates that shaving prior to a procedure is associated with increased risk of wound infections when compared to removing hair with clippers, depilatory cream or not removing hair at all. An exception would be shaving for scrotal surgeries.

*Do we want to capture “all” ASC patients who are admitted to the ASC?*

No, only those patients with surgical site hair removal are counted.
Do we count ASC patients who shave themselves?
No, ASC admissions that perform their own hair removal are excluded.

References


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<table>
<thead>
<tr>
<th>Hospital Transfer/Admission</th>
<th>Outcome</th>
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<tbody>
<tr>
<td><strong>Measure Type</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Intent</strong></td>
<td>To capture any ASC admissions (patients) who are transferred or admitted to a hospital upon discharge from the ASC.</td>
</tr>
<tr>
<td><strong>Numerator/Denominator</strong></td>
<td>Numerator: Ambulatory Surgery Center (ASC) admissions requiring a hospital transfer or hospital admission upon discharge from the ASC. Denominator: All ASC admissions.</td>
</tr>
<tr>
<td><strong>Inclusions/Exclusions</strong></td>
<td>Numerator Inclusions: ASC admissions requiring a hospital transfer or hospital admission upon discharge from the ASC. Numerator Exclusions: None. Denominator Inclusions: All ASC admissions. Denominator Exclusions: None.</td>
</tr>
<tr>
<td><strong>Data Sources</strong></td>
<td>ASC medical records, incident/occurrence reports and variance reports are potential data sources.</td>
</tr>
<tr>
<td><strong>Definitions</strong></td>
<td>Admission: completion of registration upon entry into the facility. Hospital transfer/admission: any transfer/admission from an ASC directly to an acute care hospital including hospital emergency room. Discharge: occurs when the patient leaves the confines of the ASC.</td>
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</table>

**Rationale**
The need for transfer/admission is an unanticipated outcome and could be the result of insufficient rigor in patient or procedure selection. Hospital transfers/admissions can result in unplanned cost and time burdens that must be borne by patients and payors.

Selected states have expressed an interest in the public reporting of such events. While hospital transfers and admissions undoubtedly represent good patient care when necessary, high rates may be an indicator that practice patterns or patient selection guidelines are in need of review.

**Clinical Practice Guidelines**
No clinical practice guidelines addressing transfers or admissions from ASCs to acute care hospitals are available at this time.

**Frequently Asked Questions for Hospital Transfer/Admission**

*What is the goal for this measure?*
The goal for this measure is not precisely quantified at this time because an average transfer/admission rate for ASCs has not been established.

*Should patients who go to a hospital emergency room sometime after their discharge be counted?*
ASCs cannot reliably ascertain what happens to all patients following their discharge from the ASC. To allow consistent reporting, only patients who are transferred or directly admitted to the hospital upon their discharge from the ASC are counted for purposes of this measure.

*How would a facility benefit from this measure?*
This measure would allow ASCs to assess their guidelines for procedures performed in the facility and patient selection if transfers/admissions are determined to be at a level higher than expected. If commonalities are found in patients who are transferred or admitted, guidelines may require revision.

Do we want to capture “all” ASC patients who are 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 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 transferred or admitted to the hospital upon their discharge from the ASC should be counted. This helps ensure the rates reported are accurate.

References


**Patient Burn**

<table>
<thead>
<tr>
<th>Measure Type</th>
<th>Outcome</th>
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<tbody>
<tr>
<td>Intent</td>
<td>To capture the number of admissions (patients) who experience a burn prior to discharge.</td>
</tr>
<tr>
<td>Numerator/Denominator</td>
<td>Numerator: Ambulatory Surgery Center (ASC) admissions experiencing a burn prior to discharge.</td>
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<tr>
<td></td>
<td>Denominator: All ASC admissions.</td>
</tr>
<tr>
<td>Inclusions/Exclusions</td>
<td>Numerator Inclusions: ASC admissions experiencing a burn prior to discharge.</td>
</tr>
<tr>
<td></td>
<td>Numerator Exclusions: None.</td>
</tr>
<tr>
<td></td>
<td>Denominator Inclusions: All ASC admissions.</td>
</tr>
<tr>
<td></td>
<td>Denominator Exclusions: None.</td>
</tr>
<tr>
<td>Data Sources</td>
<td>ASC medical records, as well as incident/occurrence reports, and variance reports are potential data sources.</td>
</tr>
<tr>
<td>Definitions</td>
<td>Admission: completion of registration upon entry into the facility.</td>
</tr>
<tr>
<td></td>
<td>Burn: Unintended tissue injury caused by any of the six recognized mechanisms: scalds, contact, fire, chemical, electrical or radiation, (e.g. warming devices, prep solutions, electrosurgical unit or laser).</td>
</tr>
<tr>
<td></td>
<td>Discharge: Occurs when the patient leaves the confines of the ASC.</td>
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</table>

**Rationale**
There are numerous case reports in the literature regarding patient burns in the surgical and procedural setting. The diversity of the causative agents underscores the multitude of potential risks that must be properly mitigated to avoid patient burns.

The literature on burns suggests that electrosurgical burns are most common. A recent publication from the ECRI highlights the increased risk of burns with newer surgical devices that apply higher currents at longer activation times. Although electrical burns are most prevalent, other mechanisms of burn injury are frequently reported in case studies and case series. These include chemical and thermal burns.

Surgical fires are rare; however, their consequences can be grave, killing or seriously injuring patients and surgical staff. The risk of surgical fire is present whenever and wherever surgery is performed, whether in an operating room, a physician’s office, or an outpatient clinic.

Recognizing the diversity of mechanisms by which a patient could sustain an unintentional burn in the ASC setting, the definition of burn is broad, encompassing all six recognized means by which a burn can occur - scalds, contact, fire, chemical, electrical, or radiation. This will allow stakeholders to develop a better understanding of the incidence of these events and further refine means to ensure prevention.

**Clinical Practice Guidelines**
The risk of burns related to laser use can be reduced by adherence to the guidelines published by the ANSI (American National Standards Institute) for safe use of these devices in the health care setting. Similarly, the risk of burns related to the use of electrosurgical devices can be reduced by following the electrosurgery checklist published by ECRI.

The risk of surgical fires can be reduced by minimizing ignition, oxidizer, and fuel risks (the “classic triangle”). The American Society of Anesthesiologist’s Practice Advisory for the Prevention and Management of Operating Room Fires seeks to prevent the occurrence of OR fires, reduce adverse outcomes associated with OR fires and identify the elements of a fire response protocol. These guidelines
are available here: [http://www.asahq.org/For-Members/Practice-Management/Practice-Parameters.aspx](http://www.asahq.org/For-Members/Practice-Management/Practice-Parameters.aspx). Guidance for the prevention of surgical fire has also been published by AORN.

**Frequently Asked Questions Regarding the Patient Burn Measure**

**What is the goal for this measure?**
A reasonable goal for this measure is no patient burns.

**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.

**References**


**Patient Fall in the ASC**

<table>
<thead>
<tr>
<th>Measure Type</th>
<th>Outcome</th>
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</thead>
<tbody>
<tr>
<td>Intent</td>
<td>To capture the number of admissions (patients) who experience a fall within the ASC.</td>
</tr>
</tbody>
</table>
| Numerator/Denominator | Numerator: Ambulatory Surgery Center (ASC) admissions experiencing a fall within the confines of the ASC.  
Denominator: All ASC admissions. |
| Inclusions/Exclusions | Numerator Inclusion: ASC admissions experiencing a fall within the confines of the ASC.  
Numerator Exclusion: ASC admissions experiencing a fall outside the ASC.  
Denominator Inclusion: All ASC admissions.  
Denominator Exclusion: ASC admissions experiencing a fall outside the ASC. |
| Data Sources          | ASC medical records, as well as incident/occurrence reports, and variance reports are potential data sources. |
| Definitions           | Admission: completion of registration upon entry into the facility.  
Fall: a sudden, uncontrolled, unintentional, downward displacement of the body to the ground or other object, excluding falls resulting from violent blows or other purposeful actions. (National Center for Patient Safety) |

**Rationale**

“Falls per 100,000 patient days” has been endorsed as a serious reportable event by the NQF. While ASCs have a relatively low incidence of adverse events in general, information regarding the incidence of patient falls is not currently available. However, stakeholders have expressed a general interest in the public reporting of such adverse events. Due to the use of anxiolytics, sedatives, and anesthetic agents as adjuncts to procedures, patients undergoing outpatient surgery are at increased risk for falls.

**Clinical Practice Guidelines**

According to the Agency for Healthcare Research and Quality’s *Prevention of Falls in Acute Care* guideline, patient falls may be reduced by following a four-step approach: 1) evaluating and identifying risk factors for falls in the older patient; 2) developing an appropriate plan of care for prevention; 3) performing a comprehensive evaluation of falls that occur; and 4) performing a post-fall revision of plan of care as appropriate.

**Frequently Asked Questions for Patient Fall in the ASC**

*What is the goal for this measure?*
A reasonable goal for this measure is no patient falls within the confines of the ASC.

*What about falls in the parking lot? Should those be counted? Our ASC would be liable for those.*
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 patient falls are counted, regardless of whether they are witnessed or not.
References


ECRI Institute. Falls Prevention Resources. https://www.ecri.org/Products/Pages/Fall_Prevention_Resources.aspx.


American Medical Directors Association (AMDA). Falls and fall risk. Columbia, MD: American Medical Directors Association.


University of Iowa Gerontological Nursing Interventions Research Center (UIGN). (2004). Falls prevention for older adults. Iowa City, IA: University of Iowa Gerontological Nursing Interventions Research Center, Research Dissemination Core.

(Please note this is not intended to be an exhaustive list of the organizations issuing statements or guidance related to falls.)
### Prophylactic IV Antibiotic Timing

<table>
<thead>
<tr>
<th>Measure Type</th>
<th>Process</th>
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</thead>
<tbody>
<tr>
<td>Intent</td>
<td>To capture whether antibiotics given for prevention of surgical site infection were administered on time.</td>
</tr>
<tr>
<td>Numerator/Denominator</td>
<td>Numerator: Number of Ambulatory Surgery Center (ASC) admissions with an order for a prophylactic IV antibiotic for prevention of surgical site infection, who received the prophylactic antibiotic on time.</td>
</tr>
<tr>
<td></td>
<td>Denominator: All ASC admissions with a preoperative order for a prophylactic IV antibiotic for prevention of surgical site infection.</td>
</tr>
<tr>
<td>Inclusions/Exclusions</td>
<td>Numerator Exclusions: None.</td>
</tr>
<tr>
<td></td>
<td>Denominator Exclusions: ASC admissions with a preoperative order for a prophylactic IV antibiotic for prevention of infections other than surgical site infections (e.g., bacterial endocarditis); ASC admissions with a preoperative order for a prophylactic antibiotic not administered by the intravenous route.</td>
</tr>
<tr>
<td>Data Sources</td>
<td>ASC medical records, as well as medication administration records, and variance reports may serve as data sources. Clinical logs designed to capture information relevant to prophylactic IV antibiotic administration are also potential sources.</td>
</tr>
</tbody>
</table>
| Data Element Definitions | Admission: completion of registration upon entry into the facility.  
Antibiotic administered on time: Antibiotic infusion is *initiated* within one hour prior to the time of the initial surgical incision or the beginning of the procedure (e.g., introduction of endoscope, insertion of needle, inflation of tourniquet) or two hours prior if vancomycin or fluoroquinolones are administered.  
Intravenous: Administration of a drug within a vein, including bolus, infusion or IV piggyback.  
Order: a written order, verbal order, standing order or standing protocol.  
Prophylactic antibiotic: an antibiotic prescribed with the intent of reducing the probability of an infection related to an invasive procedure. For purposes of this measure, the following antibiotics are considered prophylaxis for surgical site infections: Ampicillin/sulbactam, Aztreonam, Cefazolin, Cefmetazole, Cefotetan, Cefoxitin, Cefuroxime, Ciprofloxacin, Clindamycin, Ertapenem, Erythromycin, Gatifloxacin, Gentamicin, Levofloxacin, Metronidazole, Moxifloxacin, Neomycin and Vancomycin. |

### Rationale

The CMS Surgical Infection Prevention performance measure states, “Surgical site infections occur in 2-5 percent of clean extra-abdominal surgeries and up to 20 percent of intra-abdominal surgeries. Each infection is estimated to increase a hospital stay by an average of 7 days and add over $3,000 in charges (1992 data). Patients who develop surgical site infections are 60 percent more likely to spend time in an ICU, five times more likely to be readmitted to the hospital, and have twice the incidence of mortality. Despite advances in infection control practices, surgical site infections remain a substantial cause of morbidity and mortality among hospitalized patients. Studies indicate that appropriate preoperative administration of antibiotics is effective in preventing infection. Systemic and process changes that promote compliance with established guidelines and standards can decrease infectious morbidity.”

There is no literature available on variation in adherence to recommended prophylactic IV antibiotic timing among ASC providers. However, variability in the accuracy of timing of administration has been demonstrated in other settings.

### Clinical Practice Guidelines
This performance measure is aligned with current surgical infection prevention guidelines recommending that prophylactic antibiotics be administered within one hour prior to surgical incision, or within two hours prior to incision when vancomycin or fluoroquinolones are used.

**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 98%-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.

*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 stared, 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.

References


### Wrong Site, Wrong Side, Wrong Patient, Wrong Procedure, Wrong Implant

<table>
<thead>
<tr>
<th>Measure Type</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Intent</strong></td>
<td>To capture any ASC admissions (patients) who experience a wrong site, side, patient, procedure or implant.</td>
</tr>
</tbody>
</table>
| **Numerator/Denominator**     | Numerator: All Ambulatory Surgery Center (ASC) admissions experiencing a wrong site, wrong side, wrong patient, wrong procedure or wrong implant.  
Denominator: All ASC admissions. |
| **Inclusions/Exclusions**     | Numerator Inclusions: All ASC admissions experiencing a wrong site, wrong side, wrong patient, wrong procedure or wrong implant.  
Numerator Exclusions: None.  
Denominator Inclusions: All ASC admissions.  
Denominator Exclusions: None. |
| **Data Sources**              | ASC medical records, as well as incident/occurrence reports, and variance reports are potential data sources. |
| **Definitions**               | Admission: completion of registration upon entry into the facility.  
Wrong: not in accordance with intended site, side, patient, procedure or implant. |

**Rationale**

“Surgery performed on the wrong body part”, “surgery performed on the wrong patient”, and “wrong surgical procedure performed on a patient” have all been endorsed as serious reportable surgical events by NQF. This outcome measure serves as an indirect measure of providers’ adherence to the Joint Commission’s “Universal Protocol” guideline for eliminating wrong site, wrong procedure, wrong person surgery. The Universal Protocol is based on the consensus of experts and is endorsed by more than forty professional medical associations and organizations. In order to encompass the outcomes of all key identification verifications, the ASC Quality Collaboration’s measure incorporates not only wrong site, wrong side, wrong patient and wrong procedure, but also wrong implant in its specifications.

**Clinical Practice Guidelines**

The Joint Commission’s “Universal Protocol” is based on the consensus of experts from the relevant clinical specialties and professional disciplines and is endorsed by more than 40 professional medical associations and organizations.

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

*What is the goal for this measure?*

A reasonable goal for this measure is no wrong site, wrong side, wrong patient, wrong procedure or wrong implant events.

*Isn’t the incident of wrong site, etc. surgery low in surgery centers?*

While it is believed the incidence of wrong-site surgeries is low, the potential for wrong-site (bilateral options) and the very direct and indirect, short and long term impact on patient care associated with each incident should make this a priority measure 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 given on the incorrect side?
Yes, you count this as a wrong side.

References


(Please note this is not intended to be an exhaustive list of the organizations issuing statements or guidance related to wrong-site events.)
Appendix A:  
Data Dictionary

**Admission**: Completion of registration upon entry into the facility.

**Antibiotic administered on time**: Antibiotic infusion is *initiated* within one hour prior to the time of the initial surgical incision or the beginning of the procedure (e.g., introduction of endoscope, insertion of needle, inflation of tourniquet) or two hours prior if vancomycin or fluoroquinolones are administered.

**Burn**: Unintended tissue injury caused by any of the six recognized mechanisms: scalds, contact, fire, chemical, electrical or radiation, (e.g. warming devices, prep solutions, electrosurgical unit or laser).

**Discharge**: Occurs when the patient leaves the confines of the ASC.

**Fall**: A sudden, uncontrolled, unintentional, downward displacement of the body to the ground or other object, excluding falls resulting from violent blows or other purposeful actions. (National Center for Patient Safety)

**Hospital transfer/admission**: Any transfer/admission from an ASC directly to an acute care hospital including hospital emergency room or emergency department.

**Intravenous**: Administration of a drug within a vein, including bolus, infusion or IV piggyback.

**Order**: A written order, verbal order, standing order or standing protocol.

**Prophylactic antibiotic**: An antibiotic prescribed with the intent of reducing the probability of an infection related to an invasive procedure. For purposes of the Prophylactic IV Antibiotic Timing measure, the following antibiotics are considered prophylaxis for surgical site infections: Ampicillin/sulbactam, Aztreonam, Cefazolin, Cefmetazole, Cefotetan, Cefoxitin, Cefuroxime, Ciprofloxacin, Clindamycin, Ertapenem, Erythromycin, Gatifloxacin, Gentamicin, Levofloxacin, Metronidazole, Moxifloxacin, Neomycin and Vancomycin.

**Wrong**: Not in accordance with intended site, side, patient, procedure or implant.
Appendix B:
Sample Data Collection Sheets

On the following pages there are sample data collection sheets for each of the six quality measures developed by the ASC Quality Collaboration and endorsed by the National Quality Forum. These are examples only; their use is not required.
Sample Data Collection Sheet

**Appropriate Surgical Site Hair Removal**

<table>
<thead>
<tr>
<th>Patient Name</th>
<th>Patient Identification Number</th>
<th>Date of Birth</th>
<th>Gender (M or F)</th>
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<th>Physician Name</th>
<th>Date of Service</th>
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**Measure Data Collection**

**Step 1** Determine if the patient is eligible for this measure by answering the questions below.

Did the patient complete the registration process upon entry into the facility?  
Yes ☐  No ☐

Did the patient have hair removal at the surgical site?  
Yes ☐  No ☐

If **Yes** to both questions, proceed to the next step.

If **No** to any of the questions, **STOP**. The patient is not eligible for this measure.

**Step 2** Determine if the patient has other requirements for this measure by answering the question below.

Did the patient perform their own hair removal at the surgical site?  
Yes ☐  No ☐

If **Yes**, **STOP**. The patient is not eligible for this measure.

If **No**, proceed to the next step.

**Step 3** Determine if the surgical site hair removal was performed according to the measure requirements by answering the question below.

Was hair removal at the surgical site performed with a razor or clippers from the scrotal area, or with clippers or depilatory cream from all other surgical sites?  
Yes ☐  No ☐

If **Yes**, hair removal was performed according to the requirements of this measure.

If **No**, hair removal was not performed according to the requirements of this measure.
### Hospital Transfer/Admission

<table>
<thead>
<tr>
<th>Patient Name</th>
<th>Patient Identification Number</th>
<th>Date of Birth</th>
<th>Gender (M or F)</th>
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<tr>
<th>Physician Name</th>
<th>Date of Service</th>
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</table>

#### Measure Data Collection

**Step 1** Determine if the patient is eligible for this measure by answering the question below.

Did the patient complete the registration process upon entry into the facility?  
- Yes □  No □

If **Yes**, proceed to the next step.

If **No**, **STOP**. The patient is not eligible for this measure.

**Step 2** Determine if the patient experienced the outcome described by this measure by answering the question below.

Was the patient directly transferred or admitted to a hospital or hospital emergency department on discharge from the facility?  
- Yes □  No □

If **Yes**, the outcome should be reported.

If **No**, **STOP**. The patient did not experience the outcome described by this measure.
Sample Data Collection Sheet

**Patient Burn**

<table>
<thead>
<tr>
<th>Patient Name</th>
<th>Patient Identification Number</th>
<th>Date of Birth</th>
<th>Gender (M or F)</th>
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<th>Date of Service</th>
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**Measure Data Collection**

**Step 1** Determine if the patient is eligible for this measure by answering the question below.

Did the patient complete the registration process upon entry into the facility?  
Yes □  No □

If **Yes**, proceed to the next step.

If **No**, **STOP**. The patient is not eligible for this measure.

**Step 2** Determine if the patient experienced the outcome described by this measure by answering the question below.

Did the patient experience a burn* prior to discharge?  
Yes □  No □

If **Yes**, the outcome should be reported.

If **No**, **STOP**. The patient did not experience the outcome described by this measure.

---

* For purposes of this measure, a burn is defined as an unintended tissue injury caused by any of the six recognized mechanisms: scalds, contact, fire, chemical, electrical or radiation, (e.g. warming devices, prep solutions, electrosurgical unit or laser).
Sample Data Collection Sheet

Patient Fall in the ASC

<table>
<thead>
<tr>
<th>Patient Name</th>
<th>Patient Identification Number</th>
<th>Date of Birth</th>
<th>Gender (M or F)</th>
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<table>
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<th>Physician Name</th>
<th>Date of Service</th>
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Measure Data Collection

Step 1 Determine if the patient is eligible for this measure by answering the question below.

Did the patient complete the registration process upon entry into the facility?  
Yes □  No □

If Yes, proceed to the next step.

If No, STOP.  The patient is not eligible for this measure.

Step 2 Determine if the patient experienced the outcome described by this measure by answering the question below.

Did the patient experience a fall* while within the confines of the facility?  
Yes □  No □

If Yes, the outcome should be reported.

If No, STOP.  The patient did not experience the outcome described by this measure.

* For purposes of this measure, a fall is defined as a sudden, uncontrolled, unintentional, downward displacement of the body to the ground or other object, excluding falls resulting from violent blows or other purposeful actions.  
(National Center for Patient Safety)
## Prophylactic IV Antibiotic Timing

### Step 1 Determine if the patient is eligible for this measure by answering the questions below.

Did the patient complete the registration process upon entry into the facility?  
Yes □  No □

Did the patient have a preoperative order for a prophylactic IV antibiotic?  
Yes □  No □

Was the ordered IV antibiotic one of those listed below?  
Yes □  No □

- Ampicillin/sulbactam
- Aztreonam
- Cefazolin
- Cefmetazole
- Cefotetan
- Cefoxitin
- Cefuroxime
- Ciprofloxacin
- Clindamycin
- Ertapenem
- Erythromycin
- Gatifloxacin
- Gentamicin
- Levofloxacin
- Metronidazole
- Moxifloxacin
- Neomycin
- Vancomycin

If **Yes** to all questions, proceed to the next step.

If **No** to any of the questions, **STOP**. The patient is not eligible for this measure.

### Step 2 Determine if the prophylactic IV antibiotic was administered timely by answering the question below.

Was the antibiotic *initiated* within one hour prior to the initial surgical incision or the beginning of the procedure (e.g., introduction of endoscope, insertion of needle, inflation of tourniquet), or two hours prior if vancomycin or fluoroquinolones (ciprofloxacin, gatifloxacin, levofloxacin, moxifloxacin) was ordered?  
Yes □  No □

If **Yes**, the patient received the antibiotic timely.

If **No**, the patient did not receive the antibiotic timely.

**NOTE:** If more than one antibiotic from the list above was ordered, each of the antibiotics must be given timely.
Sample Data Collection Sheet

**Wrong Site, Wrong Side, Wrong Patient, Wrong Procedure, Wrong Implant**

<table>
<thead>
<tr>
<th>Patient Name</th>
<th>Patient Identification Number</th>
<th>Date of Birth</th>
<th>Gender (M or F)</th>
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</table>

**Measure Data Collection**

**Step 1** Determine if the patient is eligible for this measure by answering the question below.

Did the patient complete the registration process upon entry into the facility?  
Yes □  No □

If **Yes**, proceed to the next step.

If **No**, **STOP**. The patient is not eligible for this measure.

**Step 2** Determine if the patient experienced the outcome described by this measure by answering the question below.

Did the patient experience a wrong site, wrong side, wrong patient, wrong procedure or wrong implant event?  
Yes □  No □

If **Yes**, the outcome should be reported.

If **No**, **STOP**. The patient did not experience the outcome described by this measure.
Appendix C: Sample Data Collection Logs

On the following pages there are sample data collection logs for the two process measures (Appropriate Surgical Site Hair Removal and Prophylactic IV Antibiotic Timing) developed by the ASC Quality Collaboration and endorsed by the National Quality Forum. These are examples only; their use is not required.
Sample Data Collection Log: Prophylactic IV Antibiotic Timing
This tool may be used to track patients with an order for prophylactic IV antibiotics for surgical site infection. It is not necessary to track patients who do not have a preoperative order for IV antibiotic prophylaxis.

Center Name: ___________________________  Data Collection Period: ______________________

<table>
<thead>
<tr>
<th>Date of Service</th>
<th>Pt Identifier</th>
<th>Antibiotic Ordered</th>
<th>Infusion Start Time</th>
<th>Procedure Start Time</th>
<th>Elapsed Time</th>
<th>Timely Administration</th>
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<td>Yes</td>
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</table>

Instructions:
1. Enter the date of service in the first column.
2. Enter the unique patient identifier in the second column.
3. Enter the prophylactic IV antibiotic ordered in the third column. For purposes of this measure, the following antibiotics are considered prophylaxis for surgical site infection: Ampicillin/sulbactam (Unasyn), Aztreonam (Azactam), Cefazolin (Ancef), Cefmetazole (Zefazone), Cefotetan (Cefolan), Cefoxitin (Mefoxin), Cefuroxime (Zinacef), Ciprofloxacin (Cipro), Clindamycin (Cleocin), Ertapenem (Invanz), Erythromycin (Erythrocin), Gatifloxacin (Tequin), Gentamicin (Garamycin), Levofloxacin (Levaquin), Metronidazole (Flagyl, Metro IV), Moxifloxacin (Avelox), Neomycin and Vancomycin (Vancocin).
4. Enter the time the intravenous infusion of antibiotic was started in the fourth column.
5. Enter the start time of the procedure or surgery in the fifth column. 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.
6. Determine the elapsed time between the start of the infusion and the start of the procedure and enter that value into the sixth column.
7. If the antibiotic was initiated within 60 minutes of the start of the procedure (within 120 minutes for fluoroquinolones and vancomycin), the timely administration requirements of the measure have been met.

NOTE: If more than one prophylactic IV antibiotic from the list above was ordered, each of the antibiotics must be given timely for the requirements of the measure to be met. For patients with more than one antibiotic ordered, use additional lines as needed to record the data for each additional antibiotic.

The quality measures presented in this guide are the intellectual property of the ASC Quality Collaboration.
Sample Data Collection Log: Surgical Site Hair Removal
This tool may be used to track patients with surgical site hair removal. It is not necessary to track patients who do not have surgical site hair removal.

NOTE: Cases in which the patient performed their own surgical site hair removal are excluded from the measure and should not be included below.

Center Name: ___________________________  Data Collection Period: ______________________

<table>
<thead>
<tr>
<th>Date of Service</th>
<th>Pt Identifier</th>
<th>Hair Removal with Clippers</th>
<th>Hair Removal with Depilatory Cream</th>
<th>Hair Removal with Razor</th>
<th>Specifications Met: Yes</th>
<th>No</th>
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Instructions:
1. Enter the date of service in the first column.
2. Enter the unique patient identifier in the second column.
3. Indicate the method of surgical site hair removal by marking removal with clippers in the third column, removal with depilatory cream in the fourth column and removal with a razor in the fifth column.
4. If hair removal at the surgical site was accomplished using clippers or depilatory cream, the measure specifications have been met.

The quality measures presented in this guide are the intellectual property of the ASC Quality Collaboration.