

Surgical Site Infections

This document is a resource for health care providers and summarizes content from the [Surgical Site Infections quality standard](#).

Preoperative

Quality Statement (QS)* 1: Risk Assessment

Conduct a preoperative health assessment for people having surgery to determine their overall health and their risk of postoperative complications, including surgical site infections (e.g., age; underlying illnesses or comorbidities; lifestyle factors such as smoking, diet, or exercise; and the site and complexity of the procedure).

Use a standardized approach, and document results. If a person is at higher risk of developing a postoperative complication, they are also at higher risk of developing a surgical site infection. Address identified risks appropriately. For people at higher risk of a postoperative complication, conduct assessments more frequently during the postoperative period.

Commonly used tools include:

- [American Society of Anesthesiologists Physical Status Classification System](#)
- [American College of Surgeons National Surgical Quality Improvement Program Surgical Risk Calculator](#)

QS 2: Preoperative Patient Care

Educate people having surgery and their family members or caregivers about the importance of having a bath or shower before surgery. Help people to have a bath or shower if needed, or arrange assistance. Educate them about avoiding hair removal, and about performing nasal decolonization if required.

*The quality statements are provided in full on page 2.

Intraoperative

QS 3: Antibiotic Prophylaxis

Inform patients if they will need antibiotics before surgery, if they will be given antibiotics during surgery, and if they will need antibiotics after surgery. If antibiotics are indicated before surgery, administer them at the appropriate time, dose, and duration, and document the administration in the patient's health record. Mitigate any potential adverse effects based on the results of the preoperative health assessment (see QS 1).

QS 4: Perioperative Monitoring

Provide a temperature-controlled environment for people having surgery to maintain their body temperature. Provide supplemental oxygen during and after surgery.

QS 5: Operating Room Procedures

Minimize the transfer of bacteria or pathogens that could cause surgical site infections by washing hands with antimicrobial soap or antiseptic solution before surgery, wearing personal protective equipment during surgery, using sterile drapes to cover the patient, and minimizing traffic in and out of the operating room.

Postoperative

QS 7: Coordination of Postoperative Care

Refer patients to home and community care for follow-up care and treatment if they are identified as being at risk for a surgical site infection during the preoperative assessment, or if they are discharged home from hospital with a surgical site infection. Advise patients who to contact and where to access care if they develop signs or symptoms of an infection. Refer patients who develop a surgical site infection, regardless of their risk, for follow-up care and treatment with their surgeon, their primary care provider, or home and community care.

Communicate regularly (written, verbal, or electronic [via email or through electronic medical records]) with your fellow health care providers (primary care, surgery, and home and community care), and with the patient, family members, or caregivers. Regular communication will help all members of the team to stay current with respect to the patient's status and their treatment regimen, reducing the risk of hospital readmissions and improving wound healing.

Patient, Family, and Caregiver Education

QS 6: Patient, Family, and Caregiver Education

Ensure that patients, family members, and caregivers are supported throughout the perioperative period by providing information and education about the procedure and any associated risks, what to do if a problem arises with their incision(s), and who to call if they have a problem. The use of

photographs and images showing wound healing and infection, including for various skin tones, helps increase understanding and recall for patients, family members, and caregivers. Some patients may live in institutional settings where formal caregivers require information, education, and support so that they can inform and educate patients.

Surgical Site Infections QUALITY STATEMENTS

Quality Statement 1: Risk Assessment

People having surgery receive a routine preoperative health assessment that includes general health evaluations and an assessment of their risk for developing a surgical site infection. These assessments are documented using a standardized approach.

Quality Statement 2: Preoperative Patient Care

People having surgery are advised to have (or are helped to have) a shower, bath, or bed bath on the day before or the day of surgery. If hair removal is required, it is performed immediately before surgery. Nasal decolonization may be performed if indicated.

Quality Statement 3: Antibiotic Prophylaxis

If antibiotic prophylaxis is indicated prior to surgery, people receive appropriate medication based on the type of surgery – at the appropriate time, dose, and postoperative duration. This includes repeat intraoperative doses when indicated.

Quality Statement 4: Perioperative Monitoring

People having surgery have their body temperature and oxygen levels optimized during the perioperative period.

Quality Statement 5: Operating Room Procedures

People having surgery receive care from an operating room team that minimizes the transfer of microorganisms during the procedure. Specific safety measures are required for operating room personnel, equipment, and patients, as well as for the management of traffic in and out of the operating room.

Quality Statement 6: Patient, Family, and Caregiver Education

People having surgery, as well as their family members and caregivers, receive information, education, and support for all stages of their care. This includes the results of the risk assessment, how to prevent and recognize an infection, and who to contact if they have concerns about wound healing.

Quality Statement 7: Coordination of Postoperative Care

People who have had surgery are given an appropriate referral for follow-up care and treatment, if required. All members of the care team use regular written, verbal, or electronic communications to share information about the patient's status and treatment regimen.

Note: This resource can be used to support health care providers in the provision of care. It does not override the responsibility of health care providers to make decisions with patients, after considering each patient's unique circumstances. Grouping/directionality of statements may not be applicable for every patient, and clinical judgment should be used.

Resources

- [Surgical Site Infections Quality Standard](#) and [Patient Guide](#)
bit.ly/3WMpmCB
- [Transitions Between Hospital and Home Quality Standard](#) and [Patient Guide](#)
bit.ly/3fMMpgc
- [Enhanced Recovery After Surgery: Clinical Pathways for Colorectal Surgery and Guide to Patient Safety Improvement](#)
bit.ly/41o5o3S
- [Ontario Surgical Quality Improvement Network](#)
bit.ly/3GlmwxC
- [Preventing Surgical Site Infections: Implementation Approaches for Evidence-Based Recommendations](#)
bit.ly/3Zib1yH
- [Safer Healthcare Now! Preventing Surgical Site Infections Getting Started Kit](#)
bit.ly/3GFEgcQ

Additional tools and resources are on [Quorum](#)
bit.ly/3GmEKil