The Centers for Disease Control and Prevention (CDC) define a surgical site infection (SSI) as "an infection that occurs after surgery in the part of the body where the surgery took place." The CDC go on to say the infection can be superficial involving just the skin or more serious infections can occur that involve deeper structures, such as tissue under the skin, organs, or implanted devices or materials. The CDC offer tools and guidelines to prevent SSIs and provide education to the public. Public education includes tips and advice on how to prevent patient surgical sites from becoming infected. Although such steps may not always prevent a surgical wound from becoming infected, it is always important to involve the patient in postoperative care.

According to recent published statistics, approximately 2% to 5% of surgical patients will develop a SSI, which is up to 300,000 people annually in the United States. Additionally, SSIs account for 20% of all hospital-acquired infections, making them the most common and costly of all hospital-acquired infections. SSIs cost approximately $3.5 billion to $10 billion annually and increase the hospital length of stay by 9.7 days.
Surgical Site Infection Preventive Measures For Health Care Professionals

There are several precautions recommended for health care workers. Some of these precautions have been practiced for decades, whereas others are emerging with evidence to support the guideline. Cleaning hands and arms up to the elbows just before surgery has been common practice for many years, as well as washing hands with soap and water before and after patient care. It used to be common practice to shave all hair before surgery, with the thought that hair carried bacteria that could possibly contaminate the surgery site. Now the standard is to use electric clippers if the hair is in the immediate area of the surgery because nicks and cuts are more likely to harbor bacteria and create a breeding ground. Special gear is still required and may include hair covers, masks, gowns, gloves, or even double gloving. Cleansing the surgical site with soap designed to kill bacteria before surgery is still a standard of care. There are ongoing debates about administering antibiotics before and after surgery, as well as debates and varied evidence on the timing of the antibiotics before and after surgery.¹

Surgical Site Infection Preventive Measures for Patients

There are modifiable risks the patient can try to mitigate as well. If patients smoke, advise them to quit as soon as possible. Patients who smoke are known to have more infections and post-operative complications than non-smokers. Any medical problems should be reported to the clinician. Health problems can affect surgery if they are not handled properly.

How much do you know about managing surgical wound management? Take our 10-question quiz to find out! [Click here.][12]

Remind patients not to shave before surgery. Shaving with any type of razor can irritate the skin, cause nicks or cuts in the skin, and make it easier to develop an infection. Anyone coming in and out of the room should wash their hands or use foaming cleanser, including health care professionals and visitors. Additionally, make sure the patient is also cleansing their hands, especially after using the restroom or during personal care.

Report any symptoms of a fever right away to the surgeon, and watch the surgical site for symptoms of infection. Symptoms of infection can include redness, pain, drainage, odor, fever, or general malaise.¹

Before the patient is discharged from the facility, tell them whether or not they have been cleared to bathe. If they are not yet cleared to bathe, provide instruction on how best to maintain personal hygiene. Also discuss how many days after surgery before the patient can shower. If they are able to shower, does that also mean they are able to take a bath? Some surgeons may allow a shower where the water can run over the surgical site but do not allow bathing where the patient soaks in the tub for any duration. Others prefer the patient not to shower or bathe until after the follow-up appointment.

Include whether the patient needs to change the wound dressing (if there is a dressing). If there is a dressing, should it stay in place until the follow-up visit? This is common. What
should the patient do if the dressing comes off? Have they been provided with the supplies needed if it does? With longer-wear dressings on the market, it is possible to have the same dressing in place until the follow-up appointment.

**Conclusion**

Preventing SSIs requires both health care professionals and patients to take the appropriate precautions. Health care professionals should be sure to use proper hand hygiene techniques before interacting with the patient, as well as donning the appropriate gear, as necessary. Patients should work to mitigate any modifiable risk factors they may have, and should be advised on proper aftercare for their wound. As SSIs are the most costly and common of hospital-acquired infections, it is vital that surgical wounds are properly handled and managed in order to prevent infection.

**References**


*The views and opinions expressed in this blog are solely those of the author, and do not represent the views of WoundSource, Kestrel Health Information, Inc., its affiliates, or subsidiary companies.*

**Related patient condition:** At-Risk Patient: Surgical Site Infections [16]
Surgical Wounds [17]

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