

SURGICAL SITE INFECTION PREVENTION

Key facts on patient bathing and hair removal



THINGS YOU SHOULD KNOW

What does the World Health Organization (WHO) recommend?

The 2016 WHO Global guidelines for the prevention of surgical site infections (SSIs) recommend that:

it is good clinical practice for patients to **bathe or shower before surgery** with either a plain or antimicrobial soap;

in patients undergoing any surgical procedure, **hair should either NOT be removed or, if absolutely necessary, only removed with a clipper**. Shaving is strongly discouraged at all times, both preoperatively and in the operating room.

The evidence base is focused on adult patients, but the recommendations are also considered valid for paediatric patients.



WHAT should be done?



Preoperative bathing/showering

- > **Instruct patients** – provide clear instructions to perform a thorough bath or shower before the operation.
- > **Type of soap** – use either plain or antimicrobial soap to body wash with clean, running water.
- > **Provide soap to patients** – this may be required or desirable in some countries.
- > In **paediatric patients**, follow manufacturers' instructions on the use of antimicrobial soap.
- > **Record** known information on preoperative bathing on surveillance forms and in patient records.
- > **Support patients and colleagues** to adhere to this recommendation and be an advocate for it.



Hair removal

- > **Instruct patients** – provide information on **NOT** shaving prior to coming to the facility or to surgery. Woman who shave the genital area as a cultural habit should be targeted for specific education.
- > **Avoid hair removal** – unless the surgeon considers that it might interfere with the operation site. In this case, the surgeon should carefully evaluate if hair removal is necessary, with the help of a nurse.
- > When hair removal is necessary, **perform using a clipper** (single-use heads are preferable). Never shave with a razor.
- > **Clean and decontaminate** clippers after use before being used on another patient, if single-use disposable clippers are not available.
- > Decontaminate by carefully disassembling the blades using **personal protective equipment**, cleaning with soap and water, drying, and then wiping them with alcohol or another suitable product according to manufacturer's instructions.
- > **Record** known information on hair removal on surveillance forms and in patient records.
- > **Support colleagues** to adhere to this recommendation and be an advocate for it.



WHEN should the recommendations be applied?

- These recommendations are applicable in the **preoperative period**.
- It is useful to perform patient bathing or showering on the **day of the operation or the day or night before**.
- Hair removal, if absolutely necessary, should be done **shortly before the operation**.



WHO should support these recommendations to ensure successful implementation?

- Patient education and engagement are critical to achieve these recommendations.
- Depending on where the facility/surgical services stand with regards to these recommendations, the following staff should be involved in putting them in place or updating local policies/standards or improving compliance with the recommendations:

1 surgical teams, including outpatient clinic staff involved in preoperative patient information and preparation, and surgical ward staff;

2 operating room and surgical teams, in particular surgeons regarding the avoidance of hair removal or performing it with clippers;

3 infection prevention and quality improvement teams to facilitate uptake/update of standard procedures and best practices related to the recommendations and to support monitoring of staff compliance;

4 procurement services to obtain plain or antimicrobial soap;

5 senior administrators (including finance managers) should be involved in decision-making on implementing the recommendation and to ensure that an adequate budget is available for the provision of necessary supplies (for example, soap, clippers), thus motivating staff to comply with the recommendations in the context of an institutional safety climate and culture.



KEY FACTS

WHY are these recommendations important?

- Infection is the **most frequent complication of surgery in Africa** and **SSIs are the most frequent type of infection acquired in health care in low- and middle-income countries**. In Europe and the United States of America, SSIs are the second most frequent type of health care-associated infection and the most frequent type on admission.

- The summaries of the systematic reviews of the evidence supporting these recommendations can be found within the WHO Global guidelines for the prevention of SSI (<http://www.who.int/infection-prevention/publications/ssi-guidelines/en/>) and their Appendices (<http://www.who.int/infection-prevention/publications/ssi-web-appendices/en/>).

- The scientific evidence shows that **either no hair removal or clipping is associated with a significantly lower risk of SSI when compared to shaving**. The risk of SSI is higher when hair removal is performed by razor than by a clipper because shaving causes small abrasions to the skin.

- A **preoperative shower or bath** ensures that the skin is as **clean as possible and reduces the skin bacterial load**, especially bacterial colony counts at the site of surgical incision. Scientific evidence shows that preoperative bathing with antimicrobial soap containing chlorhexidine gluconate has no benefit in reducing the SSI rate compared to plain soap.

Evidence shows that the use of a depilatory cream has neither benefit nor harm when compared to shaving for the prevention of SSI. Additional drawbacks are the necessity to leave them in place for approximately 15-20 minutes for the hair to be dissolved and the potential for allergic reactions.

- Additional WHO implementation tools and resources are available at (<http://www.who.int/infection-prevention/tools/surgical/en/>).