

Preventing Surgical Site Infections

Key Recommendations For Practice



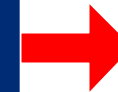
Pre-Op...

1. Avoid hair removal at the surgical site. If hair must be removed use single-patient use clippers and not razors.
2. Wash the patient or make sure that the patient has showered (or bathed/washed if unable to shower) on day of or day before surgery.
3. Use the right drug at the right time for the right duration for antibiotic prophylaxis:
 - a. **Right drug:** Prescribe antibiotic prophylaxis according to local antimicrobial prescribing guidelines
 - b. **Right time:** Ensure that the antibiotic is given at induction - **Within 60 minutes before skin incision**. In surgery where a tourniquet is to be applied, a 15 minute period is required between the end of antibiotic administration and tourniquet application.
 - c. **Right duration:** **Single dose only**, unless otherwise indicated¹



Intra-Op...

1. Use 2% chlorhexidine gluconate in 70% isopropyl alcohol solution for skin preparation. If the patient is sensitive or allergic use povidone-iodine.²
2. Make sure that:
 - a. The patient's body temperature is maintained above 36°C during the perioperative period (Excludes cardiac patients)
 - b. The patient's haemoglobin saturation is maintained above 95%, or as high as possible if there is underlying respiratory insufficiency
 - c. If the patient is diabetic, that the glucose level is kept at <11mmol/l throughout the operation
3. Give an additional dose of antibiotic if the surgical procedure is prolonged³ or there is major intra-operative blood loss (>1.5 litres in adults or 25ml/kg in children) - otherwise the duration of surgical prophylaxis should be a **single dose**.
4. Cover the surgical site (wound) with a sterile dressing prior to removal of drapes at the end of surgery.



Post-Op...

1. Do not tamper with or remove the wound dressing for 48 hours post-op unless clinically indicated.
2. Use aseptic (no touch) technique⁴ for wound inspection and/or wound dressing changes.
3. Hand hygiene is mandatory before and after every time the wound is inspected or the dressing is changed.

1. With the exception of a very small number of surgical indications (see supporting documentation), the duration of surgical prophylaxis should be a SINGLE dose.
2. Allow skin to dry thoroughly, avoid pooling of disinfectant and drape patient after skin is dry (see supporting documentation).
3. A supplementary intraoperative antibiotic dose may be warranted in two circumstances:
 - a. Blood loss – fluid replacement: Serum antibiotic concentrations are reduced by blood loss and fluid replacement, especially during the first hour of surgery when antibiotic levels are high. In the event of major intra-operative blood loss (>1.5 litres) additional doses of prophylactic antibiotic should be considered after fluid replacement
 - b. Prolonged surgical procedures: Many antibiotics, such as cephalosporins like cefuroxime, are short acting and therefore an additional dose should be administered during the surgery if the procedure lasts longer than 4 hours. The re-dosing time will vary depending upon the half-life of the drug in question, and the patient's underlying renal and hepatic function.
4. Aseptic (no touch) technique aims to prevent microorganisms on hands, surfaces or equipment being introduced to a surgical site (wound). Use no touch technique with clean or sterile gloves, where appropriate, for any change or removal of surgical site (wound) dressings.