



# **DEDER GENERAL HOSPITAL**

## ***Standard Operating Procedure (SOP) for Prevention of Surgical Site Infections (SSI)***

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## 1. Purpose

The purpose of this SOP is to establish detailed procedures to prevent Surgical Site Infections (SSI) and ensure the safety and quality of care for patients undergoing surgical procedures. By adhering to these guidelines, healthcare professionals can reduce the risk of SSI and improve patient outcomes.

## 2. Scope

This SOP applies to all healthcare personnel involved in preoperative, intraoperative, and postoperative care for patients undergoing surgical procedures in all healthcare settings, including hospitals and outpatient surgical centers.

## 3. Definitions

-  **Surgical Site Infection (SSI):** An infection that occurs at or near the site of a surgical incision within 30 days of the procedure or within one year if an implant is placed.
-  **Preoperative:** The period before surgery.
-  **Intraoperative:** The period during surgery.
-  **Postoperative:** The period after surgery.

## 4. Responsibilities

- ✍ **Surgical Team:** Ensure adherence to infection prevention protocols during all phases of surgery.
- ✍ **Infection Control Team:** Monitor SSI rates, provide ongoing education, and review infection control practices.
- ✍ **Management:** Provide necessary resources, support, and oversight for infection prevention practices.

## 5. Procedures

### 5.1. Preoperative Care

#### 1. Patient Preparation:

- ✍ **Preoperative Screening:** Assess patients for risk factors such as diabetes, obesity, smoking, or immunosuppression. Address modifiable risk factors when possible.
- ✍ **Skin Antisepsis:** Instruct patients to use an antiseptic solution (e.g., chlorhexidine) for skin cleansing at least 24 hours before surgery.

## 2. Antibiotic Prophylaxis:

- ✍ **Timing:** Administer prophylactic antibiotics within 60 minutes before the surgical incision to achieve optimal tissue concentrations.
- ✍ **Selection:** Choose antibiotics based on the type of surgery and local microbial patterns. Ensure the antibiotic regimen is consistent with current guidelines.

## 3. Patient Hygiene:

- ✍ **Shaving:** Avoid shaving the surgical site; if hair removal is necessary, use clippers immediately before the procedure.
- ✍ **Nail Hygiene:** Ensure that patients have clean nails and no artificial nails or nail polish.

## 4. Preoperative Screening:

- ✍ **Preoperative Testing:** Perform necessary preoperative tests (e.g., blood work) and review results to manage any potential issues.

## 5.2. Intraoperative Care

### 1. Aseptic Technique:

- **Hand Hygiene:** Perform hand hygiene thoroughly before donning sterile gloves and beginning the surgical procedure.
- **Sterile Drapes and Instruments:** Use sterile drapes, instruments, and supplies. Ensure that the sterile field is maintained throughout the procedure.

### 2. Surgical Attire:

- **Proper Attire:** Wear appropriate surgical attire, including sterile gowns, gloves, masks, and head coverings. Change attire if it becomes contaminated.

### 3. Environmental Controls:

- **Operating Room (OR) Environment:** Maintain a clean and sterile operating room environment. Ensure proper ventilation and minimize traffic in and out of the OR.

### 4. Temperature Control:

- **Patient Temperature:** Maintain normothermia (body temperature) during surgery to reduce the risk of SSI. Use warming blankets if necessary.

## 5. Infection Control:

- **Surgical Technique:** Use meticulous surgical techniques to minimize tissue damage and contamination. Avoid unnecessary procedures and excessive handling of tissues.

### 5.3. Postoperative Care

#### 1. Wound Care:

- **Dressing:** Apply sterile dressings to the wound and change them as needed. Ensure that the wound dressing remains clean and dry.
- **Monitoring:** Inspect the wound regularly for signs of infection, such as redness, swelling, or discharge.

#### 2. Patient Education:

- **Instructions:** Provide patients with instructions on wound care, signs of infection, and when to seek medical attention.
- **Follow-Up:** Schedule follow-up appointments to monitor wound healing and address any concerns.

#### 3. Antibiotic Management:

- **Continuation:** Continue antibiotics as per the surgical protocol, if indicated. Review the need for extended antibiotic use based on patient condition and surgery type.

## 5.4. Monitoring and Reporting

### 1. Surveillance:

- **SSI Rates:** Track and analyze SSI rates to identify trends and areas for improvement.
- **Infection Surveillance:** Implement a system for regular surveillance of SSIs and ensure timely reporting.

### 2. Incident Reporting:

- **Documentation:** Document any SSIs and related incidents accurately, including patient symptoms, treatment provided, and outcomes.
- **Feedback:** Report incidents to the infection control team and review practices for potential improvements.

## 5.5. Training and Competency

### 1. Training Programs:

- **Education:** Provide regular training on infection prevention and control practices related to surgical procedures.
- **Simulation:** Include hands-on practice and simulation exercises to enhance staff skills.

### 2. Competency Assessment:

- **Evaluation:** Assess staff competency in infection prevention techniques and update training as needed based on performance and new evidence.



## 5.6. Monitoring and Auditing

### 1. Regular Audits:

- **Compliance Checks:** Conduct regular audits of infection prevention practices during surgical procedures.
- **Data Review:** Review SSI data and audit findings to identify trends and areas for improvement.

### 2. Feedback and Improvement:

- **Continuous Improvement:** Use audit results and feedback to implement improvements in infection prevention protocols and staff training.

## 5.7. Compliance and Regulations

- **Regulatory Adherence:** Ensure compliance with national and local regulations and guidelines for SSI prevention, including those from health authorities like the CDC and WHO.

## 5.8. Review of SOP

- ✍ **Annual Review:** Review and update this SOP every 2 years or as needed to incorporate new evidence, best practices, and changes in local epidemiology.

## 6. REFERENCES

1. Centers for Disease Control and Prevention (CDC) guidelines for the prevention of SSIs.
2. World Health Organization (WHO) recommendations for surgical infection prevention.
3. Local health regulations and standards.