SURGICAL SITE INFECTION: PREVENTIVE MEASURES

OBJECTIVES
By the end of this lesson, you will be able to do the following:

• Explain the importance of infection-prevention protocol in reducing the instances of surgical site infections.
• Identify the Surgical Care Improvement Project (SCIP) measures for preventing surgical site infections.
• Identify infection-prevention measures that will help reduce instances of surgical-site infection in your facility.
Surgical-site infections are rare, due in part to more rigorous cleaning and sterilization of surgical instruments. However, surgical-site infections do occur, and they can change the infected patients' lives.

The Joint Commission National Patient Safety Goal (NPSG 07.05.01) is intended to reduce the number of surgical site infections.

- It requires medical center facilities to implement evidence-based practices for preventing surgical-site infections.
- Surgery is an invasive procedure that can allow infectious organisms to enter a patient's body through non-intact skin.
- This is why observing surgical infection-prevention guidelines is a critical part of any operation to help reduce the risk for surgical-site infections.

*The SCIP or Surgical Care Improvement Project core measures are infection prevention techniques designed to help reduce risk for surgical site infections.*
To protect our patients, the following SCIP Bundle elements are followed before, during & after surgery:

- Pre-operative antibiotic (if prescribed) administered within one hour before incision (2 hours before incision for Vancomycin).
- Clippers rather than razors are used to remove hair from the surgical site, if necessary.
- Other elements include prompt discontinuing of antibiotics after surgery; urinary catheter removed within 1 to 2 days of surgery; and others related to perioperative temperature, blood glucose, and thromboembolism prophylaxis.

Other recommended measures are:

- Chlorhexidine showers or cloths before surgery.
- Patient education provided before surgery.
Surgical Hand Antisepsis

Surgical hand hygiene (or antisepsis) can be performed by using either an antimicrobial soap OR an alcohol-based hand rub with persistent activity.

When an antimicrobial soap is used, the hands and forearms should be scrubbed for the length of time recommended by the product's manufacturer, usually 2 to 6 minutes. Longer scrub times (for example, 10 minutes) are usually not necessary.

**Waterless surgical antisepsis**

When an alcohol-based hand rub with persistent activity is used, follow the manufacturer's instructions on the amount of product to use.

- Pre-wash hands and forearms with a non-antimicrobial soap and allow them to dry completely.
- After application of the alcohol-based product as recommended, allow hands and forearms to dry thoroughly before donning sterile gloves.

First Scrub of the day:

Prior to using a brushless surgical scrub at the beginning of the day, wash your hands with soap and clean under your nails with a nail pick.
Other Prevention Measures

- Surgical personnel must follow
  - Proper surgical attire
  - Aseptic technique
  - Adequate and appropriate hand hygiene
- Skin Prep: Use appropriate antiseptic agent and technique for skin preparation
- Keep OR door closed during procedures and keep traffic in and out of the room to a minimum
- Maintain clean OR environment and proper temperature and ventilation
- Items and equipment brought into the sterile field are intact and free from contamination or cleaned, disinfected or sterilized adequately.
Prior to all surgical procedures, educate patients and their families about surgical-site infection prevention.

- You can give your patients an information sheet detailing infection prevention strategies.

- Be sure to document the information you provided as well as the patient's response.

Key points of information to provide to the patient include the following:

- Use proper hand hygiene.
- Avoiding touching the wound.
- Ambulate as soon as possible.
- Tell your doctor if you experience fever, increased pain, cloudy or colored drainage from the wound, opening of the wound, or increased redness.
Surgical Site Infection Prevention

1. True or False

For hair removal before surgery, the health-care worker should shave the surgical site.

2. Multiple choice: If a pre-operative antibiotic is prescribed, when should it be administered?
   - A. Within 2 hours of the surgery
   - B. Within 1/2 hour of the surgery
   - C. Within 24 hours of the surgery
   - D. Within 1 hour of the surgery

3. Multiple choice: When preparing to enter the OR, members of the surgical team should wash their hands up to their:
   - A. Wrists
   - B. Elbows
   - C. Biceps