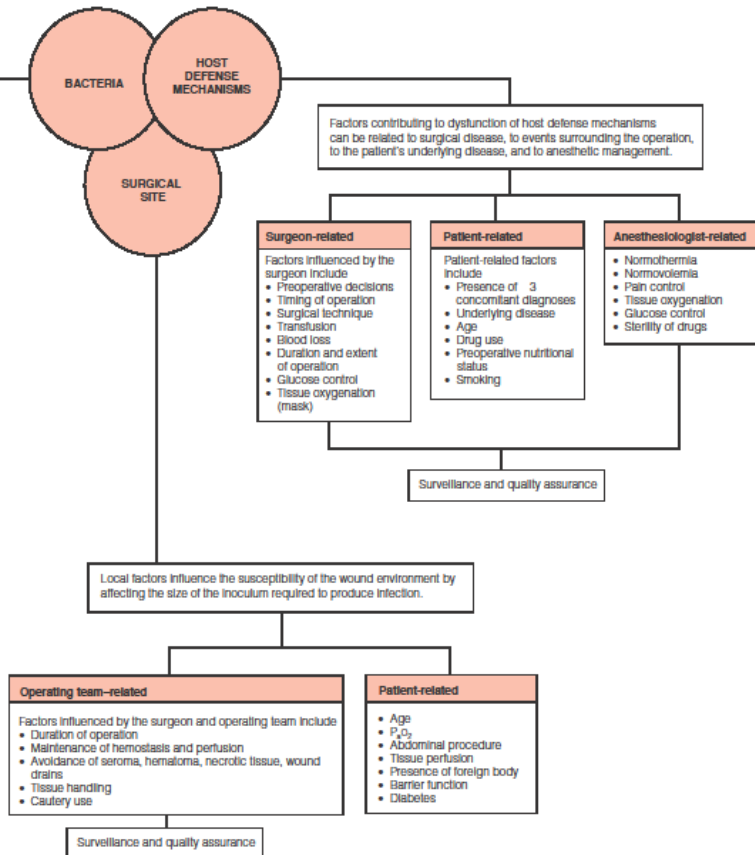
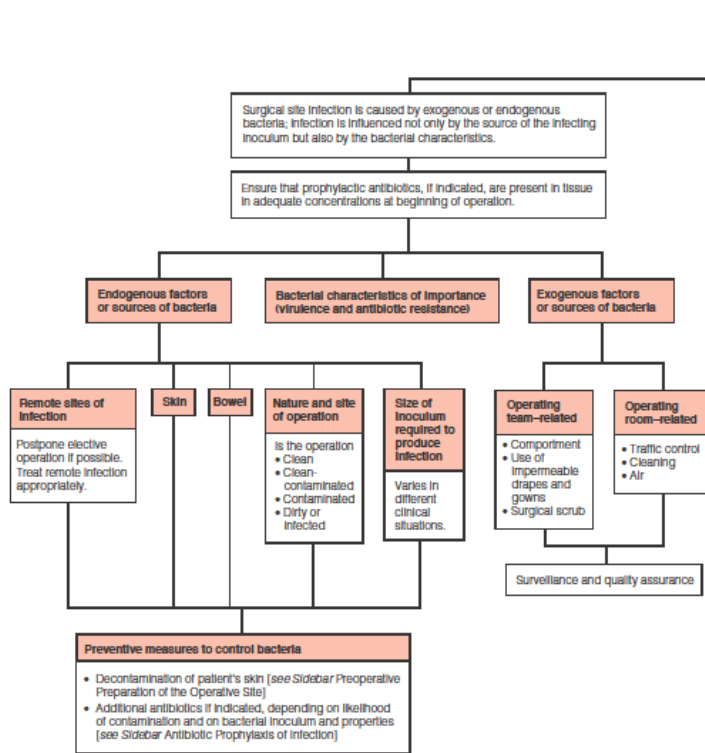


# SSI Prevention Task Force



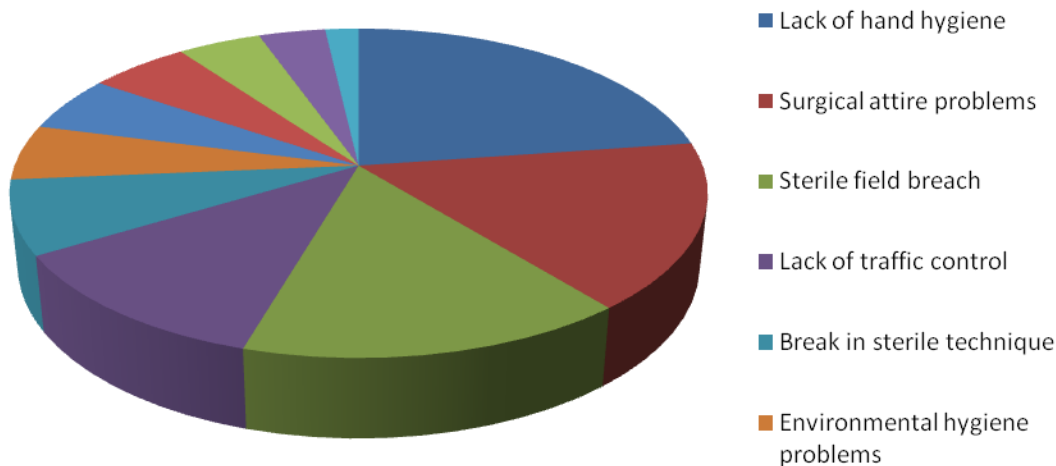
Infection Prevention  
Department  
SSI Task Force  
2012

## Epidemiology of Surgical Site Infection



# Common Infection Prevention Breaches in the OR

Most Common OR Breaches, 2011 ICT survey



The 2011 ICT survey revealed major breaches of infection prevention and control in the OR.

# Hand Hygiene-Related Solutions

"According to AORN's Recommended Practices for Hand Hygiene, a surgical hand scrub should be performed by all members of the surgical team before donning sterile gown and gloves. Although the skin can never be rendered sterile, it can be made surgically clean by reducing the number of microorganisms. The surgical hand scrub should be accomplished according to the manufacturer's written directions for use using either an antimicrobial surgical scrub agent intended for this purpose, or an alcohol-based antiseptic surgical hand rub with persistent and cumulative activity that has met the FDA requirements for surgical hand antisepsis. Surgical hand antisepsis/handscrubs are effective only if all surfaces are exposed to the mechanical cleaning and chemical antisepsis process. Surgical hand hygiene products should be selected, evaluated and approved by the organization's infection prevention personnel." -- Sharon A. Van Wicklin, MSN, RN, CNOR, CRNFA, CPSN, PLNC

# Common Infection Prevention Breaches in the OR

Specifically, ICT survey respondents noted these situations:

- Wearing inappropriate attire
- Improper use of surgical attire
- Bringing personal items into the OR such as handbags, briefcases and laptops
- Wearing home-laundered surgical attire, especially caps
- Staff coming and going with shoe and head covers without replacing them before returning to the OR
- Lack of proper head coverings
- Hair not covered or contained
- Staff wearing long sleeves underneath scrubs
- Surgeons not changing into hospital-laundered scrubs
- Improper wearing of masks
- Improper fit of masks and head gear
- Lack of protective eyewear
- Staff wearing jewelry
- Reps walking into the OR without donning OR attire

# Surgical Attire-Related Problems

The newly revised Recommended Practices for Surgical Attire from AORN includes:

- The recommendation that surgical attire should be laundered in a healthcare-accredited laundry facility, NOT home-laundered
- The recommendation that surgical attire fabrics should be tightly woven, stain resistant and durable, and 100 percent cotton fleece should not be worn
- Recommendations for safe footwear
- More information on wearing of jewelry, including how, where and when jewelry can be worn
- New information on regular and appropriate cleaning of stethoscopes and ID badges
- A new recommendation that fanny packs, brief cases and backpacks should not be taken into semi-restricted or restricted areas
- Updated information on disposable and reusable head coverings

# Sterile Field-Related Solutions

"Adherence to aseptic practices by all individuals involved in surgical procedures helps to fulfill the responsibility of perioperative team members to reduce the risk for SSI and to protect the patient from injury. SSIs are a leading cause of patient morbidity and mortality. According to AORN's Recommended Practices for Maintaining a Sterile Field, rigorous adherence to the principles of asepsis is the foundation of surgical site infection prevention and should never be circumvented to save time or money. The surgical team should utilize proper aseptic technique for all surgical patients and all invasive surgical procedures should be performed using sterile instruments and supplies. When a break in sterile technique occurs, corrective action should be taken immediately unless the patient's safety is at risk. If the patient's safety is at risk, the break in technique should be corrected as soon as it is safe to do so." -- Sharon A. Van Wicklin, MSN, RN, CNOR, CRNFA, CPSN, PLNC

# Traffic Control-Related Solutions

"According to AORN's Recommended Practices for Traffic Patterns, movement of personnel should be kept to a minimum while invasive and noninvasive procedures are in progress. In order to maintain critical environmental parameters such as a minimum of 15 total room air exchanges per hour, doors to the operating or procedure rooms should be closed except during necessary movement of patients, personnel, supplies, and equipment. Air is a potential source of microorganisms that can contaminate surgical wounds. Microbial shedding increases with activity and greater amounts of airborne contamination can be expected with increased numbers and movement of surgical team members. As well, operating rooms must be secure. Patient privacy must be maintained, patient, personnel and visitor safety should be ensured, and supplies and equipment should be protected from tampering and theft." -- *Sharon A. Van Wicklin, MSN, RN, CNOR, CRNFA, CPSN, PLNC*



# Environmental Hygiene-Related Issues

- Timely and proper cleaning and disinfection of the surgical suite was not occurring, whether it was between cases or terminal cleaning at the end of the day.
- "Environmental cleaning is a team effort involving surgical personnel and environmental services personnel. All areas and equipment in the surgical practice setting should be cleaned according to an established schedule. Routine cleaning and disinfection reduces the amount of dust, organic debris, and microbial load in the environment. Following scientifically based recommendations for cleaning and disinfection practices in healthcare organizations helps to reduce infections associated with contaminated items."

-- Sharon A. Van Wicklin, MSN, RN, CNOR, CRNFA, CPSN, PLNC

# Skin Prep-Related Observations

- Only preoperative skin antiseptics that have been FDA-approved or cleared and approved by the healthcare organization's infection prevention personnel should be used for preoperative skin preparation.
- Hand hygiene should be performed before initiating the prep. Sterile gloves should be worn unless the antiseptic prep applicator is of sufficient length to prevent the antiseptic and patient's skin from contact with the non-sterile glove.
- The antiseptic agent should be applied to the skin over the surgical site and surrounding area progressing from the incision site to the periphery in a manner that minimizes contamination, preserves skin integrity, and prevents tissue damage.
- The prepared area should be large enough to accommodate potential shifting of the drape fenestration, extension of the incision, the potential for additional incisions, and all potential drain sites.
- Solutions should not be allowed to drip or pool beneath or around the patient.
- The antiseptic agent should remain in place for the full time suggested by the manufacturer's written recommendations."

## **Glove-Related Problems**

Holes in gloves and the improper use of gloves in general is still a vexing issue in the OR, with 5 percent of respondents reporting that personnel's gloves were somehow compromised -- whether through a puncture, hole or rip -- and healthcare workers were not changing their gloves when they should.

# Other Possible SSI Causes

- Timely prophylactic antibiotic administration
- Compliance with SCIP measures
- Maintaining patient normothermia
- Holes in tray wrappers
- Moisture in instrument sets
- ? sterility assurance of instruments when flashed
- Poor draping technique
- Proper barrier protection
- Proper handling of clean and sterile supplies
- Issues relating to humidity and temperature levels in the OR
- Safe injection practices, plus proper use of syringes and multi-dose vials
- Newspapers and magazines in the OR
- The condition and health of the patient coming into the OR
- Too much talking in the OR/inattention to the patient
- Staff not containing contaminated instruments while transporting to decontamination area
- OR personnel working when ill