STRATEGIES FOR THE INFECTION PREVENTIONIST - ENVIRONMENTAL ASSESSMENT & MONITORING IN THE OPERATING ROOM

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Infection Preventionist
DISCLOSURES
No financial support to declare
OBJECTIVES

Become familiar with the perioperative environment
Discuss strategies for assessing and monitoring the OR environment
Approximately 2.7 million surgical procedures are performed in the US.
ALIEN AND SECURE ENVIRONMENT

- The CDC estimates that the rate of SSI range from 2% - 5% for clean cases; rates may be (20%) depending on the procedure type.
Secure, alien environment with a strange dress code

- HAI 20% - 22% SSI; 32% UTI; 15% Pneu; 14% BSI
There is No Mystery

- The OR is a place where surgery and other invasive procedures are performed every day in your facility.
**Why is the Operating Room Environment Important**

- **High volume area** which generates tremendous revenues for the institution

- **High cost center** as attested by the abundance of capital equipment and technologies
Why is the operating room environment important

- Potential for negative patient outcomes with potential damaging effects on the image, prestige and reputation of the institute

- Potential for negative outcome in staff with potentially large financial impact for the institution
There is no question IPs need to assess & monitor

- Don’t wait for an event to occur be proactive and make that appointment with the Director of the Operating Room or the Manager to begin a schedule for Environmental Assessments and Monitoring
PREPARE YOURSELF PHYSICALLY AND PSYCHOLOGICALLY

- Attire – Scrubs versus jumpsuit
- Buttoned lab coat
- Hair covering
- Mask
PREPARE YOURSELF PSYCHOLOGICALLY

- Blood & Tissue
- Drilling, sawing, cutting
- Acrid smoke & fumes
- Low Ambient Temperatures
DO SOME HOMEWORK

- Watch a video of a surgical procedure
- Review AORN Recommended Practices
- Review principles of surgical asepsis
  - Sterile field
  - Gowning and gloving
  - No touch technique
  - Where and when a surgical mask must be worn
Do some homework

- Know and be able to discuss procedure specific SSI rates for some procedures in the institution
- Are there any emerging negative trends
STRATEGIES TO CONSIDER

- Pick a relatively simple surgical procedure such as a hernia repair and arrange to use the "Tracer Methodology" tracking the patient from admission into the holding area, transfer to the operating room set up for the procedure, intubation, surgical skin prep, hair removal, draping, incision, closure and dressing, extubation and finally room cleaning routine
<table>
<thead>
<tr>
<th>Standard</th>
<th>Met</th>
<th>Not Met</th>
<th>N/A</th>
<th>Findings</th>
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<tbody>
<tr>
<td>The OR is a restricted area. Appropriate attire must be worn when entering the area (ie, scrubs/jumpsuits, head covering.)</td>
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<td>Sterile supplies must be protected from dust and splashing.</td>
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<td>Clean and dirty functions must be separated by physical barriers, space, time, traffic patterns, or work flow patterns</td>
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<td>Personal protective equipment (PPE), including protective eyewear or face shields, must be readily available (ie, at OR entrance, in scrub area.)</td>
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<tr>
<td>PPE, including protective eyewear or face shields, must be used during procedures in which splashing is anticipated.</td>
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<td>PPE must be removed and discarded before leaving the OR.</td>
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<td>The area must be maintained in a clean and sanitary condition free from dust and organic debris</td>
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<td>Sharps must be disposed of in rigid, puncture-proof containers. Containers must be placed in each OR.</td>
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<td>Specimen refrigerators must be identified with biohazard labels</td>
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<td>Flash autoclaves must be monitored (ie, documented whenever used).</td>
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<td>Items flash sterilized must be appropriate for that procedure.</td>
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OUTLINE WHAT YOU WILL BE ASSESSING

- Environmental cleanliness
- Environmental safety
- Staff safety
OUTLINE WHAT YOU WILL BE ASSESSING

- Patient procedures
  - Hand hygiene
  - Surgical scrub
  - Patient assessment
  - Hair removal
  - Insertion of devices
  - Isolation procedures
  - Handling specimens
  - Room cleaning
OUTLINE WHAT YOU WILL BE ASSESSING

- Traffic Patterns
- Vents
- Instrument flashing
- High level disinfection
- Transporting used instruments
- Urinary catheter insertion
- Insertion of peripheral catheters
- Insertion of central catheters
- Handling & Storage of medications
- Storage of sterile supplies
- Storage & handling of linen
DOCUMENTATION & FOLLOW UP

- Review findings with the managers
- Write and submit a written report of your assessment and monitoring
- Require written corrective action plans
DOCUMENTATION & FOLLOW UP

- Set deadlines
- Set date for reassessment and monitoring
- Suggest that managers in the area conduct routine assessment & monitoring using a tool developed with your assistance and periodically monitor their performance –

You Are the Expert in Infection Prevention
SUMMARY OF STUDIES THAT PROVIDE SUPPORT FOR IMPROVING HEALTHCARE ENVIRONMENTAL CLEANING PRACTICE.

Carling and Bartley
AJIC 2010