Behind the OR Doors:
What Every IP Needs to Know

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OBJECTIVES

- Identify Regulated Medical Waste in the OR.
- Describe the process of Infection Prevention rounding in the OR (including new guidelines on Surgical attire).
- Provide examples for making observations of environmental rounding and hand hygiene practices that directly impact SSI prevention for better patient outcomes.
Epidemiology of RMW

- No evidence that most of the solid or liquid waste from facilities is any more infective than residential waste.
- Although hospitals had greater number of different bacterial species wastes from residences were more contaminated.
- This does not include sharps injuries sustained during or immediately after delivery of care.
- Public concern has driven the promulgation of federal, state, and local rules and regulations regarding medical waste and management.
Example

- Ebola – I believe during this time period there was more learned regarding the waste disposal than we ever thought we would need to know.
- Example – the federal laws said that Ebola trash could be transported to disposal stations wherever they were located.
- But state laws said they could not be deposited there.
Definition of RMW

- Any waste (solid or Liquid) that is capable of producing an infection. Characterized by the known or suspected presence of pathogens:
  - Cultures and stocks of etiologic agents
  - Human Blood and blood products
  - Needles and other sharps
  - Surgical and pathological specimens
  - Body fluids/blood via suction
  - Items that are saturated with or have visible wet blood
MORE

- Dialysis wastes
- Contaminated laboratory wastes
- Contaminated sponges and swabs
- We could get into what the Federal Register says
- What the FDA says
- What the USDA regulations are
- What private vendors say
- What the CDC says about regulated medical waste says,
- EPA – Most stringent – govern hazardous and non-hazardous
What we really need is “What does the IP look for in the OR”
Regulated Medical Waste

- Beware of what goes in red bag trash?
Do you know the cost???

In Indiana the cost of red bag trash is over $500 per ton while general trash is around $65 per ton.
Regulated Medical Waste

- Sharps and Needle boxes?
In Soiled Utility Rooms

- Do they have red bag trash separated from regular trash?
- Do they signs indicating what should go where?
- Is the area around the trash containers clean?
- Is there any other regulated medical waste in the room (ex: chemo, limbs)
- All areas should have signs designating what trash goes where.
Into the OR

- Change your clothes into scrub attire.
- Step inside the semi restricted area in proper attire to gain credibility as an IP.
- Build a relationship with your OR management team.
New Guidance on Surgical Attire - 2015

- **AORN**

- Recommended Practices (RP) now known as “AORN Guidelines”.
- Old RP revised and released March 2015 - last revised October 2010.
- Gold Standard for guidance in your facility for surgical attire in perioperative and sterile procedure areas.
- Research is limited and no randomized controlled trials or systematic reviews show a direct causal relationship between SSIs and attire, increased microorganisms in the OR may increase the risk to the patient.
First look at New Recommended Practices for Surgical Attire

- Clean surgical attire should be worn in the semi restricted and restricted areas of the perioperative settings.

- Wearing clean attire may reduce microorganisms present in environment, as a result reduce risk of SSI and potential for HCW transport of microorganisms to and from the HC facility.
Most Common? What is “clean”?

- Don clean surgical attire, including shoes, head coverings, masks, single use or clean jackets in a designated dressing area before entering the semi-restricted and restricted areas from the outside!
Long sleeves required

- New guidance states that all non scrubbed personnel should completely cover their arms with a long sleeved scrub top or jacket when in the restricted area to help contain shedding of the skin squames.

- Cover apparel includes warm up jackets that are laundered by an approved health care facility.

- No Fleece jackets or under shirts that are not covered by scrub tops.
Rounds in the OR

It’s Not Grey’s Anatomy ......

Cloth hats must be covered with a fresh paper bonnet or hood and cover hair, ears, beards and be changed daily.
All personnel should cover head, hair, ears, and facial hair, including sideburns and the nap of the neck, when in the semi-restricted and restricted areas.

A clean surgical hood that confines all hair completely or bouffant cap should be worn. Removal should occur outside the area.
Let’s get Personal?

- Jewelry that cannot be contained or confined within the scrub attire should not be worn. Increase the bacterial counts.
- Cell phones, tablets, stethoscopes should be cleaned with low level disinfectant before and after being brought in the OR and “not worn around the neck”!
- Fanny packs, backpacks, briefcases should also be cleaned with low level disinfectants and kept off the floor.
Clean shoes for OR use only

- Perioperative personnel should wear clean shoes solely dedicated for use within the perioperative environment.

- Quasi-experimental study cited in the literature found higher contamination rates among shoes worn outdoors than those worn solely in the OR.
Home Laundry for attire?

- All individuals who enter the semi-restricted and restricted areas should wear freshly laundered surgical attire that is laundered in a health care *accredited laundry facility.
  *More specifically- after each daily use and when contaminated.
Facemasks?

- All individuals entering the restricted areas should wear a surgical mask in combination with eye protection, (i.e. goggles, glasses with solid side shields).
- Mask should prevent venting.

- Mask hanging down Yes or No??
Sterile field attire?

What is wrong with this sterile field?

HINT >
Cover gowns outside the OR?

- “Cover apparel, lab coats or cover gowns over surgical attire may be used by some organizations, but this has not been shown to reduce attire contamination”.

- “Go with your State Health Department Guidelines”.

Rounds in the OR

AORN Guidelines OSHA Guidelines, AAMI Guidelines, The Joint Commission, Environment of Care
Rounds in the OR

- Why do rounds in the OR? More to rounds than just looking to see what they are doing wrong.
Rounds in the OR

- Pay attention to the things that may increase the risk of infection:
  - Goggles
  - Number of people in the room
  - Prep procedures
  - Insertion of Foleys
  - Hand washing
  - Aseptic tech
  - Attire
  - Overall cleanliness
  - Traffic patterns
Rounds in the OR

- All room turnovers are cleaned with appropriate disinfectants observing wet to dry times per manufacturer guidelines for beds, tables, counters, and equipment.
- No co mingling of clean and dirty supplies.
- Trash is removed after each procedure and floors wet mopped or wiped between cases for any blood spill. Type of Mop and Cloths used?
- Is terminal cleaning be completed at the end of the day.
Rounds in the OR

- IUSS logs - Immediate use steam sterilization previously “flashing”!
Does Hand Hygiene Matter?

80% of all infectious diseases are transmitted by touch.
Do gloved hands totally protect the patient?
Do they totally protect the Surgical team?
The Inanimate Environment Can Facilitate Transmission

~ Contaminated surfaces increase cross-transmission ~

Survival of Pathogens on surfaces

- C Difficle
- Staphylococcus
- VRE
- Aceintobacter
- Norovirus
- Adenovirus
- Rotovirus
- SARS, HIV etc.
- H1N1 - Influenza A

- > 5 months!
- 7 months
- 4 months
- 5 months
- 3 weeks
- 3 months
- 3 months
- Days to week
- Few days
Does it matter if it is a Clinic, ER, Cath Lab or OR?
The OR/Procedural “Patient zone”
Environmental Transmission
• Health-care activity is made up of a *succession* of tasks during which health-care workers' hands touch different types of surfaces (patient, objects, body fluids, etc.).

• Depending on the *order* in which these contacts occur, pathogen transmission from one source to the must be interrupted, as contact is a potential source of contamination.

• It is during the interval between two contacts that the *moments (indication or indications)* for hand hygiene occur.
Before Touching the Patient

**OR and Procedure areas:**

- Before checking in your patient in pre op area
- Before bringing pt. into the OR suite (at door) or-
- Before you hook up all items to pt.
- Before putting on gloves to help Anesthesia with ET tube, swan, etc.
- Before placement of Foley
- Before Prep
Before Clean/ Aseptic Procedures

OR and Procedure areas:

- Placement of Foley catheter
- Placement of IV lines/Swan
- Hanging blood products
- Pouring sterile fluids on field in non-emergencies
After Body Fluid Exposure Risk

OR and Procedure areas examples:

- After handling sponges (after removal of gloves)
- After emptying urine from Foley bag
- After handling specimens
- Number 4 above applies in both settings
- After taking off gloves from terminal room turnover (end of series of events - doing dirtiest last)
After Touching the Patient

OR and Procedure areas examples:

- After checking pt in pre op / chart
- After positioning patient/ before throwing sterile supplies
- After leaving pt in PACCU if you are transporting
- After case gets started this becomes more about pt’s environment
After touching the Patient Surroundings

**OR and Procedure areas examples:**

- Removal of bed linens/drapes - after removing gloves
- After getting case started and moving up equipment/ before charting
- Hunting and gathering supplies (non urgent - depends on case: foam in/foam out)
- Use critical thinking skills it is a sterile environment/ think of high touch surfaces having greater risk if not decontaminated between cases
- **Do Not be too hard on yourself or your team!**
By George, do you have any Questions????

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