

Infection Prevention Basics in Sterile Processing

Jill Holdsworth, MS, CIC, FAPIC, NREMT, CRCST, CHL

Manager, Infection Prevention

Emory University Hospital Midtown

Atlanta, GA

Presentation sponsored by: HudMed

Objectives

- Understand the role of the Infection Preventionist (IP) and how crucial this role is as a partner to Sterile Processing.
- Discuss hot topics in regulatory and survey readiness related to SPD and IP.

Key Responsibilities of the IP

- Daily surveillance of + cultures
 - Isolation of patients with Multi-Drug Resistant Organisms (MDRO)
- Process/ Workflow assistance for Facility staff in regards to Infection Prevention
- Mandatory reporting to health department
 - STDs
 - Foodborne organisms
 - HIV/AIDS
 - Hepatitis A,B & C
 - Tuberculosis

Infection Prevention and You

Who are infection preventionists?

Infection preventionists use their detective skills to find the bad germs and make sure everyone is doing the right things to keep you safe.

Catheters or other devices will be placed in your body after your skin receives proper cleaning.

Healthcare workers will clean their hands before and after they care for you.

Your healthcare workers will wear gloves, gowns, and masks at the right times.

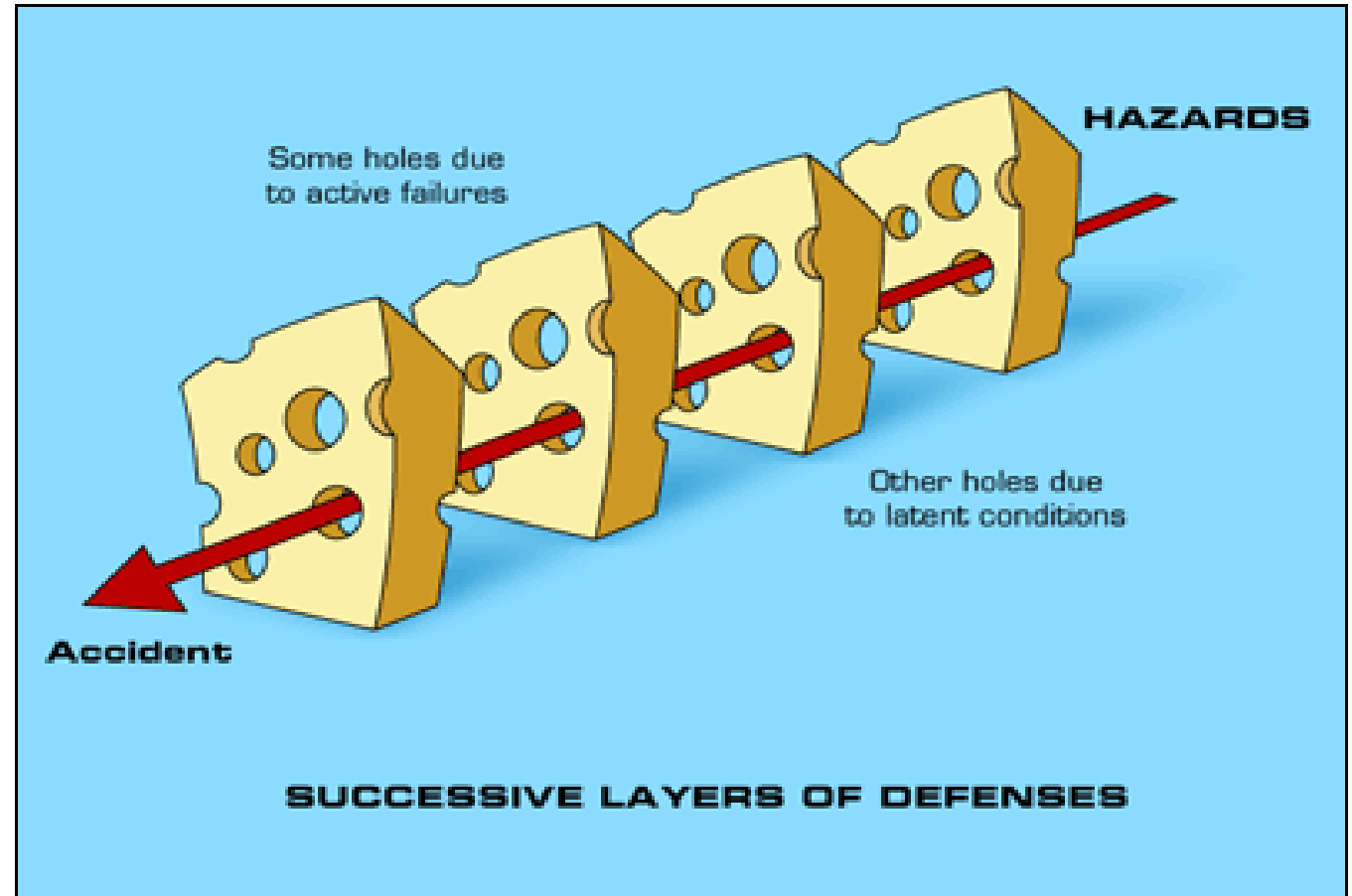
If you are in isolation, you and your visitors may need to do this too.

Your room and any equipment that is used on you will be clean.

The infographic features a central illustration of a healthcare worker in a teal uniform holding a clipboard. Surrounding this central figure are several icons and text boxes: a magnifying glass over a red cap, an IV drip, hands being washed with soap, a person wearing a mask and gloves, and a person mopping a floor.

SWISS CHEESE MODEL

Scenario: Tissue left on instrument that made it back to the operating room and opened for the next case—discovered and sent back to SPD to be reprocessed.



A Journey Through the Mind of an IP

WHAT IS AN IP LOOKING FOR
WHEN THEY WALK THROUGH MY
DEPARTMENT?

Rounding in Sterile Processing

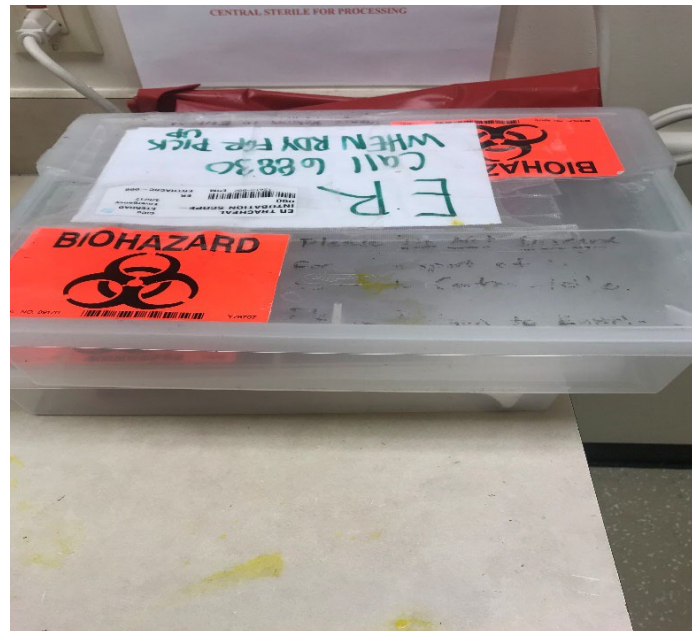
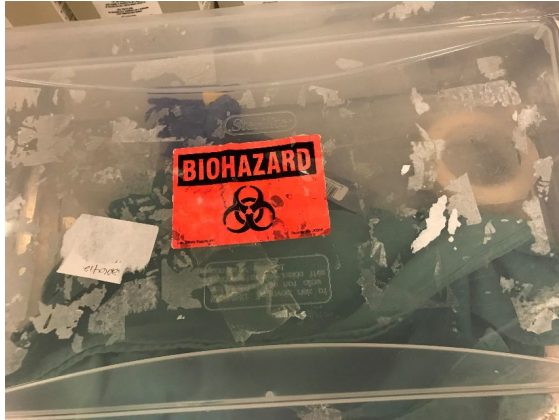


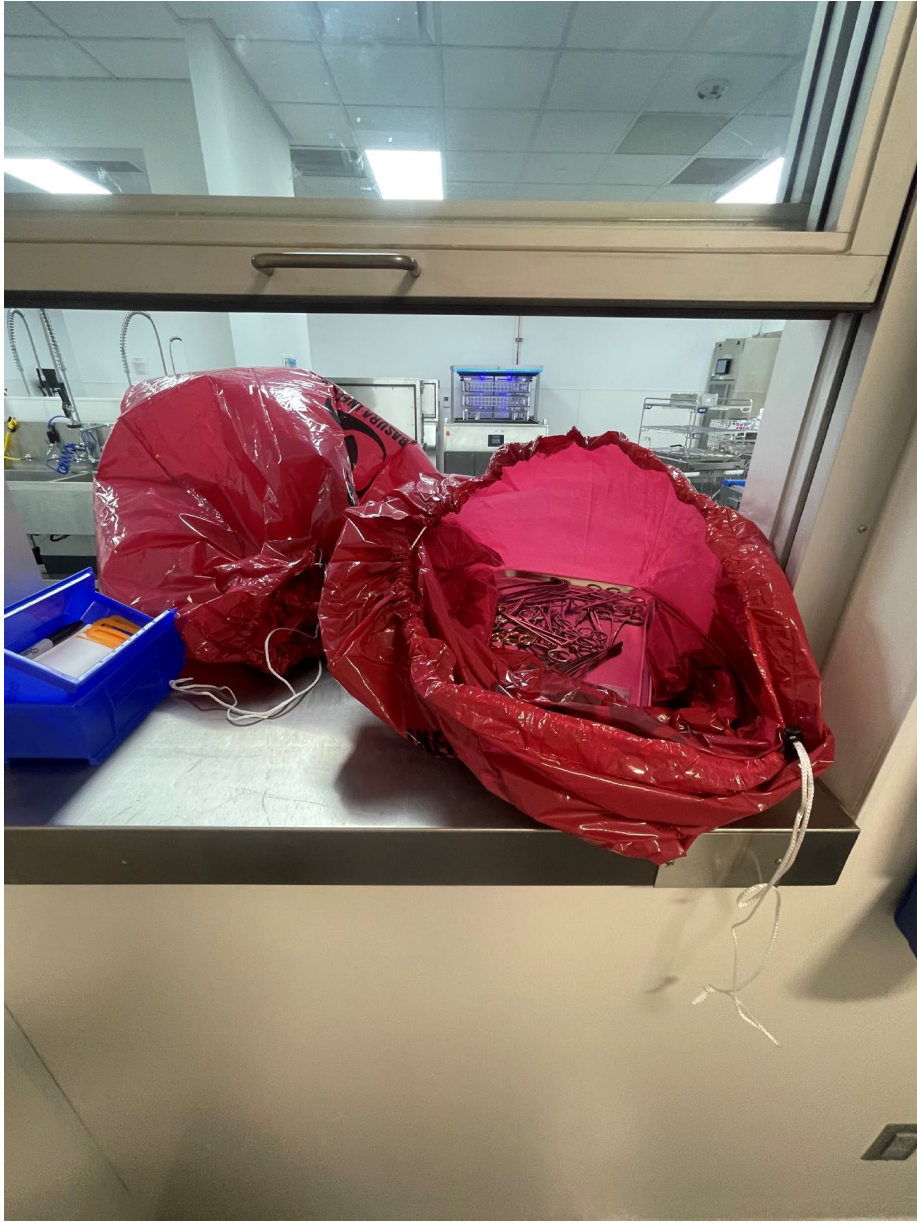
@sterileprocessing
memes

- Who goes on the rounds?
- How often are rounds performed?
- What items are surveyed?
 - Who decides what items are surveyed?
- How are reports shared & reviewed?
- How are action plans formed?

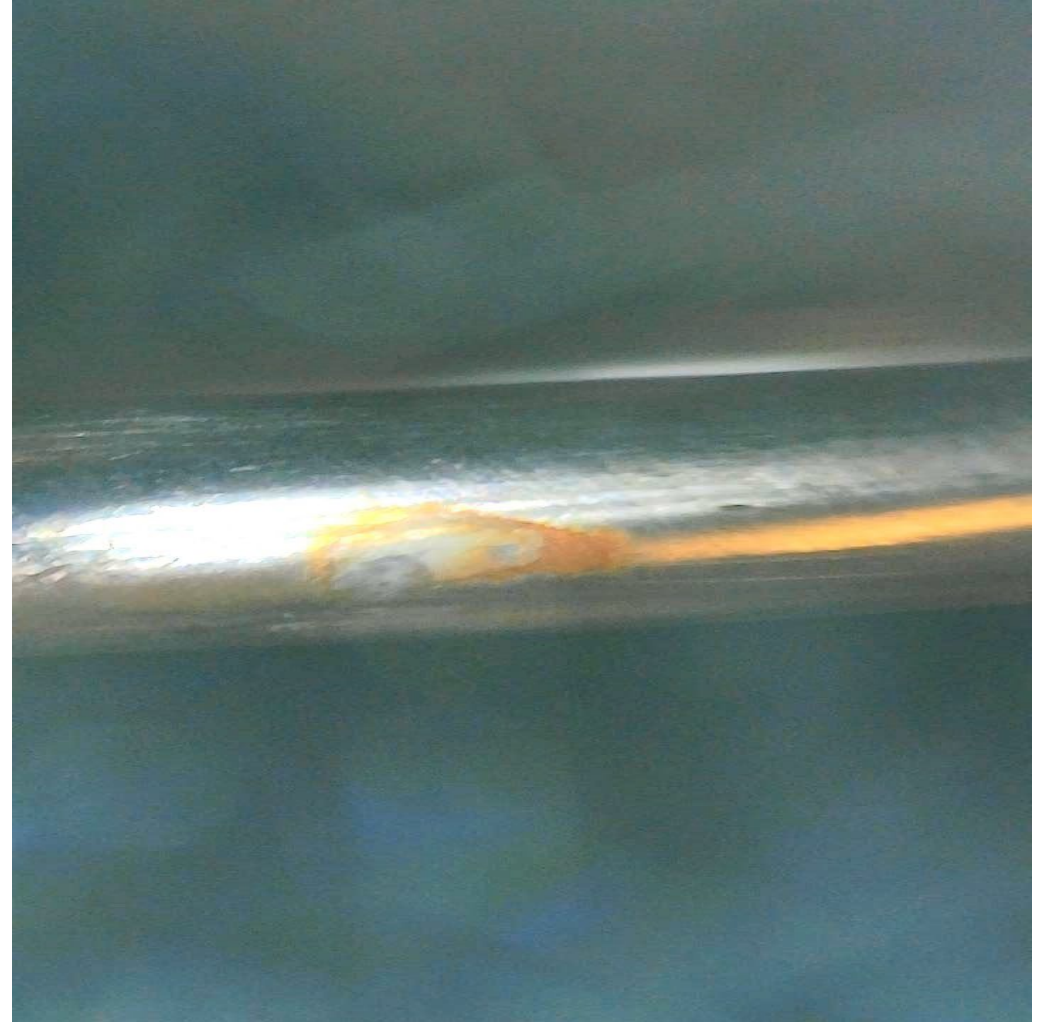
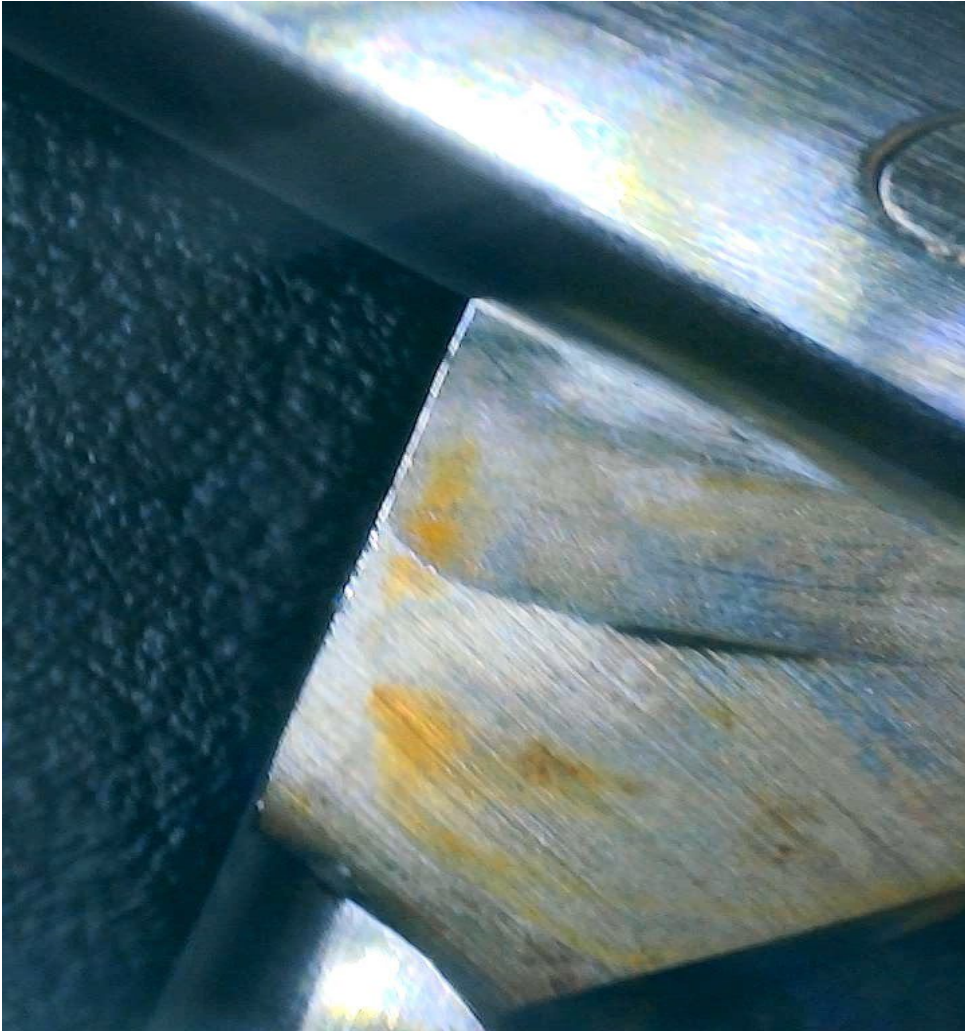
Transport container non-compliance

-cannot be cleaned adequately with adhesive residue and paper labels





Rust vs Blood



Artificial Fingernails

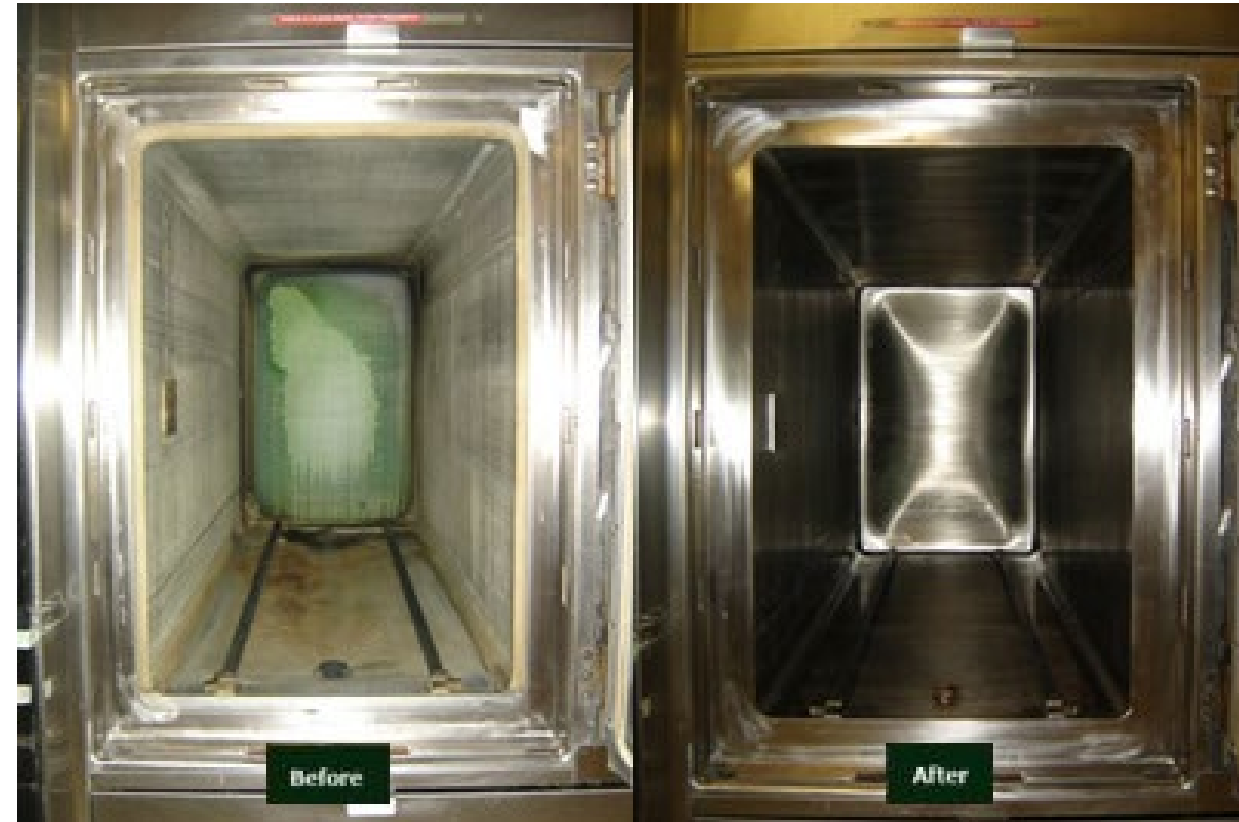
- Know the policy
- Ensure SPD fits into the facility policy
- Invite IP to educate the team on the risks of all types of nail enhancements



AAMI Amendments - 3

Routine Sterilizer Cleaning

- Inspected sterilizers according to the IFU.
- If identified during an inspection
 - Excessive staining & discoloration follow the IFU.
- All processes should be documented.
- Different types of sterilizers or even brands might have their own guidance.
 - Cleaning methods.
 - How often to inspect.
- Is it staining, or is it debris?





Most Likely Areas to be Contaminated in SPD:

- Door handles
- Computer keyboards
- Telephones
- Work surfaces

Disinfect these areas **OFTEN** throughout the day—do not wait for EVS to come at night.

ST-79 Amendment – 1

Environmental services (3.2.1.1, 3.4, & 3.4.1)



- Grab that Multidisciplinary Team again!
- Develop cleaning procedures for all SPD areas.
- Decon, Assembly, Sterile, Storage, etc



		Mon	Tues	Wed	Thurs	Fri	Sat	Sun
Week 1	Date							
	Initials							
Week 2	Date							
	Initials							
Week 3	Date							
	Initials							
Week 4	Date							
	Initials							
Week 5	Date							
	Initials							

ST-79 Amendment – 1 Environmental services

- Cleaning floors at least daily.
- Only damp mops.
- High-contact surfaces cleaned w/ non-linting cloths.
- Avoid compromising clean & sterile items while cleaning.
- Cleaning verification
- Make sure everyone is in the correct PPE.



WOMEN'S HEALTH

C-SECTIONS, CIRCUMCISIONS & HYST—OH MY!




Delivery Trays—Know the Differences



IC.02.02.01, EP 4: The organization implements infection prevention and control activities when doing the following: Storing medical equipment, devices and supplies

- Perform rounds in areas out of the Operating Room with Infection Prevention.
- Educate **anyone** using sterile instruments on what to look for that would compromise sterile packaging.





Review of the Main Sections of ANSI/AAMI PB70

◀ Annex D (informative)

Rationale for changes to the 2012 edition of PB70

- **Annex D (Informative) Rationale for changes to the 2012 edition of PB70**
- The last version before the current revisions
- *“The most significant revision to PB70 involves adding additional defined protective apparel categories.”*
- *“Additional labeling requirements were included in addition to that of FDA labeling regulations.”*

The most significant revision to PB70 involves adding additional defined protective apparel categories. Barrier claims under the previous revision were limited to surgical gowns, surgical drapes, and isolation gowns. As there are many other protective apparel products used in healthcare settings which provide barrier protection, it was necessary to add other categories of products for which PB70 barrier level claims could be made. This will allow healthcare professionals to have a better understanding of the barrier protection properties of the protective apparel items available.

Additional protective apparel categories added to PB70 include an additional surgical gown – surgical gown–E. The surgical gown–E provides extended critical zones over that of a surgical gown. Categories of non-surgical protective gowns other than isolation gowns were also added (e.g., procedure gown, decontamination gown). These include protective full coverage gowns, protective gowns with non-protective backs, and protective gowns with open backs. Protective hoods and togas were also added along with a general category of other protective apparel items. (e.g., aprons, footwear covers, sleeves, etc.).

Additional labeling requirements were included in addition to that of FDA labeling regulations (21 CFR 801, which are not repeated in this standard). As protective barrier claims and classifications are being made according to this standard, packages containing products with such are required at a minimum be labeled with an expiration date. This is to ensure end users are aware of the period during which a product remains suitable for the intended use.

Labeling requirements were added for each package containing protective gowns other than surgical gowns or isolation gowns (e.g., procedure gown, decontamination gown) stating that such are required to be labeled with one of the following that meets the appropriate description of the gown. This is to ensure end user are aware of the area of protection: a) full coverage gown, b) non-protective back gown, and c) open back gown.

Recent Revisions in ANSI/AAMI PB70

- A.4.2.3.5 Other gowns (e.g., **procedure gown, decontamination gown**)
 - “the design and construction of protective gowns (gowns that are non-surgical and not isolation gowns) are based on the anticipated location and degree of liquid contact, given the expected conditions of use.”
 - “Therefore, there are three design types each with following critical zones:”
 - a) Full coverage gowns
 - b) Non-protective back gowns **Note:** Nonprotective back gowns are only used when exposure to the back is not anticipated.
 - c) Open back gowns

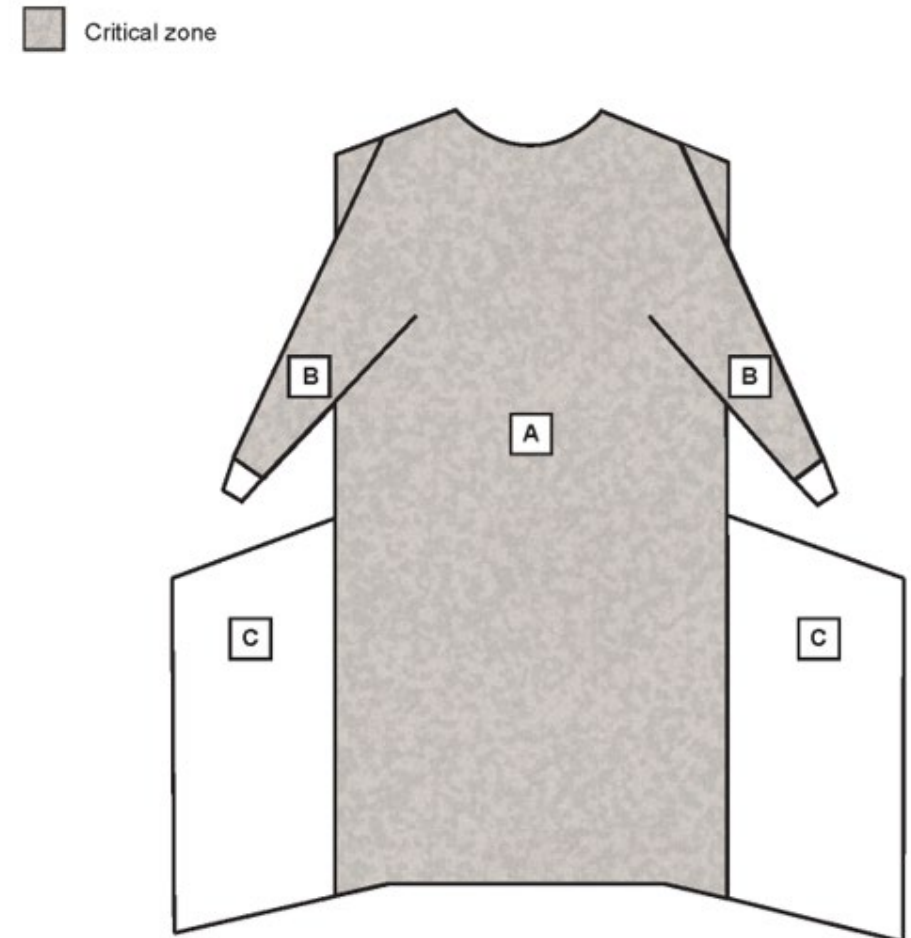


Figure B.5c—Example of other protective gown defined as open back gown

Recent Revisions in ANSI/AAMI PB70

- **A.4.2.3.6 Decontamination gowns**
 - *“The critical zones include those areas where direct contact with blood, body fluids, and OPIM (Other Possible Infectious Material) is most likely to occur.”*
 - *“Due to the nature of the environment for which decontamination gowns will be worn the critical zones have a minimum barrier performance of **at least Level 3.**”*



**Hospitals when ST108 is brought up
and whose responsibility it is.**



What's that Stain?



REFERENCE: WATER ANALYSIS

CONSTITUENTS	DI	STERIS 1	STERIS 2	STERIS 3	
pH, Units	3.1	7.1	7.1	7.2	
Conductivity, $\mu\text{S}/\text{cm}$	331	125	121	130	
Total Dissolved Solids, mg/L	215	81	79	85	
M.O. Alkalinity as CaCO_3 , mg/L	<2	16	10	20	
Chloride as Cl^- , mg/L	28.0	14.9	16.1	14.9	Anions
Sodium, mg/L	2.1	10.2	9.6	10.6	
Potassium, mg/L	<0.1	2.9	2.7	3.0	
Total Hardness as CaCO_3 , mg/L	<0.1	25.9	23.8	26.7	
Calcium as CaCO_3 , mg/L	<0.1	17.4	16.0	17.9	
Magnesium as CaCO_3 , mg/L	<0.1	8.5	7.8	8.8	
Silica as SiO_2 , mg/L	6.8	5.3	5.6	5.4	
Sulfur as SO_4 , mg/L	<0.1	13.9	12.6	14.1	
Iron, Dissolved, mg/L	<0.05	<0.05	<0.05	<0.05	Cations
Copper, Dissolved, mg/L	<0.05	<0.05	<0.05	<0.05	
Zinc, Dissolved, mg/L	<0.05	<0.05	<0.05	<0.05	
Aluminum, Dissolved, mg/L	<0.05	<0.05	<0.05	<0.05	
Manganese, Dissolved, mg/L	<0.05	<0.05	<0.05	<0.05	
Total Phosphorus as PO_4 , mg/L	0.2	0.5	0.5	0.5	

Can be a cation if combine with other elements and lose its electrons

C. auris Case Study: and IP's Investigation

- **Situation:**
- In the last 6 months, we have seen 6 cases of *Candida auris*, 3 of which have had podiatry surgery.
- **Background:**
- *C. auris* is an emerging global fungus, notable for persistence in the environment and multidrug resistance, and has been increasing in the U.S.
- Georgia DPH has been tracking several outbreaks primarily in long term care facilities, but outbreaks have been seen in acute care hospitals in metro Atlanta as well.

Case Study Assessment

- **Assessment:**

- A patient with community-onset, healthcare-associated *C. auris* bloodstream infection had podiatry surgery in February; unclear if infection was related to surgery.
- The lumens of the Micro Hall equipment used in that patient's surgery had damage, visible water, significant staining, rust and potential bioburden on inspection.
- We have discussed with Dr. Sharif who primarily uses the Micro Hall drill/saws and he is comfortable not using this equipment but had some concern about the availability of the newer/replacement drill (Stryker system)



What's Inside?



You will only see this by using a boroscope!

Lumens 2.0: Unseen Threats

- [https://www.ajicjournal.org/article/S0196-6553\(25\)00057-4/fulltext](https://www.ajicjournal.org/article/S0196-6553(25)00057-4/fulltext)
- **HOT OFF THE PRESS!**

The new a-IPC Certification!

- The a-IPC certification exam
 - a-IPC (Associate – Infection Prevention and Control)
 - For the novice IP & those interested in pursuing a career in IP
- <https://www.cbic.org/CBIC/Get-Certified/Get-Started/a-IPC.htm>



THANK YOU!

Jill.Holdsworth@emoryhealthcare.org

THANKS!



Thank you HudMed for sponsoring this presentation!