Module 4. Decontamination & Environmental Cleaning

Ministry of Health Liberia
Division of Environmental & Occupational Health

WASH & EH Package – Early recovery & Resilience Building from EVD outbreak

This module is an adaptation from the Safe & Quality Health Services (SQS) Package, 2015
Learning Objectives

1. Define the 3 steps of decontamination
2. List and describe the process for cleaning and disinfecting
3. Discuss safe management of used linen
4. Discuss cleaning of reusable PPE
Why is cleaning and disinfection important?

- Germs can survive:
  - on medical equipment (e.g. instruments)
  - on surfaces (such as floors and tables)
  - on clothing (including PPE)
  - in body fluids (such as blood and vomit)

- If done correctly, cleaning & disinfection removes and kills most germs
What is Decontamination?

**Decontamination** ensures an item or object is safe for reuse.

There are three different steps:

- **Cleaning** – physical removal of dirt and germs
- **Disinfection** – kills almost all germs (i.e. 0.5% chlorine)
- **Sterilization** – kills ALL germs using special type of equipment (i.e. autoclave)
Decontamination Process

1. **CLEAN** and remove visible waste using soap or detergent and water
2. **DISINFECT** using an effective disinfectant
3. **WASH OFF** any remaining disinfectant using clean water
4. Let air **DRY** or take outside to dry in the sun
Classification of Instruments

- **Non-critical**
  - Any instrument that comes in contact with intact skin (i.e. blood pressure cuffs)
  - Always be sure to clean between uses using towels/cloth soaked with disinfectant
Classification of Instruments (2)

- **Semi-critical**
  - Any instrument that comes in contact with mucous membranes or non-intact skin (i.e. vaginal speculae)
  - Always be sure to disinfect between uses,
  - High level disinfection = Boiling Pot OR soaking in appropriate disinfectant
Classification of Instruments (3)

- Critical
  - Any instrument that comes in contact with sterile tissue (i.e., delivery sets, surgical kits, catheters)
  - Always be sure to sterilize critical items between uses (i.e. autoclave)
Risks During Cleaning and Disinfection

- Poor cleaning & disinfection can spread infection to:
  - Patients
  - Cleaners
  - Visitors
  - Staff

- You should always:
  - Wear appropriate PPE based on risk of exposure
  - Follow recommended steps exactly
Materials for Cleaning & Disinfection

- Appropriate PPE
  - Often includes gown, rubber gloves, boots and face protection
- Soap and water
- Cloths and towels
- Bucket and mop
- Disinfectant
- General waste bin
- Medical waste bin
Principles of Cleaning and Disinfection
Why must we clean before disinfecting?

- All dirt and visible waste (e.g., body fluids) must first be removed/cleaned before using a disinfectant.
- If we don’t clean first, the disinfectant will not work.
Principles of Cleaning

- The basic principles of cleaning and disinfecting apply to all patient care areas.

- Where possible, dedicate cleaning supplies in higher risk areas (e.g., delivery, OR).
  - Cleaning supplies for isolation should be kept and only used in isolation.

- Always move from cleanest area to dirtiest area.

- Always be sure to clean patient care equipment between each patient use.
DO NOT Spray Spills

- NEVER spray disinfectant directly on body fluid spills
  - It can create splashes or make the spill bigger

- Instead use towel or cloth to remove visible waste

- Once visible waste has been removed, clean area with disinfectant
Decontaminating Reusable Cleaning Supplies

- Any reusable item (cleaning towels, buckets, mops) should be appropriately disinfected after use:
  1. Clean
  2. Disinfect
  3. Wash off using clean water
  4. Dry

- When possible, use disposable towels. Throw towels away in a medical waste bin immediately after use.
# Recommended Cleaning Frequency

<table>
<thead>
<tr>
<th>Item</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surfaces (floors, tables, chairs)</td>
<td>• At least twice daily&lt;br&gt;• When visibly soiled</td>
</tr>
<tr>
<td>Medical equipment (axillary thermometers)</td>
<td>• After every patient</td>
</tr>
<tr>
<td>Plates and utensils</td>
<td>• After every patient</td>
</tr>
<tr>
<td>Reusable PPE (aprons, boots)</td>
<td>• After procedures&lt;br&gt;• After exiting an isolation area&lt;br&gt;• When visibly soiled</td>
</tr>
<tr>
<td>Linens and mattresses</td>
<td>• After every patient&lt;br&gt;• When visibly soiled</td>
</tr>
</tbody>
</table>
# Recommended Cleaning Frequency

<table>
<thead>
<tr>
<th>Place</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Screening area</td>
<td>• At least twice daily</td>
</tr>
<tr>
<td></td>
<td>• After a patient with a suspected infectious disease</td>
</tr>
<tr>
<td>Isolation area</td>
<td>• At least once daily</td>
</tr>
<tr>
<td></td>
<td>• After every patient</td>
</tr>
<tr>
<td>Non-Patient care areas</td>
<td>• At least twice daily</td>
</tr>
<tr>
<td>Latrines/toilets</td>
<td>• At least twice daily</td>
</tr>
<tr>
<td></td>
<td>• When visibly soiled</td>
</tr>
<tr>
<td>All areas</td>
<td>• Immediately following possible contamination with blood or bodily fluids</td>
</tr>
</tbody>
</table>
Cleaning in Isolation Areas

- Cleaners should be VERY careful when cleaning the isolation area

- Isolation areas should have their own cleaning supplies that are separate from clean patient care areas

- All waste from the isolation area is considered very contaminated and should be burned
Management of Used Linen
How to Manage Used Linen

- Use gown & gloves when handling used linen

- Scrape off excess blood and/or waste carefully into bucket

- Place linens into leak-proof bags or buckets labeled “soiled” for transport to laundry
  - **Linens used in isolation should be clearly labeled and kept separate from other used linens**
How to Clean Used Linen

- When handling used laundry appropriate PPE should be worn
  - Gloves
  - Gown
  - Face shield OR mask and goggles

- Use of a washing machine for cleaning used linens is preferred
SCENARIO
How to Clean Reusable PPE
How to Clean Reusable PPE

1. Collect PPE items (boots, rubber glove, aprons, goggles and face shields) from the PPE doffing area
2. Rinse any excess blood and/or waste carefully into waste bucket
3. Clean with soap and water to wash any soiled areas
4. Soak in appropriate disinfectant
5. Rinse with clean water
6. Hang to dry
7. Dump used disinfectant into latrine
One Bucket = One Job

- There are many buckets that are used for cleaning and removing waste

- A single bucket should not be used for more than one job because this can spread germs
  - For example, do not use a bucket as a commode one day and the next day use it to store chlorine solution
  - Buckets for specific purposes must be labeled and, if possible, color
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Questions?