Training Guide

Infection Prevention & Control

Guide for Training Housekeeping Staff

Facilitators

World Health Organization
Pakistan

Government of Pakistan
Ministry of National Health Services,
Regulations & Coordination

NIH

Edited Master copy
4 January 2022

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Rationale

The WHO Pakistan is working with the national authorities in Pakistan to establish relevant structures, develop policies and guidelines, standardize IPC training and education of HCWs, provide essential standardized supplies, and develop monitoring and auditing mechanisms.

In collaboration with the National Institute of Health, the World Health Organization has developed National Guidelines Infection Prevention and Control 2020 as the national policy for IPC implementation. Based on the National Guidelines, Infection Prevention and Control Training packages for doctors and nurses' training have been developed.

WHO is supported several workshops for training doctors and nurses on the standard package in collaboration with reputable academic institutions at the national and provincial levels.

However, it was realized that the health care support staff and helpers despite being essential member of the IPC Team at the hospital, never received any training or orientation on Infection Prevention and Control . Some IPC orientation/training of support staff (paramedics/ sanitary workers) responsible for healthcare facility (HCF) cleanliness, waste management, and disposal were conducted by WHO as part of HIV outbreak response in priority districts in Sindh and during the ongoing pandemic crisis.

The WHO adopted the strategic approach to standardize and institutionalize IPC training and education through development of training packages for all categories of HCWs including the critical support. In this context, WHO has designed a short course on Basic of Infection Prevention and Control related to the job description of housekeeping staff. This course is easy to understand with simple language using pictorial checklists for environmental cleaning, safe waste disposal, laundry and needle sticking. These

checklists will help the support staff in implementing IPC protocols at their health facilities.

Overview of Training Strategy

The training course is designed as 2 days classroom training on the Basics of Infection Prevention, and Control followed by a visit to model facility for observation. The training will be interactive and the participants will have a chance to do practical hands-on training for basic skills on IPC as per their job description. The session will be conducted at their workplace in small groups in the afternoon/evening hours. The training plan will be developed in consultation with the housekeeping staff depending on their availability.

After completion of 2 days basic training course, the participants will visit the nearby model facility in small groups. The facilitator will plan and arrange the visit and ensure that the participants are facilitated by an IPC team member from the health facility during the visit.

Duration of Training

Class room training : 2 days

4 hours session each day (Flexible hours depending on availability of participants)

Facility Visit : 1 day

Partipants Selection Criteria

Health workers/support staff working at the hospital/ health facilities will be selected and nominated by the hospital administration/facility in charge. They will be assigned responsibilities at the end of the training and monitored by the managers/trainers to implement learned skills and assigned responsibilities.

Facilitators

Trainers (doctors/nurses/nursing tutors) will be selected /nominated at each hospital/facility to conduct this training. A training of trainers may also be conducted to first train the senior IPC trainers, available at the hospital/health facility in consultation with the hospital management.

Training Module

1. **Trainers' Module**: Trainers module will consist of detailed lesson plans, handout, exercises, and checklist for different technical areas.
2. **Trainee's Notebook**: The trainee's notebook will have handouts, checklists, and protocols for relevant technical areas in local languages.

Goal and Objectives

Goal

This training package aims to develop a team of competent housekeeping staff who can demonstrate good quality of Infection Prevention and Control (IPC) practices by implementing IPC protocols at their workplaces.

Objectives

By the end of this training, the participants will be able to :

- List common organisms responsible for causing infections in the facility and community
- Explain the mechanism of spread of infection and strategies for its prevention and control
- Demonstrate the use of personal protective equipment (PPE) & instrument processing.
- Demonstrate proper practices for cleaning the blood spills
- Demonstrate safe practices for environmental cleaning
- Establish a safe waste disposal mechanism at their workplaces.
- Identify their role and responsibility for maintaining a safe patient-care environment
- Implement IPC protocols at their workplaces

- Laundry

- NSI

Sample Training Agenda

Duration: 4:00 Hrs

Day -1		
DAY-1: Introduction to Infection Prevention and Control		
Session 1	**Introduction**	**Duration**
Opening Session	• Participant Introduction and Welcome -10 min • Overview of Infection Prevention & Control Course- 10 min • Setting Expectations -10 mins • Ground Rule Setting -05 mins • Pre-test -10 mins	45 Minutes
Session 2	**Basic Concepts of Infection Prevention Control**	40 Minutes
Infection Prevention and Control : Basic Concepts	Basic Concepts of Infection Prevention and Control Infection Interactive Presentation and Discussion	40 Minutes
Session 3	**Standard Precaution**	100 Minutes
Standard Precautions	• Standard Precautions : • Interactive Presentation and Discussion	30 Minutes
Hand Hygiene & Gloving	• Activity • Skill Practice	40 Minutes
Donning and Doffing PPE	• Demonstration • Skill Practice	30 Minutes
Session 4 :	**Environmental Cleaning & Disinfection**	**40** Minutes
Environmental Cleaning	Discussion Video & Presentation	40 Minutes
Debriefing & Closing		10 Minutes

Duration: 4:30 Hrs

Day 2 Total Duration: 4:30 Hrs		
DAY- 2 : Practice Environmental Cleaning and Disinfection		
Session	**Activity**	**Duration**
Session 1	• Recap from previous day • Question and Answers	10 minutes
Session 2 :	**Handling and processing linen/clothes**	**30 Mins**
Handling and Processing Linen	Interactive presentation & discussion : • Occupied room cleaning • Cleaning blood spills	30 minutes
Session 3 :	**Cleaning & Disinfection Skills Practice**	**120 Minutes**
Cleaning and Disinfection Practice	Skills Practice at stations • Making chlorine solution	120 minutes
Session 4 :	**Safe Waste Disposal**	**60 Mins**
Waste Management	• Exercise: Waste Segregation • Interactive Presentation: Waste Disposal, NSI & Management	60 minutes
Debriefing & Closing	• Post-test • Course Evaluation • Closing Remarks	30 minutes
Day 3: Facility Visit		
Facility Visit	• Divide participants into small groups (3-4 Members) • Schedule visit for each group • Assign a group leader for each group	

Training Session Plan

Day- 1		
Teaching Methodology	**Duration**	**Materials Required**
Session 1: Opening Session	**45 Mins**	

Session 1
• Participants Registration
• Welcome request participant to introduce themselves by telling their :
  ○ Name
  ○ Place of work & designation
  ○ The best thing they like about their job
• Share workshop objectives with the participants
• Ask participants to write their expectation from the workshop on the post-it slip
• Ask participants to paste the slips on the flip chart
• Read the expectations and clarify any expectation which can not be covered during the training
• Ask participants to set up norms to be observed during the training
• List norms on the flip chart and paste them on the wall
	35 Minutes	• Flip Chart
		• Marker
		• Post-It Slips
		• Whiteboard

Pre-Test • Distribute copies of pre-test to the participants	10 Minutes	Pre-Test Questionnaire

• Give them 10 minutes to complete the test • Collect pre-test questionnaire from participants		
Session 2: Basic of Infection Prevention and Control	**40 Min**	**Materials Required**
Session Objectives: By end of this session, learners will be able to: • List the common types of disease-producing agents • Explain the disease transmission cycle • Describe different modes of transmission of an infection • Understand their role in the IPC team		
Interactive Presentation: Basics of Infection Prevention and Control **Ask:** • What are common types of organisms causing infection? • Show pictures in the presentation and ask what risk is involved ? • What measures can we take to reduce the spread of infection at the health facilities? • Present and explain the slides • Summarize and answer participants queries.	40 Minutes	• Laptop, • LCD Projector, • Flip Chart, • Markers. • PowerPoint: Basics of Infection Prevention & Control

Session 3: Standard Precautions	30 Mins	Materials Required
Session Objective: By end of this session the participants will be able to • Explain different types of precautions to prevent the spread of infection • List standard precautions • Perform hand hygiene as per WHO Guidelines • Donn and doff PPE as per WHO Guidelines	-	
Training Methodology: Brainstorm and Discuss • What precautions do they routinely take while performing their duty to prevent the spread of infection? • What are standard precautions? • Note responses on the flip chart and make a list of precautions that they take while performing their duty **Interactive Presentation**: Standard Precautions • Show and explain the slides • Compare list on the flip chart with the list on slide no. 5 • Summarize and answer any queries	30 Mins	

Ppe: Hand Hygiene, Gloving, Gowning, Mask & Goggles	90 Mins	Materials Required
Session Objectives: By end of this session, participants will be able to: • Wash all surfaces of their hands correctly • Put on and take off sterile gloves correctly • Donn and Doff PPE		
Training Methodology Activity: Simple Hand Hygiene Follow Instructions In Activity Sheet 1 Summarize Main Points • Time, technique, and careful handwashing are the best way to protect ourselves and other people from spread of infectious diseases. • Handwashing is easy and simple, you have to practice and follow all steps	15 Minutes	• Activity 2.1: Simple Hand Hygiene • Activity 2.2: Latex disposable Gloves in Suitable Sizes ,Plastic Waste Bag • Ketch-Up /Poster Paints • Paper sheets for the table
Skills Practice : Handwashing & Donning and Doffing PPE **Advance Preparation**		• Two plastic water buckets with tap

• Set up two stations for handwashing with soap and water and alcohol hand rub and two for donning and doffing PPE • Paste WHO poster for handwashing on the wall visible to the participants. **Demonstrate** • Demonstrate WHO recommended steps for hand hygiene with soap and water • Demonstrate steps for hand hygeine with alcohol hand-rub • Demonstrate donning and doffing PPE • Share checklist for handwashing with soap and water and alcohol hand rub with the participants	15 Minutes	• Liquid soap • Plastic tub • Alcohol hand rub • Paper towel • WHO poster for handwashing with soap & water • WHO poster handwashing with alcohol hand rub
Skills Practice • Ask participants to practice hand hygiene • Ask participants to practice putting -on and removing PPE • Observe while performing the skill • Ensure all participants have a chance to practice both skills	60 Mins	• Disposable Gowns • Surgical Mask • N-95 Mask • Latex Gloves • Eye goggles • Face-Shield
Session 4: Environmental Cleaning	**40 Mins**	**Materials Required**
Session Objectives **By the end of this session, the participants will be able to** • Describe the importance of environmental cleaning		

• Explain steps/sequence of environmental cleaning		
Brainstorm and Discuss : • Why is environmental cleaning necessary for the control of spread of infection ? • Who should be responsible for keeping the environment clean at the health facility?		• Flip Chart • Marker • Whiteboard
Show Video on Environmental Cleaning • Show videos to the participants • https://youtu.be/zx9fgg0u4cq • https://www.youtube.com/watch?v=7wadszah28k • Pause video at critical steps and explain the steps in detail such as cleaning frequently touched surfaces	10 Mins	• Laptop • LCD Projector
Interactive Presentation: Environmental Cleaning • Show and explain the slides • Summarize and answer the queries • Share and review handout on environmental cleaning with the participant	30 Mins	• Laptop • LCD Projector • Handout: Environmental Cleaning
Debriefing and Closing • Ask volunteer to summarize key points they have learned today • Ask participants if they have any questions	10 Mins	

Day 2		
Teaching Methodology	**Duration**	**Materials Required**
Session 1: Recap of Previous Day	10 Minutes	Materials Required
• Recap of previous day • Answer any questions/clarifications from the participants	10 Mins	
Session 2: Handling and Processing Linen	30 Mins	
Session Objectives : **By the end of this presentation, the participants will be able to:** • Understand the importance of safe handling and processing soiled linen and clothing • Describe the use of PPE during transporting soiled linen • Explain and follow protocols for drying, transporting, and storing clean linen		
• Ask participants what are the risk factors while handling soiled linen? • How do they store clean/sterile linen at their facility? Interactive presentation and discussion: Safe handling and transporting linen • Show and explain the slides	**30 Mins**	• LCD Projector • Laptop • PowerPoint Presentation

• Answer any queries • Summarize main points • Share and review handout Best Practices for Linen / laundry handling		• Handout : Best Practices for Linen/laundry handling
Session 3: Skills Practice Cleaning and Disinfecting Health Facility	**120 Mins**	**Materials Required**
Session Objective **By end of this session, the participants will be able to :** • Demonstrate steps of cleaning an occupied room • Clean blood spills in the facility (small and large) • Prepare 0.5% chlorine solution for routine disinfection		
Advance preparation: set up three stations for skill practice 1. Simulated occupied room with all cleaning and disinfecting supplies 2. Cleaning blood spills 3. Station for preparing chlorine solution **Instructions for Skills Practice** : • Divide participants into groups with 2-3 members in each group • Assign one station to each group and give them 10 minutes to practice at each station • Ask them to move to the next station after completing one station. • Observe and coach each group while performing the skill At the end of the practice, debrief		• Two hospital beds with mattress and linen • Cleaning supplies /disinfectants • Mop • Mopping duster • Water buckets • Absorbent paper • Red ink (blood simulation) • Waste bins

• What went well and what steps need improvement. Note: room cleaning can be done in the unoccupied rooms at the healthcare facility. Take prior permission from the medical superintendent/ward in charge if the practice can be done in the unoccupied room at the healthcare facility.		• Covered plastic buckets for making chlorine solution • Measuring Cup • Heavy-Duty Glove • Face Shield • Mask
Session 4: Waste Management	**60 Minutes**	**Materials Required**
Session Objectives By the end of this session, the participants will be able to: • Describe different methods for segregation and waste reduction at the health care facility • Describe techniques for managing and final waste disposal		
Ask the participants how do they discard the following waste at their healthcare facility • Sharps and Needles • Soiled /Blood Stained Bandages • Used Disposable Gloves • Placenta		• Laptop • LCD Projector • Labeled/Color Coded Waste Bins

Activity: Waste Segregation **Instructions for Facilitator :** • Divide participants into three groups • Assign one station to each group • Follow instructions on how to conduct waste segregation (activity 2). **Interactive Presentation: Safe Waste Disposal** • Show and explain the slides • Answer any queries • Summarize the main points • Share and review guidelines for safe waste management and safe sharp disposal with the participants	20 Minutes 40 Minutes	• Cotton Swab/Bandages Colored with Red or Yellow Color • Needles/Syringes • Sharp Disposal Boxes • Paper, Shoppers, Medicine Boxes, Vials (General Waste) • Markers • Flashcards ○ Checklist: • Cleaning Blood Spills • Biomedical Waste Management In Healthcare Facility
Plan for field visit with the group leaders		
Closing Session	30 Minutes	
Post-test : 10 mins • Distribute post-test to the participants		• Copies of Post-Test Questionnaire

• Give them 10 mins to complete the test • Collect the filled-up test copies		
Course Evaluation : • Distribute course evaluation form and request participants to complete it		● Course Evaluation Sheet
Closing Session & Certificate Distribution		● Certificates

Pre and Post Test Questionnaire:

Instructions: Please carefully read the statements carefully and tick ✓ if you think it is correct or ✗ if you think it is not correct in the last column.

Total time : 10 minutes

1.	Implementing infection prevention practices is responsibility of all the staff working at the facility.	
2.	Standard Precautions are basic level of precautions to be used only during operations by theatre staff	
3.	Staff performing cleaning should always wear recommended PPE	
4.	Dry sweeping, dry mopping, and dusting at the health facility should be avoided to prevent dust, debris, and microorganisms from floating into the air and landing on clean surfaces	
5.	Hospital room cleaning should always progress from the most soiled areas (toilet) to the least soiled areas (periphery of room).	
6.	Sodium hypochlorite (bleach) is a general disinfectant that kills bacteria, fungi, mycobacteria (e.g., tuberculosis) and viruses	
7.	Use leak-proof containers for all linen/clothing or at least those grossly contaminated with blood or body fluids to protect staff from exposure to blood and body fluids	
8.	When cleaning blood spills or body fluids workers should throw water and wash the area immediately	
9.	WHO recommended time for effective handwashing with soap and water is 40-60 seconds	
10.	Waste segregation is the last step for proper waste management	

Handout 1.1: How to Make a Bleach Solution

Example 1 — Using Liquid Bleach

Chlorine in liquid bleach comes in different concentrations. Any concentration can be used to make dilute chlorine solution by applying the following formula:

(% chlorine in liquid bleach / % chlorine desired) − 1 = Total parts of water for each part bleach

Example: To make a 0.5% chlorine solution from 3.5% bleach:

[3.5%/0.5%] − 1 = 7 − 1 = 6 parts water for each part bleach

Therefore, you must add 1 part 3.5% bleach to 6 parts water to make a 0.5% chlorine solution.

Example 2 — Using Bleach Powder

If using bleach powder, calculate the amount of bleach to be mixed with each litre of water by using the following formula:

[% chlorine desired / % chlorine in bleach powder] × 1 000 = Grams of bleach powder for each litre of water

Example: To make 0.5% chlorine solution from calcium hypochlorite (bleach) powder containing 35% active chlorine

[0.5%/35%] × 1 000 = 0.0143 × 1 000 = 14.3

Therefore, you must dissolve 14.3 grams of calcium hypochlorite (bleach) powder in each litre of water to make (add # of spoons) 0.5% chlorine solution.

Example 3 — Formula for Making Dilute Solution from Concentrated Solution

Total Parts (TP) (H_2O) = [% Concentrate / % Dilute] − 1

Example: To make 0.5% chlorine solution from 5% concentrated solution:

Calculate TP (H_2O) = [5.0%/0.5%] − 1 = 10 − 1 = 9

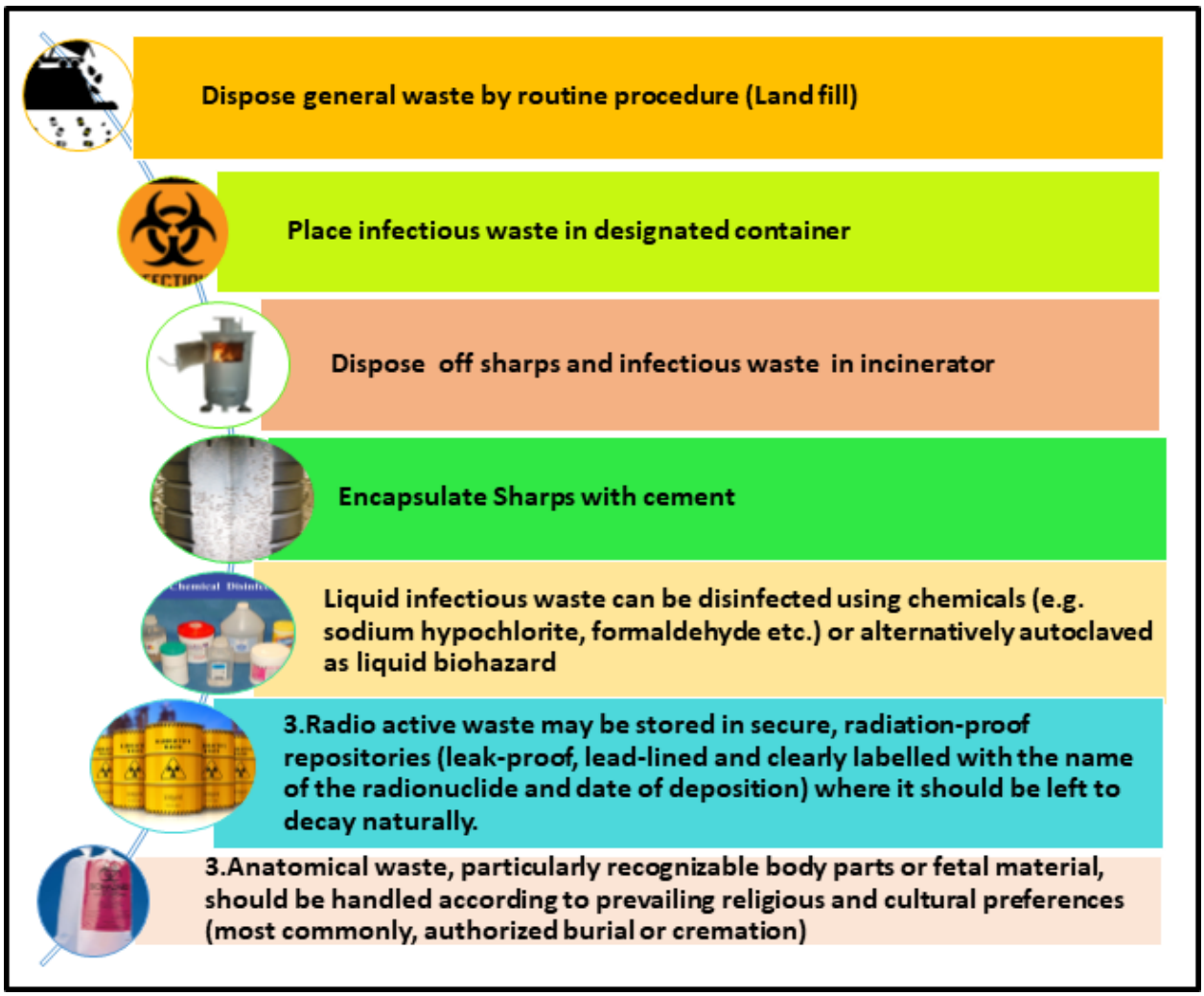
Take one part concentrated solution and add 9 parts boiled (filtered if necessary) water.

Adapted from : Chlorine Disinfectant Solution Preparation (Best Practices for Environmental Cleaning in Healthcare Facilities in National guidelines on Infection, Prevention and Control)

Handout 1.2: Environment Service: Steps for Cleaning an Occupied Room

Handout 1.3: How can You Help Stop Spread of Infection

Handout 1.4: Chart for Final Waste Disposal



Handout 1.5: Best practices for linen (and laundry) handling

- Always wear reusable rubber gloves before handling soiled linen (e.g., bed sheets, towels, curtains)
- Never carry soiled linen against the body. Always place it in the designated container.
- Carefully roll up soiled linen to prevent contamination of air, surfaces, and cleaning staff. Do not shake linen.
- If there is any solid excrement on the linen, such as feces or vomit, scrape it off carefully with a flat, firm object and put it in the commode or designated toilet/latrine before putting linen in the designated container
- Place soiled linen into a clearly labeled, leak-proof container (e.g., bag, bucket) in the patient care area. Do not transport soiled linen by hand outside the specific patient care area from where it was removed
- Reprocess (i.e., clean and disinfect) the designated container for soiled linen after each use
- If reusable linen bags are used inside the designated container, do not overfill them, tie them securely, and launder after each use
- Soiled linen bags can be laundered with the soiled linen they contain

Handout 1.6: Dos and Don'ts of Gloves as Personal Protective Equipment

Activity Sheet 1.1: Handwashing Exercise

Objectives

Participants will understand the importance of how to:

- Wash all surfaces of their hands correctly
- Why proper handwashing for 40-60 secs and following all steps of handwashing important?

Time: 15 minutes

Materials

- Disposable gloves
- Plastic waste bag
- Poster paints /ketchup
- Flipchart or newsprint paper to cover the table

Instructions for Trainer

Activity

1. Ask participants to put on disposable gloves in both hands
2. Ask participants to close their eyes and put about 5 cc of the poster paint/ketchup onto their gloved hands. With their eyes closed, they begin ordinary handwashing techniques
3. Tell participants to open their eyes and stop washing their hands after 10–15 seconds and examine their hands. Ask them to point to those parts of the hand without paint and describe the areas (usually between thumb and index finger, between fingers, "under nails," or the back of hands).
4. Discuss and make them realize in routine handwashing, if not performed correctly, how easily we can miss areas that are not washed properly and can cause infections.

Discussion Questions

1. What can we learn from this exercise? (good handwashing techniques, how to put on, use, and take off sterile gloves, etc.)

2. What are the risks for healthcare providers and clients or patients from breaking aseptic technique while not washing hands correctly?

Summarize Main Points

- Time, technique, and careful handwashing are the best way to protect ourselves and other people from the spread of infectious diseases
- Use of proper aseptic techniques when using sterile or high-level disinfected gloves is essential to avoid contamination and spread of infections
- Gloves, even new gloves, can have holes that cannot be seen. This is why it is so important to wash your hands thoroughly with soap and water after removing gloves

Activity Sheet 1.2: Waste Segregation

Total Time : 15 minutes

Advance Preparation :

Make three stations with different types of simulated waste

- Paper, shoppers, medicine boxes
- Simulated waste (soiled bandages colored with red and yellow ink)
- Simulated sharps cards (blades, injection)
- Cards labeled as lab and toxic waste
- Four color-coded dustbins or labelled bags (use colors as per facility guidelines)

Activity:

- Ask each group to go to their designated station
- Ask each group to segregate different types of waste into color coded bags/dustbins
- Facilitators should move around each station and observe if the waste is disposed of correctly

Discussion

- Why is segregation of waste necessary?
- Is segregating waste possible at the facility? Who is responsible for doing it?
- What can be done to improve waste management at the facility?

- What are the barriers to improving waste management at the facility? How can you overcome those barriers?
- Who will benefit from improved waste management processes and why?

Summarize Main Points

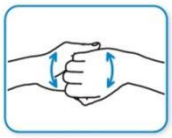
- Segregating waste in appropriate containers at the point of use minimizes the volume of contaminated/hazardous waste which requires special processing for final disposal. Segregating waste also decreases the risk of exposure to contaminated/hazardous waste among health care workers and community members
- Reprocessing/recycling correctly is safe; it saves money, and it protects the environment from pollution
- It is essential to involve all staff members, including managers in infection prevention processes to maintain functional system that will keep the facility and its surroundings clean. Community members can also be involved in this process

Source : Learning Resource Package : Infection Prevention Guidelines for Healthcare Facilities with Limited Resources.

Checklist 1.1: Sequence of Donning and Doffing PPE

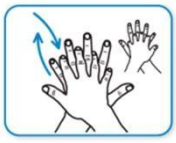
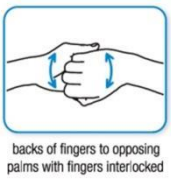
Step	Donning PPE	Step	Doffing PPE
Step 1	Wash hands 	**Step 1**	Remove gloves 
Step 2	Wear gown 	**Step 2**	Wash hands 
Step 3	Put on mask 	**Step 3**	Remove eye goggles 
Step 4	Put on eye protector 	**Step 4**	Remove gown 
Step 5	Wear gloves 	**Step 5**	Remove mask 
Wash hands Perform Hand Hygiene between steps if hands become contaminated and immediately after removing PPE			 Wash hands

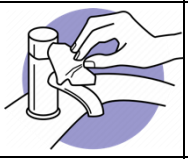
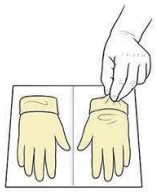
Checklist 1.2: Hand Hygiene

Observe and check Yes/No in right hand column			
Task	**Step**	**Observations**	
		Yes / No	
Remove all jewelry	Remove all jewelry: rings/ bands/ bangles prior to hand hygiene 		
Wet hands	Open the tap for running water or ask someone to pour water on your hands up to the wrist  Thoroughly wet both hands with clean water		
Apply soap	Apply enough soap to cover all hand surfaces 		
Rub soap on palms	Rub hands palm to palm 		
	Rotationally rub right palm over left dorsum with interlaced fingers 		
	Rotationally rub left palm over right dorsum with interlaced fingers		
	Rub palm over palm with interlaced fingers 		
Rub soap on fingers	Rub back of fingers of both hands to opposing palms with interlocked fingers (right and left) 		

Rub soap around the thumb	Clasp left thumb in right palm and rub rotationally 		
	Clasp right thumb in left palm and rub rotationally		
Rub fingertips over palms	Rub clasped fingers of right hand backward and forward over left palm 		
	Rotationally rub clasped fingers of left hand backwards and forwards over the right palm		
Rinse Hands	Rinse hands with clean water from the tap or poured water 		
Dry Hands	Dry hands with single used towel or paper towel 		
Close the Faucet	Close the faucet with paper towel or single used towel 		

Checklist 1.3: Hand Washing & Gloving

Task	Step	Observations	
		Yes	No
Wet your hands	Open the tap for running water or ask someone to pour water on your hands up to the wrist Thoroughly wet both hands with clean water 		
Apply soap	Apply enough soap to cover all hand surfaces 		
Rub soap on the palms	Rub hands palm to palm 		
	Rotationally rub right palm over left dorsum with interlaced fingers 		
	Rotationally rub left palm over right dorsum with interlaced fingers		
	Rub palm over palm with interlaced fingers 		
Rub soap on fingers	Rub back of fingers of both hands to opposing palms with interlocked fingers (right and left) 		

Rub soap around the thumb	Clasp left thumb in right palm and rub rotationally 		
	Clasp right thumb in left palm and rub rotationally		
Rub fingertips over palms	Rub clasped fingers of right hand backward and forward over left palm 		
	Rotationally rub clasped fingers of left hand backwards and forwards over the right palm		
Rinse hands	Rinse hands with clean water from the tap or poured water 		
Dry hands	Dry hands with single used towel or paper towel 		
Close the faucet	Close the faucet with paper towel or single used towel 		
Wear gloves	Pick up the sleeve of the left glove with the right thumb and index finger 		
	Lift the glove and insert the pointed fingers of the left hand 		
	Pull sleeves up to the wrist		

	Point and insert fingers 2–5 of gloved left hand under the inverted sleeve of the right glove and lift the right glove.		
	Carefully insert pointed fingers of the right hand into the right glove—avoid touching the gloved left thumb with the ungloved fingers of the right hand		
Take off gloves	Gently peel off the cuff toward the fingertips of one hand—but  not completely off—and then use those still-covered fingers to grasp the glove on the other hand and remove both gloves together		
	Drop both gloves in the waste bag or over the wrapper at the same time		

Sources:

WHO Poster "How to Hand Wash," © World Health Organization (2009). Infection Prevention Guidelines for health care Facilities with Limited Resources. Learning Resource Package. Guide for Trainers. Baltimore, MD: Jhpiego Corporation, 2004. Infection Prevention and Control Guidelines for health care Facilities with Limited Resources. Baltimore, MD: Jhpiego Corporation, 2017

Checklist 1.5: Safe Sharp Disposal

Observe and check Yes/No in the right-hand column			
Task	**Step**	**Observations**	
		Yes	**No**
Sharp disposal boxes available 	Puncture & leak-proof covered containers made of metal or high-density plastic or dense cardboard available at the point of use		
	Sharp disposal boxes are labeled with biohazard symbols		
	Sharp disposal boxes have name of the department and facility where they are generated		
Safe disposal of sharps 	Do not bend, shear, break, recap, remove needles from syringes by hand before disposal		
	Do not allow boxes to get overfilled (no more than 3/4 full)		
	Do not try to remove items from sharps disposal containers		
Transportation of sharp waste 	Housekeeping staff handling sharps waste are wearing heavy-duty gloves, appropriate footwear, industrial apron or leg shields, waterproof clothing, face shield		
	Transport sharp disposal boxes when ¾ full for encapsulation OR incineration (whatever is available)		
	Sharps and loose needles are not thrown in open spaces		

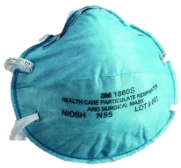
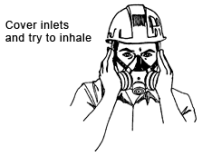
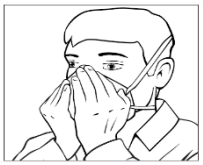
Sharps waste disposal 	Encapsulation: When container is ¾ full, pour immobilizing medium such as cement mortar, sand, or clay until the container is filled. After medium has dried, seal the container and dispose of at landfill site		
Perform hand hygiene after safe disposal of sharps 	Thoroughly wash both hands with soap and water for 20-30 secs. after safe disposal of sharps		

References

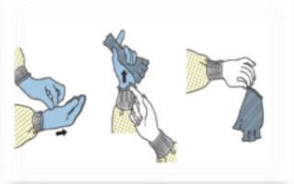
- National Institute of Health. National Guidelines Infection Prevention and Control 2020
- World Health Organization. WHO guidelines on the safe management of wastes from health-care activities (2nd ed.) Geneva: 2014
- Damani N. Manual of Infection Prevention and Control . 4th edition. Oxford: Oxford University Press. 2019

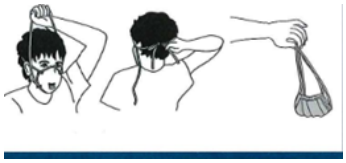
Checklist 1.6: Personal Protection Equipment

Task	Step	Observations	
		Yes	No
Before Donning PPE			
Before donning PPE 	Plan where to put on and remove PPE		
	Gather all PPE at the designated area		
	Take off all jewelry before putting-on gloves		
	Wash hands thoroughly before putting on PPE		
Step-1: Putting-on Gown			
Select appropriate gown (Clean/sterile/disposable) /plastic apron 	Wear gown during procedures and patient-care activities that are likely to generate splashes or sprays of body fluid		
	Select gowns that fully and comfortably fit over the upper body and have long sleeves that fit snuggly at the wrist		
	Wear disposable gown at the isolation ward		
Wear gown/plastic apron 	Securely fasten the tabs/ties to keep the gown/plastic apron in place		
	Change the gown/plastic apron for each patient and/or procedure		
Step 2 : Putting -on Mask			
Use Surgical mask (indications) 	Wear surgical mask when exposed to respiratory secretions of patient, blood spray or body fluids		

Wear surgical mask 	Secure the surgical mask by ties or ear loops		
	Position flexible band of mask on the nose bridge to fit comfortably on the face and under the chin		
	Do not touch front of the mask		
Change surgical mask	- If it becomes wet, soiled, damaged, or if it becomes difficult to breathe through - If it is exposed to splash of chemicals, infectious substances, or body fluids - If it is displaced from face for any reason		
Putting-on N-95 Mask			
Wear N-95 mask (indications) 	Cleaning room of patients with highly infectious respiratory tract infections (or when being aerosol generating procedures (AGPs) are performed) Is from keeping staff present during each procedures?		
Conduct Seal Check (Fit Test)  **Positive Seal Check**	Positive Seal Check: Exhale sharply: A positive pressure felt inside the respirator (no leakage)		
 **Negative Seal Check :**	Negative Seal Check: Inhale deeply: Respirator cling deeply on your face (No leakage)		

Change Respirator	- If it becomes wet, soiled, damaged or difficult to breathe through - If it is exposed to splash of chemicals, infectious substances, or body fluids - If it is displaced from face for any reason		
Putting-on Eye goggles /Face Shield			
Wear Eye goggles (indications) 	Wear protective eye/face wear for protection from eye/face contamination by aerosolized body substances		
	Clean and disinfect reusable goggles or face shields before reuse with 0.1% chlorine solution (1000 ppm)		
Putting- on Gloves			
Wear Single Use Gloves (Indications) 	Wear clean single use gloves whenever there is potential for touching blood, body fluids secretions and Handling soiled instruments or clinical specimens or waste		
Wear Sterile Gloves 	Wear sterile gloves whenever any sterile procedure is anticipated that includes, but not limited to • Surgical procedures • Urinary Catheterization • Vaginal delivery • Invasive radiological procedures • Performing vascular access and procedures (central lines) • Preparing total parenteral nutrition and chemotherapeutic agents.		
Change Gloves	Between tasks on the same patient		

	After use and before touching clean items and environmental surfaces		
	If torn or heavily contaminated		
Doffing PPE			
Pre-doffing Steps	Avoid contamination of self, others and environment items		
	Except N-95,remove all PPE in patient's room		
	Remove N-95 after leaving patient's room and closing door		
	Remove the dirtiest PPE first		
	Ensure infectious waste containers are available in the doffing area for safe disposal of PPE		
	Separate containers should be available for reusable items		
Remove Gloves			
Remove Gloves 	Pinch outside of the glove of one hand at the wrist		
	Peel it off and away from the hand, turning inside out		
	Hold the removed glove in the gloved hand and slide the fingers of the ungloved hand inside between the glove and wrist		
	Remove the second glove by rolling down the hand and fold into the first glove		
	Discard gloves in waste container		
	Perform hand hygiene		
Remove Eye goggles/Face Shield			
	Pull the string from behind the head		

Remove Eye goggles/ Face Shield 	Put goggles in a separate container for reprocessing		
	Perform hand hygiene		
Remove Gown			
Remove Gown 	Unfasten gown ties		
	Pull away from the neck and shoulder, back to front		
	Roll it inside out (gown sleeves and front is contaminated)		
	Fold it and discard it in clinical waste		
	Perform hand hygiene		
Remove Mask			
Remove Mask 	Remove the mask from behind the head		
	Un-tie the bottom string above the head and leaving it hanging in front		
	Un-tie the top string next from behind the head		
	Dispose it as clinical waste		
Perform Hand Hygiene 	Perform Hand Hygiene between steps if hands become contaminated and immediately after removing PPE		

References:

- National Institute of Health. National Guidelines Infection Prevention and Control . 2020
- World Health Organization. WHO guidelines on the safe management of wastes from health-care activities (2nd ed.) Geneva: 2014
- Damani N. Manual of Infection Prevention and Control . 4th edition. Oxford: Oxford University Press. 2019

Checklist 1.7: Management of Potentially Infectious Spills in Healthcare Facilities

Definition Body fluids: blood, feces, urine, vomit, saliva, semen, vaginal secretions, and any other fluids that originates from human body. All body fluids can potentially carry infectious agents							
Component of Spill kit : 							
PPE 	Waste Bags 	Forceps 	Disposable paper towel 	Bleach 	Bucket with detergent 	Leak Proof Bags 	Floor Mop 

Task	Step	Observations		Comments
		Yes	No	
Management of Splashes and Drips				
Wear PPE	Put on appropriate PPE			
Remove Broken Glass	Use paper or plastic scoop or forceps and dispose them in the sharps container			
Wipe the Spill Area	Wipe the area immediately with disposable paper towels/absorbent cloth.			
Disinfect the Spill Area	Disinfect the area using freshly prepared chlorine releasing agent at concentration of 0.5%/5000 ppm (1:100 dilution of 5% chlorine-bleach)			
	Wait for the required contact time of ≥1 minute by allowing the disinfectant to remain wet on the surface			
	Rinse the area with clean water to remove the disinfectant residue (if required)			

Discard Contaminated Waste	• Discard contaminated paper/cloth immediately as infectious waste			
	• Discard gloves and paper towels as clinical waste			
Clean and Dry Spill Area	Clean and dry spill area with a disposable paper towel			
Perform Hand hygiene	Wash hands with soap and water and dry hands immediately afterward			
Management of Small Blood Spills (≤10 cm diameter or ≤30 ml)    				
Wear PPE	Wear appropriate PPE (clean disposable gloves, gown, and/or plastic apron)			

Remove Broken Glass	If there is broken glass, do not touch - use a paper or plastic scoop or forceps and dispose of in the sharps box			
Wipe spill	Wipe spill immediately with absorbent material (paper towel /absorbent cloth)			
Discard Contaminated Waste	Place contaminated absorbent material into impervious containers or plastic bag for disposal			
Clean the Spill Area	Clean the area with warm detergent solution using a disposable cloth or sponge			
Disinfect the Spill Area	Disinfect the area using freshly prepared chlorine releasing agent at a concentration of 0.1%/ 1000 ppm) (1:20 dilution of 5% chlorine-bleach)			
	Wait for required contact time of ≥1 minute by allowing the disinfectant to remain wet on the surface			

	Rinse the area with clean water to remove the disinfectant residue (if required)			
Take Off and Discard PPE	Remove contaminated PPE and discard it as infectious waste			
Perform Hand hygiene	Wash hands with soap and water immediately			
Report Incidence	Report the spill in the incident reporting form			
Management of Large Blood spills (>10 cm diameter or >30 ml) 				
Cordon off the Affected Area	Put barriers around the large blood spills			
	Ventilate the area by opening the window/door			

Wear PPE	Wear appropriate PPE (clean disposable gloves, gown and/or plastic apron face shield or face mask and goggles)			
Remove Broken Glass	Do not touch even with gloved hands- use paper or plastic scoop or forceps and dispose them in the sharps box			
Cover and Disinfect the Spill Area	Cover the large spills with absorbent paper /cloth			
	Disinfect the area using freshly prepared chlorine releasing agent at a concentration of 0.5% /5000 ppm (1:100 dilution of 5% chlorine bleach)			
	Do not pour disinfectant solution directly onto the spillage; it may cause splashing and widen the area of contamination			
	Wait for the required contact time of ≥1 minute by allowing the disinfectant to remain wet on the surface			

	Rinse the area with clean water to remove the disinfectant residue (if required).			
	Lift the soiled paper towels/ cloths and discard them into an infectious waste bag			
Clean the Spill Area	Clean the area with water and detergent solution			
	Wipe the area using a freshly prepared chlorine releasing agent at 1000 ppm free chlorine (1:20 dilution of 5% chlorine-bleach)			
	Wait for a contact time of ≥1 minute, then rinse the area with clean water, if required			
	Dry the surface with disposable paper towels.			
Remove PPE	Remove contaminated PPE and discard it as infectious waste			
Perform Hand hygiene	Wash hands with soap and water immediately			

Report Incidence	Report the spill in the incident reporting form			
Management of Urine Spills				
Wear PPE	Wear appropriate PPE (clean disposable gloves, gown, and/or plastic apron)			
Cover the Spill Area	Cover the area of the spill with disposable paper towels/tissue paper			
Clean the Spill Area	Clean spill area with detergent and water.			
Disinfectant Spill Area	Apply freshly prepared chlorine releasing agent at a concentration of 0.1%/1000 ppm (1:20 dilution of 5% chlorine bleach)			
	Do not spill chlorine solution directly on the spill as it produces hazardous fumes.			
	Wait for a contact time of ≥1 minute, then rinse the area with clean water, if required			

Take off PPE	Discard used PPE, disposable towels, and other waste materials in the infectious waste bag			
Perform Hand hygiene	Wash hands with soap and water immediately			

Sources

Infection Prevention and Control Division, Standard Operational Procedures (SoPs) WHO, COPs, NIH.

Checklist 1.8: Biomedical Waste Management in Healthcare Facilities

Definition : Any type of waste (solid or liquid) generated by a health-care facility

Categories of Medical Waste

Materials Required for Waste Collection

 PPE	 Color Coded Bins	 Waste Disposal Bags	 Sharp Disposal Boxes	 Waste

Waste Segregation & pretreatment

 Non-Infectious General Waste	 Contaminated Infectious Waste	 Sharp boxes	 Human Anatomical Waste	 Microbiological /Clinical Laboratory Waste	 Cytotoxic/ Chemical Waste

Task	Step	Observation		Comments
		YES	NO	
Waste Collection				
Wear PPE	**Heavy-duty gloves** 			
	Closed toe Plastic Shoes 			
	Industrial Apron 			
	Face Shield 			
	Mask 			
Pack Waste Bags	Pack waste bags and sharp containers when ¾ full			
	Mark infectious waste bags and sharp boxes with a • Biohazard symbol • Name of healthcare facility and department • Date of collection			
	Tightly close the waste bags at neck for safe and easy handling when removing from the containers			
	Use double bags in case of tears or leakage			
Transport Waste Bags	Transfer waste bag to temporary storage area on the same floor (e.g. Dirty Utility) or directly to the central storage area			
Decontaminate the Waste Bin	Decontaminate bin/container before new bag is fitted, using soap and warm water and then apply 0.1% chlorine solution (contact time > 1 minute)			

	Immediately replace the removed bags or containers with new ones of the same type			
Perform Hand hygiene	Wash hands with soap and water immediately (and dry hands)			
Take off PPE	Remove PPE and place them in proper bin			
Perform Hand hygiene	Wash hands with soap and water immediately and dry hands Perform hand hygiene with soap and water.			
Transport of Waste (On-site waste Transport actions)				
Transport of waste	Wear PPE			
	Label all waste bags			
	Transport waste on specific waste carts			
	Do not overfill waste carts			
	Transport waste on specific timings			
	Transport waste via defined routes (not congested areas)			
Temporary waste storage	Choose storage location inside the facility with size according to need			
	Storage time should not exceed 24-48 hours			
Storage Area	Continuous water supply and ventilation available for cleaning purposes			
	Hand washing station has soap and drying material.			
	Floor is impermeable, hard-standing with good drainage and easy to clean and disinfect			
	Personal protective equipment and waste bags or containers available close to the storage area			

	Able to lock the storage area to prevent access by unauthorized persons			
Transport of Waste (Off-site Transportation)				
Off-site Transportation	Only authorized vehicle are allowed to transport biomedical waste from the premises of occupier to off-site waste treatment facility			
	Waste transported from healthcare facility to the authorized off- site waste treatment facility for final disposal			
Perform Hand hygiene	Wash hands with soap and water immediately and dry hands.			

Sources:

Infection Prevention and Control Division, Standard Operational Procedures (SoPs) WHO, COPs, NIH.

Poster 1.1: Handwashing with Soap and Water

Poster 1.2: How to Hand rub with Alcohol

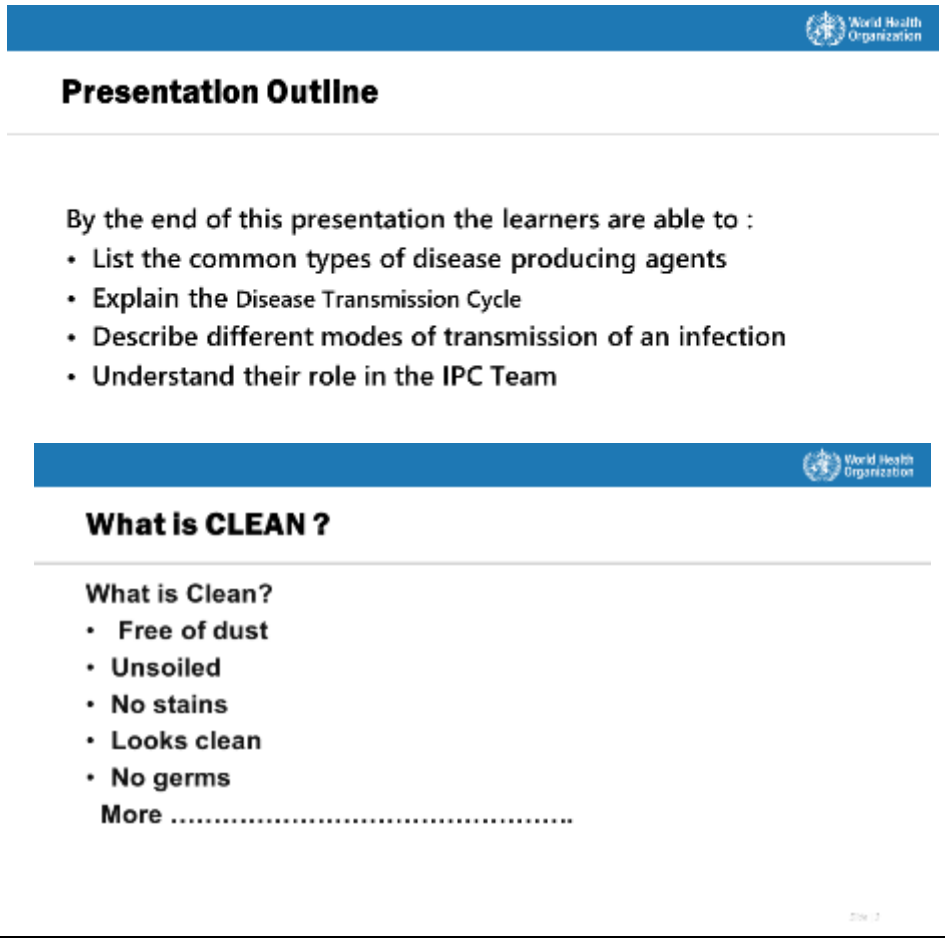
Pre and Post Test Questionnaire with Answer Key:

Instructions: Please carefully read the statement and tick ✓ if you think it is correct or ✗ if you think it is not correct (in the last column).

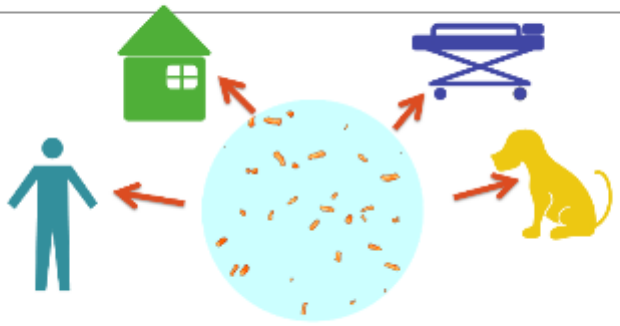
Total time : 10 minutes

1.	Implementing infection prevention practices is the responsibility of all staff working at the facility	✓
2.	Standard Precautions are basic level of precautions to be used only during operations by theatre staff	✗
3.	Staff performing cleaning should always wear recommended PPE while carrying out their duties	✓
4.	Dry sweeping, dry mopping, and dusting at the health facility should be avoided to prevent dust, debris, and microorganisms from floating into the air and landing on clean surfaces	✓
5.	Hospital room cleaning should always progress from the most soiled areas (toilet) to the least soiled areas (periphery of room).	✗
6.	Sodium hypochlorite (Bleach) is a general disinfectant that kills bacteria, fungi, mycobacteria (e.g., tuberculosis), spores and viruses	✓
7.	Use leak-proof containers for all linen/clothing or at least those grossly contaminated with blood or body fluids to protect staff from exposure to blood and body fluids	✓
8.	When cleaning blood spills or body fluids workers should throw water and wash the area immediately	✗
9.	WHO recommended time for effective handwashing with soap and water is 40-60 seconds	✓
10.	10. Waste segregation is the last step for proper waste management	✗

PowerPoint 1.1: Basics of Infection Prevention and Control



What Causes an **Infection**?



Germs live on people, in the environment, on equipment, and on animals

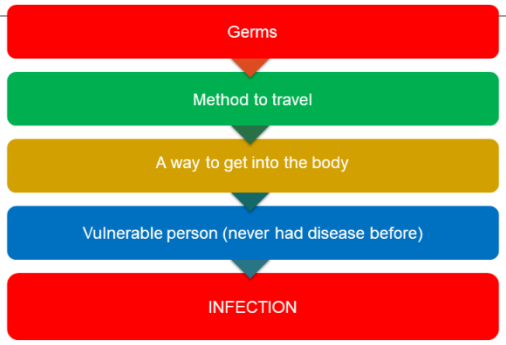
What is an Infection ?

- A germ is a microorganism (cannot be seen) that can cause disease

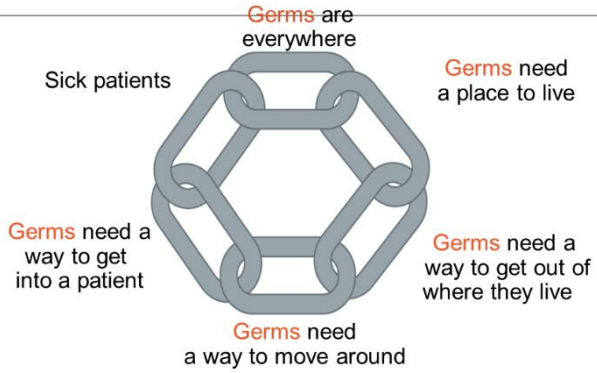
- Infection means that a germ has entered the body and is causing the body to show signs of illness

What Causes an **Infection**?

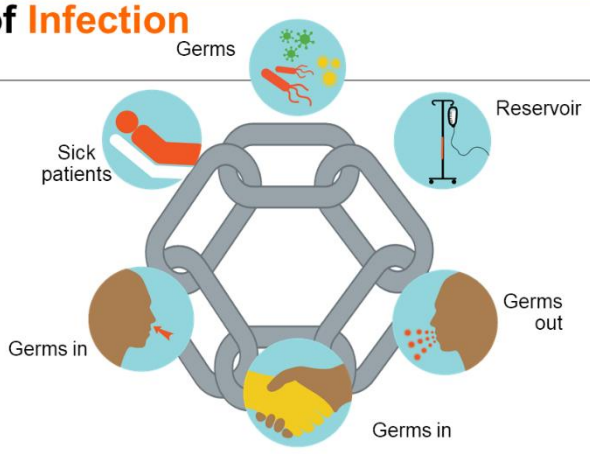
How do we get an Infection?



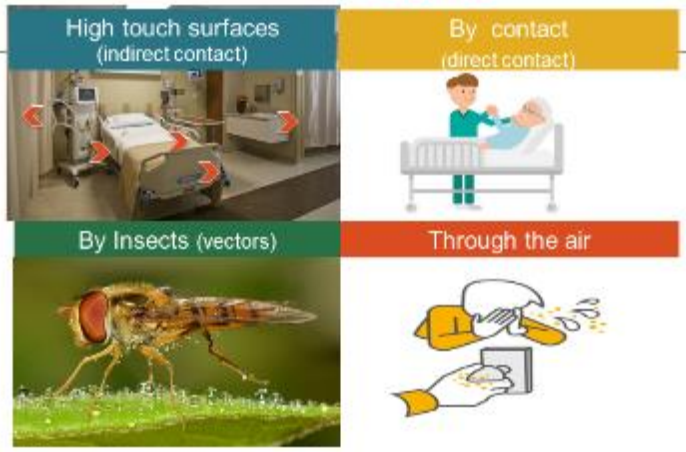
What Causes an Infection?



Chain of Infection



Methods of Transmission Of Germs



How germs move around in the healthcare facility

Germs move from place to place and to the patient

Contact transmission is most common way germs move around

- touching the equipment in the room then touching the patient and/or things the patient may have touched.
- touching the door handles, call light, side rails, toilets, sinks, and TV/call remotes, are examples of surfaces that are commonly touched by the patient and the health care worker

Germs can also move on wheelchairs, stretchers, patient beds, and other types of medical equipment that the patient uses

How Germs Move Around in the Healthcare Facility

- Germs can be transferred from surfaces to patients by the hands of health care workers after contact with surfaces
- Some germs can live for hours and even days on surfaces

World Health Organization

Who is at Risk of getting Infection ?

All healthcare workers coming in contact with patients are at RISK of getting infected

- Routine Care
- Injections
- Sharp disposal
- Urinary Catheterization
- Intubation
- Environmental cleaning
- Waste collection

Slide | 12

World Health Organization

We Need Infection Prevention !

- To protect health care workers at all levels—from physicians and nurses to cleaning, housekeeping, and laboratory staff

Slide | 14

World Health Organization

Role of House keeping Staff

- Your role as a housekeeping staff worker is very important
- YOU are key players on the Infection Control Team
- Your job, what you do every day just by cleaning rooms and everyday items patient touch, is vital to the healthcare facility, the safety of our patients, visitors, staff, and yourself

Slide | 15

Summary

- Germs are present everywhere around us
- In order to prevent the spread of infection it is important to break the disease transmission cycle.
- The common mode of spread of infection are contact transmission, droplet and airborne
- House keeping staff play a KEY ROLE in preventing spread of infection

Powerpoint 1.2: Environmental Cleaning & Disinfection

World Health Organization

ENVIRONMENTAL CLEANING & DISINFECTION TRAINING OF HOUSEKEEPING STAFF

World Health Organization

Presentation Outline

By the end of this session the participants are able to :

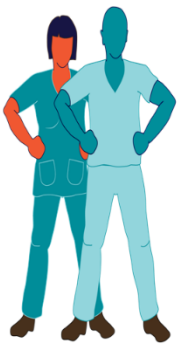
- Follow workplace protocols and guidelines for environmental cleaning and disinfection at different areas in their facility
- Prepare 0.5% chlorine solution for disinfection
- Describe their role in preventing spread of infection
- Explain steps for cleaning blood and body fluid spills

2

World Health Organization

Role of House Keeping Staff in preventing spread of Infection

- House Keeping Staff are key players on the Infection Control Team
- Your job, what you do every day by cleaning rooms and items everyday, is vital to the healthcare facility, and the safety of our patients, visitors, staff, and yourself
- Protect yourself from getting infection by using appropriate PPE.



World Health Organization

How can you help in stopping spread of infection ?

- Follow the SoPs while performing each task
- Follow the instructions and fully clean and disinfect surfaces and equipment in between patient use every time
- Prepare cleaning solution in correct concentration as instructed
- Change,wash and dry cleaning cloth and mops everyday
- Store the cleaning supplies properly
- Clean high-touch surfaces (door knobs,handles, table tops etc.) everyday at the start and end of the day.
- Do not move around in the facility wearing gloves

Slide | 4

World Health Organization

How can you help to prevent infections?

Germs are not visible;

To kill or inactivate them:

- Thoroughly clean and disinfect high-touch surfaces following your facility's procedures
- Check labels of cleaning solutions and disinfectants for the required dwell time that they must remain wet on surfaces to which they are applied
- Dilute cleaning and disinfecting solutions according to directions
- Always use chemical dilution dispensing systems according to directions

There are no shortcuts! Thorough cleaning and disinfecting cannot be rushed.

Slide | 5

World Health Organization

Principles of Cleaning

Definition o: the physical removal of foreign material (e.g., dust, soil) and organic material (e.g., blood, secretions, excretions, microorganisms). Cleaning physically removes rather than kills microorganisms. It is accomplished with water, detergents and mechanical action.

Always be sure to clean patient care equipment between each patient use

Where possible, dedicate cleaning supplies in higher risk areas (e.g., isolation, delivery, and operating rooms)

Cleaning supplies for isolation should be kept in and only used in the isolation area/room

Slide | 6

World Health Organization

Disinfection

Disinfection:
Is the act of disinfecting with disinfectants to prevent the growth of pathogenic organism

- Disinfection eliminates many—if not all—pathogenic microorganisms on inanimate objects with exception of bacterial spores and prions
- House keeping staff perform low- to intermediate-level disinfection

Slide | 7

World Health Organization

Disinfection of the surfaces

- Diluted household bleach solutions is the standard disinfectant used for the surface contaminated by blood or body fluids
  - To make a 0.5% bleach solution, from 5% household bleach, mix: 1 part bleach with 9 parts of water
  - To make 0.5% bleach solution from 3.5% household bleach, mix : 1 part bleach with 6 parts of water
- Bleach solutions will be effective for disinfection up to 24 hours.
  - Wear utility gloves and eye protectors while preparing bleach solution
  - **Leave solution** on the surface for sometime as recommended by the manufacturer

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World Health Organization

Storage of Bleach Solution

- Never mix household bleach with ammonia or any other cleanser.
- Prepare a large amount of fresh bleach solution every morning in a large covered plastic bucket.
- Keep it covered and store in dark place ,avoid direct exposure to sun and label the container.
- Distribute this solution to different areas in the facility as needed.
- Discard the remaining solution ,if any, at the end of the day in the toilet.

Slide | 9

World Health Organization

Cleaning the surfaces and items

Wear disposable gloves to clean and disinfect.

Clean surfaces using soap and water, then use disinfectant.

Cleaning with soap and water **reduces number of germs, dirt and impurities** on the surface.

Practice routine cleaning of frequently touched surfaces with damp micro fibre cloth.

Surfaces and objects in hospitals are mainly include patient registration counter, pharmacies, OPD doors chairs, seats, behind walls, washrooms, water tanks and points of contact at indoor services

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World Health Organization

Environmental Cleaning (General Guidelines)

To prevent cross contamination, cleaning must always be carried out from the cleanest area first and finish in the dirtiest area last, and always clean from the top first and bottom last.

Special emphasis must be placed on cleaning and disinfecting high frequency hand touch surfaces and these areas should be cleaned more frequently.

Damp dusting (using pre-moistened cleaning cloths with water and detergent) of horizontal surfaces should be done daily as they gather dust more easily, and more frequently than vertical surfaces.

Slide | 11

World Health Organization

Types of Buckets

Single **Bucket**

Double **Bucket**

Triple **Bucket**

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World Health Organization

Mopping / Cleaning Floors

- Wet mopping is the most common and preferred method to clean floors.
- Single-bucket technique. One bucket of disinfectant cleaning solution is used. The solution must be changed regularly or when visibly dirty because the effectiveness of the antimicrobial agent decreases as the amount of soil and organic material present in the solution increases.
- Double-bucket technique. Two different buckets are used: one containing a disinfectant cleaning solution and the other containing rinse water. The cloth/mop is always rinsed and wrung out before it is dipped into the cleaning solution. The rinse water should be changed when dirty.
- Triple-bucket technique. The third bucket is used for wringing out the cloth/mop before rinsing, which extends the life of the rinse water.

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World Health Organization

Environmental Cleaning (Cont'd)

- Dry sweeping with a broom should never be used as it disperses microorganism from the floor into air.
- Never use formaldehyde and do not use fumigation to disinfect a patient's room – routine terminal cleaning with detergent followed by disinfection is sufficient.
- Fresh cleaning solution should be made daily and any remaining solution discarded after use.

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World Health Organization

Schedule and Process of Cleaning Different Areas in the Facility

- Administrative Areas (offices)

- Regular domestic cleaning is all that is required for areas with no patient contact, no materials used for patient care are prepared, no reprocessing, and no blood and body fluids, such as administrative offices.
- Waste should be removed daily.
- Floors should be mopped, mats shaken out, and the area should be wet dusted at least weekly or as needed.

Reference : SEARO/WHO 2004

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Schedule and Process of Cleaning Different Areas in the Facility (Cont'd)

Waiting Rooms

- Waiting rooms and admission areas should have waste containers emptied, floors mopped, and all frequently touched surfaces disinfected at least daily.
- A more frequent wipe-down schedule of frequently touched surfaces may be necessary in high-traffic areas
- Clean up spills of blood and body fluids immediately

Slide | 16

Schedule and Process of Cleaning Different Areas in the Facility (Cont'd)

Patient Areas and Areas Where Patient Materials Are Prepared or Reprocessed (Medium to high risk)

- Surfaces with minimal hand contact (e.g., high surfaces, walls, and ceilings) can be cleaned with soap and water; no disinfectant is required.
- Surfaces with frequent hand contact (frequently touched surfaces) should be wiped at least daily and whenever visibly soiled using a cloth dampened with a disinfectant cleaning solution.
- Floors should be mopped at least daily and whenever visibly soiled using a mop dampened with a disinfectant cleaning solution.

Reference :Rutala et al. 2008; SEARO/WHO 2004)

Slide | 17

Schedule and Process of Cleaning Different Areas in the Facility (Cont'd)

Patient Room :

Patient rooms and patient treatment areas should be cleaned at least daily and after a patient is discharged using terminal cleaning guidelines

Procedure Rooms :

Procedure rooms should be cleaned with a disinfectant cleaning solution after each procedure and whenever visibly soiled.

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World Health Organization

Schedule and Process of Cleaning Different Areas in the Facility (Cont'd)

Examination Rooms:

The waste and linen containers should be emptied, floors mopped, and all frequently touched surfaces disinfected at least daily.

Clean blood spills immediately

Between each patient, the following procedure should be completed:

- Change linen/paper on the examination table and pillow or wipe down the table and pillow with disinfectant .
- Place any used linen in the designated dirty/soiled-linen containers. Place any trash in designated trash containers.
- Remove any used instruments or equipment to be reprocessed. Clean any items that came into contact with the patient's non-intact skin.

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World Health Organization

Schedule and Process of Cleaning Different Areas in the Facility (Cont'd)

Operation Theatres :

- Cleaning staff must wear OT attire, including hair and beard covering, when cleaning in procedure rooms or Ots
- Cleaning must NOT be conducted in the presence of any open sterile packs or sterile instruments because it can cause contamination of the sterile instruments.
- Clean all flat surfaces with moist cloth at the start of the day (before procedure)
- OTs should be cleaned after each surgical or invasive procedure with a lint-free cloth moistened with disinfectant.
- Terminal cleaning should be done at the end of each day and each 24-hour period during the regular work week

Slide | 20

World Health Organization

Cleaning in an Occupied Room

1.Perform hand hygiene and put on PPE as needed

2 Be alert for signage on or near the entry door that may indicate need for special precaution

3. Always knock, greet the patient, and introduce yourself, explaining why you are there

4. Remove Trash and wash the dustbin

Slide | 21

Cleaning in an Occupied Room

- Damp wipe (disinfect) high-touch surfaces
  - Wipe surfaces with disinfectant, turning cloth often
  - Use glass cleaner or other facility-approved product for mirror and glass
- Clean bathroom (use separate cleaning cloths)
  - Clean sink/shower – spot clean walls
  - Clean toilet with brush and do this last
- Mop the floor starting at the far side of room and work toward the doorway, following your facility's procedures

Slide | 22

Patient Room Terminal/Discharge Cleaning

Terminal cleaning is completed after a patient is discharged from a patient room, or at the end of the day for an OT or treatment or procedure area.

- Remove the covered contaminated-waste container and replace it with a new, empty or clean container
- Remove soiled linen to be sent for laundering in a closed, contaminated-linen container and replace it with a new linen container ready for use
- Soak a cloth in disinfectant cleaning solution and wipe down all surfaces. Work from top to bottom so that any debris that falls on the floor will be cleaned up last

Slide | 23

Cleaning an Isolation Room

- Clean Isolation room daily, before cleaning any other patient care area
- Clean and disinfect high-touch surfaces, with focus on the patient zone
- Clean floors with neutral detergent and water
- Regularly clean low-touch surfaces
- Use disposable cleaning supplies or keep them separate for each isolation room

Slide | 24

Terminal Cleaning of an Isolation Room

- Remove soiled/used personal care items (e.g., cups, dishes) for reprocessing or disposal.
- Remove facility-provided linens for reprocessing or disposal.
- Inspect window treatments. If soiled, clean blinds on-site, and remove curtains for laundering.
- Reprocess all reusable (noncritical) patient care equipment.
- Clean and disinfect all low- and high-touch surfaces, including those that may not be accessible when the room/area was occupied (e.g., patient mattress, bedframe, tops of shelves, vents), and floors.
- Clean (scrub) and disinfect handwashing sinks.

Slide | 25

Cleaning Blood Spills

Splashes and drips

Wear non-sterile gloves for this procedure.

• Wipe the area immediately with a paper towel/absorbent cloth. • Discard immediately as clinical waste.

• Disinfect area with 0.5% (bleach) solution.

• Dry surface with disposable paper towels.

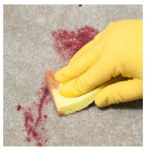
• Discard gloves and paper towels as clinical waste, in accordance with local policy.

• Wash hands with soap and water and dry hands immediately afterwards.

Slide | 26

Cleaning Blood Spills (Cont'd)

Small spills (up to 10 cm diameter or < 30 ml)



- Select appropriate PPE.
- Wipe spills immediately with absorbent material.
- Place contaminated absorbent material into impervious containers or plastic bag for disposal.
- Clean the area with a warm detergent solution, using disposable cloth or sponge. • Wipe the area with sodium hypochlorite and allow to dry.

Slide | 27

Cleaning Large Blood Spills

- Put barriers around the large spills
- Wear appropriate PPE (clean disposable gloves, gown and/or plastic apron face shield or face mask and goggles)
- Remove broken glass with a forceps or paper towel
- Cover the large spills with absorbent paper /cloth
- Disinfect the area using a freshly prepared 0.5%chlorine solution
- Wait for the required contact time of ≥1 minute by allowing the disinfectant to go into surface
- Rinse the area with clean water to remove the disinfectant residue (if required).

Slide | 28

Cleaning Urine Spills

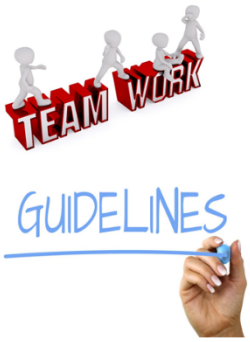
- Wear appropriate PPE (gloves,apron, eye protectors)
- Cover the area of the spill with disposable paper towels/tissue paper.
- Do not apply chlorine solution directly on urine spill as it produces hazardous fumes .
- Clean spill area with detergent and water.
- Disinfectant Spill Area with freshly prepared 0.5% chlorine solution and leave it for sometime.(as recommended by manufacturer)
- Take off PPE and wash your hands with soap and water.

Slide | 29

Remember !

- While performing your duty follow IPC guidelines
- Report to your supervisor/charge nurse if you see:

✓ Any maintenance issues such as damage surfaces, leaking taps or flush
✓ Clutter and personal items causing problem with proper cleaning
✓ Use clean mop and cloth everyday
✓ Do not store wet mop and cloth in the patient room
✓ Wash , clean and disinfect dustbins daily.



PowerPoint 1.3: Safe Handling and Transporting Linen

World Health Organization

SAFE HANDLING AND TRANSPORTING LINEN TRAINING OF HOUSEKEEPING STAFF

World Health Organization

Presentation Outline

By the end of this session the participants will be able to :

- Understand importance of safe handling and processing soiled linen and clothing
- Describe use of PPE during transporting soiled linen
- Explain and follow protocols for drying, transporting and storing clean linen

Slide | 2

World Health Organization

What are the Risks Involved During Handling Linen ?

- Linen and clothing from patient's room contain a large number of microorganism
- Infections are transmitted easily if you :

- Do not wear PPE while handling soiled linen
- Shake soiled linen (bed sheets, dresses)
- Transport and store soiled linen on the floor in open
- Do not perform hand hygiene before and after handling soiled linen

Slide | 3

World Health Organization

Recommended guidelines for transporting and handling soiled linen &clothing

- Wear heavy-duty utility gloves and other PPE when collecting, handling, transporting, sorting, and washing soiled textiles .
- Use PPE for Standard Precautions, carefully scrape off solid body fluids (e.g., stool or vomit) using a firm, flat object and dispose in a toilet before item is placed in collection container.
- Use leak-proof containers for all textile or at least those grossly contaminated with blood or body fluids to protect staff from exposure to blood and body fluids.
- Do not sort linen and clothing in patient care areas.

Slide | 4

World Health Organization

Recommended guidelines for transporting and processing soiled linen and clothing (Cont'd)cc

- Handle all discarded textiles as soiled, including items on which there is no visible contamination.
- Launder all textiles present during procedures, regardless of whether or not they are visibly dirty or were used in the procedure, such as sterile towel drapes contained in an opened surgical pack that were not used during the procedure must be laundered before they can be sterilized and reused.
- Transport textiles in covered containers or closed bags.
- Follow special guidelines for textiles used in isolation areas for patients with highly infectious diseases

Slide | 5

World Health Organization

Recommended guidelines for transporting and storing linen &clothing (Cont'd)

- Handle soiled textiles with minimum agitation to avoid contamination of air, surfaces, and individuals.
- Roll items that are heavily contaminated with blood or body fluids carefully into the center of the item and place in a leak-proof bag or a container with a lid if leak-proof bags are not available
- Sort textiles in the laundry area carefully before washing
- Label clearly or use color-code containers for collecting and transporting used textiles.
- Wash and dry containers routinely before subsequent use.

Slide | 6

Sorting Soiled Linen

- Careful sorting of textiles is extremely important for the safety of housekeeping staff
- Do not sort or pre-rinse soiled textiles in patient care areas; they should be sorted in the laundry area.
- Sort soiled textiles into appropriate wash loads by classification such as color, type of fabric, soil type or soil load, and/or type of item (e.g., whites items, cloth nappies/diapers, cotton/wool items, mop heads, surgical drapes, etc.). (HLAC 2006; Sehulster et al. 2015)

Slide | 7

Washing and Storing linen and clothing

- Laundering removes pathogens from textiles, making them hygienically clean and ready for use.
- Washed textile are not sterile and must be sterilized for use in OT and special care units as recommended.
- Air-dried textiles should be ironed. Ironing has been associated with the elimination of pathogenic bacteria and is essential to prevent parasites in some regions.
- Store clean textiles in clean, closed storage areas.
- Store clean textiles in an area free of pests, dust, and lint and at room temperatures
- Wrap ,transport bundles of clean textiles in plastic or other suitable material and store on racks.

Slide | 8

Distributing Hygienically Clean Textiles

- To avoid contamination of textiles in health care facilities:
- Do not leave extra textiles in patients' rooms.
- Handle clean textiles as little as possible.
- Clean plastic-covered mattresses and pillows by wiping down wit*h* detergent.
- Mattresses without plastic covers that have any blood or body fluids should have the stains removed by either steam cleaning or manual washing.

Slide | 9

World Health Organization

Summary

- Housekeeping staff plays the key role in changing, handling, transporting ,distributing and storing linen.
- The overall risk of disease transmission is low if linen is handled, laundered and stored carefully .

Slide | 10

World Health Organization

Thank you

Slide | 11

PowerPoint 1.4: Standard Precautions

World Health Organization

Presentation Outline :

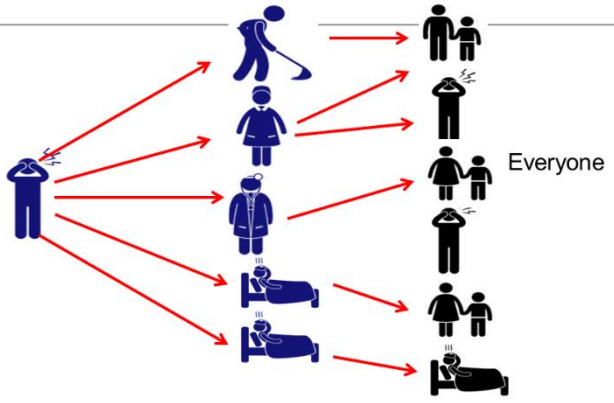
By the end of this presentation the participants are able to :

- Explain different types of precautions
- List the components of standard precautions
- Perform hand hygiene as per WHO recommendation
- Demonstrate the sequence of donning and doffing of gown, mask and cap

Slide | 2

World Health Organization

Who is at risk of infection?



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Slide | 3

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Responsibility of Housekeeping Staff

What is your responsibility to HELP stop the spread of germs and infection?

Slide | 4

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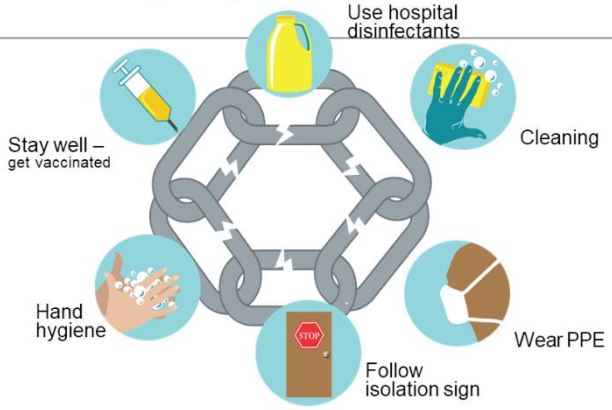
YOU Can Help Stop GERMS



Slide | 5

World Health Organization

Benefits of Infection Prevention and Control

Protecting yourself

Protecting your patients

Protecting your family & community

Slide | 6

- WHO2015 Safe & Quality Health Services Package

Use Of Precautions

STANDARD PRECAUTION
FOR EVERYONE

TRANSMISSION BASED PRECAUTIONS
SPECIAL PRECAUTIONS

Slide | 7

Components Of Standard Precautions

- Hand Hygiene
- Use of Personal Protective Equipment (PPE)
- Cleaning and disinfection of Instruments
- Handling and Disposing of Sharps
- Environmental Cleaning
- Respiratory Hygiene/Cough Etiquette
- Injection Safety
- Waste Management

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Slide | 8

Components Of Standard Precautions

- Hand Hygiene
- Use of Personal Protective Equipment (PPE)
- Cleaning and disinfection of Instruments
- Handling and Disposing of Sharps
- Environmental Cleaning
- Respiratory Hygiene/Cough Etiquette
- Injection Safety
- Waste Management

9

Slide | 9

World Health Organization

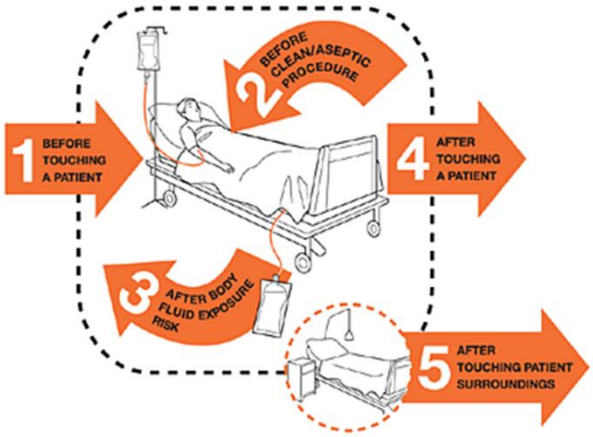
DO Not Forget to Wash Your Hands

- Handwashing with soap and water – essential when when hands are visibly dirty or visibly soiled (following visible exposure to body fluids for 40-60 secs
- Handrubbing with alcohol-based handrub for 20-30 secs is the preferred routine method of hand hygiene if hands
  are not visibly soiled

Slide | 10

World Health Organization

Hand hygiene: WHO 5 moments



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Slide | 11

World Health Organization

Personal Protective Equipment (PPE)

PPE is a barrier between you and germs

- Specialized clothing or equipment worn by an employee for protection against infectious materials" (OSHA)
- To improve personnel safety in the healthcare environment

Slide | 12

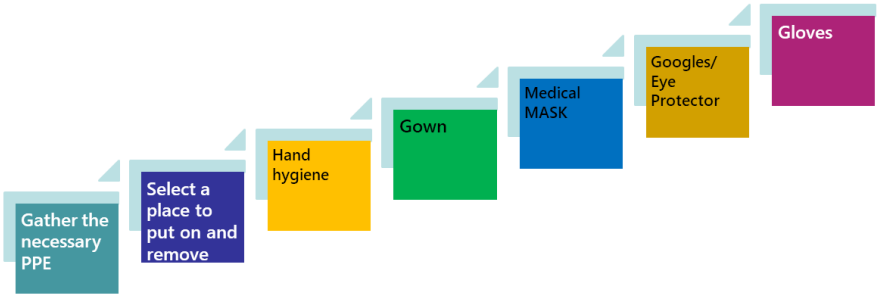
World Health Organization

Examples of PPE used at Health Care Facility

Slide | 13

World Health Organization

Sequence of Putting-on and Removing PPE



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World Health Organization

Video For Donning and Doffing PPE

https://utmb.ensemblevideo.com/hapi/v1/contents/permalinks/Nk9n7Q6H/view

Slide | 15

GOWN/PLASTIC APRON

- Gown/plastic apron (clean/non-sterile)
- Wear during procedures and patient-care activities that are likely to generate splashes or sprays of body fluid
- To prevent soiling of clothing

MASKS

Types of Masks

Surgical Mask

- Wear a surgical mask during procedures that are likely to generate aerosol droplets or splashes of blood or other body fluids
- Wear mask to cover nose and mouth

N95 Respirator

- Wear an N95 Respirator mask to enter the room of any patient room in Airborne Isolation (unless it is known that you have immunity to that disease.

Video On Donning and Doffing Mask

Mask and Respirators & Demonstration

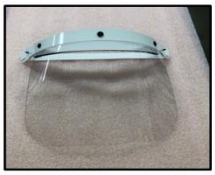
- Putting on and Removing a Mask https://www.youtube.com/watch?v=M4olt47pr_o (WHO)

World Health Organization

Eye Protector

Wear Eye Protector/googles/face shield for protecting

- Against splashes during procedures
- Preparing bleach solution for environmental cleaning
- Cleaning instruments



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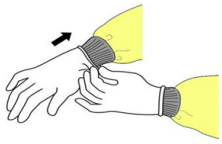
GLOVES



- Are used as a barrier
- Are for single patient use only
- Perform hand hygiene before wearing gloves
- Select gloves for the particular task to be undertaken, i.e. sterile/unsterile procedures
- Gloves are to be worn during procedure
- Do not leave procedure room with gloves on

Slide | 20

World Health Organization

Types of Gloves

Non Sterile Gloves

Sterile Gloves

Heavy Duty Gloves

Slide | 21

World Health Organization

Wear gloves when handling:

- Blood and other body fluids
- Mucous membranes
- Non-intact skin
- Contaminated surfaces and items
- Change gloves when they become contaminated:
  - Between patients
  - Between procedures
  - Between different procedures on the same patient

Slide | 22

World Health Organization

Remove and discard gloves promptly:

- After use before leaving the area of activity
- Before touching environmental surfaces
- Wash hands immediately

Do not move around in the facility with dirty gloves

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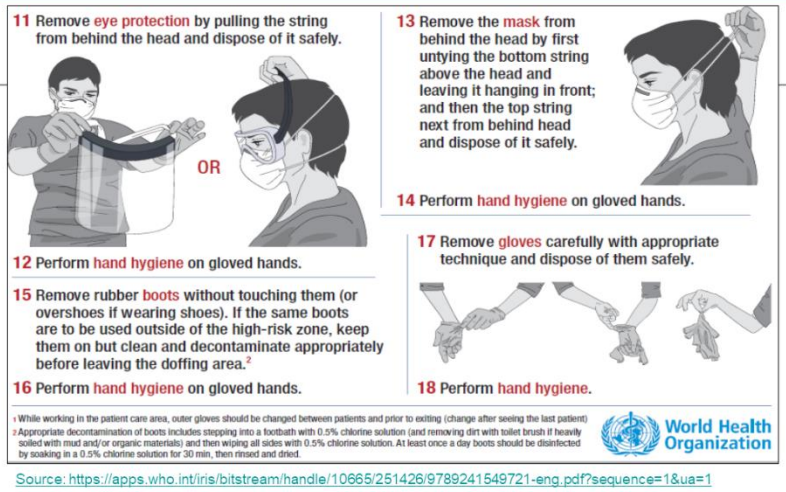
World Health Organization



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Slide | 24

World Health Organization

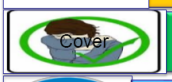
Respiratory hygiene/ etiquette

Good respiratory hygiene/cough etiquette can reduce the spread of microorganisms (germs) that cause respiratory infections (colds, flu).

Turn — Turn head away from others when coughing/sneezing

Cover the nose and mouth with a tissue.

Discard — If tissues are used, discard immediately into the trash



Cover your face with elbow during cough/sneeze if no tissue is available

Clean your hands with soap and water or alcohol-based products

Slide | 25

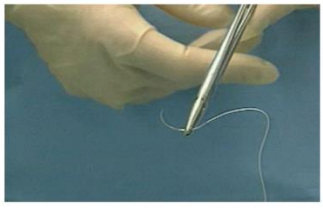
World Health Organization

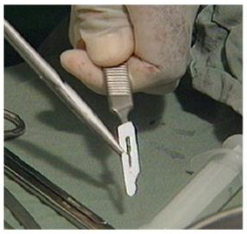
Injection Safety

Slide | 26

World Health Organization

Handling Sharps





Slide | 27

World Health Organization

Environmental Cleaning

- Process of maintaining a clean ,healthy and pleasing patient and work environment
- It refers to general cleaning of surfaces and non-critical equipment in healthcare facilities.
- Reduces chances of spread of infection in health facility

Slide | 28

World Health Organization

Waste Management

Slide | 29

World Health Organization

Key Points

Infection Prevention and Control is everyone's responsibility

- Minimize and prevent exposure to infection by:
  - Using Standard Precautions with every patient
  - Disposing of clinic waste adequately
- Work together to make the workplace safer
- Teach patients and their families how to reduce risk of exposure in the home

Slide | 30

World Health Organization

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PowerPoint 1.5: Waste Management

World Health Organization

WASTE MANAGEMENT
TRAINING HOUSEKEEPING STAFF

World Health Organization

Presentation Outline :

By the end of this presentation the learners are able to :

- Categorize health care waste
- Define different terms used for waste management
- Describe different methods for segregation, collection and waste reduction at the health care facility
- Describe techniques for managing and final waste disposal

Slide | 2

World Health Organization

Waste at HealthCare Facility

Waste generated at the healthcare facility is specialized as :

- It contains pathogenic organism
- It has sharp objects such as blades, needles, glass

So,
It should be managed and disposed with special care.
Who is responsible for waste management ?
Waste management team in coordination with infection control team.

Slide | 3

World Health Organization

What is WRONG ?

Slide | 4

World Health Organization

What is Wrong ?

World Health Organization

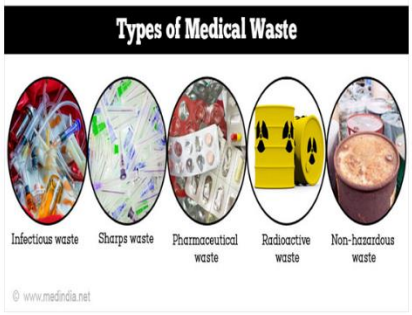
What is Wrong ?

Slide | 6

World Health Organization

Type of Waste

- General Waste
- Hazardous Sharp Waste
- Non Hazardous Non Sharp Waste



The majority of healthcare waste (i.e. between 75 to 90%) poses no risk and can be disposed of like domestic waste- this is non-hazardous/non-infectious waste

World Health Organization

Category Of Healthcare Waste

- Infectious Waste
- Pathological Waste
- Pharmaceutical Waste
- Genotoxic Waste
- Chemical Waste
- Waste with high content of heavy metals
- Pressurized containers
- Radioactive

World Health Organization

Waste management process

Safe treatment of waste generated during care activities is the responsibility of all staff

Slide | 9

World Health Organization

Waste Minimizing

- Select items generating less waste, especially hazardous ones, maintaining good stock management.
- Reduce the tendency to recycle
- Appropriate waste segregation training at the point of generation

Minimizing Waste Saves disposal cost

Slide | 10

World Health Organization

Waste Segregation

Should be done

- Close to the point of generation by the person who is producing it
- Ensure that highly Infectious waste should,whenever possible ,be collected in red bags and sterilized immediately by autoclaving .
- Collect low level infectious waste (swab,cotton,bandages etc)in yellow bags or containers if they have to be incenerated.
- Safe storage after transportation
- Collect Cytotoxic waste in strong, leak-proof containers clearly labelled as 'cytotoxic waste'.
- Collect small amounts of chemical or pharmaceutical waste together with infectious waste

Slide | 11

World Health Organization

Types of Health Facility Waste

Slide | 12

World Health Organization

Waste Collection

- Waste should be collected daily (or as frequently as required) and transported to the designated central storage site.
- Housekeeping staff should ensure that waste bags are tightly closed or sealed and in no case more than ¾ full.
- No bags should be removed unless labelled with their point of production, date, weight and contents-this information should be written on the bag or on the printed label securely attached.
- The bags or containers should be replaced immediately in separate bins/ drums with new ones of the same type.

Slide | 13

World Health Organization

Waste Collection (Cont'd)

- Ensure cleaning of the bin/container before a new bag is fitted.
- Staff should appropriate PPE while handling waste





- All accidents and incidents involving clinical waste, particularly those resulting in an injury or of contamination of handlers, must be reported without delay to the line manager

Slide | 14

World Health Organization

Waste Management (SOPs)

- Contaminated (potentially infectious) materials for autoclaving and reuse:
- Do not attempt any pre-cleaning of any contaminated (potentially infectious) materials to be autoclaved and reused
- Always perform any necessary cleaning or repair must after autoclaving or disinfection
- Contaminated (potentially infectious) materials for disposal:
- Apart from sharps, autoclave all contaminated (potentially infectious) materials in leak-proof containers, color-coded plastic bags, before disposal
- After autoclaving, place the material in transfer containers for incineration
- If possible, do not discard materials deriving from healthcare activities in landfills even after decontamination

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Slide | 15

World Health Organization

Waste Management (SOPs)

Contaminated material for direct incineration:

- Place the contaminated waste in designated containers (e.g. Red colored bag) and transport directly to the incinerator
- Disinfect and clean the transfer container before returning them to the laboratory for further use
- Place unbreakable (e.g. plastic) containers, pans or jars, at every work station for waste collection

16

World Health Organization

Clinical Waste Storage

- Storage location should be inside the facility and sized according to the need.
- Storage are should have impermeable, hard-standing floor with good drainage and be easy to clean and disinfect.
- Storage are should have a water supply , good lighting and ventilation.
- Storage area have an easy access for the staff in charge of handling the waste.
- Prevent access by unauthorized persons, animals
- Easy access for waste-collection vehicles is essential.
- Should not be situated in proximity of fresh food stores or food preparation areas.
- Storage time should not exceed 24-48 hours.

World Health Organization

Waste Transport

- Must follow specific routes to the central storage area.
- Easy to load and unload.
- No sharp edges that could damage waste bags or containers during loading and unloading.
- Easy to clean and wash.
- Marked with corresponding color coding.

World Health Organization

Treatment and disposal of waste

Wastes requiring incineration include:

- Anatomical parts and animal carcasses
- Cytotoxic drugs (residues or outdated).
- Toxic laboratory chemicals other than mercury

Wastes that may be incinerated include:

- Patient-contaminated non-plastics.
- Non-chlorinated plastics

Wastes that should not be incinerated include:

- Chlorinated plastics.
- Volatile toxic wastes such as mercury.

Infectious waste, plastic contaminated with blood or body fluids must first be treated in autoclavable bags by steam sterilization and then shredded
OR
By Chemical Disinfectants first

Slide | 19

World Health Organization

Safe Sharp Disposal

- Sharps are collected in puncture-proof and leak-proof containers
- Sharps should undergo incineration whenever possible.
- When a container is three-quarters full, a material such as cement mortar, sand, plastic foam, or clay is poured until the container is filled
- After the medium has dried, the containers are sealed and disposed of in landfill sites.
- After incineration or other disinfection, the residues can be disposed of in a pit.

Slide | 20

World Health Organization

Safe Sharp Disposal (Cont'd)

- Pit should be lined with brick, masonry or concrete rings. should be covered with a heavy concrete slab, which is penetrated by a galvanized steel pipe.
- Burial should be 2 to 3 meters deep and at least 1.5 meters above the groundwater level.
- When the pit is full, it can be sealed completely but before that another pit must have been prepared.
- Encapsulation is easy method for safe disposal of sharps where small sharps are contained in solid material like cement. Once encapsulated material then disposed in pit or municipal waste

Slide | 21

Lessons learnt…

IPC is a TEAM WORK
FIND CHAMPIONS !

THANK YOU !

Slide | 22

Slide | 23