



## **Module 2: Standard & additional Precautions on infection prevention and control in health care facilities.**



# Session 1: Hand Hygiene



## 1.1 Learning Objectives

- By the end of this session, participants will be able to:
  - Define the different types of hand hygiene in healthcare settings
  - Define the role hand hygiene plays in HAI prevention
  - Identify the right moments for hand hygiene
  - Describe the correct techniques for hand hygiene



## 1.2 Introduction

- The hands of health care workers (HCWs) play a critical role in keeping patients safe.
- If HCWs do not clean their hands at the right moments, using the proper methods, they can transmit infection-causing microorganisms through their hands from one patient to another.
- Performing hand hygiene at key moments is an important health care intervention. Hand hygiene reduces the transmission of microorganisms.
- Effective, timely hand hygiene is a cornerstone of infection prevention and control.



# Hand Hygiene

The term “hand hygiene” refers to the action of cleaning hands either by using:

1. **Soap and water** commonly called **Hand Washing**,

Or

2. **Alcohol-base hand rub (ABHR)** referred to as **Hand Sanitizing**





**Lack of hand hygiene**

**+**

**Patient care =**

- Increased risk of hand contamination
- Increased risk to patient safety



**Increased hand hygiene**

**+**

**patient care=**

- Reduced numbers of patients acquiring HAIs
- Decreased waste of resources
- Saved lives





## 1.3 WHO Five Moments for Hand Hygiene

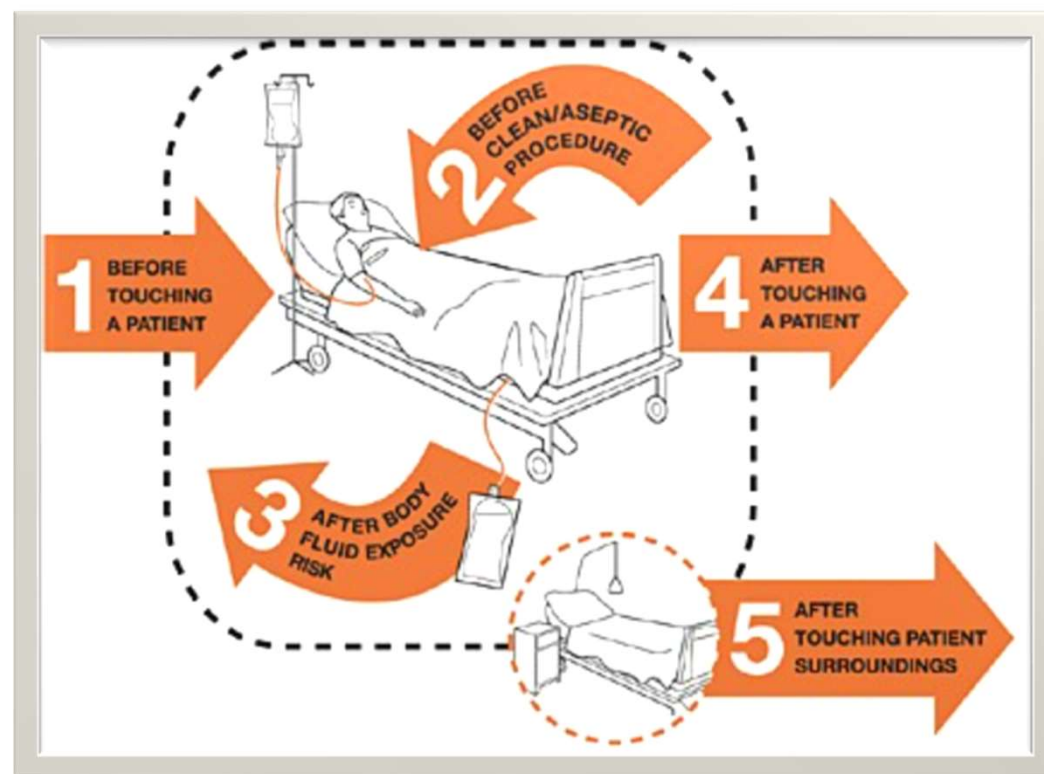
The World Health Organization (WHO) has identified five times when hand hygiene should be performed by healthcare workers.

### ➤ 2 Before

- Before patient contact
- Before an aseptic task/procedure

### ➤ 3 After

- After exposure to body fluids
- After patient contact
- After contact with the patient's surroundings.





## 1.4 List of materials used in hand hygiene

- Soap
- Water source
- Alcohol based hand rub
- Driers
- Poster for hand hygiene
- Dustbin





## 1.5 Hand washing procedure

To effectively reduce the growth of germs on hands, hand washing must last 40–60 secs and should be performed by following all of the illustrated steps.

Hand hygiene includes: Hand washing, Hand disinfection and Surgical hand scrub.



## 1.5.1 Hand washing

➤ **Staff and visitors shall comply with hand washing guidelines:**

- Push long sleeves above elbows.
- Remove jewellery on hand and wrist e.g. rings, watches, and bracelets.
- Inspect hand surfaces for cuts/abrasions.
- Turn on tap and, using cold or lukewarm water, wet hands and wrists thoroughly under running water.
- Keep hands and forearms lower than elbows during washing.
- Apply sufficient soap to lather all surfaces of hands, fingers, and wrists.



## 1.5.1 Hand washing cont.



Wet hands with water



apply enough soap to cover all hand surfaces.



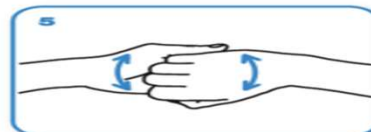
Rub hands palm to palm



right palm over left dorsum with interlaced fingers and vice versa



palm to palm with fingers interlaced



backs of fingers to opposing palms with fingers interlocked



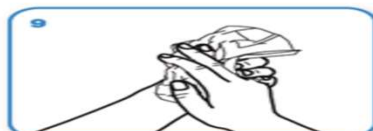
rotational rubbing of left thumb clasped in right palm and vice versa



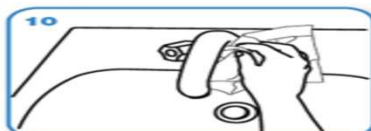
rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa.



Rinse hands with water



dry thoroughly with a single use towel



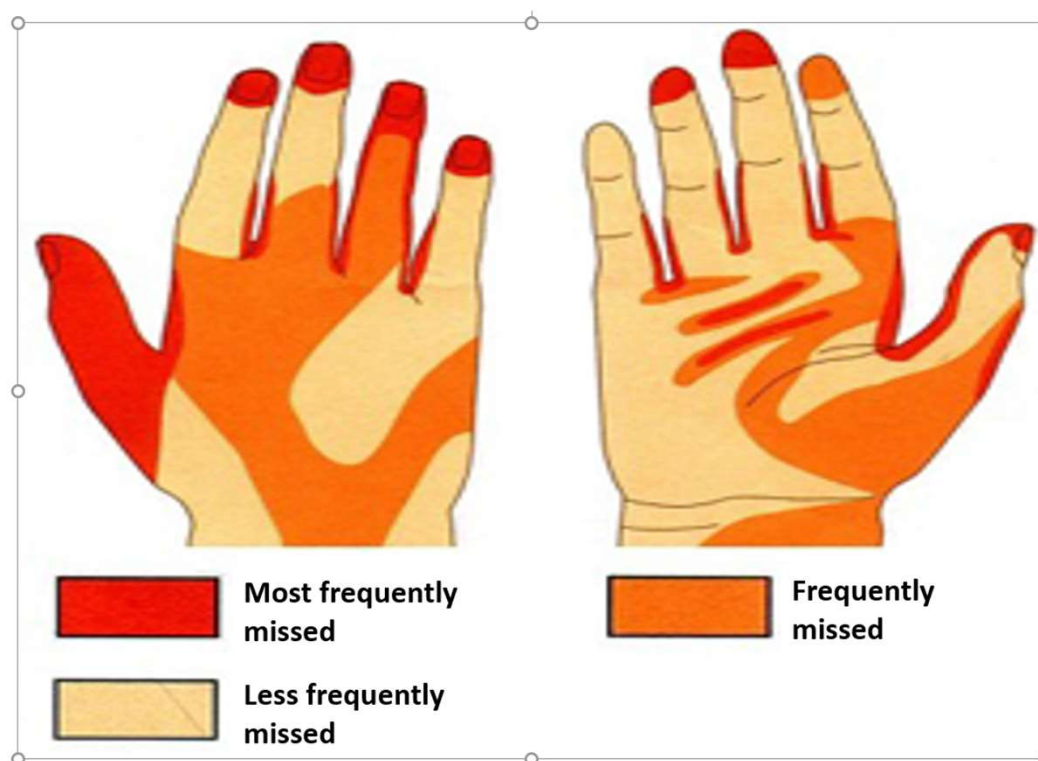
use towel to turn off faucet



...and your hands are safe.



## 1.5.1 Hand washing cont.





## 1.5.2 Hand disinfection

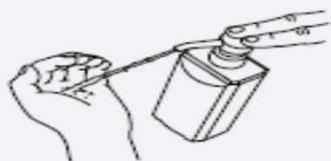
### **1. Staff and visitors shall comply with hand disinfection guidelines:**

- Ensure your hands are not visibly dirty otherwise refer to Hand Washing Policy and its guidelines.
- Push long sleeves above elbows.
- Remove jewellery on hand and wrist e.g. rings, watches, and bracelets.
- Apply recommended hand disinfection agents to all surfaces of hands, fingers, and wrists, sufficient to dry hands, a minimum of 20 to 30 seconds.
- Rub hands together vigorously, covering all surfaces until dry.



## 1.5.2 Hand disinfection cont.

1a



Apply a palmful of the product in a cupped hand, covering all surfaces;

1b



2



Rub hands palm to palm;

3



Right palm over left dorsum with interlaced fingers and vice versa;

4



Palm to palm with fingers interlaced;

5



Backs of fingers to opposing palms with fingers interlocked;

6



Rotational rubbing of left thumb clasped in right palm and vice versa;

7



Rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa;

8



Once dry, your hands are safe.



## 1.5.3 Surgical hand scrub

- **Staff and visitors shall comply with surgical hand scrub guidelines:**
  - Apply masks covering nose and mouth.
  - Remove all jewellery from hands and arms.
  - Tuck all hair, ears, into scrub cap/scrub clothes.
  - Turn on tap and, using cold or lukewarm water, wet hands and arms up to above the elbow under clean running water, always holding hands with fingers up in a vertical position.



## 1.5.3 Surgical hand scrub cont.

- Apply hospital-approved antiseptic soap liberally and lather all surfaces from fingertips to 5 centimetres above the elbow.
- Using a circular motion and beginning at the nails one by one and fingertips of one hand, lather and wash all surfaces, including tips of fingers, between fingers, sides of hands, palm and back of hand, continuing from fingertips to below the elbow.
- Repeat procedure for the other hand





## 1.5.3 Surgical hand scrub cont.

- Keep hands and uniform away from taps and sink surfaces throughout the procedure. Begin the procedure again if these surfaces are touched at any time.
- Rinse each hand separately, fingertips first, holding hands above the level of the elbow.
- Dry one hand thoroughly in fingers-up position using the sterile towel. Wipe from the fingertips to the elbow.
- Dry the other hand by carefully reversing the towel or using a new sterile towel.
- Discard towel in appropriate container



## 1.5.3 Surgical Hand Scrub





## 1.6 Where should handwashing facilities be placed

➤ **The following are examples of where hand wash stations are needed:**

- At the entrance of all wards and clinical areas
- Inside each patient room (ideally one basin for every 4–6 beds)
- Inside all patient on suite bathrooms
- Inside treatment rooms and physical examination rooms
- Inside any room with a toilet



## 1.6 Where should handwashing facilities be placed cont...

- Inside or close to each nursing station
- Inside each dirty utility room (in addition to sinks)
- Inside the dirty linen holding area
- Inside or close to the staff lounge
- Inside all isolation rooms
- Inside the medication room



## 1.6 Placement of Hand Hygiene facilities

- Inside any room where food is handled/prepared (hospital kitchen, ward kitchen, breast milk and baby formula handling areas)
- Close to each laboratory work station
- Inside each clinical laboratory and morgue
- In areas where hands are likely to be contaminated – storage and disposal areas.



# Evaluating Hand Hygiene Program



# How to Audit Hand Hygiene



- Direct observation is the most accurate method
- Conduct the observation without interfering with ongoing work or alerting the workers
- Be familiar with “The 5 Moments for Hand Hygiene” and the data collection tool that is being utilized
- Identify opportunities for hand hygiene during the work being performed at the time of observation
- Record if the worker performed hand hygiene at the right time





## Sample: Hand Hygiene Audit Tool

<b>World Health Organization</b>			<b>Patient Safety</b> <small>A World Alliance for Safer Health Care</small>			<b>SAVE LIVES</b> Clean Your Hands		
<b>Observation Form</b>								
Facility: <input style="width: 100%;" type="text"/>			Period Number*: <input style="width: 100%;" type="text"/>			Session Number*: <input style="width: 100%;" type="text"/>		
Service: <input style="width: 100%;" type="text"/>			Date: (dd/mm/yy) <input style="width: 20%;" type="text"/> / <input style="width: 20%;" type="text"/> / <input style="width: 20%;" type="text"/>			Observer: (initials) <input style="width: 100%;" type="text"/>		
Ward: <input style="width: 100%;" type="text"/>			Start/End time: (hh:mm) <input style="width: 20%;" type="text"/> : <input style="width: 20%;" type="text"/> / <input style="width: 20%;" type="text"/> : <input style="width: 20%;" type="text"/>			Page N°: <input style="width: 100%;" type="text"/>		
Department: <input style="width: 100%;" type="text"/>			Session duration: (mm) <input style="width: 100%;" type="text"/>			City**: <input style="width: 100%;" type="text"/>		
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## Hand Hygiene Audit (cont.)

- Hand hygiene can also be estimated based on consumption rate of consumables like ABHR, soap, and hand paper towels
- If the soap isn't being used up, then the soap isn't being used!



# Importance of Hand Hygiene Program Evaluation

- Measures effectiveness of practices
- Identify areas for improvement e.g. resources or education/training
- Provide feedback to employees on their performance





# Calculating Compliance Rates



Total number of times hand  
hygiene  
was performed

Total opportunities for hand  
hygiene

**x 100 =**



# Importance of Audit Feedback

- Share recognized gaps in practices and knowledge(Numbers Never Lie!)
- raises awareness on the importance of hand hygiene
- Gives Insights and motivation for better performance





# Hand Hygiene Audit Exercise

1. Read the first scenario and fill in the observation tools based on the scenario.
2. Read the second scenario and fill in the observation tool based on the scenario.
3. Calculate the compliance rate for the two scenarios together.
4. Reflect on what feedback you would offer the HCWs in the scenarios.



# Hand Hygiene Audit Exercise

## Scenario #1

Patient A enters the consultation room. The nurse sanitizes her hands and checks the patient's vital signs. Then the doctor enters and examines the patient's painful abdomen. After the exam, the doctor washes her hands, writes a prescription for the patient, and leaves the room. The nurse uses ABHR and puts on gloves before giving the patient an injection. Once finished, the patient leaves, the nurse removes her gloves and washes her hands.



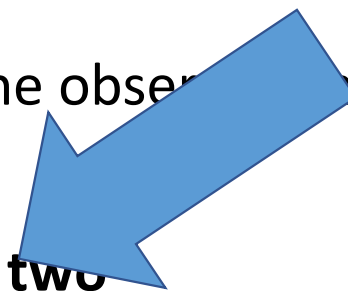
## Hand Hygiene Audit Exercise      Scenario #2

The lab technician washes his hands, puts on gloves, and collects Patient B's blood and urine samples. He then removes the gloves and makes entries in the sample register. He then washes his hands and uses ABHR.



# Hand Hygiene Audit Exercise

1. Read the first scenario and fill in the observation tools based on the scenario.
2. Read the second scenario and fill in the observation tool based on the scenario.
- 3. Calculate the compliance rate for the two scenarios together.**
- 4. Reflect on what feedback you would offer the HCWs in the scenarios.**







# Frequently Reported Barriers to Hand Hygiene

**I was too busy.**

**Uh-oh, I simply forgot.**

**The constant washing bothers my skin; my hands are so chapped, it is painful.**

**Why? I wore gloves!**



**It bothers  
my skin.**

- Avoid using hot water
- Use lotions & hand rub frequently

- Gloves are not 100% protective and are no substitute for hand hygiene

**I wore  
gloves.**

**I was too  
busy.**

Consider hand  
hygiene part of  
your excellence  
in providing care

**I forgot.**

**Make it a habit!**



## Barriers to Hand Hygiene (cont.)

- Lack of hand hygiene facilities and supplies
  - Work with senior leadership and supply manager to increase stocks
- Inadequately placed sinks or HH stations
  - Place in middle of ward rather than one end of the rooms for easier access
  - Mount more ABHR on walls and place some on nurses desks



## WHO Multimodal System For Hand Hygiene To Improve Adherence

An evidence based approach, made up of **5 core components**, to improve hand hygiene in healthcare settings

**System Change**

*Build it*

+

**Training and Education of Staff**

*Teach it*

+

**Observation and Feedback**

*Check it*

+

**Reminders in the Workplace**

*Sell it*

+

**Establishment of a Safety Climate**



# Hand Hygiene Improvement Strategies

- Training and education of staff, patients, and visitors
- Accessible hand wash sinks, tap with running water, regular soap and ABHR supplies, disposable paper or single-use cloth towels
- “IPC champions” recruited in every ward/department to serve as peers and ongoing support and encouragement
- A strong system to ensure observation, monitoring, and feedback
- Incentives and rewards based on performance



## Key Points

- Hand hygiene is the single most important action you can take to prevent transmission of infection!
- Hand washing, sanitizing and surgical scrubbing are the three types of hand hygiene.
- Always observe the five moments of hand hygiene.
- Audits and feedback raises awareness of issues, identify needs, and recognizes improvement.
- Hand hygiene as a habit must be part of the hospital culture.



# Homework

- What is the overall hand hygiene compliance rate in your facility?
- Please share your experience with hand hygiene workplace reminders
  - What has worked well?
  - What has not worked?
  - What types of reminders or promotions?
- How frequently is direct observation of hand hygiene compliance performed at your facility?



Thank You  
Questions ?

