



# National Hand Hygiene Programme for Healthcare Workers in Acute Hospitals



Training the Trainer



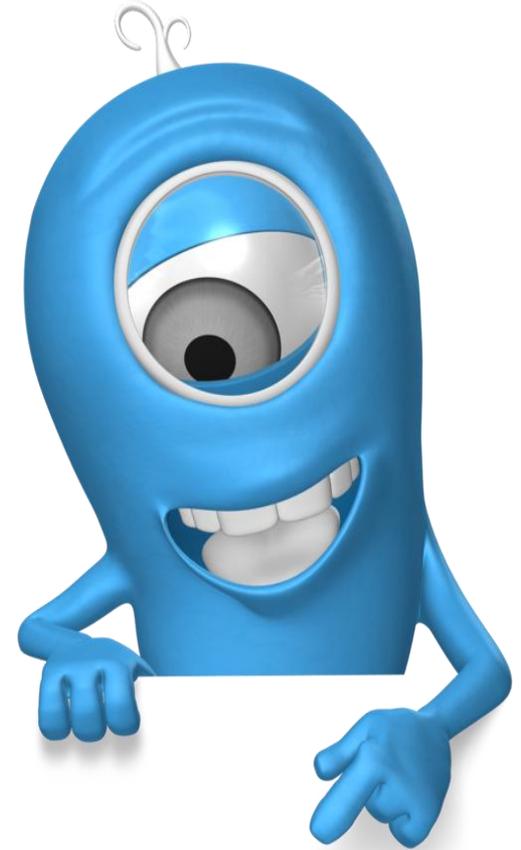
# ( 1.) What is the Hand Hygiene Train the Trainer Programme?



# Train the Trainer overview overview

You will understand:

- The importance of a national trainer programme for hand hygiene in the acute hospital setting
- Develop confidence and skills to teach hand hygiene and influence behaviour locally
- Bring education and resources to healthcare workers in the workplace



# Who can become a trainer?

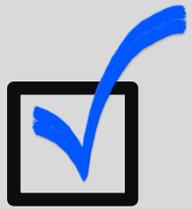
**Hand Hygiene Trainers will be considered to be more effective if they have:**

- Experience in providing formal or informal education or influence in making healthcare improvement
- Been nominated with agreed support from Service/ Facility Manager as outlined in the Hand Hygiene Trainer Agreement

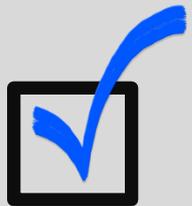


# Getting started as a Hand Hygiene Trainer

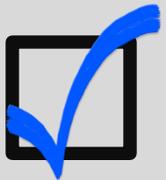
## Starting Essentials:



Interested in educating peers in hand hygiene



Complete HSELand e-learning module on Hand Hygiene and Chain of Infection



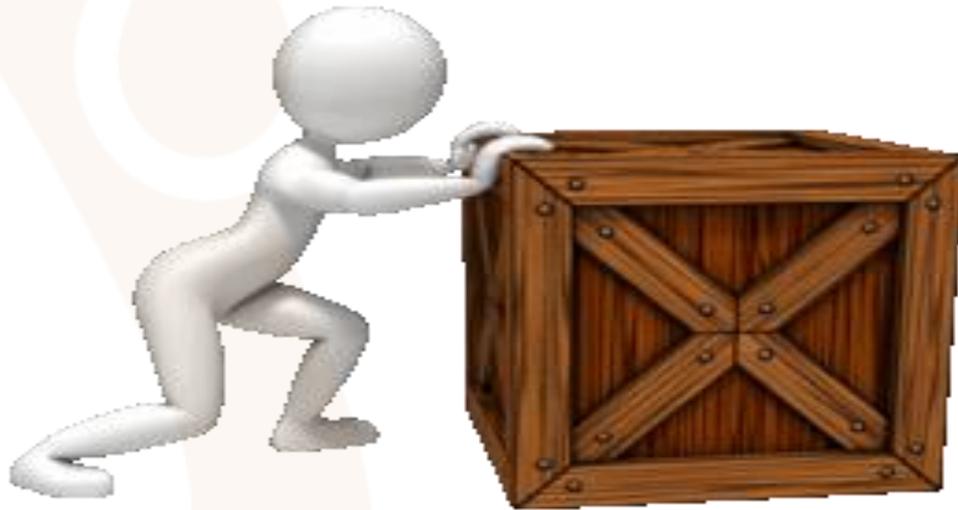
Undertake 'Train the Trainer' education programme and provide local training using the standardized materials and knowledge learnt



Become a role model for Hand Hygiene in your workplace



Let's not make it difficult!



Any burning issues you wish to clarify  
around the Hand Hygiene Trainer role  
and commitment?



# Meeting the standard



## Standard 3.4

Service providers adhere to hand hygiene practices to minimise the risk of acquiring or transmitting infection.

- 3.4.2 Staff adhere to the World Health Organization's (WHO's) 'five moments of hand hygiene<sup>‡</sup> principles' or any emerging best practice.
- 3.4.3 Staff adhere to the national 'bare wrist'<sup>‡</sup> recommendations in order to achieve effective hand hygiene practice when providing clinical care.
- 3.4.4 Leaders at all levels support and encourage colleagues to adhere to good hand hygiene practices by leading by good example.

# **Guidelines for hand hygiene in Irish healthcare settings**

Update of 2005 guidelines  
January 2015

National IPC Guidelines currently in development by NCEC  
IPC Committee and will replace the current guidelines



## (2.)What are Health Care Associated Infections and Antimicrobial resistant Organisms?

How do they cause harm?



# What are Healthcare Associated Infections?



Healthcare associated infections (HCAIs) are infections that develop as a result of healthcare interventions

This may include medical or surgical treatment or following contact with any healthcare setting

# What are Antimicrobial Resistant Organisms (AMROs)

- Antimicrobial resistant organisms (AMROs)
- Multidrug resistant organisms (MDROs)
- Antibiotic resistant organisms (AROs)
- **All mean more or less the same thing which is that antibiotics used to kill this type of bacteria (bug) 10 or 20 years ago no longer work. Some people call these “superbugs”**
- Examples
  - MRSA** (methicillin-resistant *Staphylococcus aureus*)
  - VRE** (vancomycin-resistant-Enterococcus)
  - ESBL** (extended spectrum beta-lactamase producer)
  - CPE** (carbapenemase producing Enterobacterales)

# Examples of Healthcare Associated Infections ( HCAIs)

- John is admitted to hospital for surgery. After the operation he develops a wound infection
- Mary is admitted with a heart attack and she has an IV line put in. She gets a blood stream infection from the IV line
- Anne lives in a nursing home. She has a urinary catheter in place. She gets a urinary tract infection and blood stream infection related to the urinary catheter
- Sheila is admitted to hospital with pneumonia and she is treated with antibiotics. 5 days later she develops severe diarrhoea caused by **C.diff infection**

## Colonisation with AMROs

**Colonisation:** the bacteria just sits there doing no harm. But bacteria can multiply, grow and spread to other patients, equipment or the environment

Examples of colonisation:

- MRSA sitting in the nose but causing no symptoms
- ESBL sitting in the urine but causing no symptoms
- CPE sitting in the colon but causing no symptoms

But **colonisation** can develop into **infection**

# Colonisation developing into infection

Jane Doe comes to hospital for chemotherapy

CPE gets carried to Jane on the hands of a healthcare worker who forgot to clean their hands

The CPE is just sitting in the colon causing no problems

Jane has a urinary catheter inserted

Three days after the catheter is inserted, CPE is found in Jane's urine but she has no symptoms

Ten days later, after Jane's first cycle of chemotherapy the CPE has invaded the blood stream

Most of the common antibiotics won't treat the CPE blood stream infection

# Example of a Preventable HCAI

## Catheter Associated Urinary Tract Infection

- Reduce the number of people who have urinary catheters
- Reduce how long urinary catheters stay in for
- Reduce the number of people who access and manipulate the catheter
- Ensuring that those who access the catheter, use the correct aseptic technique every time

**Good hand hygiene practices will help reduce the risk of infection for people with a catheter in place**

# Spread of micro-organisms (bacteria, virus and fungi)

- Most micro-organisms spread by contact. In healthcare this means getting carried from one place to another, on people or on things
- Almost any type of micro-organism can be carried from one place to another. We are especially concerned about AMROs and flu virus getting carried
- **Hands** are the main way micro-organisms spread in hospitals. But they can also travel on patient equipment including commodes and stethoscopes



**Evidence of hand hygiene to reduce transmission and infections by multi-  
drug resistant organisms in health-care settings**

The most common bacteria causing HCAs are those which have become resistant to antibiotics

- MRSA (Methicillin resistant staphylococcus aureus)
- VRE (Vancomycin-Resistant Enterococci)
- ESBL (Extended Spectrum Beta-Lactamase)
- CPE (Carbapenem producing enterobacterales)

# ***HCAI & Patients Rights Perspective***

***People that carry /infected with HCAIs  
have an equal right to health and  
healthcare***

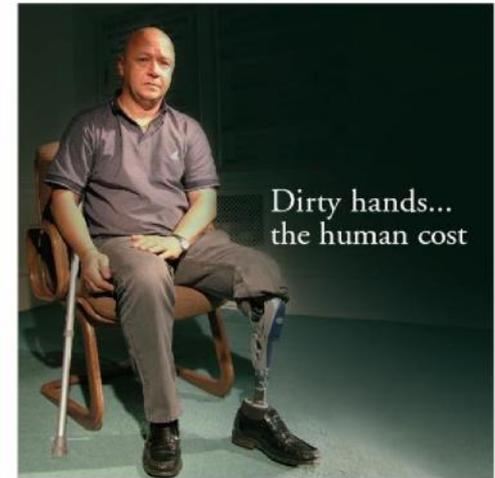
***People who need healthcare have a  
right to expect that we take reasonable  
care to reduce the risk that they will  
get a HCAI***



# The impact of HCAI on our patients

HCAI can cause:

- More serious illness
- Prolonged stay in a health-care facility
- Long-term disability
- Excess deaths
- High additional financial burden to health services
- High personal costs to patients and their families



# So how could we spread harmful micro-organisms?



- From person- to- person directly from the healthcare workers hands
- From the environment or equipment if they are contaminated

**Stop and think** of ways how HCAs could spread in our own service

**Is this avoidable?**



# How can you pass infection from your hands?



Each trainer to reflect for 2 minutes on what acts or omissions of practice can potentially assist in the spread of micro-organisms to cause HCAs

Trainers should now share their reflections with the person next to them for 2 minutes

List all answers on a flip chart through group feedback

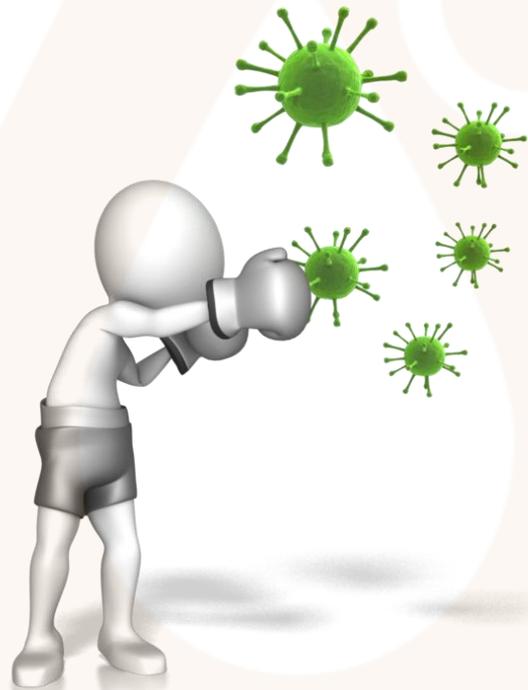
# How can you pass infection from your hands?



- Read each point from the flip chart of practice that can cause Micro-organisms to spread and potentially cause a HCAI
- Put an X beside any practice that could be avoided or corrected

**What we perceive to cause healthcare associated infections can be avoided in many situations or reduced-discuss**

# How are HCAs reduced?



Multimodal approach:

- Hand hygiene education
- Hand hygiene culture in the workplace
- Easy access to alcohol based hand rubs hand wash sinks
- Having reminders in the workplace (hand hygiene posters)
- Information leaflets for patients and families
- Monitoring and feedback to staff

# THE CHAIN OF INFECTION

## Susceptible Host

Persons at risk for getting an infection including elderly, young babies, having chronic disease such as diabetes, asthma . Having a wound or devices such as cannulas and catheters or feeding tubes in the body

## Infectious Disease

Any germs that can cause disease including bacteria viruses, parasites and fungus

## Reservoir

Places where the germs can live and spread include food,water, toilet seat, door handles, human faeces and other body secretions

## Portal of Entry

Where germs enter the body including open wounds catheters, feeding tubes cannulas,or mucous membranes

## Mode of Transmission

germs spread either by direct contact such as person to person by hands or indirect contact including the environment or equipment

## Portal of Exit

Where the germs leave the reservoir: includes the nose,mouth, back passage, urinary tract or blood and body fluids

For an Infection to develop,  
each link of the chain must be  
**connected.**

**Breaking** any link of the chain  
can **stop** the transmission of  
infections

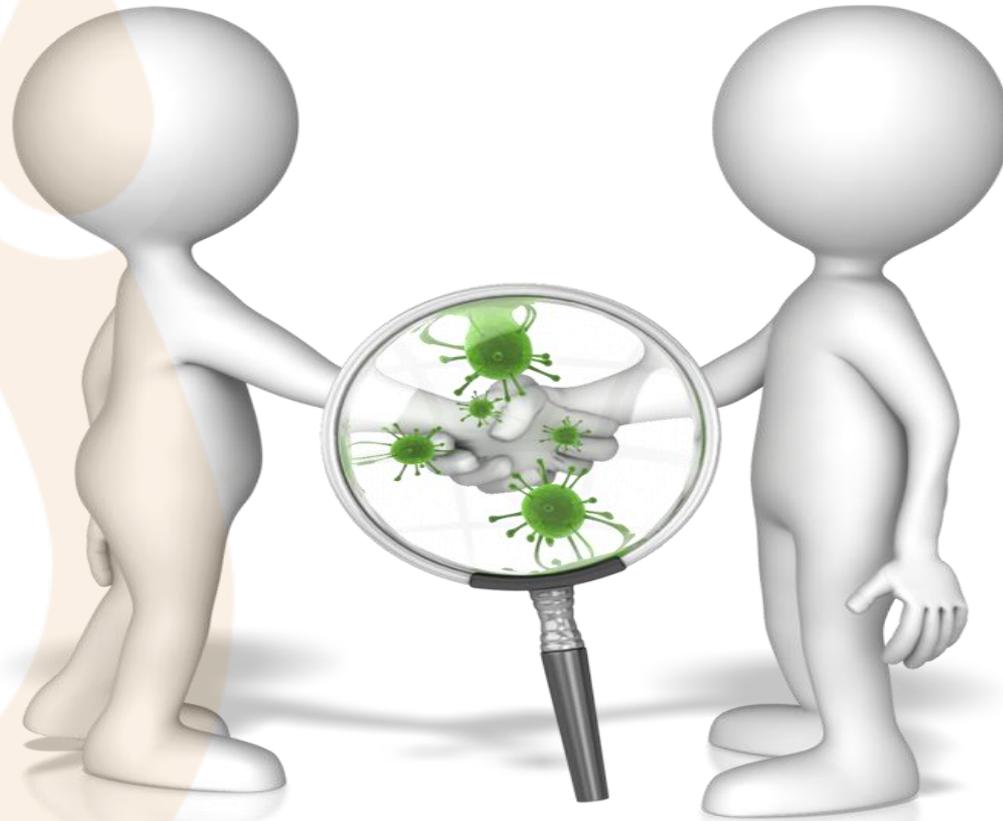


Failure to clean hands during patient care can result in within –patient –cross contamination

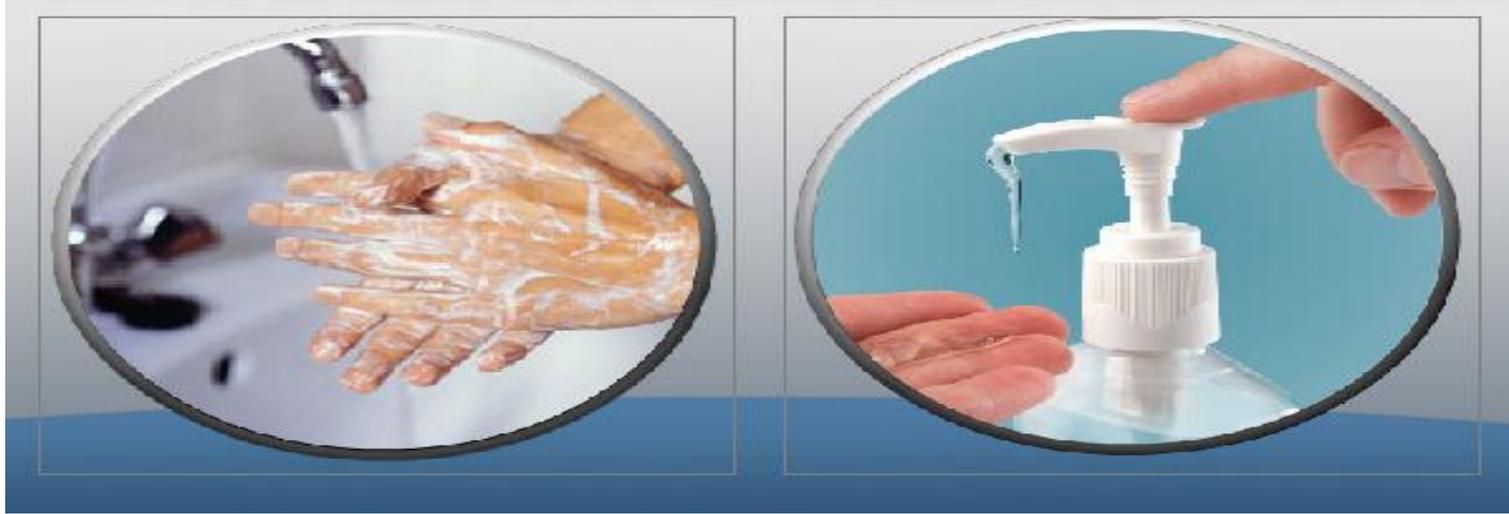




# ( 3.) Hand Hygiene and How it Works



# What is hand hygiene?



**Hand Hygiene** includes cleaning hands with an alcohol based hand rub(ABHR) or hand washing with soap and water in order to remove micro-organisms

# How Does Hand Hygiene Work?

**Alcohol-based hand rub ( ABHR)** removes micro-organisms and is the gold standard of care for hand hygiene practice in healthcare settings

**Hand hygiene with soap and water** done correctly, removes micro- organisms and is essential when **hands are not visibly clean**

# Why hand hygiene is so important

- Good hand hygiene remains one of the single most effective measures for preventing the spread of infection and HCAs
  - It protects the patient against germs from your hands
  - It protects yourself and the health care environment from harmful germs that can spread HCAs



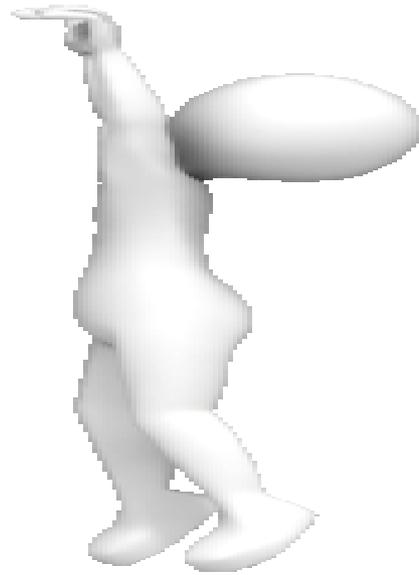
## So why do we clean our hands?

- Hand Hygiene is one of the **single most effective measures** for preventing the spread of infection and HCAs

Hand Hygiene **done properly**, can be highly effective in preventing infection from spreading by:

- **Protecting patients** from harmful germs carried on your hands or present on their skin that can spread HCAs
- **Protect yourself, equipment and the environment** from harmful germs that can spread HCAs

# What are the challenges with hand hygiene in our workplace?



Group activity: each trainer reflects individually and shares within the group what they consider to be challenges with proper hand hygiene practice in the local workplace

# So why do we not practice hand hygiene when we should?



- Too busy and it takes too long
- Staff shortages
- Not a priority
- No role model
- Irritating to our skin
- Poor access to hand hygiene facilities
- Wearing gloves seen as protection
- Lack of education.

# Time constraint is considered a major obstacle for hand hygiene



- Adequate hand washing with water and soap requires **40 -60 seconds**
- Average time usually adopted by health-care workers: **<10 seconds**

**Alcohol based hand rub (ABHR):  
approximately 20–30 seconds**

# Time Spent Cleansing Hands

- ☛ One nurse per 8 hour shift
  - ☛ Hand washing with soap and water: 56 minutes
    - ☛ Based on seven (60 second) hand washing episodes per hr
  - ☛ Alcohol-based hand rub: 18 minutes
    - ☛ Based on seven (20 second) hand rub episodes per hr
- ~ Alcohol-based hand rubs reduce time needed for hand hygiene ~

# The geographical perception of the transmission risk

Important things to understand:

- What a patient zone means
- What a healthcare zone means
- What does the point of care mean



# Definitions of patient zone and health-care area

To understand this you see the health-care setting as divided into two virtual geographical areas

- Patient zone may be the room/bed space belonging to the individual who requires care and in which their equipment and personal items are kept
- Health-care area is the environment directly outside of the patient zone

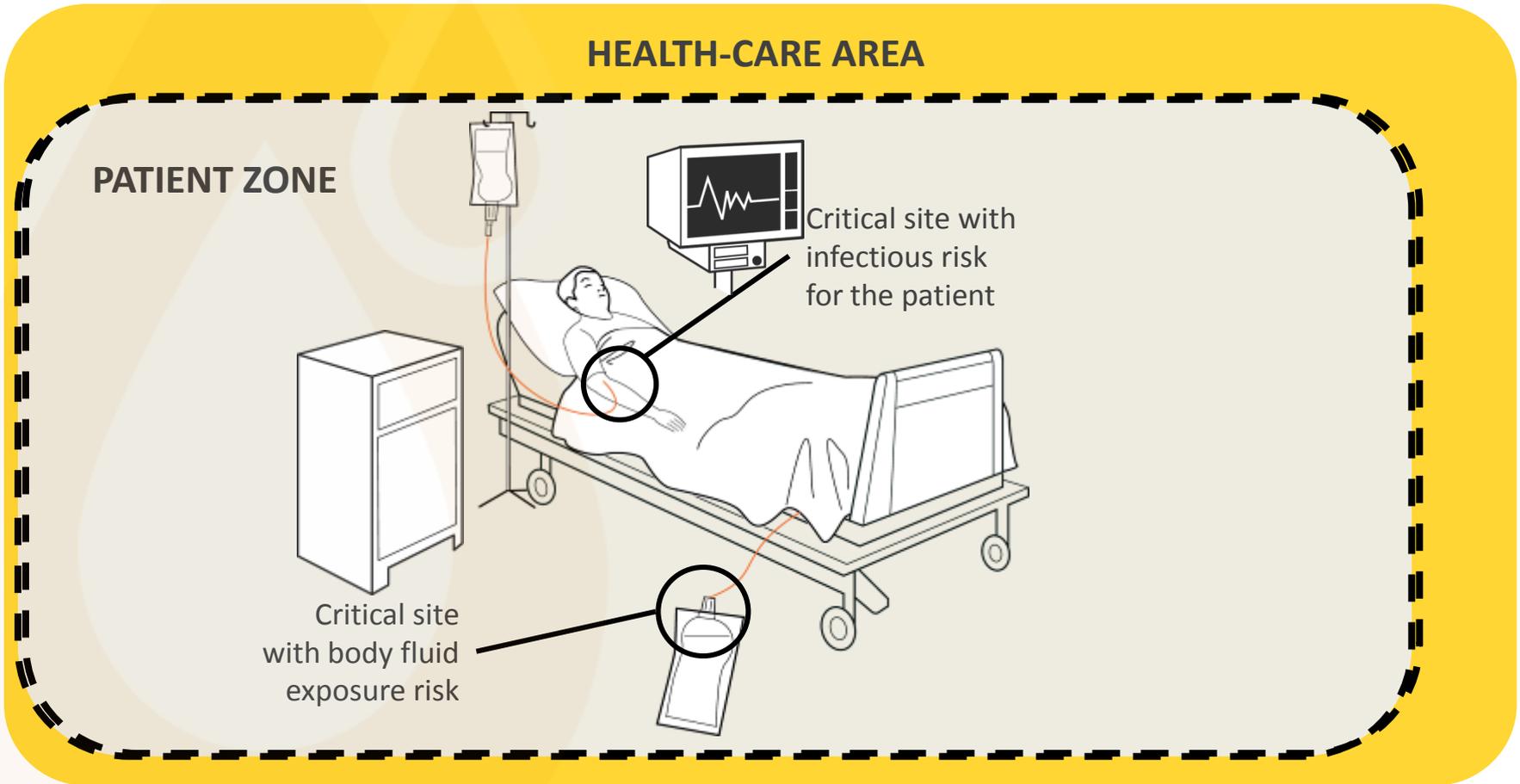
# Definitions of patient zone and health-care area

- **Health-care area**: it contains all surfaces in the health-care setting outside the patient zone

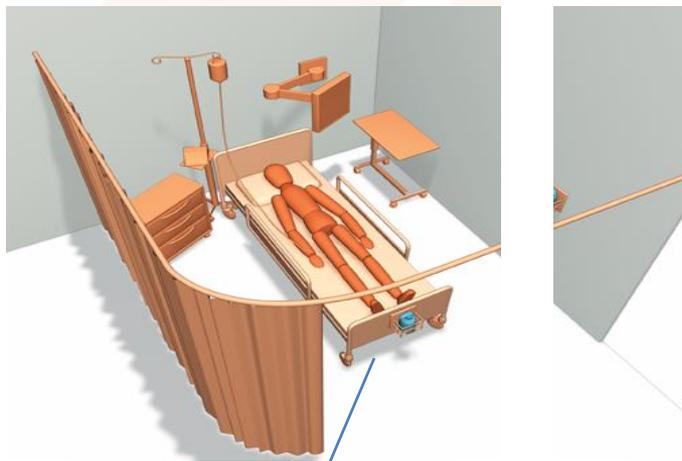
Examples include:

- Sluice clean
- Utility reception desk
- Wider environment outside of the patient zone

# Health care area and patient zone



# The Patient Zone

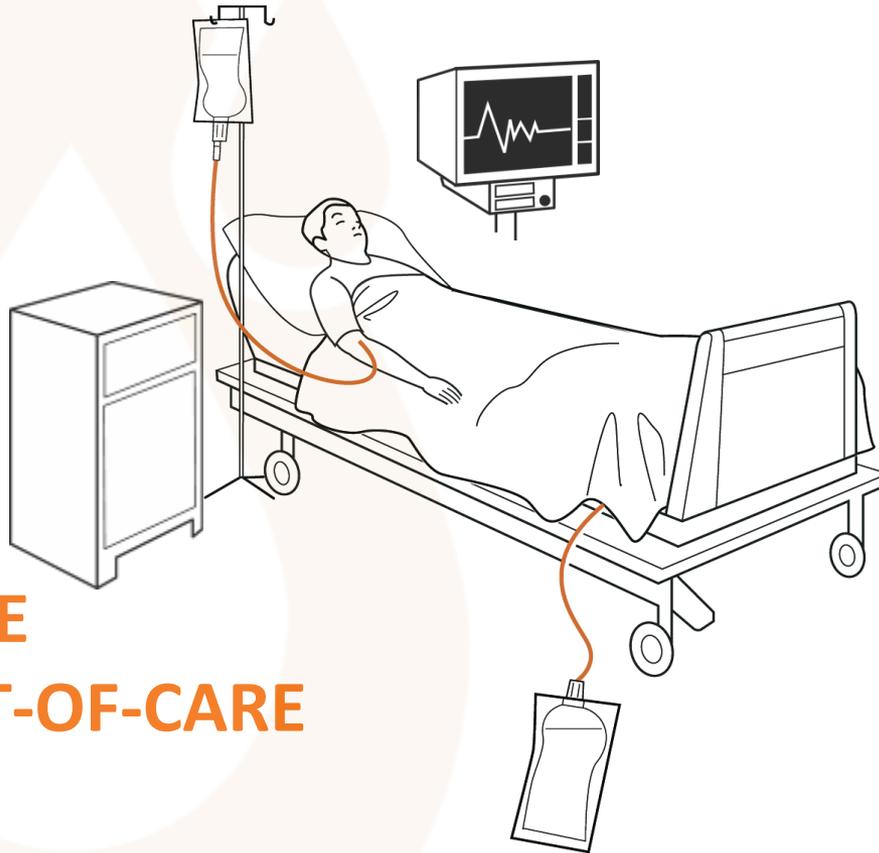


Multi resident room

Single room



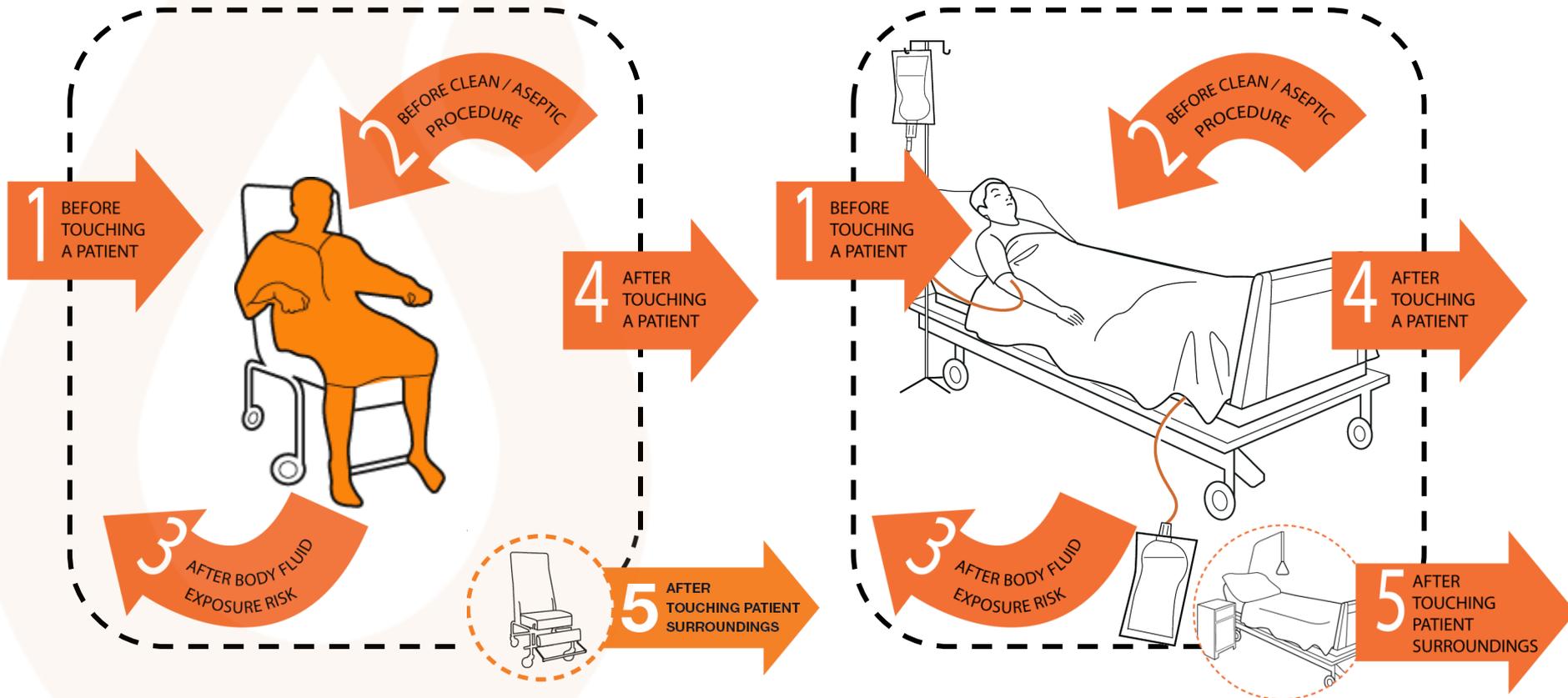
# HAND HYGIENE SHOULD BE PERFORMED



**AT THE  
POINT-OF-CARE**



# The 5 Moments apply to any setting where health care involving direct contact with patients takes place



**WHAT IS THE  
POINT OF  
CARE?**

**The place where  
three elements  
occur together**

**The patient**

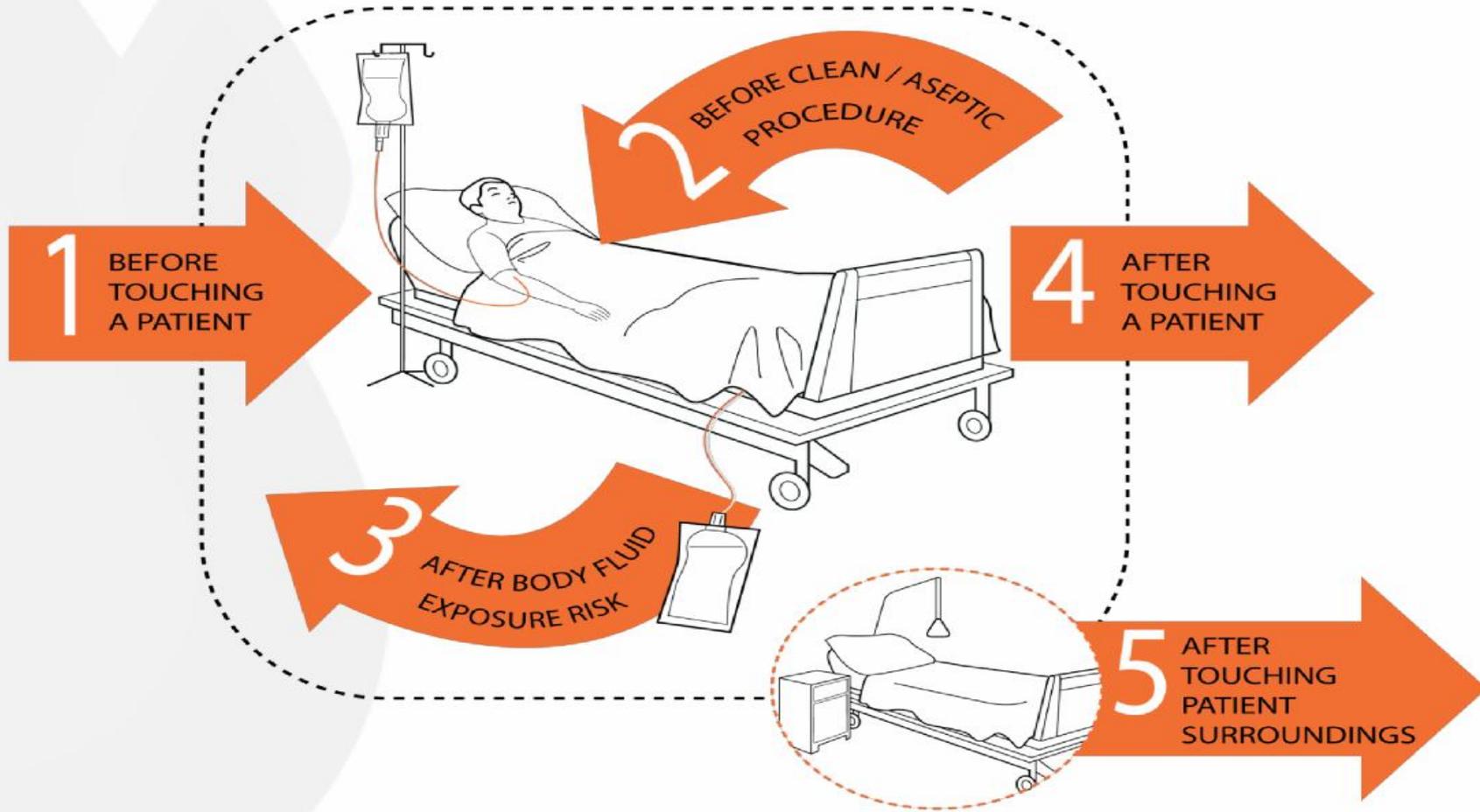
**The health-care  
worker**

**And the  
care or treatment  
involving patient  
contact**

# Getting to grips with 'The 5 Moments for Hand Hygiene' in the acute hospital



# My “5 Moments” for Hand Hygiene



# My “5 Moments” for Hand Hygiene



# Moment 1 -Before Touching the patient



**When-** clean the hands before any patient contact

**Why-** to protect the patient from harmful micro-organisms carried on the HCW hands

## Examples

- Assisting with personal care, assistance with eating
- Before checking an IV line
- Taking a pulse or blood pressure, examination of skin and abdominal palpation

**Discuss other examples**

### FIGURE 3

## Example of Moment 1 occurrence in a paediatric consultation

**1** BEFORE TOUCHING A PATIENT



# Moment 2: Before a Clean/Aseptic Procedure



**When-** clean the hands **immediately** before performing an aseptic or clean procedure (even though you may have cleaned your hands before patient contact for other reasons)

**Why-** to protect the patient from micro-organisms (including their own) entering their body during procedures

## Examples

- Oral care, suctioning, instilling eye drops
- Surgical wound care,
- Urinary catheter care & insertion,
- Accessing an IV or enteral feeding system
- Taking samples of blood, sputum and urine

**Discuss other examples**



# Moment 3: After Body Fluid Exposure Risk



**When-** clean the hands immediately after exposure to body fluids (and after glove removal)

**Why-** protects healthcare workers and the healthcare surroundings from acquiring micro-organisms from patients

## Examples

- Clearing up urine, faeces, vomit, handling waste (dressings, incontinence pads)
- Cleaning soiled equipment or environment (bathroom, commode, sharps tray)
- Oral care and suctioning
- Skin lesion care, wound dressings, administering injections
- Taking blood and urine samples from a catheter (CSU), emptying urinary catheters



**Discuss other examples**

# Moment 4 - After Touching the Patient



**When:** clean hands after touching the patient and moving on to another task/procedure

**Why:** protects healthcare workers and the healthcare surroundings from acquiring infectious microorganisms from patients

***Examples :***

- Assisting with personal care
- After taking a pulse, blood pressure or temperature

**Discuss other examples**

## Example of Moment 4 occurrence in a paediatric consultation



# Moment 5 -After Touching the Patient Surroundings



**When:** clean hands after touching any objects, furniture or personal items in the patient zone, even if there has been no direct contact with the patient

**Why:** to protect the HCW and the healthcare environment from micro-organisms

## ***Examples***

- Clearing the bedside table
- Touching patients personal items
- Touching equipment in the patient zone
- Handling a chart at the end of a patients bed
- Turning off a patient call bell



**Discuss other examples**

# Moment 5 in Outpatient Setting (1)

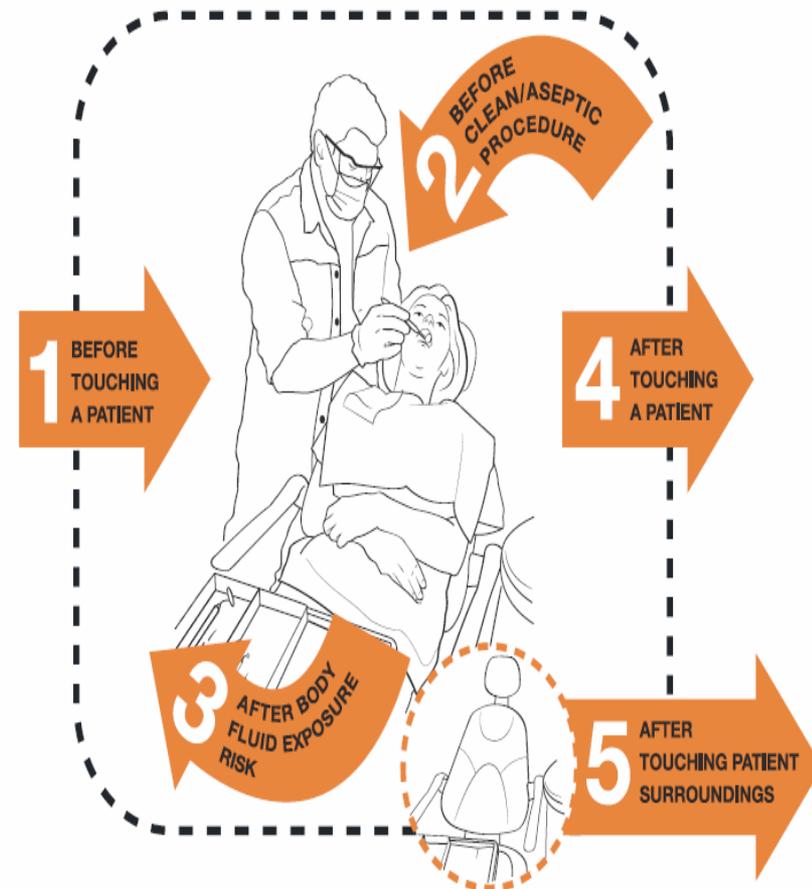
In outpatient settings ,moment 5 applies where the patient is placed in a dedicated space for a certain amount of time with dedicated equipment

The environment will become contaminated and examples include:

Day ward area, colposcopy procedure area , shedding in a wound care clinic

**Any suggestions from your local healthcare area?**

## Your 5 Moments for Hand Hygiene Dental Care

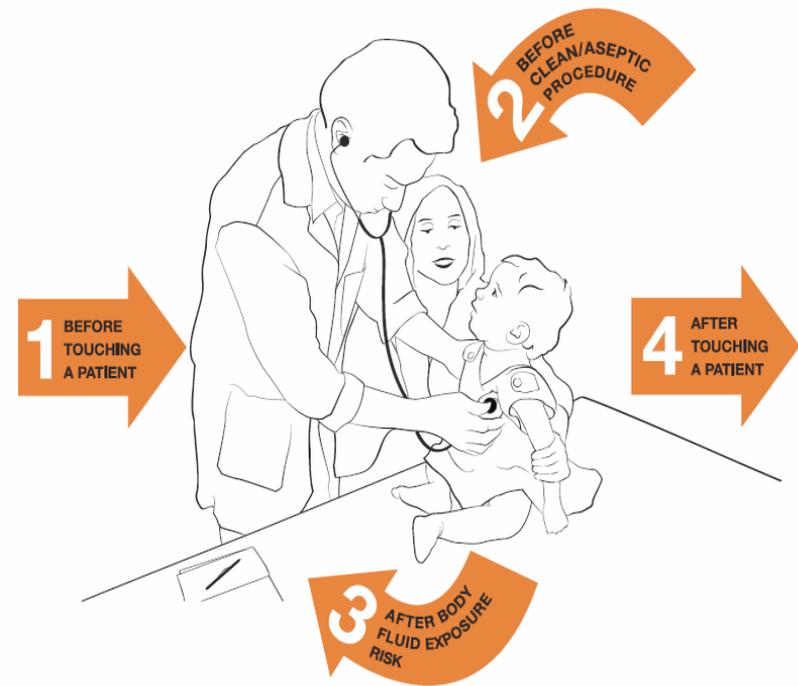


# Moment 5 in Outpatient Settings ( 2 )

- In the outpatient setting the patient is considered the patient zone as the space and equipment is **not exclusively dedicated** to the patient for any prolonged time  
Examples include :  
vaccination clinic, antenatal clinic, OPD consultation room.

**Any suggestions from your local healthcare area?**

## Your Moments for Hand Hygiene Paediatric Consultation



# The golden rules for Hand Hygiene

Hand hygiene must be performed exactly where you are delivering health care to patients (at the point-of-care)

During health care delivery, there are 5 moments or indications when you must perform hand hygiene

To clean your hands, hand rubbing with an alcohol-based hand rub is preferred. It makes hand hygiene possible right at the point-of-care. AHRB is faster, more effective and better tolerated

You should always wash your hands with soap and water when visibly soiled

Perform hand hygiene using the correct technique and remember to cover all parts of the hands

# Change on the way: Hand Hygiene Practice Recommendation

Australian IPC Guidance 2019 recommend using **alcohol hand rub or hand washing** following care delivery to someone with C.diff

This recommendation is agreed by the Guideline Development Group for National IPC Guideline<sup>1</sup>

1. endorsement by NCEC pending



# What does this mean in practice?

Mary is a patient in an isolation room as she has been confirmed to have C. diff.

After delivering care to Mary, the nurse removes her gloves correctly and cleans her hands with an alcohol based hand rub (ABHR)



[Ref: https://www.nhmrc.gov.au/about-us/publications/australian-guidelines-prevention-and-control-infection-healthcare-2019](https://www.nhmrc.gov.au/about-us/publications/australian-guidelines-prevention-and-control-infection-healthcare-2019)

## Support the person you are providing care to in attending their own Hand Hygiene

- Encourage anyone who is mobile to wash their hands with soap and water
- Alcohol hand rub or patient hand wipes are useful to assist in hand hygiene with someone who is less mobile
  - The most important times to ensure that encouragement and assistance with hand is provided are:
    - **After using the toilet**
    - **Before meals**
    - **After coughing/sneezing**

**What measures are in place to support patients and families with hand hygiene- discuss**

# ( 4.) How we perform hand hygiene



# How do we clean our hands?



- Handrubbing with alcohol-based handrub is the preferred routine method of hand hygiene if hands are not visibly dirty
- Handwashing with soap and water is essential when hands are visibly dirty

# Before you begin “Bare the wrists”

- Remove any items from the wrist at the beginning of work including watches, jewellery, fit-bits and pedometers
- Plain ring/band only to be worn
- Long sleeves should not be worn when delivering care
- Keep nails short
- Artificial nails /nail varnish or any nail enhancements should not be worn

# Some other key issues to remember

- Keep cuts and abrasions covered with a waterproof dressing or plaster
- Thorough rinsing and drying of hands after washing will prevent skin irritation
- Use disposable paper hand towels for drying hands in clinical areas
- Apply hand cream frequently to prevent skin dryness

# Practical Workshop:

## Demonstration of hand hygiene technique

- Divide into groups. IPCN will demonstrate application of ABHR
- Each trainer will practice and demonstrate the technique until they can do it correctly
- Observation feedback from peers in group on the HCW demonstration is important
- Complete the same process for hand washing technique at a sink
- Self evaluation of trainers by applying ultraviolet cream and observe areas of hands that have been missed inside the hand hygiene inspection cabinet

# Examples of hand hygiene products easily accessible at the point-of-care



# ( 5.) Hand Hygiene and Glove use



# Gloves can be the Enemy of Hand Hygiene

Wearing gloves unnecessarily can result in poor hand hygiene compliance. It also adds to unnecessary waste and cost

**Wear gloves only when indicated, examples include:**

- Any contact with blood and body fluids
- Touching broken skin including rashes and wounds
- Providing direct care to patients who require transmission based precautions
- Clean or aseptic procedures where direct touching of key parts and key sites cannot be avoided. Examples include cleaning a wound or changing an iv line



# What should prompt you to wear gloves?

Any activity that involves a risk of contact with blood or body fluids

- Direct contact with broken skin including a rash or wound
- Handling equipment likely to be contaminated
- Direct contact with eyes, inside the nose or mouth
- Clean or aseptic technique

Remove gloves immediately after the task you needed to wear them for and carry out hand hygiene

# Examples of when we wear gloves

Changing bed linen which is not soiled	Gloves recommended based on risk assessment as to whether suspected body fluids may be present
Handling soiled laundry	Recommended to always wear gloves
Assisting with personal care or wash	Gloves sometimes needed
Assisting with preparing meals or feeding	Gloves are not usually recommended
Caring for someone with diarrhoea	Gloves usually recommended
Undertaking a clients blood sugar test	Gloves recommended

- Gloves are worn for self protection during procedures to prevent **you** from acquiring an infection
- If gloves are worn **when not required** or for multiple tasks, there is a high possibility that unwanted germs will spread to patients, equipment and the environment



**Remember to clean your hands immediately before donning and immediately after removing gloves**

**Practice donning and removing gloves with the support of the IPCN in attendance**

# Glove Use Pyramid

## STERILE GLOVES INDICATED

Any surgical procedure; vaginal delivery; invasive radiological procedures; performing vascular access and procedures (central lines); preparing total parental nutrition and chemotherapeutic agents.

## EXAMINATION GLOVES INDICATED IN CLINICAL SITUATIONS

*Potential for touching blood, body fluids, secretions, excretions and items visibly soiled by body fluids.*

**DIRECT PATIENT EXPOSURE:** Contact with blood; contact with mucous membrane and with non-intact skin; potential presence of highly infectious and dangerous organism; epidemic or emergency situations; IV insertion and removal; drawing blood; discontinuation of venous line; pelvic and vaginal examination; suctioning non-closed systems of endotracheal tubes.

**INDIRECT PATIENT EXPOSURE:** Emptying emesis basins; handling/cleaning instruments; handling waste; cleaning up spills of body fluids.

# ( 6.) Implementing the Hand Hygiene train the Trainer Programme





# Option 1. Use the training folder materials and desktop easel provided

## Hand Hygiene Training Programme for Healthcare Workers in Acute Hospitals





# Option 2: download the presentation from the following website link: [www.hse.ie/hcai](http://www.hse.ie/hcai)

The screenshot shows a web browser window displaying the HSE website. The address bar shows the URL: <https://www.hse.ie/eng/about/who/healthwellbeing/our-priority-programmes/hcai/>. A cookie notice is visible at the top, stating: "We use [cookies on this website](#). By using this site, you agree that we may store and access cookies on your device." The main header features the HSE logo and the text "Health Care Associated Infection and Antimicrobial Resistance". A search bar is present with the text "Search this section" and a magnifying glass icon. Below the header is a navigation menu with the following items: "Information for the public", "Hand hygiene", "Antimicrobial resistance", "Latest news", and "Information for healthcare workers". The main content area has a breadcrumb trail: "HSE.ie > Health Care Associated Infections". There are two main promotional tiles: one for "Learn to recognise and treat everyday illnesses, yourself." with a "Visit [undertheweather.ie](http://undertheweather.ie)" button, and another for "Information for the public" and "Information for healthcare workers" with "Find out more" buttons. The bottom of the page features a section titled "Healthcare-associated infection and antimicrobial resistance" with a sub-heading "HCAI and AMR response team". The text below reads: "In 2010, the HSE established a national clinical programme for the prevention of healthcare-associated infection (HCAI) and antimicrobial resistance (AMR). This introduced a range of initiatives and developments to focus on improvements and patient safety." The taskbar at the bottom shows various application icons and the system clock indicating 16:32 on 12/01/2019.



# Hand Hygiene Training Includes:



- Healthcare associated Infections
- The '5 Moments of Hand Hygiene'
- Hand Hygiene Technique – practical demonstration and self assessment
- Hand hygiene and glove use – if time permits you may teach staff in donning and removing gloves
- How to support patients to clean their hands

# Workshop exercise for trainers to teach the 5 moments in hand hygiene

Each trainer is allocated **one** of the 5 moments in hand hygiene and a Hand Hygiene Trainer Folder

Each trainer will take time individually to reflect and demonstrate to the group how they propose to teach the one moment in hand hygiene as it applies in their area of work



# Getting Started as a Hand Hygiene Trainer

- Get started as soon as possible from the training day with the support of your manager
- Liaise with your IPCN as necessary
- Resources: presentation easel /laptop and demonstration of hand washing and alcohol hand rub technique.
- Give time for staff to practice hand washing and applying the alcohol hand rub
- Ensure staff sign attendance record and give to Head of Service/Facility

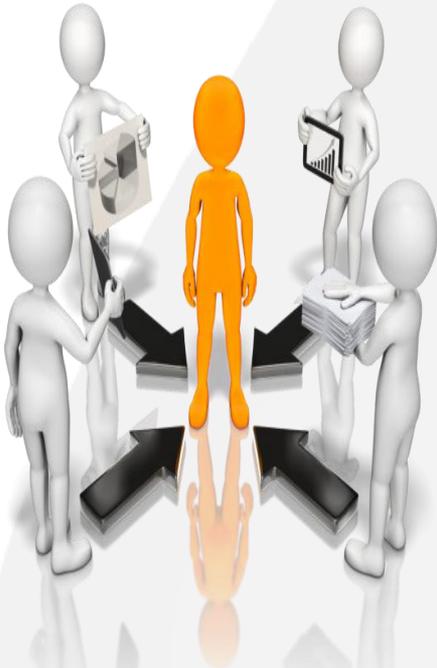


## Hand Hygiene Trainer Information

1. Staff must attend and participate in **both** the theory and practical session to have fully completed the training
2. Staff should record attendance **immediately after** each hand hygiene training session on the training template (which is in the training folder)
3. Keep a copy of attendance records in your local department/service and send a copy to management for central recording/ monitoring of training
4. Further information available for download on Hand Hygiene materials at [www.hse.ie/infectioncontrol](http://www.hse.ie/infectioncontrol)



# Keep up the knowledge



- Hand Hygiene education is mandatory **at least** every 2 years and should start at induction to any job where healthcare is provided
- Infection prevention and control should be on everyone's agenda **at all levels** in the healthcare service
- **Everyone** is **responsible** for their own hand hygiene practices to keep people we care for safe
- Lack of appropriate hand hygiene facilities or resources to perform hand hygiene should be brought to your managers attention immediately

**“If you see something - say something”**

# Embedding a Culture of hand hygiene

## *Helpful tips for hand hygiene assessors*

- Put “hand hygiene” as an agenda item on your regular staff meetings
- Give people TIME to take on board what you are saying
- Come back another day or follow up at a later stage if you feel the person needs time to take on board
- Answer questions as they arise and have theory to back up your answers
- If you cannot answer on the spot - make a note of the question and link with your Infection Prevention and Control Nurse for additional support
- Encourage the staff you work with to jointly come up solutions with you, as to what works best in your own team/site

## Suggested next step to improve practice

- Reflect on hand hygiene practice currently in your workplace
- Identify a change in practice you might start with to improve hand hygiene in your department
- Hand Hygiene Facility checklist is provided in the Trainer Folder which you may wish to use





THANK YOU

