National Hand Hygiene Train the Trainer Programme for Healthcare Workers in Community Healthcare

RESIST

Who can become a trainer?

The trainer will be considered to be more effective it they have:

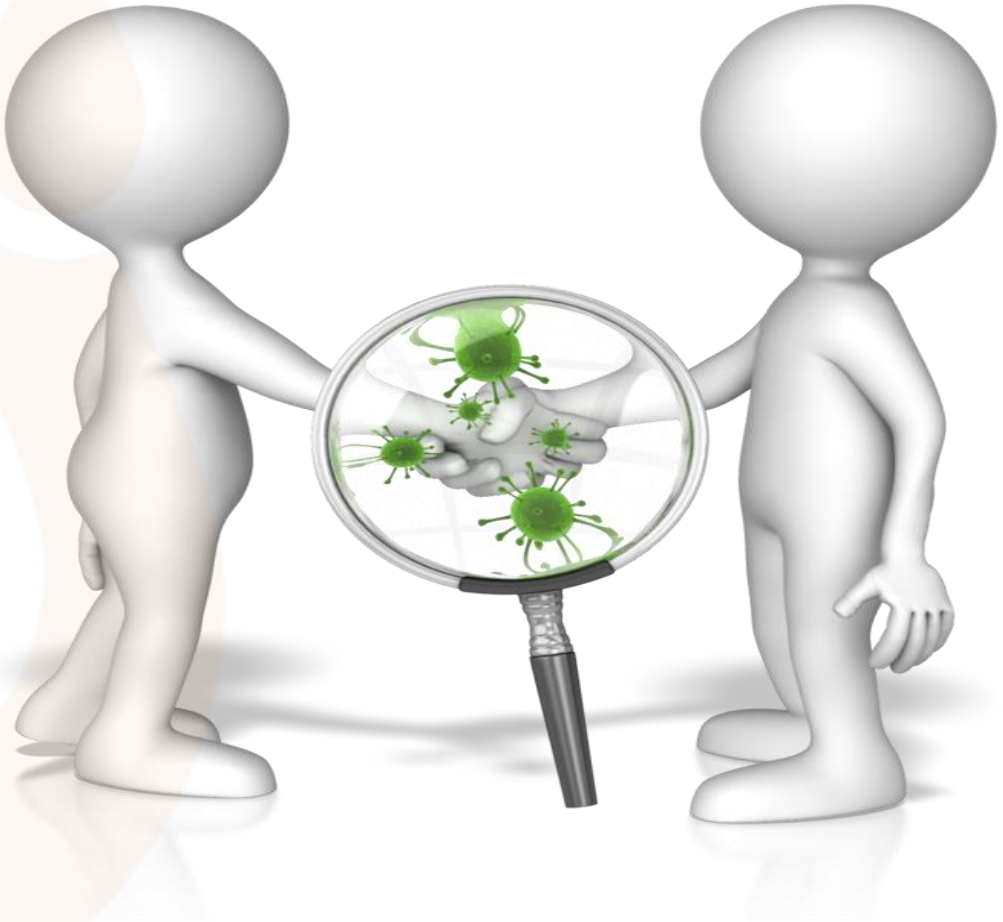
- Experience in providing formal or informal education or influence in making healthcare improvement
- Been nominated with agreed support from Service/ Facility Manager as outlined in Governance Protocol

Getting started as a Hand Hygiene Trainer

Starting Essentials:

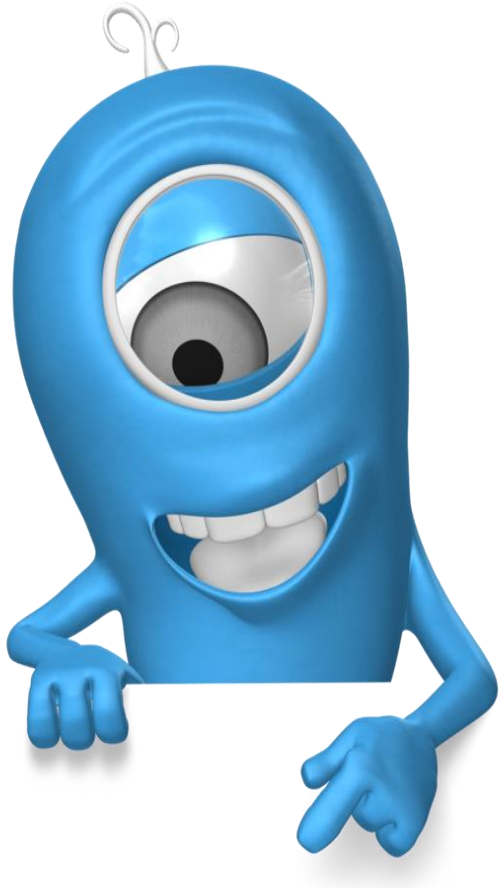
- Interested in educating peers in hand hygiene
- Complete HSELand e-learning module on Hand Hygiene
- Undertake ‘Train the Trainer` education programme and provide local training using the standardized materials and knowledge learnt
- Become a role model for Hand Hygiene in your workplace

Why are we here?



Train the Trainer overview overview

- You will understand the importance of a standardised approach to teach hand hygiene in the healthcare settings
- Develop confidence and skills to teach hand hygiene and influence behaviour
- Bring education and resources to healthcare workers in the local workplace



Governance of Hand Hygiene: responsibility for safe care applies at all levels

- **Chief Clinical Officer**
- **National Directors**
- **National AMRIC Oversight Team**
- **Hospital Groups and CHOs**
- **Head of Services**
- **Healthcare workers**
- **Patients ,families and public**

CPE *(Antimicrobial Resistance Infection Control)* **Team /Implementation Team**

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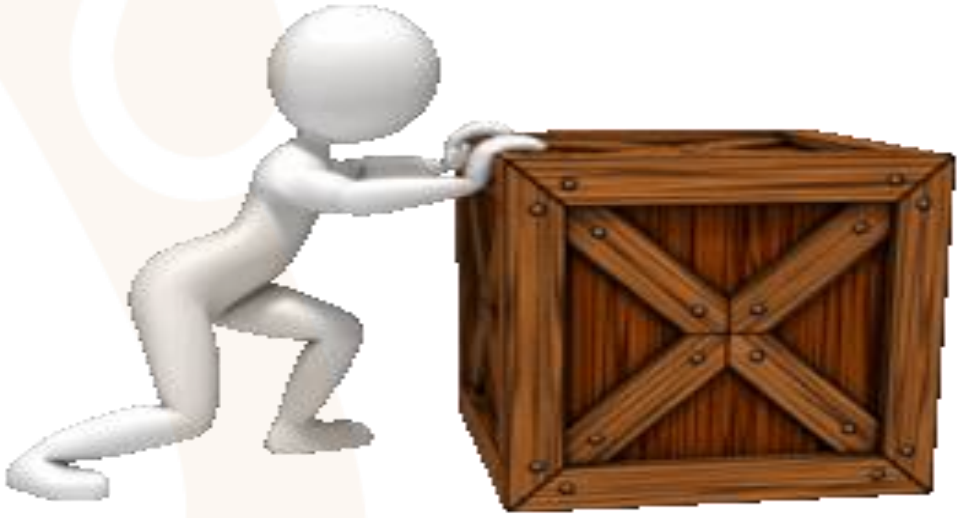
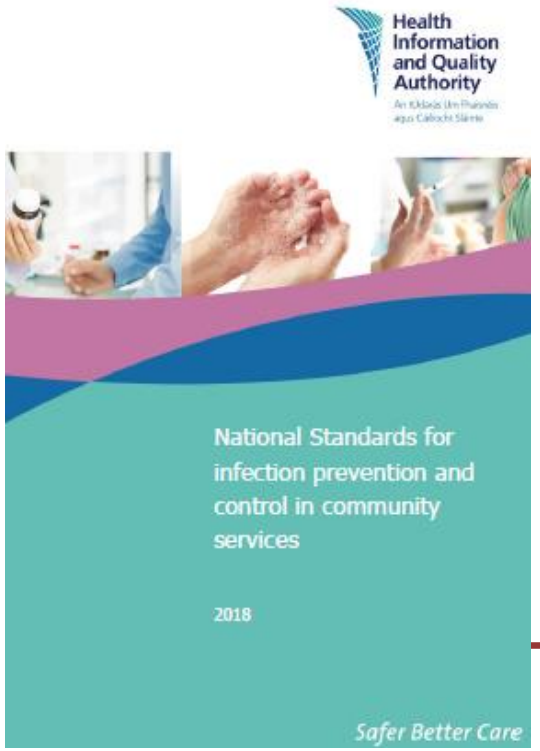
Let`s not make it difficult!



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

Meeting the standard

https://www.hiqa.ie/sites/default/files/2018-09/National-Standards-for-IPC-in-Community-services.pdf



Standard 3.1

Arrangements are in place to support effective hand hygiene practices to minimise the risk of acquiring or transmitting infection.

Features of a service meeting this standard are likely to include the following:

3.1.1 Staff adhere to the World Health Organization's (WHO's) 'five moments of hand hygiene'[v] principles or emerging best practice and relevant national guidance.

3.1.2 Staff adhere to national guidelines and recommendations in order to achieve effective hand hygiene practice when providing care.

3.1.3 Hand hygiene facilities that are appropriate to the setting are provided in line with best practice and national guidelines. Hand hygiene facilities include, for example, clinical hand-wash sinks and hand hygiene products such as soap and alcohol hand-rub, and emollient hand creams.

Standard 4.1

People are empowered to protect themselves and others from healthcare-associated infections and antimicrobial resistance.

Features of a service meeting this standard are likely to include the following:

4.1.1 People are informed, educated and supported to protect themselves and others from the risk of healthcare-associated infection by, for example:

- performing hand hygiene
- practising respiratory hygiene and cough etiquette
- recognising signs and symptoms of infection±
- using antimicrobial medication (including antibiotics) as prescribed
- being aware of the benefits of immunisation
- promoting protective lifestyle factors.¥

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Find the most up to date National Guidance for Infection Prevention and Control

including hand hygiene
at www.hpsc.ie

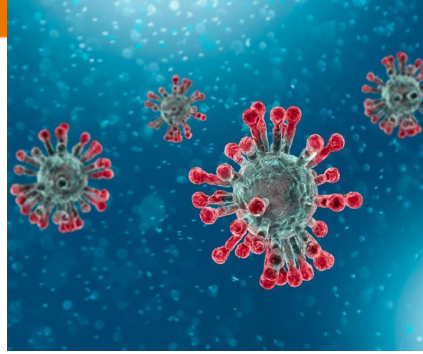
Interim Guidance on Infection Prevention and Control for the Health Service Executive 2021

What are Healthcare associated Infections (HCAIs)?

A healthcare associated infections (HCAI) is infection that can develop either as a direct result of healthcare interventions such as medical or surgical treatment, or from being in contact with a healthcare setting

The term HCAI includes any infection acquired as a direct result of treatment in any health or social care setting or as a result of healthcare delivery in the community (HIQA 2017)

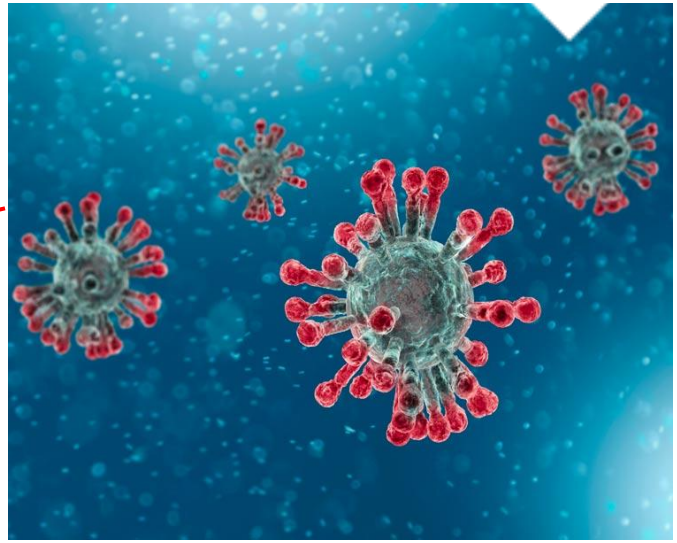
COVID-19 Pandemic



Hand hygiene has become a major global infection prevention and control priority everywhere for preventing avoidable spread and transmission of COVID-19 infection

This is particular significant in the prevention of HCAI during delivery of healthcare

COVID-19 Transmission



Direct spread:
respiratory droplets from coughing or sneezing

Indirect spread:
contaminated surfaces where virus can survive live for several hours

plastic : up to 72 hours
stainless steel : up to 48 hours
copper: up to eight hours

Indirect spread
contaminated hands
(not cleaned)

person infects themselves by touching their eyes, nose or mouth

Examples of Healthcare Associated Infections

- 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**

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)

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

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

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 HCAIs could spread in our own service

Is this avoidable?

More examples of HCAIs

- Clostridium d (C diff.) and Methicillen Resistant Enterococcus (MRSA)
- C diff can be acquired after antibiotic use
- Spread from person to person or picked up in the environment/equipment or healthcare workers hands that is contaminated with C diff.
- MRSA can be transmitted from person to person or again from the healthcare workers hands, environment or equipment

Example of a HCAI which is preventable

- Catheter associated urinary tract infections (CAUTI).
- By reducing the number of people that access/ manipulate the catheter
- By ensuring that those that do access/ manipulate the urinary catheter, do it correctly and consistently
- Good Hand hygiene practices will help reduce the risk of CAUTI for the person that has the urinary catheter in place

World Health Organization

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

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

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

How are HCAIs 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.

HCAI & Patients Rights Perspective

People that carry /infected with AMROs 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

RESIST

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 on patients and their families

Acute v primary and community healthcare settings

Anywhere outside an acute hospital where healthcare is provided. Examples include

- **Social care**: older persons and disability services long term care facilities, residential homes/hostels, day hospitals and day centres
- **Mental Health**: long term care facilities, , day hospitals and day centres, and residential homes/hostels
- **Primary care**: health centres, dentistry, addiction services, GP practice and patients home.

Evidence to support hand hygiene in long term care facilities

- HALT study 2010, 2011, 2013 and 2016
- 224 facilities surveying 10,044 residents
- HCAI prevalence rate 2016 = 4.7% (1in 20 residents)

Most common HCAIs:

- Respiratory Tract Infections
- Urinary Tract Infections
- Skin and Soft Tissue Infections

How can you pass infection from your hands?

How are HCAIs reduced?

Multimodal approach:

- Hand hygiene education
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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 Exit
Where the germs leave the reservoir: includes the nose,mouth, back passage, urinary tract or blood and body fluids

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

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

Why hand hygiene is so important

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

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 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 ~

Voss A and Widmer AF, *Infect Control Hosp Epidemiol* 1997:18;205-208.

What are the challenges with hand hygiene in our workplace?

‘Train- the- Trainer’ Part 2

Understanding **when** and **how** we clean our hands

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 is dependant on care and in which their equipment and personal items are kept
- health-care area is the environment directly outside of the patient zone

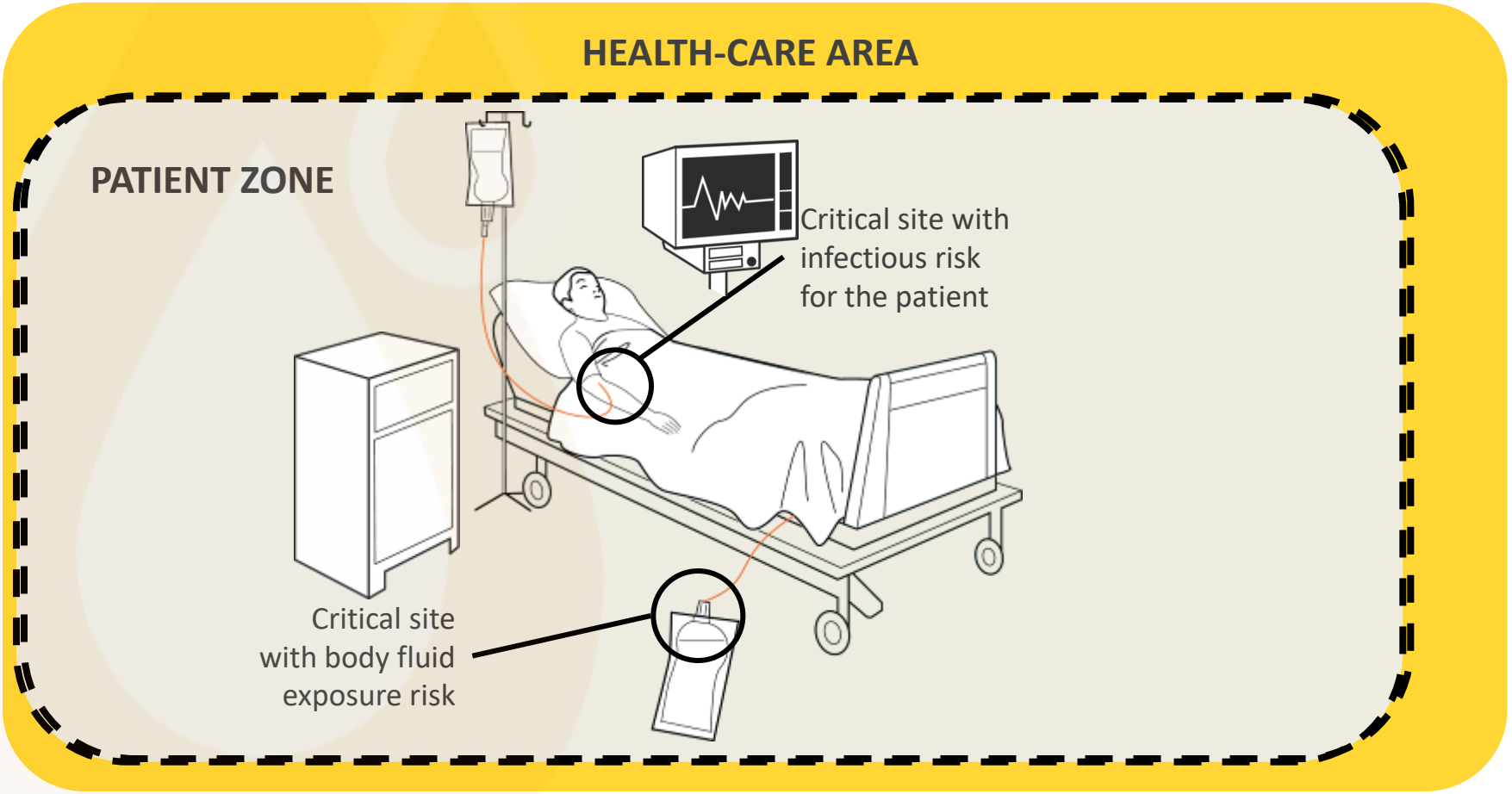
Definitions of patient zone and health-care area

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

It includes:

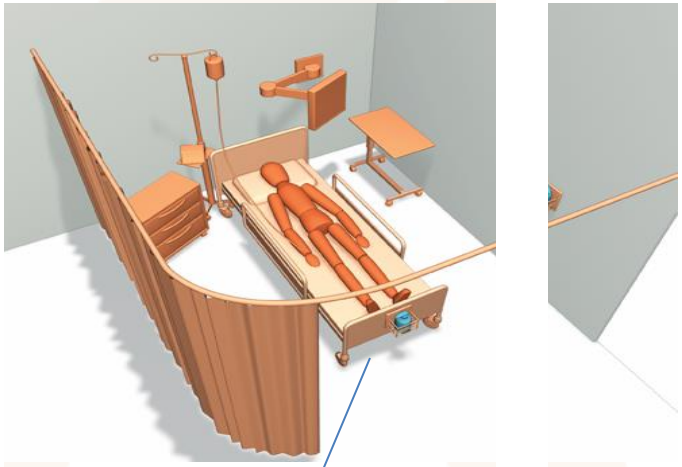
- Area outside patient zone
  - Sluice, clean utility, reception desk and wider environment outside of the patient zone

Health care area and patient zone



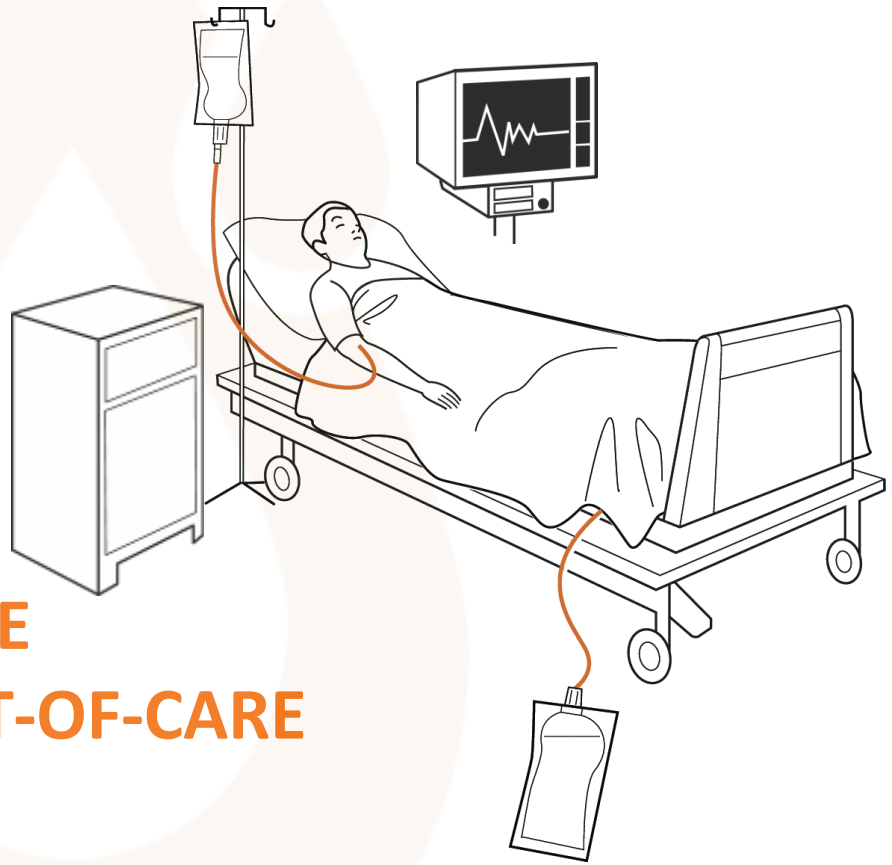
The Patient Zone

Single room



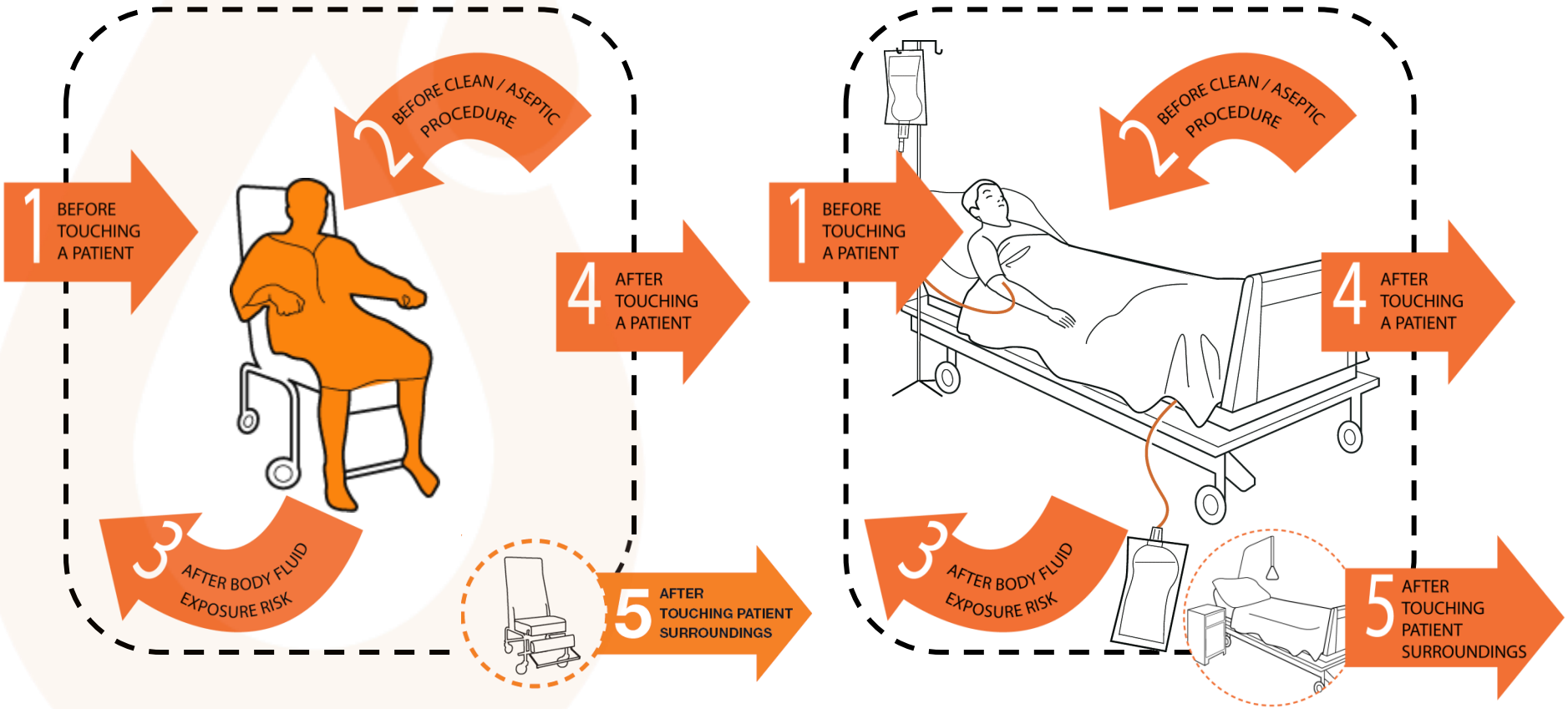
Multi resident room

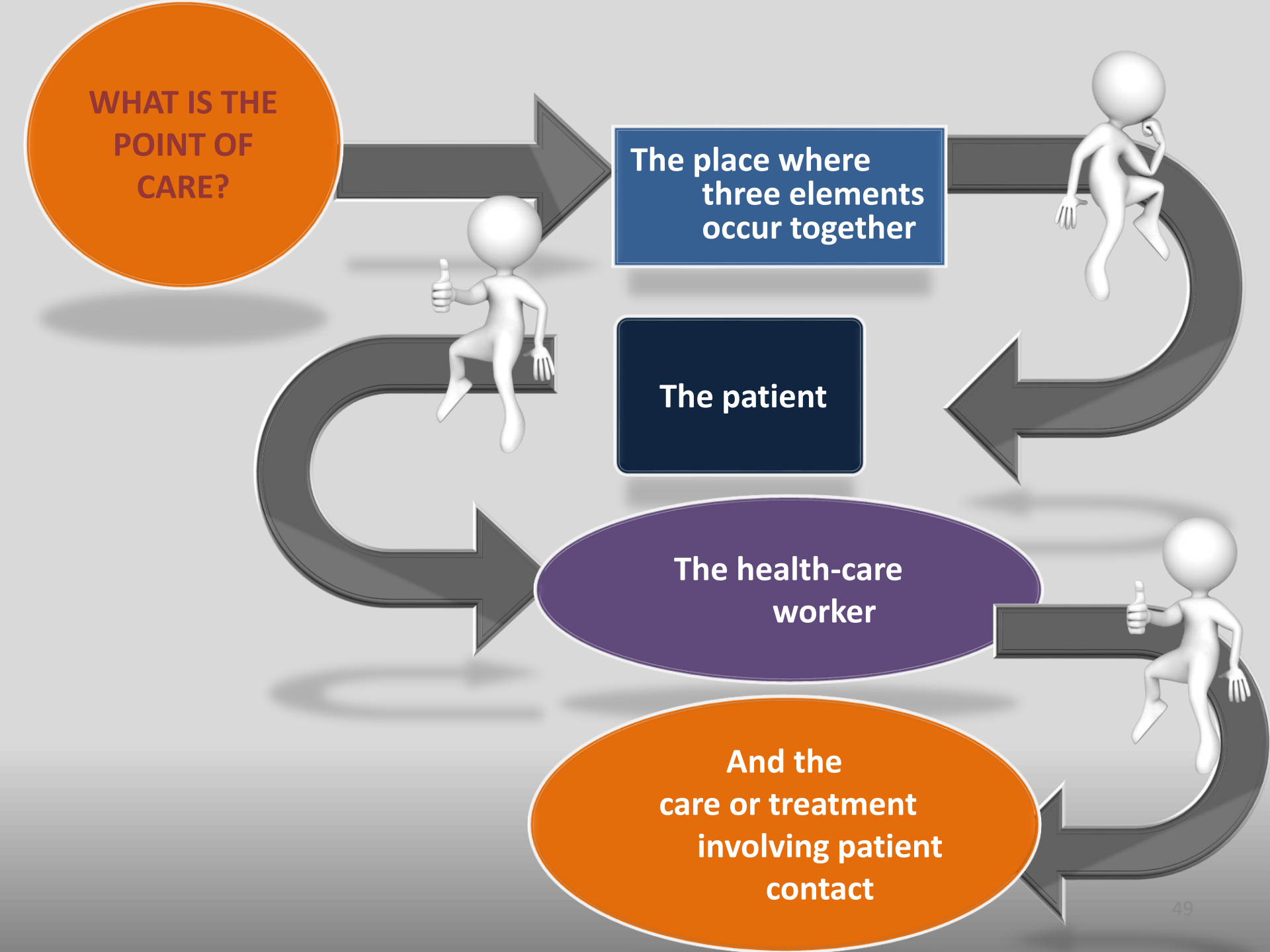
HAND HYGIENE SHOULD BE PERFORMED



AT THE POINT-OF-CARE

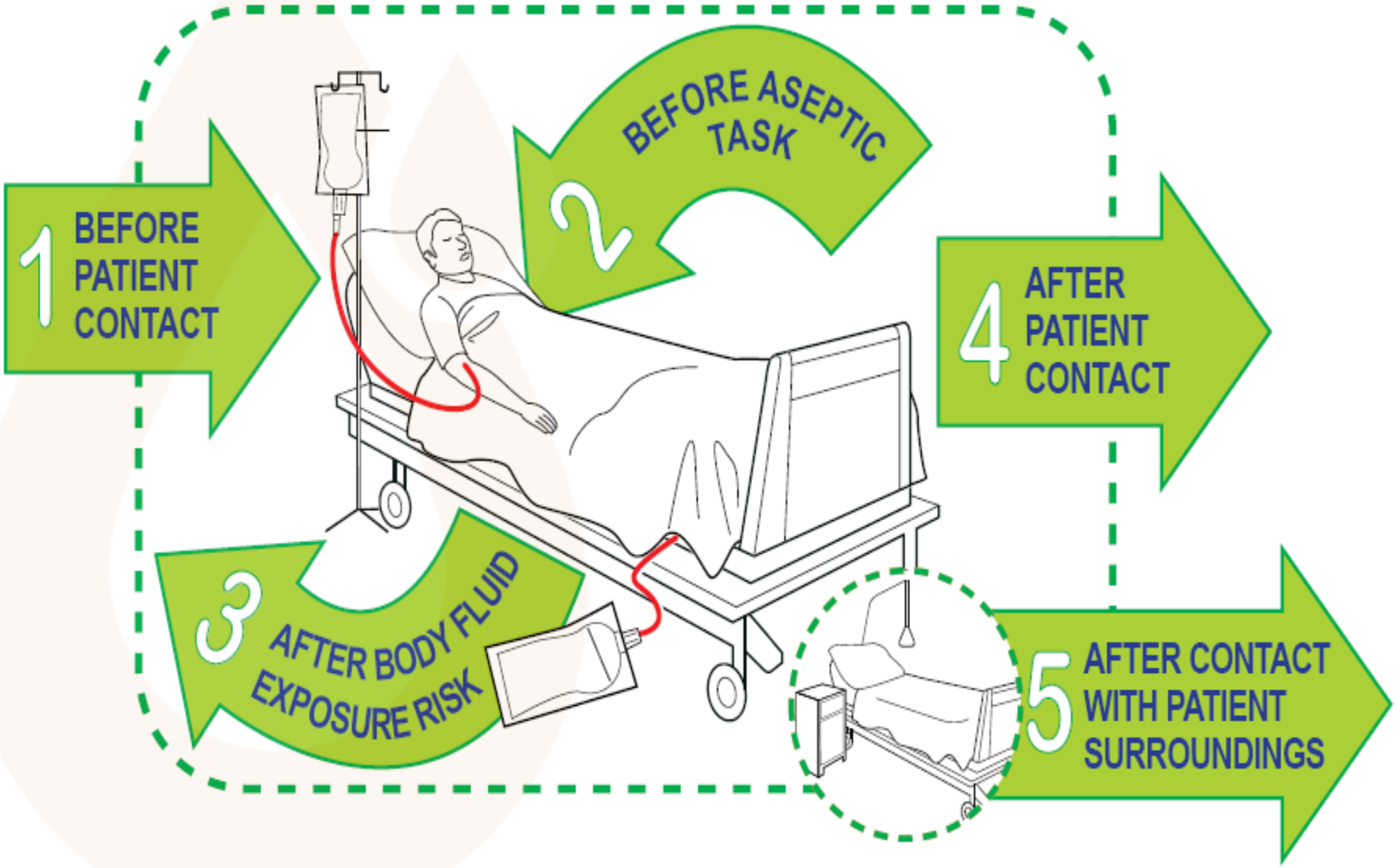
The 5 Moments apply to any setting where health care involving direct contact with patients takes place




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’

Your 5 moments for HAND HYGIENE



Based on WHO poster 'Your 5 Moments for Hand Hygiene' and reproduced with their kind permission

Moment 1 -Before Touching the patient

When - clean the hands before touching the person you are delivering care to

Why - to protect the person receiving care from microorganisms carried on the HCWs hands

Examples

- assisting with personal care, assistance with eating
- prior to changing incontinence wear
- taking pulse, blood pressure and examination of skin

FIGURE 3

Example of Moment 1 occurrence in a paediatric consultation

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/resident/client from microorganisms, from entering his/her body

Examples:

- oral care, suctioning, administering eye drops
- skin lesion care, wound dressing
- urinary catheter care & insertion
- accessing or commencing IV therapy, enteral feeding procedure
- taking samples, blood, urine

Example of Moment 2 occurrence during dental care

Moment 3 -After Body Fluid Exposure Risk

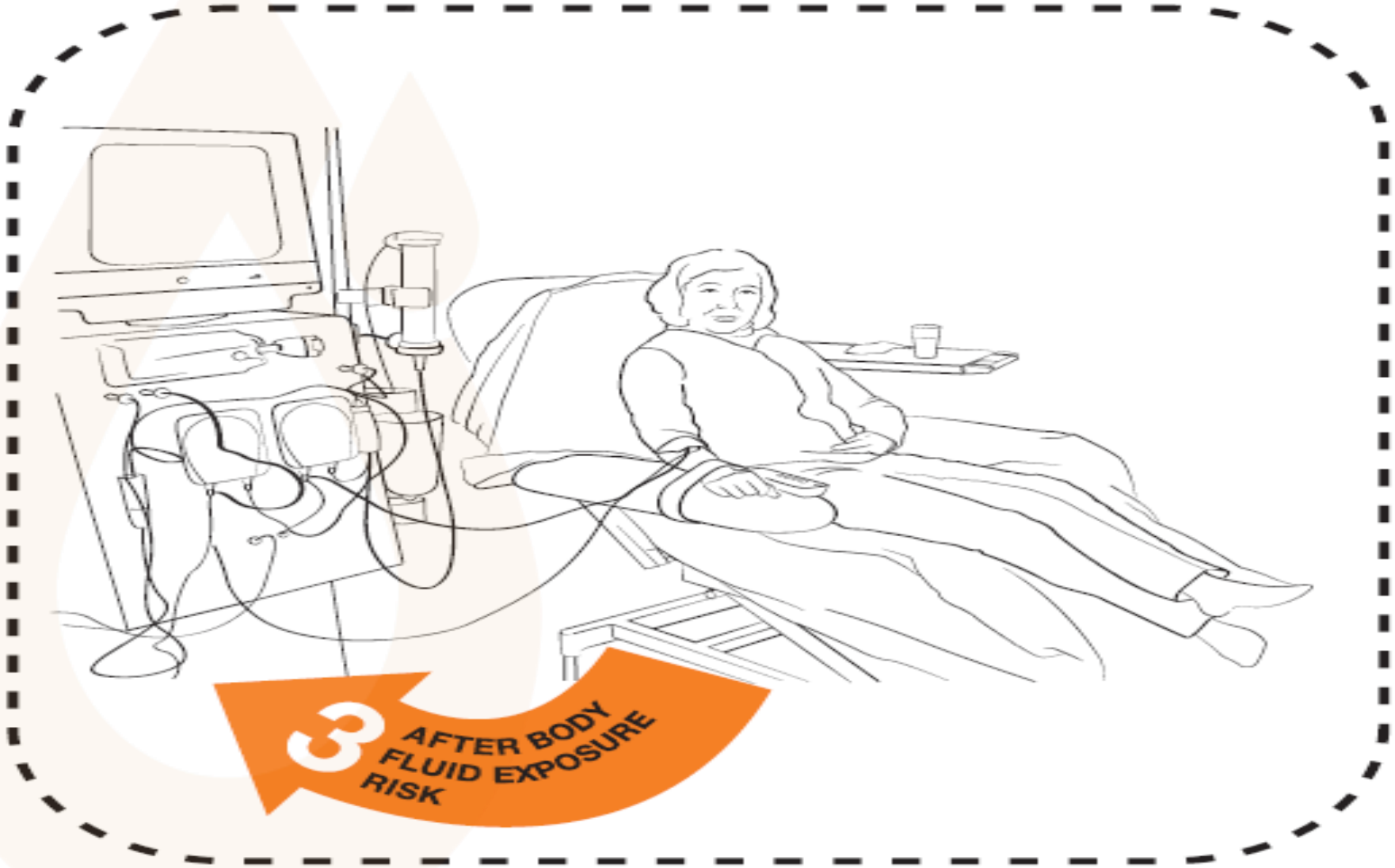
When- clean the hands immediately after an exposure risk to body fluids (and after glove removal)

Why- to protect staff and the healthcare environment from microorganisms

Examples

•clearing up urine, faeces, vomit, handling waste (dressings, incontinence pads)
•cleaning of contaminated and visibly soiled material or areas (bathroom, commodes)
•oral care, suctioning
•skin lesion care, wound dressings, administering injection
•taking blood, CSU, handling emptying urinary catheters

Example of Moment 3 occurrence during haemodialysis in ambulatory care



Moment 4 - After Touching the Patient

When - clean the hands after directly touching the person when you have completed the care you are providing

Why - to protect the HCW and the healthcare environment from microorganisms

Examples:
- helping someone to get washed, get dressed
- taking pulse, blood pressure
- after performing an examination on someone

Moment 4 : After touching the patient

Example of Moment 4 occurrence in a paediatric consultation

Moment 5 -After Touching thePatient/ Residents Surroundings

When- leaving the patients immediate surroundings(e.g. bed space, bedroom or home)

Clean the hands after touching any object or furniture or personal items belonging to the person you are caring for even if you have not directly touched the person

Why- to protect the HCW and the healthcare environment from microorganisms

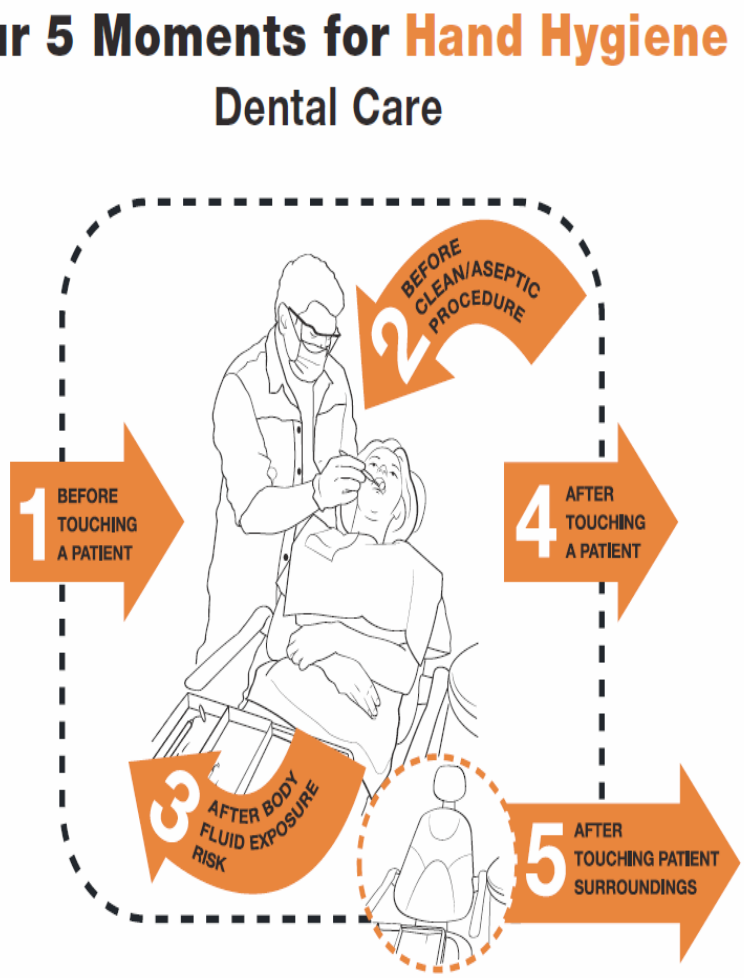
Examples

- touching personal items
- leaving someone's bedroom or home

Outpatients Setting 1

Applies where the patient is placed **<u>in a dedicated space for a certain amount of time with dedicated equipment</u>** – in this case the environment will become contaminated –

e.g. Day ward area, dental procedure area shedding in a wound care clinic

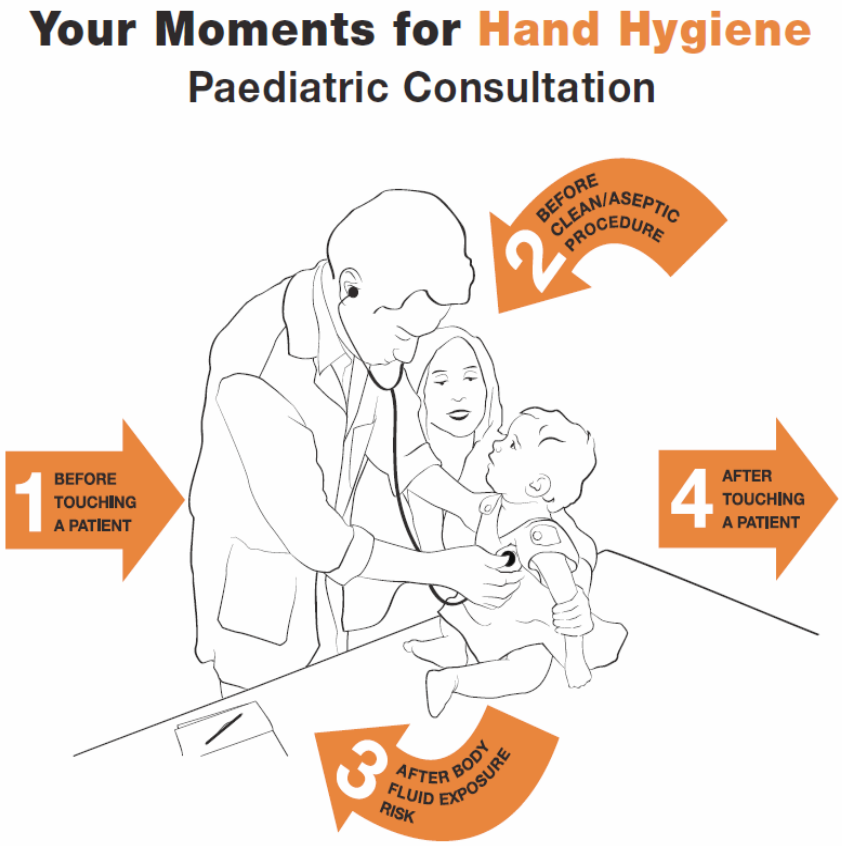


Outpatient Settings 2

- The patient is considered the patient zone as the space and equipment is **not exclusively dedicated** to the patient for any prolonged time

e.g. vaccination clinic, dental unit, OPD consultation room.

Any suggestions from your practice??



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 (indications) when it is essential that you perform hand hygiene using "**My 5 Moments for Hand Hygiene**" approach

To clean your hands, you should prefer hand rubbing with an alcohol-based hand rub, if available. Why? Because it makes hand hygiene possible right at the point-of-care, it is faster, more effective, and better tolerated

You should wash your hands with soap and water when visibly soiled or when when caring for someone with C.diff where gloves have been breached or damaged

You must perform hand hygiene using the appropriate technique and time duration.

Update to Hand Hygiene Practice Recommendation

Use alcohol hand rub or hand washing following care delivery to someone with C.diff

If gloves have been breached or become damaged hand wash with soap and water only

Approved and updated by National NCEC Guidelines Committee 2020

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)

file:///F:/Coronavirus/guidelines/Interim%20HSE%20Guidance%20on%20IPC.pdf

What does this mean in practice?

Providing you remove your gloves properly and gloves are intact after care provided, you may use an alcohol hand rub or hand wash with soap and water to clean your hands.
There is no evidence to suggest that either approach to hand hygiene is proven to be more effective

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

Workshop exercise

Scenarios for each of ‘The 5 Moments

Each healthcare worker will take time individually to reflect and give examples from within the group of how each hand hygiene moment applies in their area of work

How do we clean our hands?

- Handrubbing with alcohol-based handrub is the preferred routine method of hand hygiene if hands are not visibly soiled

- Handwashing with soap and water is essential when hands are visibly soiled

Practical Workshop:

Demonstration of hand hygiene technique

- Divide into groups and IPCN will demonstrate application of ABHR
- Each HCW will demonstrate the technique
- Observation feedback from peers in group on the HCW demonstration
- Complete same exercise for hand washing technique
- Self evaluation of trainers by applying ultraviolet cream / ultraviolet gel and observe areas of hands that have been missed under hand hygiene inspection cabinet

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

Gloves are the worst enemy of hand hygiene!

- Wearing gloves is a significant risk factor for poor hand hygiene compliance
- Addressing glove use with hand hygiene education and training is critical to improve patient safety and protect healthcare workers from infection transmission

Examples of when we wear gloves

Changing bed linen which is not soiled	No gloves recommended
Handling soiled laudry	Gloves recommended
Assisting with personal care or wash	Gloves sometimes needed depending on level of personal care
Assisting with preparing meals or feeding	Gloves are not usually recommended
Caring for someone with diarrhoea	Gloves recommended
Undertaking a clients blood sugar test	Gloves recommended

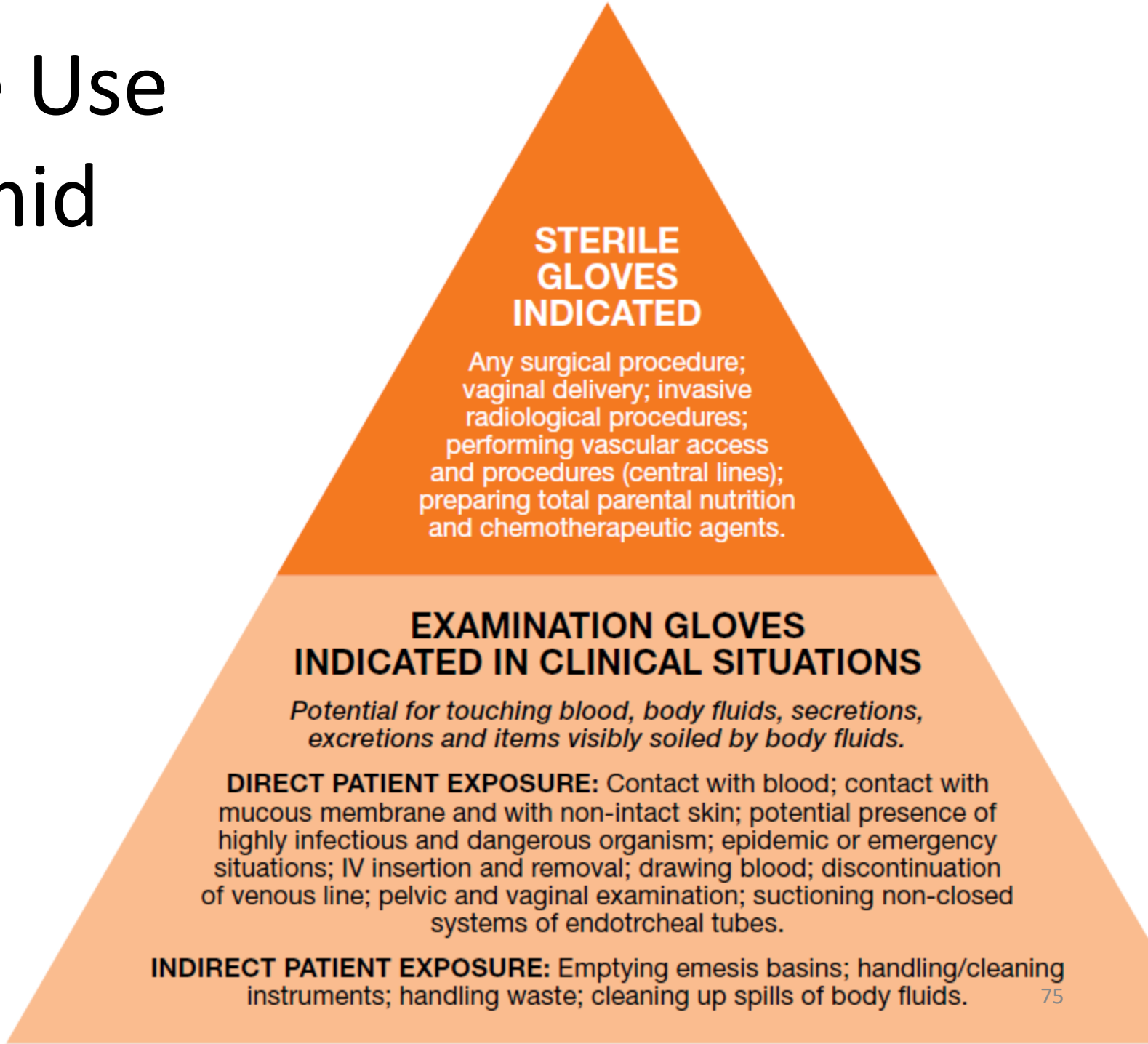
What should prompt you to wear gloves?

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

- Direct contact with broken skin ie. rash or a 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

Glove Use Pyramid



- Next Steps
- Having reflected on hand hygiene in your workplace can everyone individually identify a change in practice they might start with to improve hand hygiene

Embedding a Culture of hand hygiene

Helpful tips for hand hygiene assessors

- Place "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 consider practice changes
- Answer questions as they arise and use the materials provided to support you
- If you cannot answer on the spot - make a note of the question and link with infection prevention and control nursing support where possible or line manager for additional support
- Encourage the staff you work with to jointly come up solutions with you, as to what works best to improve hand hygiene practice in your own team/service

Getting Started as a Hand Hygiene Trainer

- Get started as soon as possible from the training day
- Liaise with the head of service who nominated you as a trainer
- 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 after completing the theory content
- Ensure staff sign attendance record and give to Head of Service/Facility

Role of Hand Hygiene Trainer-recap

Local change agent to improve hand hygiene practice with education and knowledge using standardised materials

Have you a plan in place?
Do you have a date and time set to deliver the next education session?
Who do you intend to deliver training to?

- Staff who have not undertaken training in the past 2 years
- New member of staff in the service
- Don't leave out agency/locum staff- every person who delivers care is a member of the team and this matters to the patients/residents
- Outbreak situation- opportunity to recap

Have you had a chance to discuss this recently with your line manager?
Are you getting support and protected time?
Can you be opportunistic during your working day?

Frequently asked question from trainers

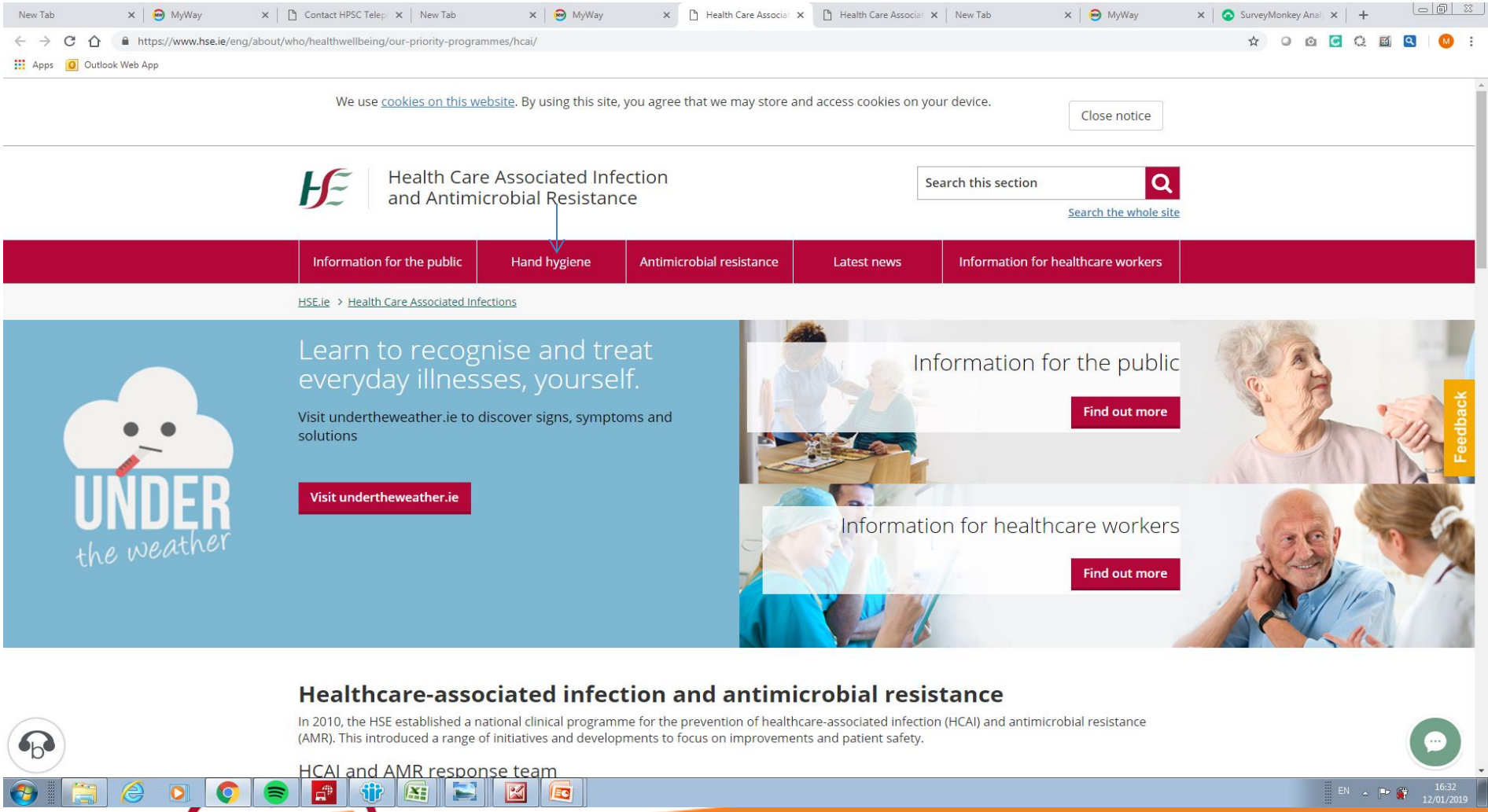
Q. How long should we allow to deliver the training

Everyone has their own style of training and so long as the standardised training materials are used there is no prescribed amount of time- most trainers report about 30-45 minutes.

This can depend on numbers of staff present as it will take longer to teach the hand hygiene technique with larger numbers

With more practice, like anything it gets easier with experience and familiarity of training materials and methods

www.hse.ie/hcai



RESIST

THANK YOU VERY MUCH

HSE National AMRIC Team

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