

# Hand Hygiene

## Printable learning resource

### What is this resource?

This resource is based on the e-learning module “NES: Hand Hygiene” from the **Scottish Infection Prevention and Control Education Pathway**.

The aim of this document is to make the e-learning content available to learners who

- do not have regular access to a computer and/or a network
- do not yet have the necessary IT skills or confidence to complete e-learning
- have different needs and therefore e-learning is not suitable for them.

All screen captures from the original module are included.

### How should this resource be used?

This resource can either be

- uploaded as a PDF file to tablets or other digital devices without internet access, or
- printed. (Printing in black and white is sufficient.)
  
- All navigational instructions on the screens in this document should be ignored.
  
- We have given instructions on how to complete interactivities and questions.
  
- A space has been provided for staff to make any additional notes after each topic.

### Internet access

Internet access is required for the following:

**Online feedback form and web links** for additional resources. Staff should be enabled to use web links and complete the feedback form if at all possible.

**Online assessment.** The online version of this resource consists of the e-learning module and a separate online assessment, and staff should be enabled and encouraged to complete this online assessment locally.



# Hand Hygiene



[Learn how to navigate this module.](#)

Start

## Hand hygiene - what's stopping you?



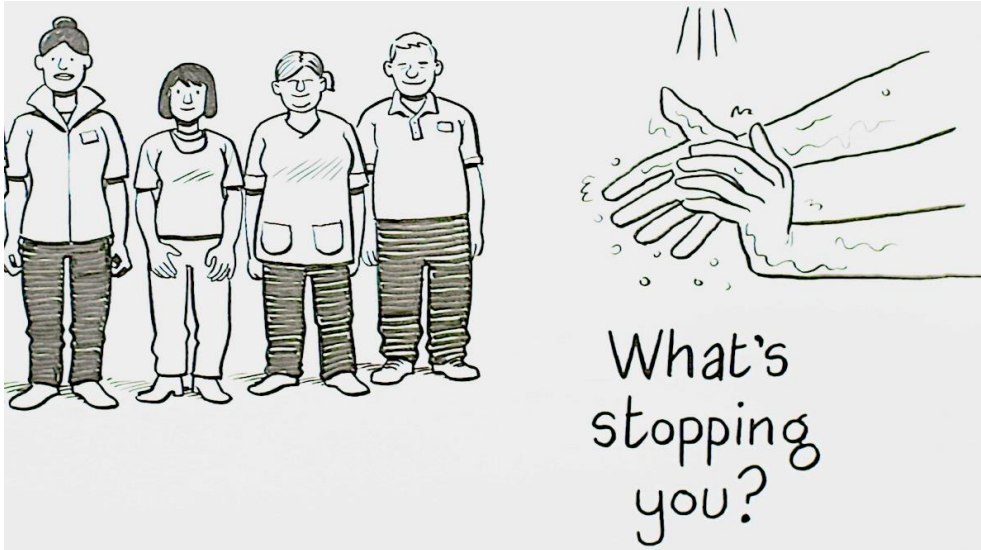
Watch this animation to find out what's stopping people doing hand hygiene:

Hand Hygiene  
What's stopping you

www.nes.scot.nhs.uk



If you can't listen to the sound, please view the [animation with subtitles](#).



Video transcript:

Everybody working in health and care in Scotland has a role to play in making a real difference to infection, prevention and control by performing hand hygiene at the right times, and in the right way.

Hand hygiene isn't difficult. But it's not always performed correctly.

So why not? And what's stopping YOU?

Let's take a closer look.

Here is one of our cleaners. She has been working for the NHS for twenty years.

She is proud of the fact that she has never got sick or picked up an infection from anything or anybody at work.

But hand hygiene is not just about protecting yourself but protecting others. She could have still infected others by not performing hand hygiene.

Here is one of our nurses. He tries hard to perform hand hygiene before and after touching anyone in his care or anything that they have touched.

But there are critical times when he doesn't perform hand hygiene.

He struggles with constant disruptions and urgent tasks to attend to and doesn't always perform hand hygiene every time before he touches someone in his care.

This care worker used to perform hand hygiene a lot!

So much so her hands are now very dry and itchy from a particular soap that she used.

Now she tends to avoid hand hygiene whenever she thinks it is ok!

When the doctor hears there has been an outbreak of flu, she is extra careful and performs hand hygiene at every given opportunity! She doesn't want to catch it!

But when there are no outbreaks of infection, she copies someone else and performs hand hygiene less often.

This dental nurse wears disposable gloves to protect herself whenever she can. But she keeps them on when there is no need to, putting patients at risk by missing key moments for hand hygiene.

This porter knows exactly when he is supposed to perform hand hygiene. But sometimes factors that seem out of his control prevent him from performing hand hygiene.

If he looks, there's usually a simple solution.

So what is stopping YOU?

Think of it like 'a war against infection' and you are in the front line.

Your actions can stop infection spreading to people in care, to you, and to your family.

Performing hand hygiene should be like brushing your teeth.

It needs to be done consistently, correctly and regularly - every day and every time.

Everyone is very busy and there are so many other important things to do. But hand hygiene IS important.

You need to stop and think, and take the correct actions to save time dealing with infections.

This is everyone's responsibility.

So what's stopping you?

## Aim

The aim of this module is to help you prevent the spread of harmful micro-organisms (germs) to others through consistent and correct hand hygiene practices.

It's important that you demonstrate good hand hygiene practice at work and improve on what you already do.

This module is suitable for **all** staff new to health and social care as well as more experienced staff who wish to refresh their knowledge or bring their skills up to date.



< PREV NEXT >

## Learning outcomes

After completing this module, you will be able to:

- describe the role of hand hygiene in preventing the spread of infection
- select the correct product and the appropriate hand hygiene method
- perform the steps for hand washing and applying Alcohol Based Hand Rubs
- identify when you need to perform hand hygiene
- take care of your hands to minimise the risk of infection
- identify and report areas of concern relating to hand hygiene appropriately.



< PREV NEXT >

## Overview

There are 4 topics in this module.

Once you have visited **all of the screens** in this module, you will be able to access the separate assessment.

You will need to pass this assessment with an **80% pass mark** in order to get a certificate of completion.

**Topic 1:**  
Introducing hand hygiene

**Topic 2:**  
How to perform hand hygiene

**Topic 3:**  
When to perform hand hygiene

**Topic 4:**  
Making a difference



This module should only take you about **30 minutes** to complete.

< PREV NEXT >

## Topic 1: Introducing hand hygiene

In this topic, you will learn about:

- what hand hygiene means
- where you are most likely to pick up micro-organisms from the environment
- how micro-organisms spread.

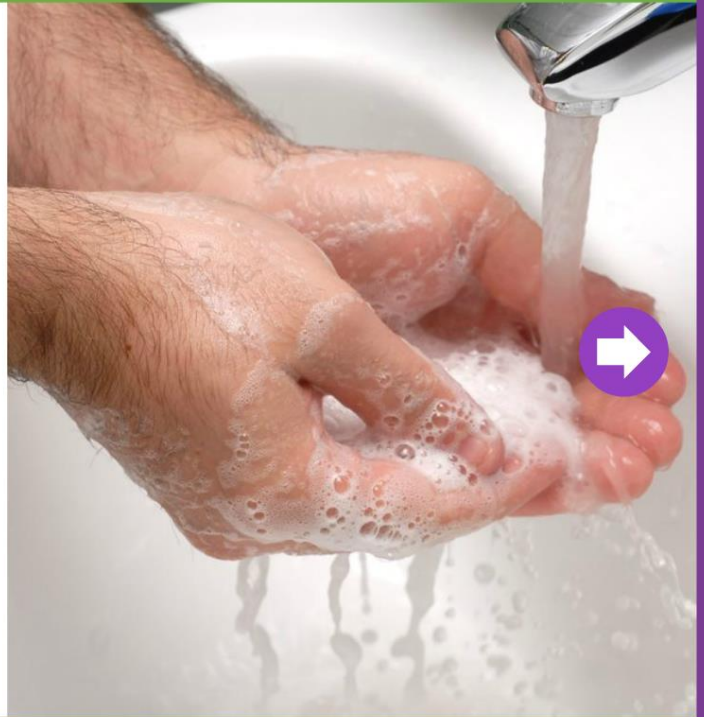
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## What is hand hygiene?

Hand hygiene is a general term used to describe:

- **Washing your hands** with liquid soap and water.  
or
- **Applying an Alcohol Based Hand Rub.**

Bar soap can become heavily contaminated with micro-organisms, especially if it's been sitting in a puddle of water, so it should not be used when delivering care.



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Hand hygiene is one of the 10 **Standard Infection Control Precautions** (SICPs).

It is one of the most important things you can do to **reduce the spread of harmful micro-organisms** which can cause Healthcare Associated Infections (HAIs).

It is necessary for a safe, clean and healthy care environment.



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> Topic 1:

Introducing hand hygiene

Who might be at risk of infection as a result of you **not** performing hand hygiene correctly in the workplace?



A person receiving care



Your work colleagues



You



Your family



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> Topic 1:

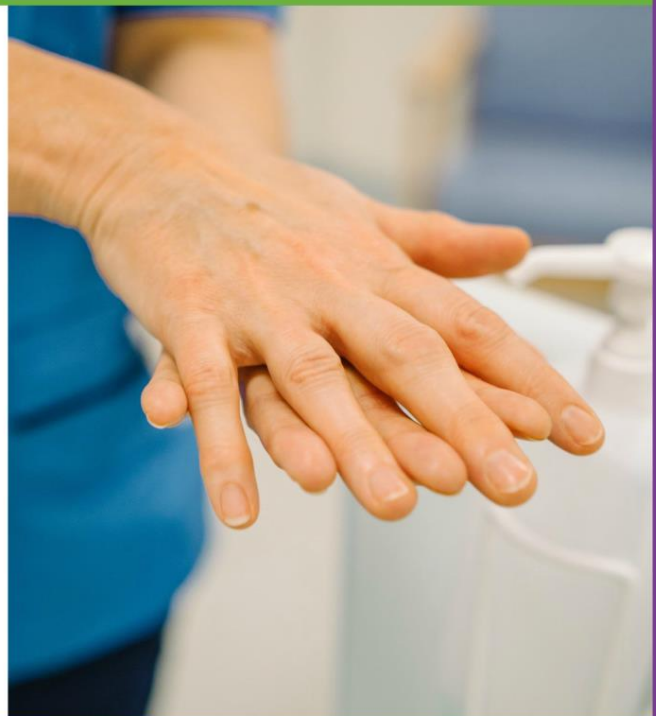
Introducing hand hygiene



How would you feel if you passed on harmful micro-organisms to someone, because you did not **take the time** to perform hand hygiene and they developed an infection? And how would they feel?

Take the time now to save time later dealing with infections.

You might help **save a lot of pain and suffering** for somebody.



< PREV NEXT >

> Topic 1: Introducing hand hygiene



### Micro-organisms are everywhere!

**Micro-organisms are all around us.** They are on our body and on food, and in the environment at work, in our home and in social settings. They are commonly found on areas that are frequently touched by hands. Micro-organisms can grow in a variety of environments, but many thrive and multiply in warm temperatures and moist areas.



On the next screen, select the objects you frequently touch at work to see where you have the **highest risk of picking up micro-organisms on your hands.**

< PREV NEXT >

> Topic 1: Introducing hand hygiene



Select the objects you frequently touch at work to see where you have the **highest risk of picking up micro-organisms on your hands.**

Bin lids	Telephones	Computer keyboards	Pens	Used paper tissues
Toilet handles	Chair armrests	Sides of beds	Stethoscope diaphragm	Dental lights
Hand operated taps	Commodes	Window ledges	Wet mop heads	Care records
Walls	Floors	Intravenous drip stands	Sealed used linen bags	Clipboards
Sealed waste bags	Water in vases of flowers	Money	Door handles and plates	Soap dispensers

KEY High Risk Medium Risk Low Risk

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## Micro-organisms on your hands

So what do these micro-organisms look like when they get onto your hands and are there really that many?

The simple answer is YES! There are micro-organisms all around us everyday.

Let us take a closer look at **what happens** when you touch money.

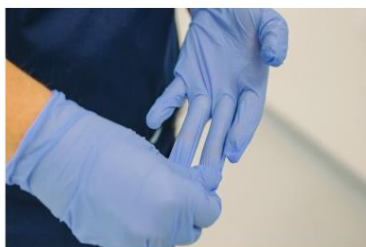


Select the money below:



## How do micro-organisms spread?

You can spread micro-organisms by touching the objects and people around you with your hands. There are many other ways that you can also spread these micro-organisms.

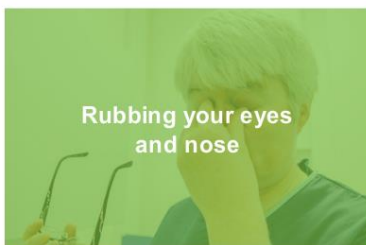


# How do micro-organisms spread?

You can spread micro-organisms by touching the objects and people around you with your hands. There are many other ways that you can also spread these micro-organisms.



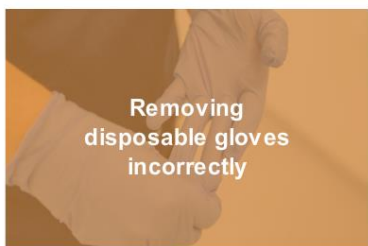
Coughing and sneezing



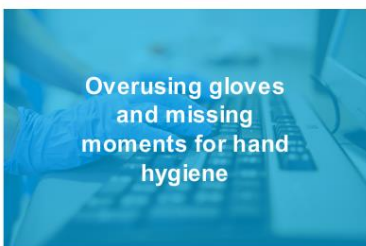
Rubbing your eyes and nose



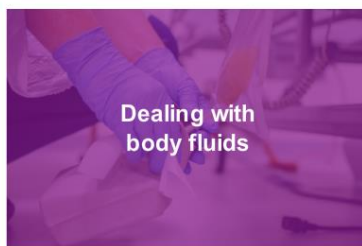
Touching your hair and mouth



Removing disposable gloves incorrectly



Overusing gloves and missing moments for hand hygiene



Dealing with body fluids

# How do micro-organisms spread?

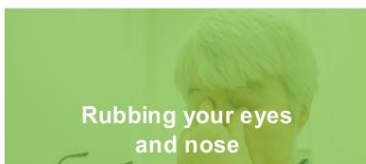
You can spread micro-organisms by touching the objects and people around you with your hands. There are many other ways that you can also spread these micro-organisms.



Select each of the images to find out how:



Coughing and sneezing



Rubbing your eyes and nose



Touching your hair and mouth



Think of occasions when you do any of these actions, and then touch somebody or something else. Consider how easily micro-organisms spread from you to other objects or people.

Removing disposable gloves

Overusing gloves and missing moments for hand hygiene

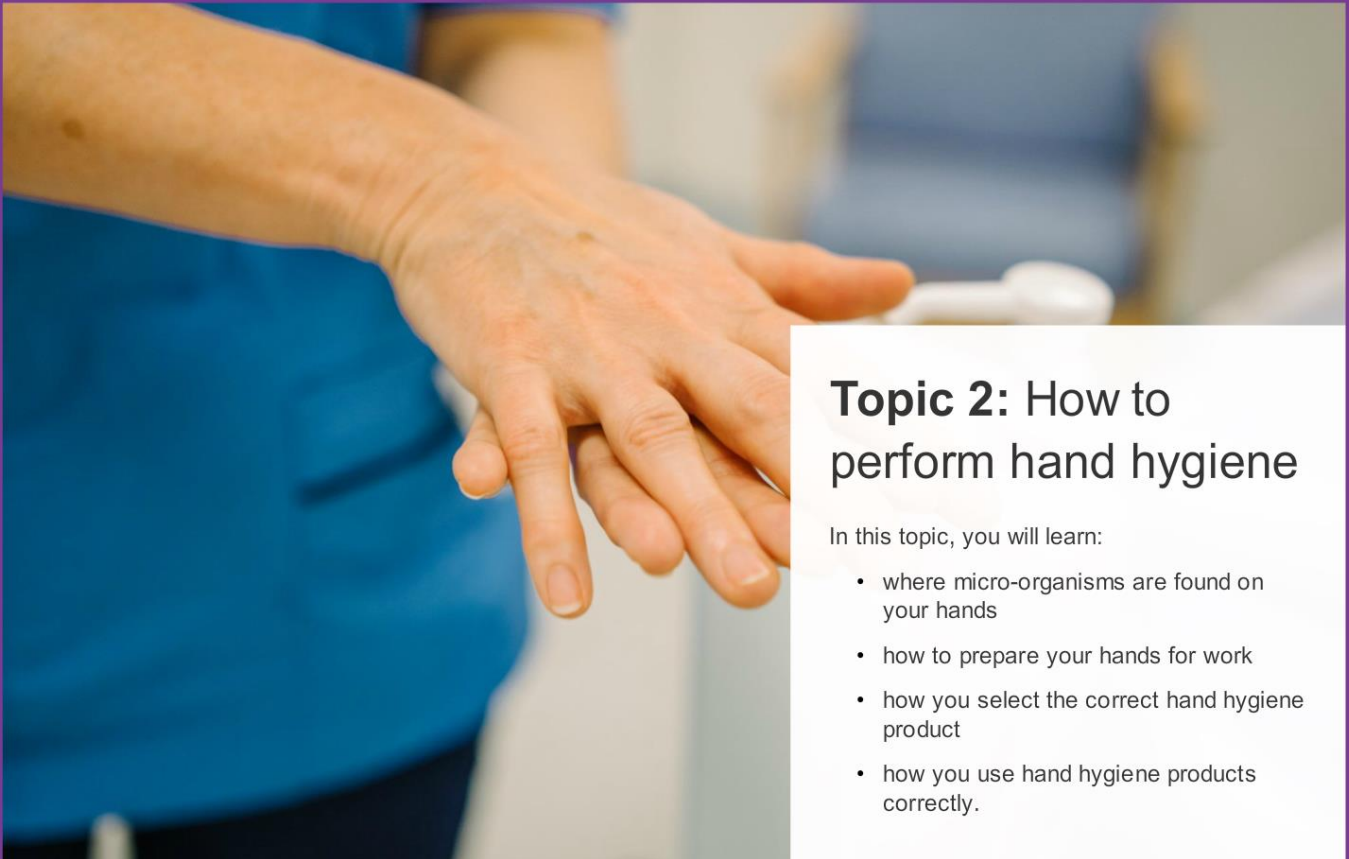
Dealing with body fluids



For information on how to correctly remove disposable gloves, access and download Appendix 6 - Putting on and removing PPE from the [National Infection Prevention and Control Manual](#).

National Infection Control Manual link: [www.nipcm.hps.scot.nhs.uk/](http://www.nipcm.hps.scot.nhs.uk/)

**Notes for Topic 1: Introducing hand hygiene**



## Topic 2: How to perform hand hygiene

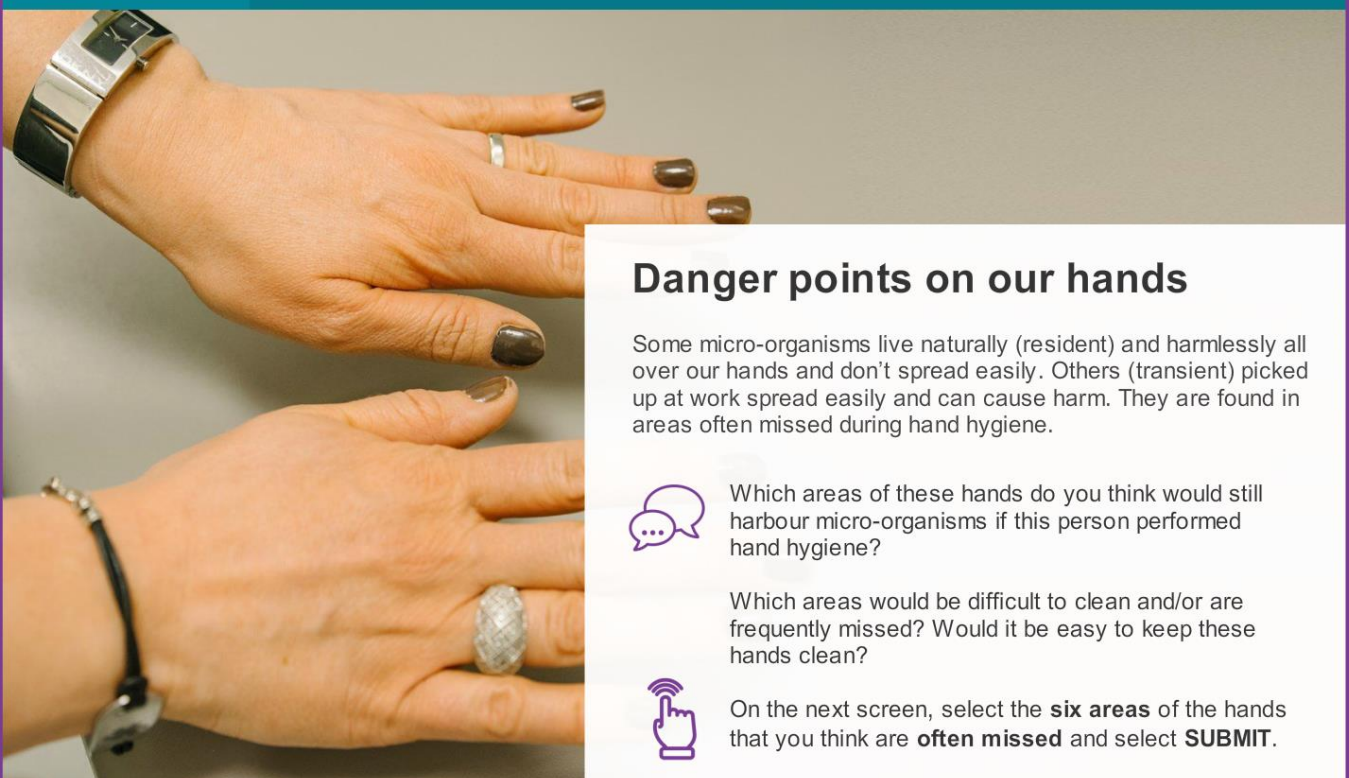
In this topic, you will learn:

- where micro-organisms are found on your hands
- how to prepare your hands for work
- how you select the correct hand hygiene product
- how you use hand hygiene products correctly.

< PREV NEXT >

> Topic 2:

How to perform hand hygiene



## Danger points on our hands

Some micro-organisms live naturally (resident) and harmlessly all over our hands and don't spread easily. Others (transient) picked up at work spread easily and can cause harm. They are found in areas often missed during hand hygiene.



Which areas of these hands do you think would still harbour micro-organisms if this person performed hand hygiene?

Which areas would be difficult to clean and/or are frequently missed? Would it be easy to keep these hands clean?

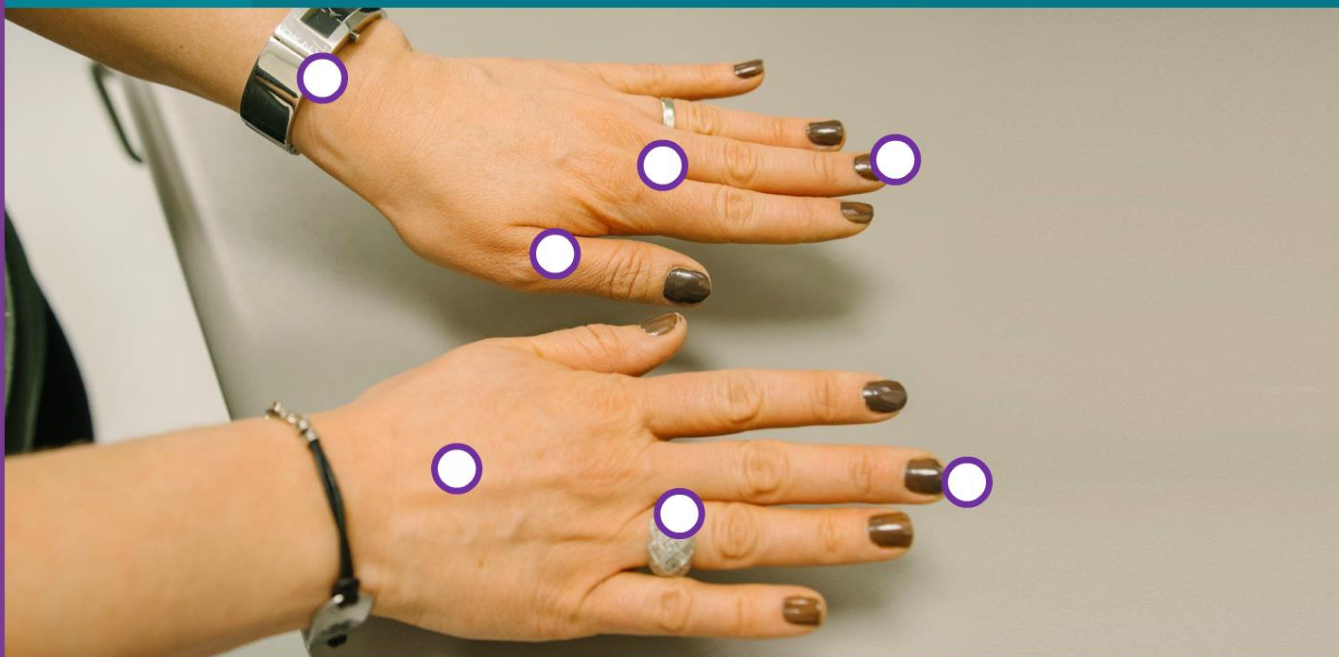


On the next screen, select the **six areas** of the hands that you think are **often missed** and select **SUBMIT**.

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## &gt; Topic 2:

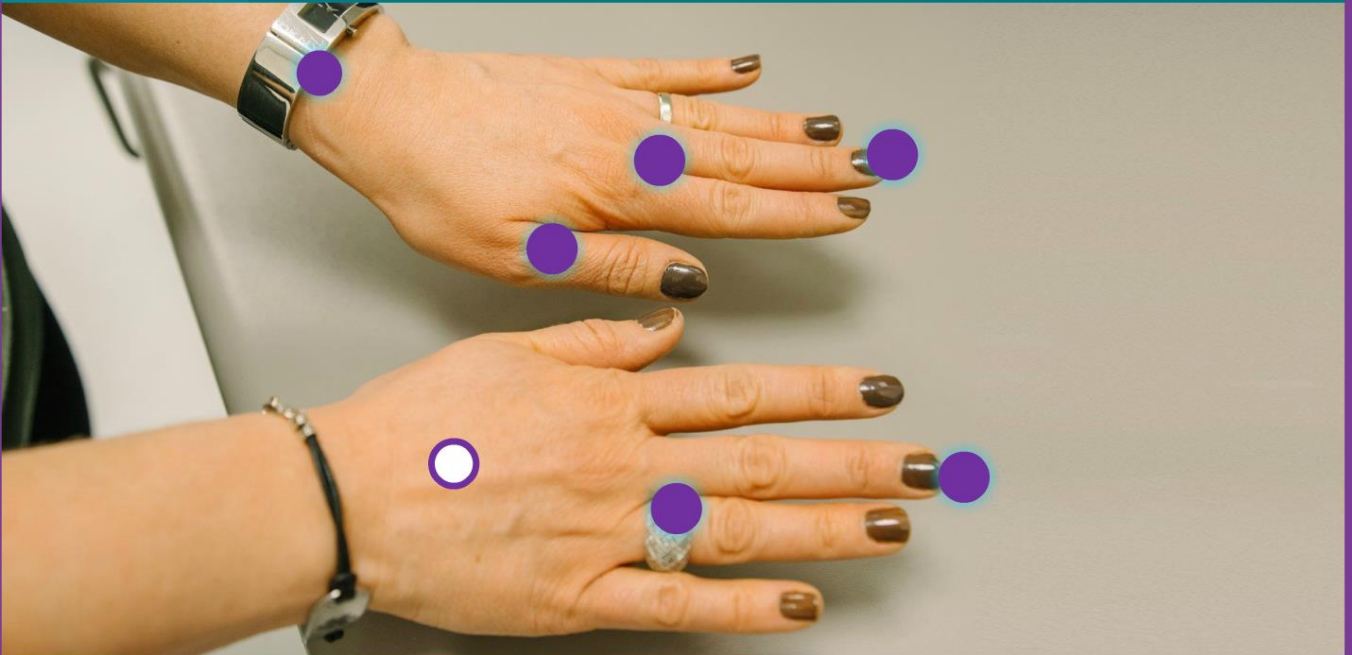
## How to perform hand hygiene



Select the **six areas** of the hands that you think are **often missed** and then select **SUBMIT**.

< PREV SUBMIT

Please try to answer the question above and then check the answer and the feedback on the following page.

**> Topic 2: How to perform hand hygiene**

Select the **six areas** of the hands that you think are **often missed** and then select **SUBMIT**.

[< PREV](#) [SUBMIT](#)

## Correct

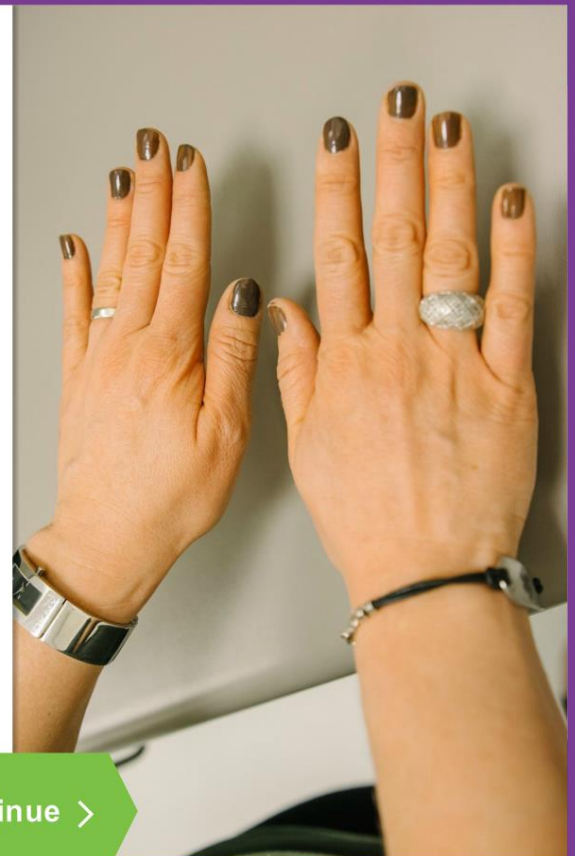


**That's correct.** The following areas are difficult to clean and/or often missed during hand hygiene:

- fingertips
- between fingers
- under rings
- under wristwatches/bracelets
- under nails
- around the thumb.

Research has shown that especially the thumbs, areas between the fingers and the fingertips are often missed. These are areas that frequently touch people and the environment and can spread micro-organisms.

**These hands are not easy to clean and not fit for work.**



[Continue >](#)

[SUBMIT](#)



> Topic 2: How to perform hand hygiene

### Danger points on your hands (cont.)

These images show how micro-organisms were missed especially around and under the fingernails and around the ring.

Jewellery and the areas around and underneath it are difficult to clean and harbour micro-organisms which is why all jewellery should be removed before performing hand hygiene. This includes bracelets and wrist watches.

Next you will learn how to prepare your hands for good hand hygiene, including the removal of jewellery, nail varnish and artificial nails.



< PREV NEXT >

> Topic 2: How to perform hand hygiene

### Preparing your hands before starting work

It is important to prepare your hands before starting work so you can perform hand hygiene correctly.

To do this:



1. Take watches, bracelets and rings off (apart from a single plain band).



2. Make sure you don't have any nail varnish or artificial nails. Keep your fingernails short.



3. Put a waterproof plaster on all cuts.



Download a [job aid](#) to support your learning.



Think about your own practice in preparing your hands. Is it as good as it could be and could you do better?

< PREV NEXT >

## Preparing your hands before starting work

It is important to make sure your hands are prepared and in a good condition **before** you start your work:

- Make sure your arms are bare below the elbows.
- Remove all hand/wrist jewellery (including stoned rings, wristwatches, wrist bands and bracelets) which harbour micro-organisms. A single, plain metal finger ring is permitted but should be removed (or moved up and down) during hand hygiene.
- Keep your fingernails short and clean, and do not use nail polish, nail products or artificial fingernails. Cracked nail polish encourages the growth of micro-organisms and people with false nails are more likely to have large numbers of micro-organisms on their fingertips. These have been directly linked to outbreaks of infection.
- Assess your hands for cuts, cracks, irritation and breaks in the skin that could harbour micro-organisms and could put **you** at risk of picking up infection in the workplace (skin irritation is the most common barrier to performing good hand hygiene).
- Cover all cuts and abrasions with a waterproof dressing and change if it becomes soiled or loose.



Inspections and audits are frequently carried out in care areas and **your** hand hygiene practices will be watched no matter what your role is in these areas.

The public and people receiving care also regularly watch staff practices and post them on the Patient Opinion and Care Opinion websites to share their stories of health and social care services. One person complained that “...*not all staff were observed to be bare below the elbows...*” when blood was being taken at a clinic.

Make sure that **everyone** is confident in **your** practices by consistently performing them correctly and act as a role model for others.

## Selecting the appropriate hand hygiene method

There are **two main** methods for hand hygiene:

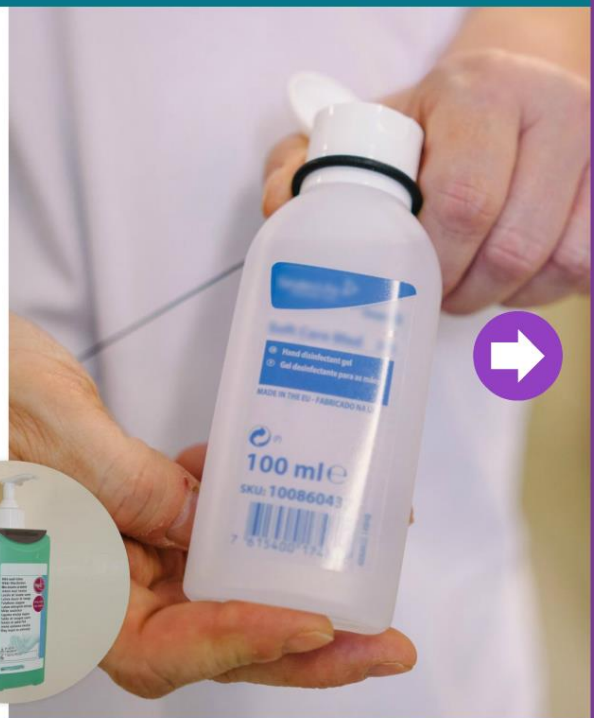
- **Hand washing** using a **non-antimicrobial liquid soap\*** and water.
- **Hand rubbing** by applying an **Alcohol Based Hand Rub**.

(\* ) This does not cover food hygiene standards.

You should not use bars of soap for hand hygiene at work as they are often moist where micro-organisms can multiply and be picked up by your hands.



If you do not select the correct method, your hands may still transfer micro-organisms to others even after using the products.



## &gt; Topic 2:

## How to perform hand hygiene

Let's consider if one method is better than another at removing or reducing micro-organisms.

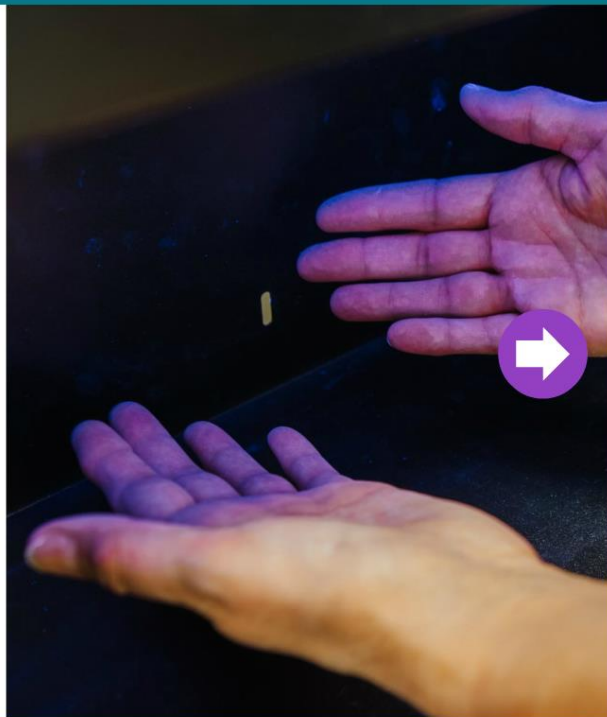
**Non-antimicrobial liquid soap** is a detergent which when used with good hand hygiene practice simply **removes micro-organisms** easily picked up from the environment (transient) or visible soiling from your hands.



**ABHR** is more effective than non-antimicrobial liquid soap but is not effective against all viruses or bacterial spores - a form of bacteria that is difficult to destroy.



**ABHR is not effective against gastro-intestinal infections, including *Clostridium difficile* (spore forming) and Norovirus (winter vomiting and diarrhoea). You need to wash your hands.**



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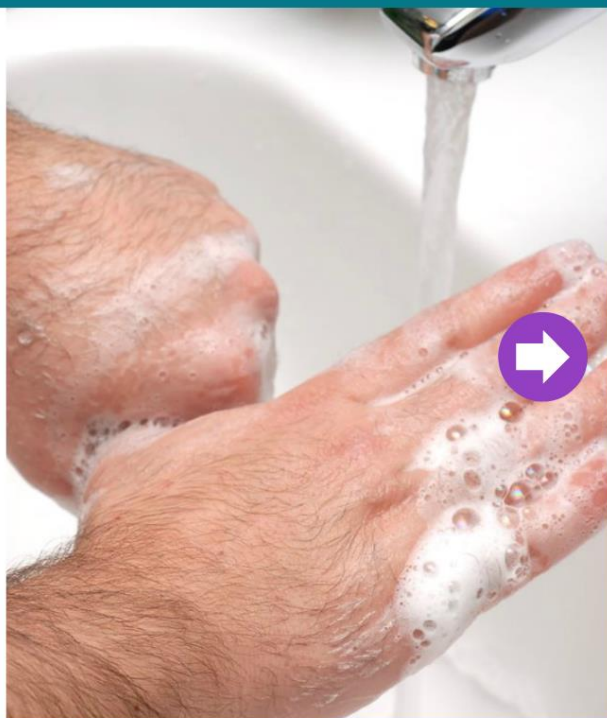
## &gt; Topic 2:

## How to perform hand hygiene

**Hand washing** is important but **takes longer** than if you use ABHR.

Here are the circumstances when you must **wash your hands with non-antimicrobial liquid soap and water**:

- if your hands are visibly soiled or dirty
- when dealing with someone who has *Clostridium difficile* or other known or suspected gastro-intestinal infection such as Norovirus, or their environment
- during any outbreaks of diarrhoeal infection
- if your hands feel sticky or gritty from frequently using Alcohol Based Hand Rubs. This is known as build-up.



< PREV NEXT >

> Topic 2: How to perform hand hygiene

You can use **ABHR** for all other care and entry to care areas.

Here are some examples of when you can use ABHR:

- at the point of care
- when your hands are visibly clean
- where there is no running water and your hands are visibly clean
- when you want to promote hand hygiene amongst the public in care settings.



Download [Advantages and Disadvantages of ABHR and Hand Washing](#) job aid.



< PREV NEXT >

## Advantages and Disadvantages of ABHR and Hand Washing

### Using ABHR

Advantages	Disadvantages
Requires less time than hand washing	Can produce build-up of product on hands.
Acts quickly to reduce germs on hands.	Can sting the hands if cuts or abrasions present.
More effective than hand washing with soap and water.	Can dry the hands if not applied properly.
More accessible than hand washing basins at the point of care.	Potentially flammable and require to be risk assessed i.e. use, location, storage and disposal.
Does not promote antimicrobial resistance.	Not effective against Norovirus and <i>Clostridium difficile</i> and other diarrheal infections.
Personal dispensers available for use in settings where wall mounted products are not readily available.	Not effective on visibly contaminated/soiled hands.

**Handwashing**

Advantages	Disadvantages
Does not produce build-up of product.	Takes longer than applying ABHRs.
Easily removes transient germs and visibly contaminated/soiled hands.	Non-antimicrobial soap is less effective against germs than ABHRs.
Effective against Norovirus and <i>Clostridium difficile</i> and other diarrhoeal infections.	Failure to dry hands properly could lead to skin irritation.
	Facilities not always accessible at the point of care.
	Needs warm/tepid running water.
	Extremes of water temperature could potentially have a detrimental effect on hand washing compliance and technique.
	Soft absorbent paper towels are required to help prevent skin irritation.

> Topic 2: How to perform hand hygiene

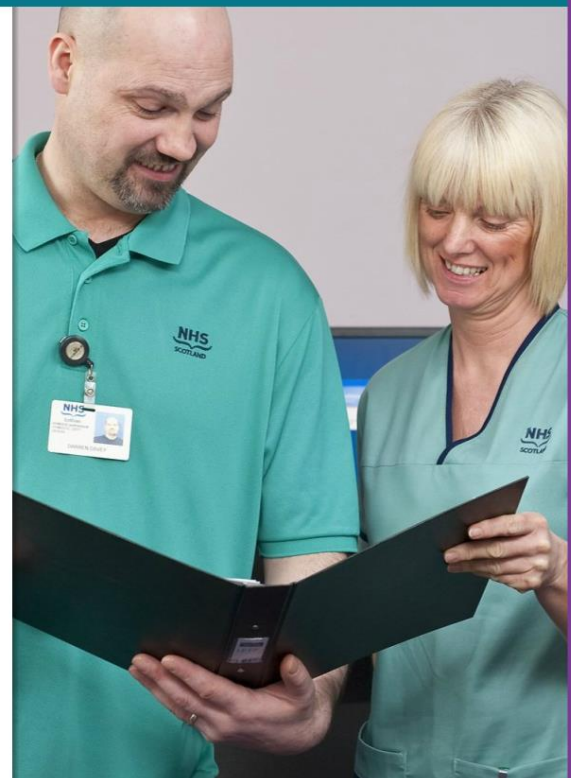
**Common questions**

Below are some common questions from staff about selecting the appropriate hand hygiene method.

What if I provide care at home and the person does not have clean hand washing facilities or supplies? What should I do?

Can I use hand wipes instead of liquid soap or ABHR?

I carry out surgical and some other sterile invasive procedures. What else must I do?





### What if I provide care at home and the person does not have clean hand washing facilities or supplies? What should I do?



You should always have some supplies of liquid soap, personal Alcohol Based Hand Rub and paper towels with you.

You could wash your hands at the person's sink but do not use a shared towel to dry your hands. Apply ABHR before you leave. To avoid offending the person receiving care, tell them that you do this in all households to help prevent the spread of infection.

If you see a bar of soap at their sink, you could take the opportunity to tactfully suggest that they use liquid soap to prevent infections in their own home.

< PREV NEXT >



### Can I use hand wipes instead of liquid soap or ABHR?



No, not for **routine** hand hygiene. Staff in hospitals or other care settings should **only** use hand wipes followed by ABHR if there is **no** access to running water. You should wash your hands at the first available opportunity.

< PREV NEXT >



**I carry out surgical and some other sterile invasive procedures. What else must I do?**



The National Infection Prevention and Control Manual (Chapter 1.2) will show you how to carry out more advanced hand hygiene practices known as Surgical Hand Antisepsis.



Access Chapter 1.2 Hand Hygiene - Surgical Hand Antisepsis, and Appendix 3 (Surgical Scrubbing) and Appendix 4 (Surgical Rubbing) of the [National Infection Prevention and Control Manual](#).

< PREV NEXT >

> Topic 2: How to perform hand hygiene

## Washing hands with liquid soap and warm running water



So how do you correctly wash your hands with liquid soap and warm running water? Watch the video to find out:



Access the following downloads:

- [How to hand wash step by step images](#) from the Appendices in the [National Infection Prevention and Control Manual](#).
- [Tips for Washing Hands with Liquid Soap and Warm Running Water](#).



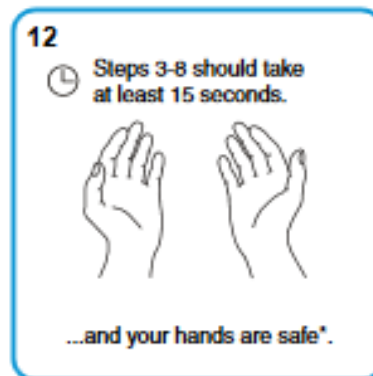
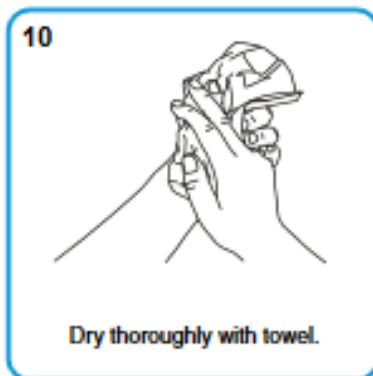
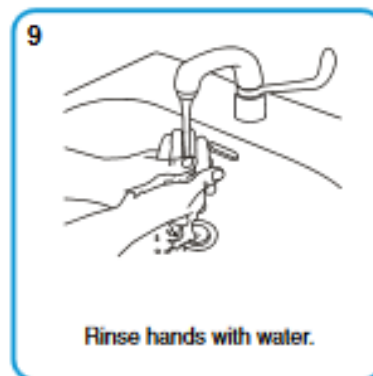
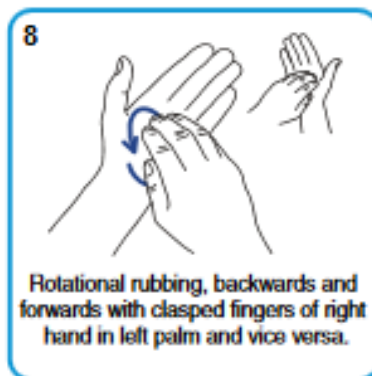
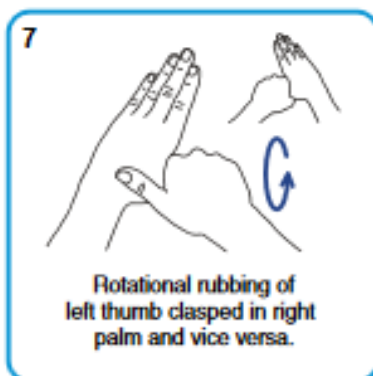
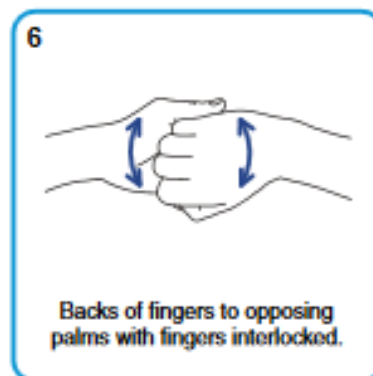
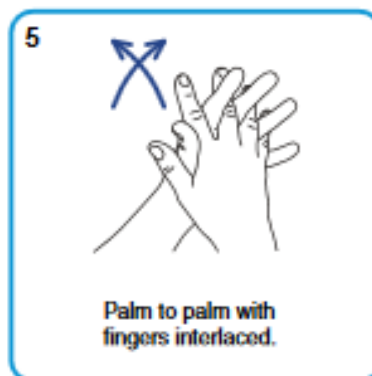
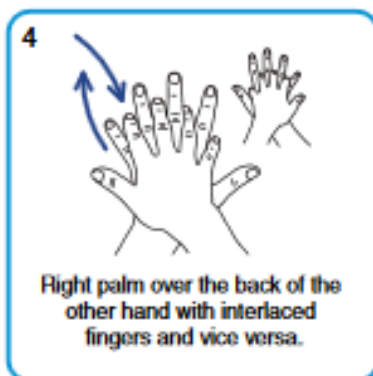
Are you as good at washing your hands as you think you are? Could you do better? Is there a step you perhaps forgot about having watched the video?

< PREV NEXT >



## Appendix 1 - How to hand wash step by step images

Steps 3-8 should take at least 15 seconds.



\*Any skin complaints should be referred to local occupational health or GP.



## Tips for washing hands with liquid soap and warm running water

Where you use liquid soap to wash your hands always:


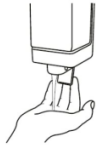
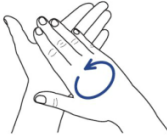
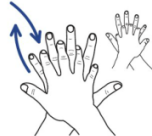



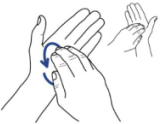


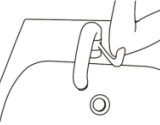
- **Wet** your hands under running water before applying the product.
- **Lather** the product covering all areas of your hands.
- **Rinse** well under running water.
- **Dry** your hands thoroughly by **patting** with soft disposable towels.
- Follow the manufacturer's instructions on quantity, application and usage, one depression of the plunger should be enough.



### Handy Tips

- Wetting your hands first prevents them from becoming dry, painful and irritated which will stop you from performing hand hygiene again. **You wouldn't apply shampoo to dry hair before washing it.**
- If you don't get a good lather you might not have wet your hands enough before applying the product.
- Don't touch the sides of the sink when washing your hands as you will pick up micro-organisms.
- Rinse your hands well before drying them **(you wouldn't dry your hair without rinsing it).**
- Sing "Happy Birthday" twice. This is how long it should take you to wash your hands.
- **Wash your hands after removing disposable gloves as there is a body fluid risk.**
- Keep the soap and towel dispensers topped up. It's frustrating for staff when they are empty and they might miss out on hand hygiene.



Steps in washing your hands	Why it's important
 <p>1. Wet hands with warm water.</p>	<p>This prevents sore hands and helps lather.</p>
 <p>2. Single application of liquid soap.</p>	<p>This is a detergent to remove transient micro-organisms.</p>
 <p>3. Rub hands palm to palm.</p>	<p>This prepares the palm for washing your fingertips and covers a wide area in contact with people and the environment.</p>
 <p>4. Palm over the back of hand interlace fingers.</p>	<p>The webs between the fingers are danger points for micro-organisms and are often missed during hand hygiene.</p>
 <p>5. Palm to palm fingers interlaced.</p>	<p>The webs between the fingers are danger points for micro-organisms and are often missed during hand hygiene.</p>
 <p>6. Back of fingers to opposing palms with fingers interlocked.</p>	<p>The fingertips frequently touch people and the environment and can spread micro-organisms.</p>
 <p>7. Rotational rubbing of thumbs.</p>	<p>The thumb is a danger points for micro-organisms and are often missed during hand hygiene.</p>
 <p>8. Fingertips cleaning palms.</p>	<p>The fingertips frequently touch people and the environment and can spread micro-organisms.</p>
 <p>9. Rinse with warm water.</p>	<p>To remove the soap and to prevent sore hands and skin irritation.</p>
 <p>10. Dry thoroughly with paper towels.</p>	<p>To remove moisture in which micro-organisms can multiply.</p>
 <p>11. Turn off tap.</p>	<p>You have completed your hand washing. Turn off with your elbow or a paper towel to avoid picking up micro-organisms on your clean hands.</p>

## Hand hygiene using Alcohol Based Hand Rub (ABHR)



The **way** you apply ABHR is just the same as hand washing. Watch the video to see how to correctly apply ABHR to your hands. **The duration of the process should be 20-30 seconds.**



Access the following downloads:

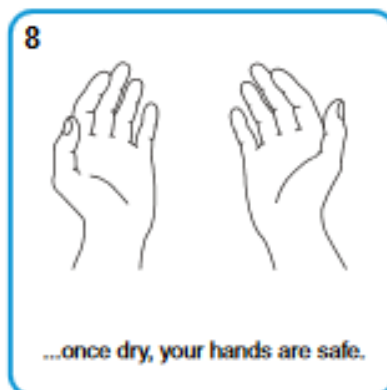
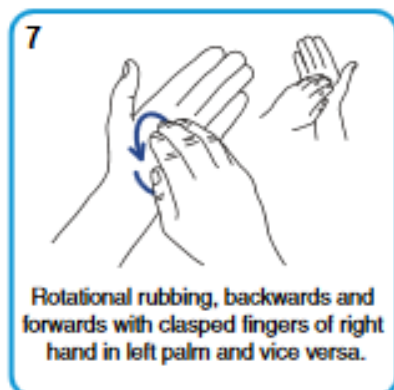
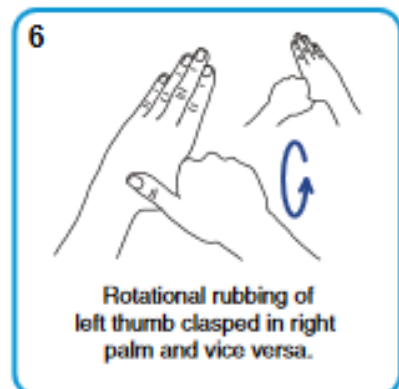
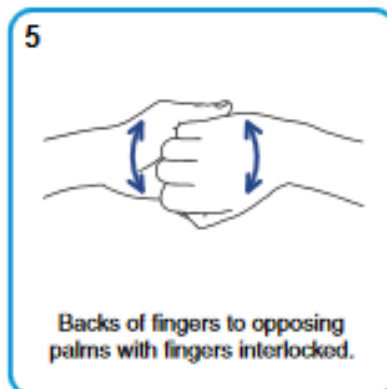
- **How to hand rub step by step images** from the Appendices in the [National Infection Prevention and Control Manual](#).
- [Tips for Hand Hygiene Using Alcohol Based Hand Rub \(ABHR\)](#).



Are you as good at applying ABHR as you think you are? Could you do better having watched the video?

## Appendix 2 - How to handrub step by step images

Duration of the process: 20-30 seconds.



## Tips for hand hygiene using Alcohol Based Hand Rub (ABHR)

Where you use ABHR you should **always**:

- Make sure that it is **appropriate** to use it. It should **not** be used when in contact with someone (or their environment) with a diarrhoeal infection, e.g. *Clostridium difficile* or Norovirus, or if your hands are visibly soiled or dirty.
- **Use the same technique** as hand washing to cover all surfaces of your hands when you use Alcohol Based Hand Rubs/gels, continuing for 20-30 seconds until your hands are dry.
- Make sure your hands are dry (do not use towels) before contact with others or the environment.
- Follow the manufacturer's instructions on quantity, application and usage. One depression of the plunger should be enough.



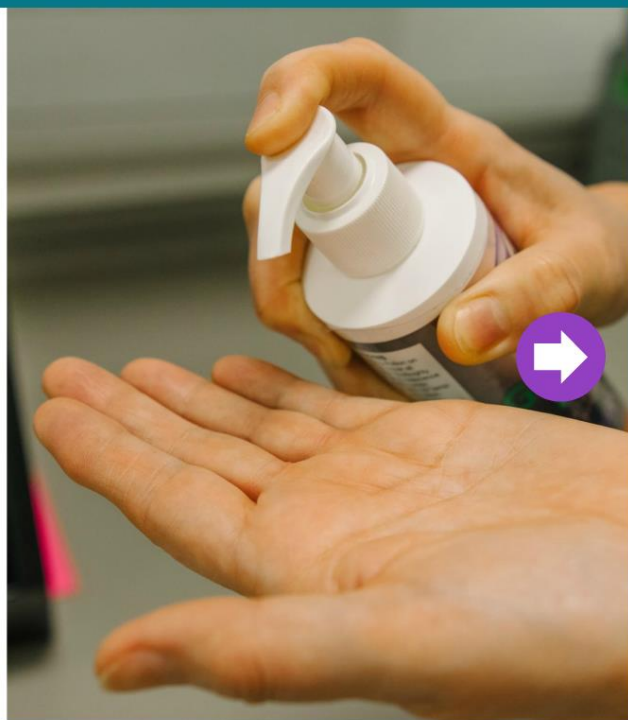
### Handy Tips

- It is good practice to wash your hands with liquid soap and water after several consecutive applications of ABHR to prevent build-up of product.
- You know you have build-up when your hands become sticky or gritty.
- Follow the manufacturer's health and safety instructions on hazards and storage.
- Encourage the public to use ABHR before and after entering wards at visiting times.
- If you work in community settings or with people who may drink the ABHR, keep your own personal dispenser attached to your uniform.

### Caring for your hands

Here are some important steps to keep your hands healthy:

1. Use **warm** not hot water to wash your hands.
2. **Dry** your hands thoroughly after hand washing.
3. Use **soft** disposable paper towels.
4. Use a **protective** emollient hand cream during work breaks and when off duty.
5. Do **not** use or provide communal tubs of hand cream, which may contain micro-organisms, in the care setting.

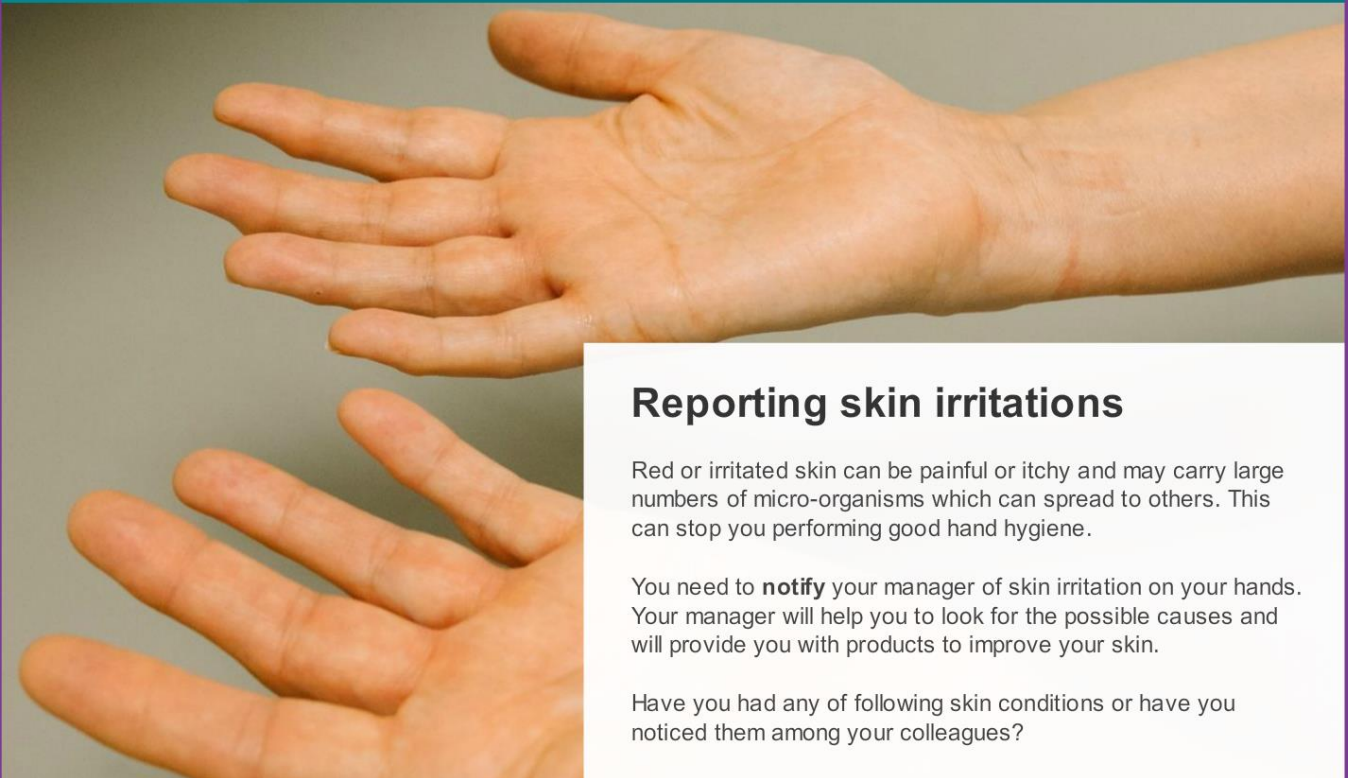


### Caring for your hands

Here are some important steps to keep your hands healthy:

6. Dry your hands thoroughly before putting on gloves (not letting your hands dry will cause skin problems).
7. Do not **overuse** disposal gloves when hand hygiene is all that you need to do.
8. Keep your **fingernails** from becoming cracked or split.
9. **Notify** your manager of skin irritation on your hands to help look for the possible causes and to provide you with products to improve your skin.





## Reporting skin irritations

Red or irritated skin can be painful or itchy and may carry large numbers of micro-organisms which can spread to others. This can stop you performing good hand hygiene.

You need to **notify** your manager of skin irritation on your hands. Your manager will help you to look for the possible causes and will provide you with products to improve your skin.

Have you had any of following skin conditions or have you noticed them among your colleagues?

< PREV NEXT >

## Reporting skin irritations (cont.)

These are all examples of common skin conditions which you need to report:



Dryness



Redness



Scaling



Fissure



Blistering

You should seek help from Occupational Health or your GP if the recommendations from your line manager have not improved your skin.



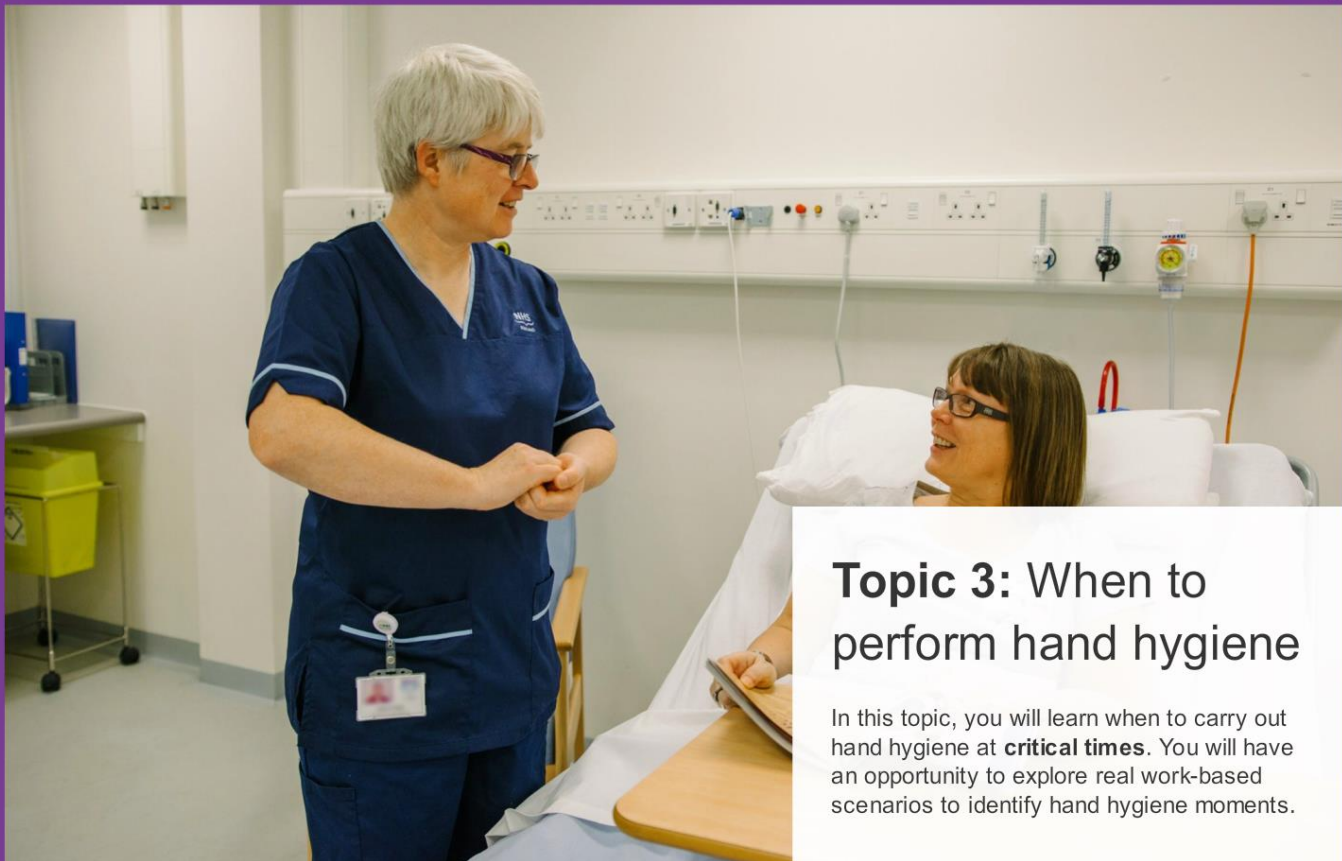
Access **Section 3** of the **Hand Dermatitis: pocket guide for healthcare workers** from the [Healthcare Associated Infections](#) section of the [NES website](#).

< PREV NEXT >



Healthcare Associated infections link: <http://www.nes.scot.nhs.uk/education-and-training/by-theme-initiative/healthcare-associated-infections/training-resources/hand-dermatitis.aspx>

**Notes for Topic 2: How to perform hand hygiene**



### Topic 3: When to perform hand hygiene

In this topic, you will learn when to carry out hand hygiene at **critical times**. You will have an opportunity to explore real work-based scenarios to identify hand hygiene moments.

< PREV NEXT >

> Topic 3: When to perform hand hygiene

## Critical times for hand hygiene

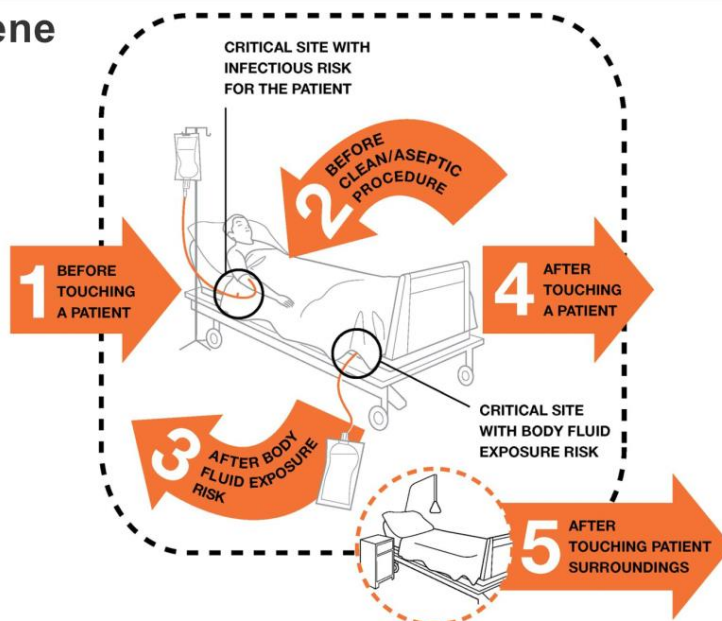
The World Health Organisation (WHO) has produced 'Your Five Moments for Hand Hygiene'. These are the **five critical times for consistent hand hygiene** to help stop the spread of micro-organisms. The WHO uses the term "patient", but they can **apply to all persons receiving care in all care settings**.



Select each of the five moments to learn more.

It is also important to perform hand hygiene for example:

- after using the toilet (body fluid exposure risk)
- after coughing and sneezing (body fluid exposure risk)
- before you leave work to avoid taking micro-organisms home to your family.



Based on "Your 5 Moments for Hand Hygiene"  
 URL: <http://www.who.int/gpsc/5may/background/5moments/en/index.html> © World Health Organization 2009. All rights reserved.

< PREV NEXT >

## 1. Before touching a patient



**WHY?** To protect the patient against colonisation and, in some cases, against exogenous infection, by harmful micro-organisms carried on your hands.

**WHEN?** Clean your hands before touching a patient when approaching him/her.

Situations when Moment 1 applies:

- a Before shaking hands and before stroking a child's forehead.
- b Before assisting a patient in personal care activities: to move, to take a bath, to eat, to get dressed.
- c Before delivering care and other non-invasive treatment: applying oxygen mask, giving a massage.
- d Before performing a physical non-invasive examination: taking pulse, blood pressure, chest auscultation, recording ECG.



Click the 'X' in the top right hand corner to return to the main screen.



Hand hygiene must be performed in all situations described regardless of whether gloves are used or not. Adapted from WHO "Your 5 Moments for Hand Hygiene".

## 2. Before clean / aseptic procedure



**WHY?** To protect the patient against infection with harmful micro-organisms, including his/her own micro-organisms, entering his/her body.

**WHEN?** Clean your hands immediately before accessing a critical site with infectious risk for the patient (e.g. a mucous membrane, non-intact skin, an invasive medical device).

Situations when Moment 2 applies:

- a Before brushing the patient's teeth, instilling eye drops, performing a digital vaginal or rectal examination, examining mouth, nose, ear with or without an instrument, inserting a suppository / pessary, suctioning mucous.
- b Before dressing a wound with or without instrument, applying ointment on vesicle, making a percutaneous injection / puncture.
- c Before inserting an invasive medical device (nasal cannula, nasogastric tube, endotracheal tube, urinary probe, percutaneous catheter, drainage), disrupting / opening any circuit of an invasive medical device (for food, medication, draining, suctioning, monitoring purposes).

Before preparing food, medications, pharmaceutical products, sterile material.



Click the 'X' in the top right hand corner to return to the main screen.



Hand hygiene must be performed in all situations described regardless of whether gloves are used or not. Adapted from WHO "Your 5 Moments for Hand Hygiene".

### 3. After body fluid exposure risk



**WHY?** To protect you from colonisation or infection with patient's harmful micro-organisms and to protect the health-care environment from micro-organism spread.

**WHEN?** Clean your hands as soon as the task involving an exposure risk to body fluids has ended (and after glove removal).

Situations when Moment 3 applies:

- a When the contact with a mucous membrane and with non-intact skin ends.
- b After a percutaneous injection or puncture; after inserting an invasive medical device (vascular access, catheter, tube, drain, etc); after disrupting and opening an invasive circuit.
- c After removing an invasive medical device.
- d After removing any form of material offering protection (napkin, dressing, gauze, sanitary towel, etc.).
- e After handling a sample containing organic matter, after clearing excreta and any other body fluid, after cleaning any contaminated surface and soiled material (soiled bed linen, dentures, instruments, urinal, bedpan, lavatories, etc.).



Click the 'X' in the top right hand corner to return to the main screen.



Hand hygiene must be performed in all situations described regardless of whether gloves are used or not. Adapted from WHO "Your 5 Moments for Hand Hygiene".

### 4. After touching a patient



**WHY?** To protect you from colonisation with patient micro-organisms and to protect the health-care environment from micro-organism spread.

**WHEN?** Clean your hands when leaving the patient's side, after having touched the patient.

Situations when Moment 4 applies, if they correspond to the last contact with the patient before leaving him / her:

- a After shaking hands and stroking a child's forehead.
- b After you have assisted the patient in personal care activities: to move, to bath, to eat, to dress.
- c After delivering care and other non-invasive treatment: changing bed linen as the patient is in, applying oxygen mask, giving a massage.
- d After performing a physical non-invasive examination: taking pulse, blood pressure, chest auscultation, recording ECG.



Click the 'X' in the top right hand corner to return to the main screen.



Hand hygiene must be performed in all situations described regardless of whether gloves are used or not. Adapted from WHO "Your 5 Moments for Hand Hygiene".



## 5. After touching patient surroundings

**WHY?** To protect you from colonisation with patient micro-organisms that may be present on surfaces / objects in patient surroundings and to protect the health-care environment against micro-organism spread.

**WHEN?** Clean your hands after touching any object or furniture when living the patient surroundings, without having touched the patient.

This Moment 5 applies in the following situations if they correspond to the last contact with the patient surroundings, without having touched the patient:

- a After an activity involving physical contact with the patients immediate environment: changing bed linen with the patient out of the bed, holding a bed trail, clearing a bedside table.
- b After a care activity: adjusting perfusion speed, clearing a monitoring alarm.
- c After other contacts with surfaces or inanimate objects (note - ideally try to avoid these unnecessary activities): leaning against a bed, leaning against a night table / bedside table.



Click the 'X' in the top right hand corner to return to the main screen.



Hand hygiene must be performed in all situations described regardless of whether gloves are used or not. Adapted from WHO "Your 5 Moments for Hand Hygiene".

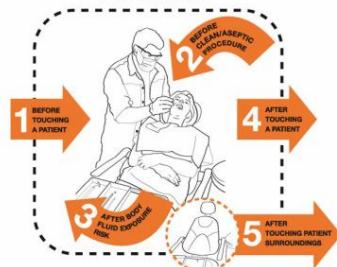
### > Topic 3: When to perform hand hygiene

## Critical times for hand hygiene (cont.)

For information and posters on hand hygiene in outpatient care, home-based care and long-term care facilities please explore [Clean Care is Safer Care](#) from the World Health Organization.

### Your 5 Moments for Hand Hygiene

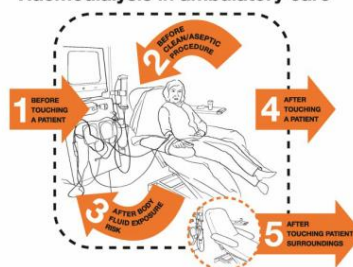
#### Dental Care



- |   |  |      |  |
|---|--|------|--|
| 1 | <b>BEFORE TOUCHING A PATIENT</b>           | WASH | Clean your hands before touching a patient.  |
| 2 | <b>BEFORE ASEPTIC PROCEDURE</b>            | WASH | To protect the patient against harmful germs carried on your hands.  |
| 3 | <b>AFTER BODY FLUID EXPOSURE RISK</b>      | WASH | Clear your hands immediately after a procedure involving exposure risk to body fluids and after glove removal. |
| 4 | <b>AFTER TOUCHING A PATIENT</b>            | WASH | To protect yourself and the environment from harmful patient germs.  |
| 5 | <b>AFTER TOUCHING PATIENT SURROUNDINGS</b> | WASH | Clear your hands after touching the patient or the area of the encounter or when the encounter is interrupted. |

### Your 5 Moments for Hand Hygiene

#### Haemodialysis in ambulatory care



- |   |  |      |  |
|---|--|------|--|
| 1 | <b>BEFORE TOUCHING A PATIENT</b>           | WASH | Clean your hands before touching a patient.  |
| 2 | <b>BEFORE ASEPTIC PROCEDURE</b>            | WASH | To protect the patient against harmful germs carried on your hands.  |
| 3 | <b>AFTER BODY FLUID EXPOSURE RISK</b>      | WASH | Clear your hands immediately after a procedure involving exposure risk to body fluids and after glove removal. |
| 4 | <b>AFTER TOUCHING A PATIENT</b>            | WASH | To protect yourself and the environment from harmful patient germs.  |
| 5 | <b>AFTER TOUCHING PATIENT SURROUNDINGS</b> | WASH | Clear your hands after touching the patient or the area of the encounter or when the encounter is interrupted. |

### Your 5 Moments for Hand Hygiene



- |   |  |      |  |
|---|--|------|--|
| 1 | <b>BEFORE TOUCHING A PATIENT</b>           | WASH | Clean your hands before touching a patient when appropriate technique.   |
| 2 | <b>BEFORE ASEPTIC PROCEDURE</b>            | WASH | To protect the patient against harmful germs carried on your hands.  |
| 3 | <b>AFTER BODY FLUID EXPOSURE RISK</b>      | WASH | Clear your hands immediately after a procedure involving exposure risk to body fluids and after glove removal. |
| 4 | <b>AFTER TOUCHING A PATIENT</b>            | WASH | To protect yourself and the health care environment from harmful patient germs.                                |
| 5 | <b>AFTER TOUCHING PATIENT SURROUNDINGS</b> | WASH | Clear your hands after touching the patient or the area of the encounter or when the encounter is interrupted. |

Clean Care is Safer Care link:

[http://www.who.int/gpsc/5may/EN\\_GPSC1\\_PSP\\_HH\\_Outpatient\\_care/en/](http://www.who.int/gpsc/5may/EN_GPSC1_PSP_HH_Outpatient_care/en/)

## Critical times for hand hygiene - your turn

There are four scenarios on the following screens that you might come across at work. You will be asked when it is appropriate to perform hand hygiene (based on the Five Moments for Hand Hygiene). Have a go at each question even if it does not apply to your care setting and job role.



### Scenario 1

Hand Hygiene Moments  
in the Hospital



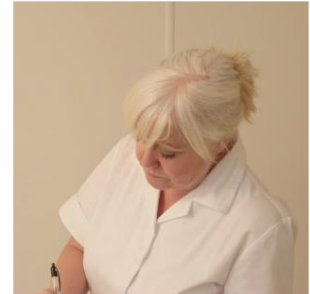
### Scenario 2

Hand Hygiene Moments  
While Caring at Home



### Scenario 3

Hand Hygiene Moments  
at the Dentist's



### Scenario 4

Hand Hygiene Moments  
at the Care Home



Select **NEXT** to start with Scenario 1.

## Hand hygiene moments in the hospital

Craig the nurse works in a ward. He enters a room and places a tray with items for injection on the bedside table. Mr Wallace, the patient is in bed with a peripheral venous catheter (PVC) in his arm directly accessible to Craig.

Craig opens and cleans the PVC tap with an antiseptic wipe and gives the injection before closing the tap.



When should Craig perform hand hygiene?



Select the **one option** that applies and select **SUBMIT**:

- A. Before entering the room.
- B. After placing the tray on the bedside table.
- C. Before opening the PVC tap.
- D. Before closing the tap.



< PREV SUBMIT

Please try to answer the question above and then check the answer and the feedback on the following page.

# Hand hygiene moments in the hospital

Craig the nurse works in a ward. He enters a room and places a tray with items for injection on the bedside table. Mr Wallace, the patient is in bed with a peripheral venous catheter (PVC) in his arm directly accessible to Craig.

Craig opens and cleans the PVC tap with an antiseptic wipe and gives the injection before closing the tap.



When should Craig perform hand hygiene?



Select the **one option** that applies and select **SUBMIT**:

- A. Before entering the room.
- B. After placing the tray on the bedside table.
- C. Before opening the PVC tap.
- D. Before closing the tap.

< PREV SUBMIT

## Correct

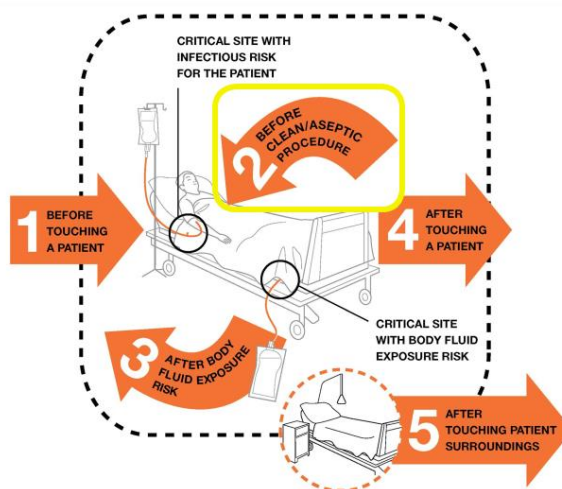


That's correct.

Craig needs to perform hand hygiene **before** the clean/aseptic technique procedure as micro-organisms could easily spread into the patient's bloodstream causing a serious and life threatening infection such as a bacteraemia (blood poisoning).

He has **no** direct contact with the patient so no other hand hygiene is required.

The correct answer relates to **Hand Hygiene Moment 2**.



Continue >

SUBMIT



## Hand hygiene moments while caring at home

Marie the care assistant is due to give Mrs Burns, an elderly lady who is receiving care at home, a bed bath.

When Marie arrives outside Mrs Burns' house, she gets out of her car and lets herself into the house. When she approaches the bed, she takes Mrs Burns' arm out from under the sheets to shake her hand and then collects items for the bed bath.



When should Marie perform hand hygiene?



Select the **one option** that applies and select **SUBMIT**:

- A. Before she gets out of the car.
- B. Before she opens the house door.
- C. Before she helps Mrs Burns bring her arm out from under the sheets.
- D. Before collecting items for the bed bath.



< PREV SUBMIT

Please try to answer the question above and then check the answer and the feedback on the following page.

# Hand hygiene moments while caring at home

Marie the care assistant is due to give Mrs Burns, an elderly lady who is receiving care at home, a bed bath.

When Marie arrives outside Mrs Burns' house, she gets out of her car and lets herself into the house. When she approaches the bed, she takes Mrs Burns' arm out from under the sheets to shake her hand and then collects items for the bed bath.



When should Marie perform hand hygiene?

Select the **one option** that applies and select **SUBMIT**:

- A. Before she gets out of the car.
- B. Before she opens the house door.
- C. Before she helps Mrs Burns bring her arm out from under the sheets.
- D. Before collecting items for the bed bath.

< PREV SUBMIT

## Correct

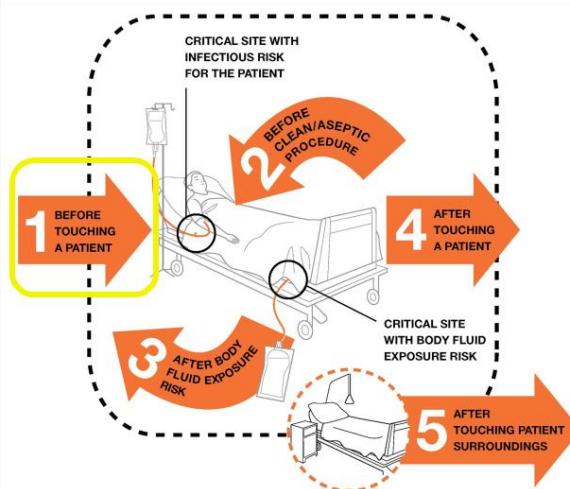


That's correct.

She must perform Hand hygiene **before** touching Mrs Burns' arm to prevent spreading the micro-organisms to her.

Marie does not need to perform hand hygiene in the car or before she touched the house door because these moments do **not** relate to any of the 5 Moments for Hand Hygiene.

The correct answer relates to **Hand Hygiene Moment 1**.



Continue >

SUBMIT

## Hand hygiene moments at the dentist's

Gill the dental nurse is helping the dentist to carry out a filling on a patient and is wearing disposable gloves.

When the procedure is finished, she gathers up the used swabs/tissues with saliva and disposes of them in the waste bin before removing her gloves and dropping them into the bin. She then goes to the computer to update the patient's records.



**When should Gill perform hand hygiene?**



Select the **one option** that applies and select **SUBMIT**:

- A. Before gathering up the used swabs/tissues.
- B. Before disposing of the swabs/tissues and disposable gloves in the waste bin.
- C. After removing her gloves?
- D. After removing her gloves **and again** before using the computer.



< PREV SUBMIT

Please try to answer the question above and then check the answer and the feedback on the following page.

> Topic 3: When to perform hand hygiene

### Hand hygiene moments at the dentist's

Gill the dental nurse is helping the dentist to carry out a filling on a patient and is wearing disposable gloves.

When the procedure is finished, she gathers up the used swabs/tissues with saliva and disposes of them in the waste bin before removing her gloves and dropping them into the bin. She then goes to the computer to update the patient's records.



When should Gill perform hand hygiene?



Select the **one option** that applies and select **SUBMIT**:

- A. Before gathering up the used swabs/tissues.
- B. Before disposing of the swabs/tissues and disposable gloves in the waste bin.
- C. After removing her gloves?
- D. After removing her gloves **and again** before using the computer.

< PREV SUBMIT

### Correct



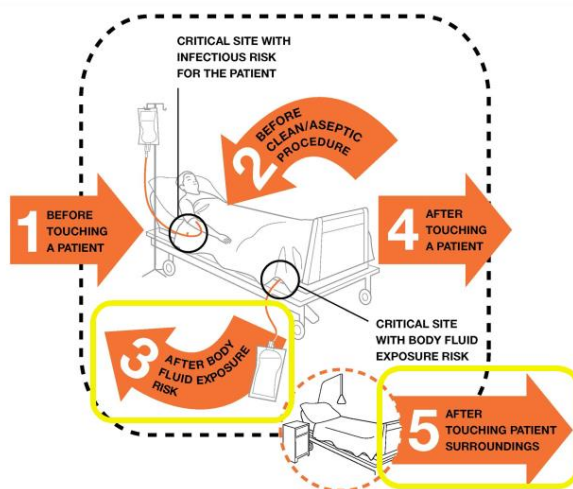
That's correct.

Gill needs to perform hand hygiene **after** exposure to body fluids when she removes her gloves and **after** contact with the patient's surroundings.

There is no need for her to perform hand hygiene again before using the computer.

Also, she cannot use hand hygiene products on gloved hands which she still had on when she was gathering the used swabs/tissues and disposing of them in the waste bin.

The correct answer relates to **Hand Hygiene Moments 3 and 5**.



Continue >

SUBMIT

## Hand hygiene moments at the care home

Heather is a care assistant in a care home. She enters Mrs Logan's room with a trolley and tidies up her bedside table. She picks up an empty water bottle and glass before wiping the table top.

Heather places a fresh bottle of water and a clean glass on the table and lifts Mrs Logan's feet on to a stool to make her comfortable in her chair, before leaving the room with the trolley.

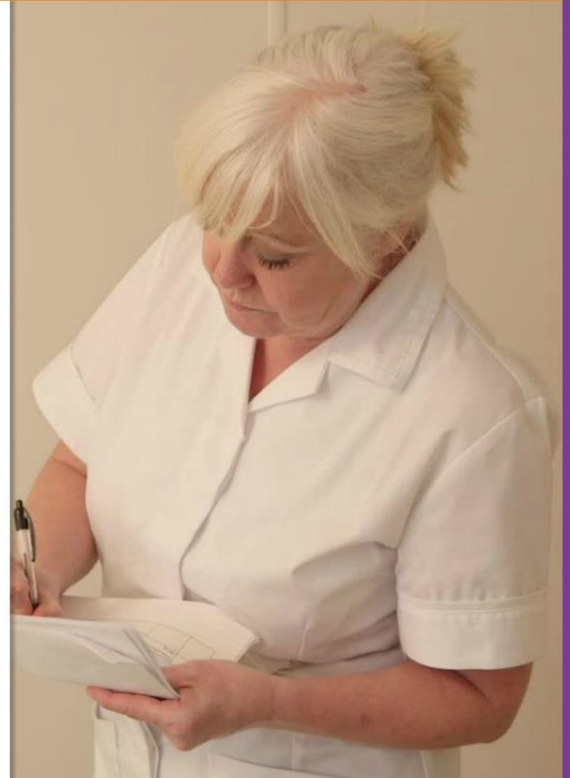


When should Heather perform hand hygiene?



Select the **one option** that applies and select **SUBMIT**:

- A. Before entering the room.
- B. Before cleaning the bedside table.
- C. Before she places a bottle of water and a clean glass on the table.
- D. Before and after touching Mrs Logan.



< PREV SUBMIT

Please try to answer the question above and then check the answer and the feedback on the following page.

## Hand hygiene moments at the care home

Heather is a care assistant in a care home. She enters Mrs Logan's room with a trolley and tidies up her bedside table. She picks up an empty water bottle and glass before wiping the table top.

Heather places a fresh bottle of water and a clean glass on the table and lifts Mrs Logan's feet on to a stool to make her comfortable in her chair, before leaving the room with the trolley.



When should Heather perform hand hygiene?



Select the **one option** that applies and select **SUBMIT**:

- A. Before entering the room.
- B. Before cleaning the bedside table.
- C. Before she places a bottle of water and a clean glass on the table.
- D. Before and after touching Mrs Logan.



< PREV SUBMIT

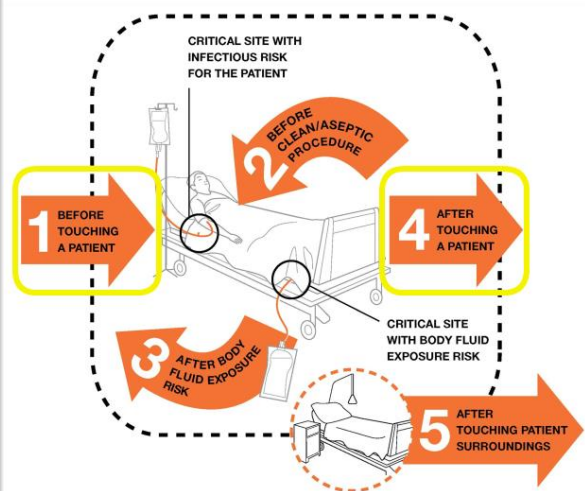
## Correct



That's correct.

Heather needs to perform hand hygiene **before** and **after** touching Mrs Logan.

The correct answer relates to **Hand Hygiene Moments 1 and 4**.



Continue >

SUBMIT

## Reflect on your role

Think about your role in the workplace and the tasks you carry out:

1. Consider how you would apply the Five Moments for Hand Hygiene.

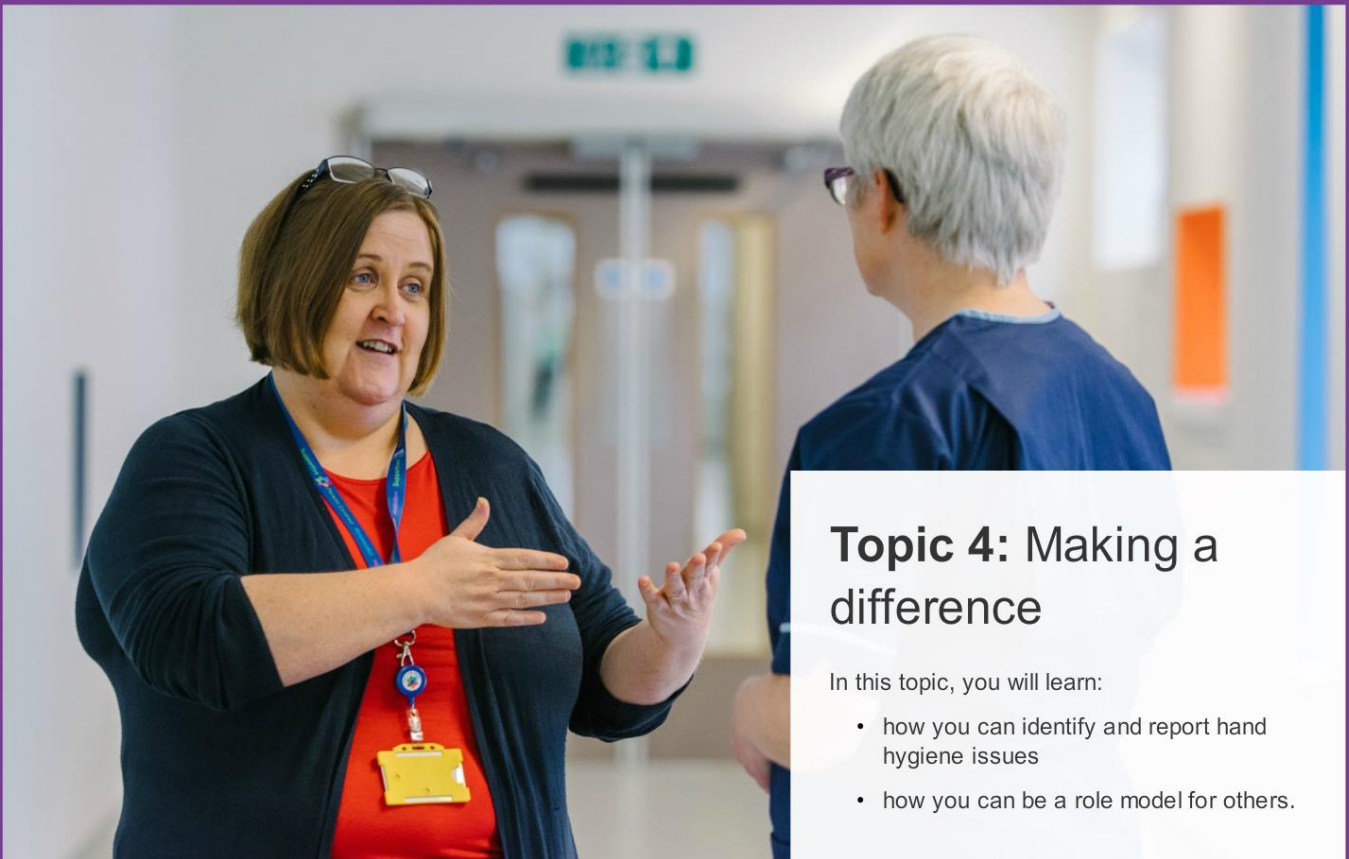
2. Is there anything that is stopping you from performing hand hygiene at the correct times?



Discuss amongst your colleagues or with your line manager.



### Notes for Topic 3: When to perform hand hygiene



## Topic 4: Making a difference

In this topic, you will learn:

- how you can identify and report hand hygiene issues
- how you can be a role model for others.

< PREV NEXT >

### > Topic 4: Making a difference

## Identifying and reporting hand hygiene issues

Nobody comes to work to do a bad job and spread micro-organisms. If you are concerned about products not being available or poor practice, tell your line manager if you are not confident to deal with this yourself.



Other staff might not be aware of what they are doing in putting others at risk of infection if you do not deal with the issues.



Take a few moments to think through how you could improve hand hygiene practices. Download this [work-based activity](#) which you can use in your workplace.



< PREV NEXT >



## Hand hygiene work-based activity

### Identifying issues

1. What are the specific issues of concern in your workplace? For example, do you always have a low supply of products and paper towels?

2. What are the common errors that you and others make? For example, are you not completing all of the steps in hand washing and hand rubbing?

**Discuss these with your colleagues or your line manager.**



**Improving practice/Doing the right thing**

**1. What small changes could you make to improve these issues?**

A large, empty rectangular box with a light purple gradient background, intended for the user to provide their answer to question 1.

**2. What is your role in influencing hand hygiene with the public, volunteers and others who visit people receiving care, such as chaplaincy staff?**

A large, empty rectangular box with a light purple gradient background, intended for the user to provide their answer to question 2.

## Being a role model

**Anyone** can be a role model and if you lead by example, other staff are likely to follow. The people receiving care and the public will also have confidence in the service you are delivering.

One person posted this comment on the Patient Opinion website:

### "Would like to see continuous evidence of hand hygiene"

**About:** Regional Hospital

🗨️ Posted by [concerned patient](#) (as other), 4 hours ago

I felt that the nurses should do their hand hygiene in front of the patient. I noticed that the nurses did their hands when they left my room but not on arrival. I suppose they had done their hands after the last patient but would like to SEE hand hygiene done BEFORE I am treated.

**STORY READ**

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This story has been heard by a subscriber

**Story summary**

<p style="margin: 0;"><b>What's good?</b></p> <ul style="list-style-type: none"> <li>● <a href="#">one to one care</a></li> </ul> <p style="margin: 0;"><b>Initial feelings:</b> <a href="#">concerned</a>, <a href="#">fear</a>, and <a href="#">dissatisfaction</a></p>	<p style="margin: 0;"><b>What could be improved?</b></p> <ul style="list-style-type: none"> <li>● <a href="#">hand hygiene</a></li> </ul>
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If you need support in improving hand hygiene practices, discuss this with your line manager, other colleagues and Infection Prevention and Control or Health Protection Teams.

### Notes for Topic 4: Making a difference

## Summary

Now that you have completed this module you will be able to perform hand hygiene correctly and with confidence.

Here are the key points of this module:

- You should use Alcohol Based Hand Rub if your hands are not visibly soiled or dirty.
- But if gastro-intestinal infections are present or suspected, you **MUST** wash your hands with liquid soap and water.
- Prepare and take care of your hands for work.
- Don't overuse gloves.
- Identify and report issues of concern.
- Be a hand hygiene role model.

Let's now look at what you can do to get started.



## Next steps

The next step is for you to put your learning into practice. Here are some examples of what you could do to get started.

1. Read more about hand hygiene in the [National Infection Prevention and Control Manual](#).
2. Consider your own hand hygiene practices and identify ways to improve.
3. Check who is responsible for keeping dispensers and paper towels topped up.
4. Borrow an ultraviolet light box from your Infection Prevention and Control/Health Protection or Health Promotion Team to check your practices.

<http://www.nipcm.hps.scot.nhs.uk/>



## Feedback and assessment

Before you complete this module, we would really appreciate your feedback on this online module - you can access the online feedback form using the following link:

[Hand Hygiene - Feedback Questionnaire.](#)

You are now required to complete an assessment.

Now that you have completed this module, please complete the assessment. The pass mark for the assessment is **80%**.



Select the info buttons below for more information.



Please close this browser window to exit the module and then open the assessment.

< PREV

Feedback questionnaire link:

<https://response.questback.com/nhseducationforscotland/sipcep03ahandhygiene/>

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### Alternative formats ✕

This resource may be made available, in full or in summary form, in alternative formats and community languages. Please contact NHS Education for Scotland on 0131 656 3200 or email [altformats@nes.scot.nhs.uk](mailto:altformats@nes.scot.nhs.uk) to discuss how we can best meet your requirements.

Transcriptions of any videos within this resource are available on request.



Please close this browser window to exit the module and then open the assessment.

## Printable learning resource – Completion Record

Learning outcomes:

- describe the role of hand hygiene in preventing the spread of infection
- select the correct product and the appropriate hand hygiene method
- perform the steps for hand washing and applying Alcohol Based Hand Rubs
- identify when you need to perform hand hygiene
- take care of your hands to minimise the risk of infection
- identify and report areas of concern relating to hand hygiene appropriately.

Anticipated learning time: 30 minutes

I confirm that I have completed the above module.

Learner name: .....

Learner role and location: .....

Learner signature .....



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