

UK Coronavirus COVID-19 response

Infection prevention and control measures



Image credit: Alissa Eckert, MS, Dan Higgins, MAMBS

UK Coronavirus COVID-19 response

The information contained in this resource is based on available guidance at the time of publication- 5th April 2020 (afternoon).

Important Note:

The COVID-19 response is evolving rapidly and guidance will change as more information becomes available.

The most current version of Health Protection Scotland COVID-19 guidance and this resource will be available on the HPS COVID-19 website and should be referred to.

Guidance:

<https://www.hps.scot.nhs.uk/a-to-z-of-topics/covid-19/>

Resource:

<https://www.hps.scot.nhs.uk/web-resources-container/covid-19-guidance-for-infection-prevention-and-control-in-healthcare-settings/>



This learning resource is for people supporting the NHS services during the UK COVID-19 response in Scotland.

You may be required to provide clinical care for a variety of patients including some who may be a confirmed or suspected COVID-19 case.

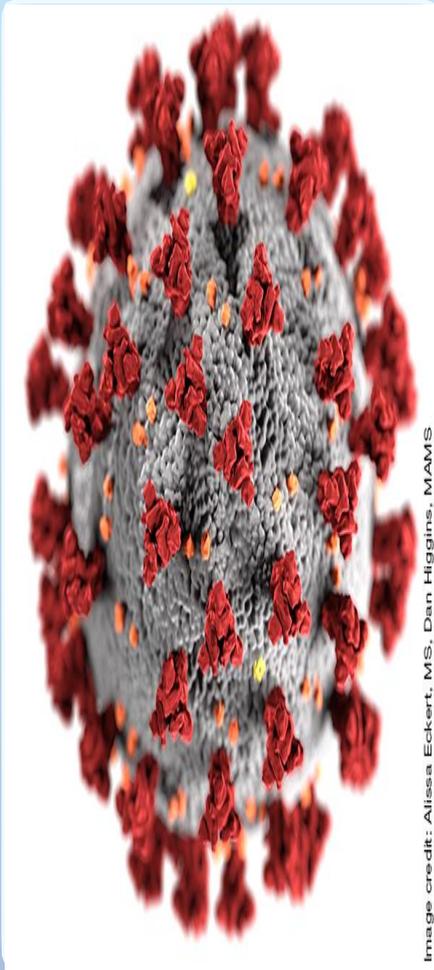
This resource aims to provide you with the key infection prevention and control information you will need to protect yourself and others when caring for patients.

Areas covered include:

- What is pandemic Coronavirus COVID-19 and how is it spread?
- Standard infection control precautions (SICPS) - should be used by **all staff, in all care settings, at all times, for all patients**
- Transmission based precautions (TBPs) - Additional precautions **required to be used by staff when caring for patients with a known or suspected infection or colonisation**
- COVID-19 IPC guidance- SICP's, TBP's and disease specific guidance
- What to do if you develop symptoms

Its focus is therefore very much on **what you need to do to keep yourself and others safe.**

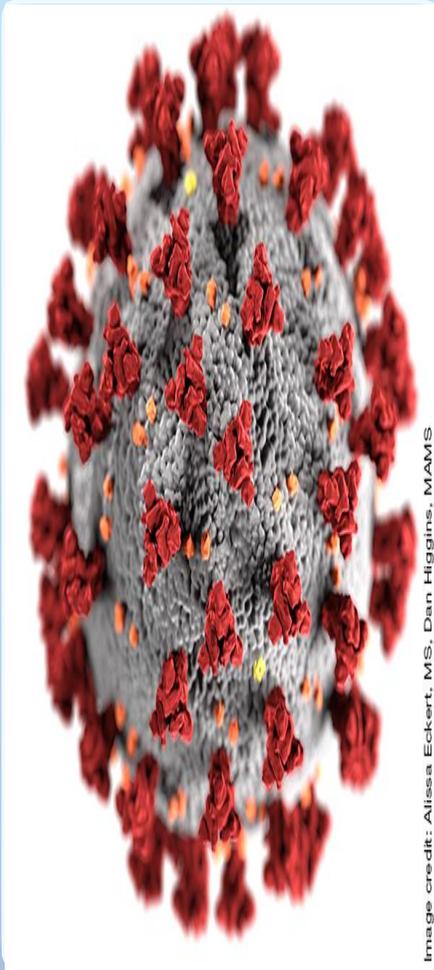




Outline of resource

- **What is Coronavirus-COVID-19 and how is it spread?**
- **Part 1-Standard Infection Control Precautions**
-should be used by all staff, in all care settings, at all times, for all patients whether infection such as COVID-19 is known to be present or not
- **Part 2- Transmission based precautions (TBPs)**
-SICPs may be insufficient to prevent cross transmission of specific infectious agents. Additional precautions called TBPs are required to be used by staff when caring for patients with a known or suspected infection or colonisation including COVID-19
- **Part 3- Pandemic COVID-19 -Specific infection prevention and control guidance**





Key resources

The National Infection Prevention and Control manual is a nationally endorsed evidence based guidance for infection prevention and control in Scotland.

It is mandatory for NHS Scotland staff and much of the information contained in this resource is taken directly from the manual.

The manual can be found at the weblink below and you should refer to it at all times for more detailed information

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

COVID-19 specific guidance

For staff caring for COVID-19 patients specific information can be found at the Health Protection Scotland COVID-19 guidance page.

<https://www.hps.scot.nhs.uk/a-to-z-of-topics/covid-19/>



This should be checked regularly due to the evolving nature of this response



**COVID-19
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Infection Prevention and Control Measures

What is Coronavirus-COVID-19 and how is it spread?

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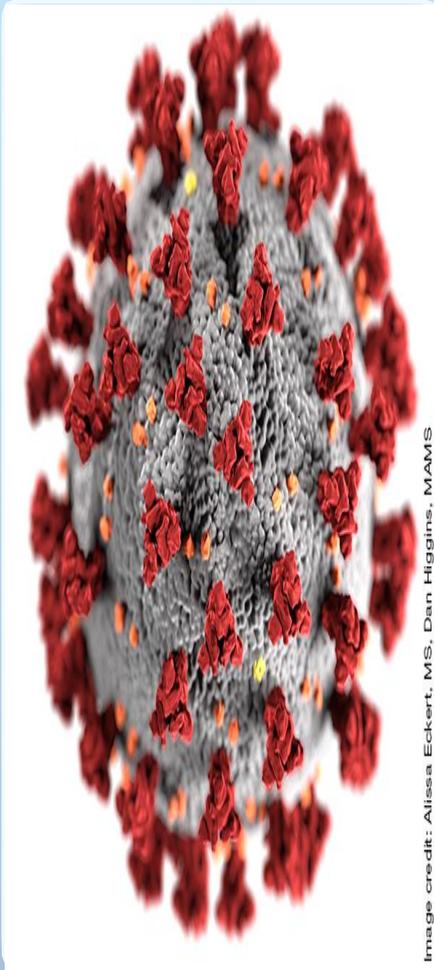
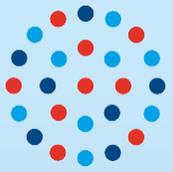
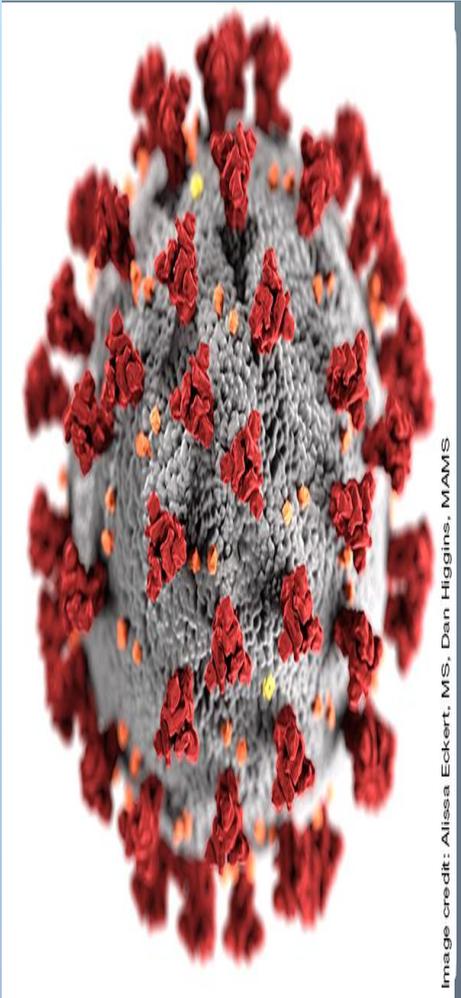


Image credit: Alissa Eckert, M.S., Dan Higgins, M.A.M.S

What is Coronavirus (COVID-19)?

- A coronavirus is a type of virus
- As a group, coronaviruses are common across the world
- (COVID-19) is the illness caused by a new strain of coronavirus first identified in Wuhan city, China in January 2020.
- For the majority of the population contracting COVID-19 they will develop mild symptoms- fever and cough
- Some people will have more serious symptoms, including pneumonia or difficulty breathing, which might require admission to hospital.
- Generally, COVID-19 infections can cause more severe symptoms in people with weakened immune systems, older people, and those with long-term conditions like diabetes, cancer and chronic heart or lung disease





On the 12/3/20 the World Health Organisation declared COVID-19 a pandemic

“Pandemic” means a disease is so widespread that many people in many countries across the world will catch it.

A vaccine can only be developed once the type (or “strain”) emerges – it can’t be done beforehand.

There is currently no vaccine for COVID-19



The Coronavirus COVID-19 pandemic in Scotland is likely to affect people across the whole country. At this point it is unclear how long this pandemic will last.

The COVID-19 pandemic in Scotland will mean :

-  Intense pressure on the NHS
-  Disruption to daily life
-  Potentially many deaths



Part 1-Standard Infection Control Precautions

- should be used by all staff, in all care settings, at all times, for all patients

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What are Standard Infection Control Precautions?

-  SICPs are the basic infection prevention and control measures necessary to reduce the risk of transmission of infectious agents
-  **They should be used by all staff, in all care settings, at all times,** for all patients whether infection is known to be present or not
-  Sources of potential infection include blood and other body fluids secretions or excretions, non intact skin or mucous membranes and any equipment or items in the care environment that might have become contaminated
-  Your application of SICPs during care delivery is determined by an assessment of risk to and from individuals and includes the task, level of interaction and/or the anticipated level of exposure to blood and/or other body fluids

There are 10 SICPs highlighted in the manual the key points will now be discussed.



SICP 1-Patient placement/assessment for infection risk.

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SICP -Patient placement/assessment for infection risk.

 Patients must be promptly assessed for infection risk on arrival at the care area (if possible, prior to accepting a patient from another care area) and should be continuously reviewed throughout their stay.

This assessment should influence placement decisions in accordance with clinical/care need(s).

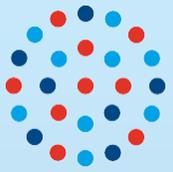
Patients who may present a cross-infection risk include those:

- With diarrhoea, vomiting, an unexplained rash, fever or respiratory symptoms.
- Known to have been previously positive with a Multi-drug Resistant Organism (MDRO)
- Who have been hospitalised outside Scotland in the last 12 months (Note: this is likely to increase to 24 months shortly).
- For assessment of infection risk see the transmission based precautions covered later in this resource.



SICP 2: Hand Hygiene

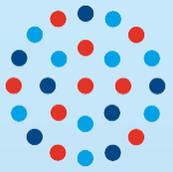
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Regular and effective hand hygiene is the single-most important thing you can do to protect yourself and others from infectious agents including COVID-19.

Hand hygiene is **essential** when you are working with patients





Before washing your hands:

- Expose forearms (bare below the elbows)
- Remove any hand/wrist jewellery including watches (you can keep your wedding ring on, but this must be moved or removed when performing hand hygiene so you can wash the area it usually covers)
- Ensure finger nails are clean, short and artificial nails or nail products are not worn
- Covers all cuts and abrasions with a waterproof dressing



Hand hygiene involves:



and/or



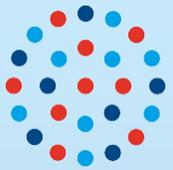
Handwashing with non-antimicrobial soap and water and thoroughly drying with a clean paper towel for 15 seconds

Using alcohol based hand rubs that don't require the use of soap or water for 15 seconds



Note: Alcohol based hand rubs cannot be used if hands are physically soiled or contaminated with blood/body fluids





When should you perform hand hygiene?

When caring for patients, the daily routine can be summed up in what's called:

Your 5 moments for Hand Hygiene



Source: World Health Organization

1	BEFORE TOUCHING A PATIENT	WHEN? Clean your hands before touching a patient when approaching him or her WHY? To protect the patient against harmful germs carried on your hands
2	BEFORE CLEAN/ASEPTIC PROCEDURE	WHEN? Clean your hands immediately before performing a clean/aseptic procedure WHY? To protect the patient against harmful germs, including the patient's own germs, entering his or her body
3	AFTER BODY FLUID EXPOSURE RISK	WHEN? Clean your hands immediately after an exposure risk to body fluids (and after glove removal) WHY? To protect yourself and the health-care environment from harmful patient germs
4	AFTER TOUCHING A PATIENT	WHEN? Clean your hands after touching a patient and his or her immediate surroundings when leaving WHY? To protect yourself and the health-care environment from harmful patient germs
5	AFTER TOUCHING PATIENT SURROUNDINGS	WHEN? Clean your hands after touching any object or furniture in the patient's immediate surroundings, when leaving - even without touching the patient WHY? To protect yourself and the health-care environment from harmful patient germs



You must also, of course, wash and dry your hands routinely:

-  Before eating
-  After using the toilet
-  After using a disposable tissue
-  When you start and finish work



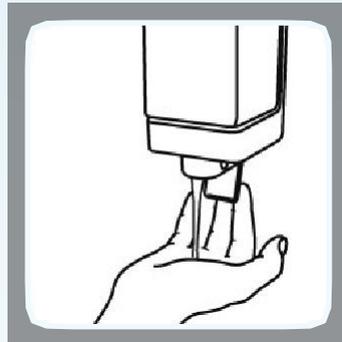
The following shows you good handwashing technique using antimicrobial soap and water.



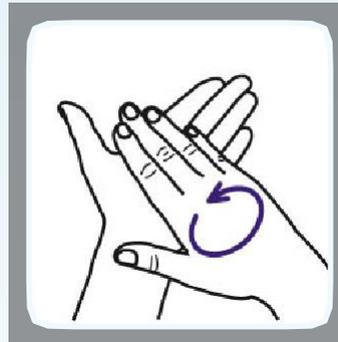
You must make sure the soap and water is in contact with all areas of your hands.



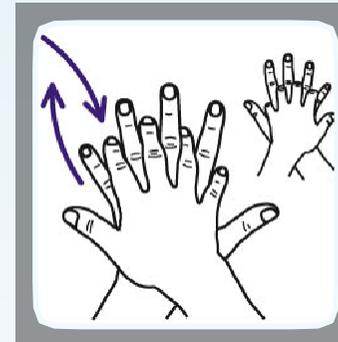
Wet hands with
water



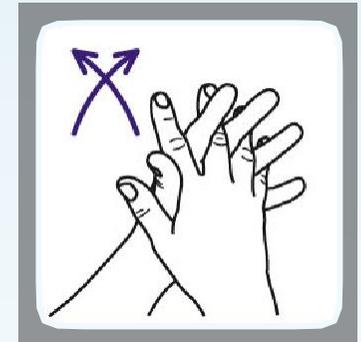
Apply enough
soap to cover all
hand surfaces



Rub hands palm
to palm
**Steps 3-8 should
take at least 15
seconds.**

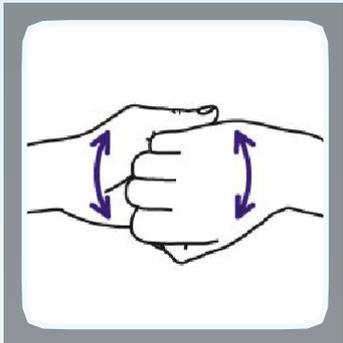


Right palm over
the back of
the other with
interlaced fingers
and vice versa

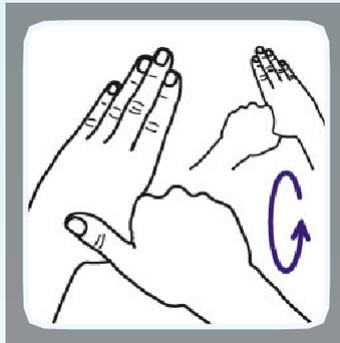


Palm to palm
with fingers
interlaced
Continued
on next slide

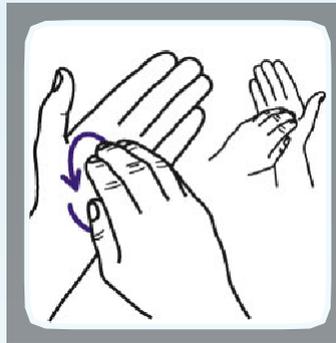




Backs of
fingers to
opposing palms
with fingers
interlocked



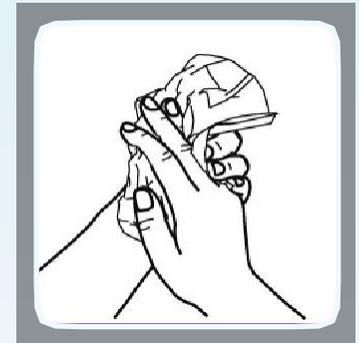
Rotational
rubbing of left
thumb clasped
in right palm and
vice versa



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

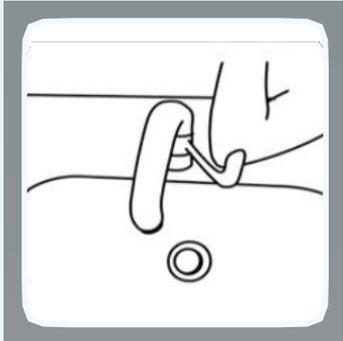


Rinse hands with
water

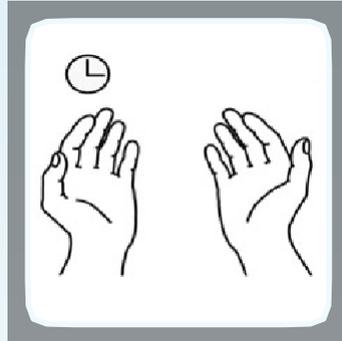


Dry thoroughly
with a clean
disposable paper
towel





Use elbow to
turn off tap

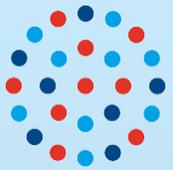


...and your
hands are safe

Steps 3-8 should take at least 15 seconds. If elbow taps are not available, use a paper towel to turn the tap off. Remember not to recontaminate your hands when disposing of the paper towel; use the foot pedal on the waste bin.

Source: World Health Organisation

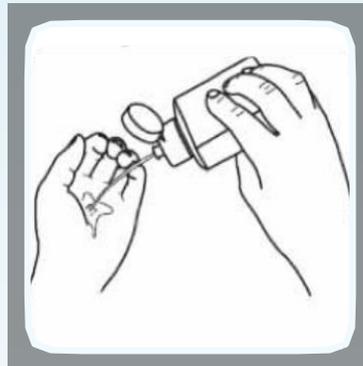




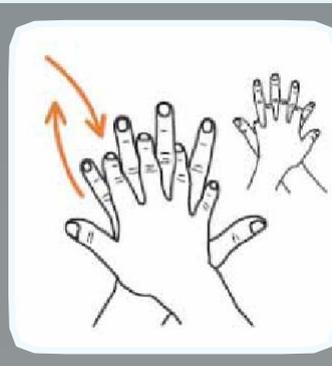
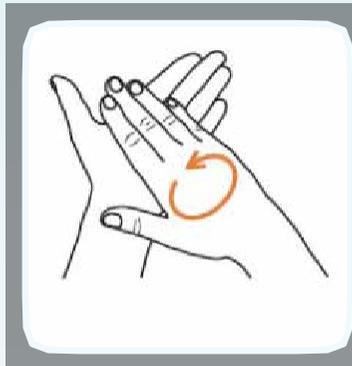
The following shows you good hand hygiene technique using alcohol based handrub.



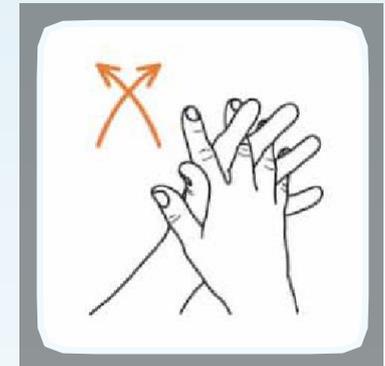
Apply a palmful of the product in a cupped hand and cover all surfaces



Rub hands palm to palm



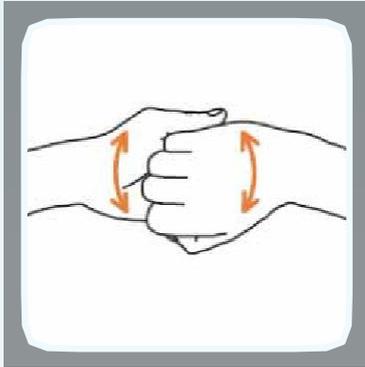
Right palm over the back of the other with interlaced fingers and vice versa



Palm to palm with fingers interlaced



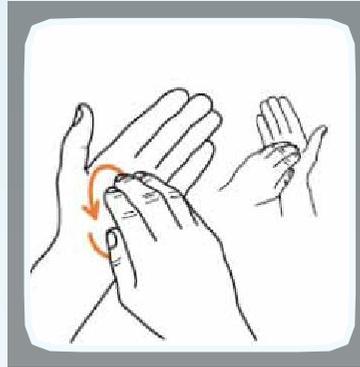
Duration of entire procedure: 15 seconds.



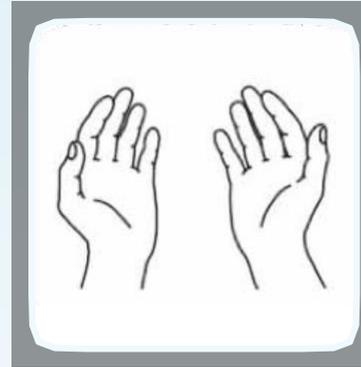
Backs of
fingers to
opposing palms
with fingers
interlocked



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



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



Once dry, your
hands are safe



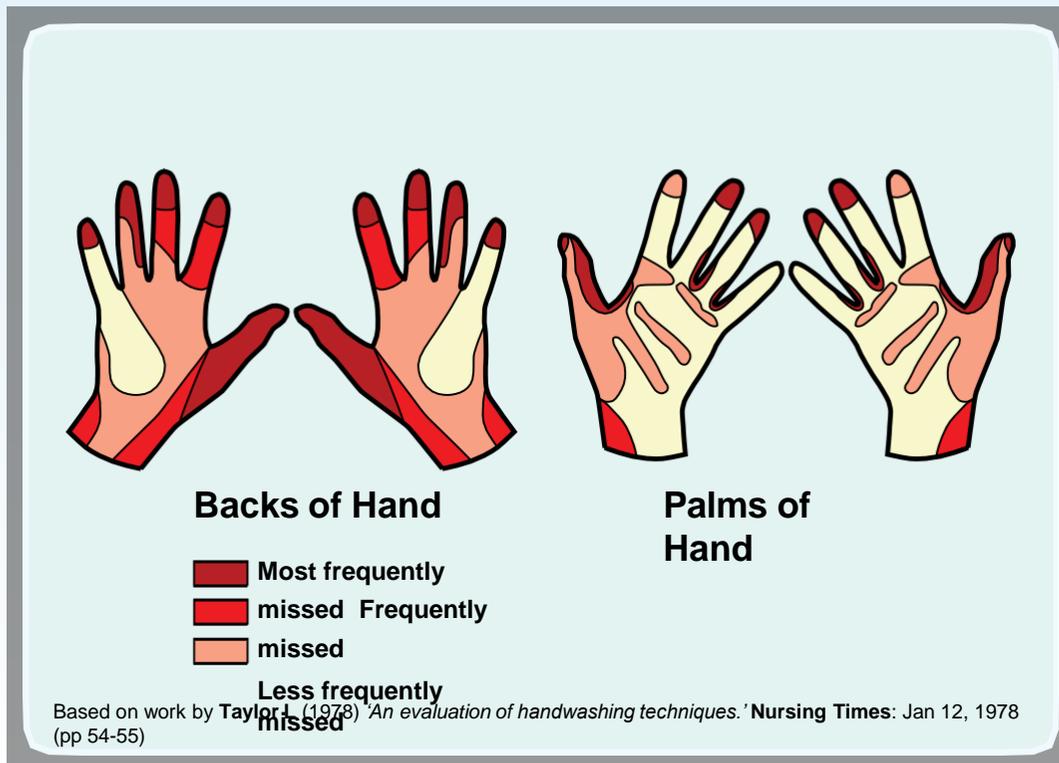
Source: World Health Organisation



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Hand hygiene

The following slide shows you the parts of the hand that are most frequently missed during handwashing - **make sure you don't miss them!**



 **Remember! Hand hygiene involves:**



and/or



Washing your hands either with soap and water then dry thoroughly with a clean paper towel for 15 seconds

Using alcohol hand rubs that don't require the use of soap or water for 15 seconds

 **Note: Alcohol based hand rubs cannot be used if hands are physically soiled or contaminated with blood/body fluids**



SICP 3: Wearing **personal protective equipment (PPE)**



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Personal protective equipment – known as “PPE” – is designed to protect you and others from blood and body fluids that might cause infectious agents to be passed from person to person.

PPE will only work well if you are able to put it on, use it, remove and dispose of it in the correct manner. An error at any of these stages can cause infectious agents to be passed on.

Your employer will provide you with the necessary PPE but you will need to clinically assess when it should be worn. With some patients, that will mean wearing PPE all the time you are close to them.



Disposable gloves

Gloves should be worn if you are assisting in a procedure that involves:

- ! Risk of you being splashed with saliva, sputum, blood or other body fluid
- ! Touching the patient's eyes, nose, ears, lips, mouth or genital area
- ! Contacting any open wound or abrasion on the patient's body
- ! Contacting any site that is sterile
- ! Equipment or environmental decontamination



Gloves should:

- ❗ Fit you well (use non-sterile/sterile gloves as appropriate)
- ❗ Be changed between different patients and between different tasks with the same patient
- ❗ Be removed immediately after use, disposed of as clinical waste and hand hygiene performed
- ❗ Changed if a perforation or puncture is suspected
- ❗ **Never** be washed or reused

Remember that there are likely to be infectious agents on the outside of the gloves after use, so avoid touching the outer surfaces as you take them off.

Double gloving is recommended during some exposure prone procedures



Disposable plastic aprons

Aprons must be worn to:

- protect your uniform and clothes from contamination
- Changed between patients and /or following completion of a procedure or task

Disposable gowns

Occasionally, you may be asked to wear a **disposable** gown when:

- there is a risk of extensive splashing of blood and/or other body fluids
- a disposable apron will not provide adequate cover

They should be changed between patients and/or following completion of a procedure or task

Fluid-repellent gowns are preferable but if the gown you are supplied with isn't fluid-repellent, wear a disposable plastic apron underneath.



Always perform hand hygiene after placing the disposable gown and apron (if used) in the clinical waste bin.



Face masks

A fluid resistant Type 11R surgical face mask must be worn if splashing or spraying of blood , body fluids, secretions or excretions onto the nose and mouth is anticipated likely

You will need to clinically assess when you need to wear face (or “surgical”) masks.

The mask should:

- Cover your nose and mouth
- Not be touched once on
- Not be allowed to dangle round your neck
- Be changed if it becomes moist/damaged
- Be worn once (current guidance) , taken off and put in a clinical waste bin after use, and **hand hygiene performed**

It's important not to touch the area covering your nose and mouth when taking the mask off – only handle it by the ties that fit round your ears or at the back of your head.



Eye/face protectors including full face visors

Eye protectors need only be worn when there is a risk of blood or other body fluids getting into your eyes and causing infection, usually during aerosol-generating procedures.

You will need to clinically assess when you need to wear them.

Some eye protectors are disposable, and should be treated as clinical waste. Others can be reused and therefore need to be cleaned and undergo decontamination –manufacturers instructions will advise you on how to do this.

 **Remember to perform hand hygiene after removing the eye protectors**



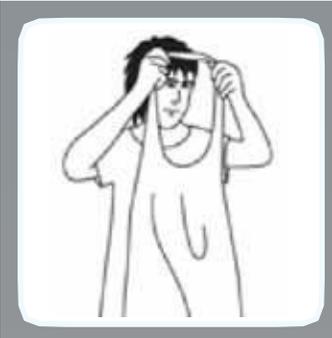
Putting on and removing personal protective equipment (PPE)



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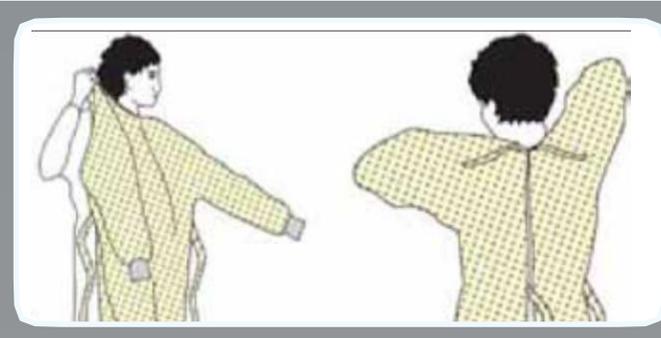
Putting on personal protective equipment (PPE)

The type of PPE used will vary based on the type of exposure anticipated, and not all items of PPE will be required. The order for putting on PPE is Apron or Gown, Surgical Mask, Eye Protection and Gloves.



Apron

- Pull over head and fasten at back of waist.



Gown

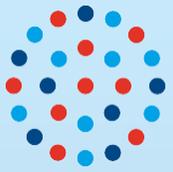
- Fully cover torso from neck to knees, arms to end of wrist and wrap around the back. Fasten at the back.



Surgical Mask

- Secure ties or elastic bands at middle of head and neck
- Fit flexible band to nose bridge
- Fit snug to face and below chin
- Fit/check respirator if being worn



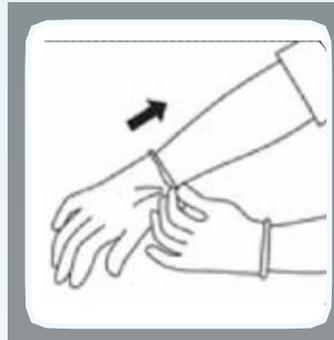


Putting on personal protective equipment (PPE)



Eye Protection (Goggles/ Face Shield)

- Place over face and eyes and adjust to fit



Gloves

- Select according to hand size
Extend to cover wrist

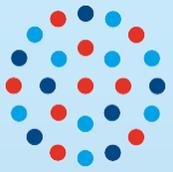


Perform hand hygiene before putting on PPE.

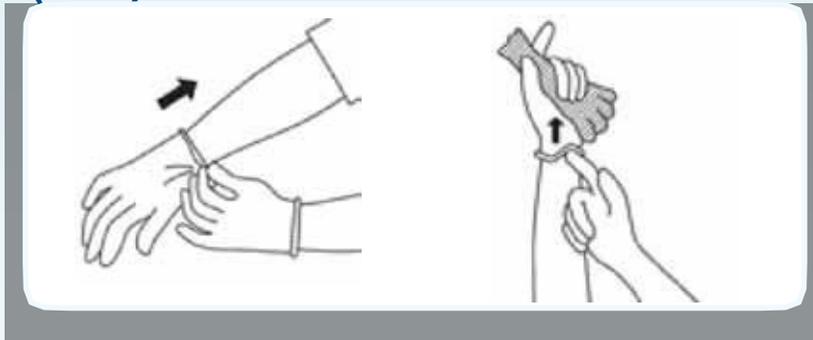


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Putting on and removing PPE



Removing Personal Protective Equipment (PPE)



Gloves

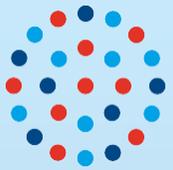
- Outside of gloves are contaminated
- Grasp the outside of the glove with the opposite gloved hand; peel off
- Hold the removed glove in the gloved hand
- Slide the fingers of the ungloved hand under the remaining glove at the wrist
- Peel the second glove off over the first glove
- Discard into an appropriate lined waste bin



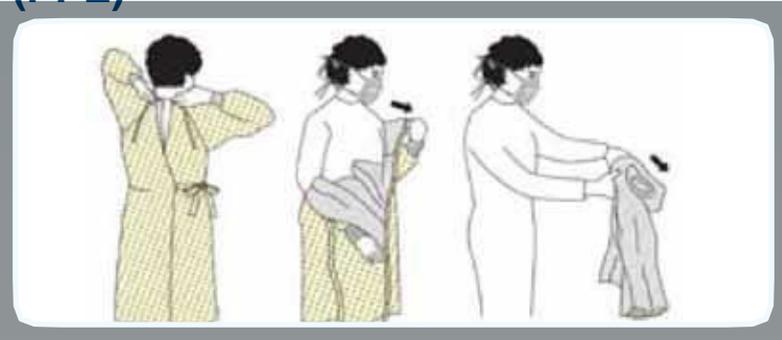
Apron

- Apron front is contaminated
- Unfasten or break ties
- Pull apron away from neck and shoulders lifting over head, touching inside only
- Fold or roll into a bundle
- Discard in a lined waste bin





Removing Personal Protective Equipment (PPE)



Gown

- Gown front and sleeves are contaminated
- Unfasten neck, then waist ties
- Remove gown using a peeling motion; pull gown from each shoulder toward the same hand
- Gown will turn inside out
- Hold removed gown away from body, roll into a bundle and discard into waste or linen receptacle.

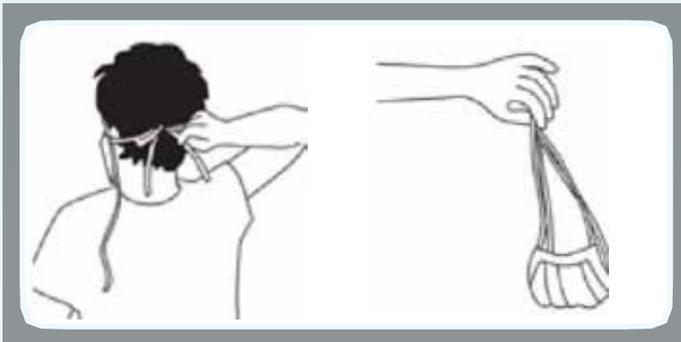


Eye Protection (Goggles/Face Shield)

- Outside of goggles or face shield are contaminated
- Handle only by the headband or the sides
- Place in designated receptacle for reprocessing or in waste container



Removing Personal Protective Equipment (PPE)

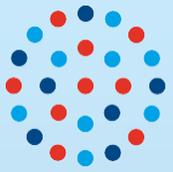


Surgical Mask (or respirator)

- Front of mask/respirator is contaminated – do not touch
- Unfasten the ties – first the bottom, then the top
- Pull away from the face without touching front of mask/respirator
- Discard in a lined waste bin

 Perform hand hygiene immediately on removal





 **Remember! Personal protective equipment is designed to protect you and those you are caring for :**

PPE will only work well if you are able to put it on, use it, remove and dispose of it in the correct manner.

Your employer will provide you with PPE but you will be required to carry out a clinical assessment of when it should be worn. With some patients, that will mean wearing PPE all the time you are close to them.



SICP 4:Respiratory and cough hygiene

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The precautions we take when coughing or sneezing come under the banner of “**cough etiquette**”.

All patients, staff and visitors should be encouraged to carry out good respiratory and cough etiquette. Some patients may need assistance with this. This will help minimise the risk of cross transmission of respiratory illness

Good respiratory and cough etiquette means:

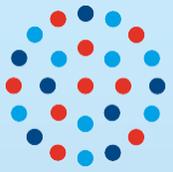
-  Covering the nose and mouth with disposable tissues when sneezing, coughing, wiping and blowing noses
-  Disposing of used tissues promptly in the nearest waste bin or provide a bag for immediate disposal
-  Performing hand hygiene after coughing, sneezing, using tissues or coming into contact with secretions and contaminated objects
-  Keeping hands away from the eyes, mouth and nose



SICP 5: Safe management of care environment



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Keeping patient areas clean is referred to as “**environmental cleaning**”.

The care environment must be:

- Visibly clean, free from non-essential items and equipment to facilitate cleaning
- Routinely cleaned using freshly prepared detergent and warm water or combined detergent/disinfectant solution.
- Items such as bed frames and mattresses, lockers and any reusable equipment must be thoroughly decontaminated between patients.

You should make yourself familiar with Appendix 7 of the National Infection Prevention and Control manual.



SICP 6: Safe management of care equipment



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Safe management of care equipment

Care equipment is easily contaminated with blood, other body fluids, secretions, excretions and infectious agents and so it is easy to transfer infectious agents from communal care equipment during care delivery

Care equipment is classified as either:

Single-use 2 – equipment which is used once on a single patient and then discarded. Must **never** be reused even on the same patient. Needles and syringes are single use devices. They should **never** be used for more than one patient or reused to draw up additional medication.

Never administer medications from a single-dose vial or intravenous (IV) bag to multiple patients

Single patient use – equipment which can be reused on the same patient.

Reusable invasive equipment - used once then decontaminated e.g. surgical instruments.

Reusable non-invasive equipment (often referred to as communal equipment) - reused on more than one patient following decontamination between each use e.g. commode, patient transfer trolley



Safe management of care equipment

Before using any sterile equipment you must check that:

- the packaging is intact
- there are no obvious signs of packaging contamination
- the expiry date remains valid

Decontamination of reusable non-invasive care equipment must be undertaken:

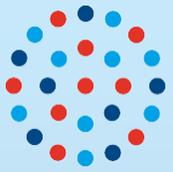
- between each use
- after blood and/or body fluid contamination
- at regular predefined intervals as part of an equipment cleaning protocol
- before inspection, servicing or repair
- Adhere to manufacturers' guidance for use and decontamination of all care equipment.

Remember: You should make yourself familiar with Appendix 7 of the National Infection Prevention and Control manual. Ask for assistance if you are unsure



SICP 7: Safe management of linen

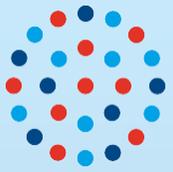
**COVID-19
response**



We need to remember that body fluids, secretions etc that cause infection can settle on bed linen. So we need to make sure that we don't spread infection when we're handling dirty linen.

There are some simple things we can do to avoid this happening.

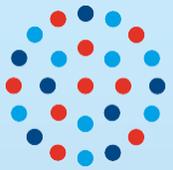




For infectious linen:

-  Don't shake or sort infectious linen on removal from the bed
-  Don't wrap items of infectious linen together when putting them into the laundry bag
-  Always put infectious linen in the right bag (your employer will show you which bags should be used)
-  Never overfill linen bags
-  Always put the right identification tag on the bags
-  Always make sure the bag is tied and sealed before removal from the patient care area
-  Always store the linen bags in the right area for collection – your employer will show you where
-  Don't place or drop infectious linen on the floor or other surfaces like a bedside locker or table top
-  Re-handle infectious linen once bagged or place inappropriate items in the bags
-  **Remember to wear gloves and a plastic apron when handling infectious linen, and perform hand hygiene before putting them on and after taking them off.**
- 





For all infectious linen i.e. linen that has been used by a patient who is known or suspected to be infectious and/or linen that is contaminated with blood and/or other body fluids e.g. faeces:

- Place directly into a water-soluble/alginate bag and secure; then place into a plastic bag e.g. clear bag and secure before placing in a laundry receptacle. This applies also to any item(s) heavily soiled and unlikely to be fit for reuse.
- Used and infectious linen bags/receptacles must be tagged e.g. ward/care area and date.
- Store all used/infectious linen in a designated, safe, lockable area whilst awaiting uplift. Uplift schedules must be acceptable to the care area and there should be no build-up of linen receptacles.
- Local guidance regarding management of linen may be available.



SICP 8: Laundering of uniforms

**COVID-19
response**



If you are given a uniform to wear when on duty, the PPE we have looked at will help to prevent contamination .

- ❗ Get the uniform properly washed through the hospital laundry system

If you find the hospital you work in doesn't have a laundering system for uniforms:

- Take the dirty uniform home in a sealed disposable plastic bag
- Wash it separately from other laundry in your washing machine
- Set the washing machine temperature as high as the uniform label allows you to Tumble dry and/or iron



SICP 9: Safe management of blood and body fluids

**COVID-19
response**

Safe management of blood and body fluids

- Spillages of blood and other body fluids may transmit infection including blood borne viruses.
- Spillages must be decontaminated immediately by staff only if you have been trained to undertake this safely.
- Responsibilities for the decontamination of blood and body fluid spillages should be clear within the area/care setting that you are working in
- For management of blood and body fluid spillages review your local policies and Appendix 9 of the National Infection Prevention and Control manual



SICP 10: Safe disposal of waste including sharps

**COVID-19
response**

Categories of waste:

Healthcare (including clinical) waste – is produced as a direct result of healthcare activities e.g. soiled dressings, sharps.

Special (or hazardous) waste – arises from the delivery of healthcare in both clinical and non-clinical settings. Special waste includes a range of controlled wastes, defined by legislation, which contain dangerous or hazardous substances e.g. chemicals, pharmaceuticals.

Domestic waste – must be segregated at source into:

Dry recyclables (glass, paper and plastics, metals, cardboard).

Residual waste (any other domestic waste that cannot be recycled).



Waste Streams:

Black – Trivial risk:

Domestic waste or yellow and black stripes (small quantities of hygiene waste).

Final disposal to Landfill.

Clear/opaque receptacles may also be used for domestic waste at care area level.

Orange, Light Blue (laboratory) – Low risk³

Orange - consists of items which are contaminated or likely to be contaminated with blood and/or body fluids.

Final disposal following heat disinfection is to landfill.

Light Blue – laboratory/microbiological waste that must be autoclaved before disposal via the orange stream.

Yellow– High risk:

Waste which poses ethical, highly infectious or contamination risks.

This includes anatomical and human tissue which is recognisable as body parts, medical devices and sharps waste boxes that have red, purple or blue lids.

Disposal is by specialist incineration.

Red – Special waste

Chemical waste.



Remember -Standard Infection Control Precautions

- should be used by all staff, in all care settings, at all times, for all patients

**COVID-19
response**

Part 2- Transmission based precautions (TBPs)

SICPs may be insufficient to prevent cross transmission of specific infectious agents.

Additional precautions called TBPs are required to be used by staff when caring for patients with a known or suspected infection or colonisation.

**COVID-19
response**

What are Transmission based precautions (TBPs)?

-  SICPs may be insufficient to prevent cross transmission of specific infectious agents.
-  Additional precautions called TBPs are required to be used by staff when caring for patients with a known or suspected infection or colonisation

Clinical judgement and decisions should be made by staff on the necessary precautions.

This must be based on the:

- suspected or known infectious agent
- severity of the illness caused
- transmission route of the infectious agent
- care setting and procedures undertaken

 **Always ask for assistance if you are unsure what TBPs you need to apply**



What types of transmission based precautions are there?

TBPs are categorised by the route of transmission of infectious agents (some infectious agents can be transmitted by more than one route) Application of TBPs may differ depending on the setting and the known or suspected infectious agent.

Contact precautions

Used to prevent and control infections that spread via direct contact with the patient or indirectly from the patient's immediate care environment (including care equipment). This is the most common route of cross-infection transmission.

Droplet precautions

Used to prevent and control infections spread over short distances (at least 3 feet or 1 metre) via droplets (greater than $5\mu\text{m}$) from the respiratory tract of one individual directly onto a mucosal surface or conjunctivae of another individual. Droplets penetrate the respiratory system to above the alveolar level.

Airborne precautions

Used to prevent and control infections spread without necessarily having close patient contact via aerosols (less than or equal to $5\mu\text{m}$) from the respiratory tract of one individual directly onto a mucosal surface or conjunctivae of another individual. Aerosols penetrate the respiratory system to the alveolar level.

Note:COVID-19 is considered contact and droplet (airborne only with AGPs) transmission



TBP- Patient Placement/Assessment for Infection Risk

 The potential for transmission of infection **must be assessed** at the patient's entry to the care area. The assessment will influence placement decisions in accordance with clinical/care need(s).

Patients who may present a cross-infection risk in any setting includes those:

- With diarrhoea, vomiting, an unexplained rash, fever or respiratory symptoms. For COVID-19 the key symptoms are fever and respiratory.
- Known to have been previously confirmed positive with a Multi-drug Resistant Organism (MDRO) e.g. MRSA, CPE.
- Who have been hospitalised (inpatient) outside Scotland in the last 12 months.

Isolation facilities should be prioritised depending on the known/suspected infectious agent

- All patient placement decisions and assessment of infection risk (including isolation requirements) must be clearly documented by you in the patient notes.
- The clinical judgement and expertise of the staff involved in a patient's management and the Infection Prevention and Control Team (IPCT) should be sought particularly for the application of TBPs

 Find out your local contacts for these teams



TBPs- Patient Placement/Assessment for Infection Risk -Hospital settings

Isolation of infectious patients can be in specialised isolation facilities, single room isolation

Management of patients

-  Ensure cohorting of infectious patients where appropriate, ensuring that they are separated by at least 3 feet (1 metre) with the door closed.
-  Signage should be used on doors/areas to communicate isolation requirements and prevent entry of unnecessary visitors and non-essential staff.
-  Infectious patients should only be transferred to other departments if medically necessary. If the patient has an infectious agent transmitted by the airborne/droplet route then if possible/tolerated the patient should wear a surgical face mask during transfer.
-  Receiving department/hospital and transporting staff must be aware of the necessary precautions



TBPs- Safe Management of Patient Care Equipment in an isolation room/cohort area

What should you do?

- Use single-use items if possible.
 - Reusable non-invasive care equipment should be dedicated to the isolation room/cohort area and decontaminated prior to use on another patient
 - An increased frequency of decontamination should be considered for reusable non-invasive care equipment when used in isolation/cohort areas
-  Seek guidance from your line manager as required and refer to the National Infection Prevention and Control Manual



TBPs -Routine environmental decontamination - Hospital setting:

 Patient isolation/cohort rooms/area must be decontaminated **at least daily**, this may be increased on the advice of IPCTs/HPTs.

These areas must be decontaminated using either:

- a combined detergent/disinfectant solution at a dilution of 1,000 parts per million available chlorine (ppm available chlorine (av.cl.)); or
- a general purpose neutral detergent in a solution of warm water followed by disinfection solution of 1,000ppm av.cl.
- Manufacturers' guidance and recommended product "contact time" must be followed for all cleaning/disinfection solutions .

 Always refer to local policy and ensure you have received the correct training for carrying out decontamination



TBPs -Routine environmental decontamination - Hospital setting

Cleaning/decontamination

You should follow local procedures including:

- Increased frequency of decontamination/cleaning should be carried out where there may be higher environmental contamination rates e.g. toilets/commodes particularly if patients have diarrhoea
- “frequently touched” surfaces such as door/toilet handles and locker tops, over bed tables and bed rails.
- Vacated rooms should be decontaminated following an AGP. Advice should be sought from the IPCT.
- Patient rooms must be terminally cleaned following resolution of symptoms, discharge or transfer. This includes removal and laundering of all curtains and bed screens.

 **Remember to seek expert guidance from your Infection prevention and control team if you require assistance.**



TBPs -Routine environmental decontamination - Hospital setting

Terminal decontamination

Following patient transfer, discharge, or once the patient is no longer considered infectious you should ensure that the following is removed:

- healthcare waste and any other disposable items (bagged before removal from the room)
- bedding/bed screens/curtains and manage as infectious linen (bagged before removal from the room)
- reusable non-invasive care equipment (decontaminated in the room prior to removal)

The room should be decontaminated using either:

- a combined detergent disinfectant solution at a dilution (1,000ppm av.cl.); or a general purpose neutral detergent clean in a solution of warm water followed by disinfection solution of 1,000ppm av.cl..
- The room must be cleaned from the highest to lowest point and from the least to most contaminated point.
- Manufacturers' guidance and recommended product "contact time" must be followed for all cleaning/disinfection solutions .
- Unless instructed otherwise by the IPCT there is no requirement for a terminal clean of an outpatient area or theatre recovery.

Remember: Follow local policy and seek help if assistance required



TBPs –Personal Protective Equipment : Respiratory Protective Equipment

Your employer will provide you with PPE and it is for you to clinically assess when you need required to wear it.

Remember! Personal protective equipment is designed to protect you and those you are caring for

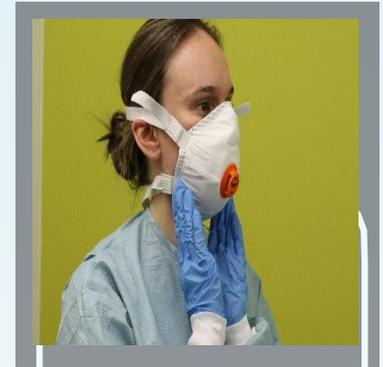
-  PPE must still be used in accordance with SICPs when using Respiratory Protective Equipment.
-  Further information on best practice for PPE use for TBPs can be found in the National Infection Prevention and Control Manual
-  PPE will only work well if you are able to put it on, use it, remove and dispose of it in the correct manner.



TBPs –Personal Protective Equipment : Respiratory Protective Equipment FFP3 Respirators

“FFP” stands for “Filter Face Piece” – in other words, this kind of protective mask has a special filter inserted to protect you against very fine airborne particles.

A disposable FFP3 respirator should be worn when you are assisting with certain procedures for example where there is a risk of airborne transmission of COVID-19. These are called “**aerosol-generating procedures**”.



Respiratory Protective Equipment (RPE) i.e. FFP3 and facial protection, must be considered when:

- A patient is admitted with a known/suspected infectious agent/disease spread wholly by the airborne route and when carrying out aerosol generating procedures (AGPs) on patients with a known/suspected infectious agent spread wholly or partly by the airborne or droplet route.
- The decision to wear an FFP3 respirator/hood should be based on clinical risk assessment e.g task being undertaken, the presenting symptoms, the infectious state of the patient, risk of acquisition and the availability of treatment



Aerosol-generating procedures include:

- Intubation, extubation and related procedures e.g. manual ventilation and open suctioning of the respiratory tract (including the upper respiratory tract)*
- Tracheotomy/tracheostomy procedures (insertion/open suctioning/removal)
- Bronchoscopy and upper ENT airway procedures that involve suctioning
- Upper Gastro-intestinal Endoscopy where there is open suctioning of the upper respiratory tract
- Surgery and post mortem procedures involving high-speed devices
- Some dental procedures (e.g. high-speed drilling)
- Non-invasive ventilation (NIV) e.g. Bi-level Positive Airway Pressure Ventilation (BiPAP) and Continuous Positive Airway Pressure Ventilation (CPAP)
- High Frequency Oscillatory Ventilation (HFOV)
- Induction of sputum
- High flow nasal oxygen (HFNO)



Further details relating to respiratory protective equipment can be found in the National infection prevention and control manual



If you have to use a FFP3, you should be fit-tested and trained in its use. A fit-check should be carried out prior to every use to ensure a good fit and tight seal to your face. They also need to be compatible with other face protection if worn e.g. protective eye wear

Local arrangements for these processes may differ between board areas.

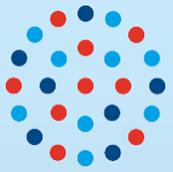
FFP3 respirators should be changed during use if:

-  You find breathing is becoming difficult
-  The respirator becomes damaged
-  The respirator is obviously contaminated
-  Proper fit cannot be maintained

Respirators should be replaced after each use and disposed of as clinical waste.

-  **Remember to perform hand hygiene after removing the FFP3 respirator**





 **Remember! Personal protective equipment is designed to protect you and those you are caring for :**

PPE will only work well if you are able to put it on, use it, remove and dispose of it in the correct manner.

Refer to the National Infection prevention and control manual for further details (Chapter 2) and refer to local policies.



TBPs – Infection prevention and control during care of the deceased

Patients who die may still be infectious after death.

The principles of SICPs and TBPs continue to apply whilst deceased individuals remain in the care environment. This is due to the ongoing risk of infectious transmission via contact although the risk is usually lower than for living patients.

Healthcare staff will prepare the body for transfer to the mortuary – this is called “**performing last offices**”. If you are asked to assist, you must:

-  Perform hand hygiene before and after the procedure
-  Wear disposable gloves and a disposable apron
-  Wear a face mask and/or eye protectors if it is felt that there is a risk of leakage or splashing of body fluids
-  Guidance will be given on the use of special protective coverings (such as body bags)
See Appendix 12 of the National Infection Prevention and Control Manual



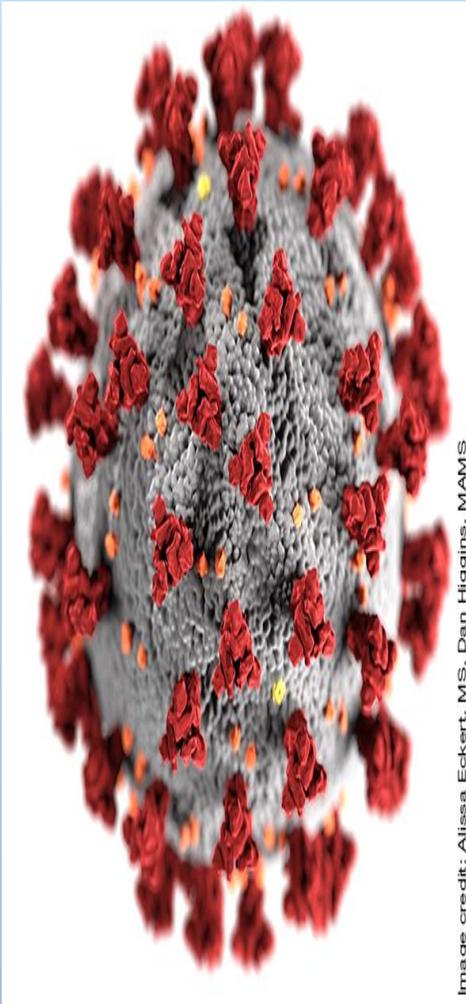
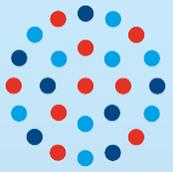


Image credit: Alissa Eckert, MS, Dan Higgins, MAMS

Transmission based precautions (TBPs)

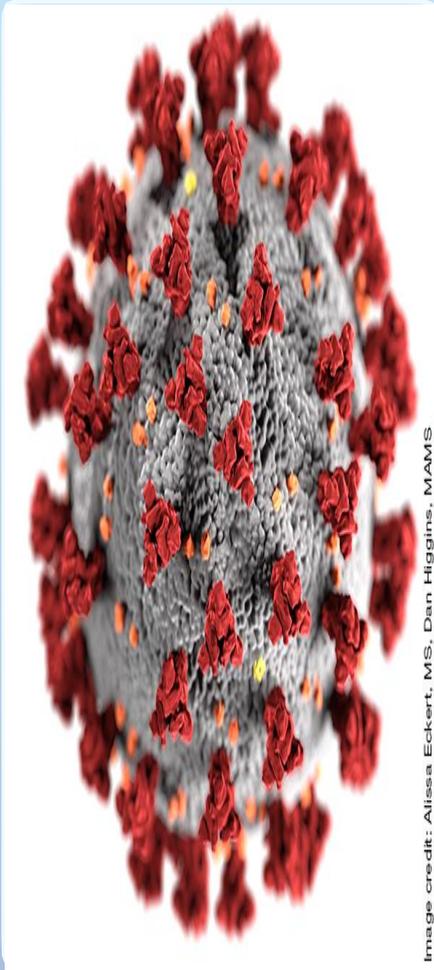
- ⚠ Remember :SICPs may be insufficient to prevent cross transmission of specific infectious agents.
- ⚠ Additional precautions called TBPs are required to be used by you when caring for patients with a known or suspected infection or colonisation.
- ⚠ Clinical judgement and decisions should be made by staff on the necessary precautions based on the situation
- ⚠ **Remember: Follow local policy and do not hesitate to seek help if required**



Part 3- Pandemic COVID-19

Specific Infection prevention and control guidance

**COVID-19
response**



Key resources

The National Infection Prevention and Control manual is a nationally endorsed evidence based guidance for infection prevention and control in Scotland.

It is mandatory for NHS Scotland staff and much of the information contained in this resource is taken directly from the manual.

The manual can be found at the weblink below and you should refer to it at all times for more detailed information

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

COVID-19 specific guidance

For staff caring for COVID-19 patients specific information can be found at the Health Protection Scotland COVID-19 guidance page.

<https://www.hps.scot.nhs.uk/a-to-z-of-topics/covid-19/>



This should be checked regularly due to the evolving nature of this response



**COVID-19
response**

Infection Prevention and Control Measures

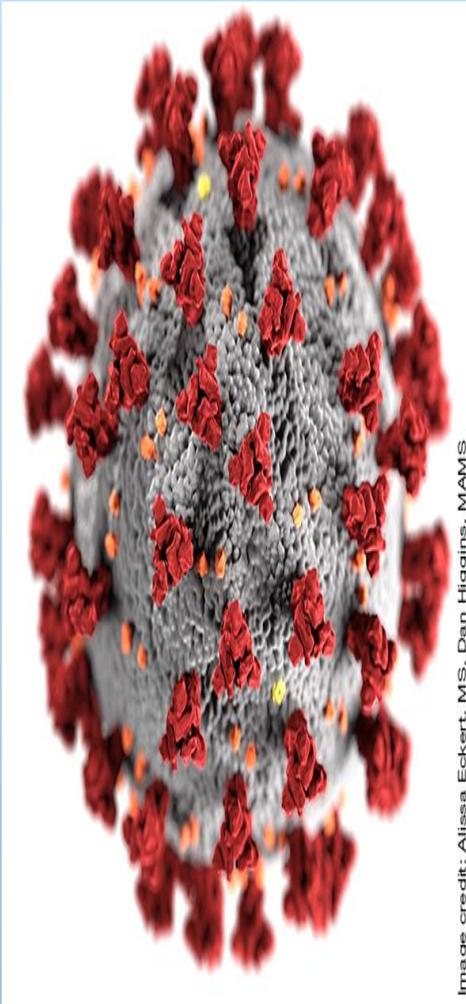


Image credit: Alissa Eckert, MS, Dan Higgins, MAMS

COVID-19 Guidance for infection prevention and control in healthcare settings

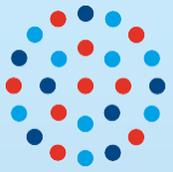
- ❗ If you are asked to care for patients with COVID-19 then the Standard Infection Control Precautions and Transmission Based precautions should be followed. These can be found in the National Infection prevention and control manual <http://www.nipcm.hps.scot.nhs.uk/>
AND
- ❗ In addition there is specific guidance relating to infection prevention and control for staff caring for COVID-19 patients
Transmission of COVID-19 is considered to be via contact and droplet (airborne only with Aerosol Generating procedures (AGPs))

Details of this guidance can be found at the COVID-19 Health Protection Scotland website which is regularly revised

<https://www.hps.scot.nhs.uk/a-to-z-of-Topics/covid-19/>

- 👐 It is crucial that you check this site to ensure you are working to the current guidance





How is COVID-19 spread?

- From what we know about other coronaviruses, transmission of COVID-19 is most likely to happen when there is close contact (within 2 metres or less) with an infected person.
- The risk of infection transmission increases the longer someone has close contact with an infected person.
- Respiratory secretions, from the coughs and sneezes of an infected person, are the main route of transmission.

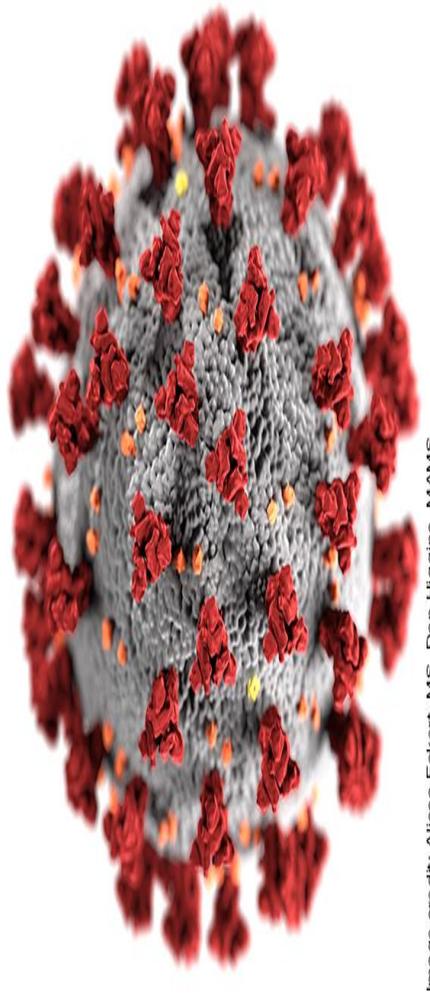
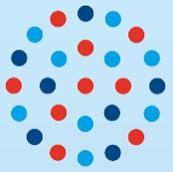


Image credit: Alissa Eckert, MS, Dan Higgins, MAMS





How is COVID-19 spread?

There are two routes by which COVID-19 can be spread:

- **Directly**; from close contact with an infected person (within 2 metres) where respiratory secretions can enter the eyes, mouth, nose or airways. This risk increases the longer someone has close contact with an infected person who has symptoms.
- **Indirectly**; by touching a surface, object or the hand of an infected person that has been contaminated with respiratory secretions and then touching own mouth, nose, or eyes.
- Under most circumstances, even without cleaning or disinfection, the amount of infectious virus on any contaminated surfaces is likely to have decreased significantly by 72 hours

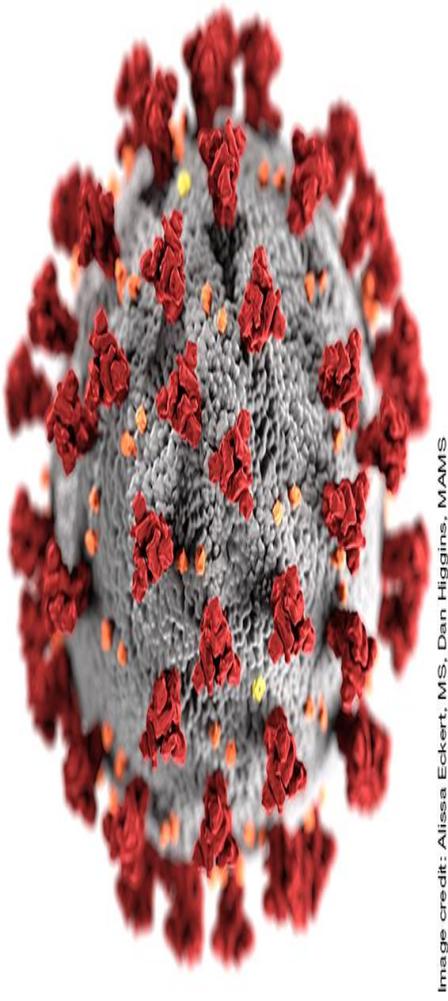


Image credit: Alissa Eckert, MS, Dan Higgins, MAMS



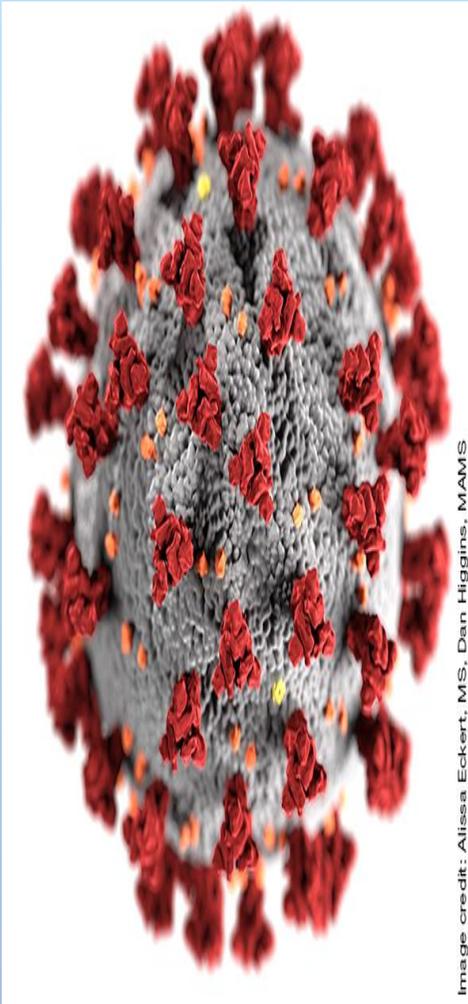


Image credit: Alissa Eckert, MS, Dan Higgins, MAMS

COVID-19 Guidance for infection prevention and control in healthcare settings- Technique for hand washing and rubbing

- Hand hygiene as detailed in Standard infection control procedures (SICPs) includes the use of alcohol based hand rub (ABHR) for routine hand hygiene and hand washing with soap and water, including thorough drying, if hands are visibly soiled or dirty
- If wearing an apron rather than a gown (bare below the elbows), and it is known or possible that forearms have been exposed to respiratory secretions (for example cough droplets) or other body fluids, hand washing should be extended to include both forearms. Wash the forearms first and then wash the hands



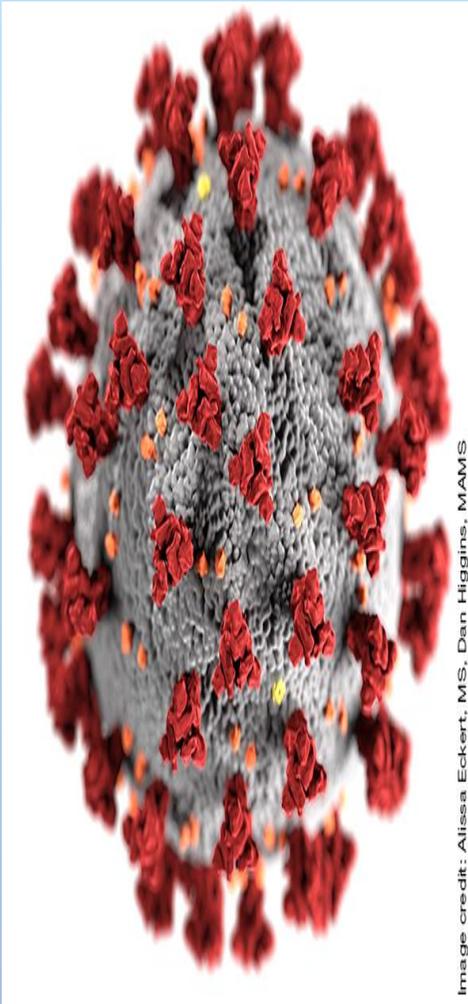
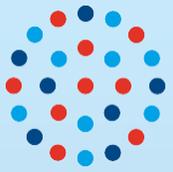


Image credit: Alissa Eckert, MS, Dan Higgins, MAMS

COVID-19 Guidance for infection prevention and control in healthcare settings- Technique for hand washing and rubbing

- The technique for hand washing must be carried out thoroughly and for a time period sufficient to inactivate the virus **i.e. 40 to 60 seconds**
- The technique for use of ABHR to decontaminate hands must be carried out thoroughly and for a time period sufficient to inactivate the virus **i.e. 20 to 30 seconds**
- Where no running water is available or hand hygiene facilities are lacking, such as in a patient's home, staff may use hand wipes followed by ABHR and should wash their hands at the first available opportunity



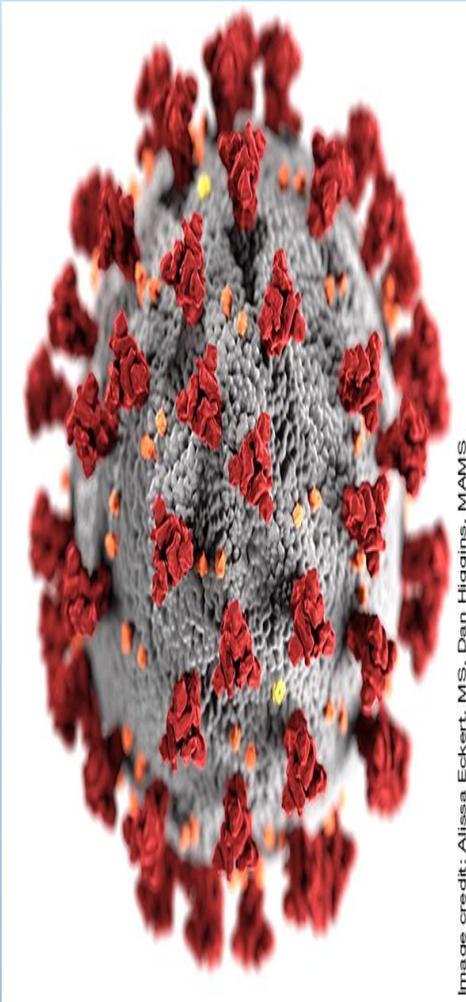
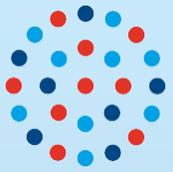


Image credit: Alissa Eckert, MS, Dan Higgins, MAMS

COVID-19 Guidance for infection prevention and control in healthcare settings-Good respiratory and cough hygiene- Catch it, bin it, kill it

You **must** encourage patients, staff and visitors to minimise potential COVID-19 transmission through good respiratory hygiene measures:

- Disposable, single-use tissues should be used to cover the nose and mouth when sneezing, coughing or wiping and blowing the nose. Used tissues should be disposed of promptly in the nearest waste bin.
- Some patients (e.g. the elderly and children) may need assistance with containment of respiratory secretions; those who are immobile will need a container (e.g. a plastic bag) readily at hand for immediate disposal of tissues
- Tissues, waste bins (lined and foot operated) and hand hygiene facilities should be available for patients, visitors and staff.
- Hands should be cleaned (using soap and water if possible, otherwise using ABHR) after coughing, sneezing, using tissues or after any contact with respiratory secretions and contaminated objects.
- In common waiting areas or during transportation, symptomatic patients may wear a fluid-resistant (Type IIR) surgical face mask (FRSM), if tolerated, to minimise the dispersal of respiratory secretions and reduce environmental contamination.



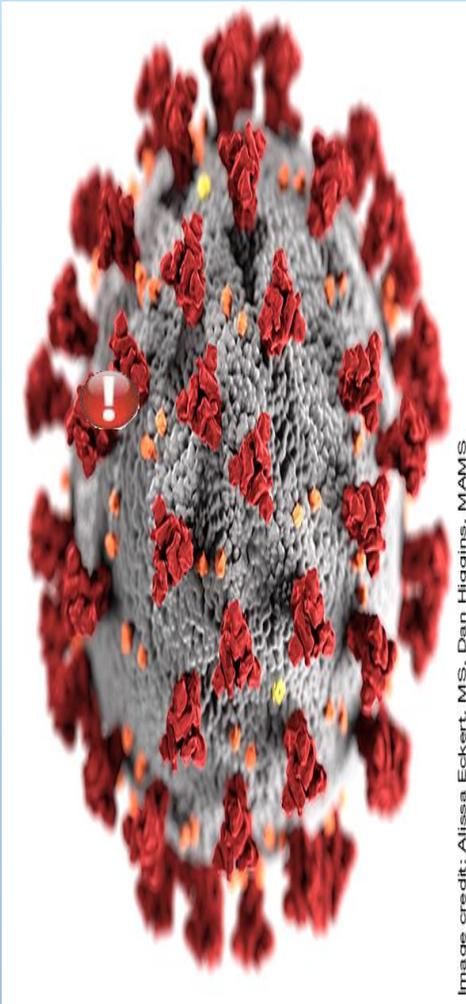


Image credit: Alissa Eckert, MS, Dan Higgins, MAMS

COVID-19 Guidance for infection prevention and control in healthcare settings—Personal protective equipment

Note: This information was correct on the 5th April 2020 but is likely to change as this rapidly evolving situation continues.

Before undertaking any procedure, you should assess any likely exposure and ensure PPE is worn that provides adequate protection against the risks associated with the procedure or task being undertaken.

 You must be trained in the proper use of all PPE that you may be required to wear.

 In addition:

Staff who have had and recovered from COVID-19 **should** continue to follow infection control precautions, including the PPE recommended in this document.



All PPE is worn to protect you from contamination with body fluids to reduce the risk of passing the virus between patients and staff and from one patient to another.

Appropriate PPE for care of patients with COVID-19 is summarised in the tables on the following pages and notes for the table are explained below. These are available on the HPS COVID-19 webpage as are posters relating to PPE. Correct on the 5th April 2020

- The four UK countries are adopting the COVID-19 guidance for infection prevention and control in healthcare settings. This official guidance was produced jointly by the Department of Health and Social Care, Public Health Wales, Public Health Agency (Northern Ireland), Health Protection Scotland and Public Health England.
- This guidance is consistent with the current infection prevention and control advice and guidance that has been issued to and used by NHS Scotland to manage the ongoing response to COVID-19.
- These tables are taken from the UK: COVID-19 Guidance for infection prevention and control
- Revised 5th April 2020



Recommended PPE for healthcare workers by secondary care inpatient clinical setting, NHS and independent sector

Setting	Context	Disposable Gloves	Disposable Plastic Apron	Disposable fluid-resistant gown	Surgical mask	Fluid-resistant (Type IIR) surgical mask	Filtering face piece respirator	Eye/face protection ¹
Acute hospital inpatient and emergency departments, mental health, learning disability, autism, dental and maternity settings	Performing a single aerosol generating procedure ² on a possible or confirmed case ³ in any setting outside a higher risk acute care area ⁴	✓ single use ⁵	✗	✓ single use ⁵	✗	✗	✓ single use ⁵	✓ single use ⁵
	Working in a higher risk acute care area ⁴ with possible or confirmed case(s) ³	✓ single use ⁵	✓ single use ⁵	✓ sessional use ⁶	✗	✗	✓ sessional use ⁶	✓ sessional use ⁶
	Working in an inpatient, maternity, radiology area with possible or confirmed case(s) ³ – direct patient care (within 2 metres)	✓ single use ⁵	✓ single use ⁵	✗	✗	✓ sessional use ⁶	✗	✓ sessional use ⁶
	Working in an inpatient area with possible or confirmed case(s) ³ (not within 2 metres)	✗	✗	✗	✗	✓ sessional use ⁶	✗	✓ risk assess sessional use ^{6,7}
	Working in an emergency department/acute assessment area with possible or confirmed case(s) ³ – direct patient care (within 2 metres)	✓ single use ⁵	✓ single use ⁵	✗	✗	✓ sessional use ⁶	✗	✓ sessional use ⁶
	All individuals transferring possible or confirmed case(s) ³ (within 2 metres)	✓ single use ⁵	✓ single use ⁵	✗	✗	✓ single or sessional use ^{6,8}	✗	✓ risk assess single or sessional use ^{6,7}
	Operating theatre with possible or confirmed case(s) ³ – no AGPs ²	✓ single use ⁵	✓ single use ⁵	✓ risk assess single use ^{6,7}	✗	✓ single or sessional use ^{6,8}	✗	✓ single or sessional use ^{6,8}
	Labour ward/area – 2nd/3rd stage labour vaginal delivery (no AGPs ²) – possible or confirmed case ³	✓ single use ⁵	✓ single use ⁵	✓ single use ²	✗	✓ single or sessional use ^{6,8}	✗	✓ single or sessional use ^{6,8}
	Inpatient care to any individuals in the extremely vulnerable group undergoing shielding ⁸	✓ single use ⁵	✓ single use ⁵	✗	✓ single use ⁵	✗	✗	✗

Table 1

- This may be single or reusable face/eye protection/full face visor or goggles.
 - The full list of aerosol generating procedures (AGPs) is within the COVID-19 IPC guidance [note APGs are undergoing a further review at present].
 - A case is any individual meeting case definition for a possible or confirmed case: <https://www.gov.uk/government/publications/wuhan-novel-coronavirus-initial-investigation-of-possible-cases/investigation-and-initial-clinical-management-of-possible-cases-of-wuhan-novel-coronavirus-wn-cov-infection>
 - Higher risk acute areas include: ICU/HDUs; ED resuscitation areas; wards with non-invasive ventilation; operating theatres; endoscopy units for upper Respiratory, ENT or upper GI endoscopy; and other clinical areas where AGPs are regularly performed.
 - Single use refers to disposal of PPE or decontamination of reusable items e.g. eye protection or respirator, after each patient and/or following completion of a procedure, task, or session; dispose or decontaminate reusable items after each patient contact as per Standard Infection Control Precautions (SICPs).
 - A session refers to a period of time where a healthcare worker is undertaking duties in a specific care setting/exposure environment e.g. on a ward round; providing ongoing care for inpatients. A session ends when the healthcare worker leaves the care setting/exposure environment. Sessional use should always be risk assessed and considered where there are high rates of hospital cases. PPE should be disposed of after each session or earlier if damaged, soiled, or uncomfortable.
 - Risk assessed use refers to utilising PPE when there is an anticipated/likely risk of contamination with splashes, droplets of blood or body fluids.
 - For explanation of shielding and definition of extremely vulnerable groups see guidance: <https://www.gov.uk/government/publications/guidance-on-shielding-and-protecting-extremely-vulnerable-persons-from-covid-19/guidance-on-shielding-and-protecting-extremely-vulnerable-persons-from-covid-19>
- Patient use of PPE:** In cohort wards, communal waiting areas and during transportation, it is recommended that suspected or confirmed cases wear a surgical face mask if this can be tolerated. The aim of this is to minimise the dispersal of respiratory secretions, reduce both direct transmission risk and environmental contamination. A surgical face mask should not be worn by patients if there is potential for their clinical care to be compromised (e.g. when receiving oxygen therapy).



Recommended PPE for primary, outpatient and community care by setting, NHS and independent sector

Setting	Context	Disposable Gloves	Disposable Plastic Apron	Disposable fluid-repellent coverall/gown	Surgical mask	Fluid-resistant (Type IIR) surgical mask	Filtering face piece respirator	Eye/face protection ¹
Any setting	Performing an aerosol generating procedure ² on a possible or confirmed case ³	✓ single use ⁴	✗	✓ single use ⁴	✗	✗	✓ single use ⁴	✓ single use ⁴
Primary care, ambulatory care, and other non emergency outpatient and other clinical settings e.g. optometry, dental, maternity, mental health	Direct patient care – possible or confirmed case(s) ³ (within 2 metres)	✓ single use ⁴	✓ single use ⁴	✗	✗	✓ single or sessional use ^{4,5}	✗	✓ single or sessional use ^{4,5}
	Working in reception/communal area with possible or confirmed case(s) ³ and unable to maintain 2 metres social distance ⁶	✗	✗	✗	✗	✓ sessional use ⁵	✗	✗
Individuals own home (current place of residence)	Direct care to any member of the household where any member of the household is a possible or confirmed case ^{3,7}	✓ single use ⁴	✓ single use ⁴	✗	✗	✓ single or sessional use ^{4,5}	✗	✓ risk assess single or sessional use ^{4,5,8}
	Direct care or visit to any individuals in the extremely vulnerable group or where a member of the household is within the extremely vulnerable group undergoing shielding ⁹	✓ single use ⁴	✓ single use ⁴	✗	✓ single use ⁴	✗	✗	✗
	Home birth where any member of the household is a possible or confirmed case ^{3,7}	✓ single use ⁴	✓ single use ⁴	✓ single use ⁴	✗	✓ single or sessional use ^{4,5}	✗	✓ single or sessional use ^{4,5}
Community-care home, mental health inpatients and other overnight care facilities e.g. learning disability, hospices, prison healthcare	Facility with possible or confirmed case(s) ³ – and direct resident care (within 2 metres)	✓ single use ⁴	✓ single use ⁴	✗	✗	✓ sessional use ⁵	✗	risk assess sessional use ^{4,5,8}
Any setting	Collection of nasopharyngeal swab(s)	✓ single use ⁴	✓ single or sessional use ^{4,5}	✗	✗	✓ single or sessional use ^{4,5}	✗	✓ single or sessional use ^{4,5}

Table 2

- This may be single or reusable face/eye protection/full face visor or goggles.
- The full list of aerosol generating procedures (AGPs) is within the IPC guidance [note APGs are undergoing a further review at present].
- A case is any individual meeting case definition for a possible or confirmed case: <https://www.gov.uk/government/publications/wuhan-novel-coronavirus-initial-investigation-of-possible-cases/investigation-and-initial-clinical-management-of-possible-cases-of-wuhan-novel-coronavirus-wn-cov-infection>
- Single use refers to disposal of PPE or decontamination of reusable items e.g. eye protection or respirator, after each patient and/or following completion of a procedure, task, or session; dispose or decontaminate reusable items after each patient contact as per Standard Infection Control Precautions (SICPs).
- A single session refers to a period of time where a health care worker is undertaking duties in a specific care setting/exposure environment e.g. on a ward round; providing ongoing care for inpatients. A session ends when the health care worker leaves the care setting/exposure environment. Sessional use should always be risk assessed and considered where there are high rates of hospital cases. PPE should be disposed of after each session or earlier if damaged, soiled, or uncomfortable.
- Non clinical staff should maintain 2m social distancing, through marking out a controlled distance; sessional use should always be risk assessed and considered where there are high rates of community cases.
- Initial risk assessment should take place by phone prior to entering the premises or at 2 metres social distance on entering; where the health or social care worker assesses that an individual is symptomatic with suspected/confirmed cases appropriate PPE should be put on prior to providing care.
- Risk assessed use refers to utilising PPE when there is an anticipated/likely risk of contamination with splashes, droplets or blood or body fluids.
- For explanation of shielding and definition of extremely vulnerable groups see guidance: <https://www.gov.uk/government/publications/guidance-on-shielding-and-protecting-extremely-vulnerable-persons-from-covid-19/guidance-on-shielding-and-protecting-extremely-vulnerable-persons-from-covid-19>

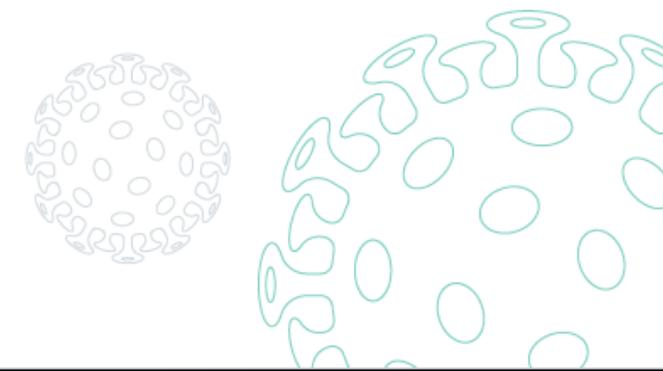


Recommended PPE for ambulance staff, paramedics, first responders, other patient transport services and pharmacy staff

Setting	Context	Disposable Gloves	Disposable Plastic Apron	Disposable fluid-repellent coverall/gown	Surgical mask	Fluid-resistant (Type IIR) surgical mask	Filtering face piece respirator	Eye/face protection ¹
Ambulance staff/paramedic/first responders/pre-hospital critical care/ Helicopter Emergency Medical Service/ hospital transport services	Performing an aerosol generating procedure e.g. intubation, suctioning ² on a possible or confirmed case(s) ³	✓ single use ⁴	✗	✓ single use coverall ⁴	✗	✗	✓ single use ²	✓ single use ⁴
	Direct patient care –possible or confirmed case(s) ³ (within 2 metres)	✓ single use ⁴	✓ single use ⁴	✗	✗	✓ single use ⁴	✗	✓ single use ⁴
	Driver conveying possible or confirmed case(s) ³ in vehicle with a bulkhead, no anticipated direct care ⁷	✗	✗	✗	✗	✗	✗	✗
	Driver conveying possible or confirmed case(s) ³ in vehicle without a bulkhead, no direct patient care and within 2 metres ⁷	✗	✗	✗	✗	✓ single or sessional use ^{4,5}	✗	✗
Pharmacy staff/workers	Working in an area with possible or confirmed case(s) ³ and unable to maintain 2 metres social distance ⁶	✗	✗	✗	✗	✓ sessional use ⁶	✗	✗
	Working in an area with possible or confirmed case(s) ³ and able to maintain social distancing	✗	✗	✗	✗	✗	✗	✗

Table 3

- This may be single or reusable face/eye protection/full face visor or goggles.
- The full list of aerosol generating procedures (AGPs) is within the IPC guidance [note APGs are undergoing a further review at present].
- A case is any individual meeting case definition for a possible or confirmed case: <https://www.gov.uk/government/publications/wuhan-novel-coronavirus-initial-investigation-of-possible-cases/investigation-and-initial-clinical-management-of-possible-cases-of-wuhan-novel-coronavirus-wncv-infection>
- Single use refers to disposal of PPE or decontamination of reusable items e.g. eye protection or respirator, after each patient and/or following completion of a procedure, task, or session; dispose or decontaminate reusable items after each patient contact as per Standard Infection Control Precautions (SICPs).
- A single session refers to a period of time where a health care worker is undertaking duties in a specific care setting/exposure environment e.g. on a ward round; providing ongoing care for inpatients. A session ends when the health care worker leaves the care setting/exposure environment. Sessional use should always be risk assessed and considered where there are high rates of hospital cases. PPE should be disposed of after each session or earlier if damaged, soiled, or uncomfortable.
- Non clinical staff should maintain 2m social distancing, through marking out a controlled distance; sessional use should always be risk assessed and considered where there are high rates of community cases.
- In communal waiting areas and during transportation, it is recommended that suspected or confirmed cases wear a surgical face mask if this can be tolerated. The aim of this is to minimise the dispersal of respiratory secretions, reduce both direct transmission risk and environmental contamination. A surgical facemask should not be worn by patients if there is potential for their clinical care to be compromised (e.g. when receiving oxygen therapy).



Additional considerations, in addition to standard infection prevention and control precautions,

where there is sustained transmission of COVID-19, taking into account individual risk assessment for this new and emerging pathogen, NHS and independent sector

Setting	Context	Disposable Gloves	Disposable Plastic Apron	Disposable fluid-repellent coverall/gown	Surgical mask	Fluid-resistant (Type IIR) surgical mask	Filtering face piece respirator	Eye/face protection ¹
Any setting	Direct patient/resident care assessing an individual that is not currently a possible or confirmed case ² (within 2 metres)	✓ single use ³	✓ single use ³	✗	✗	✓ risk assess sessional use ^{4,5}	✗	✓ risk assess sessional use ^{4,5}
Any setting	Performing an aerosol generating procedure ⁶ on an individual that is not currently a possible or confirmed case ²	✓ single use ³	✗	✓ single use ³	✗	✗	✓ single use ³	✓ single use ³

Table 4

1. This may be single or reusable face/eye protection/full face visor or goggles.
2. A case is any individual meeting case definition for a possible or confirmed case: <https://www.gov.uk/government/publications/wuhan-novel-coronavirus-initial-investigation-of-possible-cases/investigation-and-initial-clinical-management-of-possible-cases-of-wuhan-novel-coronavirus-wn-cov-infection>
3. Single use refers to disposal of PPE or decontamination of reusable items e.g. eye protection or respirator, after each patient and/or following completion of a procedure, task, or session; dispose or decontaminate reusable items after each patient contact as per Standard Infection Control Precautions (SICPs).
4. Risk assess refers to utilising PPE when there is an anticipated/likely risk of contamination with splashes, droplets of blood or body fluids. **Where staff consider there is a risk to themselves or the individuals they are caring for they should wear a fluid repellent surgical mask with or without eye protection as determined by the individual staff member for the care episode/single session.**
5. A single session refers to a period of time where a health care worker is undertaking duties in a specific care setting/exposure environment e.g. on a ward round; providing ongoing care for inpatients. A session ends when the health care worker leaves the care setting/exposure environment. Sessional use should always be risk assessed and consider the risk of infection to and from patients, residents and health and care workers where COVID-19 is circulating in the community and hospitals. PPE should be disposed of after each session or earlier if damaged, soiled, or uncomfortable.
6. The full list of aerosol generating procedures (AGPs) is within the IPC guidance [note AGPs are undergoing a further review at present].



Aerosol-generating procedures include:

- Intubation, extubation and related procedures e.g. manual ventilation and open suctioning of the respiratory tract (including the upper respiratory tract)
- Tracheotomy/tracheostomy procedures (insertion/open suctioning/removal)
- Bronchoscopy and upper ENT airway procedures that involve suctioning
- Upper Gastro-intestinal Endoscopy where there is open suctioning of the upper respiratory tract
- Surgery and post mortem procedures involving high-speed devices
- Some dental procedures (e.g. high-speed drilling)
- Non-invasive ventilation (NIV) e.g. Bi-level Positive Airway Pressure Ventilation (BiPAP) and Continuous Positive Airway Pressure Ventilation (CPAP)
- High Frequency Oscillatory Ventilation (HFOV)
- Induction of sputum
- High flow nasal oxygen (HFNO)



Further details relating to respiratory protective equipment can be found in the UK: COVID-19 Guidance for infection prevention and control



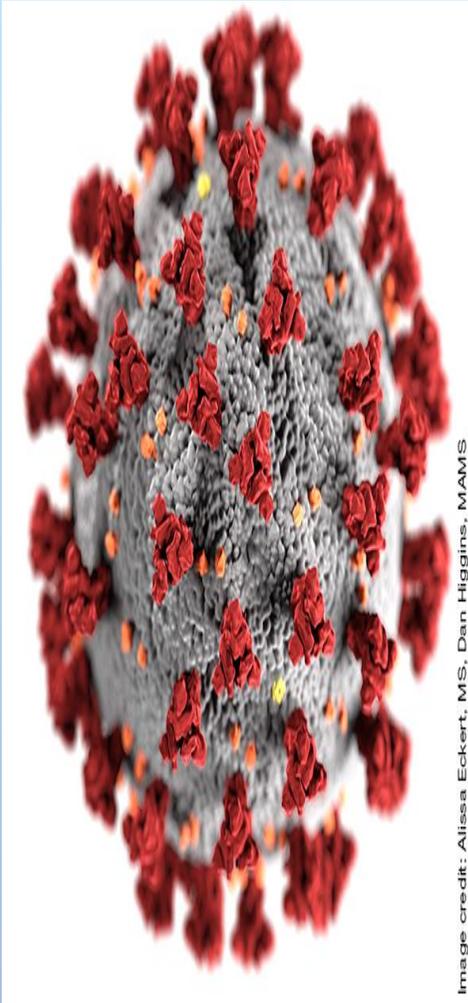
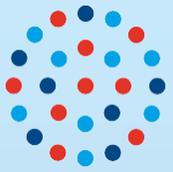


Image credit: Alissa Eckert, MS, Dan Higgins, MAMS

COVID-19 Guidance for infection prevention and control in healthcare settings- Safe management of linen

- ! No special procedures are required, follow SICPs and TBPs
- ! All linen used in the direct care of patients with suspected and confirmed COVID-19 should be managed as 'infectious' linen.
 - You must handle, transport and process linen in a manner that prevents exposure to the skin and mucous membranes of you, your clothing and the environment:
 - Disposable gloves and an apron should be worn when handling infectious linen.
 - All linen should be handled inside the patient room/cohort area.
 - A laundry receptacle should be available as close as possible to the point of use for immediate linen deposit.



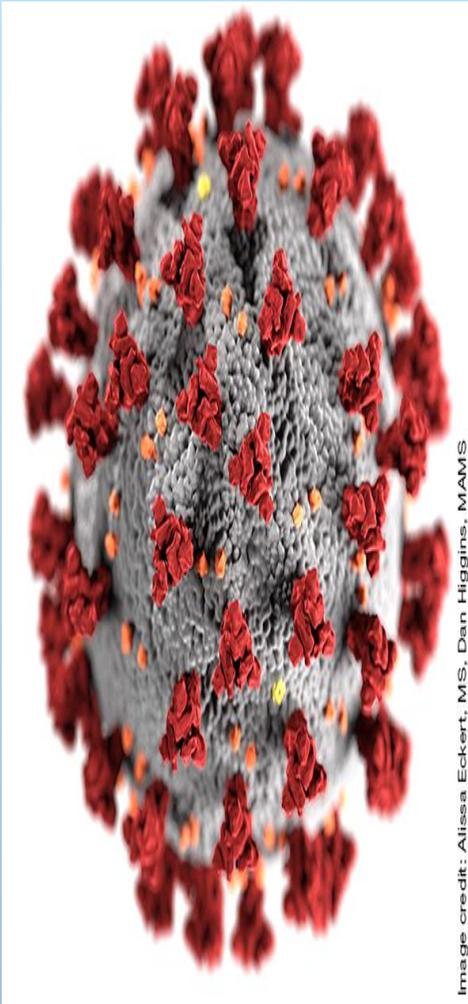
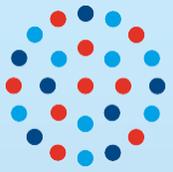


Image credit: Alissa Eckert, MS, Dan Higgins, MAMS

COVID-19 Guidance for infection prevention and control in healthcare settings-Staff uniforms/clothes

The appropriate use of personal protective equipment (PPE) will protect your uniform from contamination in most circumstances.

You should be provided with changing rooms/areas where you can change into uniforms on arrival at work.

You may be asked to wear theatre scrubs if you are likely to come into close contact with patients

Healthcare laundry services should be used to launder your uniforms.

If there is no laundry facility available, then uniforms should be transported home in a disposable plastic bag. This bag should be disposed of into the household waste stream.



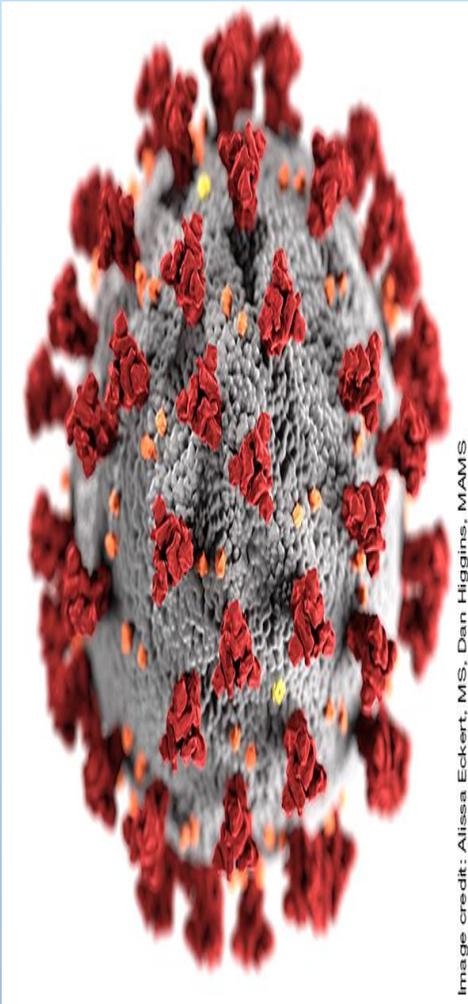
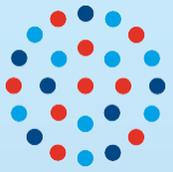


Image credit: Alissa Eckert, MS, Dan Higgins, MAMS

COVID-19 Guidance for infection prevention and control in healthcare settings-Staff uniforms/clothes

As per SICPs these are:

Uniforms should be laundered:

- separately from other household linen;
- in a load not more than half the machine capacity;
- at the maximum temperature the fabric can tolerate, then ironed or tumbled-dried.

NB. It is best practice to change into and out of uniforms at work and **not wear them when travelling**; this is based on public perception rather than evidence of an infection risk. This does not apply to community health workers who are required to travel between patients in the same uniform.



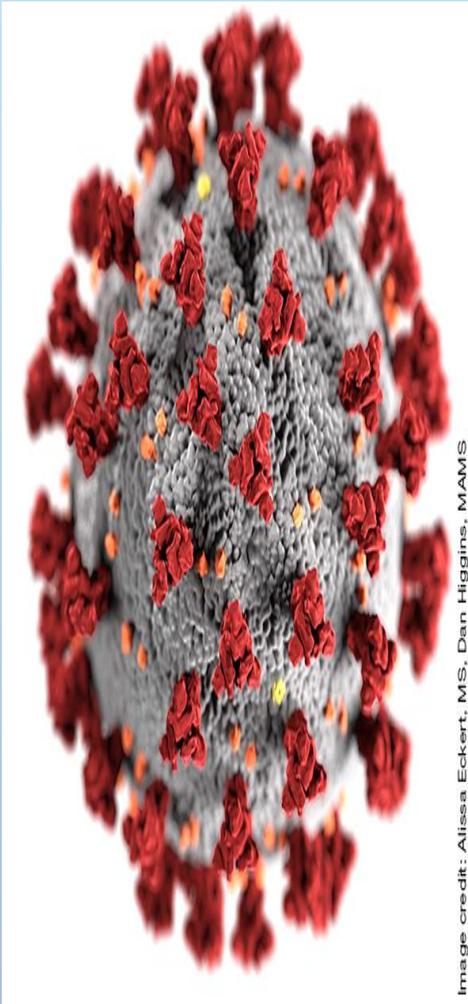
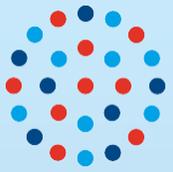


Image credit: Alissa Eckert, MS, Dan Higgins, MAMS

COVID-19 Guidance for infection prevention and control in healthcare settings-Management of blood and body fluids

Spillages must be decontaminated in line with the National Infection Prevention and Control Manual Appendix 9

COVID-19 Guidance for infection prevention and control in healthcare settings-healthcare clinical and non clinical waste

- Large volumes of waste may be generated by frequent use of PPE; advice from your local waste management team should be sought if you have any questions
- Dispose of all waste as clinical waste.



Waste from a possible or a confirmed case must be disposed of as Category B waste



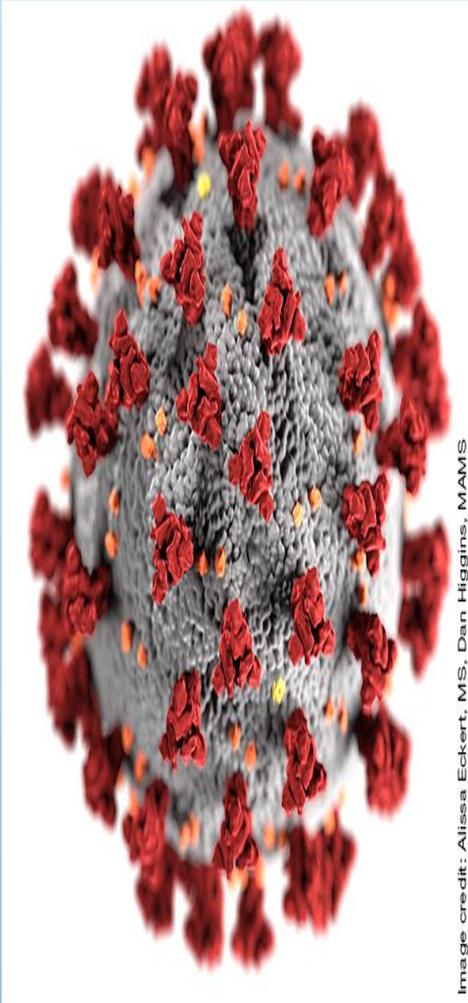
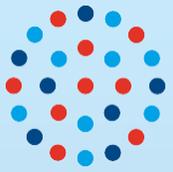


Image credit: Alissa Eckert, MS, Dan Higgins, MAMS

COVID-19 Guidance for infection prevention and control in healthcare settings-Management of equipment and the care environment

Decontamination of equipment and the care environment must be performed using either:

- A combined detergent/disinfectant solution at a dilution of 1,000 parts per million available chlorine (ppm available chlorine (av.cl.)); or
 - A general purpose neutral detergent in a solution of warm water followed by a disinfectant solution of 1,000ppm av.cl.
-
- You must only use cleaning (detergent) and disinfectant products supplied by employers are to be used.
 - Products must be prepared and used according to the manufacturers' instructions and recommended product "contact times" must be followed.
 - If alternative cleaning agents/disinfectants are to be used, they should only on the advice of the IPCT and conform to EN standard 14476 for virucidal activity



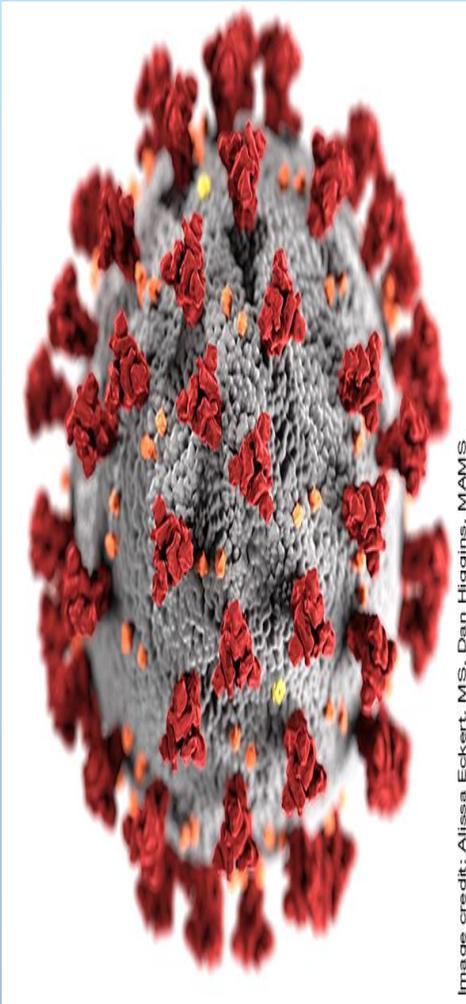


Image credit: Alissa Eckert, MS, Dan Higgins, MAMS

COVID-19 Guidance for infection prevention and control in healthcare settings-Management of equipment and the care environment

Equipment

Patient care equipment should be single-use items if possible. Reusable (communal) non-invasive equipment should as far as possible be allocated to the individual patient or cohort of patients.

Reusable (communal) non-invasive equipment must be decontaminated:

- between each patient and after patient use;
- after blood and body fluid contamination

Environment

Patient isolation rooms, cohort areas and clinical rooms must be decontaminated at least daily. Clinical rooms should also be decontaminated after clinical sessions for patients with suspected/known pandemic COVID-19. In addition, patient isolation rooms must be terminally cleaned:

- Following resolution of symptoms, discharge or transfer (this includes removal and laundering of all curtains and bed screens);
- Once vacated by staff following an AGP.



Contact your IPC Team for guidance



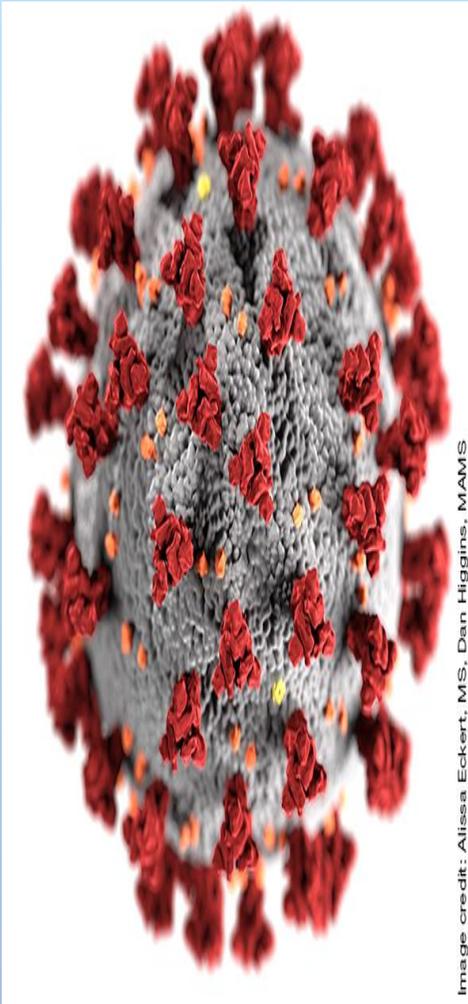


Image credit: Alissa Eckert, MS, Dan Higgins, MAMS

COVID-19 Guidance for infection prevention and control in healthcare settings-Handling dead bodies

- You must apply Standard Infection Control Precautions (SICPs) and Transmission Based Precautions (TBPs) whilst deceased individuals remain in the care environment.
- Where the deceased was known or suspected to have been infected with COVID-19, there is no requirement for a body bag, and viewing, hygienic preparations, post-mortem and embalming are all permitted.



What to do if you develop symptoms

**COVID-19
response**

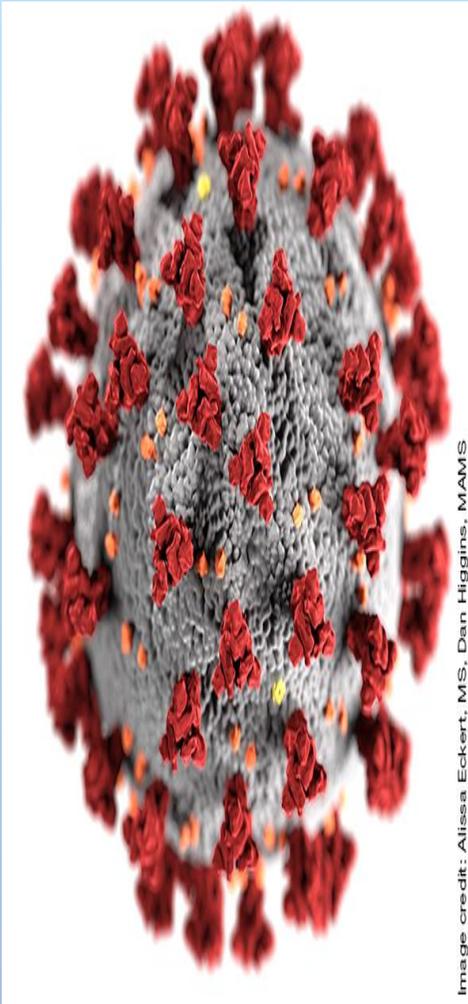
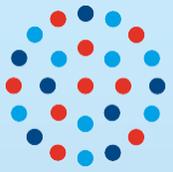


Image credit: Alissa Eckert, MS, Dan Higgins, MAMS

What are the symptoms of COVID-19?

The most common symptoms of COVID-19 are a new continuous cough and/or a fever/high temperature (37.8C or greater).

A new continuous cough is where you:

- Have a new cough that's lasted for an hour have had 3 or more episodes of coughing in 24 hours are coughing more than usual
- A high temperature is feeling hot to the touch on your chest or back (you don't need to measure your temperature). You may feel warm, cold or shivery
- Some people will have more serious symptoms, including pneumonia or difficulty breathing, which might require admission to hospital.



If you feel ill while at work:

- ❗ Report it to your line manager or occupational health department
- ❗ Do not carry on working

If you develop symptoms while off duty

- Do not go to work
- Report it to your line manager
- Stay at home for 7 days from the start of your symptoms even if you think your symptoms are mild.
- Do not go to your GP, pharmacy or hospital.
- Read NHSInform [stay at home guidance for households with possible coronavirus \(COVID-19\) infection](#).
- **You should phone 111 if:**
 - Your symptoms worsen during home isolation, especially if you're in a high or extremely high risk group
 - Breathlessness develops or worsens, particularly if you're in a high or extremely high risk group
 - Your symptoms haven't improved in 7 days
- If you have a medical emergency, phone 999 and tell them you have COVID-19 symptoms



Conclusion:

Thank you for taking the time to go through this resource and for supporting the Pandemic Coronavirus COVID-19 response

Further information on COVID-19 can be accessed through :
HPS COVID-19 webpage
<https://www.hps.scot.nhs.uk/a-to-z-of-Topics/covid-19/>

NHS Inform
<https://www.nhsinform.scot/illnesses-and-conditions/infections-and-poisoning/coronavirus-covid-19/coronavirus-covid-19-general-advice>

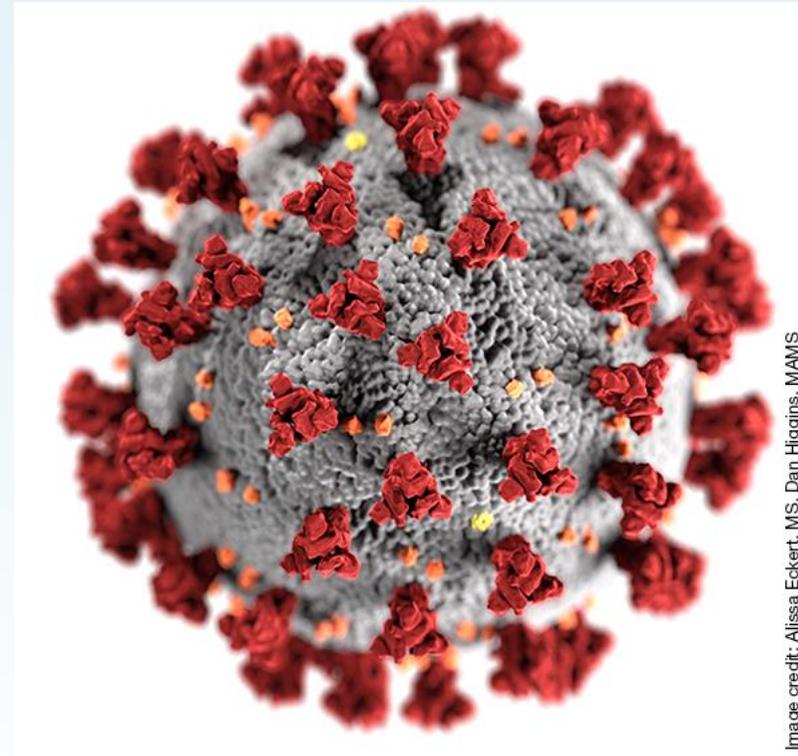


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