



# **Standard infection control precautions: national hand hygiene and personal protective equipment policy**

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# Introduction

This standard infection control precautions (SICPs): national hand hygiene and personal protective equipment (PPE) policy aims to:

- support a common understanding – making the right thing easy to do for every patient,<sup>1</sup> every time
- reduce variation in practice and standardise care processes
- improve how knowledge and skills are applied in infection prevention and control
- help reduce the risk of healthcare-associated infection (HAI)
- help align practice, education, monitoring, quality improvement and scrutiny.

## Responsibilities for the content of this policy

**NHS Improvement in collaboration with Health Protection Scotland must:**

- ensure the content of this policy remains evidence-based.

## Responsibilities for adopting and implementing this policy

All registered providers must demonstrate compliance with the Health and Social Care Act 2008: [Code of practice on the prevention and control of infections and related guidance](#). Specific criteria for hand hygiene are 2, 4, 9 and 10.

**Organisations must:**

- adopt and implement this policy in accordance with their local governance processes
- have systems and resources to implement and monitor compliance with infection prevention and control as specified in this policy in all care areas;

<sup>1</sup> 'Person' can be referred to instead of 'patient' when using this document in non-healthcare settings.

compliance monitoring includes all staff (permanent, agency and, where required, external contractors)

- ensure their culture promotes incident reporting, including near misses, while focusing on improving systemic failures and encouraging safe working practices.

**Managers of all services must ensure that staff:**

- are aware of and have access to this policy
- have had instruction/education on infection prevention and control by attending events and/or completing training
- have adequate support and resources to implement, monitor and take corrective action to comply with this policy; if not, a risk assessment must be undertaken and approved through local governance procedures
- with health concerns (including pregnancy) or who have had an occupational exposure are referred promptly to the relevant agency, eg GP, occupational health or accident and emergency
- have had the required health checks and clearance (including those undertaking exposure prone procedures (EPPs))
- include infection prevention and control as an objective in their personal development plans (or equivalent)
- refer to infection prevention and control in all job descriptions.

**Staff providing care must:**

- show their understanding by applying the infection prevention and control principles in this policy
- maintain competence, skills and knowledge in infection prevention and control by attending education events and/or completing training
- communicate the infection prevention and control practices to be carried out by colleagues, those being cared for, relatives and visitors, without breaching confidentiality

- have up-to-date occupational immunisations, health checks and clearance requirements as appropriate
- report to line managers and document any deficits in knowledge, resources, equipment and facilities or incidents that may result in transmitting infection including near misses, eg PPE failures
- not provide care while at risk of transmitting infectious agents to others; if in doubt, they must consult their line manager, occupational health department, infection prevention and control team (IPCT) or health protection team (HPT)
- contact their HPT/IPCT if there is a suspected or actual HAI incident/outbreak.

**Infection prevention and control teams and health protection teams must:**

- engage with staff to develop systems and processes that lead to sustainable and reliable improvements in applying infection prevention and control practices
- provide expert advice on applying infection prevention and control in all care settings and on individual risk assessments, ensuring action is taken as required
- have epidemiological/surveillance systems capable of distinguishing patient case(s) requiring investigation and control.

**Disclaimer**

When an organisation – eg an NHS trust – uses products or adopts practices that differ from those stated in this policy, it is responsible for ensuring safe systems of work, including the completion of a risk assessment approved through local governance procedures.

# Standard infection control precautions

Standard infection control precautions (SICPs) are to be used **by all staff, in all** care settings, **at all times, for all** patients whether infection is known to be present or not, to ensure the safety of those being cared for, staff and visitors in the care environment.

SICPs are the basic infection prevention and control measures necessary to reduce the risk of transmitting infectious agents from both recognised and unrecognised sources of infection. Sources of (potential) infection include blood and other body fluids, secretions or excretions (excluding sweat), non-intact skin or mucous membranes and any equipment or items in the care environment that could have become contaminated.

The application of SICPs during care delivery is determined by assessing risk to and from individuals. This includes the task, level of interaction and/or the anticipated level of exposure to blood and/or other body fluids.

To protect effectively against infection risks, SICPs must be used consistently by all staff. SICPs implementation monitoring must also be ongoing to ensure compliance with safe practices and to demonstrate ongoing commitment to patient, staff and visitor safety.

There are 10 elements of SICPs:

- patient placement/assessment for infection risk
- hand hygiene
- respiratory and cough hygiene
- personal protective equipment (PPE)
- safe management of care equipment
- safe management of the care environment
- safe management of linen
- safe management of blood and body fluids

- safe disposal of waste (including sharps)
- occupational safety/managing prevention of exposure (including sharps).

This SICPs policy focuses on hand hygiene and PPE.

# Hand hygiene

Hand hygiene is considered an important practice in reducing the transmission of infectious agents that cause HAIs.

Sinks for washing hands must be used solely for that purpose and not for disposing of liquids.

## **Before performing hand hygiene:**

- expose forearms (bare below the elbow)
- remove all hand and wrist jewellery (a single, plain metal finger ring is permitted but should be removed (or moved up) during hand hygiene)
- ensure fingernails are clean and short, and do not wear artificial nails or nail products
- cover all cuts or abrasions with a waterproof dressing.

## **To perform hand hygiene:**

Alcohol-based handrubs (ABHRs) must be available for staff as near to the point of care as possible. Where this is not practical, personal ABHR dispensers should be used.

Perform hand hygiene:

1. before touching a patient
2. before clean or aseptic procedures
3. after body fluid exposure risk
4. after touching a patient; and
5. after touching a patient's immediate surroundings.

NB: perform hand hygiene before putting on and after removing gloves.

Wash hands with non-antimicrobial liquid soap and water if:

- hands are visibly soiled or dirty
- caring for patients with vomiting or diarrhoeal illnesses
- caring for a patient with a suspected or known gastrointestinal infection, eg norovirus or a spore-forming organism such as *Clostridium difficile*.

In all other circumstances, use ABHRs for routine hand hygiene during care.

Where running water is unavailable, or hand hygiene facilities are lacking, staff may use hand wipes followed by ABHR and should wash their hands at the first opportunity.

For how to wash hands, see [Appendix 1](#).

For how to hand rub, see [Appendix 2](#).

### **Skin care**

- Dry hands thoroughly after hand washing, using disposable paper towels.
- Use an emollient hand cream during work and when off duty.
- Do not use or provide communal tubs of hand cream in the care setting.
- Staff with skin problems should seek advice from occupational health.

### **Surgical hand antisepsis**

Surgical scrubbing/rubbing (this applies to those undertaking surgical and some invasive procedures):

- Perform surgical scrubbing/rubbing before donning sterile theatre garments or at other times, eg before inserting central vascular access devices.
- Remove all hand and wrist jewellery.
- Single-use nail brushes must only be used for decontaminating nails. Nail picks can be used if nails are visibly dirty.
- Use an antimicrobial liquid soap licensed for surgical scrubbing or an ABHR licensed for surgical rubbing (as specified on the product label).

- ABHR can be used between surgical procedures if licensed for this use.

Follow the technique in [Appendix 3](#) for surgical scrubbing.

Follow the technique in [Appendix 4](#) for surgical rubbing.

**For hand hygiene posters/leaflets:**

- [NHSScotland: Germs – wash your hands of them](#)

**To share examples of your own posters/leaflets:**

- [NHS Improvement's Improvement Hub](#)

**Further information can be found in the hand hygiene literature reviews:**

- [hand hygiene products](#)
- [hand washing in healthcare settings](#)
- [indications for hand hygiene in the hospital setting](#)
- [skin care](#)
- [surgical hand scrubbing/rubbing in the hospital setting](#)
- [use of alcohol-based handrub in the hospital setting](#)

# Personal protective equipment

Before undertaking any procedure, staff should assess any likely exposure to blood and/or other body fluids, non-intact skin or mucous membranes and wear personal protective equipment (PPE) that protects adequately against the risks associated with the procedure.

## All PPE should be:

- located close to the point of use
- stored to prevent contamination in a clean, dry area until required for use (expiry dates must be kept to)
- single-use only items unless specified by the manufacturer
- changed immediately after each patient and/or after completing a procedure or task
- disposed of after use into the correct waste stream, ie healthcare waste or domestic waste.

Reusable PPE items – eg non-disposable goggles, face shields, visors – must be decontaminated after each use.

## Gloves must be:

- worn when exposure to blood and/or other body fluids, non-intact skin or mucous membranes is anticipated or likely
- changed immediately after each patient and/or after completing a procedure or task
- changed if a perforation or puncture is suspected
- appropriate for use, fit for purpose and well-fitting.

**Double gloving** is recommended during some exposure prone procedures, eg orthopaedic and gynaecological operations or when attending major trauma incidents.

For appropriate glove use and selection, see [Appendix 5](#).

Further information can be found in the [gloves literature review](#).

**Aprons must be:**

- worn to protect uniform or clothes when contamination is anticipated or likely, eg when in direct care contact with a patient
- changed between patients and/or after completing a procedure or task.

**Full body gowns and fluid-repellent coveralls must be:**

- worn when there is a risk of extensive splashing of blood and/or other body fluids, eg in the operating theatre
- worn when a disposable apron provides inadequate cover for the procedure or task being performed
- changed between patients and immediately after completing a procedure or task.

Further information can be found in the [aprons/gowns literature review](#).

**Eye and face protection (including full-face visors) must:**

- be worn if blood and/or body fluid contamination to the eyes or face is anticipated or likely – eg by members of the surgical theatre team – and always during [aerosol generating procedures](#); regular corrective spectacles are not considered eye protection
- not be impeded by accessories such as piercings or false eyelashes
- not be touched when being worn.

Further information can be found in the [eye/face protection literature review](#).

**Fluid-resistant surgical face masks must be:**

- worn with eye protection if splashing or spraying of blood, body fluids, secretions or excretions onto the respiratory mucosa (nose and mouth) is anticipated or likely

- worn to protect patients from the operator as a source of infection, eg when performing surgical procedures or epidurals or inserting a central vascular catheter (CVC)
- well-fitting and fit for purpose, fully covering the mouth and nose (manufacturers' instructions must be followed to ensure effective fit and protection)
- removed or changed:
  - at the end of a procedure/task
  - if the mask's integrity is breached, eg from moisture build-up after extended use or from gross contamination with blood or body fluids
  - in accordance with manufacturers' specific instructions.

Further information can be found in the [surgical face masks literature review](#).

#### **Footwear must be:**

- visibly clean, non-slip and well-maintained, and support and cover the entire foot to avoid contamination with blood or other body fluids or potential injury from sharps
- removed before leaving a care area where dedicated footwear is used, eg theatre; these areas must have a decontamination schedule with responsibility assigned.

Further information can be found in the [footwear literature review](#).

#### **Headwear must be:**

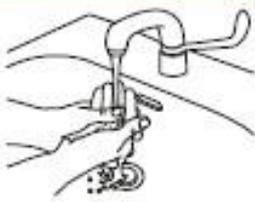
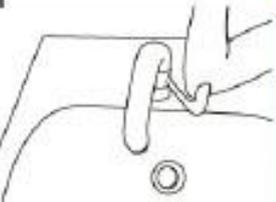
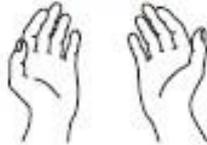
- worn in theatre settings and clean rooms, eg central decontamination unit
- well-fitting and completely cover the hair
- changed or disposed of between clinical procedures or tasks or if contaminated with blood and/or body fluids
- removed before leaving the theatre or clean room.

For the recommended method of putting on and removing PPE, see [Appendix 6](#).

Further information can be found in the [headwear literature review](#).

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

Steps 3-8 should take at least 15 seconds.

<p><b>1</b></p>  <p>Wet hands with water.</p>	<p><b>2</b></p>  <p>Apply enough soap to cover all hand surfaces.</p>	<p><b>3</b></p>  <p>Rub hands palm to palm.</p>
<p><b>4</b></p>  <p>Right palm over the back of the other hand with interlaced fingers and vice versa.</p>	<p><b>5</b></p>  <p>Palm to palm with fingers interlaced.</p>	<p><b>6</b></p>  <p>Backs of fingers to opposing palms with fingers interlocked.</p>
<p><b>7</b></p>  <p>Rotational rubbing of left thumb clasped in right palm and vice versa.</p>	<p><b>8</b></p>  <p>Rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa.</p>	<p><b>9</b></p>  <p>Rinse hands with water.</p>
<p><b>10</b></p>  <p>Dry thoroughly with towel.</p>	<p><b>11</b></p>  <p>Use elbow to turn off tap.</p>	<p><b>12</b></p>  <p>Steps 3-8 should take at least 15 seconds. ...and your hands are safe*.</p>

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

Adapted from the World Health Organization



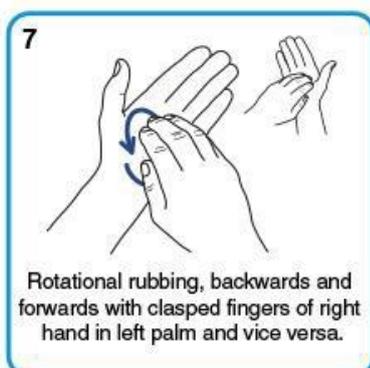
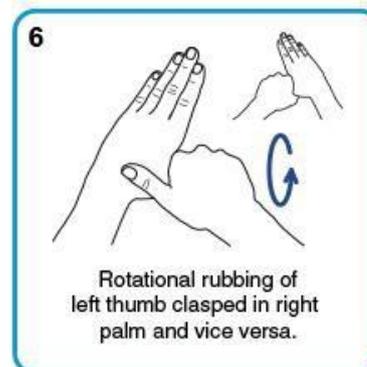
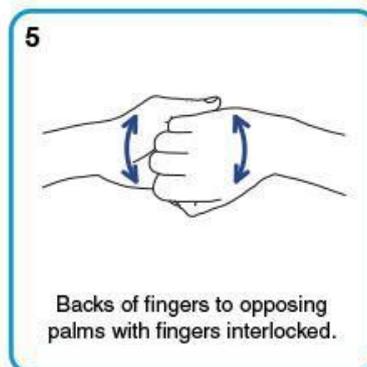
Germ. Wash your hands of them.



Part of the National Infection Prevention and Control Manual (NIPCM), available at: <http://www.nipcm.hps.scot.nhs.uk/>.  
Produced by: Health Protection Scotland, July 2016.

# Appendix 2: How to hand rub – step-by-step images

Duration of the process: 20-30 seconds.



Adapted from the World Health Organization

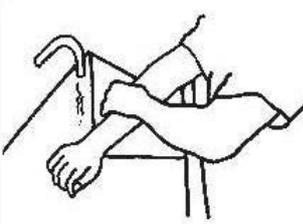
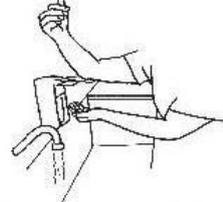
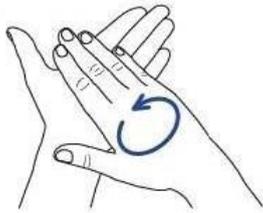
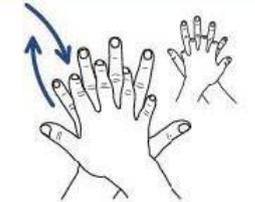
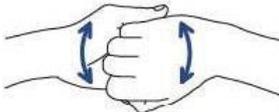
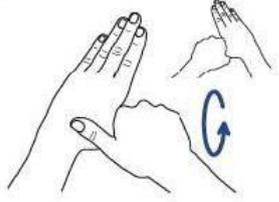
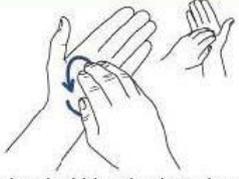
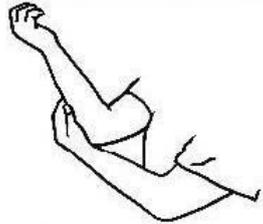
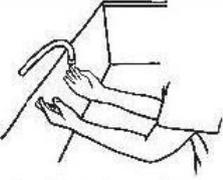
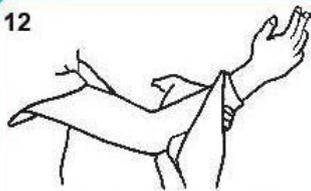


Germ. Wash your hands of them.



Part of the National Infection Prevention and Control Manual (NIPCM), available at: <http://www.nipcm.hps.scot.nhs.uk/>.  
Produced by: Health Protection Scotland, April 2016.

# Appendix 3: Surgical scrubbing – hand preparation using antimicrobial soap

<p><b>1</b></p>  <p>Wet hands and forearms*</p>	<p><b>2</b></p>  <p>Put antimicrobial liquid soap onto the palm of each hand/arm using the elbow of your other arm to operate the dispenser</p>	<p><b>3</b></p>  <p>Rub hands palm to palm. Steps 3 - 8 should take a minimum of 2 minutes</p>
<p><b>4</b></p>  <p>Right palm over the back of the other hand with interlaced fingers and vice versa.</p>	<p><b>5</b></p>  <p>Palm to palm with fingers interlaced.</p>	<p><b>6</b></p>  <p>Backs of fingers to opposing palms with fingers interlocked.</p>
<p><b>7</b></p>  <p>Rotational rubbing of left thumb clasped in right palm and vice versa.</p>	<p><b>8</b></p>  <p>Rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa. Rinse hands between steps 8 - 9, passing them through the water in one direction only.</p>	<p><b>9</b></p>  <p>Put antimicrobial liquid soap onto the palm of your left hand using the elbow of your other arm to operate the dispenser. Use this to scrub the right arm for 1 minute using a rotational method keeping the hand higher than the arm at all times.</p>
<p><b>10</b></p> <p>Repeat the process for the other hand and arm keeping hands above elbows at all times.</p> <p>If the hand touches anything at any time, the scrub must be lengthened by 1 minute for the area that has been contaminated.</p>	<p><b>11</b></p>  <p>Rinse hands and arms by passing them through the water in one direction only, from fingertips to elbow. Do not move the arm back and forth through the water.</p>	<p><b>12</b></p>  <p>Hold hands above the elbow. Use one sterile, disposable towel per hand and arm. Blot the skin of the hand, then use a corkscrew movement to dry from the hand to the elbow. The towel must not be returned to the hand once the arm has been dried and must be discarded immediately.</p>

\*Nails should be cleaned using a soft, single-use disposable nail brush or nail pick before the first scrub of the day or if visible dirty. Any skin complaints should be referred to local occupational health or GP.



Acknowledgement: With thanks to staff at the Golden Jubilee Foundation for their assistance producing this appendix.

Part of the National Infection Prevention and Control Manual (NIPCM), available at: <http://www.nipcm.hps.scot.nhs.uk/>. Produced by: Health Protection Scotland, November 2016.

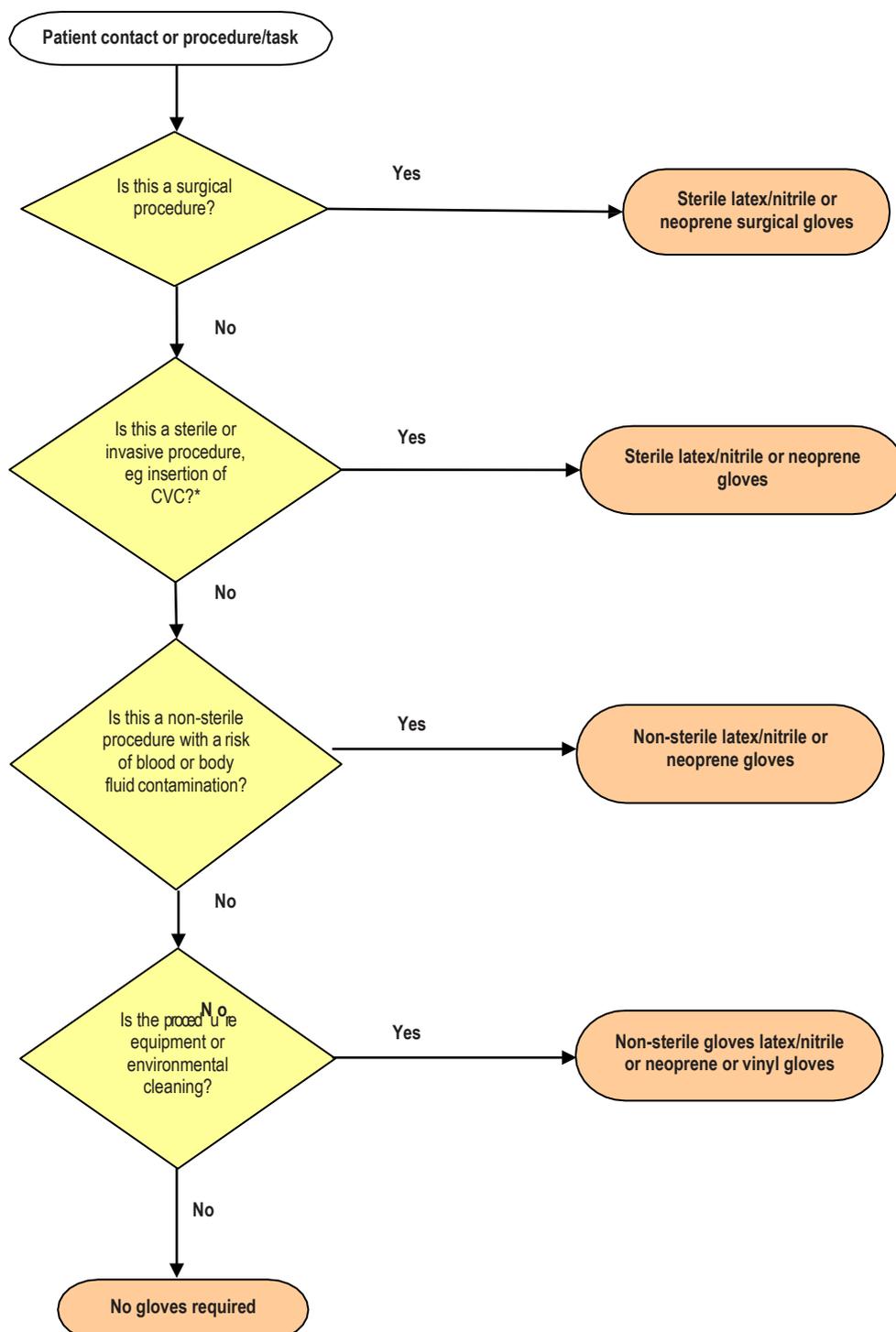
# Appendix 4: Surgical rubbing – hand preparation using alcohol-based handrub

- The hand rubbing technique for surgical hand preparation must be performed on clean, dry hands.
- On arrival in the operating theatre and after having donned theatre clothing (cap/hat/bonnet and mask), hands must be washed with soap and water.
- After the operation when removing gloves, hands must be rubbed with an alcohol-based formulation or washed with soap and water if any residual talc or biological fluids are present (e.g. the glove is punctured).
- Surgical procedures may be carried out one after the other without the need for hand washing, provided that the hand rubbing technique for surgical hand preparation is followed (images 1 to 15).

<p><b>1</b></p>  <p>Put approximately 5ml (3 doses) of alcohol-based hand rub in the palm of your left hand, using the elbow of your other arm to operate the dispenser.</p>	<p><b>2</b></p>  <p>Dip the fingertips of your right hand in the hand rub to decontaminate under the nails (5 seconds).</p>	<p><b>3</b></p>  <p>Steps 3-4. Smear the hand rub on the right forearm up to the elbow.</p>	<p><b>4</b></p> 
<p><b>5</b></p>  <p>Steps 5-7. Ensure that the whole skin area is covered by using circular movements around the forearm until the hand rub has fully evaporated (10-15 seconds).</p>	<p><b>6</b></p> 	<p><b>7</b></p> 	<p><b>8</b></p>  <p>Repeat steps 1 to 7 for the left hand and arm.</p>
<p><b>9</b></p>  <p>Put approximately 5ml (3 doses) of alcohol-based handrub in the palm of your left hand, using the elbow of your other arm to operate the dispenser. Rub both hands in the same time up to the wrists, and ensure that all the steps presented in steps 9-14 are followed.</p>	<p><b>10</b></p>  <p>Cover the whole surface of the hands up to the wrist with alcohol-based hand rub, rubbing palm against palm with a rotating movement.</p>	<p><b>11</b></p>  <p>Rub the back of the hands up to the wrist with alcohol-based handrub, rubbing palm against palm with a rotating movement.</p>	<p><b>12</b></p>  <p>Rub the back of the left hand, including the wrist, moving the right palm back and forth and vice-versa.</p>
<p><b>13</b></p>  <p>Rub palm against palm back and forth with fingers interlinked.</p>	<p><b>14</b></p>  <p>Rub the thumb of the left hand by rotating it in the clasped palm of the right hand and vice versa.</p>	<p><b>15</b></p>  <p>When the hands are dry, start to surgical clothing and gloves can be donned.</p>	



## Appendix 5: Glove use and selection



\*Sterile gloves are not required, for example, for insertion of a PVC or obtaining blood cultures or when a safety device/technique is used.

# Appendix 6: Putting on and removing PPE

Use safe work practices to protect yourself and limit the spread of infection

- Keep hands away from face and PPE being worn.
- Change gloves when torn or heavily contaminated.
- Limit surfaces touched in the patient environment.
- Regularly perform hand hygiene.
- Always clean hands after removing gloves.

NB Masks and goggles are not routinely recommended for contact precautions. Consider the use of these under standard infection control precautions or if there are other routes of transmission.

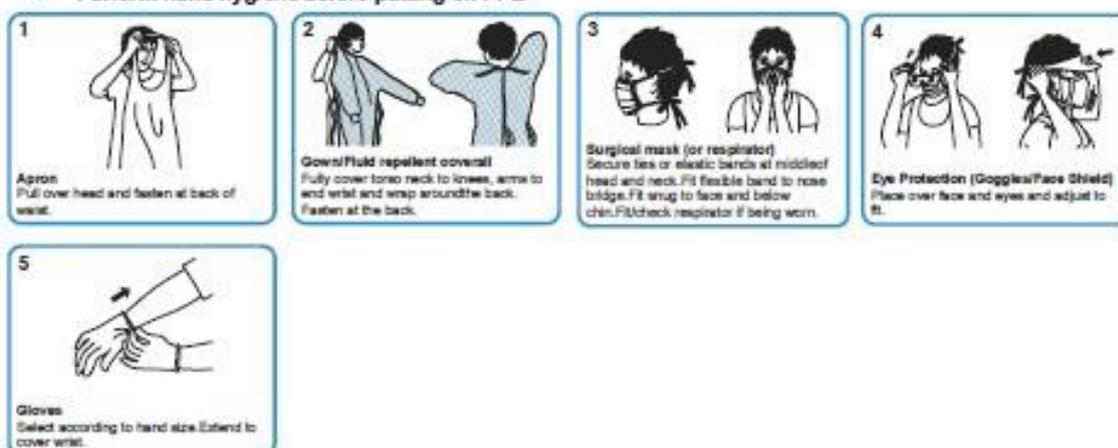
The type of PPE used will vary based on the type of exposure anticipated, and not all items of PPE will be required.

The order for putting on PPE is Apron or Gown, Surgical Mask, Eye Protection (where required) and Gloves.

The order for removing PPE is Gloves, Apron or Gown, Eye Protection, Surgical Mask.

## 1. Putting on Personal Protective Equipment (PPE).

- Perform hand hygiene before putting on PPE



## 2. Removing Personal Protective Equipment (PPE)



- Perform hand hygiene immediately on removal.
- All PPE should be removed before leaving the area and disposed of as healthcare waste.

# Appendix 7: Management of occupational exposure incidents

