**SOP Objective**

To ensure that Healthcare Workers (HCWs) understand the importance of and their responsibilities in complying with this Hand Hygiene SOP.

To provide HCWs with an environment which supports and facilitates effective hand hygiene.

This SOP applies to all staff employed by NHS Greater Glasgow & Clyde and locum staff on fixed term contracts.

**KEY CHANGES FROM THE PREVIOUS VERSION OF THIS SOP**

- Minor wording changes.
- Addition of advice about air hand driers.

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**Document Control Summary**

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<tr>
<th>Approved by and date</th>
<th>Board Infection Control Committee  15th December 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of Publication</td>
<td>25th January 2021</td>
</tr>
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<td>Developed by</td>
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The most up-to-date version of this SOP can be viewed at the following website:
www.nhsggc.org.uk/your-health/infection-prevention-and-control
1. Responsibilities

Healthcare Workers (HCWs) must:

- Follow this SOP AND inform a member of the Infection Prevention and Control Team (IPCT) if this SOP cannot be followed.
- Report to clinical manager or Infection Prevention and Control Nurse (IPCN) if the area does not have any of the structural requirements, e.g. Clinical Wash Hand Basins (CWHBs), Alcohol Based Hand Rub (ABHR) etc, to follow this SOP.
- Report to Occupational Health (OH) if they develop sensitivities, or are otherwise unable to use the product supplied.
- Ensure there is always a sufficient supply of hand hygiene sundries within expiry date.
- Remind colleagues of the importance of hand hygiene in the clinical setting when observed hand hygiene opportunities are missed.
- Promote hand hygiene by patients and visitors.
- Risk assessment should be undertaken by the clinical team if there is any risk that patients might ingest ABHR or any products.

Managers must:

- Ensure that their area is compliant with SGHD CEL 5(2009) Zero tolerance to non hand hygiene compliance.
- Ensure that staff are aware of the contents of this SOP.
- Support HCWs and IPCTs in following this SOP.
- Remind colleagues of the importance of hand hygiene in the clinical setting when observed hand hygiene opportunities are missed.
- Encourage staff to take up education programmes on hand hygiene via IPCT or online at LearnPro / NES.

The most up-to-date version of this SOP can be viewed at the following website: www.nhsggc.org.uk/your-health/infection-prevention-and-control
• Ensure all HCWs have access to this SOP.
• Promote hand hygiene by all HCWs, patients and visitors.
• Ensure HCWs have access to appropriate hand hygiene sundries.
• Liaise with the appropriate department if structural issues are identified.

**Infection Prevention and Control teams (IPCTs) must:**
• Keep this SOP up-to-date.
• Audit compliance with this SOP via the Local Health Board Co-ordinator for Hand Hygiene (LHBC).
• Provide education opportunities on this SOP.
• Remind colleagues of the importance of hand hygiene in the clinical setting when observed hand hygiene opportunities are missed.
• Assist others to audit the implementation of and compliance with this SOP.
• Liaise with procurement and occupational health staff regarding the choice of products for hand hygiene.
• Liaise with the appropriate department if structural issues are identified.

**Pharmacy and Procurement must:**
• Liaise with the IPCT when choosing hand hygiene products or if problems with product use or supply develop.

**Occupational Health (OH) must:**
• Provide advice to healthcare staff that are experiencing skin problems linked to hand hygiene.
• Undertake skin health surveillance.
• Contact IPCTs if issues arise with use.

The most up-to-date version of this SOP can be viewed at the following website: [www.nhsggc.org.uk/your-health/infection-prevention-and-control](http://www.nhsggc.org.uk/your-health/infection-prevention-and-control)
2. Structure

2.1 Clinical settings
- In clinical settings there must be sufficient accessible CWHBs of a size to enable effective hand washing to take place. Sufficient is defined via the NHS building notes or to the satisfaction of the IPCT.
- CWHBs should have elbow, wrist, foot, or automatic mixer taps which have a combined pillar and no plug or overflow. Water should not be discharged directly into an outlet.
- Paper towels must be available and wall mounted in a dispenser.
- Plain foaming/liquid soap must be available and wall mounted in a dispenser. Dispensers and plungers must be used until the dispenser is empty and then discarded as household waste. **The dispenser must not be topped up and re-used.**
- **NB bar soap must not be supplied for clinical use**
- Liquid antimicrobial soap should be available where a surgical scrub is anticipated.

**Hand washing facilities should:**
- Only be used for the purpose of hand washing
- NOT be used for disposal of any body fluids or waste water
- ABHR must be within expiry date and available in a wall mounted or free standing dispenser.
- Hands free, foot operated bins should be available for waste disposal.
- Educational material illustrating the correct method of hand hygiene should be displayed at every CWHB.
- **Dispenser nozzles must be clean and free from congealed product residue, with cleaning schedules reflecting this.**
• Where ABHR is present at ward or department entrances then Hand Hygiene technique posters must be displayed. When admitting visitors to the area they should be instructed on how to use the ABHR.

2.2 Home Care Settings

HCWs working in a home care setting should undertake a risk assessment of the hand washing facilities available to perform hand hygiene, in each home. The following options are suggested:

• Where running water and foaming/liquid soap are available and access to the sink is clear, the HCW can carry paper hand towels to use in the client’s home.
• When foaming/liquid soap is not available, the HCW can carry their own supply of liquid soap/ hand towels/ ABHR as recommended by the employer/ IPCT. A community pack is available to order for this purpose.
• If access is difficult or limited and hands are physically clean ABHR can be used.
• Hand wipes **should not** be used by staff in the hospital or care home setting for hand hygiene unless there is no running water available in which case staff may use hand wipes followed by ABHR and should wash their hands at the first available opportunity.

3. Undertaking Hand Hygiene – Rationale and Technique

Hands acquire micro-organisms from other sites on an individual’s body, from other people and from the environment. The ease with which these organisms can be passed to and from the hands makes them extremely efficient vectors for infection.
3.1 Before performing hand hygiene

- Bare below the elbows - expose forearms - remove outerwear, roll up sleeves;
- Remove all hand/ wrist jewellery, including wristwatches and wearable fitness devices e.g. Fitbit, Garmin, etc. (a single, plain metal finger ring is permitted but should be removed (or moved up) during hand hygiene);
- Bracelets or bangles such as the Kara which are worn for religious reasons should be able to be pushed higher up the arm and secured in place);
- Ensure fingernails are clean, short and that artificial nails or nail products are not worn e.g. polish, gel, shellac, etc.;
- Cover all cuts or abrasions with a waterproof dressing.

3.2 5 Moments for Hand Hygiene

Hand hygiene should be performed:

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

3.3 Hand Hygiene: Wash with Soap and Water (Appendix 1)

Wash hands with plain foaming/ liquid soap and water if:

- hands are visibly soiled or dirty;
- caring for patients with vomiting or diarrhoeal illnesses; or
• caring for a patient with a suspected or known gastro-intestinal infection e.g. norovirus or a spore forming organism such as Clostridioides difficile.

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

**Hands should be washed as follows:**

• Wet hands under running warm/tepid water.

• Apply the manufacturers recommended quantity of plain foaming/liquid soap – normally via a measured dispenser.

• Rub hands together for 15-30 seconds, following the 6 Step technique, ensuring all surfaces of the hands are covered with lather.

• Rinse hands well under running water.

• Dry hands thoroughly using soft, absorbent, disposable paper towels. This should be achieved by patting hands to minimise skin irritation.

• Turn off the tap(s) using elbow/wrist or a paper towel to prevent contamination of clean hands.

• Air-dryers, including high speed air-dryers, should not be used in the clinical setting because they are noisy and may disperse microorganisms via the airborne (aerosol) route. However they may be used in some settings e.g. public toilets

**3.4 Hand rub using ABHR (Appendix 2)**

ABHR solutions containing 62-90% alcohol by volume are the preferred product for hand hygiene in health and care settings.

ABHR must be available to staff as near to the point of care as possible and can be utilised for Hand Hygiene throughout the working day if appropriate.
NB. ABHR is not appropriate if hands are visibly dirty or soiled and/or if exposed to loose stools or spore forming organisms e.g. C. difficile, therefore hands must be washed with plain foaming/liquid soap and water.

- Apply ABHR to the cupped palm of one hand. Follow the manufacturers’ instructions for the volume that will provide adequate coverage of the hands; this is normally around 3 ml.
- Rub the hands together utilising the 6 Step technique to ensure that the ABHR covers all surfaces of the hands.
- **Hand rubbing should be performed for 15-30 seconds until the hands are dry.**
- Avoid touching any surfaces/equipment until hands are dry
- If HCWs have used ABHR when leaving a patient and are going directly to the next patient, e.g. during ward rounds or active care activities, then they are not required to use ABHR on their hands twice.
- The use of ABHR by persons with religious beliefs that forbid the consumption of alcohol is permissible as external application of the synthetic alcohol in these solutions is not considered intoxicating.

4. **Performing Surgical Scrubbing/ Rubbing**

A surgical hand antisepsis policy that includes the removal of all finger rings provides the surgical scrub team with a highly visible way to demonstrate their commitment to good infection prevention and control practice. This will also highlight their determination to reduce Surgical Site Infection (SSI)/Healthcare Associated Infection (HAI), thus contributing to improved patient safety by effectively complying with good surgical hand decontamination.
Scrub areas should be separate from the operating theatre (OR) or within a recessed area within the OR and located away from areas containing equipment and laid-up instrument trolleys in order to prevent water splashing and potential contamination.

- Surgical scrubbing/rubbing must be undertaken before donning sterile theatre garments.
- All hand/wrist jewellery must be removed.
- Nail brushes should not be used for surgical hand antisepsis.
- Nail picks (single-use) can be used if nails are visibly dirty.
- Soft, non-abrasive, sterile (single-use) sponges may be used to apply antimicrobial liquid soap to the skin if licensed for this purpose.
- An antimicrobial foaming/liquid soap licensed for surgical scrubbing or an ABHR licensed for surgical rubbing (as specified on the product label) must be used.
- Surgical scrubbing should be performed with an agent that has immediate and sustained antimicrobial effect (e.g. chlorhexidine gluconate, povidone-iodine).
- ABHR can be used on visibly clean hands between surgical procedures, if licensed for this use.
- Once surgical procedures are finished, general hand hygiene (i.e. plain foaming/liquid soap and water or ABHR (if hands are not visibly soiled)) should be performed after surgical gloves are removed and before any other activities are undertaken.

4.1 Performing Surgical Scrub

If hands are visibly soiled, or if this is the first surgical hand antisepsis of the day, wash hands with non-antimicrobial liquid soap and running water using the normal steps for hand washing immediately prior to beginning surgical hand antisepsis. The following technique should be used to ensure that all surfaces of the hands and forearms, to elbows, are covered during surgical hand antisepsis (manufacturers guidance on products used should also be taken into consideration):
- Start timing.
- Wet hands and arms. Apply the appropriate amount of antimicrobial liquid soap to the hands and arms. For 2 min, wash each side of each finger, between the fingers, and the back and front of both hands.
- Rinse hands 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.
- Put antimicrobial soap into the palm of your left hand using the elbow of the right arm to operate the dispenser.
- For 1 min, wash the right arm from wrist to elbow, keeping the hand higher than the arm at all times.
- Repeat the process on the left arm, keeping hands above elbows at all times. (If the hand touches anything at any time, the scrub must be lengthened by 1 min for the area that has been contaminated.)
- 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.
- Hold hands above elbows at all times.
- The skin should be blotted dry with sterile towels (rubbing will disturb skin cells).
- Using one towel per hand and arm work from fingertips to elbows by placing the opposite hand behind the towel and blotting the skin using a corkscrew movement to dry from the hand to the elbow.
- Using a second towel repeat the process on the other hand and arm to the elbow.
- The towel must not be returned to the hand once the arm has been dried and must be discarded immediately.
- Do not splash water onto surgical attire/scrubs.
• Do not shake hands to disperse water from them. Once all surgical procedures are finished, general hand hygiene (i.e. non-antimicrobial liquid soap and water or ABHR (if hands are not visibly soiled)) should be performed after surgical gloves are removed and before any other activities are undertaken.

The process described above will take a minimum of 4 min to complete, however, manufacturer’s guidance for the minimum specific time that is deemed effective for their product should be adhered to and the process lengthened if required.

4.2 Surgical Rub

Surgical rubbing with an ABHR licenced for that purpose is an appropriate alternative to surgical scrubbing with an antimicrobial soap. Surgical rubbing is superior to, or as effective as, a traditional surgical scrub. This finding is consistent with recommendations of both the Centres for Disease Control and Prevention (CDC) and the World Health Organization (WHO).

The following technique should be used to ensure that all surfaces of hands and forearms, to elbows, are covered during surgical rubbing:

• Hands should be washed with non-antimicrobial liquid soap and dried thoroughly using the normal steps for hand washing, if visibly dirty.
• Put the recommended amount of ABHR in the palm of your left hand, using the elbow of your right arm to operate the dispenser.
• Dip the fingertips of your right hand in the ABHR to decontaminate under the nails, (as per manufacturer’s instructions).
• Smear the ABHR on the right forearm up to the elbow. Ensure that the whole skin area is covered by using circular movements around the forearm until the hand rub has fully evaporated (as per manufacturer’s instructions).
• Hands and forearms should remain wet (i.e. the ABHR should not be allowed to fully evaporate until the surgical hand rubbing process is complete) throughout the surgical hand rub.

• Repeat the process for the left fingertips, hand and forearm.

• When hands are dry, sterile surgical gown and gloves can be donned.

* Always follow the manufacturer’s application volumes and rub times to ensure the effectiveness of the product used. Once all surgical procedures are finished, general hand hygiene (i.e. non-antimicrobial liquid soap and water or ABHR (if hands are not visibly soiled)) should be performed after surgical gloves are removed and before any other activities are undertaken.

5. Skin Care

• Warm/tepid water should be used to reduce the risk of dermatitis; hot water should be avoided.

• Pat hands dry thoroughly after hand washing using disposable paper towels; avoid rubbing which may lead to skin irritation/damage.

• NHSGGC provide only hand hygiene products that minimise the risk of hand irritation and contain emollients. All products for hand hygiene will be approved by the IPCT.

• Apply emollient hand cream as required to protect skin from the drying effects of regular hand hygiene. Hand cream supplied by NHSGGC should be contained in a wall mounted or free standing pump dispenser and marked with an expiry date by clinical staff; 12 months from opening. Cream should be applied at start/end of working day.
and at main break time. If skin is at risk of further damage then more frequent use of the emollient is allowed throughout a working shift.

- HCWs are provided with hand creams which are sanctioned by the Procurement Department which do not negate the properties of active compounds in other hand hygiene products, or the integrity of gloves.

- Do not use communal tubs of hand cream as they can become contaminated during use.

- If exfoliative skin conditions develop contact the Occupational Health Service promptly.

- If staff have sensitivities, the Occupational Health Service will liaise with the IPCTs when comparable alternatives are supplied for named personnel only.

6. Evidence Base


The Epic Project Team. The guidelines for hand hygiene. 2014


The Health & Safety at Work Act 1974.

Control of Substances Hazardous to Health (COSHH) 2002.


The most up-to-date version of this SOP can be viewed at the following website: www.nhsggc.org.uk/your-health/infection-prevention-and-control
National Infection Prevention and Control Manual

7. Audit

NHS Boards in Scotland are required to monitor compliance with hand hygiene in two distinct ways. Each clinical area is required by CEL 5(2009) to audit compliance with hand hygiene in their area each month. The results of this audit which is based on the Scottish Patient Safety Programme (SPSP) methodology is collated locally, e.g. LanQIP and is used to report on the Boards performance in relation to hand hygiene via the HAIRT (Healthcare Associated Infection Reporting Template) which is a paper prepared every two months and made available for patients and public to view. The second way is via the audits which are conducted by the LHBC. This is part of a Quality Assurance process in place for NHSGGC to continue the improvement seen in Hand Hygiene compliance.

8. Website Links

- www.nhsggc.org.uk/your-health/infection-prevention-and-control/
- www.washyourhandsofthem.com
- http://whqlibdoc.who.int/publications/2009/9789241597906_eng.pdf?ua=1
- National Infection Prevention and Control Manual: Chapter 1 - Standard Infection Control Precautions (SICPs)
Appendix 1 - How to hand wash step by step images

Steps 3-8 should take at least 15 seconds.

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

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

Germ. Wash your hands of them.

Produced by: Health Protection Scotland, April 2010.
The most up-to-date version of this SOP can be viewed at the following website:

www.nhsggc.org.uk/your-health/infection-prevention-and-control

Appendix 2

Appendix 2 - How to handrub step by step images

Duration of the process: 20-30 seconds.

1. Apply a palmful of the product in a cupped hand and cover all surfaces.
2. Rub hands palm to palm.
3. Right palm over the back of the other hand with interlaced fingers and vice versa.
4. Palm to palm with fingers interlaced.
5. Backs of fingers to opposing palms with fingers interlocked.
6. Rotational rubbing of left thumb clasped in right palm and vice versa.
7. Rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa.
8. ...once dry, your hands are safe.

Adapted from the World Health Organization

Produced by: Health Protection Scotland, April 2016.