N.B. Staff should be discouraged from printing this document. This is to avoid the risk of out of date printed versions of the document. The Intranet should be referred to for the current version of the document.
Policy/Procedure Content

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1. EXECUTIVE SUMMARY/KEY POINTS

- Hand hygiene is considered the single most important infection control activity in all clinical or care settings, and can help reduce the spread of healthcare associated infection (HCAI).

- Hand hygiene must be applied as standard practice.

- All staff have a responsibility to ensure that they undertake adequate hand hygiene and encourage others delivering care to do so.

- There are three levels of hand hygiene, level 1 – social, level 2 – hygienic, level 3 - surgical scrub.

- Hands should be decontaminated at a range of times in order to prevent HCAI. The times during care delivery and daily routines when this should occur are described in ‘Your 5 moments for Hand Hygiene’ (section 5).

- Hand hygiene must be performed after removal of gloves.

- Hand hygiene may have to be performed between tasks on the same patient.

- The point of care is the crucial moment for hand hygiene. The point of care represents the time and place at which there is highest likelihood of transmission of microorganisms from the hands of healthcare workers to patients/clients/residents.

- Access to appropriate hand hygiene facilities, and associated supplies, is essential to ensure adequate hand hygiene can be performed.

- Availability of supplies of liquid soap and soft paper towels for hand hygiene is essential.

- Where infection with a spore forming organism e.g. *Clostridium difficile* or with a gastroenteritis virus e.g. Norovirus is suspected/proven, hand hygiene must be carried out with liquid soap and water although it can be followed by alcohol-based hand rub.

- Hand hygiene should be performed for between 15 seconds and 3 minutes depending on the level of hand hygiene being performed.

- The use of soft user-friendly, disposable paper towels is preferable to encourage compliance with hand drying.

- In some care settings (e.g. hospital wards) the appropriate placement of alcohol-based hand rub products within the patient’s immediate environment can support hand hygiene compliance.

- Caution must be taken when using alcohol-based hand rubs in relation to flammability and ingestion. Local risk assessments should be undertaken to address each of these issues.
• Caution should be taken to avoid drips or spills of solutions for health and safety reasons (e.g. slips or falls)

• Those working in areas such as patients’/clients’ own homes may need to carry their own supplies of hand hygiene products and paper towels

• Nails must be short and clean, and nail polish should not be worn. Artificial fingernails/extensions and wrist/ hand jewellery should not be worn when providing care

2. INTRODUCTION

Hands are the most common way in which microorganisms, particularly bacteria, can be transmitted and subsequently cause infection, especially in those who are most susceptible. In order to prevent the spread of microorganisms to those who are at risk of developing infections, hand hygiene must be performed properly at the correct times. Hand hygiene is considered to be the single most important practice in reducing the transmission of infectious agents and preventing subsequent development of HCAI.

Before selecting the appropriate hand hygiene procedure, consideration should be given to the potential/actual hazards that have been or might be encountered, the subsequent potential/actual contamination of hands, and any risks that may present as a result. The nature of the work, the interaction with the patient/client/resident and the vulnerability of individuals will often determine this.

It must always be assumed that every person encountered could be carrying potentially harmful microorganisms that might be transmitted. Hand hygiene is one of the nine elements of Standard Infection Control Precautions (SICPs) and undertaking them is an essential element to ensure everyone’s safety.

All of the steps detailed in this policy/procedure aid the process of ensuring hands are free from contamination and are therefore not a factor in causing infection.

The term hand hygiene used in this document refers to all of the processes, including hand washing and hand decontamination achieved using other products, e.g. alcohol-based hand rub.
3. SCOPE OF POLICY

The hand hygiene policy applies to all healthcare workers within Aneurin Bevan University Health Board. It covers all healthcare settings including delivery of care in the community and patients’ homes.

4. AIMS

The hand hygiene policy and Organisation’s aim will be to:

- Provide guidelines on when and how to perform hand hygiene.
- Reduce the number of healthcare associated infections, through the promotion of effective hand hygiene.
- Reduce cost to the Organisation and individuals of healthcare associated infections by minimising the risk of cross infection.
- Increase compliance with correct hand hygiene within the clinical area.
- Outline environmental requirements regarding the provision of hand decontamination facilities to comply with the policy.

5. POLICY STATEMENT

It is the policy of the Organisation to promote, provide and maintain a healthy and safe environment for the employee, patient and visitor. The Organisation aim is therefore to promote hand hygiene within the clinical environment, in order to reduce the number of healthcare associated infections to an absolute minimum.

The Organisation hand hygiene policy will be continually monitored and updated in line with current guidelines and legislation.

6. RESPONSIBILITIES

The Organisation maintains that all employees have a responsibility not only to be vigilant with their own hand hygiene, but to challenge poor hand hygiene compliance by other healthcare workers. Individuals, regardless of status, who fail to comply with appropriate hand hygiene, must be challenged. Non compliance following a challenge should result in the completion of a critical incident form by the observer. Such incident forms will be closely monitored and fed back to the relevant directorate. Continued non-compliance by an individual may result in disciplinary action.

6.1 The Organisation Board
The Organisation Board has overall responsibility for workplace health and safety. The Chief Executive has responsibility for ensuring this policy is implemented in accordance with all relevant statutory provision and Assembly guidance.

6.2 Managers/Clinical Directors

- Ensure that all staff receives instruction/education on the principles of hand hygiene and SICPs.
- Ensure that an up-to-date, evidence-based hand hygiene policy is easily available to all staff.
- Ensure that adequate resources are in place to allow for the recommended infection control measures such as hand hygiene to be implemented. This includes liaison with the estates/maintenance staff, GP partners and Care Home owners in relation to hand hygiene facilities such as sinks.
- Ensure participation in surveillance and audit programmes at a national or local level and provide active support for presentation and improvement of hand hygiene compliance results.
- Undertake a risk assessment to optimise patient/client/residents and staff safety, consulting expert infection prevention and control guidance if/as required.
- Support staff in any corrective action or interventions if an incident occurs that may have resulted in transmission of infection.
- Ensure any staff with health concerns, including any skin irritation related to occupational hand hygiene, or those who have become ill due to occupational exposure are appropriately referred e.g., General Practitioner or Occupational Health.

6.3 All staff – (providing direct care in a health or social care setting including a patient’s/client’s own home) must:

- Apply the principles of SICPs. All staff have a responsibility to ensure that they undertake adequate hand hygiene and encourage others who have patient contact to do so.
- Ensure all other staff/agencies apply the principles of SICPs.
- Explain to patients/clients/residents, carers and visitors any infection control requirements such as hand hygiene.
- Encourage patients/clients/residents to question lack of hand hygiene by carers.
- Ensure supplies of hand hygiene products and other materials, such as paper towels are readily available for all to use, including for visitors.
- Ensure standardised posters (e.g. NPSA) featuring when and how to perform hand hygiene are displayed in relevant, prominent areas.
- Report to line managers any deficits in knowledge or other factors in relation to SICPs and hand hygiene in particular, including facilities/equipment or incidents, that may have resulted in cross contamination.
- Attend mandatory or update infection prevention and control education sessions.
- Report any illness which may be as a result of occupational exposure, to the line manager and the Occupational Health Department (if applicable).
- Not provide direct patient/client/resident care while infectious as this could cause harm. If in any doubt consult with your manager, General Practitioner, Occupational Health Department or the local Infection Prevention and Control/Health Protection Team.
• Consider the elements of SICPs such as hand hygiene as an objective within staff continuing professional development ensuring continuous updating of knowledge and skills.
• Be aware of hand hygiene campaigns.

6.4 **Staff with infection prevention and control/health protection responsibilities must:**

• Provide education for staff and management on this policy.
• Act as a resource for guidance and support when advice on hand hygiene is required.
• Provide advice on individual risk assessments for performing hand hygiene.
• Support the monitoring of compliance and present compliance results.

6.5 **Visitors should be advised by staff:**

• Of appropriate hand hygiene to be carried out.
• To contact the person in charge before visiting if they are unsure of the infectious status of the person they are visiting.

7. **INCIDENT REPORTING**

• Any incidents where failures in hand hygiene have occurred or where there are product/facilities issues that affect adequate hand hygiene and in turn health and safety should be reported as per local incident reporting procedures.

8. **TRAINING**

The Infection Prevention Team will be able to provide training on hand hygiene through the training and development prospectus on a monthly basis. Ad hoc training is available if required from the Infection Prevention & Control Team please contact for more information.

9. **AUDIT**

The Infection Prevention Team and Clinical Audit Department will undertake annual audits in identified wards and departments using the Lewisham Hand Hygiene audit tool. The audit will observe:

• Handwashing facilities
• Individual’s technique
• Staff hands e.g. are they wearing jewellery and wrist watches
• Staff compliance rate as a percentage by measuring the number of opportunities for hand hygiene observed, and the number of times hand hygiene took place:
• Before wearing sterile gloves.
• Before leaving source isolation.
• Before caring for susceptible patients.
• Before commencing work.
Before and after contact with invasive devices e.g. catheter bags.

A copy of the results will be retained by the Manager to address action points.

In addition to the above audit, in line with Saving 1000 lives plus driver, a 20 minute audit of hand hygiene compliance rates will be undertaken on every ward and department in the acute sites on a monthly basis in accordance with Fundamental of Care metrics. This Lewisham Hand Hygiene tool measures compliance through monitoring the total numbers of hand hygiene opportunities observed against the number of times hand hygiene is performed. A percentage compliance score can be produced. Clinical audit will feed back results via run charts on a monthly basis.

Results will be interpreted by the Infection Prevention and Control Team and deficiencies addressed using Plan Do Study Act cycles.

10. HAND HYGIENE AND WORK CLOTHING

In order to ensure hands can be easily decontaminated it is helpful to wear work clothing that does not go past the elbow. Jackets and coats should be removed and long sleeves if worn rolled up, allowing for wrists and forearms to be exposed

10.1 Bare Below the Elbow Down

In line with DoH guidelines and to ensure hands are decontaminated to an optimal level, the organisation has adopted the “Bare Below the Elbow” initiative. Healthcare workers in the clinical environment must wear short sleeve clothing or roll up long sleeve shirts to the elbow. Wrist watches and jewellery, with the exception of a plain wedding band will not be worn

11. GENERAL GOOD PRACTICE

- Effective communication between all members of the health and social care team is imperative for patient safety.
- Health and safety issues, related to staff, patients/clients and visitors should also be considered in relation to products used for hand hygiene, e.g. drips or spillages from alcohol-based hand rub and any risks of slips, falls or ingestion of products. Risk assessments should be carried out locally to highlight/manage relevant issues.
- Control of Substances Hazardous to Health (COSHH) and product data sheets should be referred to in order to ensure safe use of/exposure to products being used for hand hygiene.

- Hand hygiene is an important part of respiratory hygiene/cough etiquette. Advice which can be given on this is to:
- Cover nose and mouth with disposable single-use tissues when sneezing, coughing, wiping and blowing noses
- Dispose of used tissues in the nearest waste bin
- Wash hands after coughing, sneezing, using tissues, or after contact with respiratory secretions and objects contaminated with them
- Keep hands away from the mucous membranes of the eyes and nose. Certain patient/clients (e.g. the elderly, children) may need assistance with containment of respiratory secretions; those who are immobile will need a receptacle (e.g. a plastic bag) readily at hand for the immediate disposal of used tissues and offered assistance with hand hygiene

- Patients unable to wash their hands should be offered assistance to do so, especially after toileting and before eating.
12. LEVELS OF HAND HYGIENE

<table>
<thead>
<tr>
<th>LEVEL 1</th>
<th>LEVEL 2</th>
<th>LEVEL 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Hand Hygiene</td>
<td>Hygienic (aseptic) Hand</td>
<td>Surgical scrub</td>
</tr>
<tr>
<td><strong>Why perform hand hygiene?</strong></td>
<td><strong>To remove or destroy transient microorganisms. Also, to provide residual effect during times when hygiene is particularly important in protecting yourself and others (reduces those resident microorganisms which normally live on the skin)</strong></td>
<td><strong>To remove or destroy transient microorganisms and to substantially reduce resident microorganisms during times when surgical procedures are being carried out</strong></td>
</tr>
<tr>
<td>To render the hands physically clean and to remove microorganisms picked up during activities considered 'social' activities (transient microorganisms)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

13. WHEN TO PERFORM HAND HYGIENE

Hands should be decontaminated at a range of times in order to prevent HCAI. The most important times during care delivery and daily routines when this should occur are described in 'Your 5 moments for Hand Hygiene'.

Even if gloves have been worn, hand hygiene **must** be performed. Hands can still become contaminated whilst wearing or on removal of gloves, and so must be cleaned appropriately.

It should also be noted that hand hygiene will have to be performed **between tasks on the same patient**.

The point of care is the crucial moment for hand hygiene. The point of care represents the time and place at which there is the highest likelihood of transmission of microorganisms from the hands of healthcare workers to patients/clients/residents.
The descriptions of points of care given in the “Your 5 moments for hand hygiene” can be applied to all care settings and not just acute hospital wards (diagrams from the NPSA).

**Your 5 moments for hand hygiene**

<table>
<thead>
<tr>
<th>Before patient contact</th>
<th>When?</th>
<th>Clean your hands before touching a patient when approaching him/her</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Why?</td>
<td>To protect the patient against harmful germs carried on your hands</td>
</tr>
<tr>
<td>Before any clean/aseptic task</td>
<td>When?</td>
<td>Clean your hands immediately before any clean/aseptic task</td>
</tr>
<tr>
<td></td>
<td>Why?</td>
<td>To protect the patient against harmful germs, including the patient’s own, entering his/her body</td>
</tr>
<tr>
<td>After body fluid exposure risk</td>
<td>When?</td>
<td>Clean your hands immediately after an exposure risk to body fluids (and after glove removal)</td>
</tr>
<tr>
<td></td>
<td>Why?</td>
<td>To protect yourself and the healthcare environment from harmful germs potentially carried by patients</td>
</tr>
<tr>
<td>After patient contact</td>
<td>When?</td>
<td>Clean your hands after touching a patient and his/her immediate surroundings when leaving the patient’s side</td>
</tr>
<tr>
<td></td>
<td>Why?</td>
<td>To protect yourself and the healthcare environment from harmful germs potentially carried by patients</td>
</tr>
<tr>
<td>After contact with patient surroundings</td>
<td>When?</td>
<td>Clean your hands after touching any object or furniture in the patient’s immediate surroundings when leaving-even if the patient has not been touched</td>
</tr>
<tr>
<td></td>
<td>Why?</td>
<td>To protect yourself and the healthcare environment from harmful germs potentially carried by patients</td>
</tr>
</tbody>
</table>
Hand hygiene is important at many times including on entering and leaving any care environment (e.g. ward or department), and as described below:

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
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<td><strong>Hygienic (aseptic) Hand Hygiene</strong></td>
<td><strong>Surgical scrub</strong></td>
</tr>
<tr>
<td><strong>When to perform hand hygiene?</strong></td>
<td><strong>BEFORE/BETWEEN</strong></td>
<td><strong>BEFORE</strong></td>
</tr>
<tr>
<td>1. commencing/leaving work</td>
<td>1. aseptic procedures</td>
<td>1. surgical/invasive procedures</td>
</tr>
<tr>
<td>2. using computer keyboard (in a clinical area)</td>
<td>2. contact with immunocompromised patients/clients</td>
<td></td>
</tr>
<tr>
<td>3. eating/handling of food/drinks (whether own or patient/clients)</td>
<td><strong>AFTER</strong></td>
<td><strong>NB</strong> Specific policies and procedures on surgical preparation should be available at local level</td>
</tr>
<tr>
<td>4. preparing/giving oral medications</td>
<td>1. contact with patients/clients being cared for in isolation or having additional (Transmission Based) precautions applied due to the potential for spread of infection to others</td>
<td></td>
</tr>
<tr>
<td>patient/client contact</td>
<td>2. being in wards/departments/units during outbreaks of infection</td>
<td></td>
</tr>
<tr>
<td>entering/leaving clinical areas</td>
<td>3. preparing and administering intravenous drugs due to potential for blood contamination of hands</td>
<td></td>
</tr>
<tr>
<td><strong>AFTER</strong></td>
<td>4. When hands are contaminated with blood or body fluids</td>
<td></td>
</tr>
<tr>
<td>1. patient/client contact</td>
<td>5. surgical/invasive procedures</td>
<td></td>
</tr>
<tr>
<td>2. becoming visibly soiled</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. visiting the toilet</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. using computer keyboard (in a clinical area)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. handling laundry/equipment/waste</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. blowing/wiping/touching nose</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. any contact with inanimate objects (e.g. equipment, items around the patient/client) and the patient/client environment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. removing gloves</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. pet therapy</td>
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<td></td>
</tr>
</tbody>
</table>

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14. HAND HYGIENE - FACILITIES

Access to appropriate hand hygiene facilities, and associated supplies is essential. Inadequate hand hygiene facilities will lead to poor hand hygiene performance. This includes the type and number of facilities, and their situation in relation to where work/care is carried out.

Guidance relating to provision of hand wash sinks is available (NHS Estates 2002. Infection Control in the built environment. Design and planning). The advice on clinical sinks suggests a minimum of one sink per single room/small ward areas, the provision of one sink between four patients in acute, elderly and long term care settings, one sink between six patients in low-dependency settings and one hand wash basin at each bed space in critical care and isolation facilities.

- The use of ‘hands free’ tap systems is crucial in preventing re-contamination of hands following hand hygiene performance at a sink and should be available if possible, particularly where personal care is delivered in clinical or communal settings. These can include:
  - Wrist, elbow or foot taps. Elbow taps are currently most commonly used in clinical or communal care areas and, if used properly (e.g. turning taps off using the elbows), are acceptable.
  - Motion sensor controlled taps (e.g. turn on and off when hands are waved in front of a sensor light area allowing no touching of the sink/tap system). It is essential that these systems provide users with adequate time to wet their hands prior to performing hand hygiene and that users are not put off by any delay in water delivery. It is preferable that such systems are mains operated to avoid battery failure.

- It is preferred that there are no plugs in hand wash sinks in order to avoid them filling with water, as this is not an adequate way to perform hand hygiene, particularly in clinical or communal care areas.
- Mixer taps or thermostatic mixer valves are preferred to provide the correct temperature of water for performing hand hygiene.
- The tap should not directly expel/drain water straight down the plug hole. It should be sited appropriately to ensure water hits the sink basin as it flows out, otherwise aerosols from the drainage system can splash back onto the user.
- Hand wash sinks should not have an overflow.
- Equipment sinks must not be used for hand washing.
- Hand wash sinks should not be used for equipment washing or for emptying soiled water.
- Poorly maintained hand hygiene facilities, e.g. chipped/cracked enamel, should be reported/repaired. Hand wash sinks must conform to standards as uneven damaged surfaces may harbour microorganisms.
- Hands free (i.e. pedal operated) waste receptacles should be close at hand.
14.1 Hand hygiene supplies

The availability of supplies for hand hygiene is essential.

Hand hygiene products (e.g. liquid soap, antiseptic hand wash solution and alcohol-based hand rub), should preferably be wall mounted in easy to use, and easy to clean, holder systems that contain single use, disposable cartridge sets, particularly in clinical or communal care areas. In some non-acute community care settings free standing bottles of liquid soap are acceptable.

Nozzles of solution bottles/containers should always be clean and free of any congealed product. Bottles should not be reused and the ‘topping up’ of bottles that contain solutions should never occur as the inside of these bottles, even those containing antiseptic solutions, can become a breeding ground for bacteria over time.

Soft, user friendly disposable paper towels for hand drying, preferably stored in wall mounted, easy to use and clean holders.

Supplies of paper towels and other hand hygiene supplies should always be stored in a clean dry area prior to use.

It is recommended that those working in community settings, such as a patient’s own home, where hand hygiene facilities may not be of an adequate standard, carry their own hand hygiene products and disposable single use paper towels.

Estates/maintenance staff are important partners in ensuring that hand hygiene facilities are adequate and that supplies are mounted appropriately.

14.2 Community or Home setting

The Hand Hygiene policy also applies to the community setting, that being the client’s home.

It is accepted that as facilities are provided by the client, there will be variations in the facilities provided, however it is expected that appropriate resources are available to healthcare workers in line with the Hand Hygiene Policy.

The healthcare worker must inform their line manager if they are unable to decontaminate their hands appropriately for whatever reason. Guidance can be obtained from the Community Infection Prevention & Control Team.
15. HAND HYGIENE (HAND WASHING) PROCEDURES

Hand hygiene should be performed for between 15 seconds and 3 minutes depending on the level of hand hygiene being performed. Washing for longer than these times is not recommended as this may damage the skin leading to increased shedding of skin scales and increased harbouring of microorganisms.

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Social Hand Hygiene</td>
<td>Hygienic Hand Hygiene</td>
<td>Surgical scrub</td>
</tr>
<tr>
<td>At least 15 seconds</td>
<td>At least 15 seconds</td>
<td>Carry out hygienic hand hygiene process for 2-3 minutes, ensuring all areas of hands and forearms are covered</td>
</tr>
</tbody>
</table>
Preparation:

- Gather all relevant equipment. Ensure that everything which is needed to perform hand hygiene is at present
- Ensure the sink area is free from extraneous items, e.g. medicine cups, utensils
- Ensure jackets/coats are removed, and wrists and forearms are exposed
- Jewellery must be removed
- Ensure nails are short (False nails must not be worn)

Procedure:

- The tap should first be turned on and the temperature of the water checked. Water should be warm
- Hands should be wet before applying the chosen solution
- Apply solution
- Manufacturers’ instructions for the solution being used should give guidance as to the volume to be applied (this is usually in the region of 3mls)
- A good lather is required to perform adequate hand hygiene
- All areas of the hands should be covered (see Appendix 1). The hand washing steps should take at least 15 seconds
- For surgical scrub, an additional step of cleaning the forearms is required
- Hands (and forearms where applicable) should be rinsed well under running water with the hands uppermost so that the water runs off the elbow
- The physical action of washing and rinsing hands is essential as different solutions will have different activity against microorganisms
- Taps should be turned off using a ‘hands-free’ technique, e.g. elbows. Where ‘hands-free’ tap systems are not in place, paper towels used first to dry hands can then be used for turning taps off
- Hands should be adequately dried
- Dispose of the paper towels without re-contaminating your hands e.g. use the foot pedal. Do not touch bin lids with hands

NB (1) It is recommended that nailbrushes are not used to perform social or hygienic hand hygiene as scrubbing can break the skin, leading to an increased risk of harbouring microorganisms or dispersing skin scales. Where nailbrushes are used for surgical scrub they should be fit for purpose and single use.
NB (2) Where running water is not available, for example during water failure or communities without water, the use of other products such as alcohol-based hand rub should be explored. Local infection prevention and control/health protection teams should be contacted for advice.

16. HAND HYGIENE PRODUCTS

<table>
<thead>
<tr>
<th>LEVEL 1</th>
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<td><strong>Hygienic Hand Hygiene</strong></td>
<td><strong>Surgical scrub</strong></td>
</tr>
<tr>
<td>Plain liquid soap</td>
<td>An approved antiseptic hand cleanser, e.g. 2-4% chlorhexidine, 5-7.5% povidone-iodine, 1% triclosan, or antimicrobial soap from a dispenser</td>
<td>An approved antiseptic hand cleanser, e.g. 2-4% chlorhexidine, 5-7.5% povidone-iodine, 1% triclosan from a dispenser</td>
</tr>
<tr>
<td>70% alcohol-based hand rub can also be used for social hand hygiene for ease of use (providing hands are visibly clean i.e. not soiled)</td>
<td>70% alcohol-based hand rub can also be used following hand washing e.g. when performing aseptic techniques, to provide further cleansing</td>
<td>Persons sensitive to antiseptic cleansers can wash with an approved non-medicated liquid soap followed by 2 applications of alcohol-based hand rub. Skin problems should be reported to and discussed with General Practitioner/Occupational Health, and local procedure should be followed</td>
</tr>
</tbody>
</table>

- If hands have patient/client contact before or during a procedure, but are not soiled with any body fluids and, therefore, do not require re-hand washing with soap or an antiseptic hand cleanser, alcohol-based hand rub can be used.
- Any soilage/organic matter can inactivate the activity of alcohol and, therefore, hand washing in these circumstances is essential.
- Where infection with a spore forming organism (e.g. *Clostridium difficile*) or with a gastroenteritis virus (e.g. Norovirus) is suspected/proven, hand hygiene **must** be carried out with liquid soap and water, although it can be followed by alcohol-based hand rub.
- Bar soap should not be used by staff for hand hygiene in a clinical/care setting. It is acceptable for a patient’s own use but not for sharing between patients.
- Solutions used may vary in local settings. The physical actions of performing hand hygiene, however, should always be the same and are essential in ensuring hands are adequately decontaminated.
17. HAND DRYING

Adequate hand drying plays a critical step in the hand hygiene procedure by removing any remaining residual moisture that may facilitate transmission of microorganisms. Hands that are not dried properly can become dry and cracked, leading to an increased risk of harbouring microorganisms.

Once the taps have been turned off using a ‘hands-free’ technique, clean disposable paper towels should be used to thoroughly dry all areas of the hands. This should be done by drying each part of the hand following the steps recommended for hand washing (see Appendix 1). The use of soft user-friendly, disposable paper towels is preferable to encourage compliance.

Drying following surgical scrub is recommended using a motion from the hands to the elbow.

Disposable paper towels should be placed immediately into appropriate waste receptacles, avoiding recontamination of hands, e.g. foot-operated bins. Recontamination of hands must be avoided, e.g. by not touching any contaminated areas in the environment or touching own hair or face.

Disposable paper towels should always be used in clinical settings. Communal towels for hand drying must be avoided.

18. HAND HYGIENE USING ALCOHOL-BASED HAND RUB

In some care settings (e.g. hospital wards), the appropriate placement of alcohol-based hand rub products within the patient’s immediate environment can support hand hygiene compliance. Placement can be at the foot of the bed or on a patient’s locker. In other care settings the dispenser can be attached to the internal wall of an ambulance, a patient’s chair or be carried by the healthcare worker (particularly in areas involving children or in mental health settings).

Alcohol-based hand rubs with a concentration of 70% alcohol are generally used as they are more effective than those with higher alcohol concentration, cause less skin drying dermatitis and are less costly. Products that also contain emollients can be used to ensure the drying effects of alcohol-based hand rubs are minimised.

These products are useful for performing hand hygiene when sinks are not readily available for hand washing or when hands may be contaminated, but are not visibly soiled e.g. entering or leaving a ward/clinical/patient area. Alcohol-based hand rub can also be used following hand washing, e.g. when performing aseptic techniques, to provide a further cleansing and residual effect.

Alcohol-based hand rubs are not effective against spore-forming organisms (e.g. Clostridium difficile) or norovirus.
19. PROCEDURE FOR ALCOHOL-BASED HAND RUB

The amount/volume used to provide adequate coverage of the hands should be indicated in the manufacturers’ instructions. This is normally around 3 ml. The steps to perform hand hygiene using alcohol-based hand rub are the same as when performing hand washing (see Appendix 1).

The time taken to perform hand hygiene using alcohol-based hand rub should be the same as when performing hand washing, e.g. at least 15 seconds is recommended (15-30 seconds is adequate). Manufacturers’ instructions can be followed (a number of these recommend rubbing for 30 seconds).

If the solution has not dried by the end of this process allow hands to dry fully before any patient/client procedures are undertaken (do not use towels to do this) and re-assess if the correct volume is being used.

No scientific evidence is currently available to advise as to the maximum number of applications of alcohol-based hand rub before hand washing is then required (i.e. when hands have not been soiled). Individuals are, therefore, required to use their own judgment or follow local guidance or manufacturers’ instructions (particularly regarding build up of products on hands).

20. GLOVES

There are many gloves available for use when indicated: e.g. disposable single use, sterile/non-sterile.

- Change gloves between patients.
- The same gloves must not be worn between dirty and clean procedures.
- Wash hands after removal of gloves and before sterile gloves are worn.
- Gloved hands must not be washed or cleansed with alcohol hand gel or rubs.

21. CARE OF FINGERNAILS

- It has been shown that nails, including chipped nail polish, can harbour potentially harmful bacteria. Caring for nails helps prevent the harbouring of microorganisms, which could then be transferred to those who are receiving care.
- Nails must be kept short and clean.
- Nail polish should not be worn.
- Artificial fingernails/extensions should not be worn when providing care.
- Nail brushes should not be used in care settings. Single use disposable nail brushes may be used in theatre.
- The steps included in the hand hygiene process must be followed in order to ensure nail areas are cleaned properly.
22. HAND HYGIENE AND JEWELLERY

- It has been shown that contamination of jewellery, particularly rings with stones and/or jewellery of intricate detail, can occur. Jewellery must be removed when working in clinical care settings to prevent the spread of microorganisms by contact with contaminated jewellery.
- Most staff providing care must remove jewellery at the start of the working day.
- It is acceptable to wear plain wedding bands however these must be moved/removed when hand hygiene is being performed in order to reach the bacteria which can harbour underneath them.

23. HAND CARE

- Hand care is important to protect the skin from drying and cracking. Cracked skin may harbour microorganisms and broken areas can become contaminated, particularly when exposed to blood and body fluids.
- Hand creams can be applied to care for the skin on hands. However, only individual tubes of hand cream for single person use or hand cream from wall mounted dispensers should be used. Communal tubs must be avoided as these may contain bacteria over time, and lead to contamination of hands.
- Creams used should not affect the action of hand hygiene products or the integrity of gloves.
- Cover all cuts and abrasions with a waterproof dressing.
- Report any skin problems to your Manager, Occupational Health or General Practitioner in order that appropriate skin care can be undertaken and the risks of harbouring microorganisms while providing care for others can be avoided.
24. REFERENCES/LITERATURE

This policy/procedure is supported by a full review of literature with references.

This work is based on the Model Infection Control Policies developed by Health Protection Scotland, with thanks.
HAND CLEANING TECHNIQUES

How to handrub?
WITH ALCOHOL HANDRUB
1a Apply a small amount, about 3ml, of the product in a cupped hand, covering all surfaces
1b

How to handwash?
WITH SOAP AND WATER
0 Wet hands with water
1 Apply enough soap to cover all hand surfaces
2 Rub hands palm to palm
3 Rub backs of each hand with the palm of other hand with fingers interlaced
4 Rub palm to palm with fingers interlaced
5 Rub with backs of fingers to opposing palms with fingers interlaced
6 Rub each thumb deeply in opposite hand using rotational movement
7 Rub tips of fingers in opposite palm in a circular motion
8 Rub each wrist with opposite hand
9 Once dry, your hands are safe
10 Use arrow to turn off tap
11 Dry thoroughly with a single-use towel
12 Your hands are now safe

www.npsa.nhs.uk/cleanyourhands
Adapted from World Health Organization Guidelines on Hand Hygiene in Health Care

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