The Royal Wolverhampton NHS Trust

IP01
Hand Hygiene

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1.0 Policy Statement (Purpose / Objectives of the policy)

In adhering to this Policy, all applicable aspects of the Conflicts of Interest Policy must be considered and addressed. In the case of any inconsistency, the Conflict of Interest Policy is to be considered the primary and overriding Policy.

This policy aims to define to all staff the expected standards for hand hygiene to deliver safe care and comply with the Health and Social Care Act (2012): Code of Practice for the Prevention and Control of Infection (2012).

Hand Hygiene is one of the most effective actions you can take to reduce the spread of pathogens and the transmission of Healthcare Acquired Infections (HCAI's), including the COVID-19 virus. NHS England and NHS improvement (NHSE&I), 2019). It is the critical element of standard infection prevention precautions. The hands of all staff, clinical and non-clinical, are the critical vector for transmitting microorganisms (Edmonds-Wilson et al, 2015).

All staff have a duty to comply with Infection Prevention and Control procedures and to take appropriate action to protect patients; research has proven that knowledge alone is not effective in promoting hand hygiene; it requires hand hygiene to be everyone's priority (Department of Health, 2008)

Effective hand decontamination, even after wearing gloves, results in significant reductions in the carriage of potential pathogens on the hands and decreases the incidence of preventable HCAI, leading in turn to a reduction in morbidity and mortality. Hand decontamination is considered to have a high impact on outcomes that are important to patients. Although hand hygiene has improved over recent years, remaining misconceptions about this standard principle of Infection Control are reported and good practice is still not universal. (NICE quality standard (QS61) 2014 Quality Standard 3)

A systematic and expert review of scientific evidence, titled Epic3 National Evidence-Based Guidelines for Preventing Healthcare Associated Infections in NHS Hospitals in England (Loveday et al, 2014), and WHO Guidelines on hand hygiene in health care (2009) has informed much of this policy.

This policy is designed to be used in conjunction with other initiatives and activities; it defines the Trust-mandated behaviour for the performance of hand hygiene, and must be read in conjunction with the following Trust policies:

- Staff Dress code and Uniform policy HR 22
- Standard precautions policy IP 12
- Glove policy IP 09

All aspects of this document regarding potential Conflicts of Interest should refer first to the Conflicts of Interest Policy (OP109). In adhering to this Policy, all applicable aspects of the Conflicts of Interest Policy must be considered and addressed. In the case of any inconsistency, the Conflict of Interest Policy is to be considered the primary and overriding Policy.

2.0 Definitions

Alcohol-based (hand) rub: An alcohol-containing preparation (liquid, gel or foam) designed for application to the hands to inactivate microorganisms and/or temporarily suppress their growth. Such preparations may contain one or more types of alcohol, other active ingredients with excipients, and humectants (WHO 2009)

Aseptic non touch technique: ANTT is a method used to prevent contamination of wounds and other susceptible sites by ensuring that only sterile objects and fluids come into the contact with these sites and that the risk of contamination is minimised. Aseptic technique is a process or procedure used to achieve asepsis to prevent the transfer of potentially pathogenic micro-organisms to a susceptible site that may result in the development of infection (Wilson, 2019). ANTT is now recognised as best practice and is regarded by the National Institute of Health and Care Excellence (Gould et al 2020).

Hand care*:* Actions to reduce the risk of skin damage or Irritation (WHO, 2009).

Handwashing. Washing hands with plain or antimicrobial soap and water (WHO, 2009).

Bare Below the Elbows: It is an initiative aiming to improve the effectiveness of hand hygiene performed by health care workers. The effectiveness of hand hygiene is improved when: skin is intact, nails are natural, short and unvarnished; hands and forearms are free of jewellery and sleeves are above the elbow. Bare below the elbows is a nationally accepted practice . Exposure of the forearm is a necessary part of hand and wrist hygiene during direct patient care activity, to reduce to the risk of contamination from soiled uniform cuffs or long sleeves and to facilitate adequate hand hygiene. (Queens land Health, 2017)

Hand Decontamination: Hand decontamination is the use of hand rub or handwashing to reduce the number of bacteria on the hands. The term is often interchangeable with 'hand hygiene'. NICE 2014

Hospital acquired infections: Hospital-acquired infections (healthcare-associated infections) are nosocomially acquired infections that are not present or incubating at the time of admission to a hospital (Alberto et al, 2020).

Direct Contact: Direct contact or care refers to 'hands on' or face-to-face contact with patients. This encompasses any physical aspect of the healthcare of a patient, including treatments, self-care and administration of medication.

Decontamination: Decontamination is a combination of processes that removes or destroys contamination so that infectious agents or other contaminants cannot reach a susceptible site in sufficient quantities to initiate infection, or other harmful response (HSE 2020)

Clinical environment: Any area within the Royal Wolverhampton Trust clinical settings, where patients are seen or treated. The clinical environment consists of inpatient, hospital outpatient and community settings (Jonas et al, 2019).

3.0 Accountabilities

It is the responsibility of **all** staff to demonstrate consistently high standards of compliance with hand hygiene (DH 2007a, 2010c). Persistent non-compliance with any element of the Hand Hygiene Policy by any member of staff will result a disciplinary process. Reference to Senior Sister/Charge Nurse/ Department Manager also includes those within Community settings, for example Practice Managers.

3.1 Senior Sister /Charge Nurse and Departmental Manager

- Ensuring hand hygiene is built into local induction programmes.
- Ensuring Infection Prevention and Control practice and performance is incorporated in staff appraisal and part of training needs analysis (NHSE&I, 2019).
- Ensuring staff complete hand hygiene training, training records are kept up to date and that the reasons for any non-attendance are followed up and addressed.
- Ensuring their staff are aware of this policy and hand hygiene campaigns, and that they actively participate in any hand hygiene promotion activities.
- Ensuring there are adequate numbers of Infection Prevention Link Practitioners in the ward or department to facilitate audits, education and promotion of hand hygiene.
- Ensuring that 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 referred to Occupational Health and Wellbeing.
- Ensuring that adequate resources are in place to allow hand hygiene to be implemented.
- Supporting staff in any corrective action or interventions if an incident occurs that may cause cross transmission.
- Reporting breaches of this policy via the Trust's incident reporting system, and if necessary, directly to a member of the Infection Prevention Team (IPT).
- Ensure faults which may adversely impact upon services to clinical areas are resolved promptly.

3.2 Infection Prevention Team

- The on-going development and distribution of this policy.
- Developing and providing training in relation to this policy that will form part of the Trust mandatory programme of education.
- Providing specialist advice to clinical areas in relation to those areas covered in this policy.
- Supporting monitoring compliance with this policy.
- Auditing this policy annually.

- Updating this policy, ensuring that it reflects current evidence-based guidance.
- Ensuring that hand hygiene products used meet COSHH regulations.
- Challenging and reporting poor practice and non-compliance.

3.3 Occupational Health

The Occupational Health Department will provide advice and support for staff who develop skin problems or develop a sensitivity to hand hygiene products.

3.4 Hotel Services

The Hotel Services Department will ensure hand hygiene products are always available for use, maintain stock levels in paper hand towel dispensers and report damage to equipment which may impede performance of hand hygiene. Faults or sink blockages must be reported promptly to the Estates Team and the IPT notified if the disruption is likely to impact upon the performance of hand hygiene (Everybody is responsible to report any estate related concerns)

3.5 Estates and Facilities Division

The Estates and Facilities division will undertake planned preventative maintenance and in addition ensure faults which may adversely impact upon services to clinical areas are resolved promptly, where a delay affecting the adherence to this policy is likely the IPT must be informed.

4.0 Policy Detail

4.1 Bare Below the Elbows

'Bare Below the Elbows' is included in the Staff Dress code and Uniform policy HR 22. It is a position the Trust has adopted as part of its infection prevention practices to reduce the spread of infection and facilitate effective hand hygiene. Although the dress code does not define clinical areas, for the purpose of this document, "clinical area" means anywhere within the door that provides direct access to a ward, department or clinical area where patients are seen and, or treated, or any facility where personal care is being provided. All staff working in, or visiting a clinical area as defined must comply with the following:

- Nails must be short and clean, with no nail polish, jewels or extensions.
- Wrist and hand jewellery must be removed at the beginning of each shift by all staff working in clinical areas with the single exception of one-plain, un-stone ring. Rings must be moved or removed when hand hygiene is being performed in order to reach the bacteria which can be harboured underneath them. Wedding bands with indentations require additional attention to reduce potential for contamination with micro-organisms.
- One single plain, unstoned Kara bracelet, which can be, moved to mid arm to allow for hand hygiene, can be worn.
- Sleeves must be short or rolled up securely above the elbow.

Any staff member with any portion of their forearm, wrist and/or hand in a bandage, splint, plaster cast and, or sling of any description cannot be permitted to work in the clinical environment as hand decontamination is paramount to prevent the spread of infection.

4.2 Religious/Cultural Considerations

Alcohol Hand Rubs

According to some religions, alcohol use is prohibited or considered an offence. However, in general, despite alcohol prohibition in everyday life, most religions give priority to health principles to ensure patient safety. Consequently, no objection is raised against the use of alcohol-based products for environmental cleaning, disinfection or hand hygiene by any religion (World Health Organisation, 2009).

Bare Below the Elbows

Advice has been sought nationally on the specific issue of 'bare below the elbows' as some religions require that long sleeves must be worn. It has been established that all religions endorse the principle that an individual must do no harm to others. The wearing of long sleeves prevents effective hand hygiene as it is not possible to clean the wrists fully, and hand hygiene is essential for safe patient care.

Religious/Cultural Dress and Jewellery

The Kara is a steel bracelet worn on the wrist (usually the right wrist). The wearing of the Kara is a requirement of the Sikh religion. The Kara can be worn in everyday practice; its cleanliness must be maintained alongside regular hand hygiene. Guidelines on aseptic procedures when a plain metal band is worn on the finger should be applied to the Kara.

Headscarves worn for religious purposes must be shoulder length, unadorned and secured neatly.

It is important to explore with individual members of staff where there may be issues of religious/cultural significance and negotiate a suitable arrangement and to ensure that no risks are posed to patients, visitors or the public or to their colleagues.

Refer to Staff Dress code and Uniform policy HR 22 for further guidance.

4.3 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 must be reported.

5.0 Financial Risk Assessment

1	Does the implementation of this policy require any additional Capital resources	No
2	Does the implementation revenue resources of this policy require additional	No
3	Doe the implementation of this policy require additional manpower	No
4	Does the implementation of this policy release any manpower costs through a change in practice	No
5	Are there additional staff training costs associated with implementing this policy which cannot be delivered through current training programmes or allocated training times for staff	No
	Other comments	

6.0 Equality Impact Assessment

The Trust is committed to ensuring that, as far as is reasonably practicable, the way we provide services to the public and the way we treat our staff reflects their individual needs and does not discriminate against individuals or groups on the basis of their ethnic origin, physical or mental abilities, gender, age, religious beliefs or sexual orientation. The Equality and Diversity checklist has been used to screen this policy and no issues have been identified which would adversely affect any racial or diverse group.

An equality analysis has been carried out and it indicates that:

Tick	Options
	A. There is no impact in relation to Personal Protected Characteristics as defined by the Equality Act 2010.
	B. There is some likely impact as identified in the equality analysis. Examples of issues identified, and the proposed actions include: • References within the policy acknowledging religious and cultural beliefs and impact to work wear and uniform for example: the Kara, head scarf that signify religious belief, however when possible adjustments have been identified in-line with Infection Prevention and Health and Safety Legislation.

7.0 Maintenance

IPT will maintain this policy. This policy will be reviewed every three years or earlier if warranted by a change in standards or if changes are deemed necessary from internal sources.

8.0 Communication and Training

All new staff to the Trust must undertake either Level 1 (non-clinical) or Level 2 (clinical) infection prevention training, which includes hand hygiene training and a practical hand assessment.

All staff as part of their annual mandatory training will undertake either Level 1 (non-clinical) or Level 2 (clinical) infection prevention training, which includes hand hygiene training and a practical hand assessment, either at scheduled training dates or via the e-learning package which is available on the Trust Intranet KITE site, with locally conducted practical hand assessment.

Theatre scrub techniques – all new theatre staff complete a competency document which is kept locally.

9.0 Audit Process

Each Directorate must monitor compliance with this policy through the Infection prevention audit programme. When variances are seen, the Directorate must produce and ensure compliance with exception reports that will include recommendations and action plans. At IPCG meetings, directorates are required to present a range of performance data which includes attendance at hand hygiene training. Issues of poor performance will be challenged, and actions agreed.

Monthly hand hygiene audits measuring hand hygiene opportunities will be carried out at a clinical level, with the data being entered into the electronic database, the results will be presented to IPCG in the event of poor performance (<90).

Criterion	Lead	Monitoring method	Frequency	Committee
Hand hygiene training	Divisional Lead	Training & Education Staff Appraisal	Bi-Monthly Monthly	CESG IPCG Trust Board
Hand hygiene competence	Divisional Lead	Training & Education Staff Appraisal	Bi-Monthly Monthly	CESG IPCG Trust Board
Hand hygiene policy	Wards and-Departments	Observation audit	Monthly	IPCG

10.0 References - Legal, professional or national guidelines

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Part A - Document Control

<table>
<tr><td>Policy number and Policy version:

IP01 version 8.0</td><td>Policy Title

Hand Hygiene Policy</td><td colspan="2">Status:

Final</td><td>Author: Senior Infection Prevention Nurse

Chief Officer Sponsor: Chief Nursing Officer</td></tr>
<tr><td rowspan="9">Version / Amendment History</td><td>Version</td><td>Date</td><td>Author</td><td>Reason</td></tr>
<tr><td>V1</td><td>Jan 2005</td><td>Lead Nurse IP</td><td>Introduction</td></tr>
<tr><td>V2</td><td>June 2008</td><td>Lead Nurse IP</td><td>Reached stated review date</td></tr>
<tr><td>V3</td><td>July 2011</td><td>Lead Nurse IP</td><td>Reached stated review date</td></tr>
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<tr><td>V5</td><td>June 2015</td><td>Lead Nurse IP</td><td>Reached stated review date</td></tr>
<tr><td>V6</td><td>June 2018</td><td>Lead Nurse IP</td><td>Reached stated review date</td></tr>
<tr><td>V7</td><td>June 2021</td><td>Lead Nurse IP</td><td>Full review</td></tr>
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<tr><td colspan="2">Review Date and Frequency (standard review frequency is 3 yearly unless otherwise indicated – see section 3.8.1 of Attachment 1)</td><td colspan="3">July 2027</td></tr>
<tr><td colspan="5">Training and Dissemination:</td></tr>
<tr><td colspan="5">To be read in conjunction with: Glove Policy IP09
Staff Dress and Uniform Policy HR22
Standard Precautions Policy IP12</td></tr>
<tr><td colspan="5">Initial Equality Impact Assessment (all policies): Completed Yes
Impact assessment (as required): Completed Yes

If you require this document in an alternative format e.g., larger print please contact Policy Management Officer</td></tr>
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Monitoring arrangements and Committee	

Document summary/key issues covered.

Hand hygiene is the single most effective activity in the reduction of healthcare associated infection, it is fundamental in preventing transmission of microorganisms, and remains the cornerstone of good infection prevention and control (National Audit Office (NAO) 2000).

Embedding specific moments for hand hygiene action into health worker workflow makes it easier to do the right thing every minute, every hour, every day.

Infection prevention is at the heart of strengthening health-care systems. Hand hygiene is core to all interventions, whether inserting an invasive device, managing a surgical wound, or giving an injection. (WHO Guidelines on hand hygiene in health care, 2009)

The promotion of wellbeing and prevention of infection is the duty of all Trust personnel, promoting excellence and challenging poor practice is everyone's responsibility (Health and Social Care Act 2008, Board to Ward 2008).

A systematic and expert review of scientific evidence, titled Epic 3 National Evidence-Based Guidelines for Preventing Healthcare Associated Infections in NHS Hospitals in England (Loveday et al, 2014) and WHO Guidelines on hand hygiene in health care (2009) has informed much of this policy.

Key words for intranet searching purposes	

1.0 Frequency for hand decontamination

It is the responsibility of **all** staff to demonstrate consistently high standards of compliance with hand hygiene (DH 2007a). When it is necessary to decontaminate hands, four key factors need to be considered:

- The level of anticipated contact with the patient.
- The extent of the contamination that may occur with that contact.
- The patient care activities being performed.
- The susceptibility to infection of the patient.

Hands that are visibly soiled or contaminated with dirt or organic material must be washed with liquid soap and water. This is also the case when caring for patients with diarrhoea including *Clostridium difficile* infection (Pratt et all 2007, DH 2007a).

1.1 Your 5 moments for hand hygiene

Hands must be cleaned at a range of times, however, to prevent HCAI at the most fundamental times during care delivery and daily routines, when caring for those sick and vulnerable the 'Your moments 5 for hand hygiene' must be followed. The descriptions given for the 'Your 5 moments for hand hygiene' must be applied to a range of settings and not just the acute Trust wards (refer to Appendix 1).

2.0 Hand hygiene

2.1 Social hand hygiene

Social hand hygiene aims to remove dirt, organic matter and microorganisms picked up during activities considered 'social' activities (transient microorganisms), making hands socially clean. Hand washing, using liquid soap and water involves several stages (refer to Appendices 2 and 3). All hand and wrist jewellery (except for one plain metal ring and the Kara – see 4.1 and 4.2) must have been removed prior to entering any clinical area and the 'bare below the elbows' dress code followed (HR 22, DH 2010c).

Hands must be wet with warm water before applying soap. The soap solution must come into contact with all surfaces of the hand, the hands must be rubbed together vigorously for a minimum of 15 - 20 seconds paying particular attention to the tips of the fingers, the thumbs, and the areas between the fingers. Hands must be rinsed thoroughly prior to drying with a paper towel. This technique is adequate before and after most activities.

2.2 Hands must be decontaminated.

- Before and after each work shift or work break.
- Before and after each direct contact with a patient.
- Before eating, drinking, or handling food, or helping a patient to eat or drink.
- Preparing / administrating medication.
- Immediately before and after every episode of direct patient contact / care.
- Before and after any clinical procedures e.g., renewing a wound dressing.

- After any activity or contact that potentially results in hands becoming contaminated.
- After handling laundry, equipment, or waste.
- After blowing, wiping, or touching your nose.
- After touching inanimate objects (e.g., equipment items) around the patient and the patient environment.
- Before putting on and after removal of protective clothing; wearing gloves is **not** a substitute for hand washing.
- Hands that are visibly soiled or contaminated with dirt or organic matter must be washed with **liquid soap and water.**
- Alcohol based hand rub / gel can also be used for social hand hygiene (where hands have not been soiled) for ease of use where appropriate.

2.4 How long must it take?

It should take at least 15 - 20 seconds to perform. Washing your hands for excessive lengths of time is not recommended as this may damage the skin leading to increased shedding of skin scales or increased harboring of microorganisms (WHO 2009).

2.5 Areas most often missed.

The areas of the hands which are often missed are the wrist creases, thumbs, fingertips, under the fingernails and under jewellery. For these reasons fingernails must be kept short and clean and nail polish and artificial nails must not be worn.

3.0 5 moments of hand hygiene

To remove or destroy transient microorganisms, in addition to providing residual effect during times when hygiene is particularly important in protecting staff and others (reduces resident microorganisms).

3.1 Hands must be decontaminated.

- Before a clean or aseptic procedure (aseptic non-touch technique) i.e. change of wound dressing.
- Prior to performing or assisting with a surgical procedure including minor surgical procedures in clinical areas.
- Between theatre cases and if glove puncture occurs.
- Prior to performing invasive procedures e.g. interventional radiology.
- Prior to any invasive procedure such as the insertion of chest drains, central venous or arterial catheters etc.
- Prior to assisting with a delivery i.e. maternity unit.
- Before contact with immunocompromised patients.
- After touching patients being cared for in isolation or having additional precautions applied due to the potential for spread of infection to others.
- After being in wards / departments / units during outbreaks of infection.

- After blood / body fluid contamination.
- After surgical or invasive procedure.

3.2 What solution must be used?

- An approved antiseptic hand cleanser e.g. 2-4% Chlorhexidine from a dispenser.
- Alcohol based hand rub / gel can also be used following hand washing with soap and water, or when hands are physically clean, for example when performing aseptic techniques, leaving isolation facilities etc. to provided further cleansing and residual effect.

3.3 How long must it take?

It should take at least 15 - 20 seconds to perform hand hygiene, however washing hands for excessive lengths of time is not recommended as this may damage the skin leading to increased shedding of skin scales or increased harbouring of microorganisms.

4.0 Surgical scrub

To remove or destroy transient microorganisms and to substantially reduce those microorganisms which normally live on the skin (resident microorganisms) during times when surgical procedures are being carried out.

4.1 Hand must be decontaminated.

- Before surgical or invasive procedures.

4.2 What solution must be used?

- An approved antiseptic hand cleanser e.g. 2-4% Chlorhexidine or 5-7.5% Povidone Iodine from a dispenser.
- Persons sensitive to antiseptic cleansers must be referred to Occupational Health and a suitable alternative sourced.

4.3 How long must it take?

Carry out surgical scrub process for 2-5 minutes, ensuring all areas of hands and forearms are included in the clean.

5.0 Skin care

- All cuts and abrasions on the hands and forearms must be covered with an occlusive, waterproof dressing. Those involved in food preparation must use a blue waterproof dressing. First aid boxes must contain appropriate occlusive, waterproof dressing as required by Health and Safety at Work Regulations (1999).
- Rashes or eczema on the hands and forearms must always be reported to the Ward / Department Manager and Occupational Health. Advice must be sought from Occupational Health for persistent skin irritations.
- Staff must care for their hands to prevent dry cracked skin conditions developing, which are often caused by failure to wet hands before applying soap, not rinsing the soap thoroughly off or not drying the hands thoroughly.
- Regular use of hand cream is recommended to help protect the skin (WHO 2009). Hand cream must be presented in individual single use or pump

action dispensers. The use of communal pots or containers is not appropriate as they harbour bacteria and can pose a significant risk of cross infection in a health care setting.

5.1 Nail care

There is evidence which highlights that nails, including chipped nail polish, can harbour potentially harmful bacteria. Caring for nails helps prevent the harbouring of microorganisms which can be transmitted to those who are receiving care (DH 2007b, WHO 2009):

- Nails must be natural and kept short and clean.
- Nail polish must not be worn.
- Artificial fingernails / extensions must not be worn when providing care.

5.2 Hand hygiene and jewellery

It has been shown that jewellery, particularly rings with stones and / or jewellery of intricate detail, can be contaminated with microorganisms, which could then spread via touch contact and potentially cause infection.

- Wrist and hand jewellery must be removed at the beginning of each clinical shift by all staff working in clinical areas in line with the Trust Dress Code policy (HR 22, DH 2010c).
- It is acceptable to wear plain bands (DH 2007b) e.g. wedding bands, however, these must be moved / removed when hand hygiene is being performed to reach the bacteria which can harbour underneath them.

5.3 Hand hygiene and work clothing

To ensure hands can be easily decontaminated 'bare below the elbows' (DH 2008) is practiced within this Trust. Jackets and coats must be removed and long sleeves, if worn, rolled up allowing for wrist and forearms to be exposed when in clinical areas (DH 2007b).

5.4 Nailbrushes

Nailbrushes are **not** recommended to perform social or hygienic hand hygiene as scrubbing can break the skin, leading to increased risk of harbouring microorganisms or dispersing skin scales that may cause harm to others. Where nailbrushes are used for surgical scrub, they must be fit for purpose and single use.

6.0 Alcohol based hand rub / gel.

Alcohol (65-70%) rapidly destroys both bacteria and fungi, although it has no effect on bacterial spores such as *Clostridium difficile* (Wilson 2002). Alcohol based hand rub / gel is an effective agent for disinfecting the hands and is useful when there is a need for rapid hand disinfection. It does not penetrate protein-based organic matter (Wilson 2002), therefore it is recommended that in the presence of visible contamination with organic material, *e.g.* blood, urine, sputum, faeces, pus etc., that the hands are washed first with soap and water (refer to Appendix 3 and 4).

When decontaminating using an alcohol-based hand rub / gel, hands must be free of dirt and organic material. The alcohol-based hand rub / gel must come into contact with all surfaces of the hand, the hands must be rubbed together vigorously paying particular attention to the tips of the fingers, the thumbs, and the areas between the fingers, until the alcohol-based hand rub / gel has evaporated, and the

hands are dry.

- Near patient alcohol-based hand rub / gel must be located at the end of each bed throughout the Trust, unless otherwise agreed with the IPT.
- Alcohol based hand rub / gel is available at ward entrances to allow both visiting staff and visitors the opportunity to decontaminate their hands.
- Alcohol based hand rub / gel must be available at the outside of side rooms.

7.0 Hand hygiene for patients and visitors

Patients and visitors must be advised regarding opportunities for hand hygiene (Health and Social Care Act, 2010). Patients unable to effectively decontaminate their hands, e.g. after going to the toilet and before meals, must be given help to ensure that their hygiene requirements are met. Patients, relatives, and visitors have a right to ask staff if they have decontaminated their hands prior to any clinical intervention.

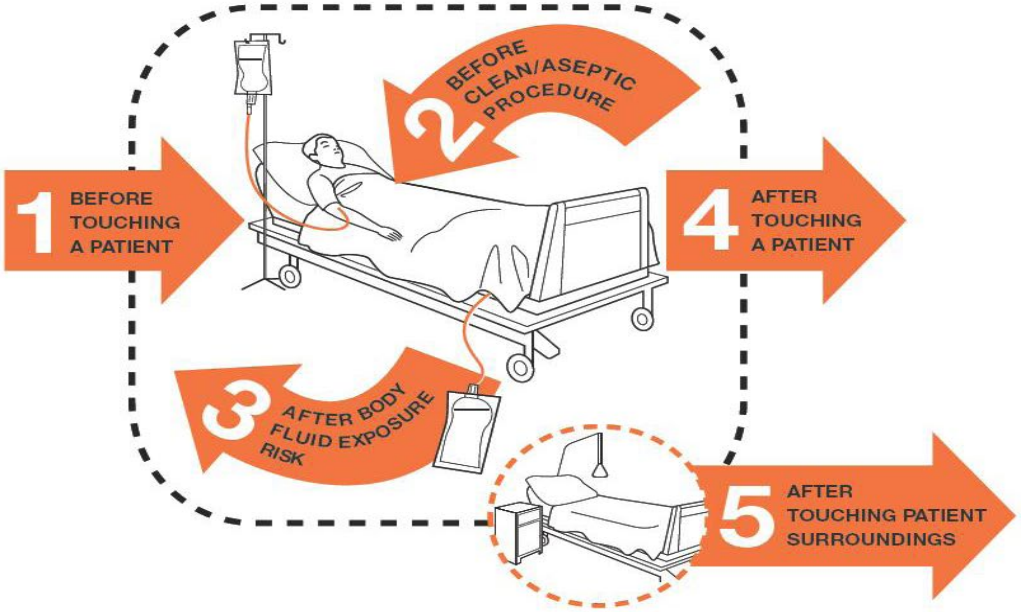
8.0 Facilities required to perform hand hygiene.

Access to appropriate hand hygiene facilities (HTM 64 (2006, NHS Estates 2001) (Infection control in the built environment (HBN 00-09) (26 March 2013) and associated supplies is essential to ensure adequate hand hygiene can be performed.

- The use of 'hands free' tap systems is crucial in preventing re-contamination of hands following hand hygiene performance at a sink and must be available as far as possible, particularly where personal care is delivered in clinical or communal settings. These include:
- Elbow, wrist or foot operated taps - elbow taps are currently most commonly used in clinical or communal care areas and, if used properly are acceptable (turning taps off utilising the elbows).
- Motion sensor-controlled taps must provide the users with adequate time to wet their hands prior to performing hand hygiene.
- There must be no plugs in hand wash basins to avoid the filling of sinks with water, as this is not an adequate way to perform hand hygiene.
- Mixer taps or thermostatic mixer valves are preferred to provide the correct temperature of water for performing hand hygiene.
- The taps must not directly expel / drain water straight down the drain; they must be sited appropriately to ensure water hits the sink basin as it flows out, otherwise aerosol from the drainage system can splash back onto the user.
- Hand wash basins must not have an overflow.
- Availability of supplies for hand hygiene is essential, including:
- Hand hygiene solutions – liquid soap, antiseptic hand wash solution, and alcohol-based hand rub / gel, which are wall mounted in easy to use, easy to clean, holder systems that contain single use, disposable cartridge sets.
- Nozzles of solution bottles / containers must be clean and free of any congealed product – bottles must not be reused or 'topped up'.

- Community staff must carry their own hand hygiene solutions and disposable hand towels as facilities may not be adequate when visiting no Trust premises.
- Supplies of good quality disposable soft paper towels with effective drying properties and other hand hygiene supplies must be stored in a clean dry area prior to use.
- Poorly maintained hand hygiene facilities, e.g. chipped / cracked enamel, must be reported and replaced as soon as possible. Hand wash basins must conform to HTM 64 (2006) standards, as damaged surfaces can harbour microorganisms and re-contaminate the hands.
- A foot-operated bin must be sited close to the wash basin to enable used paper towels to be dispose of correctly.
- Warm air dryers are unsuitable in clinical areas as they disperse aerosols of micro-organisms through recirculation of air.

Your 5 Moments for Hand Hygiene



1	BEFORE TOUCHING A PATIENT	WHEN?	Clean your hands before touching a patient when approaching him/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, from entering his/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 her/his immediate surroundings, when leaving the patient's side.
		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 if the patient has not been touched.
		WHY?	To protect yourself and the health-care environment from harmful patient germs.

World Health Organization | Patient Safety — A World Alliance for Safer Health Care | SAVE LIVES Clean Your Hands

May 2009

Hand wash station: Water sources and preventing cross contamination of taps and water systems

- Only use the hand wash station for hand washing.
- Do not dispose of body fluids at the hand wash basin - use the dirty utility area.
- Do not decontaminate patient equipment in the hand wash basin.
- Do not use the hand wash basin for storing equipment awaiting decontamination.
- Taps must be cleaned before the rest of the hand wash basin as set out in the RWHT Cleaning Strategy 2018 - 2021.
- Wash patients, including neonates, on augmented care units with water from outlets demonstrated as safe by risk assessments and if necessary water sampling
- Do not dispose of used environmental cleaning fluids at hand wash basins.

The procedure for performing hand hygiene

Preparation

- Gather all relevant equipment. Ensure all that is needed to perform hand hygiene is at hand.
- Ensure the sink area is free from extraneous items e.g. cups, utensils etc.
- Ensure jackets / coats are removed, and wrists and forearms are exposed.
- Jewellery must be removed apart from a plain ring or a Kara. Ensure nails are short (false nails must not be worn).

Procedure

- The tap must first be turned on and the temperature of the water checked. Water should be warm.
- Hands must be wet before applying the chosen solution.
- Apply solution (one shot).
- A good lather must be evident for undertaking the steps to perform adequate hand hygiene.
- All areas of the hands must be covered in these steps. The steps should take at least 15 seconds.

- Hands (and forearms where applicable) must be rinsed well under the running water.
- The physical action of washing and rinsing hands is essential as different solutions will have different activity against microorganisms.
- Hands must be adequately dried (without rubbing).
- Taps must be turned off using a 'hands-free' technique e.g. elbows. Where 'hands-free' tap systems are not in place, disposable paper towels used to dry hands can be used for this.
- Dispose of the paper towels without re-contaminating the hands e.g. use a foot pedal bin. Do not touch bin lids with hands.

NB the Surgical scrub is a different process that is more prolonged and requires cleaning the forearms.

Six-step hand washing technique

Routine hand washing, using a good technique is more important than the duration of washing as it is the technique that removes most transient microorganisms from the hands. Hands can be decontaminated using this technique with either liquid soap and water or an alcohol-based hand rub / gel. The six-step hand washing technique should take no longer than 15 -20 seconds to perform; each step consists of around 5 or 6 strokes forward and backwards. Rinse hands thoroughly to remove all traces of the soap and dry thoroughly with a paper towel. If taps are not elbow or wrist operated, leave the taps to run, dry your hands then use a clean dry paper towel to turn the taps off, otherwise you will re-contaminate your hands (Refer to Appendix 3).

Hand drying

- Hand drying has been shown to be a critical factor in hand hygiene process.
- Hands that are not dried properly can become dry and cracked, leading to an increased risk of harbouring microorganisms on the hands that might be transmitted to others.
- Once the taps have been turned off using a 'hands free' technique, use clean disposable paper towels to dry each area of the hands thoroughly. This is done by patting dry each part of the hands remembering all of the steps included in the hand washing process.
- Drying following surgical scrub is recommended using a motion from the hands to the elbows.
- Used disposable paper towels must be placed immediately into appropriate waste receptacles, avoiding recontamination of hands, e.g. foot operated bins.
- The use of communal towels for hand drying is not permissible within the Trust.
- The use of air dryers are not permissible within clinical areas, however they are used in non-clinical toilet facilities.

Use of alcohol-based hand rub / gel

- Near patient alcohol-based hand gel must be located at the end of each bed or located on the patient's locker, throughout the Trust, unless otherwise agreed with the IPT.
- Alcohol based hand rub / gel must be available at all ward entrances to allow both visiting staff and visitors the opportunity to decontaminate their hands.
- Alcohol based hand rub / gel must be available outside the doors of side rooms.
- Alcohol based hand rub / gel with a concentration of 70%, e.g. isopropanol, ethanol or n-propanol or a combination of two of these, are generally used as they are effective, 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 rub / gels are minimised.
- It has been shown that alcohol-based hand rub / gel used for the hand hygiene process can inhibit microorganisms on hands by filling the crevices in hands and evaporating as it spreads over all areas.
- Alcohol-based hand rub / gel can also be used following hand washing, e.g. when performing aseptic techniques, to provide a further cleansing and residual effect (refer to Appendix 4).

- Where infection with a spore forming organism, e.g. *Clostridium difficile,* is suspected or confirmed it is recommended that hand hygiene is carried out with liquid soap and water although it can be followed by alcohol-based hand rub / gel.
- Alcohol-based hand gel can be used between patients or different care activities unless the hands are soiled or when caring for patients with diarrhoea.

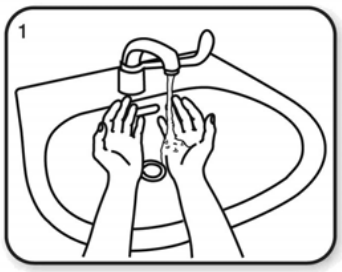
How to use alcohol-based hand rub / gel

- Apply one shot of the alcohol-based hand rub / gel to provide adequate coverage of the hands.
- The steps to perform hand hygiene using alcohol-based hand rub are the same as when performing hand washing.
- The time taken to perform hand hygiene using alcohol-based hand gel is 15 - 20 seconds.
- If the solution has not dried by the end of this process, allow hands to dry fully before any patient procedures are undertaken. **Do not use towels to dry.**

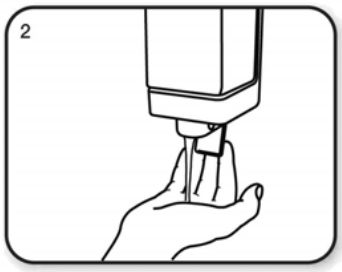
- Caution must be taken when using alcohol-based hand rub / gel in relation to flammability and ingestion; Trust risk assessment has been undertaken to address each of these issues and recommended actions implemented at a local level;
- avoid drips or spills of solution for Health and Safety reasons (e.g. slips and falls).
- Community staff working in areas such as patient's own homes must carry their own supplies of solutions.

IP 01 Appendix 3

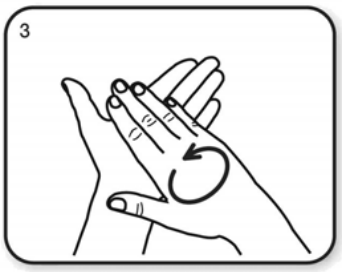
Source: World Health Organisation



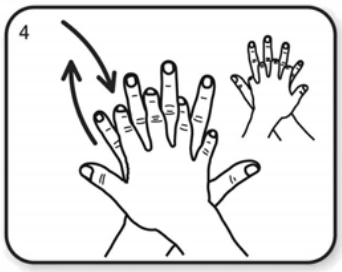
Wet hands with water



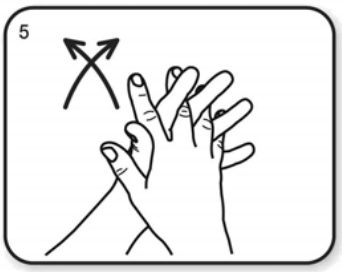
Apply enough soap to cover all hand surfaces



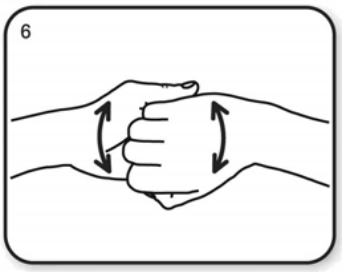
Rub hands palm to palm



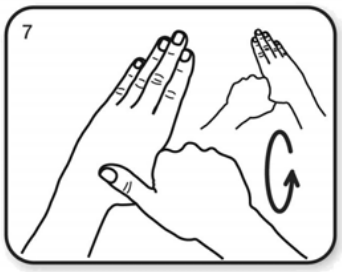
Right palm over the back of the other hand with interlaced fingers and vice versa



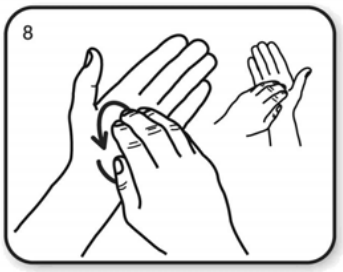
Palm to palm with fingers interlaced



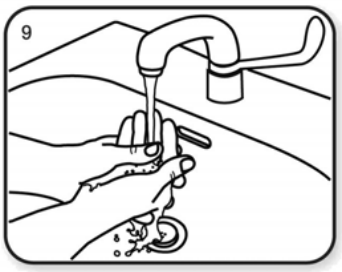
Backs of fingers to opposing palms with fingers interlocked



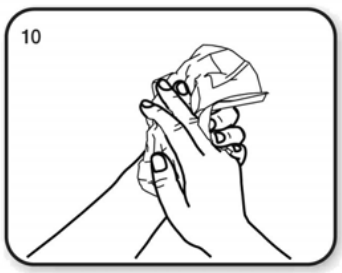
Rotational rubbing of left thumb clasped in right palm and vice versa



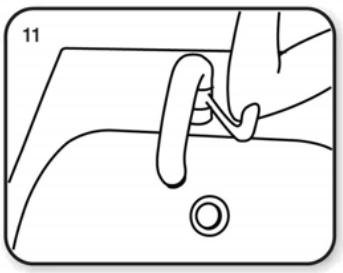
Rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa



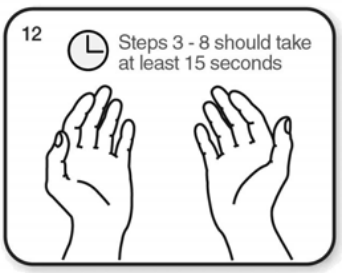
Rinse hands with water



Dry thoroughly with towel



Use elbow to turn off tap

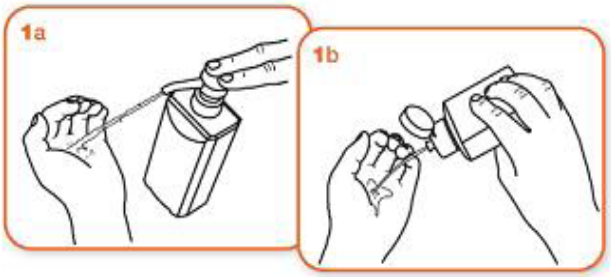


...and your hands are safe

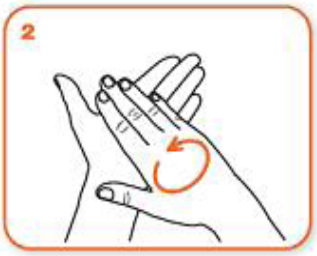
How to handrub?

RUB HANDS FOR HAND HYGIENE! WASH HANDS ONLY WHEN VISIBLY SOILED!

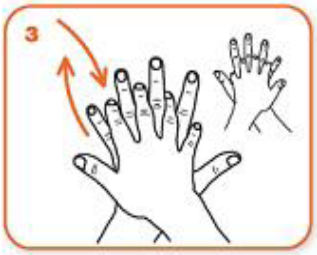
Duration of the entire procedure: 20-30 sec.



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

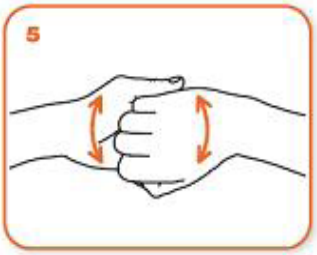


Rub hands palm to palm



right palm over left dorsum with interlaced fingers and vice versa

palm to palm with fingers interlaced



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

…once dry, your hands are safe.

Definitions

Alcohol-based (hand) rub:
An alcohol-containing preparation (liquid, gel, or foam) designed for application to the hands to inactivate microorganisms and/or temporarily suppress their growth.

Aseptic non touch technique:
ANTT is a method used to prevent contamination of wounds and other susceptible sites by ensuring that only sterile objects and fluids come into the contact with these sites and that the risk of contamination is minimised.

Bare Below Elbows:
Is an initiative aiming to improve the effectiveness of hand hygiene performed by health care workers. The effectiveness of hand hygiene is improved when: skin is intact, nails are natural, short, and unvarnished; hands and forearms are free of jewellery and sleeves are above the elbow. Bare below the elbows is a nationally accepted practice. Exposure of the forearm is a necessary part of hand and wrist hygiene during direct patient care activity to reduce the risk of contamination from soiled uniform cuffs or long sleeves and to facilitate adequate hand hygiene.

Clinical environment:
Any area within The Royal Wolverhampton Trust clinical settings, where patients are seen or treated.

Decontamination:
Is a combination of processes that removes or destroys contamination so that infectious agents or other contaminants cannot reach a susceptible site in sufficient quantities to initiate infection, or other harmful response.

Hand care:
Actions to reduce the risk of skin damage or Irritation.

Hand Hygiene:
A general term that includes all aspects of hand cleansing activity, hand washing, hand decontamination or surgical scrub procedure.

Hand washing:
To reduce the number of bacteria on hands by performing hand washing with a liquid soap using a ‘six step’ technique ensuring all surfaces of the hands are included. A suitable alternative is by an application of an alcohol-based gel or rub using the ‘six step’ technique where hands are physically clean.

Hospital-acquired infections (healthcare-associated infections):
Are nosocomially acquired infections that are not present or incubating at the time of admission to a hospital.

Normal flora:

The microorganisms on the hands are grouped into two categories: resident flora and transient flora.

Resident Flora:
Commonly termed skin flora or commensals, lives deeply seated within the epidermis, in skin crevices, hair follicles, sweat glands and beneath fingernails. It forms part of the body's normal defence mechanisms and protect the skin from invasion by more harmful microorganisms. They are usually Gram-positive bacteria such as coagulase-negative staphylococci e.g. *Staphylococcus epidermidis* and diphtheroids. They do not readily cause infections and are of minor significance in routine clinical situations. They do, however, pose a threat of infection primary during surgery or other invasive procedures when they may be introduced to deep tissues, body cavities and the blood stream. The removal of these microorganisms is therefore desirable in these situations by following the aseptic / surgical scrub technique.

Transient Flora:
Are located on the surface of the skin and beneath the superficial cells of the stratum corneum. They are termed transient because direct contact with other people, equipment or other body sites results in the transfer of these microorganisms to and from the hands. Moisture, damaged skin, and ring wearing increases the possibility of colonisation. Transient microorganisms may consist of many different pathogenic microorganisms; they can be bacterial (both Gram-positive e.g. MRSA, and Gram–negative e.g. salmonella) or viral. The ease with which they are transferred means that hands are extremely efficient vectors in the transmission of infections. Contamination of the hands of staff during everyday activities is well documented, and the evidence to implicate hands in the transmission of infection is overwhelming; they are responsible for most healthcare associated infections (HCAI's). Unlike resident flora, transient microorganisms can be easily removed with hand washing, and the risk of cross infection immediately reduced.

Surgical Scrub:
Hand decontamination performed immediately prior to surgery or any other invasive procedures. This method is used to eliminate transient organisms and to further reduce the numbers of detachable resident organisms, which may be present on the surface of the hands.

Approved Trust products contain antimicrobial properties with a persistent activity over a broad spectrum of micro-organisms, acting rapidly upon intact skin.