



Community Infection Prevention and Control Guidance for General Practice

(also suitable for adoption by other healthcare providers,
e.g. Dental Practice, Podiatry)

Hand hygiene

HAND HYGIENE

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HAND HYGIENE

1. Introduction

The aim of this guidance is to promote thorough hand hygiene amongst all staff, to prevent the risk of patients acquiring a healthcare associated infection.

All staff should have training on hand hygiene, it is best practice that this is provided on a regular basis, e.g. annually. The GP Practice should minimise the risks of inadequate hand hygiene and have processes in place to prevent poor hand hygiene. Hand hygiene is one of the most important procedures for preventing the spread of disease. It is essential that everyone takes responsibility to ensure that the care provided is carried out in a safe manner.

The transmission of micro-organisms from one patient to another via staff's hands, or from hands that have become contaminated from the environment, can result in adverse outcomes.

Two routes of infection exist: Micro-organisms can be introduced into susceptible sites, such as surgical wounds, by direct contamination or potential pathogenic (harmful) organisms can be transmitted by hands and establish themselves as temporary or permanent colonisers of the patient and subsequently cause infection at susceptible sites.

2. Involving patients and the public in infection prevention and control

In order to comply with *The Health and Social Care Act 2008: Code of Practice on the prevention and control of infections and related guidance*, staff should encourage the involvement of patients and the public in infection prevention and control.

In order to facilitate compliance, the following should be introduced:

- Provide alcohol handrub, following a risk assessment, at the entrance to the building for the use of patients and visitors
- Notices and hand hygiene posters should be displayed to attract the attention of patients and visitors regarding hand hygiene
- Hand hygiene information leaflets should be available to patients (where appropriate) suffering from alert organisms, e.g. E coli 0157, *Clostridium difficile* and MRSA infection

3. Evidence of hand hygiene

It is recommended that annual audits to assess the standard of hand hygiene

be carried out. An audit tool is available to download at www.infectionpreventioncontrol.co.uk.

4. Microbiology of the hands

The skin of our hands harbour two types of bacteria:

- **Transient micro-organisms**
Transient bacteria are located on the superficial layers of the skin. They are termed 'transient' as they are acquired on the hands after, for example, contact with a patient's wound site, equipment, clothing and the environment. Transient micro-organisms are easily transmitted from staff hands to vulnerable patient sites. However, unlike resident bacteria, they are easily removed by handwashing with liquid soap and warm running water or the use of an alcohol handrub.
- **Resident micro-organisms (commensal or normal flora)**
Resident bacteria, e.g. *Staphylococcus epidermidis*, diphtheroids and occasionally *Staphylococcus aureus*, reside under the superficial cells of the stratum corneum – in skin crevices, hair follicles, sweat glands and under finger nails. Their primary function is defensive in that they protect the skin from invasion by more harmful micro-organisms. They do not readily cause infections and are not easily removed, but can, however, cause infection, e.g. if they enter the body through broken skin, a person is immunocompromised.

5. Good hand hygiene practice

To facilitate effective hand hygiene when delivering direct care, staff should ensure that they:

- Cover cuts and abrasions with waterproof dressings
- Are 'bare below the elbows', which entails:
 - Wearing short sleeved clothing or rolling sleeves up to the elbows
 - Removing wrist and hand jewellery. Rings with jewels, stones, ridges or grooves should not be worn as these may harbour bacteria and also prevent good hand hygiene. A plain band ring may be worn, but ensure the area under the ring is included when hands are washed or alcohol handrub applied
 - Not having dermal piercings on the arm or wrist
 - Keeping nails clean and short (fingertip length), as long finger nails will allow a build-up of dirt and bacteria under the nails and impede effective handwashing
 - Keeping nails free from nail polish/gel as flakes of polish/gel may contaminate a wound and broken edges can harbour micro-organisms

- Keeping nails free from acrylic/artificial nails as these can harbour micro-organisms, become chipped or detached

6. Hand hygiene facilities

Hand hygiene facilities should be available within a GP Practice and not compromise standards by being dirty or in a poor condition:

- Facilities should be adequate and conveniently located
- Handwash basins must be available in areas where needed and where patient care or consultations take place
- Handwash basins in clinical areas should have a single lever or sensor mixer tap which does not run directly into the drain aperture, with no plug or overflow
- If a lever or sensor mixer tap is not provided, use a paper towel to turn off the tap to avoid contaminating the hands
- Handwash basins should not be used for any other purpose, e.g. disposing of urine, washing cups, decontamination of equipment, due to the risk of cross-contamination
- In areas where a sink is used for other cleaning purposes, e.g. emptying buckets of water in the cleaner's room, there should also be a separate dedicated handwash basin
- Use wall mounted liquid soap dispensers with disposable soap cartridges. Do not use refillable soap dispensers as there is a risk of contamination of the liquid soap and the dispenser.
- Bar soap should not be used as it can harbour micro-organisms
- Use wall mounted alcohol handrub dispensers with disposable cartridges or free-standing pump dispensers
- Paper towels should be used in clinical areas and staff toilets as they are the most effective way of removing micro-organisms. Wall mounted dispensers should be positioned next to the basin, but not so close as to risk contamination of the dispenser or towels. Good quality soft paper towels will help to prevent skin abrasion
- Keep all dispensers clean and replenished
- Hot air driers can be used in patient toilet areas
- A foot operated lidded bin, lined with a disposable plastic bag, should be positioned near the handwash basin
- Nail brushes should not be used routinely as they can cause skin damage and harbour bacteria. If nail brushes are used, they should be single use and disposed of after use
- Fabric hand towels must not be used

7. Hand hygiene products

The product should be deemed suitable for its intended use by the manufacturer and comply with European Standards. When choosing products, consideration should be given to the risk of dermatological side effects.

- Ensure products are within the expiry date.
- A good quality liquid soap with a moisturiser is recommended for routine (social) hand hygiene. The liquid soap should be in a disposable cartridge in a wall mounted dispenser.
- An alcohol handrub may be used for routine (social) hand hygiene. The alcohol handrub should contain a minimum of 60% isopropyl alcohol (see Section 11).
- Detergent hand wipes can be used when it is not possible to perform handwashing.
- An antimicrobial solution should be used prior to an invasive procedure. Types of antimicrobial solutions include:
 - 4% Chlorhexidine gluconate skin cleanser, e.g. Hibiscrub
 - 7.5% Povidone iodine
 - 2% Triclosan skin cleanser
 - 70% Isopropanol plus 0.5% Chlorhexidine gluconate solution, e.g. Hibi Liquid Handrub+ solution

8. Three main levels of hand hygiene

Handwashing is probably the most important method of protecting the patient. There are three levels of hand hygiene:

1. Routine (social) hand hygiene

Using liquid soap and warm running water removes dirt, organic matter, e.g. blood, faeces, and most transient organisms, acquired through direct contact with a patient or the environment. The use of a liquid soap containing a moisturiser is recommended to prevent drying of the skin. Handwashing process should take 15-30 seconds.

- Ensure you are 'bare below the elbows'.
- Wet hands first under warm running water.
- Apply liquid soap.
- Rub all parts of the hands for at least 10-15 seconds (see Appendix 1), ensuring that all surfaces of the hands and wrists are covered with soap.

- Rinse hands thoroughly under warm running water.
- Dry hands thoroughly using disposable paper towels.
- Alternatively, alcohol handrub can be used instead of liquid soap and warm water if hands are visibly clean.

2. Antiseptic hand hygiene

Using an antimicrobial solution or liquid soap and warm running water followed by an application of alcohol handrub disinfects the hands by removing transient organisms and reducing the number of resident organisms. This type of hand hygiene should be carried out prior to invasive procedures.

- Ensure you are 'bare below the elbows'.
- Wet hands under warm running water.
- Apply antimicrobial solution or liquid soap.
- Rub all parts of the hands for at least 10-15 seconds (see Appendix 1), ensuring that all surfaces of the hands and wrists are covered with soap/solution.
- Rinse hands under warm running water.
- Dry hands thoroughly using paper towels.
- If hands are washed with liquid soap, dry hands thoroughly and apply alcohol handrub after washing, ensuring all surfaces of the hands and wrists are covered with the product until the solution has dried.

3. Surgical hand hygiene

Using an antimicrobial solution removes transient organisms and a substantial number of resident organisms. The solution will bind to the skin forming an effective barrier that will keep killing bacteria for up to 6 hours after application. This type of handwashing is only required before deep surgical procedures, e.g. vasectomy.

Procedure for using an antimicrobial solution

- Ensure you are 'bare below the elbows'.
- Thoroughly wash the hands for 2 minutes following the technique in Appendix 1.
- Wash each arm from the wrist to the elbow for 1 minute, keeping the hand higher than the elbow at all times.
- Rinse hands and arms thoroughly from fingertips to elbow, keeping the hands above the elbows at all times.
- Dry hands thoroughly with a sterile disposable paper towel.

Procedure for using 70% Isopropanol plus 0.5% Chlorhexidine gluconate solution

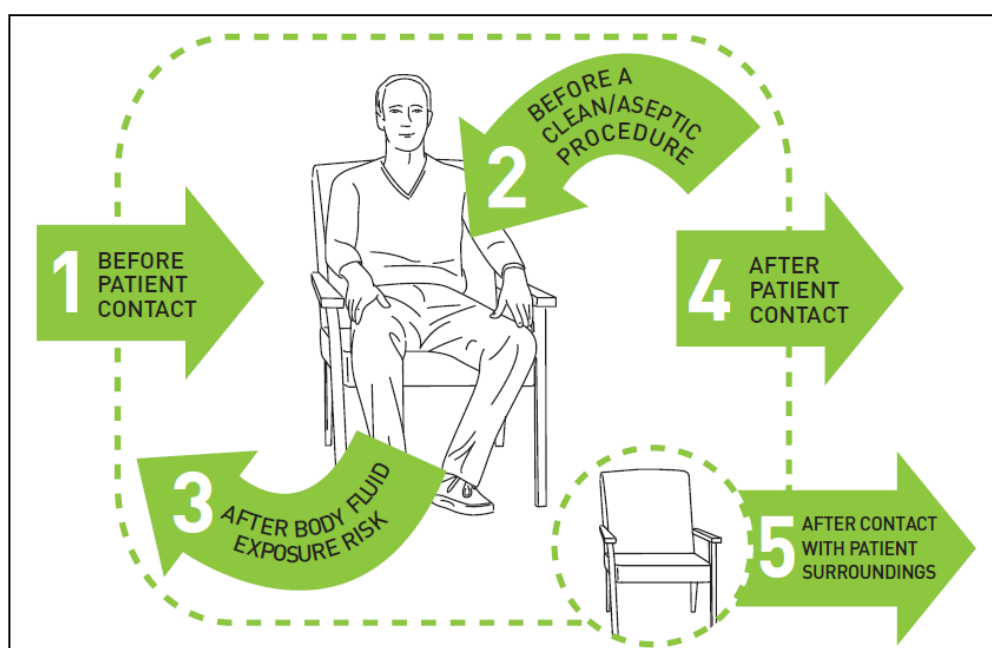
This has been found to be as effective as the aqueous

antimicrobial skin disinfectant products. If using this type of product:

- Ensure you are 'bare below the elbows'
- Dispense at least 5 mls of alcoholic disinfectant solution, e.g. Hibisol, into the cupped palm and rub all skin surfaces of the hands and forearms
- Rub vigorously for four minutes, ensuring that all surfaces of the hands and wrists are covered with the product until the solution has dried

9. When to wash your hands

Your 5 moments for hand hygiene at the point of care*



*Adapted from the WHO Alliance for Patient Safety 2006

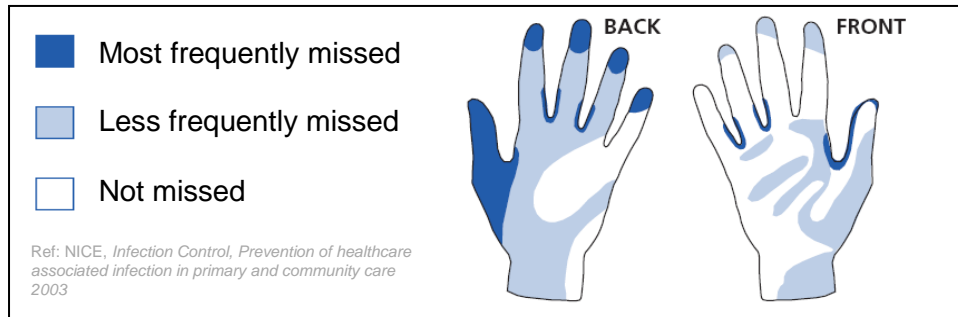
1 BEFORE PATIENT CONTACT	WHEN? Clean your hands before touching a patient when approaching him/her. WHY? To protect the patient against harmful germs carried on your hands.
2 BEFORE A CLEAN/ASEPTIC PROCEDURE	WHEN? Clean your hands immediately before any clean/aseptic procedure. WHY? To protect the patient 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 and social care environment from harmful patient germs.
4 AFTER PATIENT CONTACT	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 and social care environment from harmful patient germs.
5 AFTER CONTACT WITH 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 and social care environment from harmful patient germs.

Other examples of when hand hygiene should be performed:

- On arrival at work, between each task and before you go home
- Whenever hands are visibly dirty
- Before putting on and after removal of personal protective equipment or domestic gloves (wearing gloves should not be a substitute for handwashing)
- After coughing, sneezing or blowing your nose
- After using the toilet
- Before and after having a coffee/tea/meal break

10. Most commonly missed areas

It is important to pay particular attention to the following areas which have been shown to be those most commonly missed during handwashing.



11. Alcohol handrub

- Alcohol handrub containing a minimum of 60% isopropyl alcohol is an effective alternative to handwashing and is useful when there is a need for rapid hand disinfection.
- Alcohol handrub should only be applied to visibly clean skin.
- Alcohol handrub **should not be used** when caring for patients with *Clostridium difficile* or other diarrhoeal illness, due to being ineffective against spores and Norovirus.
- Alcohol handrub may be less effective if used immediately after the application of a hand cream/moisturiser.

Technique for using alcohol handrub

- Ensure you are 'bare below the elbows'.
- Dispense manufacturer's recommended amount of alcohol solution on to hands.
- Ensure the solution will cover all of the hand and wrist surfaces.

- Rub using the steps 2- 8 shown in Appendix 1, ensuring that all surfaces of the hands and wrists are covered with the product until the solution has dried (about 20 seconds).

Alcohol handrub can be used between cases on a surgical list provided a surgical handwash is undertaken initially and hands are visibly clean.

Availability of alcohol handrubs

The availability of alcohol handrub at the point of patient contact was recommended by the National Patient Safety Agency (NPSA) as part of their 'cleanyourhands' campaign in 2005. Although initially implemented only in the acute setting, this was later promoted nationally for use in community settings.

Alcohol handrubs should be:

- Available at the entrance to the GP practice following a risk assessment
- Available at the point of care, e.g. treatment and consulting room
- Wall or free-standing pump dispensers can be used or staff can be issued with personal dispensers which can be clipped to clothing

Alcohol handrub must not be applied to gloved hands as this may affect the integrity of the glove material.

12. Hand cream or lotion

The use of hand cream or lotion will help prevent skin problems and irritation, therefore, promoting compliance with hand hygiene.

- For maximum benefit, hand cream or lotion should be used three times daily.
- It is good practice to provide hand cream or lotion in a wall mounted pump dispenser. All should be in a single use cartridge or container.
- Communal pots of hand cream (where fingers are placed in the container) should not be used as these can become contaminated.

13. Skin care

- To minimise the risk of skin damage, wet hands under warm running water before applying any soap or antiseptic solution.
- Rinse hands well to remove residual soap and dry thoroughly to prevent chapping.
- Always cover cuts and abrasions with a waterproof dressing.
- Seek Occupational Health or GP advice if you have a skin irritation.

14. Infection Prevention and Control resources, education and training

The Community Infection Prevention and Control (IPC) Team have produced a wide range of innovative educational and IPC resources designed to assist your Practice in achieving compliance with the *Health and Social Care Act 2008* and CQC registration requirements.

These resources are either free to download from the website or available at a minimal cost covering administration and printing:

- Over 20 IPC Guidance documents (Policies) for General Practice
- 'Preventing Infection Workbook for General Practice'
- 'IPC CQC Inspection Preparation Pack for General Practice'
- IPC audit tools, posters, leaflets and factsheets
- 'IPC Advice Bulletin for GP Practice Staff'

In addition, we hold educational study events in North Yorkshire and can arrange bespoke training packages and 'Mock IPC CQC Inspections'. Prices vary depending on your requirements and location.

Further information on these high quality evidence-based resources is available at www.infectionpreventioncontrol.co.uk.

15. References

Department of Health (2015) *The Health and Social Care Act 2008: Code of Practice on the prevention and control of infections and related guidance*

Department of Health (2010) *Uniforms and workwear: Guidance on uniform and workwear policies for NHS employers*

Department of Health (2007) *Essential Steps to safe, clean care*

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National Patient Safety Agency (2011) *Clean Your Hands Campaign 5 Moments for hand hygiene*

Royal Marsden (2015) *The Royal Marsden Manual of Clinical Nursing Procedures 9th Edition*

WHO (2009) *WHO Guidelines on Hand Hygiene in Health Care: First Global Patient Safety Challenge. Clean Care is Safer Care.* World Health Organization, Geneva

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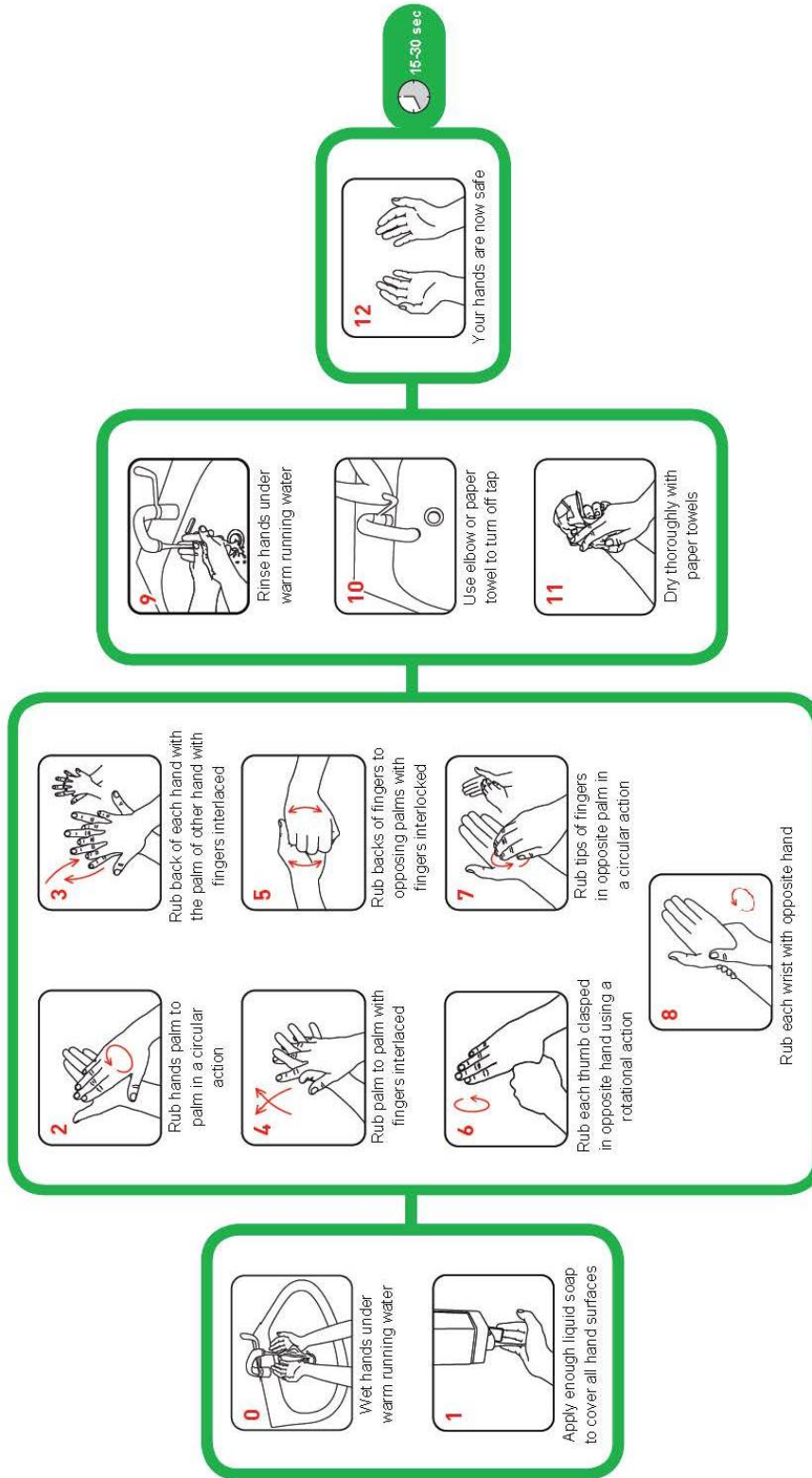
16. Appendices

Appendix 1: Hand Hygiene Technique for Staff



HAND HYGIENE TECHNIQUE FOR STAFF

Using liquid soap and warm water



Adapted from World Health Organization Guidelines on Hand Hygiene in Health Care and National Patient Safety Agency

Community Infection Prevention and Control
 Harrogate and District NHS Foundation Trust — www.infectionpreventioncontrol.co.uk
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