Royal Devon and Exeter NHS
NHS Foundation Trust

STANDARD INFECTION CONTROL PRECAUTIONS

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Date written:	**1997**
Date revised:	**2001, 2004, August 2007, July 2009, August 2011**
Approval route (names of committees):	**Infection Prevention & Control Group**
Level of Impact Assessment (Screening or Full – attach to policy)	**Screening**
Date of final approval:	**6TH October 2011**
Date due for revision:	**October 2013**
Date policy becomes live:	**October 2011**
This document replaces:	**Standard Infection Control Precautions - 2009**

Please *specify* standard/criterion numbers and tick ✓ other boxes as appropriate

The Strategic Directions 2007-2012 were agreed by the Board of Directors in October 2007 to support the Trust's vision "Respond, Deliver, Enable". The Key Milestones below will ensure there is a shared understanding about what needs to be delivered.

Monitoring Information		Strategic Directions – Key Milestones	
Patient Experience		Waiting	
Assurance Framework		Privacy and Dignity	
Monitor/Finance/Performance		Efficiency and Effectiveness	
Care Quality Commission Outcomes:	8	Delivery of Care Closer to Home	
		Infection Control	✓
NHSLA Risk Management Standards for Acute Trusts			
NHSLA CNST Maternity Clinical Risk Management Standards:			
Other *(please specify)*:			
Note: This policy has been assessed for any equality, diversity or human rights implications			

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1. Introduction

Standard precautions underpin safe practice, offering protection to both staff and patients from healthcare related infections. Since examination and medical history alone cannot reliably identify all patients with infections, standard precautions represent a standard of care to be used routinely for all patients regardless of perceived or known infection risk factors.

Standard infection control precautions include:

I. Effective hand hygiene practices (Refer Section 2)
II. Maintenance of skin integrity (Refer Section 2.4)
III. Protection of open wounds/skin lesions (Refer Section 2.4)
IV. Use of appropriate personal protective clothing (Refer Section 3)
V. Avoidance of sharps injury through safe use and disposal of sharps (Refer Section 4)
VI. Appropriate decontamination of instruments and equipment, including safe management of blood spillage (Refer Decontamination Policy)
VII. Maintaining a clean hospital environment (Refer Source Isolation Policy and Decontamination Policy).
VIII. Safe disposal of waste (refer Trust Waste Management Policy)
IX. Safe handling and laundering of used linen (Refer Section 5.1)

2. Hand Hygiene Guidelines

Hands are the principle route by which cross infection occurs in health care settings. Hand hygiene is, therefore, the single most important means of reducing the spread of infection. All healthcare workers are required to comply with these guidelines (also refer to Hand Hygiene Policy).

Compliance will be encouraged by:

- Ensuring easy access to appropriate hand hygiene products at the point of care, (wherever this is safe to do so)
- Increasing awareness of the importance of hand hygiene amongst healthcare workers using a variety of strategies such as training (on induction and updates), posters and positive role modelling
- Wearing uniforms and other clothing worn for direct contact with patients or the clinical environment that are short sleeved, leaving the arm naked below the elbow.
- Providing information for patients about the importance of hand hygiene
- Inviting patients to prompt staff to clean their hands if they think they have forgotten.

Compliance will be monitored through regular audit of hand hygiene practice in clinical areas using an adapted version of the Lewisham Audit tool. Audits will be undertaken by the link nurse or other auditor trained to use the tool. Feedback to staff will be provided at the time by the auditor and in the form of a run chart for display in the clinical area. The target compliance rate will be indicated on the run chart. The target compliance rate will be reviewed annually by the Infection Control Steering Group.

2.1 Background Information

Microbes on the hands can be classified as either transient or resident.

Transient micro-organisms are found on the surface of the skin. Direct contact with other people or equipment can result in the transfer of 'transients' to or from the hands with

ease. As such they are an important cause of cross infection. However, they are also easily removed by routine hand hygiene practice (Refer 2.3a).

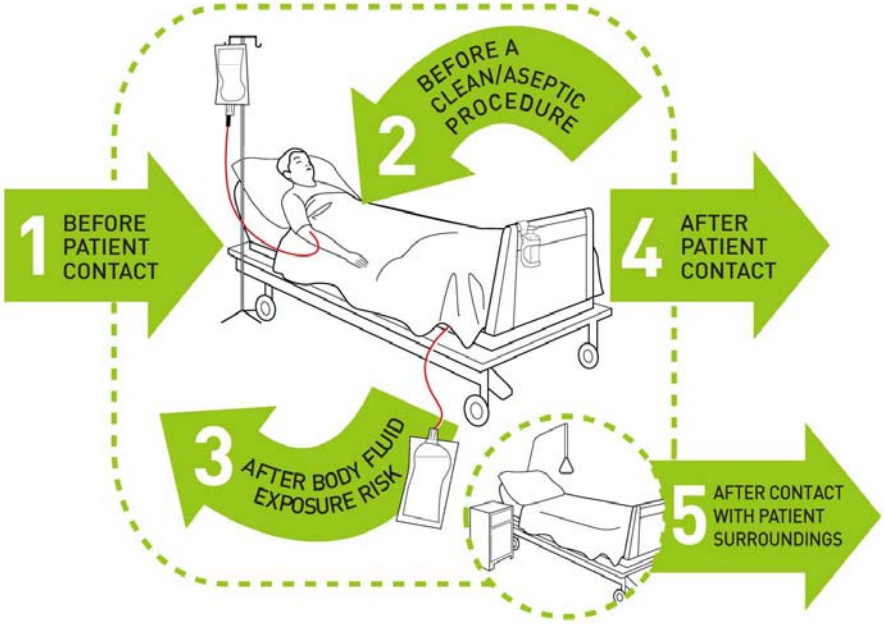
Resident micro-organisms are more deeply seated in the epidermis. As a result they are difficult to remove and are not usually implicated in cross infection. However, during surgery and other major invasive procedures they may enter deep tissues and cause infection. Thus there is a need for more extensive hand hygiene prior to such procedures (Refer 2.3b).

2.2 When to Decontaminate Hands

Hands must be decontaminated in accordance with the World Health Organisation (WHO) '5 Moments for hand hygiene' (see figure 1)

The dotted line in figure 1 identifies the concept of the ' patient zone' as opposed to the area out with which is referred to as the health care environment. The 'patient zone' will be contaminated with many of the same microbes that are shed by the patient.

Figure 1 - WHO 5 moments for hand hygiene



There are other occasions when you must wash your hands and these include:

- Before handling or serving food
- After going to the toilet
- After handling specimens
- After handling waste, used laundry or contaminated equipment

2.3 Levels and Methods of Hand Hygiene

a) Routine Hand Hygiene

(i) Handwashing

Hand washing will remove transient micro-organisms and visible dirt/soiling.

Method

Liquid soap and running water is required for this level of hand hygiene.

NB: Bar soap is not permitted for staff handwashing in health care premises.

Wet hands thoroughly under running water
Apply liquid soap for 10-15 seconds using an effective technique (Refer Figure 2).
Rinse thoroughly under running water.
Dry thoroughly with paper towels.

(ii) Use of alcohol handrub

Generally, alcohol handrub is an effective alternative to routine handwashing **if the hands are visibly clean**. It is useful when handwashing facilities are not readily available +/or when speed is of the essence. It facilitates timely hand hygiene i.e. immediately before and after direct patient contact and, therefore, must be readily available in dispensers at the bedside or carried by staff. However, there are some microbes that are resistant to alcohol e.g. *Clostridium difficile* spores and Norovirus. It is essential to wash your hands with soap and water when dealing with patients known or suspected to have these infections. As the diagnosis is not always obvious, a pragmatic approach is to use soap and water whenever dealing with a patient with diarrhoea.

Method

Apply enough of the product to thoroughly cover your hands, using an effective technique (Refer Figure 2). Rub hands together briskly until completely dry.

b) Surgical Hand Hygiene

(i) Surgical Handwashing

Pre-operative surgical handwashing will remove or destroy transient micro-organisms and significantly reduce detachable resident micro-organisms.

Method

Antiseptic detergent solutions are required for this level of hand hygiene eg povidone iodine detergent or 4% chlorhexidine detergent.

Wet hands and forearms under running water.
Apply antiseptic detergent to the hands and forearms for two minutes.
A sterile nailbrush may be used at the start of a list to clean nails. Repeated scrubbing is not recommended as it may damage the skin and result in an increase in the numbers of micro-organisms colonising the skin.
Rinse thoroughly under running water
Dry thoroughly with towel.

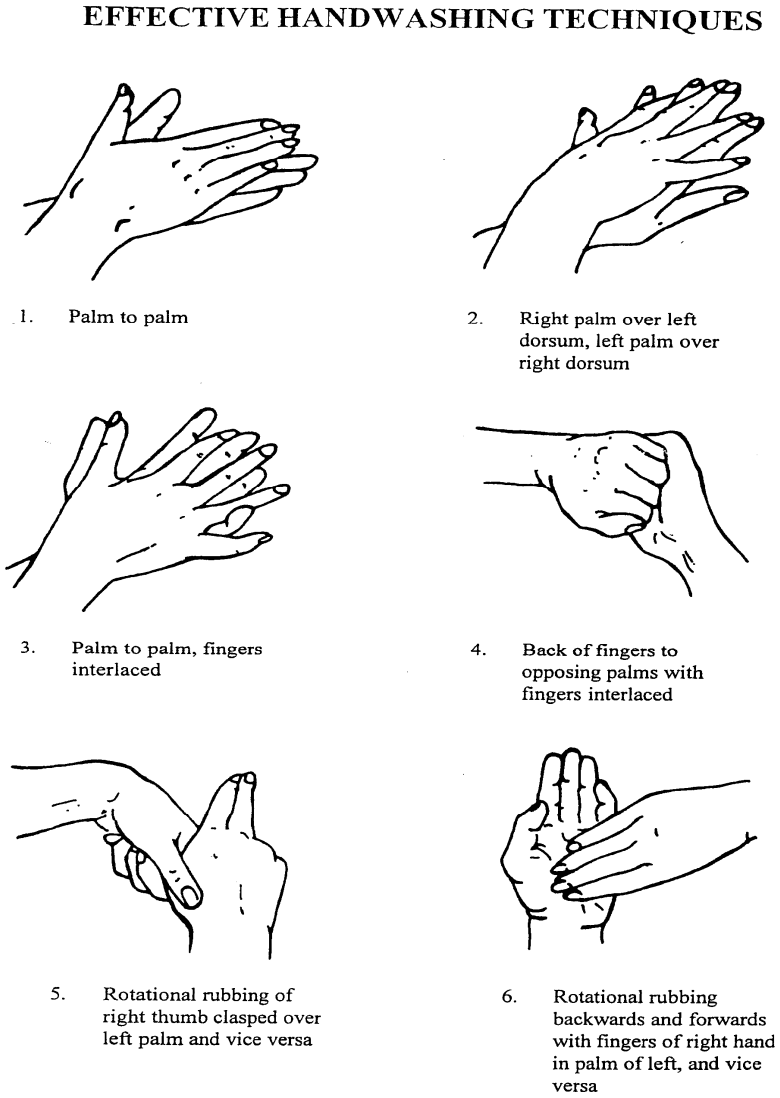
(ii) Use of alcohol handrub/gel

This method can be used between cases if the hands are physically clean. A surgical hand wash must be undertaken at start of list. Ensure that the alcohol hand rub/gel purchased is suitable for preoperative hand disinfection - check manufacturers recommendations.

Method

Two separate applications of alcohol handrub/gel rubbed onto hands and forearms until dry.

Figure 2



2.4 Other Aspects of Hand Hygiene for Clinical Staff

a) Finger Nails

Finger nails must be kept clean and short ie not visible beyond the finger tip, when viewed from the palm side. Nail varnish and false finger nails/tips must not be worn.

b) Jewellery

Staff must remove rings (other than a plain band), bracelets and wristwatches prior to clinical patient contact to facilitate effective hand washing. Staff have ongoing clinical contact e.g. doctors, nurses, physiotherapists should remove such jewellery at the start of their shift as it is impractical to do this prior to every patient contact.

Although a plain band ring is permitted during most clinical practice but it should be removed prior to surgical procedures.

c) **Skin Care**

- Bacterial counts increase when the skin is damaged therefore care must be taken to maintain skin integrity:-

  - Always wet hands thoroughly prior to application of liquid soap or antiseptic detergent.
  - Rinse hands thoroughly to remove soap or antiseptic detergent.
  - Dry hands carefully.
  - Apply good quality non ionic hand cream at the end of a shift (avoid communal pots of hand cream).

- Any staff who develop eczema, dermatitis or any other skin condition must seek advice from the Occupational Health Department as soon as possible.

- Any member of staff unable to use the recommended hand cleansing agents due to a skin condition/allergy must seek advice from the Occupational Health Department.

- Cuts and abrasions must be covered with a waterproof dressing.

- Always cleanse hands after removing gloves.

2.5 Patient Hand Hygiene

Patients should be offered hand hygiene facilities and encouraged to wash their hands particularly after using toilet/commode/bedpan and prior to meals. Hand cleansing wipes can be obtained from NHS Supply Chain and must be offered to patients who are unable to access hand washing facilities.

3. Personal Protective Equipment

Selection of appropriate protective clothing should follow a risk assessment of the procedure to be performed. The following factors should be considered:

- The risk of contamination of health care workers clothing and skin
- The risk of transmission to the patient

In addition, in relation to gloves, patient/user latex allergy must be considered.

NB The use of protective clothing does not negate the need to wear a freshly laundered uniform/clothing for each shift. Furthermore, uniforms/clothing must be changed if contaminated during the course of a shift.

ITEM OF CLOTHING	PURPOSE/USE	COMMENTS
GLOVES		**Gloves do not replace the need for hand hygiene.**
Sterile, surgeons gloves	Surgery and other major invasive procedures where comfort, dexterity and sensitivity is required.	Double gloving is recommended for orthopaedic implant surgery. The Expert Advisory Group on AIDS and HIV also recommends double gloving as a method of reducing percutaneous exposure during surgical procedures on patients with blood borne pathogens.
Sterile, examination gloves	• Non surgical aseptic procedures • Sterile pharmaceutical preparations	
Non sterile, vinyl examination gloves	• Non sterile procedures with potential exposure to blood/blood stained body fluids • Non sterile procedures involving used sharps • Handling disinfectants (excluding aldehydes)	Gloves must be manufactured to BS EN 455
Non sterile, nitrile examination gloves	– Handling aldehydes • Handling cytotoxic material • An alternative to vinyl gloves when vinyl deemed unsuitable by Occupational Health	
Rubber household gloves	– For domestic and ancillary staff for cleaning duties. – For unavoidable manual cleaning of surgical instruments	Reusable. Gloves should be washed in detergent and warm water after use
PLASTIC APRONS	Offers protection to/from clothing at site of greatest exposure/contact during routine patient care activities	Must be changed between clean and dirty tasks
EYE PROTECTION Glasses, goggles, visors	To protect eyes from aerosol or splash contamination of body fluids eg from surgery, endoscopy, suctioning	

GOWNS **Waterproof or water repellent, sterile or non sterile**	• Offers protection to clothing and skin during procedures where there is the potential for gross exposure to blood and other body fluids. • Reduces skin scale dispersal from the wearer thus reducing risk of infection for the patient during invasive procedures. • Offers greater protection (than aprons) to staff during the care of certain infectious conditions eg Norwegian Scabies	Use mainly restricted to: Theatres Endoscopy units Delivery suite Aseptic drug preparation units Sterile gowns must be used for sterile procedures.
MASKS **Surgical Masks** **Dust & Mist Filter respirators (FFP3)**	• Limited reduction of transmission of micro-organisms expelled from the mouth and nose of the wearer. • Protects the wearer from blood and other body fluid splashes/aerosols to the lower face and mouth eg surgery, endoscopy, suctioning. • Protection against *Mycobacterium tuberculosis* and other infections transmitted by droplet nucleii.	If masks are worn they must cover the nose and mouth Do not handle the mask whilst in place. To remove mask, handle by tapes only and then wash hands. Staff should be fit tested to ensure the brand of mask used is appropriate for their use. If it is not, alternatives must be provided.
FOOTWEAR **Rubber boots** **Overshoes**	 Protects feet from body fluids. Use not recommended.	Use indicated in: Theatres if blood spill likely to be profuse.

4. Safe Handling and Disposal of Sharps

Sharps injury should be avoided by safe handling and correct disposal procedures.

- **IT IS THE RESPONSIBILITY OF THE PERSON USING THE SHARP TO DISPOSE OF IT SAFELY.**

- Avoid resheathing used (i.e. those that have been used to administer medication to a patient or draw blood or other body fluids) needles. If resheathing is unavoidable use a resheathing device or one handed technique.

- Discard needle and syringe as one unit, whenever possible. If disassembly is necessary it must not be done by hand.

- Dispose of sharps into a sharps container (conforming to UN3291 & BS7320) immediately after use.

- Sharps bins must be easily accessible to staff but at the same time must not be a hazard to patients or visitors. Sharps bins must be placed out of easy reach of unauthorised persons, especially children.

- Avoid carrying used sharps to a sharps bin. A small sharps bin should be taken to the patient.

- Ensure sharps bins are correctly assembled, according to manufacturer's instructions, before use.

- Avoid passing used sharps from person to person by hand eg from surgeon to scrub nurse - use a receiver or similar container.

- Sharps disposal devices, such as adhesive pads, must be available in areas such as theatres.

- Consider the use of needlestick prevention devices when there is clear indication that they will provide safer systems of work.

- Use a vacuum system for venepuncture whenever possible.

- If using syringe and needle for venepuncture avoid filling blood tubes using the needle. Remove used needles using needle removing device on the sharps bin. Unscrew tops of bottles to fill.

- Never overfill sharps bins. When 3/4 full sharps bins must be properly closed and sealed. Do not place in a yellow bag.

- Sharps bins must be labelled with the source department/unit.

- Staff moving sharps bins must check that the seal remains closed during and after transportation.

- Always carry sharps containers by the handle and away from the body.

If you sustain an inoculation injury, the risk of infection is likely to be very low. **<u>However, it is important to report it immediately so that appropriate action can be taken</u>**. (Refer section 4.1)

4.1 Procedure following Inoculation Injury

Exposure to blood or body fluid, from a sharps injury, bite or from splashing into the eyes, mouth or broken skin must always be reported and followed up because of the potential risk of infection with blood borne viruses.

FIRST AID

a) **Inoculation injury/Spillage on damaged skin/Bite:**

i) Encourage bleeding of injury (but not by sucking).

ii) Wash site immediately and thoroughly with soap and water.

iii) Cover with waterproof dressing.

b) **Splashes in the eye/mouth**

Irrigate the eye with copious amounts of water using eye wash equipment, rinse mouth with water and spit out.

c) **Sepsis**

Where the source patient has sepsis eg Group A *Streptococcus,* antibiotic prophylaxis may be indicated for the victim. This should be mentioned when seeking advice.

IMMEDIATE ADVICE

Injured Staff - phone the relevant Occupational Health Dept

Royal Devon and Exeter	24 hour - Inoculation Injury Hotline - 01392 405800
Torbay District Hospital	Mon-Fri Daytime - 01803 653489 Out of hours 01803 653488
Derriford Hospital	Anytime - Contact A&E.
North Devon District Hospital	Mon-Fri Daytime 01271 341520 Out of hours 01271 341529

Injured members of the public – Contact nearest Accident and Emergency Department.

An assessment will be then be made as to the appropriate action, e.g. need for prophylaxis.

Refer local **Inoculation Injury Policy** for further advice

Management Responsibility

Staff	Patient	Member of Public
↓	↓	↓
Occ Health	Clinical Team	A&E/Minor injury unit

5. Segregation of Waste

Waste must be segregated in accordance with local Waste Management Policy.

5.1 Management of Used Linen

It is the responsibility of all staff involved to comply with the agreed colour coded segregation system identified on laundry segregation posters, using water soluble inner bags where linen is contaminated with blood and other body fluids or for linen from a source isolation room . This will ensure appropriate laundering procedures are used and provides for the protection of laundry workers.

Great care must be taken to prevent extraneous and hazardous items eg sharps, gloves, incontinence pads, disposable gowns being sent to the laundry. Such items can injure staff and/or can damage washing/drying machines.

Failure to prevent such incidents may be regarded as a disciplinary offence.

NB: Water soluble bags used for hospital laundry cannot be used in domestic washing machines such as those in patients' own homes or in small community units. Staff working in such units will therefore have to handle fouled or infected laundry when doing the laundry and must ensure they wear gloves and aprons for protection. Alternatively, water soluble bags designed for use in domestic machines should be purchased. These are available through NHS Supply Chain – catalogue code MVF010.

5.2 Patients Personal Clothing

Wherever possible, patients' relatives should be encouraged to take personal clothing home for laundering. If the clothing that is soiled with blood or other body fluids or poses an infection risk it should be placed in a water soluble bag designed for use in domestic machines. These are available through NHS Supply Chain – catalogue code MVF010.

If home laundry is not possible then personal clothing may be laundered by the patient laundry service. Procedures vary depending on the provider of such services e.g. in-house or commercial contract. Local procedures must be in place to ensure that staff are aware of correct procedure. When changing the provider of such services infection control advice must be sought to determine whether proposed arrangements are appropriate.

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HSG (95)18: 'Hospital laundry arrangements for used and infected linen'.

HSC 1998/063: Guidance for clinical health care workers - protection against infection with blood-borne viruses

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