Infection control guidelines for community settings

This document is intended for those giving care in all community settings including clients’ homes. It will be relevant for all health and social care staff including district nurses, school nurses, health visitors, community midwives, practice nurses, community therapists, nursery nurses, podiatrists, pharmacists, home loans services, general practitioners, dental practitioners, domiciliary care workers, care agencies, care homes, local authorities.

It will also be useful to those working with the homeless, community mental health teams, drug and alcohol teams, social workers, outreach workers. It can be adapted for use in schools, residential schools, nurseries and other educational establishments and can be used as a resource by teachers.

This document has been developed with the collaboration of a wide range of specialists and interested parties in the South West Region. Its intended use is as a template for local policy or as a reference document.

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Community Infection Control Guidelines

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Introduction to the document

Care is increasingly being delivered in a wide range of settings and the control of infection is an important and integral part of health and social care. Infection control policies and procedures already exist for hospital settings, however they are often inappropriate for carers in community settings.

This document is intended for those giving care in community establishments as well as those giving care in clients’ homes. It will be relevant to district nurses, school nurses, health visitors, practice nurses, community therapists, nursery nurses, podiatrists, pharmacists, home loans services, care agencies, social care staff and those working in general and dental practice. The principles of infection control apply across all boundaries.

Where possible the practices outlined in this document is evidence-based or in line with current national guidelines, legislation or regulations. References have been included in every section and these can also be used for further reading.

The document is presented in 8 Parts. These can be read separately, but are cross-referenced if further detail is needed.

Part A  Management issues
Part B  Standard infection control procedures
Part C  Infectious diseases
Part D  Clinical procedures
Part E  Audit tools
Part F  Appendices
Part G  References and Index
Part H  Local Policies and procedures

The first 3 parts and Part F will be applicable to most settings in which health or social care is given. The other parts will be of particular relevance to those giving clinical care. The document may be adapted for local use and ratified as local policy or used as a reference tool. Local policy or procedures can also be filed in Part H or with the relevant Sections. A list of useful local contacts is provided in Part A1.1.

Although it is a very comprehensive document, the sections are divided to make it easy to find the relevant information. The text may also be adapted with local details if required. An index is provided at the back to help. Comments on the content and format are welcomed.
PART A

MANAGEMENT ISSUES
A1.0 Introduction\(^1,2,3,4,5,6,129, 130, 145, 153\)

Healthcare Trusts are now required to comply with the Standards for Better Health and The Health Act 2006 to have "systems to ensure that the risk of health care acquired infection to patients is reduced, with particular emphasis on high standards of hygiene and cleanliness, achieving year-on-year reductions in MRSA". The Healthcare Commission will monitor compliance with these standards and the Code of Practice.

Other standards relating to the care of patients, clients and children, such as the National Minimum Standards for Care Homes for Older People and Boarding Schools etc, incorporate infection control issues. The Commission for Social Care Inspection is responsible for monitored compliance with these standards and the Care Homes Regulations 2001. Control of infection also comes under the auspices of the Health and Safety at Work Act and various other Acts and Regulations. Tools to support infection prevention and control have been published: Saving Lives and Essential Steps to Clean, Safe Care.

Managers and staff in all sectors of health and social care, whether statutory or voluntary, must be aware of their local infection control arrangements and whom they can contact for advice, guidance or in the event of an incident. It may be that they employ their own infection control specialist or team, or may have a contract or informal arrangements with the local hospital team and/or Health Protection Unit.

Many infection control problems and outbreaks can be curtailed quickly if action is taken at the earliest opportunity. So timely communication with the appropriate specialists is essential. Ensuring that the principles of infection control are incorporated into all service or building developments can help to ensure the best possible environment for the prevention and control of infection. Accessible policies will inform staff and managers of infection control precautions and actions to be taken in the event of an incident such as a needle-stick or inoculation injury. This will also be underpinned by training in infection control.

Infection knows no boundaries and draws no distinction between patient, staff, professional group, institution. By ensuring we all practice a good standard of infection control at all times we will all play our part in reducing infection in the community. Managers have a responsibility to ensure all the elements of an infection control programme are in place in their own organisation.

New guidance, legislation and regulations that have implications for control of infection are published and updated frequently. So these current guidelines will never be able to incorporate all current publications. Information can be found on many websites including:

Health Protection Agency: www.hpa.org.uk
Department of Health: www.dh.gov.uk
Medicines & Healthcare Products Regulatory Agency: www.medical-devices.gov.uk/
Health and Safety Executive: www.hse.gov.uk
Care is increasingly being delivered in a wide range of settings and the control of infection is an important and integral part of health and social care. Infection control policies and procedures already exist for hospital settings, however they are often inappropriate for carers in community settings.

This document is intended for those giving care in community establishments as well as those giving care in clients' homes. It will be relevant to district nurses, school nurses, health visitors, practice nurses, community therapists, nursery nurses, podiatrists, pharmacists, home loans services, care agencies, social care staff and those working in general and dental practice. The principles of infection control apply across all boundaries.

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A1.1  Key contacts

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A1.2 Organisation and management arrangements

All staff must have access to a written infection control policy and receive training in infection control. In clinical settings a programme of audit of infection control practice and surveillance of infection should also be identified in the Annual Infection Control Programme, which is developed through the Trust Infection Control Committee.

Managers of care homes and other services should also ensure that infection control policy, procedures, training and audit are in place.

A1.2.1 Responsibilities of key personnel

The Health Protection Teams/Units (HPUs) are part of the Health Protection Agency and the Health Protection Team is often based with a local Primary Care Trust (PCT). The HPUs are responsible for the control of infectious disease and environmental hazards within a county. The HPUs are comprised of Consultants in Communicable Disease Control (CCDC) and Health Protection Nurses (HPNs)/Infection Control Nurses (ICNs) and other supporting staff.

CCDCs are responsible for ensuring there are effective infection control programmes within the local community. The HPNs have expertise in communicable disease control, some are also specialists in infection control and can provide advice on infection control in the community. The team is a valuable source of practical advice and guidance.

Community Infection Control Nurses (CICNs) are specialists in infection control and provide an infection control service for a local community such as a PCT. They may be employed by one or more PCTs, or the HPU or even hospital Infection Control Team depending upon local arrangements. Some PCTs obtain infection control advice from a combination of sources.

Hospital Infection Control Teams provide an infection control service for the hospitals, often this includes the community hospitals that are part of the PCTs. The hospital infection control teams are comprised of Infection Control Doctors, who is usually a consultant microbiologist, and Infection Control Nurses. A Director of Infection Prevention and Control is accountable to the Board.

Infection Control Link Person is an employee working in a surgery, care home, ward etc and who has received some additional training in infection control and is appointed by their manager to act as a link between the Infection Control Nurse or Health Protection Nurse and the workplace. A role profile is available is Part F, Appendix 7.

Environmental Health Officers (EHOs) work for local authorities. They advise on food safety and kitchen design, pest control and waste disposal. They are also responsible for the control of pollution and other nuisances. Their duties include the inspection of food premises to enforce the requirements of the Food Safety Act 1990. They also investigate complaints about food and collaborate with the HPU in the investigation of outbreaks, particularly of food or water-borne illness. They will co-ordinate the collection of samples and delivery to the laboratory during an outbreak to speed up results.
Commission for Social Care Inspection (CSCI) Residential and nursing homes are expected to meet the requirements laid down in the Care Standards Act 2000\(^2\) and associated regulations, as they apply in specific situations (e.g. the Controlled Waste Regulations 1992)\(^7\).

Informal carers look after their partners, spouses, relatives, friends, and neighbours on an informal basis. They often have no formal training in care, but need to be informed and trained about any clinical procedures they will undertake, such as managing a urinary catheter.

A1.3 Training in infection control

Managers must ensure that all newly employed staff are introduced to the Infection Control Policy on induction by the end of their first week. Staff must also be updated on an annual basis and / or when new matters arise.

Managers should also periodically undertake an assessment of the infection risks in their workplace and ensure that everything necessary is in place to manage those risks. An Infection Control Link Person should be identified to act as a link between the infection control/health protection team and the place of work (Part F, Appendix 7).

Infection control training can be obtained from a varied or sources, access may vary and a variety of charges apply. Examples of potential sources of infection control training:

- BTEC courses
- Distance learning packages
- Health Protection Units
- Hospital Infection Control Teams
- Local colleges/universities
- NHS University
- NVQ courses
- Open college

- NHS Core Learning Programmes Unit Infection Control elearning training programme is available on-line. Further information and a link to the program can be found at: http://www.dh.gov.uk/PublicationsAndStatistics/PressReleases/PressReleasesNotices/fs/en?CONTENT_ID=4120290&chk=sKX1V8
A1.4 Occupational health

There must be arrangements in place for occupational health support and advice, together with appropriate policies for the protection of staff from infection through immunisation, the avoidance and management of incidents, training and compliance with health and safety legislation. Such policies should apply to all agency and locum staff, and to those on short-term contracts. Each new member of staff should complete a pre-employment health questionnaire and provide information about previous immunisation against relevant infections.

Clients and other staff also need to be protected from staff infected with a communicable disease. Occupational Health policies should clearly set out the responsibilities of staff members to report episodes of illness, such as vomiting and/or diarrhoea, to their manager.

A1.4.1 Exclusion from work

When necessary, staff may need to be excluded from work until they have recovered or results of specimens are available. Staff with vomiting and/or diarrhoea should be advised to remain off work until at least 48 hours have elapsed since their symptoms ceased. Further details of recommended exclusion periods can be found in C 31.0 and C 32.0.

A1.4.2 Inoculation (sharps) injuries and bites

There should also be a clear policy regarding action to be taken in the event of a blood contamination incident (e.g. needle-stick, sharps, inoculation injury or bite). Where possible this should be provided in a poster format, as well as written policy, so an injured party can take action promptly. An example of inoculation injury procedures can be found in B 13.0.

A1.5 New, or upgraded, buildings and service developments

Department of Health guidelines have emphasised the role of the environment as a potential source of infection for patients. Therefore it is important that infection control principles and issues are considered whenever planning new or upgraded buildings. Designers, engineers, architects, facilities managers and planners must collaborate with the infection control team to ensure that infection risks are reduced to a minimum.

The infection control team should be consulted during the planning process in order to identify and minimise infection risks. This principle also applies when planning service developments.

Key considerations include:

- Size of rooms and space between beds
- Availability of isolation rooms or single rooms and need for special ventilation
- Availability and design of clinical hand wash basins
- Design and features of ancillary areas
- Engineering services
- Storage facilities
Finishes and walls, floors, ceilings, doors, windows, interior design, fixtures and fittings

Decontamination facilities

Laundry and linen services

Catering and food hygiene

Waste – segregation, storage and disposal

Changing facilities

Service lifts / pneumatic delivery systems

Construction and the role of cleaning

Further information on all these aspects may be found in the publication: Infection Control in the Built Environment: Design and Planning. HFN 30.
PART B

STANDARD INFECTION CONTROL PRECAUTIONS
Introduction to the chain of infection\textsuperscript{16,17,18,19,20}

The way by which infection is spread can be thought of as a continuous chain with 6 links (see Table 1). In order to prevent infection or stop it spreading, one or more links in the chain must be broken. This can be achieved through practising standard infection control precautions.

**Link 1  Sources of micro-organisms.**

The main types of organism causing human infection include bacteria (e.g. salmonella), viruses (e.g. hepatitis A, B or C), fungi, or yeasts (e.g. candida). Infected people may act as a source of infection for others because the micro-organisms may be found in certain body fluids and could be passed on to others.

**Link 2  Reservoirs for micro-organisms.**

These are places where the organism may live and survive. Reservoirs can include people, animals, the environment, food or water. Contaminated food may act as a reservoir, for example if it is contaminated with salmonella or campylobacter. If the meat is not thoroughly cooked, those eating it may become infected. Other examples of reservoirs for micro-organisms include articles such as towels, flannels, wash bowls, bed pans, contaminated equipment etc.

**Link 3  The way microbes leave the body**

Sometimes termed “portal of exit", this can occur in a number of ways. For example, salmonella leaves the body in the faeces and, if diarrhoea is present, high numbers of salmonella microbes are excreted. Tuberculosis uses the same entry and exit point in that it is inhaled and exhaled.

**Link 4  The method of spreading microbes from person-to-person**

Infections are spread in several ways, depending upon the infection. These include direct or indirect contact (including ingestion, sexual contact, mother to foetus, injection or inoculation) and some infections are airborne and are inhaled, e.g. pulmonary tuberculosis.

**Unwashed hands are the most common way to spread infection.**

Microbes may be present in any body fluids (excreta and secretions). If hands come into contact with body fluids they may be carried from one person to another unless the hands are washed. In addition the microbes can be spread from person-to-person via a contaminated environment (e.g. dust) or equipment.

Some infections may be spread via the air, such as the cold and flu viruses. The infection may be spread in droplets or airborne spray produced by coughs and sneezes. Some childhood illnesses may also be spread in this way.

**Link 5  A susceptible person (person at risk of infection)**

People are at risk of developing infection if they are in contact with the organism in sufficient numbers to cause illness. Immunity to some infections can be developed after being infected (e.g. chickenpox) or after immunisation (e.g. hepatitis B).
Certain people are more susceptible or at greater risk of infection for a variety of factors. People who are very young or the very old are more at risk because their immune system may not be developed or may be waning. In addition, some medications, such as steroids and cytotoxic agents can increase infection risk. So can underlying diseases such as diabetes, blood disorders or cancer.

**Link 6 Microbes enter into the body**

Sometimes termed “portal of entry”. In order for microbes to cause infection they must gain entry into the body. Different organisms have different ways of entering our bodies. For example, salmonella need to be ingested (eaten). Some organisms may cause infection if they are inhaled e.g. tuberculosis. Others, such as hepatitis B, enter the bloodstream via broken skin, injection or sexual intercourse.

**Breaking the chain of infection**

Breaking the chain of infection by targeting one or more links can halt the spread of infection. This usually involves:

a) Eradicating the source of infection through appropriate antimicrobial therapy
b) Preventing the method of spread through hand washing, hygiene, disposal of waste, decontamination of equipment etc or
c) Protecting the individual at risk by immunisation
d) Preventing microbes from entering the body by wearing protective clothing, using an aseptic technique when handling invasive devices, covering wounds and insertion sites with sterile dressings etc.

It is impossible to identify everyone who is infectious to others. Some diseases are infectious before any signs develop, such as chickenpox. Some infections may not show any signs or symptoms, such as hepatitis B or HIV. Also some people may be carriers without developing the infection themselves, e.g. salmonella or MRSA.

For this reason it is important that everyone carries out infection control precautions at all times, regardless of whether infection is present or suspected. In the home it may not always be possible to practice standard infection control precautions to the same standard as in a clinical setting. In addition in the home the risks of infection and its spread may be less than that in a clinical environment.

**Standard infection control precautions** include:

- Hand hygiene
- Use of protective clothing and equipment
- Cleaning and disinfection of equipment and the environment
- Disposal of waste
- Food hygiene
- Laundry
- Management of inoculation injuries (bites/ and injuries with sharps and body fluids)
- Management of invasive devices and wounds (*Part D Clinical Procedures*)
Table 1 Chain of Infection

- **Source**
- **Reservoir**
- **Person at risk**
- **Way into the body**
- **Method of transmission**
- **Way out of the body**

Break one link of the chain to prevent infection
B 1.0 Hand hygiene

Hand hygiene is the most important method of preventing infection and cross infection.

The purpose of hand hygiene is to remove or destroy any bacteria picked up on the hands (transient bacteria). In some situations (e.g. prior to invasive procedures) it is necessary to also reduce the numbers of bacteria that normally live on the skin (resident bacteria). This prevents their being transferred to other people, while at the same time protecting oneself. A good hand washing technique is more important than the kind of product used.

B 1.1 Hand hygiene facilities

B 1.1.1 Clinical settings

Hand washing must be carried out using running water at a comfortable temperature. Clinical hand washbasins should be provided wherever clinical care is being given, e.g. service users' rooms in care homes, wards, treatment rooms, dirty utility rooms and kitchens. A clinical hand washbasin consists of lever-operated mixer taps, with no plug and no overflow. If mixer taps are not available for any reason a thermal control can be added to the hot tap to provide warm running water. In care homes, staff should also be able to wash their hands under warm running water.

Liquid soap should be used for hand washing. This should be provided in wall-mounted dispensers with disposable cartridges or disposable pump-action bottles. Re-fillable cartridges are not recommended. Dispensers must be kept clean and replenished.

Aqueous antiseptic solutions or alcohol hand rubs/gels may also be used. Alcohol hand rubs/gels may be used as an alternative to soap and water, if the hands are visibly clean. They are particularly useful in situations where hand washing may not be convenient.

Hand creams may be used to help protect hands from soreness. This must be supplied as individual tubes or in a pump-action container. Communal pots must not be used.

Disposable paper towels must also be available at all hand wash basins in clinical settings, including toilets and kitchens. Communal (e.g. cotton) towels are not recommended in clinical settings. Foot-operated waste bins must be used for disposal of paper towels. Don’t use hands to raise the lid.

B 1.1.2 Clients' homes

In clients’ own homes the hand hygiene facilities may not be ideal. Staff visiting clients at home should carry a supply of alcohol hand rub/gel. This may be used instead of hand washing if facilities are inadequate. It may also be used after hand washing if hand disinfection is needed. Staff should use pump-action liquid soap dispenser rather than bar soap. Dry hands using paper towels or, if these are not available, use paper roll or a clean cotton towel.
B 1.2 Routine hand hygiene

The aim of routine hand hygiene is to remove dirt and most removeable (transient) micro-organisms found on the hands. It is carried out in at least the following circumstances:

- Before starting work and going home
- After contact with body fluids e.g. dealing with incontinent clients
- Before and after giving care
- After using the toilet
- Before eating and handling preparing food
- After handling pets
- After handling raw food
- After handling refuse and clinical waste
- When hands look or feel dirty
- After any cleaning activities

Before starting work, wash any broken or cut areas of exposed skin and cover with a waterproof dressing.

For routine hand hygiene the technique is more important than the solution used.

- Remove hand and wrist jewellery and wristwatches, and roll up sleeves. Wedding rings without stones may be left in place
- Wet hands under warm running water
- Apply liquid soap
- Rub this into all parts of the hands vigorously, without applying more water, using the 6-step technique (see Table 2) for at least 10-15 seconds
- Rinse hands under running water
- Dry thoroughly using paper towels

Alternatively:

If hands are clean, apply 5 mls alcohol hand rub/gel, rubbed into all parts of the hands using the 6-step technique, until the alcohol has evaporated.

Washing hands with soap and water is recommended after contact with diarrhoea, because alcohol is less effective on micro-organisms such as Clostridium difficile and viral causes of gastroenteritis.
B 1.3 Hand disinfection

The aim of hand disinfection is the destruction of transient micro-organisms and a reduction in resident organisms. It is carried out in at least the following circumstances:

- Before invasive or aseptic procedures
- After contact with people with known or suspected infection

Any fresh abrasion, cut etc. on the hands should be covered with a waterproof dressing or appropriate barrier e.g. gloves.

There are two ways of performing hand disinfection:

- Wash hands as above using liquid soap, then apply two applications of 5mls of alcohol hand rub/gel. Rub each application into all aspects of the hands and wrists until dry. Alcohol can also be used between cases if the hands are socially clean. Or
- Wash hands as above using an aqueous antiseptic solution (e.g. 4% chlorhexidine-detergent or 0.75% povidone/iodine detergent). Lather all aspects of the hands and wrists using the 6-step technique for 2 minutes.

Table 2 Hand hygiene technique

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Wet hands and add solution. Rub palms together.</td>
</tr>
<tr>
<td>2</td>
<td>Right palm over back of left hand and left palm over back of right palm.</td>
</tr>
<tr>
<td>3</td>
<td>Palm to palm with fingers interlaced.</td>
</tr>
<tr>
<td>4</td>
<td>Rub backs of fingers with palms.</td>
</tr>
<tr>
<td>5</td>
<td>Wash each thumb by clasping and rotating in the palm of the opposite hand.</td>
</tr>
<tr>
<td>6</td>
<td>Rub each wrist with opposite hand. Rinse hands and dry.</td>
</tr>
</tbody>
</table>
B 2.0 Client’s Personal Hygiene 4,5,145

B 2.1 Washing and bathing

- Clients should have their own toothbrushes, razors, face cloths, soap, lotions, creams etc. Communal items can spread infection.

- Separate cloths must be used for cleaning of the client’s face/body and their genital/anal areas. Disposable cloths could be used instead.

- Antiseptics or salt should not be added to the bath water as they have little or no beneficial properties.

- Daily bathing, shower, or a full body wash is best to prevent an accumulation of dirt and bacteria on the skin. This is particularly important for those who are incontinent.

- Baths should be cleaned regularly with warm water and detergent or cream cleanser. It is not usually necessary to add disinfectants.

- In community hospitals or residential care settings wash bowls should be individualised if possible. Alternatively the bowls must be cleaned and dried thoroughly between uses.

B 2.2 Mouth care25,26

- The most effective method of keeping the mouth clean, moist and free from infection is to brush the teeth/gums with a soft toothbrush and toothpaste after meals. Disposable foam sticks may be used if the individual cannot use a toothbrush.

- Frequent sips of water can also keep the mouth fresh and clean, if drinking is inadequate

- Liquid paraffin e.g. Vaseline, may be used to moisten the lips

- If the client produces too little saliva, 2-3 sprays of artificial saliva can be sprayed inside the mouth up to 4 times daily

- Antiseptic mouthwashes have a limited effect on mouth organisms and should not be used routinely

- Dentures should be cleaned using a proprietary denture cleaner

- Denture pots must be individualised

- Removable braces must be cleaned daily

- Keep toothbrushes clean and dry, replace periodically.

- Regular dental checks can help to identify and prevent mouth conditions.
B 2.3 Eye care

Special precautions are only needed if the eyes are damaged or after eye surgery. In these cases, if eyes require cleaning, this should be performed using a low-linting swab, moistened with either normal saline or cooled boiled water.

Hands should be washed prior to giving eye care. The eyes should be wiped from the nose outwards, using a new piece of cotton wool or lint for each ‘wipe’.

Eye drops/ointment should only be used if they have been prescribed and have not past the expiry date. Ensure there is good lighting. Hands must be washed prior to instilling medications. The patient should have their head well supported and tilted back. Most eye medications are instilled just inside the lower eyelid. The outlet of the tube or bottle must not be allowed to touch the skin or eye.

B 2.3.1 Care of artificial eyes

If the client’s own eye has recently been removed, Chloromycetin ointment may be prescribed, and should be administered according to the instructions.

Once the socket has settled, the false eye and socket should be cared for as follows:

- The eyelids should be kept clean by bathing or wiping with cotton wool or soft lint moistened with normal saline or cooled boiled water.
- If the false eye has become dirty, it should be cleaned in normal saline or cooled boiled water.
- On no account should the eye be washed in any type of detergent, as this may cause irritation to the socket and surrounding skin.

B 2.4 Ear care

Ears should be kept clean and dry and examined periodically for signs of infection. Items such as cotton buds should not be used to remove wax from the ears. The removal of wax can be promoted by chewing. If a build up of wax in the ear is noted it may be worth instilling a few drops of wax remover, following the manufacturer’s directions.

Only health care professionals who have received training in the irrigation (syringing) of ears, and are deemed to be competent, may undertake this procedure. Usually individuals who need to have their ears syringed are referred to their local general practice. Mechanical ear syringing machines are now recommended and metal syringes should not be used.

Further advice on ear care can be obtained by visiting the website of the Primary Ear Care Centre: www.earcarecentre.com. See the website or Table 6 for details on how to decontaminate ear syringing machines.

B 2.4.1 Cleaning “behind the ear” hearing aids

- Separate the hearing aid from the ear mould by pulling the flexible tubing away from the hooked part of the hearing aid. Take care not to pull the tubing out of the ear mould. If the tube is stiff, do not force it.
• Wash the ear mould and flexible tube in warm soapy water (not detergent or cleaning liquid). A brush can be used to remove any wax from the tube.
• Rinse the ear mould in clean water. Dry the tubing and ear mould by tapping gently onto a tissue held in the hand to remove drops of water. Ensure no droplets remain.
• Leave the ear mould and attached tubing to dry in a warm (not hot) place
• Once the ear mould and tubing are dry, reattach to the aid
• Contact the local audiology department for further information.

B 2.5 Foot care

Good foot care is essential to ensuring the health of the feet and preventing wounds and disease of the feet. In care homes residents tend to be at special risk especially during times of immobility, during which pressure-relieving devices must be used. Certain individuals are at increased risk of foot disease, including people with diabetes, neuropathy and ischaemic disease.

Good fitting shoes can help promote healthy feet for all clients. Footwear needs to:
• Be worn – not kept for best and going out
• Be made of soft non-occlusive material with no seams or knots
• Have light-weight and shock-absorbing soles with a cushioned insole
• Be of the correct length, width and depth
• Have a broad fronts with plenty of toe room and a soft padded heel cuff
• Hold the foot steady by means of good laces, buckles or Velcro fastening
• Be fitted by a trained fitter with the client standing

The following measures will also help to promote healthy feet and prevent injury.
• Examine the feet regularly (preferably daily especially in high risk groups)
• Ensure the shoes fit correctly
• Those at risk of foot disease should avoid walking in bare feet
• Wash feet daily using warm water and mild soap
• Dry thoroughly, but not roughly, especially between the toes
• Change socks and hosiery daily
• If the skin is dry, apply hand cream or moisturising cream to the heels and balls of the feet
• Cover any cuts with a sterile dressing and report to a State Registered Chiropodist if in a high risk group
• Trim nails regularly, following the natural shape of the toe. Do not cut down the sides
• Carers should not trim the nails of people in high risk groups, unless they are deemed competent by a State Registered Chiropodist
• Clients should be able to see an NHS chiropodist free of charge, providing they have a medical or podiatry need. Check with the local NHS Podiatry Service for access criteria and available services.
• To prevent the spread of infection, individual clients should have their own nail clippers and nail files.
• People with diabetes should have a risk assessment carried out at least annually by a registered health professional
• Don't cut corns, calluses or in-growing toenails

B 2.5.1 Diabetic foot ulcers

Diabetic foot ulcers need to be assessed at least once a year and treated appropriately, so refer to a specialist clinic. Good fitting shoes can help avoid foot ulcers, see the notes above.

The hospital-based chiropodists/podiatrists and orthotists may have a range of information leaflets and may offer training.

Inadequate assessment, and failure to implement preventative measures, may result in unnecessary amputation.

Improve general health and circulation by:

• Controlling diabetes
• Reducing cholesterol
• Treating high blood pressure
• Stop smoking
• Observe for changes in the feet (cuts, bruises, blisters, redness, corns, calluses, verrucas) and seek professional advice
B 3.0 Protective clothing/equipment

Protective clothing is an essential part of health and social care. It provides protection from micro-organisms for both carers and clients. It is used to protect the skin (and sometimes airway or mucous membranes) from contact with blood and body fluids, and also protects clothing from contamination. The use of protective clothing should be based on an assessment of the risk of spread of micro-organisms from person to person and the risk of contamination of the carer’s clothing or skin.

B 3.1 Disposable gloves

A range of appropriate gloves should be available and accessible to staff (Table 3)

- Gloves are to be worn whenever contact with body fluids, mucous membranes or non-intact skin is anticipated
- Gloves are not to be worn as an alternative to hand hygiene
- Gloves should be changed after each procedure and hands washed following their removal
- To remove glove: grasp wristband and pull forwards over the hand and fingers, inverting the glove. Avoid contaminating the skin
- Washing gloves with soap and water or alcohol should not be undertaken, because this may not be effective and may damage the glove
- Gloves should be seamless, well fitting and powder-free.
- A latex-free glove should be available for anyone who has a latex allergy
Table 3  Selection of appropriate gloves

<table>
<thead>
<tr>
<th>Procedure to be performed</th>
<th>Suitable Gloves</th>
</tr>
</thead>
<tbody>
<tr>
<td>Invasive procedures which involve breaking the skin, e.g. surgery, for which high levels of protection for the client and carer are required</td>
<td>Sterile, non-powdered latex examination, or surgeons’ glove. For those who are sensitised to natural rubber latex (clients and staff), there are synthetic materials available e.g. nitrile or neoprene</td>
</tr>
<tr>
<td>Non-invasive procedures involving exposure to blood or body fluids, or exposure to excreta, such as urine, faeces, vomit, and where there is little likelihood of exposure to blood or hazardous/corrosive substances.</td>
<td>Non-sterile, non-powdered vinyl or latex examination glove. For those who are sensitised to natural rubber latex, there are synthetic materials available e.g. nitrile or neoprene. Polythene gloves are not recommended.</td>
</tr>
<tr>
<td>General cleaning procedures</td>
<td>Flock-lined, latex, nitrile or vinyl gloves. If contact with blood or body fluid is likely, wear a glove that is comparable with (2) outlined above</td>
</tr>
<tr>
<td>Handling chemicals, or other hazardous substances</td>
<td>A glove that offers the necessary protective qualities, e.g. latex for high resistance to water-based chemicals and nitrile for resistance to solvents and oil-based chemicals.</td>
</tr>
<tr>
<td>Food handling</td>
<td>Polythene, if necessary</td>
</tr>
</tbody>
</table>

B 3.2 Aprons/gowns

These are worn to protect the clothing from contamination. The decision to wear an apron is based upon an assessment of the risk of contamination with body fluids e.g. diarrhoea. They are single use and should be changed between tasks, then discarded appropriately. Colour coding of the aprons can be useful, though not essential. An example of this may be:

- **Blue**  food handling and feeding
- **White**  general uses
- **Red**  in wards and communal settings, when caring for clients with infection

Examples of when they should be worn:

- During bathing
- When helping clients in the toilet
- When cleaning equipment, sanitary equipment and environment
- During bed making
- During food handling
Full-length, long-sleeved, fluid-repellent gowns should be worn when there is a risk of gross contamination with body fluids, e.g. assisting during childbirth or caring for a patient in isolation with highly contagious diseases such as Severe Acute Respiratory Syndrome (SARS).

B3.3 Masks, visors, eye protection

These are worn when a particular procedure is likely to cause splashing of blood, tissues or chemical into the eyes, face or mouth.

A high-efficiency, particulate filter mask (known as a respirator) should be worn when caring for a client who is known to have sputum smear positive (open) tuberculosis of the lung or SARS. These can be obtained via supplies, directly from the manufacturer or, in an emergency, from the chest unit at the local district general hospital. Advice on whether it is necessary to wear a mask can be obtained from the Health Protection Unit or the local clinical team responsible for the care of the client.

B 3.4 Uniforms

- Uniforms do not constitute protective clothing
- During the course of the working day uniforms will become contaminated with micro-organisms
- Uniforms should be protected from gross contamination by the use of disposable aprons.
- Uniforms should have short sleeves and should not be fitted with buttons.
- The material should be able to withstand a wash temperature of 60°C.
- Staff should change into normal clothing at the end of the working day.
- If wearing uniform to and from work is unavoidable, cover uniform with an outer layer
- A sufficient supply of uniforms should be provided so that a clean uniform can be worn every day
- If staff wear their own clothes in the workplace similar hygiene measures should be employed.
B 4.0  Cleaning/decontamination of the environment

B 4.1  Introduction

In general, it is considered that the environment has a relatively low role in the transmission of infection. However, the environment is known to play an important role in cross infection during outbreaks. Door handles, flush handles, taps etc have all been implicated. Therefore, special attention must be played to these fittings during outbreaks.

In addition, accumulations of dust, dirt and liquid residues will increase infection risks and must be reduced to the minimum. This can be achieved by regular cleaning and by using good design features in buildings, fittings and fixtures. Contact the Health Protection Unit / Infection Control Team for advice.

An audit programme for monitoring the standard of hygiene should be in place in all community hospitals and residential care settings.

B 4.2  Clinical settings

A written cleaning schedule should be devised, based on a Control of Substances Hazardous to Health (COSHH) assessment, which includes the management of spillage of body fluids and regular removal of dust by damp dusting high and low horizontal surfaces. This should specify the persons responsible for cleaning (especially in the cleaner's absence), the frequency of cleaning and methods used and the expected outcomes.

Work surfaces and hard floors should be smooth-finished, intact, durable, of good quality, washable, should not allow the pooling of liquids and be impervious to fluids.

Carpets are not recommended in treatment rooms or other clinical areas likely to be regularly contaminated with body fluids. Where carpets are provided there should be procedures or contracts in place for regular cleaning and for dealing with spillage. Curtains should be cleaned when soiled or periodically (e.g. six monthly) and an adequate supply of curtains purchased to facilitate this.

B 4.3  Client's own homes

The main aim of hygiene in the home is to target those places where pathogenic microbes may reside and have the potential to cause infection, e.g. toilets, kitchens and spillages of body fluids. Normal cleaning methods, such as vacuuming and damp dusting/cleaning surfaces, are generally all that is required. If another member of the family, or an informal carer, lives there be sure they know what you are doing and why. Tact may be needed as they may feel the house is clean enough already, especially if they do the cleaning normally.
B 4.4 Cleaning materials

Disposable, non-shedding cloths or paper roll should be provided for cleaning purposes. Equipment and materials used for general cleaning should be kept separate from those used for the cleaning of body fluid spillage. Do not leave cloths or mops stored in disinfectants or buckets. Colour coding of cleaning equipment (cloths, mops, gloves) is advisable, for example:

- **Green**: Kitchens only, never used elsewhere.
- **Blue**: General areas e.g. offices, wards/departments
- **Yellow**: Washbasins, washroom surfaces.
- **Red**: High risk areas e.g. sluices, toilets, washroom floor
- **White**: Isolation rooms, operating theatres and anterooms

Cream cleaner or a hard surface cleaner is usually suitable for cleaning hand washbasins and general-purpose detergent is recommended for other environmental cleaning. Follow manufacturer’s instructions. Wipes impregnated with 70% alcohol can be used for those items that cannot be immersed e.g. electrical equipment. A COSHH assessment is required for any cleaning materials used.

For suggested methods and frequencies of cleaning the environment and equipment, refer to Table 6.

B 4.5 Management of the spillage of blood and high-risk body fluids

Spillages of blood and high-risk body fluids must be dealt with quickly and effectively. Disposable gloves and an apron must be worn and in clinical settings the contaminated debris treated as clinical waste. In domiciliary settings the waste should be contained in a plastic bag that is securely tied and discarded in the household waste.

Chlorine-releasing agents can be a hazard especially if used in large volumes, in confined spaces or mixed with other chemicals or urine. Protective clothing must be worn and the area well ventilated. A risk assessment and COSHH assessment must be carried out if using these chemicals. Increased risk is related to the likelihood of infection. Following a risk assessment and depending upon the products available, spillage may be dealt with by any of the following methods.

**B 4.5.1 Sodium dichloroisocyanurate (NaDCC) method (not carpets and soft furnishings)**

- Wearing protective clothing, cover spillage with NaDCC granules
- Leave for at least two minutes
- Scoop up the debris with paper towels and/or cardboard
- Wash the area with detergent and water and dry thoroughly
- Dispose of all materials as per B 7.0
- Clean the bucket/bowl with fresh soapy water and dry
- Discard protective clothing and wash hands
B 4.5.2 Hypochlorite method (not carpets and soft furnishings)

- Wearing protective clothing, soak up excess fluid using disposable paper towels
- Cover area with towels which have been soaked in 10,000 parts per million of available chlorine (e.g. Haz Tabs) and leave for at least two minutes
- Remove organic matter using the towels and discard as per B 7.0
- Clean area with detergent and water and dry thoroughly
- Clean the bucket/bowl in fresh soapy water and dry
- Discard protective clothing and wash hands

B 4.5.3 Detergent and water method (for soft furnishings and carpet)

- Steam clean or
- Wearing protective clothing mop up organic matter with paper towels or disposable cloths
- Clean surface thoroughly using a solution of detergent and water and paper towels or disposable cloths
- Rinse the surface and dry thoroughly
- Dispose of materials as per B 7.0
- Clean the bucket/bowl in fresh hot, soapy water and dry
- Discard protective clothing
- Wash hands

B 4.6 Management of spillage of low-risk body fluids (urine, faeces, vomit etc)

- Wearing protective clothing mop up organic matter with paper towels or disposable cloths
- Clean surface thoroughly using a solution of detergent and water and paper towels or disposable cloths
- Rinse the surface and dry thoroughly
- During outbreaks of viral gastroenteritis disinfect surfaces using 0.1% chlorine solution after cleaning
- Dispose of materials as per B 7.0
- Clean the bucket/bowl in fresh hot, soapy water and dry
- Discard protective clothing
- Wash hands
B 4.7 Routine cleaning of isolation rooms

- Wear personal protective clothing (at least disposable gloves and apron)
- Use a fresh solution of detergent and water and disposal cloths or paper roll. If indicated, e.g. outbreaks of gastrointestinal infection, disinfect with chlorine-releasing agent after cleaning or use a combined cleaner-disinfectant. Change cleaning solution frequently
- Clean or damp dust in the following order, if possible:
  - Fittings and furniture using detergent and water
  - High level surfaces and curtain rails
  - Door handles and horizontal surfaces
  - Patient equipment
  - Bath or shower room, toilet
  - Mop the floor
- Discard waste as clinical waste
- Empty waste bin, clean inside and out, and insert new liner
- Clean all cleaning equipment and leave to dry
- Restock paper towels, liquid soap and other supplies
- Wash hands

B 4.8 Terminal cleaning of isolation rooms

- In addition to the above
  - Remove/dispose of unwanted items (flowers, equipment etc)
  - Clean, and disinfect if necessary, all furniture and fittings
  - Take down curtains and send to the laundry
  - Strip the bed. Clean mattress with detergent solution and disinfect if necessary
  - Vacuum the floor
  - Hang clean curtains
B 5.0 Cleaning/decontamination of equipment

The decontamination of medical devices has been the subject of a number of Health Service Circulars (HSC1999/179 and HSC 2000/032). All NHS premises must comply with the National Decontamination Strategy by 31 March 2007, monitored by the Healthcare Commission. Options include:

- Centralise all decontamination to an accredited Sterile Services Department
- Use only single-use devices
- Undertake decontamination locally to all applicable standards
- A combination of the above

For information for PCTs visit: [http://www.dh.gov.uk/assetRoot/04/12/17/93/04121793.doc](http://www.dh.gov.uk/assetRoot/04/12/17/93/04121793.doc)

The national decontamination training programme can be accessed at: [http://decontaminationtraining.nhsestates.gov.uk/](http://decontaminationtraining.nhsestates.gov.uk/)

B5.1 Risk assessment

Equipment can be categorised according the risk of infection it poses to the client.

- Items in contact with intact skin are classed as low risk and should be cleaned.
- Items in contact with mucous membranes (eyes, mouth or rectum) are classed as medium risk and at least disinfected between uses.
- Items that enter the body or have contact with broken skin, broken mucous membranes or with the vagina are classed as high risk and must be single use or sterilised.
Table 4 Risk assessment for decontamination of equipment\textsuperscript{32}

<table>
<thead>
<tr>
<th>Risk</th>
<th>Application of Item</th>
<th>Recommendation</th>
</tr>
</thead>
</table>
| Low     | • In contact with healthy skin or:  
• Not in direct contact with patient  
e.g. furniture, mattresses, surfaces. | Single use item or  
Clean item                                  |
| Medium  | • In contact with mucous membranes or  
• Contaminated with virulent or readily transmissible organisms (body fluids); or:  
• Prior to use on immuno-compromised patients  
e.g. thermometers, auroscope earpieces. | Single use item or  
Clean item then disinfect or sterilise  
(Item does not need to be sterile when used) |
| High    | • In contact with a break in the skin or mucous membrane; or:  
• For introduction into sterile body areas  
e.g. uterine sounds, surgical instruments | Single use item or  
Clean item then sterilise  
Use item sterile                                |

(Adapted from Medical Devices Agency, 1999 - updated 2002 & 2005)\textsuperscript{32}

B 5.2 Cleaning\textsuperscript{29,32-36}

Thorough cleaning with detergent and/or enzymatic cleaner and warm water (body temperature) will remove large numbers of micro-organisms from a surface, especially if the article can be rinsed. A further reduction in numbers occurs as the surface dries. Devices cannot be effectively disinfected or sterilised without having first been thoroughly cleaned and dried. Cleaning will not be effective if surfaces are damaged or rusty.

An automated method such as a thermal washer/disinfector is the most effective cleaning method and is recommended for cleaning all medical devices including surgical instruments.

B 5.2.1 Washer-disinfectors\textsuperscript{32,35}

Thermal washer-disinfectors physically clean devices and kill micro-organisms by applying hot water at disinfection temperatures. They are used for cleaning instruments, bedpans, urinals and other devices. They must have a contract for planned preventive maintenance and must be cleaned and maintained in accordance with Health Technical Memorandum (HTM) 2030\textsuperscript{35}. Daily records must be kept of the cycle.
B 5.2.2 Ultrasonic washers

Ultrasonic washers are not recommended for use in NHS premises. If used:

- Ultrasonic cleaners must be used in accordance with manufacturer’s instructions and HTM 2030.
- The lid must be on when operated to avoid the dispersal of aerosols and to protect users from noise.
- These cleaners cannot be used for plastic or similar materials
- Cannulated instruments can be used in ultrasonic washers, but must also be flushed or brushed with cleaning solution, or attached to a nozzle on the washer
- Check with the manufacturer that the washer is suitable for the items to be cleaned
- Hinged items should be opened before loading in the washer
- Remove gross contamination and soiling from devices before loading
- A low foaming surfactant or detergent should be used in the washer
- Fill with clean water and the required volume of detergent prior to use
- Bring up to the operating temperature and operate for at least 5 minutes to de-gas the solution
- After de-gassing load the washer and replace the lid
- Once clean (after the recommended time) remove the basket and rinse instruments in very hot water (at least 60°C) before drying
- Empty the tank after 4 hours, or when visibly soiled, or at the end of the session, whichever is soonerest. Clean and dry.

B 5.2.3 Manual cleaning

Medical devices and instruments must not be cleaned by hand although this is an acceptable method for cleaning the environment and low risk patient equipment such as beds, commodes etc. A risk assessment and records of agreed procedures must be in place to ensure that a consistent method is employed by all staff. Disposable gloves and apron are advised, and the use of enzymatic cleaners or detergent and warm water (not exceeding 35°C). Avoid generating splash by immersing the item where possible. If splash is unavoidable wear protective eyewear. After cleaning, rinse and inspect the equipment. If the item remains soiled, repeat the cleaning process. Ensure the item is dried as quickly as possible either using paper roll or by inverting to air-dry.

B 5.2.4 Cleaning materials

Cleaning equipment (brushes, mops etc.) must be kept clean and dry between uses. Re-usable cloths are not recommended.
B 5.3 Disinfection

Disinfection is a process used to reduce the number of micro-organisms to a level that is considered safe, but which may not necessarily destroy some viruses or bacterial spores. Disinfection is usually acceptable for devices that pose a medium risk of infection if these devices cannot be effectively sterilised. Disinfection can be achieved in a number of ways including the use of heat and chemical disinfectants. Both methods have their drawbacks and it is often safer and more convenient to use a disposable device instead. Further advice can be obtained from the publication Guidance on Decontamination, prepared by the Microbiology Advisory Committee to the Medical Devices Agency. It is available on a CD-ROM and on the Medicines and Healthcare Products Regulatory Agency’s website: www.medical-devices.gov.uk.

B 5.3.1 Heat disinfection

Dishwashers, washing machines and washer-disinfectors are effective methods for disinfecting equipment because they clean the item and then expose the items to hot water for the required time to achieve thermal disinfection.

- 65°C for 10 mins
- 71°C for 3 mins
- 80°C for 1 min
- 90°C for 1 sec

Washer-disinfectors must be maintained in accordance with manufacturer’s instructions and validated using HTM2030, with particular emphasis on ensuring that the cleaning process is effective.

B 5.3.2 Chemical disinfection

Chemical disinfectants can be toxic, flammable, corrosive or have other material incompatibilities, so their use should be avoided wherever possible. Even when laboratory tests have demonstrated the effectiveness of a particular chemical to kill specific micro-organisms, in practice it may fail to do so for a number of reasons. These include:

- Inactivation of the disinfectant by a wide variety of substances, such as organic matter (blood and body fluids), certain detergents, wood, cork, plastics, rubber, some inorganic chemicals
- Presence of organic material preventing the disinfectant from contacting the surface of the object
- Decay of a disinfectant and loss of efficiency due to time, temperature, impurities, incorrect dilution
- Incorrect contact time

Chemical disinfectants must be used at the correct dilution and the device immersed for the correct length of time, depending upon the manufacturer’s instructions. Disinfectants must also be suitable for the types of micro-organisms targeted. A COSHH assessment must be undertaken when selecting a chemical disinfectant in order to safeguard health.
B 5.3.2.1 Using a chemical disinfectant:32,40

- Ensure the disinfectant receptacle is clean and dry
- Ensure the device is clean and dry
- Wearing protective clothing fill the receptacle with sufficient freshly prepared disinfectant to allow complete immersion of the device
- Immerse the device in the solution, ensuring there are no air bubbles and that the disinfectant has contact with all surfaces including the lumen of tubes
- Cover the receptacle and leave for the correct length of time, using a watch
- Rinse the device in water of suitable quality, e.g. sterile water
- Dry using clean, non-shedding cloth or paper
- Wash, dry and disinfect or sterilise the receptacle before storing dry

B 5.3.2.2 Selecting a chemical disinfectant32,39,40

There should be very few reasons for using a disinfectant and, where possible, disposables or sterilisation are recommended. Disinfectants must be stored, reconstituted and used in accordance with COSHH regulations.

Chlorine preparations39,40

These include Sodium hypochlorite and Sodium dichloroisocyanurate (NaDCC). They usually are presented in the form of tablets, powders or granules that are then reconstituted into the required concentration. In liquid form they are less stable and have a shorter shelf-life. NaDCC releases chlorine slowly and has a more prolonged effect than Sodium hypochlorite.

Chlorine preparations are corrosive to metals and inactivated by organic matter, though NaDCC is less so than sodium hypochlorite. They should not be used on urine as this may release chlorine vapour, which is hazardous.

Milton is often used for disinfecting infant feeding equipment and catering equipment.

Examples: Haz Tabs, Actichlor, Precept, Sanichlor, Milton

See dilution table overleaf…
### Dilution of stock solution

<table>
<thead>
<tr>
<th></th>
<th>Available chlorine</th>
<th>Parts per million</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Blood spills</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Undiluted</td>
<td>10*</td>
<td>100000*</td>
</tr>
<tr>
<td>1:10</td>
<td>1%</td>
<td>10,000</td>
</tr>
<tr>
<td><strong>Environment</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1:100</td>
<td>0.1%</td>
<td>1,000</td>
</tr>
<tr>
<td><strong>Clean instruments</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1:200</td>
<td>0.05%</td>
<td>500</td>
</tr>
<tr>
<td><strong>Catering/infant feeding</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1:800</td>
<td>0.0125%</td>
<td>125</td>
</tr>
</tbody>
</table>

* Approximate values of some brands: Chloros, Sterite, Domestos etc

### Alcohol preparations

Alcohol preparations are useful chemical disinfectants because they ready diluted and can be used immediately. They are effective against most bacteria and viruses, but have poor penetration. They are flammable so must not be used near naked flames or sparks. They evaporate rapidly and can be used on equipment that may be damaged by other methods of decontamination. Disinfection occurs during evaporation of the alcohol, so items must be dry before use. Examples include:

- **Ethanol, Industrial methylated spirit** 70%
- **Isopropyl alcohol** 60-70%
- **Alcohol impregnated swabs (Sterets)** 70%
- **Alcohol hand rubs/gels** 70%

### Chlorhexidine

Chlorhexidine is a skin disinfectant that is very effective at reducing *Staphylococcus aureus* and other organisms found on the skin. It is often used to decontaminate hands prior to invasive procedures such as minor surgery. It is not suitable for cleaning equipment or the environment. Examples include:

- **Hibiscrub**
- **Hibitane**

### Combined detergent-disinfectants

Products are available that combine a detergent and a chlorine-based disinfectant for use when cleaning the environment and in particular sanitary equipment (baths, showers, toilets etc), especially used during outbreaks of gastrointestinal infection. Examples include:

- **Titan Sanitiser, Chlorclean, Actichlor plus**
B 5.4 Sterilisation

Sterilisation is a process used to render an object free from all microorganisms.

It is recommended that sterile equipment should be obtained pre-sterilised from a manufacturer or via a Central Sterile Supplies Department (CSSD). Bench top steam sterilisers need intensive maintenance and rigorous controls in place to ensure their effectiveness and their use should be restricted to situations where CSSD or disposables are not available. The decision to use bench top steam sterilisers should be accompanied by a risk assessment. Systems and records must be in place to ensure that all staff employ consistent methods and equipment is functioning effectively. NHS organisations must be able to demonstrate compliance with the National Decontamination Strategy by 31 March 2007 and the Healthcare Commission will monitor compliance.

B 5.5 The use & maintenance of bench top steam sterilisers

The use of bench top steam sterilisers should be restricted to those situations where it is not possible to utilise the services of the Central Sterile Supplies Department. Users and owners must be aware of the legal implications in the event of infection or untoward exposure that may result from procedures using devices that have been processed incorrectly. Operators of sterilisers must be suitably trained and the steriliser maintained and tested frequently to ensure that it is achieving sterilising conditions consistently.

Where it is agreed that a bench top steam steriliser will be used, the model of steriliser used must be appropriate for the load. A standard (downward displacement) bench top steam steriliser is intended specifically to process solid, unwrapped instruments without lumens. Vacuum (porous load) bench top sterilisers may also be used to process wrapped loads and instruments with lumens. The latter are expensive to buy and their cost of ownership is high, because testing and maintenance is complicated and takes a long time.

The safe operation of steam sterilisers include:

- Daily checks by the User and other periodic testing by a qualified test engineer
- Provision of clean steam by correct management of the reservoir and chamber
- Quarterly servicing and maintenance
- Correct loading
- Accurate record keeping and log book maintenance
- Training of the operator

These are outlined below, but detailed guidance on the purchase, use and operation of bench top steam sterilisers can be found in bulletins published by the Medical Devices Agency. Health Technical Memorandum 2010 provides comprehensive guidance on all aspects of sterilisation and sterilisation processes.
**B 5.5.1 Purchase of a bench top steam steriliser**

Those involved in the purchase of equipment should refer to MDA DB 2002 (06) and must obtain the supplier’s assurance that the steriliser is suitable for the loads that the user intends to process, because some machines have limited function. For advice contact the Infection Control Team, an Authorised Person (sterilizers) (contact details available from PASA – www.pasa.nhs.uk) or Strategic Health Authority Decontamination Lead.

The processing of wrapped instruments and utensils, instruments with lumens and the processing of porous loads cannot be carried out in standard bench top steam sterilisers. Items such as these must be processed in a vacuum, or porous load, steriliser that the manufacturer has validated for this type of load.

**B 5.5.2 Installation and commissioning of a bench top steam steriliser**

After a steriliser has been installed, it must be checked and tested (commissioned) by a properly trained and qualified test person who may be employed by the manufacturer or a contractor. These checks and tests are intended to demonstrate that the steriliser functions correctly and complies with the specification. The test results must be recorded in the steriliser logbook. A steriliser that has not been commissioned, or fails any test during commissioning, or periodic testing, must not be used until the cause has been identified and corrected. It must then be fully re-tested and fulfil all test requirements satisfactorily before being used.

**B 5.5.3 Logbook**

Each steriliser must have its own logbook, which provides a permanent record of all testing, maintenance and repairs performed on the steriliser. It must contain a record of all actions taken in the event of a failed cycle or a failed test. The logbook may provide useful evidence in a case of litigation.

**B 5.5.4 Testing and Maintenance**

The owner/user is responsible for daily/weekly testing, which are designed to show that the operating cycle functions correctly. See Table 5. Record all observations in the logbook. An independent recording device can be fitted to some types of steriliser and will provide a permanent record that can be kept in the logbook. The observed values must be within the established time-temperature limits for the cycle. A more comprehensive description is given in MDA DB 2002 (06).

A Test Person (sterilisers) must conduct quarterly and annual testing. Owners of bench top steam sterilisers must ensure that the steriliser is subject to a planned and documented schedule of preventative maintenance. The manufacturers will also advise on these aspects. HTM 2010 Part 3 provides comprehensive information on all aspects of testing bench top steam sterilisers.
B 5.5.5 Indicators 32,42,49

Chemical and biological indicators play only a limited part in the validation and routine control of steam sterilisers. They are regarded as supplementary to the measurement of temperature, pressure and time. They may not demonstrate sterility of the load and may serve only to distinguish loads that have been sterilised from those that have not.

If chemical or biological indicators are used, they must be correctly selected and used for the process specified by the manufacturer. The same applies to the use of steam penetration test kits. Results must be recorded in the log book.
Table 5  Routine testing of bench top steam sterilisers

<table>
<thead>
<tr>
<th>Traditional Steriliser</th>
<th>Vacuum Steriliser</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Daily</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Automatic control test:</strong></td>
<td><strong>Automatic control test:</strong></td>
</tr>
<tr>
<td>- Operate normal cycle with chamber empty except for shelves etc.</td>
<td>- Operate normal cycle with chamber empty except for shelves etc.</td>
</tr>
<tr>
<td>- Record of temperatures, pressures, elapsed time at all significant ends of the operating cycle</td>
<td>- Record of temperatures, pressures, elapsed time at all significant ends of the operating cycle</td>
</tr>
<tr>
<td>- Check door cannot be opened during operation</td>
<td>- Check door cannot be opened during operation</td>
</tr>
<tr>
<td>Steam penetration test</td>
<td></td>
</tr>
<tr>
<td><strong>Weekly</strong></td>
<td></td>
</tr>
<tr>
<td>Examine door seals</td>
<td>Examine the door seal</td>
</tr>
<tr>
<td>Check the security and performance of the door safety devices</td>
<td>Check the security and performance of door safety devices</td>
</tr>
<tr>
<td>Check safety valves etc. are free to operate</td>
<td>Check safety valves etc. are free to operate</td>
</tr>
<tr>
<td>Air leakage test (automatic)</td>
<td></td>
</tr>
<tr>
<td>Automatic air detection system function test</td>
<td></td>
</tr>
<tr>
<td>Automatic control test</td>
<td></td>
</tr>
<tr>
<td>Steam penetration test</td>
<td></td>
</tr>
<tr>
<td><strong>Quarterly and annual tests by an engineer</strong></td>
<td></td>
</tr>
</tbody>
</table>

**B 5.5.6  Cleaning instruments prior to sterilisation**

Cleaning is an essential pre-requisite to effective sterilisation; the steriliser does not wash or clean equipment. Dirty instruments placed in the autoclave may not be sterilised as the contaminant may coagulate and form a barrier, which the steam cannot penetrate. Such instruments must be regarded as non-sterile and they must not be used until they have been cleaned thoroughly and re-sterilised. *(See B 5.2).*

A washer-disinfector is recommended for cleaning instruments. After cleaning, instruments must be stored dry.
B 5.5.7 Loading the steriliser

Sterilisation relies on the contact of steam with all surfaces of the load for a given period of time. Droplets of water may result in cool spots and corrosion, and incorrect loading may prevent steam penetrating throughout the load. Both will prevent sterilisation. Therefore:

- Instruments must be dry when loaded into the steriliser
- They must not touch each other
- Bowls and receivers should be placed on edge. This will enable steam to displace air upwards and downwards and prevent air becoming trapped
- Hinged instruments must be left open
- The machine and baskets must not be overloaded

B 5.5.8 Storage of sterilised instruments

Instruments sterilised in a bench top steam steriliser should be used as soon as possible after being autoclaved. They may be stored in a sterilised container while awaiting use. Some instruments need to be sterilised between uses to prevent cross infection, but can be used clean at point of use. Do not immerse instruments in a chemical disinfectant whilst awaiting use.

B 5.5.9 Use of sterilised instruments

After sterilisation the steam condenses and the instruments will be wet unless the steriliser has an effective drying stage. Once the door of the steriliser is opened the load will quickly become contaminated with airborne particles.

Devices that must be sterile when used e.g. for minor surgery and dentistry. Once sterilised these devices should be used immediately. If this is not possible the instruments may be separated into two cycles, or used within 3 hours of sterilisation. If they are not used immediately they should be dried in the steriliser using a post-sterilisation drying cycle and covered with a sterile towel/lid.

Devices that must be sterilised between uses, but clean when used (e.g. speculae for normal vaginal examination). Once sterilised the instruments may be stored in a clean, dry environment. Alternatively, devices once sterilised and dry can be placed in pouches (e.g. Steri-pouches) to protect them from contamination.

Sterile devices that are transported outside the clinic e.g. dental or podiatry instruments used for treatment in the home. Must be carried in a sterilised container or pouch to protect them from contamination. Ideally they should be in individualised sets for each treatment.

Pouches (e.g. Steri-pouches) must only be used in a vacuum steam steriliser. If pouches are used in a steriliser they must be thoroughly dry before opening the door of the steriliser, because micro-organisms can penetrate damp packaging.
B 5.5.10 Reservoir and chamber management

Poor management of the reservoir and chamber can result in contaminated steam being used. Full guidance is available in HTM 2031.

- Empty, clean and dry the reservoir and chamber when not in use
- Refill the reservoir (not topped-up) with sterile water for irrigation prior to use
- Clean the chamber with sterile water for irrigation before and after use and left dry.

B 5.5.11 Traceability and record keeping

It is important to have good quality record keeping systems in place to provide evidence that each steriliser functions correctly and achieves sterilising conditions. The logbook will provide a complete history of the steriliser. MDA DB2002 (06) gives full details of the records that need to be kept. Records of every cycle should be kept to demonstrate that the load has been effectively sterilised. If control indicator strips or automatic printouts are used they must also be recorded in the logbook.

Tracking and traceability systems that are suitable for the level of procedures being undertaken must be in place, e.g. for invasive procedures details of the specific cycles on washer-disinfector and sterilisers must be kept in patients’ notes.

B 5.5.12 Key points for sterilisation of instruments in the community

- Ensure that decontamination processes comply with the National Decontamination Strategy
- Arrange the workflow to keep dirty and sterilised instruments separated.
- Clean and dry instruments using a washer-disinfector prior to sterilising.
- Wear gloves, apron and eye protection (if required) when cleaning instruments.
- Transportable steam steriliser must be suitable for processing the intended loads.
- Users of sterilisers must be trained in their use and maintenance
- Sterilisers must be maintained and tested quarterly and annually by a qualified engineer.
- User must carry out and record the daily and weekly checks as per Table 5.
- Report any fault immediately to the engineer.
- Empty reservoirs at the end of the session/day
- Replenish reservoirs with sterile water for irrigation prior to next session.
- At the end of the session/day, rinse internal surfaces with sterile water for irrigation
- Load instruments into the steriliser so that they are not touching.
- Instruments must be sterilised for:
  - 3 minutes at 134° – 137° C
  - 10 minutes at 126° – 129° C
  - 15 minutes at 121° – 124° C
• Instruments that are **wrapped or in pouches** must only be sterilised in a vacuum steriliser.
• Instruments with **narrow lumens, or porous loads** must only be sterilised in vacuum steriliser.
• Do not soak instruments in disinfectants before or after sterilising.
• If a vacuum steriliser is not available send instruments with lumens and porous loads to CSSD or use disposables and process other instruments unwrapped
• Use instruments as soon as possible after being sterilised.
• Store instruments in a clean, dry, dust free place if they are to be used for clean non-sterile procedures.
• Retain records for at least 11 years

**B 5.6 Decontamination of Health Care Equipment Prior to Repair, Service or Investigation**\(^{50,51}\)

No equipment that has been contaminated with blood and other body fluids, or exposed to patients with a known infectious disease, should be sent to third parties without being correctly decontaminated first. If in doubt, contact the third party in advance. After decontamination and before dispatching the item it should be labelled with a declaration of its decontamination status that states the method of decontamination used, or reasons why this was not possible. (MHRA, 2003)\(^{50}\).

Some equipment cannot be effectively decontaminated without being dismantled by an engineer. In addition decontamination may sometimes remove evidence of a fault or hinder an investigation. In these situations the manufacturer, repair organisation or investigating body should be contacted for advice regarding packaging and transportation. A “Biohazard” label should be attached to the item, the certificate completed accordingly and staff advised on protective measures required.

**B 5.7 Home Loans Equipment**\(^{51}\)

Equipment that has been used in clinical care must be safe to handle before returning to the home loans store and the principles outlined above apply equally to equipment that is loaned for clinical or social care.

• Empty suction machines and rinse suction bottles with warm water and detergent, rinse and dry
• If soiled, clean other items with warm water and detergent and dry
• If items cannot be cleaned prior to collection/delivery inform the Home Loan Stores Manager so that precautions can be taken.
• When selecting beds, chairs etc for clients who have incontinence problems or leaking wounds select items with waterproof covering that is easily be cleaned
• Upholstered items that are superficially contaminated may be cleaned by wiping with detergent and water or by a steam clean.
• Upholstered items that have been grossly contaminated may need to be re-upholstered or destroyed
• Home loans staff involved in collecting used items should wear disposable gloves when handling potentially soiled items.
• Remove the gloves once item is loaded and clean hands using alcohol wipes/gel or soap and water.
B 5.8 Endoscopes 29,32,52

- Endoscopic procedures carry a significant risk of infection and it is therefore recommended that endoscopy be not undertaken in community settings without first carrying out a comprehensive risk assessment. To reduce the risk of infection to a minimum requires excellent decontamination facilities including cleaning, disinfection and/or sterilisation procedures.

- Should it be considered necessary to introduce a community endoscopy service reference must be made the MDA DB2002(05) Decontamination of Endoscopes 52 and advice sought from the relevant hospital and community infection control teams and managers of sterile services. Specific procedures must then be developed which are relevant to the location, the type of endoscopy to be undertaken and the risk of infection.

- Single-use devices are recommended wherever possible and any reusable items must be traceable in accordance with Health Service Circular HSC2000/032 34.

- Where disinfectants are used a COSHH assessment 29 must be undertaken and controls put in place to ensure that the patients, staff and visitors exposure to the chemical does not exceed the maximum exposure limit (MEL).

- Glutaraldehyde is not recommended in community settings. If it should never be used if other appropriate disinfectants are available. If its use is unavoidable a number of controls must be in place to limit exposure to fumes and contact with the chemical, to manage spillage and to monitor staff health.
### Table 6  Decontamination methods and frequencies

For specific advice refer to manufacturer’s recommendations

<table>
<thead>
<tr>
<th>Item</th>
<th>Method</th>
</tr>
</thead>
</table>
| **Auroscope ear pieces**  | If soiled, remove wax by cleaning with general-purpose detergent and warm water (<35°C), using a thin brush to clean inside. Then disinfect by:  
  a) Immersing in 70% alcohol for 10 minutes or  
  b) Pulling through the lumen a 70% alcohol impregnated swab or  
  c) Autoclave to sterilise  
  Brushes should be cleaned and dried or discarded |
<p>| <strong>Baby scales</strong>            | Protect from soiling with paper roll. Clean with detergent and water if soiled or Wipe with an alcohol impregnated cloth |
| <strong>Basins and taps</strong>        | Clean with detergent and water, or cream cleaner, rinse and leave to dry |
| <strong>Baths</strong>                 | As for basins and taps |
| <strong>Bath mats</strong>             | Remove from bath surface. Immerse in warm water and detergent and agitate well. After each use hang mat reverse side up to dry over the side of the bath. |
| <strong>Baths and showers</strong>      | Follow any specific manufacturer’s instructions to clean baths and showers. Spa pools, whirlpool baths, hot tubs etc require specific disinfecting procedures 143 |
| <strong>Bed frames</strong>            | Wash with warm water and detergent, dry |
| <strong>Bed cradles</strong>           | Wash with warm water and detergent, dry |
| <strong>Bedpan / commode liners</strong> | Disinfect bedpans/urinals using a washer-disinfector, OR Use disposables and discard in a macerator or as low-risk clinical waste, OR If re-usable wash with detergent and warm water, rinse with very hot water and dry using disposable paper towels. Disinfect with chlorine-releasing product or alcohol wipe. |
| <strong>Bins</strong>                  | Clean with detergent and water |
| <strong>Birthing pools</strong>        | Follow manufacturer’s advice on cleaning and maintenance. Avoid contamination of pool water if possible. Remove any debris after use. Rinse and clean pool after use using detergent and warm water. Disinfect all surfaces and outlets with a chlorine-releasing product. Discard disposable hoses. |
| <strong>Bowls</strong>                 | Clean with warm water and detergent. Rinse with hot water. Store dry, inverted, and above floor level. |
| <strong>Breast pumps</strong>          | Individualise. Follow manufacturer’s advice. Clean external surfaces of machine with detergent and warm water. |
| ** Buckets**              | Wash with hot water and detergent. Dry and store upside down. |
| ** Buckets for leg ulcers** | Line with plastic before use, then clean as above |
| ** Carpets**              | Vacuum daily. There should be a schedule for cleaning carpets at least six monthly. The type of floor covering should be chosen to enable it to be cleaned regularly. Spills of body substances should be removed using a disposable paper towel (wear gloves for this) and then cleaned with carpet shampoo |</p>
<table>
<thead>
<tr>
<th>Item</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catheter bags</td>
<td>Discard single use bags every morning</td>
</tr>
<tr>
<td>Single use</td>
<td>Drain re-usable bags daily; protect the cap. Change weekly or when soiled.</td>
</tr>
<tr>
<td>Drainable</td>
<td></td>
</tr>
<tr>
<td>Catheter stands</td>
<td>Individualise catheter stands. Clean with detergent and water</td>
</tr>
<tr>
<td>Catheter supports e.g. sporran, holsters, leg straps</td>
<td>Individualise. Follow manufacturer’s guidelines to keep socially clean. Launder if possible or clean with detergent and water.</td>
</tr>
<tr>
<td>Changing mats</td>
<td>Protect with paper roll. Clean with detergent and water or detergent wipes. If soiling is evident, or if there is an outbreak of diarrhoea and vomiting, then apply a chlorine releasing product (Precept, Sanichlor or bleach) after cleaning</td>
</tr>
<tr>
<td>Cloths/dusters</td>
<td>Use disposable if possible. If not disposable, then machine wash daily separately from clothing and store dry. Do not leave to soak</td>
</tr>
<tr>
<td>Commodes (and raised commode seats)</td>
<td>Clean all surfaces using warm water and detergent. If soiling is evident, or if there is an outbreak of diarrhoea and vomiting, then apply a chlorine releasing product (Precept, Sanichlor or bleach) after cleaning</td>
</tr>
<tr>
<td>Couch (e.g. treatment rooms)</td>
<td>Cover with paper roll to minimise contamination. Avoid linen, but if used, launder as per Table 7 Between linen clean with detergent and water or detergent impregnated wipe For blood and body fluid spills See B 4.5 If the mattress is contaminated it may need to be re-upholstered</td>
</tr>
<tr>
<td>Crockery and cutlery</td>
<td>Wash using a dishwasher on the hot setting. If washing by hand, use detergent and warm water and a disposable cloth. Change the water frequently and rinse with very hot water. Air-dry in racks, or use disposable paper towels. Tea towels should not be used for drying up.</td>
</tr>
<tr>
<td>Dish cloths</td>
<td>As for cloths/dusters</td>
</tr>
<tr>
<td>Door handles</td>
<td>Wash with warm soapy water. In outbreaks more frequent cleaning may be needed</td>
</tr>
<tr>
<td>Drains</td>
<td>Rinse regularly with detergent and water</td>
</tr>
<tr>
<td>Ear syringing water reservoir and tubing* (Propulse)</td>
<td>Fill the reservoir with 0.1% Sodium Dichloroisocyanurate (NaDCC), run for a few seconds then allow to stand for 10 minutes. Empty reservoir and rinse system with fresh water. Disinfect system with NaDCC 0.1% for 10 minutes. Flush with sterile water and leave dry.</td>
</tr>
<tr>
<td>Ear syringing jet tip applicator*</td>
<td>Remove from tubing and clean tips using detergent and warm water, to remove wax. Wash in hot soapy water and rinse under running water. Soak in 0.1% NaDCC for 10 minutes. Rinse and dry</td>
</tr>
<tr>
<td>Ear syringing Jobson Horne Probe*</td>
<td>Send to Sterile Supplies Department. OR Wash in a washer/disinfector then autoclave. Store dry</td>
</tr>
<tr>
<td>Ear syringing Nootes ear Tank*</td>
<td>As for Jobson Horne Probe. Tank must cool completely before next use.</td>
</tr>
<tr>
<td>Ear syringing speculum for otoscope*</td>
<td>As for Jobson Horne Probe</td>
</tr>
</tbody>
</table>

*Copyright Primary Care Ear Centre and Mirage Dental Products www.earcarecentre.com
<table>
<thead>
<tr>
<th>Item</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECG equipment</td>
<td>Clean with warm water and detergent, if non-immersible wipe with a soapy cloth rinsed almost dry. Store dry.</td>
</tr>
<tr>
<td>Electronic medical devices</td>
<td>Follow manufacturer’s instructions. In general switch off and wipe clean using a soapy cloth or alcohol wipe with a between uses</td>
</tr>
<tr>
<td>Examination couch</td>
<td>Flannels and towels must <strong>never</strong> be shared. If rooms are shared personal towels, etc. should be allocated to each client. Dry between uses. Launder on a hot wash. In communal areas such as toilets, disposable paper towels should be provided.</td>
</tr>
<tr>
<td>Family planning equipment</td>
<td><strong>The Department of health recommends that all items entering the vagina must be adequately decontaminated between uses. This can only be achieved by sterilisation using heat, not by using disinfectants or boiling water</strong> Use sterile, single use items where possible If re-usable, send to a Sterile Supplies Department OR if this is not possible: Clean with warm water and detergent then autoclave and store dry</td>
</tr>
<tr>
<td>Vaginal speculae</td>
<td></td>
</tr>
<tr>
<td>Trial size diaphragms</td>
<td></td>
</tr>
<tr>
<td>And intra-uterine fitting</td>
<td></td>
</tr>
<tr>
<td>devices</td>
<td></td>
</tr>
<tr>
<td>Floors</td>
<td>Ideally, all floors should be vacuumed, whether carpeted or not, to prevent dust being dispersed. Control dust on uncarpeted floors with an anti-static mop and clean with detergent and water when soiled or daily. Rinse and dry.</td>
</tr>
<tr>
<td>Furniture</td>
<td>Hard surfaces should be damp dusted with detergent and water. Disinfect if used by an infected patient Vacuum soft furnishings regularly If superficially soiled or during outbreaks steam clean If grossly soiled the item may need to be re-upholstered or thrown away</td>
</tr>
<tr>
<td>Glucose monitoring devices</td>
<td>Follow manufacturer’s instructions for cleaning between uses. Use disposable lancets, platforms and devices.</td>
</tr>
<tr>
<td>Growing skills toolkits</td>
<td>As for toys</td>
</tr>
<tr>
<td>Hair brushes and combs</td>
<td>Individualise. Wash in warm soapy water, rinse and dry.</td>
</tr>
<tr>
<td>Hair clippers and scissors</td>
<td>Individualise. Clean with detergent and water. If contaminated with blood immerse blades in 70% alcohol for 10 minutes after cleaning.</td>
</tr>
<tr>
<td>Hand (grab) rails</td>
<td>Wash with detergent and water when cleaning the bath or toilet</td>
</tr>
<tr>
<td>(e.g. toilet/bath)</td>
<td></td>
</tr>
<tr>
<td>Hoists (bath)</td>
<td>Follow manufacturer’s instructions to clean all surfaces including back and underneath of hoists after use.</td>
</tr>
<tr>
<td>Hoists (lifting) Slings</td>
<td>Individualise slings or use disposables, especially if a client has an infectious disease, Follow manufacturer’s guidelines. Launder if possible.</td>
</tr>
<tr>
<td>Injection trays</td>
<td>Wash with warm soapy water daily, wipe with 70% alcohol wipe between uses</td>
</tr>
<tr>
<td>Jugs (measurement of urine, hair washing etc)</td>
<td>Single use. If re-usable, disinfect in a washer-disinfector or clean as for urinals.</td>
</tr>
<tr>
<td>Item</td>
<td>Method</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Lancets, scalpels</td>
<td>Single use only</td>
</tr>
<tr>
<td>Laryngoscopes</td>
<td>Use single use blades. If re-usable send to sterile supplies department for sterilisation. Clean handle after use with warm water and detergent or alcohol wipe if visibly clean</td>
</tr>
<tr>
<td>Lavatory brushes</td>
<td>Rinse in flushing water and store dry</td>
</tr>
<tr>
<td>Lavatory seat and handle (including raised seats)</td>
<td>Clean all surfaces using warm water and detergent. If soiling is evident, or if there is an outbreak of diarrhoea and vomiting, then apply a chlorine releasing product (Precept, Sanichlor or bleach) after cleaning</td>
</tr>
<tr>
<td>Lavatory bowl</td>
<td>Using a toilet cleaner, clean bowl with a toilet brush. Keep toilet brushes clean and dry and in good repair</td>
</tr>
<tr>
<td>Madsen Echoscreen</td>
<td>Follow manufacturer’s guidance</td>
</tr>
<tr>
<td>White probe</td>
<td>Use cleaning wire to clean sound channels of the probe tip from the rear, wiping wire with alcohol before pulling it back through the sound channel</td>
</tr>
<tr>
<td>Black acoustic filter discs</td>
<td>Discard</td>
</tr>
<tr>
<td>Coloured silicon ear tips</td>
<td>Discard or clean as per manufacturer’s guidance</td>
</tr>
<tr>
<td>Probe housing</td>
<td>Wipe with alcohol</td>
</tr>
<tr>
<td>Cable and instrument</td>
<td>Clean with detergent and water or wipe with alcohol</td>
</tr>
<tr>
<td>Medicine pots</td>
<td>Wash in a dishwasher OR</td>
</tr>
<tr>
<td></td>
<td>Wash in warm water and detergent, rinse and dry</td>
</tr>
<tr>
<td>Mops (wet)</td>
<td>All mop heads should be detachable. Wash in hot soapy water. Rinse and wring out as much as possible. Invert mop to dry completely. If used in a clinical setting, launder daily. Otherwise launder weekly. Do not leave mop head soaking in water or disinfectant</td>
</tr>
<tr>
<td>Mops (dry)</td>
<td>Vacuum the head or discard after use</td>
</tr>
<tr>
<td>Nail brushes</td>
<td>Use single use brushes, sterile brushes prior to minor surgery</td>
</tr>
<tr>
<td>Nail files</td>
<td>Individualise where possible. Remove debris with warm soapy water. Soak in 70% alcohol for 10 minutes. Dry</td>
</tr>
<tr>
<td>Nail clippers /scissors</td>
<td>Individualise where possible. Remove debris with warm soapy water. Soak in 70% alcohol for 10 minutes. Dry. Use disposable clipper heads</td>
</tr>
<tr>
<td>Nebulisers</td>
<td>Some are single-use only, follow manufacturer’s instructions. There is potential risk of legionella transmission from residual water in chamber after washing. Follow manufacturer’s instructions re washing and replacing nebulisers. Use single patient use tubing. Discard all disposables.</td>
</tr>
<tr>
<td>Oxygen Masks</td>
<td>Each mask should only be used on one client and disposed of when no longer needed or when soiled. If attached to an oxygen point for emergency use, cover to prevent dust collection, and discarded once used.</td>
</tr>
<tr>
<td>Peak flow meters</td>
<td>Individualise where possible. If not single-patient use, consider using filters for each patient. Replace mouthpiece after use.</td>
</tr>
<tr>
<td>Item</td>
<td>Method</td>
</tr>
<tr>
<td>--------------------------</td>
<td>-------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Scissors (clinical)</td>
<td>For invasive procedures and wound care, use sterile disposable or reusable scissors. For clean procedures e.g. cutting bandages and tape, clean regularly with detergent and water or wipe with an alcohol-impregnated wipe.</td>
</tr>
<tr>
<td>Screens</td>
<td>Clean with warm water and detergent regularly or when soiled.</td>
</tr>
<tr>
<td>Shaving equipment</td>
<td>Shaving equipment, including wet or electric razors, and shaving brushes, must <strong>never</strong> be shared. Equipment should be marked with the client’s name in communal settings. Clean as per manufacturer’s instructions.</td>
</tr>
<tr>
<td>Showers</td>
<td>Clean with a bathroom cleanser or detergent and water. Descale head regularly. If shower is out of use for a few days run it on a hot setting for 5 minutes before next use to avoid legionella. Launder shower curtains when soiled or every 3 months, replace as necessary. Clean tiles regularly with a bathroom cleanser and anti-mould product as required.</td>
</tr>
<tr>
<td>Spa pools, whirlpool baths, hot tubs etc. (See baths and showers)</td>
<td></td>
</tr>
<tr>
<td>Sputum cups</td>
<td>Single use</td>
</tr>
<tr>
<td>Stethoscopes</td>
<td>Clean as necessary. If contaminated with body fluids clean then disinfect with an alcohol-impregnated wipe (e.g. Steret).</td>
</tr>
<tr>
<td>Suction bottles</td>
<td>Disposable suction liners are recommended. Re-usable bottles – wear protective clothing, empty contents into a slop-hopper or toilet. Disinfect bottle using a washer-disinfector OR rinse with cold water. Clean using warm water and detergent, rinse with hot water and store dry.</td>
</tr>
<tr>
<td>Suction catheters</td>
<td>Single-patient use</td>
</tr>
<tr>
<td>Suction machine</td>
<td>Clean the surface using a soapy cloth, wrung almost dry. Replace filters when wet and at appropriate intervals according to manufacturer’s instructions.</td>
</tr>
<tr>
<td>Suction tubing</td>
<td>Use single-patient tubing. Rinse with sterile water between uses. Replace daily.</td>
</tr>
<tr>
<td>Surgical, dental or podiatry instruments</td>
<td>Use disposables where possible. If re-usable, sterilise in a Sterile Supplies Department. OR Clean using a washer-disinfector, then autoclave. Store dry.</td>
</tr>
<tr>
<td>Tea towels</td>
<td>Use disposable paper where possible, or launder</td>
</tr>
<tr>
<td>Thermometers</td>
<td>Use disposables or disposable sheaths and discard after use. Before and after each use wipe with 70% alcohol impregnated swab and store dry.</td>
</tr>
<tr>
<td>Toilets (see lavatory)</td>
<td></td>
</tr>
<tr>
<td>Tooth mugs</td>
<td>Disposable or client’s own. Use dishwasher or clean with warm water and detergent, rinse with hot water and dry.</td>
</tr>
<tr>
<td>Toys</td>
<td>Individualise if possible. Launder soft toys and dry quickly. Clean hard surfaces with warm soapy water or a hard surface disinfectant. More frequent cleaning may be needed in presence of infection.</td>
</tr>
<tr>
<td>Item</td>
<td>Method</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Trolley/tray for dressings etc</td>
<td>Clean with detergent and warm water. Dry. Wipe top with 70% alcohol impregnated between patients</td>
</tr>
<tr>
<td>Urinals</td>
<td>Use disposables where possible Re-usable urinals – disinfect in a washer-disinfector. OR if not available: Wear protective clothing, empty contents into a slop-hopper or toilet. Rinse and clean using warm water and detergent or chlorine-releasing product. Rinse in hot water, and store inverted to dry thoroughly</td>
</tr>
<tr>
<td>Vacuum Cleaners</td>
<td>Filters prevent dust contamination, change as per manufacturer's instructions. Wipe attachment tools with hot water and detergent when soiled or weekly</td>
</tr>
<tr>
<td>Vases</td>
<td>Rinse and remove any debris. Wash in warm water and detergent, rinse and invert to dry thoroughly or use dishwasher</td>
</tr>
<tr>
<td>Vitalograph</td>
<td>Use non-return mouthpiece and discard after use. Use an approved filter</td>
</tr>
<tr>
<td>Walking frames</td>
<td>Clean with warm soapy water and dry</td>
</tr>
<tr>
<td>Walls</td>
<td>Remove splashes etc with warm water and detergent as necessary</td>
</tr>
<tr>
<td>Wash basins</td>
<td>Clean using a suitable cleanser or warm water and detergent. Rinse and allow to dry Remove scale periodically using a descaler</td>
</tr>
<tr>
<td>Wheelchairs</td>
<td>Clean with warm soapy water and dry</td>
</tr>
<tr>
<td>Weighing scales</td>
<td>Line with disposable paper roll and clean with detergent and warm water Wipe with 70% alcohol impregnated wipe</td>
</tr>
<tr>
<td>Work surfaces</td>
<td>Clean with hard surface cleaner or warm water and detergent. If contaminated with body fluid disinfect with chlorine or wipe with 70% alcohol after cleaning</td>
</tr>
</tbody>
</table>
### B 6.0 Laundry

#### Aim:
- The eradication or reduction in the number of organisms on linen/clothing
- Minimise the use of linen where no laundry service is available
- Protection of staff and prevention of cross infection

#### B 6.1 Handling used linen

Linen may be contaminated with bodily fluids and debris. Inspect the linen when removed. If fouled with body fluids, linen should always be removed using gloves and disposable aprons. Where solid matter is present, this must be removed using disposable paper and disposed of in either a WC or slop-hopper.

Foul/infected linen should not be handled any more than is absolutely necessary. Do not sluice by hand as this may spray micro-organisms onto surfaces, uniforms and skin. Soiled or fouled articles should be washed on the hottest cycle the fabric will allow. Those items that are not washable, should be dry cleaned or, if necessary, destroyed.

Bed linen should not be shaken and it must be removed with care, avoiding the creation of dust and dissemination of skin scales.

#### B 6.2 Colour-coding used linen

In clinical settings, a laundry service may be available and used and soiled linen should be placed into the appropriate colour laundry bag. If a laundry service is not available, use paper products where possible. In residential care settings it can be helpful to introduce a colour-coding system. Assess the condition of used linen and clothing to decide which category it falls into. See Table 7.

**Table 7 Segregation and laundering of used linen**

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Laundering requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Used linen and clothing</td>
<td>Linen that is used but not contaminated with urine, faeces, blood, vomit, sputum or any other bodily fluid or debris</td>
<td>• White laundry bag&lt;br&gt;• A sluice cycle is not required.&lt;br&gt;• Launder at 65°C for at least 10 minutes, or 70°C for 3 minutes&lt;br&gt;• Or as per care label</td>
</tr>
<tr>
<td>Foul or infected linen and clothing</td>
<td>Linen that is contaminated by bodily secretions or faeces, or from a person with a known infectious condition</td>
<td>• Remove solid waste&lt;br&gt;• Place in a red alginate bag using gloves and apron&lt;br&gt;• A sluice cycle may be needed&lt;br&gt;• Launder at 65°C for at least 10 minutes, or 70°C for 3 minutes</td>
</tr>
<tr>
<td>Heat sensitive fabrics</td>
<td>Linen that is soiled or fouled and cannot be washed at high temperatures</td>
<td>• If fouled, disposal may be necessary&lt;br&gt;• Dry cleaning may be possible for some items</td>
</tr>
</tbody>
</table>
B 6.3 Laundry practice in residential care settings and client's home

- Always wash hands after handling used linen
- Gloves must be available for handling fouled linen
- Staff who undertake laundering must receive training
- Laundry must not be sorted on the floor.
- Washing machines and driers should not be sited in kitchens. This may be unavoidable in client’s homes, so avoid doing laundry at the same time as the cooking and ensure hands are washed.
- Foul or infected laundry should be laundered after all the other routine laundry has been done, using the hottest wash available for that fabric.
- Used linen and fouled/infected linen should not be laundered together.
- The washing machine must not be over loaded to ensure that the machine functions adequately.
- Laundry baskets should be cleaned with detergent and water after containing soiled or fouled linen, or at least weekly.
- Kitchen items and mop heads must be washed separately.
- Use separate cleaning equipment for the laundry area.
- Disinfect washing machines weekly by running a hot programme without a load.
- Prevent contamination of clean linen

B 6.4 Laundry facilities in residential care settings

A separate laundry facility, which is used solely for that purpose is recommended for all residential care settings. However, it is recognised that this is not always available in the client’s own home.

In a clinical environment, a full written risk assessment must be performed of all laundering facilities. The person in charge should regularly review the risk assessment.

B 6.4.1 Wash hand basin

- Lever action mixer taps are recommended
- Liquid soap and paper towels must be available
- A foot-pedal operated bin for paper towels should be provided

If hand washing delicate materials or other personal items is undertaken, a designated sink or bowl, which is separate from the wash hand basin, must be used.

B 6.4.2 Washing Machines

An industrial washing machine with a sluice cycle is recommended. Machines must be regularly maintained and records retained
B 6.4.3 Drying facilities

Tumble driers are recommended.

B 6.4.4 Design of the laundry

- The floor, walls, splash-backs, draining boards etc of the laundry must be easily washed with no cracks visible in the surface. It is advisable that floors are non-slip.

- The design of the laundry must facilitate the creation of dirty and clean areas i.e. dirty linen can be bought into one area moved through the laundry as it is processed and come out as clean laundry without crossing over the route for used laundry.

- Any laundry bins should be fully washable and be well maintained.

B 6.5 During outbreaks in residential care settings

- Hand wash at appropriate times

- Use red alginate linen bags for fouled/infected linen to minimise contact. Alginate bags can be placed directly into a washing machine and will dissolve in contact with the water. Some residue may remain.

- If alginate bags are not available use red plastic bags. Empty the contents into the washing machine without handling and discard the bag.

- Minimise the number of people visiting the laundry

- Keep the laundry room and equipment especially clean

- Ensure contaminated linen is kept away from clean linen

B 6.6 Ozone washing machine (OTEX)

Otex Validated Ozone Disinfection is a new laundry system that injects and dissolves ozone into the wash water throughout the wash cycle. The manufacturers claim that the product kills micro-organisms even at low temperatures. The Health Protection Agency’s Rapid Review Panel undertook a review of the product and recommended that, at the time, the product was insufficiently validated and more research was needed into its efficacy.

http://www.hpa.org.uk/infections/topics_az/rapid_review/pdf/RRS95_otex.pdf
B 7.0 Disposal of waste

B 7.1 Responsibilities

The Environmental Protection Act 1990 applies to waste disposal. This legislation refers to the Duty of Care, which places a duty of care on all persons producing waste to safely manage the handling and disposal of the waste in the correct and proper manner. The following information will help meet the duty of care. Healthcare waste must be managed in accordance with current legislation and national guidelines.

Healthcare organisations should have a waste policy in place, which is owned by the senior managers and supported by training and audit. Under Section 16 of the Care Homes Regulations, care homes are also obliged to have suitable arrangements in place for the disposal of waste.

This guideline does not contain all the relevant information, so it is advisable for managers to refer to the original source documents in developing local policy and discuss local policy with their waste manager or Contractor. HTM 07-01: Safe Management of Healthcare Waste can be accessed at: http://www.dh.gov.uk/assetRoot/04/14/08/93/04140893.pdf

For further information refer to the Environment Agency or see: http://www.nhsestates.gov.uk/sustainable_development.index.asp.

B 7.2 Waste categories

The new national guideline introduces the terms “hazardous” and “non-hazardous” waste.

<table>
<thead>
<tr>
<th>Examples of Hazardous Waste:</th>
<th>Examples of Non-Hazardous Waste:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infectious waste</td>
<td>Offensive/hygiene waste</td>
</tr>
<tr>
<td>Medicines</td>
<td>Domestic waste</td>
</tr>
<tr>
<td>Amalgam</td>
<td>Food waste</td>
</tr>
<tr>
<td>Chemicals</td>
<td>Packaging</td>
</tr>
<tr>
<td>Batteries</td>
<td>Recyclates (paper, glass, aluminium)</td>
</tr>
</tbody>
</table>

Infectious waste has two categories for the purposes of transport legislation:

Category A: An infectious substance which is transported in a form that, when exposure to it occurs, is capable of causing permanent disability, life-threatening or fatal disease in humans or animals. Highly infectious waste includes waste arising from exotic infectious diseases and laboratory cultures;

Category B: An infectious substance which does not meet the criteria for inclusion in Category A. This constitutes most infectious waste produced in healthcare.

Offensive/hygiene waste: is non-infectious waste arising from healthcare, which does not require specialist treatment but may cause offence to those coming into contact with it; i.e. human hygiene waste, incontinence products, sanitary waste, nappies, plaster casts etc.

Medicinal waste has two categories:

1. Cytotoxic and cytostatic;
2. Medicines others than cytotoxic and cytostatic.
Staff must assess waste as it is produced to identify its infectious, chemical and medicinal properties and segregate appropriately for disposal. National guidelines produce useful flowcharts. See Table 8 and Appendix 8 for more details.

### Table 8  Segregation and disposal of clinical waste

<table>
<thead>
<tr>
<th>Type of waste</th>
<th>Examples</th>
<th>Container</th>
<th>Disposal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infectious waste (Category A)</td>
<td>Anatomical waste: placenta, tissues, organs etc, and laboratory waste. Waste from highly infectious diseases, e.g. Ebola virus</td>
<td>Yellow rigid lidded bin or bag</td>
<td>Hazardous waste incineration</td>
</tr>
<tr>
<td>Infectious waste (Category B)</td>
<td><strong>Assess for infection risk.</strong> <em>Infectious</em>: dressings, swabs, bandages, pads, suction liners, stoma bags, catheter bags, plastic disposable instruments (not sharp). <em>Non-infectious</em>: treat as offensive / hygiene waste</td>
<td>Orange lidded bin or bag</td>
<td>Licensed or permitted treatment facility or incineration</td>
</tr>
<tr>
<td>Clinical sharps</td>
<td>Not contaminated with medicinal products OR Fully discharged sharps contaminated with medicinal products (NOT cytotoxic or cytostatic medicines)</td>
<td>Orange lidded sharps container</td>
<td>Incineration or alternative treatment facility</td>
</tr>
<tr>
<td>Clinical Sharps</td>
<td>Partially or undischarged sharps (NOT cytotoxic or cytostatic medicines)</td>
<td>Yellow lidded, liquid-proof sharps container.</td>
<td>Hazardous waste incineration</td>
</tr>
<tr>
<td>Cytotoxic / cytostatic waste and sharps</td>
<td>All contaminated waste Soft waste: including gloves, swabs, packaging etc Sharp waste: needles, syringes, ampoules etc,</td>
<td>Yellow bag or lidded bin with purple stripe</td>
<td>Hazardous waste incineration</td>
</tr>
<tr>
<td>Offensive / hygiene waste</td>
<td>Non-infectious dressings, swabs, drains, incontinence pads, suction liners, stoma bags, catheter bags, plastic disposable instruments (not sharp).</td>
<td>Yellow sharps bin with purple stripe</td>
<td>Deep landfill</td>
</tr>
<tr>
<td>Medicines (Not cytotoxics or cytostatic)</td>
<td>Unused drugs and other pharmaceutical products. Never discard them into the drainage system. <em>Controlled drugs</em>: comply with local procedures</td>
<td>Yellow rigid lidded box for liquids or solids</td>
<td>Hazardous waste incineration</td>
</tr>
</tbody>
</table>
| Dental amalgam and Mercury | Amalgam and teeth containing amalgam fillings  
**NB** Avoid waste by purchasing non-mercury products | White rigid box with mercury suppressant | Recovery |
B 7.3 Storage of clinical waste

- Pedal bins must be available where clinical waste and contaminated household waste are generated.
- Bins must be lined with the appropriate colour liner.
- Remove clinical waste bags when they are three-quarters full or at the end of the day, as appropriate.
- Securely tie bags as per local arrangements using tape, clips or tying in a swan-neck before removing them from the bin
- Label clinical waste bags and sharps boxes with the address of where the waste was produced. This may be using labelled tape or clips, or simply by writing the address or Post Code in permanent marker pen onto the bag prior to use.
- Hold bags by the neck and do not throw them.
- Clinical waste should be stored in a designated waste collection point or wheeled bin away from residential and food preparation areas. Ideally in a lockable fixed or wheeled external bin awaiting collection.
- Bins provided for clinical waste must be kept in a secure locked location, that is well-lit, ventilated and marked with warning signs.
- Waste must be collected by a registered carrier at regular intervals e.g. weekly
- **Waste contractors are under no obligation to remove waste if it does not adhere to the duty of care, e.g. packaged and labelled correctly.**

B 7.4 Clinical waste and cytotoxic waste from patients' homes

Patients and informal carers (partner/spouse, relatives or friends) also need to understand waste disposal procedures, if there is any possibility that they might have to deal with any of the types of clinical waste mentioned here.

B 7.4.1 Infectious waste (dialysis, wounds, diarrhoea etc.)

Community healthcare workers must assess waste for hazardous properties, especially “infectious.” This is based on professional assessment, clinical signs and symptoms, prior knowledge of the patient. Wounds should be assessed as infectious if they have signs of infection or are being treated with antibiotics. Another examples are dialysis waste or infectious diarrhoea of patient’s receiving healthcare at home. Waste products must be disposed of using orange sacks/containers and waste collection arranged.

This collection may be via the local NHS Trust or Local Authority as per local arrangements.
B 7.4.2 Non-infectious waste (dressings, incontinence pads etc)

Where the waste products of healthcare are assessed as non-infectious; i.e. non-infectious wound dressings, incontinence pads etc, the waste should be discarded as “offensive/hygiene waste” in a yellow bag with black stripe.

Small volumes of those healthcare products which may also be used by householders; i.e. plasters, pads, small dressings, stoma bags etc may go into a black bag and discarded as household waste if the householder agrees. Primary wrappers must be opaque, clear or black and must not be yellow or orange as this indicates infectious waste.

B 7.4.3 Clinical sharps

Patients who use needles at home should be provided with a sharps container. Used syringes, insulin pens and ampoules should also be discarded in a sharps container.

Sharps containers are listed in Part 1XA of the Drug Tariff and are available on FP10. Follow local disposal procedures, e.g. return containers to the prescribing surgery for collection prior to incineration when full to the line indicated on the container. The practice (or PCT if it manages waste for the practice) will need to apply to the Environment Agency for registration of exemption of the Waste Management Licensing Regulations 1994 (as amended). Some Local Authorities are able to collect sharps containers from householders, but may levy a charge for this service.

Community healthcare workers giving injections in the home should use a UN approved sharps container that is labelled. When carrying the container, the aperture must be temporarily closed to prevent accidental spills. When it is in a vehicle, it must be kept out of sight and not left unattended. When three-quarters full the container must be locked and disposed of as per Table 8.

Patients who need to use needles and syringes on an out-patient basis, may be provided with a sharps container by the hospital and should return the container to the hospital for disposal.

B 7.4.4 Cytotoxic waste

Cytotoxic waste arising from home care must be placed into an appropriate yellow container with purple stripe. Community healthcare workers involved in the administration of cytotoxic drugs in the home should use the waste disposal arrangements of their Trust. If patients self-administer the cytotoxic drugs the container should be returned to the hospital or GP surgery as agreed.
B 7.5 Management of clinical sharps

Clinical sharps include needles, scalpels, stitch cutters, glass ampoules, pen injection devices, sharp instruments and broken glass. The safe handling and disposal of sharps is paramount in reducing the risk of exposure to blood-borne viruses and extreme care must always be taken when using and disposing of sharps.

- Avoid using sharps, including pen injecting devices when administrating medication to patients, wherever possible (e.g. use a needle-less system such as Vacutainer for venepuncture or Unistix for finger pricking)
- Clinical sharps should be single-use only
- The re-sheathing of used needles is hazardous and must be avoided where possible. If this is unavoidable, select an automatic re-sheathing needle or use a one-handed technique.
- The user of sharps must discard them directly into a sharps container
- Sharps containers must comply with UN3291 and BS7320: 1990
- Label sharps containers when assembling them
- When carrying a sharps container, or whenever the container is left unattended, use the temporary closure to prevent spillage or tampering
- Place sharps containers of a suitable size in each location where sharps are handled, on a level surface
- Secure containers using brackets attached to the wall or a trolley. Do not place them on the floor, window sills or above shoulder height,
- Assemble containers following manufacturer’s instructions
- Carry them by the handle, do not hold them close to the body
- Do not attempt to retrieve items from a sharps container
- Do not attempt to press down upon sharps to make more room
- Discard when three-quarters full or after 3 months. Lock the container using the closure mechanism
- Place damaged sharps containers inside a larger containers, lock and label prior to disposal
- If sharps are spilled from the container use a safe technique to retrieve them, e.g. a dustpan and brush, and carefully place inside the container
- Never use single-patient use devices for more than one patient
- **Never put a sharps container inside a clinical waste bag**

B 7.6 Household/domestic waste

- Pedal-operated bins are recommended, though open bins are adequate for paper towels.
- Any waste that is not covered under the clinical waste groupings is classed as household domestic waste, e.g. wastepaper, cans, bottles.
- This waste must be disposed of through the normal household waste stream i.e. black bin liners or dustbins collected by the Local Authority. Where possible, recycling or re-using options should be considered.
- Household waste and clinical waste must be kept separate at all times.
- Reducing waste can save money and help to improve the environment
- Ensure patients/clients or their informal carers are aware of the need to deal with clinical waste appropriately.
B 8.0  Single use medical devices

Packaging of medical devices will indicate whether an item is for single use or for single patient use.

Items labelled “single use only” (see symbol below) must be used only once. The manufacturer will not guarantee that any form of reprocessing, (which includes washing in soap and water) will not harm or change the safety of the device.

If the manufacturer advises that it can be used more than once, e.g. “single patient use”, the necessary information will be given on the packaging. It will include details of whether it is for re-use only on one patient, the correct method of cleaning between uses, and also, how long the item may be safely used for.

Ignoring the advice printed on the packaging and re-using an item (device) outside the guidelines given by the manufacturer has legal implications, which basically mean that if anything untoward happens as a result of re-use, any legal claim can be made against the user, and not the manufacturer.

Re-use and reprocessing of devices not intended for reuse may constitute committing an offence under The Health and Safety at Work Act 1974,3 Part One of the Consumer Protection Act 1987,58 The General Product Safety Regulations 199459 or The Medical Devices Regulations 199460.

If the manufacturer’s instructions on single use, or single patient use are ignored, the safety, performance and effectiveness of the device are compromised and you will be exposing patients/clients and staff to unnecessary risk.

Follow the instructions on the packaging and do not reuse.
B 9.0 Food Hygiene

B 9.1 Introduction

All foods are potentially hazardous if they are not handled correctly. Good food handling practices are essential to minimise the risk of food poisoning. This is especially important in residential care settings where food is being prepared and served to large numbers, and where consumers are at particular risk from food borne illnesses.

Managers and staff must be aware of legislation relevant to food. Hospitals and residential care settings should appoint or have access to a qualified catering manager. The main legislation is the Food Safety Act 1990 and its related regulations.

The local Environmental Health Department can advise about rules and regulations. Environmental Health Officers of the local authority in enforcing these regulations are entitled to inspect catering facilities in residential care homes.

A useful book to obtain for further information is ‘Industry Guide to Hygiene Practice: Catering Guide’.

Food poisoning can cause serious illness and even death particularly in the elderly. It is important that all people involved in preparing and serving food are aware of how to reduce the risk of food poisoning.

B 9.2 Training

People who handle or prepare food need an appropriate level of training in the principles of food handling depending upon whether they serve food, cook food or manage a kitchen. Training requirements are summarised in Table 9. Where clients cook food for themselves, staff must ensure that the individual is supported in applying the principles of food hygiene until independence is achieved.

Courses may be provided by local colleges and NHS Trusts, as well as the:

- Royal Institute of Public Health and Hygiene (RIPH)
- Royal Society of Health (RSH)
- Royal Environmental Health Institute of Scotland (REHIS)
- Society of Food Hygiene Technology (SOFHT)
- Chartered Institute of Environmental Health (CIEH).

Details of what may be included in Stage 1 and Stage 2 training are in Table 10.

Level 1 formal training. An example of this is undergoing a course such as a Basic Food Hygiene Course. This is typically a 6-hour course, which aims to develop a level of understanding of the basic principles of food hygiene.

Level 2 and 3 formal training. These courses deal with food hygiene in more detail and will cover management issues as well. Typically level 2 involves 12 to 24 hours of training and level 3 involves 24 to 40 hours.
<table>
<thead>
<tr>
<th>Stage 1</th>
<th>Stage 2</th>
<th>Stage 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>“The essentials of food hygiene”</td>
<td>Hygiene awareness instruction</td>
<td>Formal training Level 1</td>
</tr>
<tr>
<td>Ideally to be completed within this time scale</td>
<td>Before starting work for the first time</td>
<td>Within 4 weeks, or 8 weeks if part-time</td>
</tr>
<tr>
<td>Food handlers who handle low risk or wrapped food only</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Food handlers who prepare open, “high risk” foods</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Food handlers who also have a supervisory role</td>
<td>✔</td>
<td>✔</td>
</tr>
</tbody>
</table>
Table 10 Informal (work-based) training

**Stage 1 Essentials of Food Hygiene**

- Keep yourself clean and wear clean clothing
- Always wash your hands thoroughly: before handling food, after using the toilet, handling raw foods or waste, before starting work, after every break, after blowing your nose
- Tell your supervisor, before commencing work, of any skin, nose, throat, stomach or bowel trouble or infected wound. You are breaking the law if you do not.
- Ensure cuts and sores are covered with a waterproof, high visibility dressing such as a blue plaster
- Avoid unnecessary handling of food
- Do not smoke, eat or drink in a food room, and never cough or sneeze over food
- If you see something wrong - tell your supervisor
- Do not prepare food too far in advance of service
- Keep perishable food either refrigerated or piping hot
- Keep the preparation of raw and cooked food strictly separate
- When reheating food ensure it is piping hot
- Clean as you go. Keep all equipment and surfaces clean
- Follow any food safety instructions either on food packaging or from your supervisor

**Stage 2 Hygiene Awareness Training (appropriate to the job)**

- The business's policy - priority given to food hygiene
- "Germs" – potential to cause illness
- Personal health and hygiene – need for high standards, reporting illness, rules on smoking
- Cross contamination - causes, prevention
- Food storage – protection, temperature control
- Waste disposal, cleaning and disinfection – materials, methods and storage
- "Foreign body" contamination
- Awareness of pests

**B 9.3 Hazard analysis**

The Food Safety (General Food Hygiene) Regulations 1995⁶⁴ make a specific requirement of organisations to undertake a hazard analysis. This is a systematic examination of how food is prepared and how food safety hazards are controlled.

An Environmental Health Officer will periodically inspect kitchens in residential care settings. They will expect to see evidence of hazard analysis and any records that support it. They will also ask managers and the staff questions about the hazard analysis and how you implement it.
The main stages of undertaking a hazard analysis are as follows:

- Identify all the things in your food operation which might go wrong (hazards) and result in food poisoning or cause injury, (e.g. the presence of bacteria in raw meat, or foreign material such as glass or plastic in food);

- Decide the points in the food operation at which things can go wrong (e.g. places where cross-contamination between raw foods and ready-to-eat products may occur);

- Decide which of these points are critical to making sure food is safe, and therefore must be properly controlled (e.g. the cooking of raw meat or the use of sanitised equipment);

- Put in place procedures to stop things going wrong (controls), and make sure that you/your staff always carry them out (e.g. cooking meat for a set time and temperature which is known to kill all of the bacteria right through to the middle of the joint or ensuring that equipment has been cleaned and sanitized at proper and regular intervals);

- From time to time, you must examine your food business to see if anything has changed which might need your control measures to change (e.g. new menu dishes may have new hazards and need new controls, or new equipment may require different thermostat settings).

It is helpful to involve key staff in developing a hazard analysis and all staff need to know the part that they have to play in making it work.

**B 9.4 Record keeping**

Although in law you do not have to provide documents or record your policies, procedures and monitoring records, it would be difficult to show how you are meeting this requirement without records or documents. It would also be difficult, if charged with a Food Safety Act offence, to use the defence of Due Diligence to show that you have done everything possible to avoid committing an offence. It is important to provide details of procedures and retain monitoring records particularly at critical control points.

The recommended documents/ records that should be retained include:

- Hazard analysis summary
- Training records
- Food temperatures records (e.g. cooking, cold storage, hot holding temperatures)
- Refrigeration temperatures
- Cleaning schedules
- Delivery monitoring records
- Stock rotation records
- Pest control records
- Equipment maintenance schedule
B 9.5 Infectious diseases in staff\textsuperscript{9,10}

People are a common source of food poisoning organisms. Staff who are suffering from sickness, diarrhoea or heavy colds should not be allowed to work with food. Staff suffering from discharges from the ears, eyes, nose or those who have septic skin conditions should not be allowed to work with food either. See A 1.4.

Staff should notify their manager before they start their shift if they are suffering from such as condition. The manager must make sure the appropriate action is taken, such as excluding someone from work altogether or allocating them other non-food duties. They must be symptom-free for 48 hours before returning to work. If they are suffering from a known gastro-intestinal infection see C 31.0 for exclusion periods.

B 9.6 Hand hygiene\textsuperscript{22}

Refer to B 1.0 for more details. Hand washing should be carried out on entering a kitchen and frequently throughout the working day. It should always happen after handling foods or articles that are a source of food poisoning bacteria. Such things include raw meat, raw vegetables, rubbish bins, etc. Hands should also be washed after going to the toilet, taking a break, coughing or sneezing in to hands etc.

Good hand washing requires running warm water, soap (preferably liquid antibacterial) and a nailbrush if hands are particularly soiled. Nailbrushes should be single-use. Hand washing should take about 30 seconds and staff should pay attention to all parts of the hands, fingers and wrists. Hands should be dried using clean drying materials. The best materials are disposal paper towels.

Hand sanitisers can also be used to supplement hand washing. These contain alcohol and dry quickly on the hands. They can be used where hands are only lightly soiled.

B 9.7 Protective clothing

In large kitchens (e.g. hospitals and care homes) anybody entering the kitchen should wear suitable over-clothing, which may include a clean white coat and hat.

In smaller kitchens or the home setting, a clean plastic apron with sleeves rolled up under short-sleeved clothes is adequate. Staff who leave the kitchen to undertake other duties should remove their protective clothing before leaving the kitchen.

No jewellery, perfume or make-up should be worn whilst working with food. A plain wedding ring being the only exception.

B 9.8 High risk food\textsuperscript{63-66}

B 9.8.1 Raw eggs

Advice from the Department of Health on raw or lightly cooked eggs is that: -

"Everyone should avoid eating raw eggs or uncooked dishes made from them, and vulnerable groups such as the elderly, the sick, babies, toddlers and pregnant women, should make sure any eggs they eat are thoroughly cooked until the white and yolk are solid. However, for healthy people there
is very little risk from eating eggs which are cooked, whether boiled, fried, scrambled or poached."

- Once purchased, eggs should be stored in a refrigerator, below 8°C.
- Caterers should continue to increase their use of pasteurised egg, particularly for dishes that are not subject to further cooking prior to consumption.
- Food hygiene training programmes should pay particular attention to the correct handling of eggs, and food containing eggs, and the avoidance of cross contamination.

The Public Health Laboratory Service and Food Standards Agency have advised that:

- Eggs are kept away from other foods, while in shells or when cracked
- Don’t splash egg onto other foods, surfaces or dishes
- Wash and dry hands after touching, or working with, eggs
- Clean surfaces, dishes, utensils etc thoroughly using warm soapy water after contact with eggs

B 9.8.2  Pâté, soft-ripened cheeses and cook-chill foods

Listeriosis, a disease which has been associated with the consumption of these foods, may be mild or more severe, causing sepsis, meningitis, encephalitis or, if a pregnant woman becomes infected, can harm the developing baby. Elderly people, or those who have impaired immunity due to disease or treatment, are particularly vulnerable to infection.

Particular care needs to be taken in developing diets for vulnerable people; they should avoid soft-ripened cheeses and should re-heat cook-chill meals and ready-to-eat chicken until they are piping hot. During the late 1980s there was an outbreak of Listeriosis associated with pate, but the difficulties with production of this product now seem to have been satisfactorily addressed.

B 9.8.3  Unpasteurised milk

Only pasteurised milk and milk-based products, should be offered for consumption by clients. Care should be taken with the delivery site to ensure that milk containers (bottles or cartons) are protected and that birds or rodents cannot break the seal and allow contamination to occur. If pests have perforated the lid, the entire contents of the bottle must be discarded because milk is such a good material for germs to multiply in.

B 9.8.4  Under-cooked or raw foods

Research has shown that meat, which is undercooked and still pink after cooking, may cause infection. It is therefore important that all meat and poultry is thoroughly cooked until the juices run clear before being served. Piping hot meat is safest; this can only be checked using a probe thermometer, with a minimum 75°C being reached during cooking.

Cooked food kept at room temperature and then re-heated is often implicated in outbreaks of food-borne infection. Such practice is unsafe. Cold cooked meats that are sliced some time prior to consumption may also be associated
with gastro-intestinal infections if poorly handled and/or left at room temperature.

Shellfish, especially if eaten raw or undercooked, is recognised as being a high-risk food. If served to vulnerable clients, particular care should be taken to ensure proper preparation, cooking and handling of fresh, tinned and frozen shellfish.

Salads, fruits and uncooked vegetables are a good source of vitamins, minerals and fibre but they need careful preparation to ensure that the risk of contamination is reduced. Because of possible contamination with pesticides etc, where possible, fruit and vegetables should have the skin removed providing this does not mean excessive manual handling. Leafy vegetables such as lettuce, and fruit, should be washed thoroughly in running water. All fruit and vegetables should be purchased from a reputable supplier.

**B 9.9 Gifts of food**

In residential care settings, visitors should be made aware of the dangers posed by the high-risk foods discussed here, and they should inform the person in charge of any gifts of food brought in. Gifts of food to clients should be appropriately covered, then labelled with the name of the client and the date of the gift. Such gifts should be appropriately stored, e.g. refrigerated below 5°C if high risk, and consumed within 24 hours if possible.

**B 9.10 Storage of food**

Food must be stored at the correct temperature and in an appropriate place. Most food poisoning germs will grow at temperatures between 5°C and 65°C, and poor temperature control is an important cause of outbreaks of food poisoning. Storage needs to take account of this.

- The temperature of foods must be recorded using an accurate probe thermometer, which is disinfected before and after each use e.g. using probe disinfecting wipes or alcohol-impregnated wipes.

- For all foods there should be careful attention to stock rotation so that older stocks are used before new stocks. Food should be stored in the appropriate place as soon as possible after delivery or preparation.

- Dried food such as cereal must be stored in pest proof containers above floor level.

- Foods, which need to be kept cool, must be stored in a refrigerator. These foods should be kept at a temperature of 5°C or below. The refrigerator must have a thermometer and the temperature should be checked daily and recorded. If the refrigerator temperature is above 5°C this should be reported to the manager so that maintenance or repairs can be carried out promptly. Care has to be taken to avoid contamination of cooked foods with raw foods, especially raw meat and poultry. These should be stored separately.

- All food must be covered and labelled with the date before it is placed in the refrigerator. Drugs or specimens must not be stored in the food refrigerator.

- Frozen foods should be clearly labelled with the date before placing in the freezer. This is essential for efficient stock rotation.
• Hot foods must be kept hot at a temperature of 63°C or higher.
• Sandwiches should be prepared as close to the serving time as possible (ideally one hour before they are served). They should be stored covered in the refrigerator below 5°C before serving.

B 9.11 Food preparation

It is best practice, even in the home setting, to have separate areas and equipment for the preparation of cooked and uncooked meat and poultry, vegetables and salad. In the domestic setting be sure to explain what you are doing and why to the patient/client or informal carer. They may feel your precautions are unnecessary.

In hospitals and residential settings, equipment must be labelled or colour coded so that cooked food does not become accidentally contaminated with raw food. Germs on raw food (especially meat and poultry) may cause food poisoning if they get onto food that is going to be eaten without further cooking.

Some raw foods commonly contain food poisoning germs and they must be cooked properly before serving. Meat and poultry must be thoroughly defrosted before cooking to ensure that they reach the correct temperature throughout. Defrosting should take place in a fridge rather than at room temperature.

Raw shell eggs may contain salmonella, and they should not be used in dishes where they are not cooked, such as homemade mayonnaise and cheesecakes. Pasteurised egg should be used in these dishes, or alternatively use recipes, which do not contain uncooked egg. Soft boiling or poaching may not be adequate to kill all salmonella bacteria. The sick and elderly are particularly at risk from salmonella.

Once prepared, foods should be kept at the correct temperature. Items that require refrigeration should be placed in the refrigerator as soon as possible after preparation. Hot foods should not be left standing at room temperature. If they are not to be served immediately they should be stored in an oven or hot plate. Cooked items, which are going to be stored cold (e.g. some joints of meat) should be cooled as quickly as possible and then stored in a refrigerator. Slicing food and spreading it over a large surface area can hasten cooling.

B 9.12 General hygiene

Deposits of food encourage the growth of micro-organisms and will attract pests. Crockery, cutlery and other kitchen equipment should be cleaned using a dishwasher where possible, see B 5.0 and Table 6. Cracked or chipped crockery should be discarded. Food waste should be disposed of as soon as possible.

Kitchen cleaning must be carried out regularly to prevent a build-up of food deposits behind, beneath and inside kitchen equipment. Spills should be cleared up promptly. Thorough cleaning with a general purpose detergent and drying with a clean disposable cloth will be adequate for most surfaces. For food preparation surfaces a product that is a combined cleaner/disinfector is recommended.
B 10.0   **Pets**

Clients can enjoy contact with pets and have health benefits from this. However, there may be infection risks from pets especially if clients are particularly vulnerable due to reduced immunity, age, illness or therapy. Sensible precautions can reduce the risk to an acceptable level even in the home setting. However, in a client’s home you may be able to make only comparatively small changes, or concentrate on such hygiene measures as washing your hands and any work surfaces thoroughly.

- In communal settings, a designated person should be responsible for looking after the pet. There should be written cleaning schedules for birdcages and aquariums.
- Wash hands after contact with pets.
- Reptiles such as lizards, iguanas etc are very likely to be carriers of exotic strains of salmonella that can be a health risk to young children. Children under five should not have contact with such reptiles or the environment in which the reptiles live or exercise.
- After animal scratches or bites, clean the area thoroughly by washing with soap under a running tap. Record the injury in the accident book. Seek medical advice for bites, which break the skin and for any bites or scratches which do not heal quickly or which appear infected.
- If pets appear unwell seek veterinary advice. Ensure pets receive regular veterinary care, vaccinations etc, where appropriate.
- Pet feeding areas should be kept clean. Pets should have their own feeding dishes, which should be washed separately from dishes and utensils used by people.
- Keep pets out of the kitchen and away from all surfaces where food is prepared or consumed.
- Keep opened pet food containers away from food for human consumption
- Food not consumed within 20 minutes should be removed or covered to prevent attracting pests
- Bedding should also be cleaned regularly and insecticides used as necessary to control fleas; advice should be sought from the vet if problems occur.

B 10.1   **Litter box care**

- Pregnant women should avoid cleaning out the litter box
- Always wear gloves and a protective apron when cleaning the litter box.
- Always wash hands after cleaning the litter box.
- Fit a disposable liner to the box for easy cleaning.
- Use a leak-proof litter box
- Change the litter daily if soiled.
• Seal litter in a plastic bag and dispose of with household waste

• The litter box should not be sited near food preparation, storage or eating areas.

• Do not use the kitchen sink or hand washbasin for cleaning litter boxes. Wash well using water and detergent, then fill with boiling water and leave to stand for at least 5 minutes to kill toxoplasma eggs and other micro-organisms. Finally leave to dry or dry with a disposable cloth or paper towel.

• Certain animals are more likely to carry diseases that may spread to humans:
  o Stray animals
  o Sick animals/birds
  o Wild animals/birds
  o Animals with diarrhoea
  o Exotic animals
  o Cage birds
  o Tropical fish
  o Domestic pets who hunt and eat rodents or birds
  o Reptiles (iguanas, lizards etc) carry exotic salmonella species that may be harmful to children under five or other vulnerable adults

Good general hygiene and hand washing are essential for risk reduction. By ensuring that all the above advice is followed, the physical and psychological benefits of having pets should improve the quality of life of the clients.
B 11.0 Visits to farms, zoos and other animal centres by children

A number of infections can be acquired during visits to farms and similar centres. These infections can include *Escherichia coli* 0157, campylobacter, salmonella, cryptosporidiosis etc. They are usually acquired by contact with animals, their excreta or contaminated environment. Children under the age of five years, or those who cannot manage their own hygiene needs are particularly at risk.

A range of simple precautions can help to prevent infection. These include:

- Check the farm is well managed and that the grounds and public areas are as clean as possible. Note that manure, slurry and sick animals pose a particular risk of infection and animals must be prohibited from any picnic area.

- Check that the farm has washing facilities that are adequate and accessible for the age and size of the children, with running water, liquid soap and disposable paper towels or hot air dryers. Any drinking water taps should be provided away from animals and toilets.

- Do not allow children to eat or drink anything, including crisps, sweets, chewing gum etc, while touring the farm. They should also avoid putting their fingers, pens or crayons in their mouths because of the risk of infection.

- If children are in contact with, or help to feed, farm animals they must be warned not to kiss animals, put their faces against the animal or taste the animal feed.

- Everyone must wash and dry their hands after contact with animals and also before eating or drinking.

- Meal-breaks or snacks should be taken well away from areas where animals are kept, and pupils warned not to eat anything which may have fallen to the ground.

- Any fruit or vegetables produced on the farm should be thoroughly washed in drinking water before consumption.

- Children should not consume unpasteurised produce e.g. cheese or milk.

- Hands must be washed before departure.

- Ensure that footwear is as free from faecal matter as possible.

- Pregnant women should remember that there is a particular risk of transmission of infection during the lambing season.

Adapted from Dept of Health (1999) Guidance on infection control in schools and nurseries (poster).

Also visit the HSE website: [www.hse.gov.uk/pubns/ais23.pdf](http://www.hse.gov.uk/pubns/ais23.pdf)
B 12.0  Deaths of clients in the community

If the death occurred from a serious infectious condition that may have public health implications, the clinician should inform the Health Protection Unit at the earliest opportunity. Even anticipated deaths may give rise to enquiries, and it is easier for the Health Protection Team to deal with these if they have already received information.

B 12.1  Handling bodies\textsuperscript{11,72}

It is important to consider the cultural elements concerning death and preparation of bodies. Refer to any local policies or discuss this with the client, family or informal carers even before death of possible. Inappropriate handling may be greatly offensive.

Most bodies pose little risk of infection but sensible precautions will reduce the risks even further. Disposable gloves and apron should be worn when washing and preparing the body.

Clean dressings should be applied to any wounds or leakage sites and secured with tape or a loose bandage to prevent any further leakage from the site. The use of pins should be avoided since they present a potential hazard to others.

It is important to contact the undertaker as soon as the death has been certified, because the body needs to be moved to a cool environment as soon as possible. Decomposition occurs rapidly, particularly in hot weather or an overheated room, and may create a bacterial hazard and be unpleasant for those handling the body.

If it is anticipated that there may be a delay in certifying the death for some hours, it could be helpful to forewarn the undertaker so that plans can be made to collect the body later. Cool the room where the body lies, by turning off radiators and opening a window.

Dressings, drainage tubes etc should be removed before the body is transferred to the undertaker unless a Coroner's post-mortem is likely. Inform the undertaker if the body has a pacemaker fitted and if there is a known, or suspected, infection hazard.

In the event of a Coroner's post-mortem, any tubes must be plugged and covered with a dressing pad and secured to the body with tape or bandage.
B 12.2  Last Offices for infected people

Following the death of an individual with an infectious disease, the precautions carried out prior to death must be continued after death since the body may remain infectious. However, any cultural traditions must be respected, having been identified in the assessment on arrival.

- When laying out a body, wear disposable gloves and apron
- If the infectious disease presents a serious infection hazard to others (e.g. the diseases listed below) the body should be placed in a shroud (or own clothes) and then into a plastic body bag, which should be carefully secured.
  - Typhoid fever
  - Paratyphoid fever
  - Acquired Immune Deficiency Syndrome (AIDS)
  - Tuberculosis
  - Transmissible spongiform encephalopathies e.g. Creutzfeldt Jakob Disease

The identity labels and Notification of Death labels should be attached so that they can be read through the body bag. A “danger of infection” label and a Notification of Death label should be attached discreetly to the outside of the bag. No label should state the diagnosis, which is confidential information. The undertaker must be informed of the danger of infection, but without disclosure of the diagnosis. Once the body is in the body bag, those handling the bag no longer require the protective clothing.

Relatives and friends who wish to view the body should do so as soon as possible after death. A member of staff wearing gloves and an apron can open the bag.

It must be understood that there are provisions under the Public Health (Control of Disease) Act 1984 to prevent contact with the body of a person dying with a notifiable infectious disease. Relatives should be informed of any risk of infection, though in most cases the risk is small and no greater than when the deceased was alive.

The embalming of bodies infected with hepatitis B and C, HIV or CJD, is not recommended.
B 13.0  Sharps and inoculation injuries and bites

NB  Follow your organisation’s inoculation injury policy.

B 13.1  Risk assessment

B 13.1.1  Sharps include:

Needles, scalpel blades, stitch cutters, cannulae etc used in clinical care.

These may become contaminated with blood or high-risk body fluids during use and there is a risk of accidental injury if not handled correctly.

B 13.1.2  High-risk inoculation injuries include:

- Inoculation with an instrument such as a needle or scalpel blade, which has been contaminated with blood, or one of the "high-risk" body fluids listed below.
- Contamination of mucous membranes (eye or mouth) or breaks in the skin with blood, or another "high-risk" body fluid listed below.
- A human bite, if the skin is broken

B 13.1.3  High-risk body fluids include:

<table>
<thead>
<tr>
<th>Blood and blood products</th>
<th>Semen and vaginal secretions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peritoneal fluid</td>
<td>Pericardial fluid</td>
</tr>
<tr>
<td>Synovial fluid</td>
<td>Pleural fluid</td>
</tr>
<tr>
<td>Amniotic fluid</td>
<td>Breast milk</td>
</tr>
<tr>
<td>Unfixed (and donated) organs and tissues</td>
<td></td>
</tr>
</tbody>
</table>

In relation to blood-borne infections, urine, faeces, vomit, sweat, tears, skin, sputum are not considered to be high risk, unless they are bloodstained.

The risk of transmission of a blood-borne virus is associated with inoculation of an infectious dose of infected body fluid into a susceptible recipient. A simple injury, which does not break the skin, or does not involve the inoculation of body fluid, is unlikely to lead to the transmission of infection. The infecting dose may be as low as a visible drop of blood. However other individual factors may affect the risk of transmission.

Human bites very often become infected due to the large amount of bacteria present in saliva, therefore check the wound daily for any signs of bacterial infection and inform GP if present.
### B 13.2 Prevention of sharps / bites and inoculation injuries[^13][^135][^147]

<table>
<thead>
<tr>
<th>Action</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always use an approved British Standard sharps container</td>
<td>To prevent sharps being discarded inappropriately</td>
</tr>
<tr>
<td>Ensure it is correctly assembled and labelled with the name of home/centre etc.</td>
<td>Prevents the container becoming disassembled and spillage of contents. Labelling allows identification in the event of spillage.</td>
</tr>
<tr>
<td>Take it with you when dealing with sharps e.g. when giving an injection</td>
<td>To enable sharps to be disposed of directly after use.</td>
</tr>
<tr>
<td>Place sharps directly into sharps box</td>
<td>To reduce the chances of injuries whilst carrying sharps.</td>
</tr>
<tr>
<td>Never re-sheath needles If re-sheathing is unavoidable: Use an automatic re-sheathing needle or A single handed re-sheathing technique or A re-sheathing device</td>
<td>Reduces the possibility of injury.</td>
</tr>
<tr>
<td>Do not fill the container beyond line indicated before sealing and disposing of clinical waste</td>
<td>Reduces the possibility of the container bursting if dropped or of sharps protruding and therefore the possibility of injury</td>
</tr>
<tr>
<td>Cover all cuts and abrasions</td>
<td>Avoids contact with blood/body fluids</td>
</tr>
<tr>
<td>Wear gloves and/or eye protection when handling blood or if there is a risk of splash into the face</td>
<td>Reduces the possibility of contact with blood</td>
</tr>
<tr>
<td>Avoid situations where biting may occur</td>
<td>Avoids injury</td>
</tr>
<tr>
<td>If biting is likely wear long sleeves and gloves for contact or even arm guards and gauntlets in a high risk situation</td>
<td>Makes penetration more difficult</td>
</tr>
<tr>
<td>Consider using an insulin syringe and needle rather than a pen system if the client is unable to inject him/herself.</td>
<td>Avoids re-sheathing the device</td>
</tr>
</tbody>
</table>
B 13.3 Action to be taken following sharps injury, inoculation injury or a bite

- **Bleed it**
  - encourage bleeding

- **Wash it**
  - under running water

- **Cover it**
  - with a waterproof dressing

- **Report it**
  - To the senior member of staff on duty

- **Record it**
  - in the incident book

- **Inform**
  - Occupational Health, GP (or visit A&E) and client’s carer

- **Assess**
  - risk of hepatitis B & C or HIV

- **Obtain**
  - relevant blood samples from source and recipient with informed consent

- **Specialist will consider**
  - The need for post-exposure prophylaxis (PEP) or follow-up for Hepatitis B & C or HIV

- **Observe wound**
  - For signs of infection and inflammation

The injured person should visit A&E or contact Occupational Health or their GP as soon as possible. Blood may need to be taken from the injured party and the source, if known. Specimens should be sent to the laboratory with minimum delay.
B 13.4 Post-exposure Prophylaxis for healthcare and public sector workers

B 13.4.1 HIV

The Department of Health has issued guidelines on HIV Post-exposure Prophylaxis (PEP) for health care workers. Although HIV PEP is recommended for health care workers, the risk of transmission is very small and requires the inoculation of a significant volume of infected body fluid. The side effects of the treatment may also outweigh any potential benefit.

Following incidents where the source of the injury is thought to be high risk for HIV infection, the injured party should go immediately to Accident and Emergency to be assessed. The decision to administer PEP will be taken by the consultant on call for PEP e.g. the medical microbiologist, haematologist, virologist or occupational health physician at the local District General Hospital.

If recommended, a course of PEP must be started as soon as possible after the incident. Ideally this would be within one hour if there were a high risk of exposure to HIV. However, PEP may be commenced up to 2 weeks after the injury if circumstances change, for example if the source of the injury is subsequently found to be HIV positive. The PEP specialist should advise pregnant women, who may have been exposed to HIV, regarding the risks and benefits of HIV PEP.

B 13.4.2 Hepatitis B

If the source of the injury is a known, or suspected to be, hepatitis B positive, Occupational Health or the GP should consider giving hepatitis B vaccine and/or immunoglobulin to the recipient of the injury. This should be administered ideally within 48 hours of the injury, though it can be given up to 7 days after the incident if necessary.

B 13.4.3 Hepatitis C

Where possible an attempt should be made to assess the HCV status of the source. An initial blood sample should be taken from the injured person and sent to the laboratory to be stored. If the source is found to be positive, the injured party should also be investigated for subsequent sero-conversion and appropriate referral made as per Part F, Appendix One. There is currently no vaccine available for hepatitis C.

Following an incident a review of the event should be undertaken in order to identify if the injury could be avoided in future.

B 13.5 Post exposure prophylaxis for the general public

Members of the public may be accidentally exposed to blood via inoculation or contamination of the eye, mouth or fresh cuts, or as a result of rape, condom breakage or sharing drug-injecting equipment. As a first aid measure contaminated skin should be washed with soap and water, or mucous membrane flushed with fresh water or saline and medical advice sought. The medical practitioner should carry out an individual risk assessment of the circumstances of exposure.
B 13.5.1 HIV

The risk of transmission of HIV as a result of incidents in the community is small. It is also unlikely that Post Exposure Prophylaxis for HIV could be administered within 1 hour of exposure. Therefore for a number of reasons PEP may not be appropriate for members of the general public. If the doctor considers the individual to be at high risk of HIV infection they should seek urgent advice from a physician experienced in the treatment of HIV and the use of PEP.

B 13.5.2 Hepatitis B

Blood-exposures if possible an attempt should be made to assess the HBV status of the source. Following a risk assessment, it may be decided to immunise the injured party using an accelerated course of hepatitis B vaccine, if they are not already immunised (see Part F, Appendix One).

Sexual partners of someone who has developed acute hepatitis B infection should be offered post exposure prophylaxis as per Part F, Appendix One.

Babies born to mothers who are hepatitis B carriers, or who had acute hepatitis B infection during pregnancy:

- **Mother HBsAg positive** Baby should receive an accelerated course of hepatitis B vaccine
- **Mother HBeAg positive, or where e-marker is undetermined.** Baby should receive hepatitis B immuno-globulin and start a course of vaccine, given at a contra-lateral site at the same time.

B 13.5.3 Hepatitis C

If possible an attempt should be made to assess the HCV status of the source. If positive, the injured party should also be investigated for subsequent sero-conversion and appropriate referral made as per Part F Appendix One. There is currently no vaccine available for hepatitis C.
PART C

INFECTIOUS DISEASES
C 1.0 Notifiable diseases\textsuperscript{73}

Under the Public Health (Control of Diseases) Act 1984\textsuperscript{73}, some diseases must be notified to the Local Authority, see B 12.2. It is the responsibility of the doctor who diagnoses the disease to notify it, not the staff at the home. For some of these diseases, such as tuberculosis or food poisoning, there may be further control measures to be taken. The Health Protection Unit can offer advice on any special arrangements.

C 2.0 Specimen collection

Microbiological samples are usually only required if the client develops signs of infection. These signs vary depending upon the nature of the infection, but include:

- **Wound infection**: cellulitis, pain, redness, pus, fever
- **Chest infection**: fever, cough, sputum that may contain pus or blood
- **Urinary infection**: fever, pain on passing urine, blood or pus in urine, offensive odour, malaise
- **Eye infection**: redness, pain on moving the eyelid, discharge
- **Enteric (gut) infection**: diarrhoea, vomiting, abdominal pain, fever, dehydration, blood or mucous in faeces

Samples must be as fresh as possible and sent to the laboratory in the correct container, together with a completed laboratory request form. Relevant information to be provided on this form includes:

- Details of the client
- Details of sample sent
- Nature of the signs and symptoms
- Duration of illness
- Recent antibiotic therapy or travel
- Whether the case is part of a cluster or outbreak of similar cases

For further details on specimen collection, contact the local laboratory, Community Nurse, GP or refer to laboratory guidelines where these exist.

Clinical specimens include any substance, solid or liquid, removed from the patient for the purpose of analysis. It is important that staff are trained to handle specimens safely and have appropriate immunisation cover which is regularly updated.

Samples must arrive at the laboratory in good condition and in sufficient volume to allow the relevant tests to be carried out. Refer to your local laboratory protocols for further details.

Specimens must be placed in an approved container immediately after collection and stored in a cool place. Some samples may require refrigeration. Do not contaminate the outside of the container. **Specimens must be stored away from food, drink and drugs to prevent cross contamination.**

The patient’s details must be entered on both the container and the request form, the container placed in a plastic transport bag and the accompanying request form put into a separate pouch provided. Where the sample is known or suspected to be high risk a "biohazard" notice must be attached to both the specimen and the request form.
The specimen transport carrier used for carrying specimens to the hospital pathology laboratories must be secure and conform to guidelines set out in the Health and Safety at Work Act (1974). Other regulations that apply are the Carriage of Dangerous Goods (Classification, Packaging and Labelling) and the use of Transportable Pressure Receptacles Regulations 1996.

Clinical material that may be infected may be sent by post provided that the conditions of the Post Office are met. Infectious substances sent by the post must be contained in packaging, which complies with the UN 3373 transport legislation and has passed all of the test and construction requirements of the packaging instruction 602 for Class 6.2 infectious substances. Arrangements for sending diagnostic samples in the post should be made in advance.

Further details can be obtained by:

- Contacting the nearest Post Office
- Visiting the Royal Mail website www.royalmail.com and search for Safebox,
- Ringing 08457 950 950.
C 3.0 Surveillance of infection

C 3.1 Surveillance in NHS Trusts

NHS Trusts should have systems for the surveillance of infections in place. Surveillance may be “passive” resulting from notifications of infection or infectious disease. This includes the notification of infections that give cause for concern, such as diarrhoea and vomiting. This is known as alert condition surveillance. Passive surveillance also includes reports of microbiological isolates of organisms, such as MRSA. This is known as alert organism surveillance. Alternatively, surveillance may be “active” and targeted towards the identification of particular infection within a specific group of patients (e.g. surgical site infection, bacteraemias etc).

The surveillance programme should be agreed between the trust and the infection control team and results published in the annual infection control report. Feedback of the results to the relevant clinical groups together with analysis of the findings can be very helpful in identifying mechanisms for the reduction of infection through improved practices.

Certain micro-organisms must now be reported routinely by the laboratory, these include MRSA and glycopeptide-resistant enterococcal bacteraemias, Clostridium difficile and also surgical site infections associated with orthopaedic surgery.

C 3.2 Surveillance in other community settings

A logbook should be kept to record the following information on clients with suspected and confirmed infections.

- Name, date of birth and sex of client
- Name of clinician
- Date of onset of symptoms
- Type of symptoms
- Details of samples sent to laboratory and results, if known
- Diagnosis
- Source of infection if known
- Outcome
- Whether the case was reported to the Health Protection Unit and date of notification/reporting
- Similar information should be kept for infected staff.

Doctors (usually the GP) attending patients with certain infectious diseases, whether confirmed or suspected, are obliged to notify the Health Protection Unit using a standard form available from the Health Protection Unit. (See Table 11) In residential settings the person in charge should also report such cases as soon as they occur to the Health Protection Unit. Cases of other infectious diseases, which are not statutorily notifiable, (e.g. scabies and influenza) should also be reported when an outbreak is suspected.

Prompt notification and reporting of cases of infectious disease is essential for the monitoring of infection and assists with investigation and control.
### Table 11

Under the Public Health (Control of Disease) Act 1984 and the Public Health (Infectious Disease) Regulations 1988, certain diseases are notifiable to the proper officer of the Local Authority, usually the CCDC at the Health Protection Unit.

<table>
<thead>
<tr>
<th>Disease</th>
<th>Disease</th>
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<tbody>
<tr>
<td>Acute encephalitis</td>
<td>Plague</td>
</tr>
<tr>
<td>Acute poliomyelitis</td>
<td>Rabies</td>
</tr>
<tr>
<td>Cholera</td>
<td>Relapsing fever</td>
</tr>
<tr>
<td>Diphtheria</td>
<td>Rubella</td>
</tr>
<tr>
<td>Dysentery (amoebic or bacillary)</td>
<td>Scarlet fever</td>
</tr>
<tr>
<td>Food poisoning</td>
<td>Smallpox</td>
</tr>
<tr>
<td>Leprosy</td>
<td>Tetanus</td>
</tr>
<tr>
<td>Leptospirosis</td>
<td>Tuberculosis</td>
</tr>
<tr>
<td>Malaria</td>
<td>Typhoid fever</td>
</tr>
<tr>
<td>Meningitis</td>
<td>Typhus</td>
</tr>
<tr>
<td>Meningococcal septicaemia (without meningitis)</td>
<td>Viral haemorrhagic fevers (Lassa fever and Marburg Disease)</td>
</tr>
<tr>
<td>Mumps</td>
<td>Viral hepatitis</td>
</tr>
<tr>
<td>Ophthalmia neonatorum</td>
<td>Whooping cough</td>
</tr>
<tr>
<td>Paratyphoid fever</td>
<td>Yellow fever</td>
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</tbody>
</table>

Environmental Health Officers (EHOs) routinely investigate cases of certain infectious diseases, particularly cases of suspected or confirmed food poisoning. Managers of residential care homes should co-operate fully with EHOs undertaking such investigations. Statutory powers are available to enforce co-operation if necessary, though they are rarely used.

### C 4.0 Outbreak Control in residential settings

From time to time clients or staff may become ill with infectious diseases. Some of these diseases are highly infectious, especially in communal settings, and extra care may need to be taken to prevent spread to other clients and staff.

#### C 4.1 General control measures

Different infectious diseases are spread in different ways. By using the standard infection control precautions outlined in Part B, the risk of transmission of infection from body substances (such as blood, faeces, urine) is very much reduced. It is the responsibility of the person in charge of the home to ensure that all staff are aware of control of infection guidelines, and that they are followed as a matter of routine.

#### C 4.2 Suspected gastro-enteritis or food poisoning

If it is suspected that there may be an outbreak of gastro-enteritis or food poisoning in a care home, the person in charge must inform the Environmental Health Department, the manager of the home, and the local Health Protection Unit and under Section 37 of the Care Homes Regulations 2001, inform the local branch of the Commission for Social Care Inspection.
Any of the following should be reported as a suspected outbreak of food poisoning:

- Any client diagnosed as having salmonella, campylobacter or other food-related infection
- Diarrhoea and/or vomiting in two or more clients/staff
- Vomiting in two or more clients/staff
- Any client diagnosed by a doctor as having food poisoning

It is much better to be cautious, and to report early, rather than to wait until there is a major problem. Use the Outbreak Chart provided in Part F, Appendix Two.

C 4.3 Stopping admissions, discharges or day care

In the event of an outbreak of gastro-enteritis or food poisoning it is advisable to stop admissions, day care and transfers to other homes or hospitals. The Health Protection Unit will also advise on criteria for restarting admissions and discharges.

C 4.4 Further advice

Further advice about any infectious disease can be obtained from the Health Protection Unit, during normal office hours.

On-call Public Health Specialists may be contacted for emergency infectious disease matters out of normal working hours. See A 1.1 for contact details.

The Health Protection Agency website provides up to date information about a wide range of infections and diseases. Visit http://www.hpa.or.uk.

In addition, the local authority Environmental Health Teams may have a range of information leaflets available on food-related illnesses.
C 5.0 Chickenpox/Shingles (varicella-zoster virus)\textsuperscript{20,74,134}

Chickenpox is an acute, generalised viral infection, commonly affecting children. The rash tends to affect central areas of the body, e.g. the trunk more than the limbs, also the scalp, mucous membrane of the mouth and upper respiratory tract and eye may be affected. It is infectious from about 2 days before, to 5 days after, the rash appears.

Shingles occurs only in people who have previously had chickenpox infection. Following chickenpox, the virus remains dormant in the body, usually in a sensory nerve root. In later months or years the virus reactivates and causes a shingles rash at the skin site supplied by the nerve. Therefore anyone with shingles must have had chicken pox in the past, even if they don't remember it.

Shingles causes a rash of tiny blisters, usually affecting a clearly defined area of the body. After a few days, the blisters crust over and form scabs. The rash is not itchy, but it can be very painful. The pain may start a day or so before the rash appears. It is infectious for about a week after the blisters appear.

How are they spread?

Chickenpox is spread by contact with infected respiratory droplets or fluid from the blisters. It is very infectious to people who have not have chickenpox before.

Shingles cannot be spread from person to person. However, the blister fluid contains the varicella virus. Therefore people who have never had chicken pox should avoid contact with cases of both chickenpox and shingles.

Is anyone at extra risk?

Certain individuals have additional risks if infected, including the immuno-compromised (e.g. those receiving steroids or cytotoxic drugs), non-immune pregnant women and neonates. If they have contact with a case during the infectious phase they may need immunoglobulin. Discuss the situation with occupational health, microbiologist or GP.

Non-immune members of staff should be immunised against varicella. Non-immune staff who have direct contact with high-risk groups and are exposed to the virus, should be redeployed to a lower-risk environment from the 8\textsuperscript{th} to 21\textsuperscript{st} day (28 days, if immunoglobulin has been given) after initial contact with a case during the infectious phase.

The risk to the foetus/neonate depends when the mother is infected:

- 1\textsuperscript{st} 20 weeks pregnancy, 1-2% foetuses will develop congenital varicella syndrome with high mortality
- 2\textsuperscript{nd}-3\textsuperscript{rd} trimester, baby may develop mild shingles in first 2 years of life
- One week before to a week after delivery, baby may develop severe chickenpox which may prove fatal

How is spread avoided?

- People with chickenpox should stay off school or work for 5 days from the onset of the rash
- People who are not immune to chickenpox should avoid contact with cases
- In care homes, keep clients with chickenpox/shingles in their room for 5 days after the onset of the rash
- Wear gloves if applying lotion to the rash
- In residential care settings treat laundry as infected
- Seek medical advice if the rash involves the eye
C 6.0 *Clostridium difficile*⁷⁴,⁷⁵

*Clostridium difficile* normally lives in small numbers in the human bowel, especially in the older people and babies, causing no harm. When taking certain antibiotics, the *Clostridium difficile* microbes may multiply and produce toxins. The toxins cause the bowel to become inflamed and for diarrhoea to develop. Symptoms range from mild diarrhoea to severe life threatening pseudo-membranous colitis or peritonitis. An emerging strain (O27) is increasingly associated with outbreaks of severe infection. Infection can be prevented by avoiding the unnecessary use of broad-spectrum antibiotics e.g. cephalosporins.

**Method of spread of Clostridium difficile**

Spread sometimes occurs in hospital wards, or care homes, where other older people live or are cared for. Older people are most at risk if they are also taking antibiotics.

When a person is infected with *Clostridium difficile*, they pass the micro-organisms in their faeces or diarrhoea. A susceptible person (elderly, taking antibiotics) can pick up the infection if they come into contact with the infected faeces or contaminated surfaces and transfer the bacteria to their mouth.

**Prevention of spread of Clostridium difficile**

- People with diarrhoea must wash their hands carefully after using the toilet
- Clothing soiled with diarrhoea should be washed separately on a hot wash
- Equipment contaminated with diarrhoea, should be cleaned immediately using a chlorine-releasing agent.
- Staff and others who have to handle diarrhoea, bedpans etc. should wear disposable gloves and wash their hands with soap and water.
- In residential care settings, a separate toilet or commode should be used if possible. If this is not possible ensure the toilet/commode is cleaned and disinfected with a chlorine-releasing agent after use
- Visitors and staff should wash their hands with soap and water before leaving the room
- Patients with *C. difficile* infection in hospital may be transferred, e.g. to a care home, once the diarrhoea has stopped for 48 hours.

**Treatment of Clostridium difficile infection**

Treatment is not always necessary and if the infection improves, no further samples of faeces are required. If symptoms continue it may be necessary to take a course of metronidazole or vancomycin and avoid dehydration.

If symptoms are severe or clusters of cases are noted, inform your local infection control or health protection team who may request further laboratory testing of the faeces to exclude the O27 strain.
C 7.0 Cold sores

A cold sore is a cluster of tiny blisters caused by a virus called herpes simplex, which usually occurs around the edges of the mouth. These dry up to form a scab, and the cold sore is usually better within 10 days. Unfortunately once infected with the virus it remains for life, and can cause further cold sores from time to time.

Method of spread

The virus can pass from one person to another by direct contact. But in most adults their own herpes virus, which has never left them, causes repeated cold sores.

Prevention of spread

People e.g. carers, who touch cold sores can get an infection around the fingernail (herpetic whitlow). Therefore wear gloves when touching a client’s cold sore.

Carers with cold sores should ensure that they wash their hands thoroughly before giving care.

Treatment of cold sores

In the vast majority of people a cold sore will recover completely on its own with no treatment. In people who have very poor immunity or who have severe eczema, the cold sore may spread and cause a severe infection. Seek medical advice if the infection does not heal within ten days, begins to spread or looks like it is becoming infected. Antiviral medications such as acyclovir can be effective if given at the time of onset.
C 8.0 Creutzfeldt-Jakob Disease (CJD)

CJD is rare and fatal degenerative brain disease. It is thought to be caused by infectious proteins known as prions, which are very resistant to conventional disinfection and sterilisation techniques. It has a long incubation period, up to 25 years, and causes sponge-like gaps to appear in the brain tissue. CJD cannot spread by normal contact. There are 4 types of CJD:

**Variant CJD (vCJD)** generally affects younger people and early symptoms include personality changes and psychological symptoms. It has been associated with exposure to the prion agent responsible for Bovine Spongiform Encephalopathy (BSE)

**Sporadic CJD** is currently the commonest form of CJD occurring randomly in the community and affecting about 50 people per year. It usually affects people over 45 years of age.

**Familial CJD** is responsible for about 15% of cases and is inherited. It is caused by mutation in the prion protein gene.

**Iatrogenic CJD** is acquired during medical treatments, particularly in the 1970s, such as grafts of human dura mater and corneas, administration of human pituitary derived growth hormone and the use of contaminated instruments during surgery. Dentists and doctors should assess all patients for the risk of CJD prior to any invasive procedure.

The long pre-clinical phase is followed by clinical features, which vary depending upon the type of CJD. The symptoms are progressive and there may be rapid deterioration. CJD can attract a great deal of media interest, so patient confidentiality is essential. Symptoms commonly include:

- Personality changes and loss of intellect and memory
- Sensory and motor neurological deficits
- Myclonic jerks, chorea, or dystonia
- Difficulty speaking, swallowing, moving and incontinence
- Coma and death

**Infection Control Precautions**

In the community there is little risk of the spread of CJD.

- Use standard infection control precautions, e.g. the use of protective clothing, washing of contaminated clothes and linen, care with sharps and waste.
- Provide relatives with protective clothing for handling body fluids and information about the importance of hand hygiene and infection control.
- Use single-use, disposable items. This is especially important during procedures involving the nervous system, such as lumbar puncture, and certain dental procedures (See D 7.4.4)
- If the patient is pregnant, no additional precautions are needed, other than care with the disposal of the products of conception and contaminated equipment.
- After death, place the body in a body bag labelled with a “danger of infection” sticker. The undertaker should not embalm the body, but may carry out cosmetic work as usual. Relatives and friends may view the body and touch it as normal. There are no restrictions on burial or cremation.
- Liaise with the Health Protection Unit for more information and support. The HPU will contact the CJD Incidents Panel re any previous high risk procedures
- Refer to Department of Health guidance for further information
Cryptosporidiosis is a self-limiting diarrhoeal illness caused by the protozoa *Cryptosporidium parvum*. The organism resides in the guts of animals such as cattle, sheep, goats, pigs, dogs, cats, rodents as well as humans. Infection tends to be seasonal occurring in the spring and late autumn.

Outbreaks of cryptosporidium occur in families, nurseries and other communal settings. If the organism contaminates water sources, outbreaks can affect whole communities. The infection is a particular problem for the immuno-compromised because there is no available treatment. People with HIV who become infected with cryptosporidium often have prolonged illness, which can prove fatal.

The infection presents with diarrhoeal illness that in a normally healthy person can last up to 4 weeks. There may also be loss of appetite, nausea, cramping abdominal pain, headache, muscle pains, fever and vomiting. The symptoms may wax and wane some individuals will be symptom-free.

How is the infection spread?

For infection to develop oocysts (eggs) must enter the body via the mouth. This can occur by:

**Person to person** spread within families, nurseries and other communal settings via faecal-oral route or contact with contaminated environment and articles such as nappies.

**Animal to person** spread after contact with farm animals and pets. Handling calves and lambs can be a particular source of infection

**Drinking water** that has been contaminated with agricultural slurry or human sewerage. The oocysts can persist in the environment for months and are resistant to chlorination used in treating drinking water. Water companies use physical methods to remove the oocysts such as filtration.

**Contact** via other contaminated sources such as milk, swimming pools etc.

How is infection prevented?

- Hand hygiene after contact with faeces, nappies and animals
- Avoid drinking untreated water and milk
- Strict controls over water treatments
- Immuno-compromised people should drink only boiled water
- Precautions during visits to open farm and animal centres (B 11.0)
- Cases in a high-risk group must be excluded from work, school until 48 hours symptom-free (C 31.0).
- Surveillance of infection and follow-up of contacts
- The water companies undertake regular water sampling to detect of cryptosporidia in water supplies and, in conjunction with the Health Protection Unit, take action to minimise risk to the public
- In exceptional circumstances a “boil water” notice is issued, but this is not without its own problems, such as an increase in scald injuries. Also the public often ignores the advice
C 10.0 *Escherichia coli* (E coli) 0157\textsuperscript{74,82}

*E. coli* 0157:H7 is one of hundreds of strains of the bacterium *Escherichia coli*. Most strains are harmless and live in the intestines of humans and animals, but this strain produces a powerful toxin, which can cause severe illness. It is a strain of verocytotoxin producing *Escherichia coli* (VTEC) known as *E. coli* 0157 and is found in the intestines of some cattle and other domesticated animals such as goats, also in the intestines of infected people.

**What are the symptoms of infection with *E. coli* 0157?**

*E. coli* 0157 is often very mild, but some people develop diarrhoea, which can be severe and bloody, with abdominal cramps. A few cases (especially in children under 5 years of age and older people) may develop a complication called haemolytic uraemic syndrome, which is a form of kidney failure. They may need admitting to hospital for renal dialysis or blood transfusion.

**How is *E. coli* 0157 spread?**

There are 3 main ways in which the infection can be spread to humans. Firstly, the bacteria are present in the faeces of some farm animals and this can contaminate the carcass during slaughter. *E.coli* 0157 present on the surface of meat can become mixed into the meat during mincing. The bacteria present in faeces may also contaminate udders and milking equipment and get into the raw milk.

Secondly, the infection can be acquired during visits to farms and fields where farm animals live. Their faeces can be found in the general environment (e.g. gates and fences) or contaminate salads and vegetables being grown in the vicinity. The faeces may also be picked up on shoes, clothing and fingers. Infection can develop if the bacteria are able to get into the mouth through poor hygiene or eating poorly washed salads and vegetables.

Thirdly, the infection can be passed from person to person by direct or indirect contact with the faeces of people with *E. coli* O157 infection. This may happen within families and households, or nurseries etc during nappy changing, or using toilets, or toys that may become contaminated with faeces from socks or shoes e.g. bouncy castles, ball pools, paddling pools etc. Ingestion of a small number of organisms can cause illness.

**How can the spread of *E. coli* 0157 be prevented?**

- Don’t eat undercooked meat products, e.g. beef burgers and minced beef
- Thoroughly cook meat until the juices run clear
- Drink only pasteurised milk
- Wash hands before handling food, after using the toilet or changing nappies
- Wash animal faeces from shoes and clothing, followed by hand washing
- Follow recommended precautions for school visits to farms (B11.0)
- In residential care, nurse in a single room with en-suite, or dedicated, toilet until diarrhoea has stopped for 48 hours (may need negative stools see below).

**When can people with *E. coli* 0157 infection return to work/school/playgroup?**

- Most people must remain away until symptom free for 48 hours.
- High-risk individuals (C 31.0) must remain away until 2 samples of faeces, obtained at least 48 hours apart, are negative. Any household contact in a risk group will need to be tested and excluded from work or school.
- Contact the Health Protection Unit for further details
C 11.0 Gastro-intestinal illnesses (including food poisoning) 9,10,74

Gastro-intestinal illnesses may have many causes including: viruses, bacteria, toxins and chemical contaminants. Causative organisms include campylobacter, Clostridium difficile, cryptosporidium, E coli 0157, Giardia, norovirus, salmonella, shigella, etc. The symptoms vary depending upon the cause of the illness. Some cause mainly vomiting whereas others cause mainly diarrhoea. Other possible symptoms may include abdominal pain, nausea or fever. Infections may have an incubation period of a few hours, or several days. Some infections improve naturally, while others need to be treated. See B 6.0, 9.0, 10.0, 15.0, 30.0, 31.0 and 32.0 for further information.

How is it spread?

Many raw foods such as meat, poultry and raw eggs contain harmful microbes or toxins. Micro-organisms may get onto the food during handling and preparation, but are destroyed during cooking. If the food is not going to be cooked further or will be eaten raw the microbes and toxins will not be destroyed and may cause illness. A food handler with a gastrointestinal disease, or who does not practice good hygiene, can spread germs onto the food. Humans and animals can also be sources of infection and infection can spread by contact with infected diarrhoea or vomit; or indirect contact with the contaminated environment - the germs being passed to the mouth and ingested.

How can it be prevented?

Prevention of infection involves good food hygiene (B 9.0), hand hygiene (B 1.0) and decontamination of equipment and the environment (B 4.0 and 5.0).

- Suspect gastrointestinal disease if two or more people at the home have diarrhoea or vomiting at the same time, or if anyone is found to have salmonella etc.
- Wash hands after giving care or handling excreta.
- Ensure the client can wash their hands after using the toilet
- Keep symptomatic clients in their room with their own toilet / commode until free of symptoms for 48 hours
- Staff with symptoms should stay off work until symptom free for 48 hours. Some infections require infected care workers to have microbiological clearance before returning to work (C 31.0).
- Impeccable hygiene standards are very important, increase frequency of cleaning toilet areas
- Clean and disinfect spills of diarrhoea and vomit, remember virus particles can land several feet away from the spillage, so clean a large area
- A chlorine-releasing disinfectant (e.g. bleach, sodium hypochlorite, NaDCC) can help to kill the micro-organisms
- Remove any open fruit, sweets or food which may be exposed to the organism
- Inform the Commission for Social Care Inspection, Environmental Health Officers and Health Protection Unit
- Send faecal samples from cases to the laboratory for Microscopy, Culture & Sensitivity and for Virology
- Use the Outbreak Chart in Part F Appendix 2 to record and monitor the event
Enterococci are bacteria that are commonly found in the faeces of humans and animals. Two main types may cause disease in humans: *Enterococcus faecalis* and *Enterococcus faecium*. In recent years some species of enterococci have become resistant to certain antibiotics, especially glycopeptides.

In the past these organisms were known as Vancomycin-resistant enterococci, but today they are known as Glycopeptide-resistant or GRE. These organisms tend to cause colonisation rather than infection, though some, more vulnerable people, may develop more serious infection such as urinary tract infection or even bacteraemia. Infection is often linked with the presence of invasive devices such as catheters and IV lines. Antibiotics are available to treat these infections.

GRE can live harmlessly in the gut of healthy and sick people. Its presence doesn’t necessarily need treatment with antibiotics. People who are more at risk of acquiring and becoming infected with GRE include: patients needing intensive care, those with immuno-suppression (oncology, haematology and transplant units), those undergoing abdominal or cardiovascular surgery or renal dialysis, those with central lines or urinary catheters.

**How is GRE spread?**

GRE may be passed from person to person by direct contact with a person who has GRE infection or carries the bacteria in their gut. It may also be transmitted by contact with equipment and environmental surfaces that have been contaminated with the bacteria.

**How can spread be prevented?**

- In care homes and in the community, the risk of serious infection from GRE is very small and treatment is rarely needed.
- Contact the microbiologist to carry out a risk assessment for each affected client
- In residential settings, clients with GRE should have their own room if possible
- Hand wash after giving any care or after handling linen, waste etc
- Wear gloves for handling body fluids, excreta, stomas, linen, waste etc. Discard on leaving the room and wash hands
- Use an aseptic technique when dealing with invasive devices (e.g. Hickman lines)
- Keep equipment and environment clean
- No special precautions are needed with crockery and cutlery
- If the client is admitted to hospital or another residential setting, inform the staff about the GRE so they can take appropriate precautions
C 13.0 Hand foot and mouth disease\textsuperscript{71,74}

This is a viral illness, caused by Coxsackievirus. Anyone can be infected, but the infection most frequently affects children under 3 years of age.

Cases often occur in the spring and autumn and outbreaks of infection may occur especially in pre-schools and nurseries. The illness lasts about 5 - 7 days and is usually self-limiting, i.e. it gets better without treatment.

What are the symptoms?

Three to five days after contact with the virus a runny nose, sore throat, fever and loss of appetite may develop. This can be mistaken for a cold. A few days later the child usually develops a blister-like rash on the hands, feet and in the mouth.

How is it spread to others?

The infection is contagious from the very first symptoms. The virus is present in the discharges from the nose and throat, and in the faeces. It can be present in faeces for several weeks after the child has recovered. The infection is spread by contact with these discharges and faeces via paper tissues, handkerchiefs, nappies, saliva on hands and toys etc.

Is there any treatment?

Treatment is not usually required other than to ease the symptoms of sore throat and fever etc, and to avoid dehydration. Complications are rare, but medical attention should be sought if the temperature is not reduced by medication, if the child develops pain in the head, neck, arms or legs or if they become dehydrated (dry skin, weight loss, dark urine, irritability).

The child will develop immunity to the infecting virus, but a second episode can also occur following contact with a different sub-type of the virus.

Should an affected child stay away from school / preschool?

Since the disease is infectious before a diagnosis can be made it is likely that the infection has already spread to others in the class. The disease is typically mild with rare complications. Therefore there is no need for children to stay away from school once their temperature is normal and they feel well.

How can the spread of hand, foot and mouth disease be avoided?

Hand washing is most important, especially after changing nappies, going to the toilet or handling tissues etc. Toys that are likely to be in contact with saliva should be laundered or cleaned thoroughly with soapy water on a regular basis.

If there is an outbreak these hygienic procedures are even more important, and surfaces, such as tables and chairs, should also be cleaned thoroughly at least daily.
C 14.0 Head lice

What are head lice?

Head lice are tiny insects, which live on the head, most commonly behind the ears and at the back of the neck and feed off blood by biting the scalp. Head lice can affect anyone, but are common in children under 11 years and their families.

Nits are the empty eggs that remain after the lice have hatched. They are cemented to hairs close to the scalp and can be difficult to see. The eggs hatch after 7 to 10 days and then turn pearly white. As the hair grows the nits become more obvious and can be seen further from the scalp. Nits that are a few centimetres from the scalp are empty having hatched several weeks before.

How are head lice spread?

They are only spread by head to head contact, they cannot hop or jump. They do not willingly leave a head except to walk directly onto another head. If a louse falls onto a hat, hairbrush or chair back, it is almost certainly dead or dying and will not cause problems. So the sharing of hats etc. will not spread lice.

How are they treated?

Treatment should only be carried out if live, moving lice are seen in the hair or on the scalp. An insecticidal lotion may be used or the new silicone-based product, 4% dimeticone lotion. An aqueous solution may be preferred (Derbac-M liquid or Full Marks liquid) for people with asthma. Most of these can be bought from a chemist or obtained on a doctor’s prescription. Shampoo treatments are not recommended. Treatment involves two applications of the lotion seven days apart; the second application will ensure that any remaining or newly hatched lice are killed.

Head lice can be spread quickly in a family or care home. If a client is found to have lice then they should be treated and the hair of other clients and staff examined. Contacts should only be treated if there is evidence of live lice on their heads.

See Part F, Appendix 6 for further details.

What about schools?

Although head lice are quite common in childhood and are often noted amongst children in school, spread occurs wherever children socialise. It is not recommended that schools send out letters to parents whenever a teacher suspects a case of head lice infection. There are two main reasons for this. Firstly, it is likely that there will always be some cases of head lice infection in school; this is normal. Sending out letters can give the impression that an outbreak is occurring rather than an expected number of cases. Secondly, if parents don’t receive a letter they may believe there are no head lice in the community so they may not bother with detection combing in their family.

Schools are not responsible for detecting, treating or excluding children who are thought to have head lice infection. This is a family duty. Therefore regular detection combing is recommended within families to ensure early detection and treatment of cases. Schools should provide parents with information periodically, for instance in newsletters or at the beginning of term, as a reminder.
C 15.0 Hepatitis A\textsuperscript{20,74,89}

This is a viral infection that causes inflammation of the liver resulting in jaundice (yellowing of the skin) and dark urine. People with hepatitis often feel generally unwell, with fever, nausea or abdominal pain, for 1-2 weeks before the jaundice starts. Many people, especially children, may have no symptoms at all and do have jaundice, but adults often feel very unwell.

Almost everyone recovers completely without special treatment and with no long-term effects. However, certain people are at risk of more severe infection. These include people aged over 50 who have liver cirrhosis or pre-existing hepatitis B or C infection.

Method of spread

Hepatitis A is caught by eating food contaminated with the virus (e.g. shellfish). An infected person excretes the virus in their faeces for one or two weeks before starting to feel ill, this continues for about one week after symptoms start. They can pass on the infection to others if they don’t wash their hands after using the toilet. The virus contaminates their fingers and surfaces. Others acquire the infection by eating food prepared by an infected person or by the shared use of contaminated items, including equipment for injecting drugs.

By the time a person with hepatitis A infection has had jaundice for a week they will no longer be infectious to others, even if they still have symptoms. They develop antibodies that protect them from future infection.

Prevention of spread

- Vaccination of the following groups:
  - Travellers to countries where hepatitis A is more common
  - People with haemophilia and cirrhosis of the liver
  - People with hepatitis B and C infection
  -Injecting drug users
  - Men who have sex with men

- Hand washing is essential after using the toilet, after handling soiled bedding or incontinent clients and before handling food.

- In residential care settings:
  - Cases should have their own room and toilet for 7 days after the start of the jaundice
  - Treat linen contaminated with faeces as infected
  - Wear gloves for handling faeces
  - Crockery and cutlery should be put through a dishwasher or washed by hand using hot water and detergent

- Contacts of cases may need to be immunised. The Health Protection Team will identify contacts and arrange appropriate follow-up

- Food handlers infected with hepatitis A, or who have jaundice, must not handle food for 7 days after the start of the jaundice
What are hepatitis B and C?

They are viral infections that cause inflammation of the liver with jaundice (yellowing of the skin). Symptoms may also include vomiting, abdominal pain, joint pains, loss of appetite and tiredness. A blood test is needed to diagnose the infection. Most people who get hepatitis recover completely and are only infectious to others for a short time while they are ill. Some people who become infected do not get any symptoms, and some of these may carry the virus in their blood for many years and may develop long-term liver disease. Their blood continues to be infectious as long as it contains the virus. Hepatitis C can cause serious liver disease in later life.

How are hepatitis B and C spread?

They are spread to others in three main ways:

- Blood-borne i.e. the infected blood gets directly into the bloodstream of another by sharing needles, toothbrushes, razors, surgical instruments, tattoo and acupuncture needles etc, by blood transfusion, needle-stick injury or bites which break the skin.
- Sexual i.e. sexual intercourse with an infected partner without the use of a condom, (particularly hepatitis B).
- Perinatal: i.e. from infected mother to baby

Kissing, touching, hugging, coughing, sneezing, sharing crockery and cutlery, or via the toilet or food do not spread these infections.

How is spread of hepatitis B and C prevented?

Since we do not usually know who has the infection, we should treat all blood from anyone with care and respect. The prevention of this infection from person-to-person can be prevented in the following ways:

- Cover all cuts with a waterproof dressing
- Wear gloves when touching someone else’s blood
- Clean up blood spills quickly and thoroughly wearing gloves
- Wash hands after touching blood and removing gloves
- Do not share toothbrushes, razors, needles, etc
- Use condoms
- Ensure instruments used for minor surgery or dental treatment are sterilised afterwards (B 5.5)
- Immunise people at high risk of hepatitis B infection e.g. health care workers, babies born to mothers with hepatitis B, people with haemophilia injecting drug users, prisoners. An accelerated course may be necessary in high-risk circumstances (Part F, Appendix One).
- Take action quickly if a bite breaks the skin or an injury with a bloodstained sharp object (e.g. a needle) occurs. Action includes:
  - In the case of a bite rinse the wound and the mouth with lots of fresh water. Discuss any further action with a doctor (B 13.0).
  - In the case of a sharps injury make the wound bleed, wash under running water, cover wound with a waterproof dressing and discuss with a doctor the need for follow-up treatment (B 13.0).
C 17.0 HIV

What is HIV?

HIV stands for Human Immunodeficiency Virus. It is the virus, which is responsible for acquired immune-deficiency syndrome (AIDS). It is spread in the same way as hepatitis B, although it appears to be much less infectious. People who become infected with HIV usually appear perfectly well for many years before getting illnesses associated with their infection and developing AIDS.

You cannot tell if someone is infected with HIV by looking at them. About three months after becoming infected with HIV a person will develop antibodies, which can be detected by a blood test. These people are said to be HIV positive. Before this it is not normally possible to tell if someone is infected.

How is HIV spread?

HIV is spread in the same way as hepatitis B, but is much less infectious.

How is the spread of HIV prevented?

The precautions are the same as for hepatitis B, though unfortunately there is no vaccine. If an injury occurs involving blood-to-blood contact with an infected person, it may be possible to receive Post-Exposure Prophylaxis (PEP) to reduce the risk of developing HIV infection. This involves taking a number of anti-viral drugs. To be effective these drugs must be started as soon as possible after the injury occurred, ideally within one hour. In high risk situations there may be value in starting PEP up to 7 days after the incident. PEP can have nasty side effects and since the risk of HIV is low, it is sometimes decided not to use PEP. Refer to B 13.0 and Part F, Appendix One for further details on inoculation (sharps) injuries.

Since we do not usually know who has the infection, we should treat all blood from anyone with care and respect. The prevention of this infection from person-to-person can be prevented in the following ways:

- Cover all cuts with a waterproof dressing
- Wear gloves when touching someone else's blood
- Clean up blood spills quickly and thoroughly wearing gloves
- Wash hands after touching blood and removing gloves
- Do not share items that may be bloodstained e.g. toothbrushes, razors, needles and syringes
- Ensure instruments used for minor surgery or dental treatment are sterilised afterwards as per standard infection control precautions
- Take action quickly if a bite breaks the skin or an injury with a bloodstained sharp object (e.g. a needle) occurs. Action includes:
  - In the case of a bite rinse the wound and the mouth with lots of fresh water. Discuss any further action with a doctor (B 13.0).
  - In the case of a sharps injury make the wound bleed, wash under running water, cover wound with a waterproof dressing and discuss with a doctor the need for follow-up treatment (B 13.0).
C 18.0 Impetigo 20, 71,74

Impetigo is a superficial, bacterial skin infection. It is commonly caused by staphylococcus or, less commonly, streptococcus. These bacteria infect bites and cuts. Touching or scratching the infected sites often spreads the infection to other sites in the body.

Impetigo can affect anyone, but it is more common in children in crowded settings such as school or nursery and is the most common skin infection in children. It is more common during the summer months and tends to occur in small outbreaks.

Generally impetigo is not a serious condition, but in very rare cases, complications may occur if the deeper tissues become involved.

What are the symptoms?

Characteristic signs and symptoms are:

- Itchy blisters, which grow and burst, usually within 24 hours, producing a discharge or pus,
- Over 4 – 6 days the blisters break down, forming thick yellow crusts
- Hands and face are usually affected, especially around the mouth and nose, although the infection can spread to other parts of the body.

How is it spread to others?

Although impetigo often appears suddenly without an apparent cause, it is usually spread through direct contact with an infected person. Impetigo is highly infectious while the sores are discharging. The risk of infection is especially high between children sharing the same house.

Is there any treatment?

Antibiotic ointment should be applied to the sores 3-4 times a day for one week. The skin should heal completely within 10 days, though some discolouration may persist. Oral antibiotics are used for severe cases

Should an affected child stay away from school/pre-school?

Children should not attend school or nursery until the sores have stopped discharging and have all crusted over. Infectivity stops 2 days after treatment is started. People with the infection should generally avoid contact with other people until they have had antibiotic treatment for 2 days.

How can spread be avoided?

Good personal hygiene can prevent the spread of bacteria and reduce the risk of other people being infected.

- Use separate flannels and towels, which should be washed at a high temperature.
- Avoid touching the lesions as much as possible.
- Frequent hand washing, especially after touching or applying antibiotic ointment to lesions
- Keep environment and equipment clean
C 19.0 Influenza

Influenza is an acute viral respiratory infection that tends to occur in the winter months. The two main types of influenza causing disease in the UK are influenza type A and B, but new strains and variants of the virus emerge each year. The incubation period is 2-3 days and cases are infectious from 1 day before the onset of symptoms and remain infectious for up to 5 days. Outbreaks may occur in communities and communal settings such as schools and care homes.

When the number of cases exceeds that normally expected, this is defined as an epidemic. If a completely new strain of influenza virus emerges, to which the population has no previous immunity, it may result in a global outbreak, known as a pandemic, which can have a high death rate.

The onset of influenza is sudden with a high fever (> 38.9 °C), dry cough, headache, aches and pains in the joints and muscles, chills and a general feeling of tiredness. Fever usually reduces after the second day and the nose may become stuffy and a sore throat may develop. People with influenza should stay at home and rest, drink plenty of fluids and may find symptom relief with painkillers, cough mixture etc. Antibiotics are not required unless there is also a bacterial infection.

Who is at risk?

Most people recover from influenza within a few days. However, influenza may be serious in newborn babies, people aged over 65 years and people of any age with existing chronic diseases. High-risk conditions include: people with cardiac, respiratory, renal and liver disease and those with impaired immune systems. Bronchitis and secondary bacterial infections such as pneumonia can result in hospital admission and can be life-threatening.

How is influenza spread?

Influenza is highly infectious and spread by the coughs and sneezes or via the environment contaminated with respiratory droplets. Therefore the infection spreads easily within households and over-crowded or confined areas such as schools, barracks, hospital wards etc.

How can influenza be prevented?

Each year a new influenza vaccine is developed which provides immunity against the strains of influenza circulating that year. Every autumn the vaccine is offered to anyone aged over 65 years, people with a high-risk condition and their carers, people residing in care homes and front-line health and social care staff. Antiviral drugs such as oseltamivir can be offered to at-risk groups when influenza is circulating in the community. Health and social care teams should report any suspected cases in their care to the GP and any clusters to the Health Protection Team.

How can the spread of influenza be avoided?

People with influenza should:
- Try to stay away from contact with others during the infectious period
- Stay in their own room, if living in a care home
- Use disposable tissues and wash hands after coughing and sneezing

Carers should:
- Wash their hands after giving care, handing used tissues or items contaminated with respiratory secretions
- Keep the environment clean

C 20.0 Meningococcal Disease\textsuperscript{74,91,92,139}

Cases of suspected meningococcal disease require public health action to prevent further transmission into the community. This is co-ordinated by the Health Protection Unit. Action is taken if the patient has meningitis and/or septicaemia that could be caused by meningococcus. (See Part F, Appendix 4 for further details).

What are the signs and symptoms of meningococcal disease?

**Meningitis**
Severe headache, dislike of bright lights, fever, vomiting, stiff neck

**Septicaemia**
Rash that doesn’t disappear when pressed with a glass tumbler, cold hands and feet

Babies may be floppy or stiff, dislike being handled, off feeds, high-pitched cry.

GPs should administer benzyl penicillin to the suspected cases as soon as possible

**Antibiotic prophylaxis for contacts**

The HPU will identify individuals who were close contacts of the case in the week before they became ill. These contacts will be offered a short course of antibiotics to remove any carriage of the organism in the throat. The antibiotics may not prevent disease, so the contacts are advised to remain alert for signs of the disease.

<table>
<thead>
<tr>
<th>Close contacts are</th>
<th>Close contacts are not</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Those living or sleeping in the same household as the case during the 7 days before the case became ill (usually parents, siblings, partners, offspring, roommates in dormitories etc)</td>
<td>• Staff and children attending the same nursery, crèche, school, class, tutor group etc</td>
</tr>
<tr>
<td>• Boy/girl friends of the case (kissing contacts)</td>
<td>• Work, school colleagues</td>
</tr>
<tr>
<td>• Child minders who look after the case for many hours daily (equivalent to household contact)</td>
<td>• Friends</td>
</tr>
<tr>
<td>• Health care workers who have been directly exposed to large particle droplet/secrections from the respiratory tract of a case around the time of admission to hospital (e.g. due a cough when face to face with the patient, or when managing the airway without wearing a face mask).</td>
<td>• Residents of care homes</td>
</tr>
<tr>
<td></td>
<td>• Social kissing on cheek or mouth</td>
</tr>
<tr>
<td></td>
<td>• Sharing food or drink with low level salivary contact</td>
</tr>
<tr>
<td></td>
<td>• Attending same social or sports function</td>
</tr>
<tr>
<td></td>
<td>• Travelling on next seat on same plane, bus, train or car</td>
</tr>
<tr>
<td></td>
<td>• Contacts after death</td>
</tr>
</tbody>
</table>

It is important that prophylaxis is given only to those identified as close contacts. Over-prescription can induce resistance in the organism and can paradoxically increase the possibility of a secondary case of the disease. The antibiotics should ideally be given as soon as possible (within 24 hours) after diagnosis of the index case. Prophylaxis is not advised for other children and staff, after a single case in a school/nursery.

**Vaccines to prevent meningococcal disease**

- People aged 24 years and under - men C conjugate vaccine
- Visiting the Hajj and Saudi Arabia - quadrivalent vaccine
- Visiting countries where sero-group A is common - A+C vaccine
- People with impaired spleen function - men C conjugate vaccine and appropriate travel vaccine
C 21.0 Meticillin-resistant *Staphylococcus aureus* (MRSA)\textsuperscript{74,93,94,95}

*Staphylococcus aureus* is commonly found on the hair, skin and in the nostrils of about 30% of the population. It usually causes no harm, but it can sometimes cause infections such as boils, sties, infected cuts and abscesses. These infections may improve without treatment, or may need a course of antibiotics. Patients in hospital can develop more serious infections such as surgical wound infection and septicaemia (blood poisoning) because they have deep surgical wounds, drips, drains or catheters.

In recent decades some strains of *Staph. aureus* have developed a resistance to certain antibiotics. They are called meticillin-resistant *Staphylococcus aureus* (MRSA). Infection with MRSA is more difficult to treat because there is less choice of antibiotics and they may be expensive. Confidentiality is important.

Patients in hospital, especially those in intensive care, special care baby units, orthopaedic wards, burns units, cancer and transplant wards are most at risk. Healthy people may pick up MRSA for a short time, but are not usually at risk of developing serious infection. MRSA is more likely to be found in damaged skin, such as eczema, chronic wounds and the insertion sites of invasive devices. Confidentiality is important for colonised and infected people.

**Method of spread**

MRSA can live on skin and in skin folds, such as the armpits, groins, umbilicus and under breasts and in dust. It is passed by contact with the skin or dusty objects, but is easily removed by hand washing and general cleanliness. Care home staff should be informed if a resident is transferred with MRSA, but this is not a reason for refusing admission and they do not need isolation. Contact infection control team if you have any further concerns.

**Prevention of spread**

- Hand wash before and after touching wounds, catheters or giving care
- Wear gloves and aprons for handling wounds, catheters and wound drains.
- Keep the environment clean and dust-free. Clean baths after use
- No special disinfectants are needed, use the usual detergent
- If client is being transferred to hospital inform the ward that they have had MRSA. You may be asked to swab the client’s nostrils and wounds because of the higher risk posed by patients with MRSA in hospitals
- Routine screening of clients and staff is not necessary, unless clinically indicated i.e. signs of infection develop.
- Wash crockery and cutlery as normal
- Clients may socialise, visit friends, see older people and babies, go to hairdressers, work etc, as normal
- No precautions needed with library books, post, pets etc
- In clinics try to arrange to see the client at the end of the list
- Change bedding frequently, use hottest wash possible and don’t shake the bed linen
- In care homes, clients with MRSA should ideally not have to share a room if either room-mate has open wounds or catheters
- Following discharge clean curtains and spring-clean the room
C 22.0 Ringworm and other fungal infections

A microscopic fungus causes ringworm. Ringworm may occur on the scalp, body or feet (athlete's foot). On the scalp it causes a small circular bald patch with broken hairs at the edges. On the skin it causes a reddish ring-shaped area with healthy looking skin in the centre. Ringworm can reappear many times, especially if the treatment is not used for long enough.

How are fungal infections spread?

Fungal infections are spread by direct and indirect contact - Ringworm is spread by contact with infected animals or people and their environment. The fungus can survive on furniture and clothes, so it is not necessary to have close contact with an infected person. If left untreated some ringworm infections may be passed to other people.

Skin ringworm stops being infectious as soon as treatment is started. It is not clear how long scalp ringworm remains infectious, but if cream is used as well as tablets spread to other people is extremely unlikely.

How can spread be avoided?

- Do not share towels
- Do not share hairbrushes or hair clippers/razors in cases of scalp ringworm
- Launder clothes and bed clothes once treatment has started
- Ensure treatment is continued until the skin is completely clear or the infection will come back.
- For scalp ringworm, a course of tablets or medicine is usually needed. These may have to be taken for several months. Using a cream at the same time may help to stop the infection spreading to other people. Once treated, the hair will grow back normally
- For other fungal infections, obtain a correct diagnosis and ensure treatment is given as prescribed.
Scabies is a condition of the skin caused by a tiny mite called *Sarcoptes scabei*. Symptoms are caused by an allergic reaction to the by-products of the mite. Scabies occurs worldwide and outbreaks in the UK often occur in care homes, elderly care wards and schools. Most cases only have around 10 mites on their body. There are two main ways that scabies manifests:

Classical scabies features itching two - six weeks after a first infestation or one - four days after re-infestation. The itching is often severe and worse at night or after a bath. There may be raised flesh-coloured, or grey, burrows with a sinuous ridge. A symmetrical allergic rash appears from the axillae to the calves and around the waist, but not the upper back.

Crusted scabies features dry, flaky lesions that may be present on the palms, soles and nail beds of the hands, feet, wrists, buttocks and penis. The lesions can flake off and may contain hundreds of mites. Consequently it is very infectious.

**How is scabies spread?**

Direct, prolonged skin-to-skin contact. Holding hands is a common route. Bedding and clothing do not contain scabies mite unless the individual has crusted scabies.

**How is spread avoided?**

- Be aware of the symptoms of scabies and watch out for cases
- Treat all cases and their contacts, ideally on one day. Lyclear dermal cream or Derbac M are recommended. Pregnant or breast-feeding women should be treated under the supervision of the GP and should avoid Lindane. Infants and young children should be treated with Permethrin
- Apply lotion to cool, dry skin including under nails and in skin creases.
- Leave lotion on skin for 8 - 24 hours. Re-apply to areas of skin that subsequently become wet e.g. after washing hands or incontinence etc
- Itching can persist for several weeks so use calamine or an antihistamine
- Wear gloves for contact with a case until treated
- Wash hands and skin after contact
- For crusted scabies: more intensive treatment is required, handle bedding etc with gloves, place in plastic bag until laundered. Tumble-drying kills the mites. Vacuum carpets and upholstery. Spread to others in very common.
- See **Part F, Appendix Three** for more details on management of cases and outbreaks
C 24.0 Scarlet fever

Scarlet fever is due to a bacterial infection, and may result in a high fever, vomiting and sore throat. However, the main symptom is a red skin rash, which turns white when pressed and may feel like sandpaper when touched. The rash tends to appear on the neck, chest, inner surfaces of the thighs, and the folds of the armpits, elbows and groins. The rash does not usually affect the face, although the checks may be flushed and the area around the mouth may be more pale than usual. The tongue may also appear red and coated.

As the patient improves, the skin on some parts of the body, especially the tips of fingers and toes, may begin to peel.

Scarlet fever is a notifiable disease.

What causes scarlet fever?
Scarlet fever is caused by a common bacterium called *Streptococcus pyogenes* (also known as Group A Streptococcus). This germ can cause a wide variety of infections, most commonly causing tonsillitis, impetigo and wound infections. This germ is easily spread from person to person, so outbreaks can occur especially within families and communities such as schools and elderly persons’ homes. Outbreaks need to be investigated by the Health Protection Unit and/or Environmental Health Department.

How is scarlet fever spread?
Scarlet fever is spread by contact with an infected person, close contact with throat secretions or contaminated objects. The incubation period is 1-3 days.

How is scarlet fever treated?
Streptococcal infections usually respond well to a course of antibiotics. Therefore it is important to the GP if scarlet fever is suspected. Remember that the full course of antibiotics should be completed.

Spread of infection to others can be avoided by keeping those with the infection away from others until they have been taking antibiotics for a couple of days. Washing your hands frequently after contact with a person with scarlet fever can also help.

Should people with scarlet fever stay away from school or work?
Scarlet fever can make people feel quite ill. However after 48 hours of antibiotics they will no longer be infectious. If teachers cannot give the antibiotics it may be necessary to keep a child away from school or nursery until the course is finished.
C 25.0 Severe acute respiratory syndrome (SARS) 99

SARS is a newly recognised atypical pneumonia that was reported in several countries in south east Asia in March 2003. Subsequently it also caused an outbreak in Toronto and affected other countries across the globe. The World Health Organisation has reported that SARS is caused by the SARS coronavirus (SARS CoV) a new member of the coronavirus family. For up to date information see http://www.hpa.org.uk.

What are the symptoms?

The main symptoms are a high fever (over 38°C), cough, shortness of breath or difficulty in breathing. Chest X-rays may indicate pneumonia. The incubation period is short, about 2-7 days and cases may be infectious to others while the symptoms remain.

How is it spread?

SARS is spread by respiratory droplets, either by direct contact with a case or indirectly via the contaminated environment. Spread within households, or from patient to health care worker have been reported. Only cases with severe infection need to be in hospital as is the case with influenza. Infection control precautions need to be practiced with all cases in hospital or community.

How is spread prevented in the community?

- Patients should stay indoors and keep contact with other people to a minimum until their symptoms are improving and their temperature has been normal for 48 hours.
- Healthcare workers and home carers should wear a respirator when in contact with a case. Respirators must conform to EN149:2001 FFP3. FFP2 (N95) may be used temporarily if FFP3 is not available, but this is not yet recommended. Users must understand respirator instructions and perform a fit test prior to use.
- Patients should wear a surgical mask when in contact with others, or if respirators for staff and carers are not yet available.
- Respirators/masks must be removed outside the patient's room and immediately discarded as clinical waste, followed by hand hygiene.
- Patients should cough/sneeze into paper tissues. These are discarded either into a toilet or into a plastic bag, which is securely tied.
- Hands must be washed frequently, especially after contact with body fluids (respiratory, urine, faeces)
- Disposable, long sleeved, fluid-repellent gowns, Gloves and tight fitting goggles or face shield should be worn when giving care to a case of SARS
- Wash clothing on the highest temperature recommended for the fabric
- Wash crockery and cutlery in a dishwasher, or use detergent and hot water.
- Clean the environment and reusable equipment with detergent and cold water then disinfect with household bleach diluted to 1 in 100.
- Close contacts are at risk until 10 days after their last contact with a symptomatic case. Contacts who are health care workers should inform occupational health.
- Dentists should avoid treating infectious cases. GPs etc should see cases at home rather than in the surgery.
C 26.0 Slapped cheek disease\textsuperscript{71,74,149}

Slapped cheek disease (sometimes called fifth disease) is caused by human parvovirus B19. It is a mild illness that commonly affects children. The ill child typically has a rash on the face, which looks like slapped cheeks. There may also be a lacy rash on the trunk and limbs. The child may also have a slight fever or a cold before the rash breaks out. The rash lasts up to about 10 days.

What causes slapped cheek disease?

A common virus called human parvovirus causes the infection. Human beings carry this virus. About 50\% of adults have previously been infected with parvovirus and are immune. Dogs and cats can carry an animal parvovirus, which does not infect humans.

Is slapped cheek disease contagious?

A person infected with parvovirus is infectious in the early part of the illness, before the rash appears. By the time a child develops the rash he or she is no longer infectious so may continue to attend school or pre-school. Outbreaks can occur in schools and pre-schools because spread occurs before the symptoms develop. However, they quickly resolve.

How is slapped cheek disease spread?

The virus is present in the respiratory secretions (saliva, sputum, nasal mucous) before the rash appears. It is spread from person to person by contact with the secretions; such as sharing drinking cups, eating utensils, handling used hankies etc. Spread of the infection can be reduced by avoiding sharing these items and by washing hands after handling hankies or helping children to blow their noses.

Is slapped cheek disease a serious infection?

The infection is usually mild and improves without treatment among children and adults who are otherwise healthy. Some adults may develop joint pains, which eventually improves.

People with chronic illnesses such as sickle-cell disease, similar chronic anaemia, immune deficiency, leukaemia, cancer or HIV can develop a more serious infection and should see their GP if they have been in contact with a case of slapped cheek disease.

Is slapped cheek disease serious during pregnancy?

About 50\% of women are immune to parvovirus, even though they may not realise they have been infected in the past. Most women who are infected during pregnancy will only develop a mild illness and the unborn child will usually not have any problems. Infection in a few women (about 9\%) may result in miscarriage. This occurs most often when infected in the first half of the pregnancy. Most babies do well, but the pregnancy may need to be closely monitored.

A woman who is less than 21 weeks pregnant, and has been in direct contact with a case in the 7 days before the rash appears, should discuss the risks with her GP. She may be offered a blood test to check for current immunity. There is usually no need for pregnant staff in schools or pre-schools to stay away from classroom work. Your local Health Protection Unit can advise on this.
C 27.0 Tuberculosis

Tuberculosis (TB) is caused by *Mycobacterium tuberculosis*. It usually affects the lungs, although it can occur elsewhere in the body. TB infection occurs when the bacteria are inhaled. The bacteria are usually overwhelmed by the body's immune system, but may become active again later in life. In the UK the elderly may develop TB following infection earlier in life.

People with TB infection generally complain of a bad cough lasting more than one month, chest pain, coughing up sputum that may be blood-stained, loss of appetite, weight loss, tiredness and weakness and sometimes of night sweats.

How is TB spread?

Only people with "open" TB infection affecting the lungs are infectious to others. These individuals expel the bacteria into the air during coughing; others may inhale the bacteria. People with "open" pulmonary TB may pass the infection on to others, particularly members of their household with whom they have close contact over a long period of time.

However TB is difficult to catch and the disease develops slowly and may take several months for symptoms to appear. Many people are immune to TB especially if they have had BCG vaccination.

Some people are at greater risk including children, the elderly, diabetics, people taking steroids, people taking other drugs affecting the immune system, people living in overcrowded or poor housing, people who are dependent upon drugs or alcohol, people with chronic bad health, people with HIV infection or leukaemia.

How is spread avoided?

- Health care workers should be immunised against TB
- The Health Protection Team is notified of cases of TB and ensures that contacts are identified and followed up if necessary
- As TB is slow-growing, follow-up is not a matter of urgency
- Clients with open pulmonary TB should keep to their own room until they have had two weeks of anti-TB treatment
- People with multi drug-resistant TB (MDRTB) should be nursed in a negative pressure room until they are no longer infectious. This can take some weeks or months.
- A high-efficiency particulate filter mask (respirator) should be worn until the client has had two weeks of anti-tuberculosis treatment. This is particularly important if the client is coughing.
- People with TB should be encouraged to cough into a hankie or put their hand over their mouth to prevent airborne spread
- People visiting countries where TB is endemic for more than one month should be immunised
- Babies born to parents from countries where TB is endemic should also be immunised, ideally at birth
C 28.0 Threadworms (pinworms)\textsuperscript{26,71,74}

Threadworms are tiny parasites, which live in human intestines and can survive for up to 2 weeks outside the body. Humans cannot catch animal threadworms.

What are the symptoms?

Some people have no symptoms at all, though commonly there is anal itching, scratching and irritability. It may disturb sleep and sometimes the scratched area becomes infected.

How is the infection spread?

Female worms lay eggs around the anus during the night. When an infected person scratches their anal area, the eggs are picked up under the fingernails. The eggs can then be transferred to objects that are likely to eaten or touched by someone who is not infected.

Threadworms can also be spread when an uninfected person touches the anal area of somebody who is infected. They can then pass the threadworms to their own mouth, and then the worms then enter their gut causing infection. People with pinworm infection can continually re-infect themselves, leading to a higher number of worms in the gut.

How can the spread of infection be avoided?

- If you suspect threadworms visit the doctor for a diagnosis and treatment
- Wash hands and scrub nails after using the toilet, changing nappies
- Shower or bathe each morning
- Keep finger-nails short and clean and don’t bite them
- Keep bathrooms clean and toilets disinfected
- Damp dust bedrooms and vacuum carpets daily for several days after treatment
- Change underwear and nightwear daily
- Wash bedding, towels, night-clothing and underwear on a hot wash and tumble dry

How is the infection treated?

Treatment will only be effective if the hygiene measures listed above are followed at the same time.

- Mebendazole is the treatment of choice for patients over 2 years of age
- Piperazine can be used for infants and children over 3 months
- A single dose is usually followed by a second dose 2-3 weeks later
- All members of the household should be treated at the same time.

Should children with threadworm infection be kept away from school?

The treatment works very quickly so there is no need for children to stay away from school or pre-school once the treatment has been given.
C 29.0 Verrucas (warts)\\(^9\)

**What is a verruca?**

Verrucas are warts on the feet caused by a viral infection, often human papilloma virus. Warts can also affect other parts of the body, such as the fingers. Verrucas are hard, flat skin lesions on the soles of the feet and are often quite painful. They tend to affect teenagers and school children, though they can affect all ages. About 5% of school children have warts or verrucas at any one time. They are sometimes known as plantar warts.

Verrucas have a limited life span and usually heal by themselves, but this can take up to 2 years. Unfortunately just as an old wart disappears, a new wart may begin to develop.

**How are verrucas spread?**

Verrucas usually take 2-3 months to develop, but can take up to 20 months. They can be spread to other people by direct contact with the lesion. They can also spread to other parts of the body often by touch. Warts shed large numbers of infectious particles and contaminated floors, such as in changing rooms, have been implicated in spread. However, verrucas are not easily spread from person to person.

**How are they treated?**

- Wart removal creams can be bought from pharmacists
- If painful the verruca can be filed down with an emery board or the doctor may offer treatment with liquid nitrogen

**How can spread be avoided?**

- Keep the verruca covered with a plaster or verruca sock in changing rooms, swimming pools etc.
- Wash hands after touching the lesion or applying any treatments
- If using a file, dispose of it after use and don't use it for other purposes
C 30.0 Viral gastro-enteritis (norovirus, rotavirus, small round structured virus)¹⁰

A wide range of viruses may cause gastro-enteritis including norovirus and small round structured viruses (SRSV).

The symptoms vary depending upon which germ has caused the illness. Some cause mainly vomiting whereas others cause mainly diarrhoea. Other possible symptoms may include abdominal pain, nausea or fever. Illness may begin within a few hours of eating the contaminated food, but some infections do not develop for several days. Some infections improve naturally; some need treatment.

How is it spread?

Humans are the only known reservoir for organisms that cause viral gastroenteritis. An infected food handler, who does not practice good hygiene, can spread the virus onto the food. Infection can also be spread by contact with infected diarrhoea or vomit; or indirect contact with the contaminated environment - the germs being passed to the mouth and ingested.

How can it be prevented?

Prevention of infection involves good food hygiene (B 9.0), hand hygiene (B 1.0) and decontamination of equipment and the environment (B 4.0 and 5.0).

- Consider an outbreak if two or more people at the home have diarrhoea or vomiting at the same time, or if anyone is diagnosed with Norovirus etc.
- Wash hands with soap and water after giving care or handling excreta.
- Ensure the client can wash their hands after using the toilet
- Keep symptomatic clients in their room with their own toilet / commode until free of symptoms for 48 hours
- Staff with symptoms should stay off work until symptom free for 48 hours
- Impeccable hygiene standards are very important, increase frequency of cleaning toilet areas
- Clean and disinfect spills of diarrhoea and vomit, remember virus particles can land several feet away from the spillage, so clean a large area (2 meters)
- Use a chlorine-releasing disinfectant (e.g. bleach, sodium hypochlorite, NaDCC) to disinfect equipment and the environment
- Remove any open fruit, sweets or food which may be exposed to the organism
- Inform the Commission for Social Care Inspection, Environmental Health Officers and Health Protection Unit
- Send faecal samples from cases to the laboratory for Microscopy, Culture & Sensitivity and for Virology
- Use the Outbreak Chart in Part F, Appendix 2 to record and monitor the event
C 31.0 Prevention of spread of gastro-intestinal (GI) infection – exclusion from work, school or pre-school¹⁰,²².

For further details refer to: Communicable Disease and Public Health 2004; 7 (4): 362-384 and discuss the case with the Health Protection Team.

### Groups that pose increased risk of spread of infection

A. Any person of doubtful personal hygiene or unsatisfactory toilet, hand-washing or hand drying facilities at home, work or school
B. Children who attend pre-school groups or nursery
C. People whose work involves preparing or serving unwrapped foods not subjected to further heating
D. Clinical and social care staff who have direct contact with highly susceptible patients or persons in whom a gastrointestinal infection would have particularly serious consequences

<table>
<thead>
<tr>
<th><strong>Causative Agent</strong></th>
<th><strong>Exclusion from work or school (risk groups A to D)</strong></th>
<th><strong>Microbiological clearance</strong></th>
<th><strong>Contact follow-up</strong></th>
<th><strong>Notify</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Amoebic dysentery</td>
<td>48 hrs after first normal stool</td>
<td>Cases in Groups C &amp; D. One stool obtained at least one week after END of treatment</td>
<td>Screen household contacts</td>
<td>Yes</td>
</tr>
<tr>
<td>Bacillus species</td>
<td>48 hrs after first normal stool</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Campylobacter</td>
<td>48 hrs after first normal stool</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Cholera</td>
<td>48 hrs after first normal stool in normal circumstances</td>
<td>Where indicated: 2 consecutive negative stool at least 24 hours apart</td>
<td>Observe those who shared food/drink for 5 days after exposure</td>
<td>Yes</td>
</tr>
<tr>
<td>Clostridium botulinum</td>
<td>No</td>
<td>No</td>
<td>Urgent follow-up</td>
<td>Yes, urgent</td>
</tr>
<tr>
<td>Clostridium difficile (antibiotic related)</td>
<td>48 hrs after first normal stool</td>
<td>No</td>
<td>Monitor susceptible contacts</td>
<td>No</td>
</tr>
<tr>
<td>Clostridium perfringens</td>
<td>48 hrs after first normal stool</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Cryptosporidiosis</td>
<td>48 hrs after first normal stool. Cases avoid using swimming pools for a further two weeks</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Cyclosporiasis</td>
<td>48 hrs after first normal stool</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Enteroviruses</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Causative Agent</td>
<td>Exclusion from work or school (risk groups A to D)</td>
<td>Microbiological clearance</td>
<td>Contact follow-up</td>
<td>Notify</td>
</tr>
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</tr>
<tr>
<td>E. coli O157 (VTEC)</td>
<td>Cases and contacts in risk groups A to D - exclude until all in household are microbiologically cleared Others - exclude for 48 hrs after first normal stool</td>
<td>Cases and contacts in Groups A to D: 2 consecutive negative faecal samples at no less than 48 hour intervals</td>
<td>Screen and exclude contacts in risk groups A to D</td>
<td>Yes</td>
</tr>
<tr>
<td>E. coli (other than VTEC)</td>
<td>48 hrs after first normal stool</td>
<td>No</td>
<td>Observe</td>
<td>Yes</td>
</tr>
<tr>
<td>Giardiasis</td>
<td>48 hrs after first normal stool</td>
<td>No</td>
<td>Screen household contacts</td>
<td>Yes</td>
</tr>
<tr>
<td>Hepatitis A</td>
<td>All cases for 7 days after onset of jaundice and/or symptoms</td>
<td>No</td>
<td>Vaccinate household + sexual contacts</td>
<td>Yes</td>
</tr>
<tr>
<td>Listeriosis</td>
<td>No</td>
<td>No</td>
<td>Observe</td>
<td>Yes</td>
</tr>
<tr>
<td>Marine biotoxins (Marine algal shellfish poisoning syndromes, ciguatera or scombrototoxic poisoning)</td>
<td>No</td>
<td>No</td>
<td>Observe</td>
<td>Yes</td>
</tr>
<tr>
<td>Norovirus (Norwalk-like [NLV], small round structured viruses [SRSV])</td>
<td>48 hrs after first normal stool</td>
<td>No</td>
<td>Observe</td>
<td>Yes</td>
</tr>
<tr>
<td>Rotavirus</td>
<td>48 hrs after first normal stool</td>
<td>No</td>
<td>Observe</td>
<td>Yes</td>
</tr>
<tr>
<td>Salmonellosis</td>
<td>48 hrs after first normal stool</td>
<td>No</td>
<td>Observe</td>
<td>Yes</td>
</tr>
<tr>
<td>Shigellosis</td>
<td>S. sonnei: 48 hrs after first normal stool. S. dysenteriae, S. flexneri, S. boydii until microbiologically clear</td>
<td>Cases and contacts of S. dysenteriae, S. flexneri &amp; S. boydii in risk groups A to D - 2 negative faecal specimens taken at least 48 hours apart</td>
<td>Screen contacts in groups A to D of cases of S. flexneri, dysenteriae, &amp; boydii Otherwise observe</td>
<td>Yes</td>
</tr>
<tr>
<td>Causative Agent</td>
<td>Exclusion from work or school (risk groups A to D)</td>
<td>Microbiological clearance</td>
<td>Contact follow-up</td>
<td>Notify</td>
</tr>
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</tr>
<tr>
<td>Staphylococcus aureus</td>
<td>48 hrs after first normal stool Group C - exclude food handlers with septic lesions on exposed skin until successfully treated.</td>
<td>No, after lesions are healed</td>
<td>Observe</td>
<td>Yes</td>
</tr>
<tr>
<td>Typhoid and paratyphoid (enteric fever)</td>
<td><strong>Cases, excreters, carriers and contacts</strong> in risk groups A to D until microbiologically cleared</td>
<td><strong>Cases, excreters, carriers</strong>: Six (Group C) or three (groups A, B &amp; D) consecutive negative faecal samples each obtained 1 week apart commencing 3 weeks after completion of treatment <strong>Contacts</strong>: Two negative faecal samples obtained 48 hours apart after case has commenced treatment</td>
<td>Test all contacts and others with similar exposure to the case, in the month prior to the case’s disease onset.</td>
<td>Yes</td>
</tr>
<tr>
<td>Vibrio group - Non-cholera</td>
<td>48 hrs after first normal stool</td>
<td>No</td>
<td>Observe</td>
<td>Yes</td>
</tr>
<tr>
<td>Worms</td>
<td>Threadworms: exclude cases in risk groups A to D until treated Taenia solium: exclude cases in risk groups A to D until microbiologically clear</td>
<td>Taenia solium: two negative faecal samples at 1 and 2 weeks after treatment for cases in risk groups A to D</td>
<td>Threadworm treat household Taenia solium: screen household</td>
<td>No</td>
</tr>
<tr>
<td>Yersiniosis</td>
<td>48 hrs after first normal stool</td>
<td>No</td>
<td>Observe</td>
<td>Yes</td>
</tr>
</tbody>
</table>
C 32.0 Prevention of spread of infectious diseases - exclusion from work and school\textsuperscript{10,71,82}

Members of health and social care staff and children should not attend school or work if acutely ill. Once they feel better they can usually return to work / school / pre-school providing that they pose no serious risk of infection to others. Further advice may be sought from the local Health Protection Unit (HPU). To minimise the risk of transmission of infection to other children and staff, the following guidelines should be applied:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Exclusion from work (once well)</th>
<th>Exclusion from school / nursery (once the child is well)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Athletes foot</td>
<td>None</td>
<td>None</td>
<td>Not a serious condition. Continue using preparation for at least 2 weeks after symptoms have disappeared</td>
</tr>
<tr>
<td>Campylobacter</td>
<td>Until 48 hours after symptoms cease</td>
<td>Until 48 hours after symptoms cease</td>
<td>Not easily spread from person to person</td>
</tr>
<tr>
<td>Chickenpox</td>
<td>Five days from the onset of rash</td>
<td>Five days from the onset of the rash</td>
<td>It is not necessary to wait until the spots have healed or crusted. Vulnerable children (e.g. being treated with steroids or for cancers) and non-immune pregnant women should inform their GP and antenatal care provider if they are in contact with a case</td>
</tr>
<tr>
<td>Cold sores (herpes simplex)</td>
<td>None (avoid kissing while sore is present)</td>
<td>None</td>
<td>Usually a mild, self-limiting disease. Many healthy children and adults have this virus at some time without having a &quot;sore&quot;</td>
</tr>
<tr>
<td>Conjunctivitis</td>
<td>None</td>
<td>None</td>
<td>Seek advice from HPU if an outbreak develops, exclusion may be considered.</td>
</tr>
<tr>
<td>Cryptosporidiosis</td>
<td>Until 48 hours after symptoms cease</td>
<td>Until 48 hours after symptoms cease</td>
<td>Immune suppressed and people with HIV most at risk. Drinking water and recreational pools can contribute to outbreaks, cases should not swim for 2 weeks after diarrhoea has settled.</td>
</tr>
<tr>
<td>Cytomegalovirus</td>
<td>None</td>
<td>None</td>
<td>Pregnant women should avoid contact with known cases</td>
</tr>
<tr>
<td>Condition</td>
<td>Exclusion from work (once well)</td>
<td>Exclusion from school / nursery (once the child is well)</td>
<td>Comments</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
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</tr>
<tr>
<td>Diarrhoea and/or vomiting with or without a specified diagnosis</td>
<td>Until symptoms have ceased for 48 hours</td>
<td>Until symptoms have ceased for 48 hours</td>
<td>Especially important for children under 5 years, children who cannot manage own hygiene and food handlers. For diarrhoea, exclusion from swimming for 2 weeks is advisable. There is no specific diagnosis and treatment with the exception of Giardia. Inform the HPU and EHO if there is a cluster of cases.</td>
</tr>
<tr>
<td>Diphtheria</td>
<td>Seek advice from the HPU</td>
<td>Seek advice from the HPU</td>
<td>Susceptible contacts need to be followed up by the HPU. Vaccine-preventable.</td>
</tr>
<tr>
<td>E. coli O157 and haemolytic uraemic syndrome</td>
<td>Food handlers excluded until clear</td>
<td>Under 5s excluded until clear Consult HPU</td>
<td>E. coli O157 is highly infectious and can cause serious illness in young children. Contacts who are children or food handlers are excluded until they are clear and the household case is symptom-free. Seek advice from the HPU.</td>
</tr>
<tr>
<td>Food poisoning</td>
<td>Until 48 hours after symptoms cease</td>
<td>Until 48 hours after symptoms cease</td>
<td>Especially important for food handlers and young children Inform the HPU and EHO if there is a cluster of cases.</td>
</tr>
<tr>
<td>German measles (rubella)</td>
<td>None</td>
<td>Five days from the onset of the rash</td>
<td>The child is most infectious before the rash appears. Vaccine-preventable (MMR x2). Pregnant women who are in contact with a case should inform their GP for prompt investigation</td>
</tr>
<tr>
<td>Giardiasis</td>
<td>Until 48 hours after symptoms cease</td>
<td>Until 48 hours after symptoms cease</td>
<td>Especially important for food handlers and young children. Specific treatment is available. Inform the HPU and EHO if there is a cluster of cases.</td>
</tr>
<tr>
<td>Glandular fever</td>
<td>None</td>
<td>None</td>
<td>About 50% of children get the disease before they are five and many adults acquire the disease without being aware of it.</td>
</tr>
<tr>
<td>Hand, foot &amp; mouth disease (Coxsackievirus)</td>
<td>None</td>
<td>None</td>
<td>Usually a mild illness not justifying time away from school, though easily spread and very infectious mainly before showing symptoms. Inform HPU if large number affected.</td>
</tr>
<tr>
<td>Condition</td>
<td>Exclusion from work (once well)</td>
<td>Exclusion from school / nursery (once the child is well)</td>
<td>Comments</td>
</tr>
<tr>
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</tr>
<tr>
<td>Head lice or nits</td>
<td>None</td>
<td>None</td>
<td>Treat cases where a living louse has been found. Check heads of all household contacts and treat cases with head louse lotion, repeat after 7 days. Parents should carry out regular detection combing.</td>
</tr>
<tr>
<td>Hepatitis A</td>
<td>7 days from onset of jaundice</td>
<td>7 days from onset of jaundice</td>
<td>Especially important for food handlers and young children, but less important in older children with good hygiene. Cases are most infectious in the 2 weeks before the symptoms appear.</td>
</tr>
<tr>
<td>Hepatitis B &amp; C</td>
<td>None</td>
<td>None</td>
<td>Although more infectious than HIV, hepatitis B and C have only rarely spread within a school setting. Cover all cuts with a waterproof plaster. Wear gloves for cleaning spills of blood. Healthcare workers should be immunised against hepatitis B.</td>
</tr>
<tr>
<td>HIV / AIDS</td>
<td>None</td>
<td>None</td>
<td>Not infectious through casual contact and no recorded cases of spread within a school or nursery. Cover all cuts with a waterproof plaster. Wear gloves for cleaning spills of blood.</td>
</tr>
<tr>
<td>Impetigo</td>
<td>Until 24 hours after starting treatment</td>
<td>Until lesions are crusted or healed</td>
<td>Antibiotic treatment by mouth may speed healing. If lesions can be covered by a plaster/dressing exclusion period may be reduced. Inform the HPU if there is a cluster of cases.</td>
</tr>
<tr>
<td>Influenza (flu)</td>
<td>None</td>
<td>None</td>
<td>Flu is most infectious just before and at onset of symptoms. Immunisation is recommended for some vulnerable groups.</td>
</tr>
<tr>
<td>Measles</td>
<td>Five days from the onset of rash</td>
<td>Five days from the onset of the rash</td>
<td>Highly infectious but preventable by routine vaccination. Non-immune contacts should be offered MMR. Children with immunity problems (leukaemia, cancer, high dose steroids etc) and pregnant women should inform their GP, or antenatal care provider, if they are in contact with a case.</td>
</tr>
<tr>
<td>Condition</td>
<td>Exclusion from work (once well)</td>
<td>Exclusion from school / nursery (once the child is well)</td>
<td>Comments</td>
</tr>
<tr>
<td>----------------------------------------</td>
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</tr>
<tr>
<td>Meningococcal meningitis / septicaemia</td>
<td>None</td>
<td>None</td>
<td>Cases will be too ill to attend school for some time. There is no need to exclude siblings or close contacts of a case. The HPU will advise on any action needed and will identify close contacts to offer antibiotics. Meningococcal C is preventable by routine vaccination.</td>
</tr>
<tr>
<td>Meningitis (not due to meningococcal infection)</td>
<td>None</td>
<td>None</td>
<td>Infection risk is minimal once the child is well. HIB and pneumococcal meningitis are vaccine-preventable.</td>
</tr>
<tr>
<td>Molluscum contagiosum</td>
<td>None</td>
<td>None</td>
<td>A mild, self-limiting condition.</td>
</tr>
<tr>
<td>MRSA</td>
<td>Depends on circumstances</td>
<td>None</td>
<td>Good hand and environmental hygiene. Contact HOU for advice</td>
</tr>
<tr>
<td>Mumps</td>
<td>Five days after onset of swollen glands</td>
<td>Five days after onset of swollen glands</td>
<td>Child is most infectious before symptoms appear. Preventable by routine vaccination.</td>
</tr>
<tr>
<td>Paratyphoid fever</td>
<td>Seek advice from the HPU</td>
<td>Until microbiologically clear. Seek advice from the HPU</td>
<td>Especially important for children under 5 years, children who cannot manage own hygiene and food handlers. Cases and contacts must be followed up by the HPU. Often several negative specimens of faeces are needed. Exclude from swimming until symptom-free for 2 weeks.</td>
</tr>
<tr>
<td>Ringworm (tinea)</td>
<td>Until on treatment</td>
<td>Until on treatment</td>
<td>Obtain correct treatment, from GP if scalp is affected. Enhanced cleaning and hand washing is essential. Check and treat symptomatic pets.</td>
</tr>
<tr>
<td>Roseola (infantum)</td>
<td>None</td>
<td>None</td>
<td>A mild illness that may be caught from a well person. Nearly all children are affected in early childhood and therefore immune by school age.</td>
</tr>
<tr>
<td>Condition</td>
<td>Exclusion from work (once well)</td>
<td>Exclusion from school / nursery (once the child is well)</td>
<td>Comments</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>---------------------------------</td>
<td>---------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Salmonella</td>
<td>Until symptoms have ceased for 48 hours</td>
<td>Until symptoms have ceased for 48 hours</td>
<td>Especially important for children under 5 years, children who cannot manage own hygiene and food handlers.</td>
</tr>
<tr>
<td>Scabies</td>
<td>None, or after 1st treatment</td>
<td>After 1st treatment Until treated: two treatments 1 week apart</td>
<td>Two applications one week apart for cases. Outbreaks can occur in schools, families and residential care settings. All people living in the same household need treatment. Inform the HPU if there is a cluster of cases as more extensive intervention may be required</td>
</tr>
<tr>
<td>Scarlet fever (scarletina)</td>
<td>Until 24 hours of treatment</td>
<td>Five days from starting antibiotics</td>
<td>Treatment is recommended</td>
</tr>
<tr>
<td>Shingles</td>
<td>One week after lesions first appear, if rash is weeping and cannot be covered</td>
<td>One week after lesions first appear, if rash is weeping and cannot be covered</td>
<td>Pregnant women contacts that have not had chickenpox should see their GP. People who have not had chickenpox should avoid contact with a case for one week after lesions appear.</td>
</tr>
<tr>
<td>Shigella (bacillary dysentery)</td>
<td>Until symptoms have ceased for 48 hours</td>
<td>Until symptoms have ceased for 48 hours</td>
<td>Especially important for children under 5 years, children who cannot manage own hygiene and food handlers. Exclude from swimming until symptom-free for 2 weeks.</td>
</tr>
<tr>
<td>Slapped cheek (Fifth) disease / Parvovirus B19</td>
<td>None</td>
<td>None</td>
<td>A mild illness, infectious before the rash appears. Pregnant women exposed before 20 weeks should inform her antenatal care provider to ensure prompt investigation.</td>
</tr>
<tr>
<td>Threadworms</td>
<td>None</td>
<td>None</td>
<td>Transmission in school is uncommon. Treatment is recommended for the affected child and their family</td>
</tr>
<tr>
<td>Tonsillitis</td>
<td>None</td>
<td>None</td>
<td>Most cases are viral and antibiotics are not needed</td>
</tr>
<tr>
<td>Condition</td>
<td>Exclusion from work (once well)</td>
<td>Exclusion from school / nursery (once the child is well)</td>
<td>Comments</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>---------------------------------</td>
<td>----------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Tuberculosis</td>
<td>Seek advice from the HPU</td>
<td>Seek advice from the HPU</td>
<td>Not usually spread from children. TB is only infectious if the case has the bacteria in their sputum. Generally requires quite prolonged close contact for spread. Two weeks of treatment usually renders the patient non-infectious. Contacts within the household are followed up and the HPU will inform if any further action needs to be taken.</td>
</tr>
<tr>
<td>Typhoid fever</td>
<td>Seek advice from the HPU</td>
<td>Until microbiologically clear. Seek advice from the HPU</td>
<td>Especially important for children under 5 years, children who cannot manage own hygiene and food handlers. Cases and contacts must be followed up by the HPU. Often several negative specimens of faeces are needed. Exclude from swimming until symptom-free for 2 weeks.</td>
</tr>
<tr>
<td>Verrucas and warts</td>
<td>None</td>
<td>None</td>
<td>The verruca must be covered in swimming pools, gyms etc.</td>
</tr>
<tr>
<td>Whooping cough (pertussis)</td>
<td>Five days from starting antibiotics, or 21 days from onset if no antibiotics given.</td>
<td>Five days from starting antibiotics, or 21 days from onset if no antibiotics given.</td>
<td>Treatment is recommended though non-infectious coughing may continue for many weeks. If not treated cases are infectious for 21 days. Preventable by routine vaccination.</td>
</tr>
</tbody>
</table>
PART D

CLINICAL PROCEDURES
D 1.0 The immuno-suppressed client

An increasing number of patients have severely compromised immune systems due to cytotoxic drug therapy, recipients of bone marrow transplant or other transplanted tissues, or HIV/AIDS. Patients are considered to be neutropoenic when their neutrophil count falls below $0.5 \times 10^9/L$.

General principles

- Limit contact to as few people as possible e.g. immediate family and staff.
- Avoid swimming in water that is likely to be contaminated with *Cryptosporidium* including lakes, rivers, and beaches. It may be advisable to avoid swimming pools.
- Ensure that contacts understand the need to protect the patient from common infections e.g. colds and that they practice effective hand washing.
- Food should be prepared in accordance with good food hygiene practice and in addition the following foods should be avoided:
  - Raw fruit
  - Salads
  - Uncooked vegetables
  - Unpasteurised milk products
  - Soft cheeses
  - Eggs – especially raw or lightly cooked
  - Pate
  - Reheated/thawed foods
  - Uncooked herbs and spices including pepper
  - All water should be boiled then cooled before consumption, including water used to make ice cubes.
  - Encourage regular mouth care and observe carefully for signs of oral infection.
  - Encourage regular foot care and observe carefully for signs of foot infections.
  - Observe carefully for signs of infection e.g. temperature; flushing; rigors; sweating.
  - Living environment should be kept clean
D 2.0 Indwelling urinary catheters

D 2.1 Inserting, changing and removing urinary catheters

Suitably qualified staff, who have been assessed as competent in urinary catheterisation, must carry out these procedures. Patients, carers and staff should be trained in the management of urinary catheters.

There should be a written policy/protocol to cover this procedure. A sterile field and sterile equipment and gloves must be used for the procedure and a strict aseptic technique adhered to.

The same infection control guidelines apply to both urethral and supra-pubic catheters. Good catheter care will help to avoid urinary tract infections. Germs may be carried on the hands of staff, or germs normally present on the client’s body may track up the catheter to the bladder. If precautions are not taken that will reduce the potential for infection and cross-infection, serious or even life-threatening illness may result.

Before inserting an indwelling catheter and assessment of the patient’s needs should be undertaken. Where possible intermittent catheterisation or a catheter valve should be used in preference to an indwelling catheter. Long term indwelling catheters should have low allergenicity where possible.

The meatus should be cleaned prior to insertion of a catheter and single use lubricants used. Unless otherwise indicated catheter balloons should be inflated with 10ml of sterile water in adults or 3-5 mls in children.

Do not take routine catheter specimen of urine unless symptomatic. All catheter urine become contaminated after a few days and may look discoloured, thick, smelly etc. This does not necessarily indicate an infection or the need for a sample to be taken.

Table 12 Daily management of indwelling urinary catheters

<table>
<thead>
<tr>
<th>Action</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Careful hand washing must always be carried out before and after handling the system</td>
<td>This prevents spread of micro-organisms between carers, patient and others</td>
</tr>
<tr>
<td>Use an aseptic technique and sterile gloves for insertion or manipulation of the catheter and equipment</td>
<td>Prevent introducing microbes into the urinary system</td>
</tr>
<tr>
<td>Clean the area around the catheter daily using mild soap and water, rinsing away the soap and drying carefully. Men should clean under the foreskin. A shower or bath is adequate</td>
<td>This prevents the build-up of bacteria which could cause infection</td>
</tr>
<tr>
<td>Check for friction / sores around the labia, meatus and supra-pubic site daily. Report any concerns to the person in charge.</td>
<td>Prevent wounds that can act as a focus for infection</td>
</tr>
</tbody>
</table>

Continued overleaf…
<table>
<thead>
<tr>
<th><strong>Action</strong></th>
<th><strong>Rationale</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevent constipation</td>
<td>A full bowel can press on the catheter tube and prevent free drainage of urine</td>
</tr>
<tr>
<td>A fluid intake of 2-3 litres per day</td>
<td>Adequate fluid intake promotes good urine flow, flushing the catheter and preventing blockage</td>
</tr>
<tr>
<td>Use a non-drainable night bag and discard every day</td>
<td>Avoids ascending colonisation of the catheter bag, that could result in infection</td>
</tr>
<tr>
<td>Connect indwelling catheters to a sterile, closed urinary drainage system or a catheter valve. Do not break closed system except for good clinical reasons (e.g. changing the bag)</td>
<td>Prevent infection</td>
</tr>
<tr>
<td>Reusable intermittent catheters should be cleaned with water and stored dry as per manufacturer’s recommendations.</td>
<td>Avoid introducing micro-organisms</td>
</tr>
<tr>
<td>Empty the drainage bag frequently enough to promote flow and prevent reflux.</td>
<td>The weight of a full drainage bag may pull on the catheter, causing trauma. Frequent emptying of the bag breaks the closed system</td>
</tr>
<tr>
<td>When emptying the drainage bag, wash hands before and after the procedure and wear non-sterile disposable gloves</td>
<td>Prevents transmission of micro-organisms</td>
</tr>
<tr>
<td>Empty drainage bag into a receptacle that has been washed in a bedpan washer/disinfector if possible or use disposables. If this is not possible provide each client with their own receptacle, clean it after use with detergent and water, rinse in very hot water and dry thoroughly</td>
<td>Prevents potentially pathogenic bacteria multiplying in the receptacles and causing cross infection</td>
</tr>
<tr>
<td>When using leg bags maintain the closed system at night by connecting the leg bag to the night bag. A non-drainable night bag is recommended which should be discarded daily. If a drainable night-bag is required, drain thoroughly every morning, prevent contamination of the taps and change weekly or when soiled</td>
<td>Maintaining the closed system (i.e. avoiding unnecessary disconnections) prevents bacterial access, thus reducing the risk of infection.</td>
</tr>
<tr>
<td>Keep the catheter drainage bag above the floor but below bladder level</td>
<td>Prevent organisms in the tubing from back-tracking into the bladder</td>
</tr>
</tbody>
</table>

Continued overleaf...
<table>
<thead>
<tr>
<th><strong>Action</strong></th>
<th><strong>Rationale</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Securely fasten bags to the leg, to a carrier on the bed or to a freestanding frame. Do not let them trail on the floor.</td>
<td>Prevent trauma and contamination of the outflow tap</td>
</tr>
<tr>
<td>Change catheters when clinically indicated or as per manufacturer’s recommendation.</td>
<td>Prevent trauma and infection</td>
</tr>
<tr>
<td>If the catheter blocks, try a bladder instillation/irrigation. If unsuccessful, re-catheterise. Document problems</td>
<td>Tube may be blocked with debris. Avoid washouts if possible to minimise breaking the closed system</td>
</tr>
<tr>
<td>If the urine is cloudy, offensive smelling and/or the patient complains of a burning pain. Increase oral fluids and observe for changes.</td>
<td>May have an infection</td>
</tr>
<tr>
<td>Inform a doctor if the patient has a temperature, if urine is bloodstained or the patient complains of abdominal pain</td>
<td>May have an infection</td>
</tr>
<tr>
<td>If a urine sample is required use the sampling port and an aseptic technique</td>
<td>Avoid contaminating sample</td>
</tr>
</tbody>
</table>

**Note:** key to problem-free management of urinary catheters:

- Personal hygiene - to help prevent infection
- A good fluid intake – to promote bladder drainage
- A good diet - to prevent constipation
- Regular exercise - to help bladder drainage
- Closed urinary catheter system - to help prevent infection
- Use an aseptic technique – to prevent infection
D 3.0 Infusion devices

There has been an increasing use of medical technology in palliative care settings, care homes and even individual client's homes. These invasive devices include peripheral intravenous catheters; central venous skin-tunnelled catheters e.g. Hickman lines; central lines used for total parenteral feeding (TPN); subcutaneous infusions via a syringe driver and spinal infusions.

These devices provide portals for infection and place patients at increased risk of infection, therefore care should be taken in ensuring that the equipment selected and the locality of insertion sites will help to prevent infection developing. The devices should be removed as soon as they are no longer clinically necessary.

Accurate records relating to all aspects of the management of the devices need to be maintained. This includes when the device was inserted and by whom, details of the devices used, solutions infused, adverse effects, drugs administered, dates when equipment was changed etc.

D 3.1 Education of patients, their carers and healthcare staff

- Staff must be trained and deemed competent in the management of these devices
- Patients and carers and informal carers who may look after these devices should be taught any relevant techniques prior to discharge from hospital, and know where they can seek advice if problems arise
- Ongoing support for patients, carers and staff must also be available from specialists

D 3.2 Hand hygiene and aseptic technique

- Before dressing the insertion site, or manipulating the devices, hands must be decontaminated using either soap and water or alcohol hand rub/gel.
- After decontaminating the hands, wear a pair of clean gloves and use a non-touch technique when changing the dressing. If more manipulation is necessary wear sterile gloves.
- If hands become visibly soiled they need to be cleaned with soap and water.

D 3.3 Catheter site care

- Peripheral catheters should be dressed with sterile gauze or opaque dressing
- Central venous catheter (CVC) sites should ideally be dressed with a sterile, transparent, semi-permeable polyurethane dressing
- If the site is oozing, or if the patient is perspiring profusely sterile gauze can be used as an alternative CVC dressing until the skin becomes drier
- Change transparent or dressings every 7 days, or once they are no longer intact or when moisture collects beneath the dressing.
• Change gauze dressings as soon as they become loosened, damp or soiled and no longer act a barrier. Assess daily and replace with a transparent dressing as soon as possible.

• Dressings used on tunneled or implanted central venous catheters should be changed every 7 days until the site has healed, or sooner if indicated.

• Use alcoholic chlorhexidine gluconate for cleaning the insertion site when changing the dressing; an aqueous solution may be needed if the manufacturer recommends the avoidance of contact with alcohol.

• Don’t apply alcohol, acetone, ether, topical antibiotic ointments or creams to the insertion site. These substances may not be compatible with the tubing and may promote fungal infection or antimicrobial resistance.

• Insertion sites should be checked regularly for signs of infection e.g. pain, inflammation, swelling, exudate and report problems to the clinician and the cannula removed if infection is suspected.

D 3.4 Accessing the system

• Prior to accessing the system, decontaminate hands, wear clean gloves and use a non-touch technique.

• Decontaminate injection ports and catheter hubs before and after handling using 70% alcohol or alcoholic solution of chlorhexidine gluconate. Allow the solution to evaporate before accessing the device.

• If parenteral nutrition is to be administered, ideally use a single lumen catheter. If a multi-lumen catheter is required dedicate one lumen for TPN.

• Use a 0.9% sodium chloride flush for maintaining or checking the patency of the devices.

D 3.5 Changing the devices

• Change peripheral catheters at least every 72 hours to prevent phlebitis.

• Remove a peripheral catheter if signs of phlebitis develop (e.g. warmth, tenderness, redness and palpable venous cord).

• Central venous catheters do not need to be routinely changed to prevent infection.

• Administration sets used for general purposes, or for the administration of dextrose and amino acids, need not be changed more frequently than at 72 hour intervals unless they become disconnected or infection is suspected.

• If used for blood and blood products, or Total Parenteral Nutrition change the administration set after the infusion or after 24 hours, whichever is soonest.
D 4.0 Tracheostomies

Detailed information about the management of tracheostomies is available from ear, nose and throat departments, many of which employ specialist nurses in this field. Those caring for someone with a tracheostomy for the first time must have some training from a specialist to ensure they are competent to deal with all the relevant situations and procedures.

Tracheostomy sites sometimes become infected or colonised with microorganisms such as MRSA. If infection is suspected, send a swab to the laboratory. Discuss any necessary treatment with the microbiologist.

D 4.1 Cleaning and dressing the tracheostomy site

- Hands must be cleaned before and after touching tracheostomy sites or dressing the wound
- Disposable gloves are advisable
- Clean the skin around the tube with 0.9% sodium chloride or warm water and low-linting swabs
- Dry the area and re-dress using a tracheostomy, or keyhole, dressing
- Do not use lotions or creams without consulting a specialist or GP
- Inform the GP or specialist if the skin around the tracheostomy becomes red

D 4.2 Changing and cleaning an inner tube

If there is an inner tube in place it must be kept clean and free from secretions, by cleaning 3 to 4 times per day.

- Wash hands
- Hold the neck plate of the tube, unlock the inner tube by pulling firmly on the ring pull
- Still holding the neck plate, remove the inner tube by pulling it downwards and outwards
- Place the tube in a bowl of water with sodium bicarbonate to help loosen the secretions. Carefully remove the secretions using a brush.
- Rinse the tube with water and dry with clean gauze
- To reinsert the tube, push it firmly into the outer tube whilst holding the neck plate steady with the other hand.
- Lock it into position and wash hands
- If there are any problems removing the tube contact the doctor or specialist nurse at once.
D 4.3 Changing tracheostomy ties

If there are tracheostomy ties in place they should be changed daily or whenever they become soiled.

- Wash hands
- Remove new tie from the packet
- Remove the old tie, holding the neck plate of the tube firmly in place
- Place one end of the new tie through the hole in the neck plate and secure
- Do the same on the other side
- Secure the tie by sealing the Velcro at the back of the neck or tying. The tie should be tight enough to hold the tube in place, but loose enough to allow two fingers to be inserted between the neck and the ties.
D 5.0 Enteral Feeding\textsuperscript{13,103,108,109}

Patients and carers (including informal carers) who are involved in the management of enteral feeding in the home or community settings should receive appropriate education and training. Staff who prepare and administer enteral feeding should be deemed competent before undertaking these procedures.

Enteral feeding systems are susceptible to microbial contamination, which may result in systemic infection, especially in vulnerable or immuno-suppressed individuals.

D 5.1 Equipment

- Use sterile, single-use systems and pre-packaged, ready-to-use feeds
- Select the feeding system appropriate to the needs of the individual
- Minimise the number of connections to the system
- Store feeds at the correct temperature in accordance with manufacturer’s recommendations.
- Do not reprocess feeding system components that are labelled “for single-use only”
- Use a pump that is easy to clean, without knobs or grooves that may trap dirt
- Ensure pumps are maintained and serviced regularly and keep clean using warm water and detergent

D 5.2 Preparation

- Wash hands prior to handling enteral feeding systems, or insertion sites and wear clean disposable gloves
- If clean paper towels are not available, use clean kitchen roll and apply alcohol hand rub/gel to disinfect the skin
- Prepare feed under controlled conditions to minimise contamination prior to use
- Use ready made, full strength feed and avoid decanting where possible
- Ensure the feed is reconstituted or diluted immediately prior to use
- Where ready-to-use feeds are not available, feeds may be prepared in advance, stored in a refrigerator and used within 24 hours.
- Bottle openers should be dedicated for enteral feeding only. They should be washed in a dishwasher, or hot water and detergent. Prior to use, disinfect with an alcohol-impregnated wipe.
D 5.3 Administration

- Use an aseptic technique and minimal handling when connecting the administration system to the feeding tube.

- Flush the feeding tube with fresh tap water before and after administering the feed and after each medication given. For infants under 1 year of age, immuno-compromised individuals and for patients fed via the jejunum use sterile water or boiled, cooled water. Once boiled and cooled the water is transferred to a clean, lidded container. It is stored in a refrigerator, away from raw foods, at 5°C or below for a maximum of 24 hours.

- Use a 50 ml syringe that is then discarded – use disposables if available and **Do not re-use disposable items**

- Use feed within the expiry date and within permissible hanging times (the risk of contamination is increased if feed is open for longer than 24 hours)

- If breast milk, reconstituted, modified or mixed feeds are given they must be allowed to hang for no longer than 4 hours

- In residential care settings, label the feed with the name of the client, the date and time the feed was set up

- Avoid interrupting the feed once it has started

- If medications are given, aqueous solutions are preferable to elixirs to avoid blocking the tube and bacterial growth

- On completion of the feed, flush the enteral tube in accordance with manufacturer’s instructions and consider the age/size of the patient and their fluid balance status

- Cover the connection point with the cap provided by the manufacturer to prevent contamination of the tube

- Administration (giving) sets and feed containers are for single use and must be discarded after each session

- Clinical equipment may be discarded as household waste since it poses a minimal infection risk. Place in a black bag and tie securely. Discard in a bin away from scavengers.

D 5.4 Management of the insertion site

- Keep the skin clean and dry

- Cover with a sterile dressing until the wound is healed

- Position the tube to prevent leakage of gastric contents

- Suspect infection if the insertion site becomes inflamed, red and painful

- Report any adverse events or suspected infection to the client’s clinician, or member of the Nutrition Team.
D 6.0 Wound / ulcer care

The presence of a wound or ulcer can increase the risk of the individual developing infection or becoming colonised, for example with MRSA. It is therefore important to try to prevent wounds, such as pressure ulcers, if possible, and to prevent infection in existing wounds.

The key measures that can help to prevent wound infection/colonisation include:

- Hand hygiene before handling wounds or dressings
- Wearing gloves when handling wounds
- Using a wound dressing that is appropriate to the wound
- Changing dressings when indicated and whenever the barrier-effect has been impaired (e.g. wet)
- Selecting a dressing that will promote healing

These principles apply regardless of whether an aseptic technique or a clean technique is used.

Aseptic dressing technique

Must be used for acute wounds such as surgical wounds, recent trauma, burns and scalds and for chronic wounds in patients who are at greater risk of infection, e.g. immuno-compromised, circulatory problems or diabetes.

For aseptic technique sterile gloves, sterile irrigation fluids and sterile equipment and dressing are used in addition to hand hygiene.

Clean dressing technique

May be used for chronic wounds, such as leg ulcers and pressure sores in people with normal infection risk.

Clean gloves and equipment and tap water may be used in addition to hand hygiene. However care should still be taken to avoid introducing pathogens into the wound.

For further details on wound management refer to local wound management guidelines, or to a good wound care formulary, to the local Community Nurse or Wound Care Specialist.
D 7.0  Dental and podiatry care

D 7.1  Introduction

Infection control procedures are a routine part of everyday clinical practice, and aim to control the risk of infection and cross-infection between patients and staff. The previous sections are relevant to dental and podiatry practice, but some key principles are outlined below. Practitioners may wish to develop local procedures, based on this document or the latest BDA guidance on infection control. Locally agreed procedures may be filed at the end of this section or in Part H.

Everyone should be regarded as potential carriers of transmissible organisms, therefore standard (universal) precautions must be adopted.

A thorough medical history should be obtained when each patient visits for the first time, and updated periodically. Any disclosure made by the patients, family or carers should be treated with sensitivity and with strict confidentiality.

D 7.2  Routes of transmission

The main route of transmission is contact with skin or blood. This may be direct or indirect and may involve:

- Injection or inoculation of blood via:
  - Sharps injury
  - Contamination of an open wound
  - A bite that breaks the skin.
- Contact with contaminated articles such as clothing, chair, and records.
- Contact with contaminated instruments
- Contact with aerosol, spray or splatter.

D 7.3  Standard infection control precautions

D 7.3.1  Hand hygiene

Hands should be disinfected at the beginning of the treatment session, prior to donning gloves. This involves washing hands thoroughly using soap and water followed by 2 applications of alcohol based hand rub or using an aqueous antiseptic solution. A laminated poster demonstrating the hand hygiene technique should be displayed on the wall of the surgery. (B 1.0 and Table 2).

After glove removal, hands that are not contaminated can be disinfected with an alcohol based hand rub.

D 7.3.2  Use of personal protective equipment

Good quality non-sterile medical gloves should be worn for all clinical procedures and changed after every patient or when damaged.
If it is likely that aerosols or splatter of foreign bodies will be generated by particular procedures, wear eye and face protection such as a mask and visor. B 3.0.

D 7.3.3 Waste disposal

Sharp items e.g. needles, scalpels and local anaesthetic cartridges, should be placed in a BS Sharps container. When two-thirds full, this should be securely fastened and sent for incineration.

Where possible, use a needle-less system and needles with automatic re-sheathing mechanisms.

In general re-sheathing of needles is not recommended. If it is unavoidable use a safer technique such as a re-sheathing device or a single-handed technique.

Extracted teeth should be disposed of as sharps. Extracted teeth containing amalgam fillings should be disposed of in the waste mercury box (Mercon tooth box).

Dispose of local anaesthetic cartridges into a sharps container. Label sharps containers with the name of clinic and department.

Non-sharp contaminated waste should be placed in yellow plastic bags and sealed before disposal. Yellow bags should be disposed of daily. Place in a second bag if original bag is perforated. (B 7.0 and Table 8)

D 7.3.4 Decontamination of medical devices

The decontamination procedures outlined in B 5.0 are relevant for dental and podiatry practice in clinics and domiciliary settings. All NHS premises must comply with the National Decontamination Strategy by 31 March 2007, monitored by the Healthcare Commission. Instruments used for high risk procedures must be sterilised. It is recommended that cleaning and sterilisation of instruments be undertaken in a Central Sterile Supplies Department.

D 7.4 Management of patients with a known infection risk

It is not always possible to know when a patient is an infection risk; therefore a high standard of infection control is needed with all patients. Assess the risk of disease when a patient first joins the practice and periodically thereafter.

Standard (universal) precautions should be adopted for all patients.

Where possible, arrange for patients with a known infection risk to be seen at the end of a session.

Always allow sufficient time to carry out all infection control procedures thoroughly. This includes the decontamination of equipment, wearing good quality gloves, carrying out hand hygiene at appropriate times.
D 7.4.1 MRSA

Many patients with MRSA are unlikely to be clear for sometime. MRSA often persists in a chronic wound or catheter site and until this problem is removed the patient may remain MRSA positive. See C 19.0 for further details.

The main source of cross infection to other susceptible patients is by hand contact; therefore the usual glove and hand hygiene procedures are important. Standard infection control precautions are sufficient

If the patient is known to have MRSA, treat at the end of a session if possible to allow time for routine hygiene to be undertaken.

D 7.4.2 Tuberculosis

Only patients whose sputum contains the TB bacilli are infectious to others (i.e. open pulmonary TB) See C 25.0 for further details.

Most patients will no longer be infectious after two weeks of appropriate antibiotic therapy. Most patients with open TB will be nursed in hospital until negative

In the unlikely event of giving treatment to a patient with open TB, discuss the situation with the Health Protection Unit. Wear a face mask (ideally a high efficiency particulate respirator) and treat them at the end of the session

D 7.4.3 Immuno-compromised patients

Severely immuno-compromised patients are likely to be nursed in special conditions in hospital.

Other immuno-compromised patients should be treated first, or at the end of the session, so they do not have to wait for long periods in a waiting room.

Hand hygiene, decontamination and aseptic techniques are important to prevent them acquiring infection.

D 7.4.4 Creutzfeldt-Jakob disease (CJD)

Although there is a theoretical risk of transmission of CJD and related disorders especially during dental procedures, there is no known case of this happening and the risk appears to be low. It is not yet clear if blood transmits the diseases. (C 8.0)

No special infection control precautions are needed for patients who are known, or suspected to have CJD, or those who may be at risk of developing CJD. Standard infection control precautions must be used with all patients. It is particularly important to ensure that instruments are either single-use, or adequately cleaned and sterilised after use.

Some local policies specify that where dental surgery involves handling of neurological tissues, the procedure should be undertaken in a hospital setting and hospital policy for the management of CJD followed.

There is no reason to refuse any patient dental treatment for reasons of CJD.
D 7.4.5 Blood-borne viruses

It is impossible to know which patients have a blood-borne infection. Some patients may know that they are infected and may or may not choose to disclose that information. Others will be unaware that they are infected. Therefore it is essential to practise infection control procedures that will prevent the spread of infection regardless of a known diagnosis.

The standard infection control precautions outlined in this document will be effective in preventing spread and they should be followed with all patients. If a patient confides that he/she is infected additional precautions are not necessary provided standard precautions are followed. If it is decided to place the patient with a blood-borne infection at the end of the list to facilitate good hygiene after treatment, consider that the first patient may have a blood-borne infection but be unaware of their condition. Therefore good hygiene is essential after all treatments.

D 7.5 Domiciliary treatment

Ideally, the sterile supplies department should be used to reprocess instruments used for domiciliary visits. Where this is not available the equipment/instruments/materials should be containerised as far as possible.

Sterilised instruments/forceps etc. should be sealed in sets within Steri-Pouches to prevent re-contamination (B 5.5.9). These devices should be considered clean rather than sterile when used.

Low risk waste, e.g. dressings may be discarded in the normal household waste stream, i.e. black bags. If any high-risk waste is generated e.g. sharps, dispose in the appropriate container and take back to the base clinic for disposal. (B 7.2).

Contaminated instruments should be placed in a secure container for return to the base clinic for sterilisation.
D 8.0 Acupuncture

Acupuncture is the practice of inserting needles into specific parts of the body in order to stimulate energy pathways and assist the body in self-healing. It is a safe procedure if performed by trained and competent practitioner. However, it is possible for acupuncture to cause complications including the spread of infections such as hepatitis B and C as well as HIV, although these are not common. Many cases of cross infection have been associated with inadequate sterilisation of re-usable needles. For this reason only single-use needles are recommended.

D 8.1 Facilities

Only trained, experienced and competent practitioners should undertake acupuncture unsupervised.

- The room in which the procedure is undertaken must be suitable.
- There must be a clinical hand washbasin, complete with liquid soap and paper towels. The surfaces in the room must be washable.
- The couch or bed must have a smooth, impervious cover that is in good repair and is washable.
- The couch should be protected with disposable paper roll during treatments
- A sharps container will be available of a size suitable for the volume of sharps generated
- If other clinical waste is produced a suitable clinical waste container must be available

D 8.2 Skin preparation

- Wash hands prior to the procedure
- Wearing non-sterile latex or vinyl gloves helps to reduce infection risks, especially if a needle-stick injury is sustained
- The patient’s skin does not need to be disinfected. But if the site appears dirty the skin should be cleaned with soap and water and dried.

D 8.3 Management of sharps

- Do not test the sharpness of needle on own skin
- Do not touch the shaft of the needle
- Do not point needle towards self when inserting
- Discard needles directly into a sharps container immediately after the procedure
- Acupuncture practitioners should be immunised against hepatitis B
- An inoculation injury policy must be available
D 9.0 Ear irrigation (syringing)\textsuperscript{115,116,117}

Although ear syringing is a commonly performed procedure in general practice it accounted for 19% of the claims settled by the Medical Defence Union over a five-year period. In one study of earwax removal 38% of practitioners recorded complications following the procedure including perforation, canal laceration and failure to remove the wax. Other complications include infection, deafness, pain, vertigo and tinnitus.

Staff undertaking ear irrigation must:

- Be competent
- Examine and assess the ear problem for each patient
- Identify risks, inform the patient and record them
- Follow an agreed protocol
- Decontaminate equipment between uses. See B Table 6.
- Maintain, check and use equipment in accordance with manufacturer’s recommendations and local protocol
- Check that any excessive water is removed from the ear following irrigation

Metal syringes are not recommended for this purpose. Electronic irrigators such as “Propulse” or “Otoscillo” allow the ear canal to be irrigated rather than subjected to pressure. If the original “Propulse” irrigator is used an isolation transformer must also be used for safety reasons.

Further information regarding this procedure and training courses can be obtained from the Primary Ear Care Centre website: www.earcarecentre.com
D 10.0 Venepuncture

A safer system of work is recommended for handling blood in order to protect both the patient and the healthcare worker. Vacuum blood collection systems have been shown to reduce injuries in health care workers and are recommended for use wherever possible. They consist of a plastic holder, which contains or is attached to a double-ended needle or adaptor. A vacuumeed tube is pushed onto the holder and blood drawn off. An aseptic technique should always be used.

It is impossible to known of all patients infected with a blood-borne virus; therefore standard infection control precautions whenever taking blood. Factors that increase the risk of skin contamination with blood include:

- A patient who is difficult to bleed
- A patient who is receiving anti-coagulation therapy
- A patient who is restless and un-co-operative
- A practitioner with broken skin or a cut etc
- A practitioner who is inexperienced

D 10.1 Infection control measures

- Collect equipment, including a sharps container
- Use disposable tube-holders to avoid re-sheathing and prevent cross infection.
- Decontaminate hands prior to the procedure and wear disposable gloves
- Decontaminate the insertion site by rubbing the skin vigorously with an alcohol impregnated swab or chlorhexidine 70% in alcohol, for at least 30 seconds
- Allow the skin to dry and avoid touching the disinfected area
- Use a vacuum blood collection system in accordance with manufacturer’s guidelines and local procedures
- When the needle is fully removed apply a swab to the insertion site and apply pressure to stop the bleeding (the patient may be able to do this)
- Discard the needle and tube-holder directly into a sharps container
- Remove gloves and decontaminate hands
- Label the sample and laboratory request forms with relevant clinical details and attach a bio-hazard sticker if necessary

D 10.2 Additional safety notes

Never force blood from a traditional syringe and needle into a vacuumed tube. This can damage the sample, produce aerosols and separate the syringe from the needle.

Never use a tube-holder or other devices that are contaminated with blood.

Avoid re-sheathing needles. If this is unavoidable never hold a needle sheath between the fingers, use a re-sheathing device or a one-handed technique.
D 11.0 Administration of Intra-muscular Methotrexate

Methotrexate is an anti-metabolic cytotoxic agent. It can be administered via oral, subcutaneous and intra-muscular route. It suppresses clinical and laboratory markers of disease activity and is used to slow the progression of the disease but the precise mode of action is unknown. Unlike non-steroidal anti-inflammatory drugs (NSAIDs) which produce and immediate therapeutic effect, Methotrexate is unlikely to produce any benefit before 4-6 weeks and often takes as long as 2-4 months before improvement is evident.

Further information may be available from the Specialist Department regarding the indications and contra-indications for Methotrexate, administration and dosage, adverse reactions and the nurse’s responsibility before, during and after administration.

As soon as you know you will be administering cytotoxic agents in your practice, ensure you have obtained an ample supply of cytotoxic sharps containers.

D 11.1 Administration

- Aseptic technique is essential at all stages
- Contact between the nurse and the Methotrexate should be avoided by use of:
  - Thick latex or vinyl glove
  - Non-absorbent armlets
  - Plastic apron
  - Safety goggles/dust mask
- Remove lid of Methotrexate vial and swab top of vial with sterile alcohol wipe and allow to dry
- Attach a green needle to a sterile syringe of the correct size
- Withdraw required dose from the vial and re-sheath the needle carefully
- Remove any air from the syringe by tapping gently
- Check concentration and final volume
- Change from the green needle to the needle for administration
- Give Methotrexate injection by intramuscular or subcutaneous route (follow local administration guidelines)
- Cover the injection site with a dressing or plaster to prevent leakage

D 11.2 Disposal (See B 7.0)

- All contaminated needles and syringes must be disposed of intact, do not clip.
- All potentially contaminated equipment (i.e. aprons, gloves, paper waste etc) must be discarded into the dedicated container labelled “Cytotoxic Waste” immediately.
- This must be locked shut, and stored in a secure place awaiting collection.
- Containers must never be more than ¾ full
- The container will be collected regularly by a registered waste collector
- Inform the waste collector if you need more frequent collections
12.0 Minor Surgery

There is limited written guidance for general practitioners or others such as podiatrists undertaking minor surgery within their practice; therefore this document describes accepted good practice. A number of factors may be involved in post surgical wound infection and little is written on infection risks that occur from surgery carried out in general practice. Further information may be found at http://primarycare.nhsestates.gov.uk/secure/content.asp. However, the principles of asepsis apply to both primary and secondary care settings. See Part Six, Appendix 5 Risk assessment - facilities required for minor surgery.

The Primary Care Trust is involved in establishing arrangements for the provision of services, which are traditionally carried out in hospital; and for monitoring the safe and effective provision of those services.

The room should be of a sufficient size with a floor area of 18-20 metres$^2$. A clinical hand washbasin with lever-operated mixer taps, wall mounted liquid soap, antiseptic hand solution, alcohol hand rub and paper towels should be available. The room should contain the minimum amount of equipment to allow staff to work unhindered. The furniture, fixtures and fittings should be clean and in a good state of repair.

Organisation of the clinical area should be such that the areas for clean and dirty procedures are clearly defined and arranged to reduce the risk of cross contamination, ‘clean’ and ‘dirty’ activities should be effectively separated ideally into separate rooms.

Flooring should be of sheet vinyl that finishes at least 20cm up the wall, with welded seams, this construction will allow for ease of cleaning. Floors should be cleaned at least daily using detergent and water; this should preferably take place at the end of the day or session. Blood splashes should be removed as soon as possible, B 4.5.

Walls should be smooth and washable, preferably be painted using an oil-based 'egg shell' finish paint; this type of paint allows walls to be washed easily. Walls only need to be cleaned when visibly soiled (usually every 6 months) by using detergent and water. Blood splashes should be removed as soon as possible, B 4.5.

Lighting should be of a suitable construction that allows easy cleaning and does not allow a build up of dust. It should be cleaned at the end of each day using detergent and water. Lighting used for patient examination/minor surgery must be fitted with a heat filter. Fittings and illumination should be in accordance with BS EN 12464-1.

Mechanical ventilation should be considered. Electric extractor fans should be inspected on a monthly basis and cleaned on a 3 monthly basis to prevent the build up of dust. Windows must not be opened during surgery. More effective air handling should be considered if more complex surgical procedures are to be undertaken.

Central heating radiators can quickly build up high levels of dust so it is important that they are cleaned on a regular basis. Radiators should be painted with oil based 'egg shell' finish paint.
Fixtures and fittings must be in good condition and easily cleaned. Curtains should be avoided where minor surgery is carried out. If present, they should be washed on a regular basis (usually every 6 months) or when visibly soiled. Vertical blinds are more appropriate at windows than curtains. Disposable paper sheeting should be used for examination and operating couches.

A nurse call system should be available for those patients who may feel unwell after having undergone minor surgical procedures and may be left unattended.

Surgical instruments should, ideally, be provided by a Sterile Supplies Department. If this is not possible, disposable instruments should be used. In house decontamination services must comply with the National Decontamination Strategy, B 5.0. There must be adequate space for storage of instruments.

Suction container liners should be disposable and disposed of as clinical waste. Suction tubing should be disposable and the manufacturers will specify if it is single use. If reusable jars are used the contents of the jar should be discarded carefully into a sluice or toilet to avoid the production of aerosols. The jar should be decontaminated as per Part B, Table 6 and stored dry. Eye protection may be required when carrying out this procedure.

Surgical hand disinfection is essential for the prevention of surgical wound infection. A clinical washbasin must be provided, which is lever operated and fitted with a mixer tap and complete with wall-mounted liquid soap/antiseptic detergent dispensers, disposable paper towels and alcohol hand rub/gel. Reusable towels must not be used, B 1.0.

Patients’ skin sites should be disinfected prior to surgery. The aim is to remove transient bacteria and reduce the number of resident bacteria. The preparation used should be fast acting and have a prolonged antibacterial effect. Alcoholic solutions of 0.5% chlorhexidine, povidone-iodine 7.5% or 0.5% triclosan are most frequently used. Skin reactions may occur with some products.

The solution should be liberally applied to the operation site and surrounding area and then allowed to dry. Skin disinfection should be carried out immediately prior to surgery. Hair removal is not always necessary, if required use a depilatory cream or electric clippers rather than a razor to avoid trauma, which increases the risk of post operative infection.

Protective clothing is worn by those carrying out minor surgical procedures to protect themselves and the patient from infection. A new disposable plastic apron should be worn for each patient. Sterile latex gloves should be used for any minor surgical procedure involving contact with normally sterile areas of the body. Eye protection should be worn if splashing is anticipated. After use protective clothing should be disposed of as clinical waste. (B 3.0).

Clinical waste should be placed in a foot operated waste bin. Yellow clinical waste bags should be removed at the end of each session/day and placed in a secure designated holding area for clinical waste. The foot-operated bin should be cleaned at least weekly using detergent and water. (B 7.0).
Cleaning must be undertaken regularly using a general purpose detergent, warm water and disposable paper or cloths to remove any dirt or splashes of blood or body fluids and to prevent the build up of dust on horizontal surfaces. The frequency may range from daily to weekly depending upon the nature and volume of work undertaken in the room.

The cleaning programme should include:

- Clinical equipment
  - Examination couch
  - Examination light
  - Suction equipment
  - Oxygen equipment
  - Dressing trolleys

- Environment
  - All horizontal surfaces
  - Soap and towel dispensers
  - Floor
  - Radiators
  - Blinds
  - Waste containers

Records must be maintained using an operations register, both for audit purposes and as a safeguard for medico-legal reasons. It should include details of the date and time of operation, patient’s name and address, names of surgeon, procedure performed, if local anaesthetic was administered, name of assistant and whether histology or other specimens were sent. FHSA Claims forms are not adequate for this purpose.

Contracts should be in place to ensure the above standards are met, including maintenance of equipment, disposal of waste and housekeeping.
D 13.0 Immunisation

D 13.1 Storage of vaccines

- A designated individual (and deputy) should be responsible for ordering and storing vaccines
- Reception staff should ensure that vaccines are handed over to the responsible person as quickly as possible when delivered, and know what to do if this person or their deputy is unavailable
- If there is any question regarding the maintenance of the cold chain or transit time (more than 48 hours), the delivery should be refused and returned to the supplier. Note the date and time of dispatch.
- Store vaccines in appropriate conditions:
  - A designated lockable vaccine refrigerator, which is:
    - Large enough for routine stock levels plus year-round needs (e.g. flu vaccine)
    - Large enough for air to circulate and maintain constant temperature
    - Fitted with a minimum/maximum thermometer
  - Prevent inadvertent break in electricity by taping the plug and marking it “Pharmacy Fridge - do not switch off” or using a switch-less socket
  - Have to hand guidelines on action to be taken in the event of power failure including contact details:
    - Vaccines that are centrally supplied – contact Farillon or the PCT pharmacy adviser
    - Vaccines that are purchased by the practice – contact the manufacturer
    - Monitor the fridge temperature daily, at least at the start of each immunisation session
    - Record the details of minimum and maximum temperature, time and date of recording on a chart attached to or beside the fridge
    - Reset the thermometer after each recording
    - Monitor the temperature of vaccines transferred to another fridge or cold box during defrosting
    - The vaccine fridge should be used to store only vaccines and drugs
    - Designate certain shelves for specific vaccines and list them on the outside of the door to minimise the time the door is kept open
    - Rotate the stock
    - Store in accordance with manufacturer’s instructions (e.g. some are sensitive to light)
    - Do not over-order
• Do not leave vaccine out of the fridge. Remove them just before use or transfer to a cool box if a busy session is planned.

• Return vaccines in a cool box to the fridge as soon as possible. Note the time they were out of the fridge and use them first.

• Do not allow vaccine ampoules/vials to come into direct contact with ice packs in cool boxes.

• Have good stock control systems in place.

### D 13.2 Skin Preparation

If the skin is socially clean, it is not necessary to disinfect the skin. Soap and water is adequate otherwise. If spirit swabs are used ensure the alcohol has evaporated and the skin is dry before administering the vaccine. Live vaccines may be inactivated by alcohol.

### D 13.3 Administration of vaccines

• Vaccines should not be prepared in advance of an immunisation session as this increases the risk of administering the wrong vaccine and may affect the temperature.

• Reconstituted vaccine must be used according to the manufacturer’s recommendations, usually within 1-4 hours.

• Vaccines should only be removed from the fridge for the minimum length of time before administration and any opened in error must be discarded.

• Oral polio vaccine (OPV) should not be allowed to remain at room temperature awaiting or following an immunisation as this may decrease the potency of the vaccine.

• Multi-dose vials may be used for one session only. Any remaining must be discarded at the end of the session.

• Disposal should be by heat inactivation or incineration. There are special precautions for the disposal of live vaccines. Contact the Health Protection Unit if concerned.

Follow the requirements outlined in the Patient Group Directions for each vaccine.

For further detailed guidance refer to the UK Guidance on Best Practice in Vaccine Administration, available from the Vaccine Administration Taskforce, Shire Hall Communications, PO Box 31580, London W11 4YZ

### D 13.4 Immunisation training

National standards and a core curriculum have been developed for immunisation training courses.
D 14.0 Aseptic technique

Asepsis is the avoidance of sepsis or infection. An aseptic technique describes procedures used to prevent the contamination of wounds and other susceptible sites from possibly harmful micro-organisms.

Susceptible sites include:
- Normal body orifices (openings) such as urethra, vagina, mouth, eyes etc
- Artificial orifices such as surgical and other wounds, tracheostomy sites, insertion sites for invasive devices such as urethral catheters or intravascular catheters etc.

Asepsis involves:
- Hand hygiene
- Sterile materials, equipment and fluids for invasive procedures
- Separation of sterile/clean equipment from contaminated items
- Avoiding direct contact with susceptible sites
- A technique to avoid introducing potentially harmful microbes into wounds and susceptible body sites

There are two types of aseptic technique
- **Surgical** technique used when undertaking procedures or handling equipment that breach the body's normal defences such as surgery, insertion of catheters and intravenous devices, tracheostomy etc.
- **Non-touch or clean** technique may be used when the risk of contamination comes from microbes on the skin on carer's hands e.g. dressing chronic wounds, mouth care, eye care, emptying catheter bags, endotracheal suctioning etc.

D 14.1 Principles of aseptic technique

D 14.1.1 Hand hygiene

The removal or reduction of micro-organisms from carer's hands prior to aseptic procedures is essential. *(See B 1.0).*

- Invasive procedures - hand disinfection
- Clean procedures - routine hand hygiene is usually adequate prior to unless the client is particularly at risk of infection.

D 14.1.2 Protective clothing

This is worn for two purposes:
- Protect the client from microbes on the carer’s skin
- Protect the carer from microbes on the client’s body
Gloves are recommended for using an aseptic technique:

- Sterile gloves for a surgical technique
- Non-sterile gloves for a clean technique

Gloves can give the wearer a false sense of security so that they touch contaminated equipment, environment or skin sites during an aseptic procedure.

If hands touch a contaminated object or part of the body during an aseptic procedure, the gloves should be removed, alcohol hand rub applied to the hands and a new pair of gloves applied.

Aprons are recommended for procedures where there is a risk of splash from body fluids or to protect open wounds from contamination from microbes on the clothing or uniform, e.g. during wound care.

Sterile gowns should be worn during surgery and insertion of central venous catheters

Eye/face protection should be worn if there is a risk of splash from blood and body fluids to the face.

See B 1.0 for further details.

D 14.1.3 Equipment

Sterile, single-use equipment is recommended for an aseptic technique. Ensure sterile packs are not damaged and are used before the expiry date.

Keep sterile and non-sterile equipment/devices separate. If sterile equipment/devices are contaminated during an aseptic technique they should be replaced immediately.

Clean or disinfected items should be kept protected from contamination with dust, splash from liquids and handling. They must be appropriately decontaminated after use. (See B 5.0).

Discard items as per local policy (See B 7.0).

D 14.1.4 Dressing trolley or surface

In clinical settings a dressing trolley or tray may be used when carrying out aseptic procedures. The trolley/tray should be cleaned daily and when soiled with detergent and water and dried. Between cases, the surface may be wiped with 70% alcohol and allowed to dry before placing the dressing pack/aid on it to provide a sterile field.

In the home setting a dressing trolley may not be available, although a tray may be used and should be decontaminated as above. In the absence of these a surface near the client should be cleared and if possible cleaned as above. If a clean surface is not available it may be possible to use a sterile paper towel or clean newspapers etc to act as a clean surface. (See B 5.0 for further details).

Sterile dressing aids/packs are often used in the community for dressing wounds etc. The polythene bag can be used to handle sterile items in the pack and to remove the soiled dressing. The carer places a clean hand into the bag to arrange the items on the packaging, which acts as a sterile field.
The bag can be used to remove the dressing, and inverted to contain the soiled dressing. The bag can be attached to a trolley, or laid on a surface, to act as a disposal bag for other discarded items.

Avoid carrying out aseptic procedures immediately after activities that may have raised the level of airborne microbes, such as bed making. Delaying for 30 minutes or so will allow the microbes to settle on surfaces and help to prevent contamination of open wounds from airborne microbes.
PART E

AUDIT TOOLS
### E 1.0 AUDIT TOOL ONE  General Infection Control Audit

#### Location

Audit undertaken by

Date

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### Kitchen

**Standard:** Kitchens will be maintained appropriately and food handled safely to negate the risk of cross contamination

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>Hand wash basin (HWB) is available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.2</td>
<td>Liquid soap is available by the HWB</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.3</td>
<td>Paper towels are available by the HWB</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.4</td>
<td>Pedal operated waste bin is available beside the HWB</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.5</td>
<td>Oven gloves/pads are laundered daily or disposable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.6</td>
<td>Food in the refrigerator is within the expiry date</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.7</td>
<td>Dishwasher is clean</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.8</td>
<td>Microwave is clean</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.9</td>
<td>Cookers are clean</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.10</td>
<td>Equipment is maintained regularly</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Dishwasher</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Microwave</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Oven</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.11</td>
<td>Surfaces are clean and in good repair</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.12</td>
<td>Disposables are used for cleaning/drying equipment and surfaces</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.13</td>
<td>Kitchen cleaning materials and equipment is stored away from other cleaning materials</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.14</td>
<td>Perishable goods are stored in pest proof containers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.15</td>
<td>Milk is refrigerated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.16</td>
<td>Cooked and raw meat are stored and handled separately</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.17</td>
<td>The fridge is not used to store specimens or drugs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.18</td>
<td>The fridge temperature is between 0 – 5°C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.19</td>
<td>The freezer temperature is below 18°C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.20</td>
<td>The freezer and fridge temperatures are recorded daily</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.21</td>
<td>The area is free from infestation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.22</td>
<td>Only catering staff are involved in food preparation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.23</td>
<td>Blue waterproof plasters are available for catering staff</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.24</td>
<td>Hands are washed before handling or serving food</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.25</td>
<td>A clean disposable colour-coded apron is worn by food handlers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.26</td>
<td>The floor is clean, dry and in good repair</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.27</td>
<td>The meal trays and trolley are clean and in good repair</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Environment

Standard: the environment will be maintained appropriately to negate the risk of cross infection

<table>
<thead>
<tr>
<th>B</th>
<th>Bedrooms</th>
<th>YES</th>
<th>NO</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>B.1</td>
<td>The environment is clean and dust-free</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>B.2</td>
<td>Carpets are clean and in good repair</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>B.3</td>
<td>There is a carpet cleaning schedule</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>B.4</td>
<td>Chairs and furniture are clean and in good repair</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>B.5</td>
<td>Mattresses are clean and in good repair</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>B.6</td>
<td>Mattress covers are in use where appropriate and are waterproof</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>C</th>
<th>Treatment rooms</th>
<th>YES</th>
<th>NO</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>C.1</td>
<td>Hand wash basin is clean and replenished</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>C.2</td>
<td>HWB is complete with liquid soap, paper towels, pedal-bin</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>C.3</td>
<td>Sterile products are stored above floor level</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>C.4</td>
<td>Sterile equipment is within expiry date</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>C.5</td>
<td>Dressing trolleys are clean and in good repair</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>C.6</td>
<td>Medicine pots are clean and dry</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>D</th>
<th>Bathrooms &amp; toilets</th>
<th>YES</th>
<th>NO</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>D.1</td>
<td>Environment is clean and free from communal items (flannels, towels)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>D.2</td>
<td>Anti-slip mats are clean, dry and hung over bath/rail to dry</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>D.3</td>
<td>Hoists and ambulifts are clean and in good repair (slings, bath seats etc)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>D.4</td>
<td>Appropriate materials are available for cleaning baths</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>D.5</td>
<td>Baths are cleaned between uses</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>D.6</td>
<td>Toilets are cleaned at least daily</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>E</th>
<th>Dirty utility (sluice) rooms</th>
<th>YES</th>
<th>NO</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>E.1</td>
<td>The area is clean and dry (high and low levels)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>E.2</td>
<td>Wash bowls are clean and dry and stored inverted</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>E.3</td>
<td>Bedpans, commode pans, urinals etc are clean, dry and stored inverted on racks</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>E.4</td>
<td>Commodes are clean and dry (all surfaces)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>E.5</td>
<td>Mops and buckets are clean and dry between uses</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>E.6</td>
<td>Mop heads are laundered daily/weekly or disposable</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>E.7</td>
<td>Facilities are available to ensure bedpans etc are heat disinfected or macerated (washer/disinfector or macerator)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>E.8</td>
<td>Slop hopper is clean and in good condition</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>E.9</td>
<td>The hand wash basin is clean and replenished</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
Waste disposal

Standard: waste is disposed of safely, without risk of contamination or injury

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>F.1</td>
<td>A waste disposal policy is available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F.2</td>
<td>Clinical, household &amp; glass waste are correctly segregated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F.3</td>
<td>Waste bags are less than ¾ full and securely fastened</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F.4</td>
<td>Waste bags are labelled with the name of the home</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F.5</td>
<td>Pedal operated bins are available for clinical waste</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F.6</td>
<td>The waste collection point is locked and inaccessible to unauthorised people and pests</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F.7</td>
<td>Waste bins are clean inside and out</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F.8</td>
<td>The waste collection point is clean</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F.9</td>
<td>Waste is collected at least weekly by a licensed company</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Linen Handling

Standard: Linen is handled appropriately to prevent cross infection

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>G.1</td>
<td>Used linen is segregated in appropriate categories</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G.2</td>
<td>Linen bags are less than 2/3rds full and can be secured</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G.3</td>
<td>Used linen is stored in the dirty utility/ linen disposal area prior to laundering</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G.4</td>
<td>Clean linen is stored in a clean area (not sluice/bathroom)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G.5</td>
<td>There is a procedure for handling infectious linen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G.6</td>
<td>Water-soluble/ alginate linen bags are available for potentially infected linen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G.7</td>
<td>Manual sluicing of soiled linen is not undertaken</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G.8</td>
<td>Gloves and aprons are worn by laundry staff</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G.9</td>
<td>Washing machines &amp; tumble driers are clean &amp; serviced</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G.10</td>
<td>Hand washing facilities are available in the laundry</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sharps handling and disposal

Standard: Sharps will be handled safely to negate the risk of sharps injury

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>H.1</td>
<td>Sharps containers are available and conform to BS7320/UN3291</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H.2</td>
<td>Boxes are less than 3/4 full</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H.3</td>
<td>There are no protruding sharps</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H.4</td>
<td>Sharps boxes are labelled with the source/Post Code</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H.5</td>
<td>Lids are secured</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H.6</td>
<td>Sharps are disposed of directly into a sharps box</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H.7</td>
<td>Sharps boxes are stored above floor level and out of reach of clients and visitors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H.8</td>
<td>Sharps containers are available for home visits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H.9</td>
<td>Staff are aware of the inoculation injury policy</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Decontamination

Standard: Equipment and environment will be decontaminated appropriately to negate risk of cross infection

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>I.1</td>
<td>There is a decontamination policy in place</td>
<td>YES</td>
</tr>
<tr>
<td>I.2</td>
<td>Data sheets are available for all products used</td>
<td>YES</td>
</tr>
<tr>
<td>I.3</td>
<td>Disinfectants are stored in a locked cupboard</td>
<td>YES</td>
</tr>
<tr>
<td>I.4</td>
<td>Cleaning products and disinfectants are not decanted</td>
<td>YES</td>
</tr>
<tr>
<td>I.5</td>
<td>Cleaning products and disinfectants are labelled and have COSHH details</td>
<td>YES</td>
</tr>
<tr>
<td>I.6</td>
<td>Equipment is decontaminated prior to service, repair and labelled</td>
<td>YES</td>
</tr>
<tr>
<td>I.7</td>
<td>Home loans equipment is clean and dry before return</td>
<td>YES</td>
</tr>
<tr>
<td>I.8</td>
<td>Sterile forceps, dressings etc are obtained from SSD</td>
<td>YES</td>
</tr>
</tbody>
</table>

If you use a bench top steam steriliser, audit your practice using Audit Tool Two

Hand hygiene

Standard: Hands will be decontaminated appropriately to reduce the risk of infection

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>J.1</td>
<td>A hand wash basin is available in all clinical areas</td>
<td>YES</td>
</tr>
<tr>
<td>J.2</td>
<td>Liquid soap is available at all HWB</td>
<td>YES</td>
</tr>
<tr>
<td>J.3</td>
<td>Paper towels are available at all HWB</td>
<td>YES</td>
</tr>
<tr>
<td>J.4</td>
<td>Pedal-operated bin is available at all HWB</td>
<td>YES</td>
</tr>
<tr>
<td>J.5</td>
<td>There are no re-usable nail brushes used for hand washing</td>
<td>YES</td>
</tr>
<tr>
<td>J.6</td>
<td>Access to HWB is clear</td>
<td>YES</td>
</tr>
<tr>
<td>J.7</td>
<td>Alcohol hand rub is available</td>
<td>YES</td>
</tr>
<tr>
<td>J.8</td>
<td>There is a hand washing policy in place</td>
<td>YES</td>
</tr>
<tr>
<td>J.9</td>
<td>Posters are available showing hand washing technique</td>
<td>YES</td>
</tr>
<tr>
<td>J.10</td>
<td>Clinical sinks have mixer taps/ thermostatic controls</td>
<td>YES</td>
</tr>
<tr>
<td>J.11</td>
<td>Hand washing is taught in the induction programme</td>
<td>YES</td>
</tr>
</tbody>
</table>

Clinical practices (also see Audit 3.0)

Standard: Clinical practices will reflect infection control guidelines and reduce the risk of infection in clients, whilst providing protection to staff

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>K.1</td>
<td>Sterile gloves are worn for aseptic procedures</td>
<td>YES</td>
</tr>
<tr>
<td>K.2</td>
<td>Non sterile gloves are worn for handling body fluids</td>
<td>YES</td>
</tr>
<tr>
<td>K.3</td>
<td>Disposable aprons are available and worn when bathing, toileting or handling body fluids</td>
<td>YES</td>
</tr>
<tr>
<td>K.4</td>
<td>Staff know how to handle specimens</td>
<td>YES</td>
</tr>
<tr>
<td>K.5</td>
<td>Staff know how to empty urinary catheter bags</td>
<td>YES</td>
</tr>
<tr>
<td>K.6</td>
<td>Staff know the aseptic technique for enteral feeding</td>
<td>YES</td>
</tr>
</tbody>
</table>
Management of infection and outbreaks

Standard: Mechanisms are in place for the surveillance, recognition, control and management of infection and outbreaks

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>L.1</td>
<td>An outbreak control policy is available</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>L.2</td>
<td>Staff are aware of symptoms of infection which need to be reported to the nurse in charge</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>L.3</td>
<td>Incidents of infection in staff and clients are recorded</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>L.4</td>
<td>Staff know how to obtain advice on infection control</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>L.5</td>
<td>Infection control is included in staff education programme</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>L.6</td>
<td>There is a nominated infection control link person who has:</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>• Undertaken training in infection control</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>• Links with infection control teams from hospital or HPU</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>• Received regular updates/ information on infection control</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Comments

Action plan

Adapted from Infection Control Nurses Association - West Midlands Audit Tool
### E 2.0 AUDIT TOOL TWO  Sterilisation Processes In Primary Care

**Location**

If you do not use a bench top steam steriliser, please move on to Question C7

**A) Cleaning**

<table>
<thead>
<tr>
<th>Question</th>
<th>YES</th>
<th>NO</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1  A washer/disinfector is used to clean instruments</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If, no go to A3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A2  The washer/disinfector serviced and maintained in accordance with HTM 2030</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A3  An ultra sonic washer is used to clean instruments</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If no, go to A6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A4  The ultra sonic washer emptied at least daily</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A5  The ultra sonic washer cleaned and dried at end of session</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A6  Instruments are washed by hand</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A7  A separate sink or bowl is used for manual cleaning</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A8  Detergent and warm water is used for manual cleaning</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A9  Instruments are fully immersed in water during cleaning</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A10 Protective clothing is available and worn during cleaning</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Disposable gloves</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• A disposable plastic apron</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Eye protection if splash is likely</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A11 Single-use, non-shedding cloth/paper and/or plastic brush is used</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A12 Cleaning brushes are kept clean and dry?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A13 Instruments are rinsed after cleaning</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A14 Instruments are inspected for cleanliness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A15 There is good light for inspecting cleaned instruments</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A16 A magnifier is used for inspecting serrated instruments</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A17 Instruments are dried after cleaning</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A18 Re-usable cannulated devices are sent to SSD</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A19 If no, the lumens of cannulated devices are cleaned using</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• A washer-disinfector</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• An ultrasonic cleaner</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• A brush</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A20 Written cleaning procedures are available for staff</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A21 The water temperature is controlled and recorded</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A22 Failed cleaning procedures are documented and reviewed</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
A23  Inadequately cleaned instruments, are re-cleaned

A24  There is a contract or service level agreement for the maintenance of mechanical washers

Comments
B) Autoclave maintenance

B1 Bench top steam steriliser: make…………model…………☐ ☐ ☐

B2 A vacuum steriliser is used for tubular/wrapped instruments☐ ☐ ☐

B3 There is no hot air oven used
(Hot air ovens are inappropriate for clinical settings) ☐ ☐ ☐

B4 Each steriliser has a log book ☐ ☐ ☐

B5 The following details are recorded daily in the log book
• Temperature reached ☐ ☐ ☐
• Holding times ☐ ☐ ☐
• Pressures ☐ ☐ ☐

B6 The steriliser has an automatic print-out fitted
(chart recorder or data logger) ☐ ☐ ☐

B7 Failed cycles and action taken are recorded in the log book☐ ☐ ☐

B8 Users of sterilisers are trained in the:
• Use of biological indicators (if used) ☐ ☐ ☐
• Use of chemical indicators (if used) ☐ ☐ ☐
• Limitations of loads ☐ ☐ ☐
• Correct loading procedures ☐ ☐ ☐
• User tests ☐ ☐ ☐
• Record keeping ☐ ☐ ☐

B9 The following regular checks made and recorded by the User?
• Daily safety check ☐ ☐ ☐
• Daily automatic control test ☐ ☐ ☐
• Daily steam penetration test (vacuum) ☐ ☐ ☐
• Weekly air detection system function test (vacuum) ☐ ☐ ☐
• Weekly leak rate (vacuum) ☐ ☐ ☐

B10 A Test Person undertakes the following regular checks, which are recorded:
• Quarterly safety check ☐ ☐ ☐
• Quarterly automatic control test ☐ ☐ ☐
• Quarterly calibration tests ☐ ☐ ☐
• Quarterly thermometric small load test ☐ ☐ ☐
• Quarterly air detector performance test (vacuum) ☐ ☐ ☐
• Annual safety test ☐ ☐ ☐
• Annual automatic control test ☐ ☐ ☐
• Annual calibration test ☐ ☐ ☐
• Annual thermometric small load test ☐ ☐ ☐
• Annual air detector performance test (vacuum) ☐ ☐ ☐
• Annual chamber over-temp cut out test ☐ ☐ ☐
• Annual performance re-qualification test ☐ ☐ ☐
• Annual electrical portable appliance test ☐ ☐ ☐
### Audit Tools

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>B11</td>
<td>Vacuum sterilisers are fitted with an air detector</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>B12</td>
<td>The steriliser chamber is clean and dry when not in use</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>B13</td>
<td>The reservoir is drained at the end of each session</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>B14</td>
<td>The reservoir is re-filled before the next session with sterile water for irrigation</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>B15</td>
<td>There is a contract or service level agreement for steriliser maintenance</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

**Comments**
### C) Sterilisation

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>YES</th>
<th>NO</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1</td>
<td>Tubular instruments (hormone implant cannulae, tubes) are either:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Sent to SSD</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>• Sterilised in a vacuum steriliser</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>• Disposable</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>C2</td>
<td>Wrapped instruments (pouches, bags, envelopes, wraps) are either:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Sent to SSD</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>• Sterilised in a vacuum steriliser</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>C3</td>
<td>Instruments are dry when loaded into the autoclave</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>C4</td>
<td>Hollow instruments are placed on edge or inverted</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>C5</td>
<td>Hinged instruments are left open when sterilised</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>C6</td>
<td>Baskets are not overloaded</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>C7</td>
<td>Instruments used for invasive procedures (minor surgery, coil insertion) are either:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Sterilised by SSD</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>• Used immediately after autoclaving</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>C8</td>
<td>Items used in the vagina are either:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Single use only</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>• Sent to SSD</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>• Cleaned and autoclaved between uses</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>C9</td>
<td>Disinfectants are kept to a minimum, for example:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Haz Tabs or Precept for ear syringing machines</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>• Spillage kit for blood spills</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>70% Industrial Methylated Spirit or</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>70% Isopropyl Alcohol for auroscope earpieces</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>C10</td>
<td>Glutaraldehyde is not used</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
### Environment

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>D1</td>
<td>Dirty instruments are kept separate from clean instruments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D2</td>
<td>The workflow segregates dirty from clean procedures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D2</td>
<td>Clean equipment is stored dry and covered</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D3</td>
<td>Where sterile equipment is obtained from SSD:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Stock is rotated to keep within expiry times</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Clean packs are stored in a clean, dry area</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Used equipment is stored in a safe area prior to collection</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Used equipment is collected within 7 days</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D4</td>
<td>Sterile products are stored above floor level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D5</td>
<td>Dressing trolleys are made of stainless steel or glass</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D6</td>
<td>Dressing trolleys are cleaned with detergent/water before sessions, and when contaminated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D7</td>
<td>Dressing trolleys are decontaminated between cases by either:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Wiping with 70% alcohol</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Cleaning with detergent and water solution</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D8</td>
<td>The treatment room/ furniture are clean, dry and dust free</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D9</td>
<td>In the treatment room, the following are available:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Hand wash basin</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Liquid soap</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Alcohol hand rub/gel or chlorhexidine (e.g. Hibiscrub)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Paper towels</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Pedal bin</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Comments**

**Action plan**
### E 3.0 AUDIT TOOL THREE Care Of Invasive Devices (NICE Guidelines)\(^{13}\)

#### A) Care of patients with urinary catheters

1. All patients have a patient record that documents the type of catheter, details of catheter insertion and changes, and care
2. Staff receive training and updates
3. Staff decontaminate their hands and wear a new pair of non-sterile gloves before manipulating the system
4. Long term indwelling catheters are connected to a sterile closed drainage system or valve
5. Carers are aware of the need to:
   - Decontaminate their hands
   - Maintain a closed system
6. Staff are aware of the need to:
   - Decontaminate their hands
   - Maintain a closed system

#### B) Care of patients receiving enteral feeding

1. Staff involved in their care receive training and updates
2. Staff decontaminate their hands before preparing feeds and manipulating the system
3. Ready-to-hang foods are used where possible.
4. Feeds are hung for no longer than the recommended time
   - Ready-to-use feeds – no more than 24 hours
   - Reconstituted, modified, mixed & breast milk no more than 4 hours
5. Carers are aware of the need to:
   - Decontaminate their hands
   - Maintain a closed system
6. Staff are aware of the need to:
   - Decontaminate their hands
   - Maintain a closed system
C) Care of patients with central venous catheters

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>❑</td>
<td>❑</td>
<td>❑</td>
</tr>
<tr>
<td>2.</td>
<td>❑</td>
<td>❑</td>
<td>❑</td>
</tr>
<tr>
<td>3.</td>
<td>❑</td>
<td>❑</td>
<td>❑</td>
</tr>
</tbody>
</table>
PART F

APPENDICES
## Appendix 1

**Risk Assessment for Post Exposure Prophylaxis Following Blood Exposure**

### Hepatitis B

<table>
<thead>
<tr>
<th>HBV status of person exposed</th>
<th>Source HBsAg positive</th>
<th>Source Unknown</th>
<th>Source HBsAg negative</th>
<th>Continued risk</th>
<th>No further risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Significant exposure</td>
<td>Accelerated course of HB vaccine*</td>
<td>Accelerated course of HB vaccine*</td>
<td>Initiate course of HB vaccine</td>
<td>Initiate course of HB vaccine</td>
<td>No HBV prophylaxis. Reassure</td>
</tr>
<tr>
<td>Non-significant exposure</td>
<td>1 dose of HB vaccine</td>
<td>1 dose of HB vaccine</td>
<td>Finish course of HB vaccine</td>
<td>Finish course of HB vaccine</td>
<td>No HBV prophylaxis. Reassure.</td>
</tr>
</tbody>
</table>

- **< 1 dose HB** vaccine pre-exposure
  - HBV status of person exposed: HBsAg positive
  - Source: Unknown
  - Continued risk: Initiate course of HB vaccine
  - No further risk: No HBV prophylaxis. Reassure

- **> 2 doses HB** vaccine pre-exposure (anti-HBs not known)
  - Source: Unknown
  - Continued risk: Initiate course of HB vaccine
  - No further risk: No HBV prophylaxis. Reassure.

- **Known responder to HB vaccine** (anti-HBs > 10mIU/ml)
  - Source: Unknown
  - Continued risk: No HBV prophylaxis. Reassure.

- **Known non-responder to HB vaccine** (anti-HBs < 10mIU/ml 2-4 months post-immunisation)
  - Source: Unknown
  - Continued risk: No HBV prophylaxis. Reassure.

- **Unknown response (can’t remember)**
  - Source: Unknown
  - Continued risk: No HBV prophylaxis. Reassure.

### Hepatitis C

<table>
<thead>
<tr>
<th>Source (if known) and recipient</th>
<th>Continued risk</th>
<th>No further risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Significant exposure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Source known</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Source unknown</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### HIV

<table>
<thead>
<tr>
<th>Source known</th>
<th>Source unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Significant exposure</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Assess risk of HIV transmission</td>
</tr>
</tbody>
</table>

### Assessments and Recommendations

- **Assess** risk of HIV transmission
- **Assess** HIV status of source
- **Seek** consent for blood test for Hep C. Store for 2 years minimum.
- **Initiate** course of HB vaccine
- **Finish** course of HB vaccine
- **Seek** consent for blood test for HBV.
- **Assess** HIV antibody status.
- **Refer** HCV positive individuals to a liver specialist
- **Refer** high-risk exposure: Consider Post - Exposure Prophylaxis, Counsel, store serum, test at 3 + 6 months

**NB: Occupational PEP**

- Give HBV PEP within 48 hours of exposure.
- Give HIV PEP within 1 hour of exposure if possible, or up to 7 days after injury if the risk of exposure to HIV was assessed as high.

---

*An accelerated course of vaccine* consists of doses spaced at 0, 1 and 2 months.

A booster dose may be given at 12 months to those at continuing risk of exposure to HBV.
## Outbreak Chart

### Appendix 2

<table>
<thead>
<tr>
<th>Names of cases</th>
<th>R/ S/ O/</th>
<th>D/ N/ V/ O</th>
<th>Rm</th>
<th>M/ F</th>
<th>Date of birth</th>
<th>Dates of start and end of symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Informed EHO**
- **Informed HPU/ICT**
- **Number of new cases today**
- **No. symptomatic patients today**
- **Number of beds closed today**

- **R** = resident/patient
- **S** = staff
- **O** = other
- **D** = diarrhoea
- **N** = nausea
- **V** = vomiting
- **EHO** = Environmental Health Officer
- **HPU/ICT** = Health Protection Unit / Infection Control Team
- **Rm.** = room/location
- **X** = date sample sent to laboratory

---

#### Part F Appendices

---

201
### Outbreak form checklist for outbreaks of gastro-intestinal infection

<table>
<thead>
<tr>
<th>Person informed of outbreak</th>
<th>Date</th>
<th>Time</th>
<th>By whom</th>
<th>Outbreak over</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home/site manager</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EHO</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health Protection Unit</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GP</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CSCI</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laboratory</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Occupational Health</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Catering Manager</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patients/residents</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Visitors</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Volunteers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Action checklist: for more details specific to your problem discuss with EHO, CCDC or CICN

<table>
<thead>
<tr>
<th>Information</th>
<th>Detail</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Case definition</strong></td>
<td>Two or more cases of vomiting or diarrhoea within one week</td>
</tr>
<tr>
<td><strong>Accommodation</strong></td>
<td>Keep affected residents in own room with own commode/toilet until symptom-free 48 hours</td>
</tr>
<tr>
<td><strong>Hand washing</strong></td>
<td>Display hand washing posters in toilets/kitchens</td>
</tr>
<tr>
<td></td>
<td>Residents and staff wash hands:</td>
</tr>
<tr>
<td></td>
<td>• After using the toilet</td>
</tr>
<tr>
<td></td>
<td>• Before handling food/eating</td>
</tr>
<tr>
<td></td>
<td>• After handling contaminated items</td>
</tr>
<tr>
<td></td>
<td>• After removing gloves/aprons</td>
</tr>
<tr>
<td></td>
<td>• After giving any care to any resident</td>
</tr>
<tr>
<td><strong>Protective clothing</strong></td>
<td>Wear gloves/plastic aprons whenever contact with vomit or faeces is likely</td>
</tr>
<tr>
<td></td>
<td>• Toileting</td>
</tr>
<tr>
<td></td>
<td>• Bathing</td>
</tr>
<tr>
<td></td>
<td>• Cleaning toilets etc</td>
</tr>
<tr>
<td><strong>Equipment and linen</strong></td>
<td>• Do not share commodes/bedpans/commode pans</td>
</tr>
<tr>
<td></td>
<td>• Disinfect bed/commode pans using a washer/disinfector OR wash thoroughly using hot water and detergent and dry OR use disposables.</td>
</tr>
<tr>
<td></td>
<td>• Place soiled linen in plastic/ water-soluble bags prior to hot machine wash.</td>
</tr>
<tr>
<td><strong>Environment</strong></td>
<td>Increase cleaning in sanitary areas using chlorine-based disinfectant</td>
</tr>
<tr>
<td></td>
<td>Clean bedrooms of affected residents daily using hot soapy water</td>
</tr>
<tr>
<td></td>
<td>Cleaners and laundry staff must not handle resident's food</td>
</tr>
<tr>
<td><strong>Specimens</strong></td>
<td>Send faecal sample from affected residents/staff to laboratory for M, C &amp; S and Virology (if viral suspected). Note on chart the date a sample was sent.</td>
</tr>
<tr>
<td><strong>Transfers</strong></td>
<td>Do not transfer or admit residents whilst outbreak is ongoing unless absolutely necessary</td>
</tr>
<tr>
<td><strong>Catering</strong></td>
<td>Restrict kitchen access to catering staff only.</td>
</tr>
<tr>
<td></td>
<td>Kitchen staff should not visit other parts of the home. Hot food for immediate eating is safer than cold food, or meals prepared in advance.</td>
</tr>
<tr>
<td><strong>Visitors</strong></td>
<td>Inform visitors of outbreak. Do they need to visit? Wash hands before leaving.</td>
</tr>
<tr>
<td><strong>Staff exclusion</strong></td>
<td>Exclude affected staff from work until 48 hours symptom-free</td>
</tr>
<tr>
<td><strong>End of outbreak</strong></td>
<td>48 hours after recovery of last case. Review and reflect on the event</td>
</tr>
</tbody>
</table>
Management of scabies in community settings\textsuperscript{96,97}

Please refer to the checklists overleaf for further details

**Assessment**

- Confirm the diagnosis – is it scabies? (Checklist 1)
  - Yes
    - Is it crusted scabies? (Checklist 2)
      - Yes
        - Is the case in a care home or attends school/pre-school? (Checklist 3)
          - Yes
            - Has the case visited other institutions in the last 2 months? (Checklist 4)
              - Yes
                - Are there suspected cases in those institutions?
                  - Yes
                    - Confirm the diagnosis (Checklist 1)
                      - Repeat assessment and planning cycle

**Action Plan**

- Inform the case’s GP, carer, parent etc
  - Look for other cases amongst contacts
  - Treat cases and their contacts (Checklist 6)
- If crusted, or evidence of spread, inform the Health Protection Unit + dermatologist (Checklist 5).
  - Treat all residents, staff + contacts
- Carry out surveillance for at least 2 months (Checklist 7)
- Repeat assessment and planning cycle
Checklists

<table>
<thead>
<tr>
<th>Checklists</th>
</tr>
</thead>
</table>
| **Checklist 1**  
**Confirm the diagnosis**  
- Itchy rash  
- Worse at night  
- History of contact with someone with an itchy rash in last 2 months  
- Mites tend to inhabit certain sites such as the hands, feet, skin folds, genitalia (not head/face)  
- Burrows seen, a magnifying lens may help  
- Skin scrapings using "Dermapak" from sites of mites may be sent to the lab or inspected under microscope  
- A dermatology opinion may be needed  |
| **Checklist 2**  
**Management of Crusted scabies**  
Crusted scabies is a different manifestation of scabies infection. In individuals who have impaired immunity e.g. the elderly or people on steroids, the mite is able to multiply unchecked. The resulting rash is often misdiagnosed as eczema. Steroid cream worsens the condition.  
- It is more infectious than classical scabies  
- Millions of mites will be present on the skin and in bedding and clothing  
- The case may have been infectious for months or years  
- Therefore there is a high risk of secondary cases  
- Seek help from the Health Protection Unit and dermatologist  
- At least 3 treatments are needed at 48 hour intervals  
- Use gloves and alginate bags for linen handling.  |
| **Checklist 3**  
**Identify secondary cases And contacts**  
- Close contacts are identified as people who had skin-to-skin contact with a case in last 2 months. The duration of skin-to-skin contact is around 10 minutes.  
- Examples of contacts include other clients/pupils, family, carers.  
- Refer to Checklist 1 to confirm diagnosis  |
| **Checklist 4**  
**Other institutions where scabies may spread**  
- Residential homes  
- Nursing homes  
- Day care centres  
- Hospital wards  
- Within the family home  
- Carers  
- Agency staff  |
| **Checklist 5**  
**The Health Protection Unit**  
- Is part of the National Health Protection Agency and may be hosted by a local Primary Care Trust  
- Is responsible for ensuring that communicable diseases are managed effectively.  
- Helps to co-ordinate treatment.  
- Provides advice and guidance especially during outbreaks  
- Contact a member of the Team during working hours.  |
| **Checklist 6**  
**Treatment for scabies**  
Permethrin 5% (Lyclear Dermal Cream) or Malathion 0.5% (Derbac-M) Refer to BNF for contra-indications including pregnancy and breast-feeding.  
The amount needed depends upon the person's size and whether they need to re-apply to frequently washed areas.  
A single treatment:  
100mls lotion, 60g cream for a large person or frequent reapplication  
50ml lotion, or 30g cream for an average-sized person  
- Do not bath or shower before treatment  
- Remove all clothes, watches and jewellery  
- Apply lotion/cream all over the body from head to toe  
- Avoid eyes, nostrils, mouth and thick head hair  
- Help may be needed for the centre of the back  
- Rub into all aspects of hands and feet, including under nails + nail beds  
- Let it dry before dressing  
- Re-apply to any parts of the body washed during the during the duration of the treatment  
- Next day launder bedding etc as usual  
- Repeat 7 days later  |
| **Checklist 7**  
**Surveillance of contacts**  
- Because the incubation period for scabies can be up to 2 months, close contacts should be examined weekly for signs of scabies infection (Checklist 1).  
- Document names of cases, contacts, other institutions involved and action taken  |
MENINGOCOCCAL DISEASE\textsuperscript{91,92}

Meningitis can have many causes, including bacterial and viral, and is not an uncommon disease. The following information outlines responsibilities for public health response to meningococcal disease and may be of interest to general practitioners, health visitors, school nurses, teachers and others involved with a confirmed or suspected case.

1.0 Primary care response to a case of suspected meningococcal disease

Where General Practitioners suspect meningococcal disease, they should give benzyl penicillin, ideally by intravenous injection, before admission to hospital. The dosage is:

\textbf{Benzyl penicillin}

- Adults and children aged 10 years or over: 1200mg (2 mega units)
- Children aged 1 to 9 years of age: 600 mg (1 mega unit)
- Children aged less than 1 year: 300 mg (0.5 mega unit)

The likelihood of an individual with suspected meningococcal disease also suffering from penicillin-related anaphylaxis is extremely rare. Chloramphenicol or ceftriaxone could be administered as an alternative, but GPs would not be expected to carry these antibiotics solely for this purpose.

The case should be admitted to hospital as a medical emergency for diagnosis and treatment.

2.0 Public health response to a case of meningococcal disease

2.1 Co-ordination of public health response

The Health Protection Unit is responsible for the co-ordination of the public health response, including outside normal working hours. In the event of a cluster of cases the HPU will invoke the Outbreak Plan.

The aim of the public health response is to prevent further cases by identifying close contacts of the case who may be harbouring the organism in their throat and offer them prophylactic antibiotics to eliminate carriage.

2.2 Notification of known, or suspected, cases

The physician in charge of the case and the medical microbiologist must report a confirmed or probable case of meningococcal disease immediately to the Health Protection Unit as soon as possible.

2.3 Cases requiring public health action

Public health action is only required where there is suspicion or confirmation that the meningitis and/or septicaemia is caused by the bacterium \textit{Neisseria meningitidis} (known as meningococcus).

2.3.1 Confirmed case:

Clinical diagnosis of meningitis or septicaemia or other invasive disease (e.g. orbital cellulitis, septic arthritis) and at least one of the following:
2.3.2 Probable case:

A clinical diagnosis of meningococcal meningitis, septicaemia, or other invasive disease where the clinician, in consultation with the public health specialist, considers meningococcal disease to be the most likely diagnosis. In the absence of an alternative diagnosis, diagnosis of a feverish, ill patient, with a petaechial/purpuric rash should be regarded as a probable case of meningococcal septicaemia.

2.4 Cases not requiring public health action

Although no public health action is required in the cases outlined below, parents, staff and others may require reassurance and information to allay their concerns.

2.4.1 Possible case:

Cases of meningitis, septicaemia or other invasive disease, in which the clinician considers that other diagnoses are at least as likely as meningococcal disease.

2.4.2 Infection in non-sterile sites

Isolation of meningococci from sputum, nasopharynx or genital tract without other relevant symptoms does not require public health action. Throat isolates will require prophylaxis, but the HPU will not usually need to trace contacts.

2.4.3 Other causative organisms

Cases of meningitis and septicaemia caused by other bacteria or viruses.

2.5 Identification of close contacts

The Health Protection Unit, by discussion with relatives and the hospital clinician, will obtain a list of close contacts, requiring prophylaxis.

2.5.1 Close contacts are defined as:

- Those living or sleeping in the same household as the case during the 7 days before the case became ill (parents, siblings, partners, offspring, roommates in dormitories etc)
- Boy/girl friends of the case (kissing contacts)
- Child minders who look after the case for many hours daily (equivalent to household contact)
- Health care workers who have been directly exposed to large particle droplet/secretions from the respiratory tract of a case around the time of admission to hospital (e.g. due a cough when face to face with the patient, or when managing the airway without wearing a face mask).

2.5.2 Close contacts are not:

- Staff and children attending the same nursery, crèche, school, class, tutor group etc
- Work, school colleagues, friends
- Residents of care homes
- Attending same social or sports function
- Social kissing on cheek or mouth
- Sharing food or drink with low level salivary contact
- Travelling on next seat on same plane, bus, train or car
- Contacts after death
After a **single** case in a school, playgroup or nursery, prophylaxis **will not be advised** for other children and staff because it is most likely to be a sporadic case.

2.6 **Co-ordination of antibiotic prophylaxis for close contacts**

The Health Protection Unit is responsible for coordinating antibiotic prophylaxis. Ideally it should be administered as soon as possible (within 24 hours) after diagnosis of the index case. However it can be given later, i.e. up to one week after last contact with the case.

The hospital clinicians caring for the case usually prescribe prophylaxis for immediate family contacts. For other contacts, the HPU will contact respective general practitioners or Out of Hours Services to arrange prophylaxis.

2.7 **Antibiotics used for prophylaxis**

Prophylaxis must **only** be given to those categories listed in 2.3.1 above. Over-prescription can induce resistance in the organism and can paradoxically increase the possibility of a secondary case of the disease.

The drugs of choice are rifampicin, ciprofloxacin or ceftriaxone. Rifampicin is the only antibacterial that is licensed for this purpose and which, in the absence of contra-indications, can be given to all age groups.

**Pregnant contacts** Prophylaxis is recommended to pregnant and breast-feeding women. They should be offered rifampicin or ceftriaxone.

2.7.1 **Rifampicin**

- Adults and children aged over 12 years: 600 mg twice daily for two days
- Children aged 1 – 12 years: 10 mg/kg twice daily for two days
- Infants under 12 months of age: 5 mg/kg twice daily for two days

**Approximate doses in children based on average weight for age are:**

- 0 – 2 months: 20 mg (1 ml syrup*) twice daily for 2 days
- 3 – 11 months: 40 mg (2 ml syrup*) twice daily for 2 days
- 1 – 5 years: 150 mg (7.5 ml syrup*) twice daily for 2 days
- 6 – 12 years: 300 mg (as capsule) twice daily for 2 days

*rifampicin syrup contains 100 mg/5 ml

Rifampicin is contraindicated in the presence of jaundice or known hypersensitivity to rifampicin, pregnancy or breast-feeding. Interaction with other drugs, such as anticoagulants, should be considered. Side effects should be explained including reduction in the efficacy of hormonal contraceptives and an orange staining of soft contact lenses. It can also turn urine orange, which is quite harmless but can alarm the patient, so it is important to mention this.

2.7.2 **Ciprofloxacin**

- Adults and children aged over 12 years: 500 mg orally in a single dose
- Children aged 5 – 12 years: 250mgs

2.7.3 **Ceftriaxone**

Intramuscular injection of a single dose of 250mgs reconstituted with 2ml 1% lignocaine. For children aged under 12 years the dose is 125mg.
### Risk Assessment - Facilities for Minor Surgery

#### Appendix 5

**MEDIUM**

<table>
<thead>
<tr>
<th>LOW</th>
<th>HIGH</th>
</tr>
</thead>
</table>

**INCISION**

- None
- Epidermis
- Muscle / fat
- Sterile organ / cavity / implant

**DURATION OF EXPOSURE**

- Short
- Long

**MIX OF DIRTY & CLEAN PROCEDURES**

- No
- Yes

**LOW risk procedures** - **Clean room standards**

**MED risk procedures** - **Treatment room standards**

**HIGH risk procedures** - **Operating room standards (procedures usually undertaken in hospitals)**

This appendix provides support for risk assessment and general guide to facilities. The Department of Health provides guidance on the built environment and should be the key source for local decision-making.

http://primarycare.nhsestates.gov.uk/secure/content.asp.
<table>
<thead>
<tr>
<th>Facilities Recommended</th>
<th>Clean Room</th>
<th>Treatment Room</th>
<th>Operating Room</th>
<th>Clean Utility</th>
<th>Dirty Utility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mechanical ventilation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- to provide filtered air</td>
<td></td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>- to provide positive air pressure</td>
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<tr>
<td>- to provide 20 air changes per hour</td>
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<td></td>
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<tr>
<td>- planned preventive maintenance</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Extract fan</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Automatic door closure</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Scrub sink with lever-operated mixer taps, no plug/overflow</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hand wash basin with lever-operated mixer taps, no plug/overflow</td>
<td>✔</td>
<td></td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Liquid soap dispenser</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alcohol hand rub</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>Surgical scrub (as an alternative to liquid soap and alcohol)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paper towels dispenser</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sterile towels dispenser</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Washable floor and walls</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Curved skirting</td>
<td>✔</td>
<td></td>
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<td></td>
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<tr>
<td>Extended skirting</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Direct access to clean and dirty utility rooms (see relevant columns)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>Storage space for sterile supplies</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Space for donning sterile gowns</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Suction equipment</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sealed work surfaces</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sterile supplies</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>Linen disposal storage</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>Clinical waste disposal storage</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Sharps container</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liquid waste disposal storage</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>Washer / disinfector, ultra sonic bath or double sink unit for cleaning</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>Household waste disposal</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Regular (weekly) detection combing should be undertaken in situations where head lice infection is likely (e.g. families with young children, hostels for young families, refuges etc).

Only treat individuals who have living, moving lice found in their hair. Treatment consists of either the application of an insecticide (2 applications, one week apart), or wet combing. See flowchart.

Eggs (nits) that are seen sticking to the hair more than 10mm from the scalp are empty or dead and do not need treatment. They may be unsightly but are not infectious and will grow out over time.

The "mosaic approach" to the choice of head lice preparations is now advocated rather than the former rotational policy. This helps to prevent the development of resistance through overuse of one particular insecticide.

The mosaic strategy means using one type of head lice preparation for a course of treatment (e.g. malathion-based). If this fails, use a different preparation (e.g. pyrethroid-based).

Carbaryl should be reserved for those rare instances where resistance is suspected. Such cases should be referred to their school nurses, practice nurse, health visitor or GP. Shampoo preparations are not recommended. Example of products available:

- **Malathion**
  - Derbac M liquid
  - Quellada M
  - Prioderm lotion
  - Suleo M

- **Pyrethroids**
  - Lyclear cream rinse
  - Full Marks liquid
  - Full Marks lotion
  - Full Marks mousse

- **Carbaryl**
  - Carylderm liquid
  - Carylderm lotion

A new silicone product, **4% dimeticone** (Hedrin), is now also available as an alternative. Alcohol based products should not be used in the presence of a scalp condition, on children under 2 years, or if either person administering or receiving the treatment has asthma or eczema. In these cases, an aqueous preparation may be used.

* * *
Role Specification For An Infection Control Link Person

Role Profile

The Infection Control Link Persons will act as a resource and role model in their clinical area and liaise with the local Infection Control Team or Health Protection Unit. They will be supported by a qualified Infection Control Nurse and are not a substitute for a fully resourced infection control team.

They will help to create and maintain an environment that is safe for the patient, staff and visitors using infection control knowledge, communication and teaching skills.

Background Experience

The ICLP should be experienced in their field and demonstrate an interest in infection control. They should have credibility within their team and communication skills. They should be able to influence or introduce any necessary changes in practice. They should be supported in undertaking additional training in infection control.

Responsibilities

- Liaise between their team and the infection control team
- Act as a resource for colleagues
- Liaise with the person in charge with regard implementing infection control policy and procedures

- In collaboration with the Infection Control Nurse Specialist ensure systems are in place that:
  - Identify local infection control problems/issues
  - Ensure infection control is included in induction and regular update sessions
  - Local infection policy and procedures are developed, implemented and reviewed
  - Ensure that patients/clients and relatives are informed of infection control practices as necessary
  - Ensure that infections are recorded and appropriate actions are taken
  - Ensure that infection control issues are considered prior to the purchase and disposal of equipment
  - Ensure that the environment and equipment are effectively decontaminated
  - Ensure that infection control issues are included in audit activities

Keeping knowledge up to date

- Regularly attend Infection Control Link meetings or updates
- Take every opportunity to update and extend own knowledge of infection control
**APPENDIX 8**

**Waste segregation chart** (from Safe Management of Healthcare Waste)  

<table>
<thead>
<tr>
<th>Waste receptacle</th>
<th>Waste types</th>
<th>EWC code(s)</th>
<th>Hazardous properties</th>
<th>Primary transport class</th>
<th>UN number(s)</th>
<th>Minimum treatment/disposal required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthcare waste contaminated with radioactive material</td>
<td>18 01 03* if waste is infectious</td>
<td>H9 if waste is infectious Radioactive</td>
<td>Class 6.2 (Infectious) + Class 7 (Radioactive)</td>
<td>UN 3291 + UN 3291 Number will depend on isotope*</td>
<td>Incineration in hazardous waste incineration facility subject to the Radioactive Substances Act (RSA)</td>
<td></td>
</tr>
<tr>
<td>Infectious waste contaminated with cytotoxic and/or cytostatic medicinal products</td>
<td>18 01 03 18 01 08</td>
<td>H6 H7 H9 H10 H11</td>
<td>Class 6.2</td>
<td>UN 3291</td>
<td>Hazardous waste incineration</td>
<td></td>
</tr>
<tr>
<td>SHARPS</td>
<td>Sharps contaminated with cytotoxic and cytostatic medicinal products</td>
<td>18 01 03* 18 01 08*</td>
<td>H6 H7 H9 H10 H11</td>
<td>Class 6.2</td>
<td>UN 3291</td>
<td>Hazardous waste incineration</td>
</tr>
<tr>
<td>Infectious and other waste requiring incineration including anatomical waste, diagnostic specimens, reagent or test vials, and kits containing chemicals</td>
<td>18 01 02 18 01 03*</td>
<td>H9</td>
<td>Class 6.2</td>
<td>UN 3291</td>
<td>Hazardous waste incineration</td>
<td></td>
</tr>
<tr>
<td>SHARPS</td>
<td>Partially discharged sharps not contaminated with cytotoxic products</td>
<td>18 01 01 18 01 03*</td>
<td>H9</td>
<td>Class 6.2</td>
<td>UN 3291</td>
<td>Hazardous waste incineration</td>
</tr>
<tr>
<td>Receptacle must be UN-approved for liquids</td>
<td>Medicines in original packaging</td>
<td>18 01 09</td>
<td>H6 H7 H10 H11</td>
<td>Class 6.1</td>
<td>UN 3248 UN 1851 UN 3249</td>
<td>Hazardous waste incineration</td>
</tr>
<tr>
<td>Medicines NOT in original packaging</td>
<td>18 01 09</td>
<td>H6 H7 H10 H11</td>
<td>Class 6.1</td>
<td>UN 3248 UN 1851 UN 3249</td>
<td>Hazardous waste incineration</td>
<td></td>
</tr>
</tbody>
</table>

Continued overleaf…
<table>
<thead>
<tr>
<th>Waste receptacle</th>
<th>Waste types</th>
<th>EWC code(s)</th>
<th>Hazardous properties</th>
<th>Primary transport class</th>
<th>UN number(s)</th>
<th>Minimum treatment/disposal required</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Infectious waste, potentially infectious waste and autoclaved laboratory waste</td>
<td>18 01 03*</td>
<td>H9</td>
<td>Class 6.2</td>
<td>UN 3291</td>
<td>Licensed/permited treatment facility</td>
</tr>
<tr>
<td></td>
<td>(i) Sharps not contaminated with medicinal products²</td>
<td>18 01 01</td>
<td>H9</td>
<td>Class 6.2</td>
<td>UN 3291</td>
<td>Suitably authorized incineration or alternative treatment facility</td>
</tr>
<tr>
<td></td>
<td>Or</td>
<td>18 01 03</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(ii) Fully discharged sharps contaminated with medicinal products other than cytotoxic and cytostatic medicines</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Offensive/hygiene waste</td>
<td>18 01 04 or 20 01 99¹</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>Deep landfill</td>
</tr>
<tr>
<td></td>
<td>Domestic waste</td>
<td>20 03 01</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>Landfill</td>
</tr>
<tr>
<td></td>
<td>Black bag or clear bag is acceptable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Amalgam waste</td>
<td>18 01 10</td>
<td>H6</td>
<td>Class 6.1</td>
<td>UN 2025s</td>
<td>Recovery</td>
</tr>
</tbody>
</table>

Notes:
* Seek guidance from DGSA
1. Human hygiene waste from non-healthcare sources
PART G

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REFERENCES

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<table>
<thead>
<tr>
<th>Acupuncture</th>
<th>(D) 8.0</th>
<th>Creutzfeldt-Jacob Disease (CJD)</th>
<th>(B) 12.2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Artificial eyes</td>
<td>(B) 2.3.1</td>
<td>Cryptosporidium</td>
<td>(B) 11.0</td>
</tr>
<tr>
<td>Aseptic technique</td>
<td>(D) 14.0</td>
<td>CSSD</td>
<td>(B) 5.4; 5.5</td>
</tr>
<tr>
<td>Audit:</td>
<td></td>
<td>Deaths:</td>
<td>(B) 12.0</td>
</tr>
<tr>
<td>Infection control</td>
<td>(E) 1.0</td>
<td>Handling bodies</td>
<td>(B) 12.1</td>
</tr>
<tr>
<td>Sterilisation in primary care</td>
<td>(E) 2.0</td>
<td>Infected clients</td>
<td>(B) 12.2</td>
</tr>
<tr>
<td>Clinical practices (NICE Guidelines)</td>
<td>(E) 3.0</td>
<td>Dental clinics</td>
<td>(D) 7.0</td>
</tr>
<tr>
<td>Bench top steam sterilisers:</td>
<td></td>
<td>Ear care</td>
<td>(B) 2.4</td>
</tr>
<tr>
<td>Purchase</td>
<td>(B) 5.5.1</td>
<td>Ear irrigation (syringing)</td>
<td>(D) 9.0</td>
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<tr>
<td>Installation and commissioning</td>
<td>(B) 5.5.2</td>
<td>Enteral feeding</td>
<td>(D) 5.0; (E) 3.0</td>
</tr>
<tr>
<td>Reservoir and chamber</td>
<td>(B) 5.5.10; (E) 2.0</td>
<td>Environmental hygiene</td>
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Escherichia coli (E coli O157)

Exclusion: work

School or nursery

Eye care

Food hygiene:

Training

Food preparation

High risk food

Storage of food

Gifts of food

Undercooked or raw

Unpasteurised milk

Raw eggs

Pate, soft ripened cheeses, cook-chill foods

Infectious diseases in staff

Hazard analysis

Record keeping

Hand hygiene

Protective clothing

Food poisoning

Foot care

Diabetic foot care

Glycopeptide-resistant enterococci (GRE)

Hand foot and mouth disease

Hand hygiene:

Facilities

Clinical settings

Client’s homes

Routine

Disinfection

Technique

Head lice

Health Protection Team

Hearing aids

Hepatitis A

Hepatitis B and C

HIV

Immunisation

Immuno-compromised patient

Impetigo

Infection Control Team

Influenza

Infusion device

Inoculation injuries:

Prevention

Action to be taken

Post exposure prophylaxis:
Podiatry clinics (D) 7.0

Protective clothing:

- Aprons/gowns (B) 3.0; 9.7
  - (B) 3.2; 6.1
  - (C) 21.0; 25.0;
  - (F) Appendix 2

- Eye protection (B) 3.3
  - (B) 3.1; Table 3; 4.5;
  - 5.2.3; 5.5.12; 5.7; 6.1;
  - Table 7; 10.1; Table 8; 12.0;
  - (C) Most sections
  - (E) 1.0;

- Gloves (B) 3.1; Table 3; 4.5;
  - 5.2.3; 5.5.12; 5.7; 6.1;
  - Table 7; 10.1; Table 8; 12.0;
  - (C) Most sections
  - (E) 1.0;

- Masks (B) 3.3;
  - (C) 25.0; 27.0

- Uniforms (B) 3.4

- Visors (B) 3.3

- Ringworm and other fungal infections (C) 22.0

- Scabies (C) 23.0; 32.0
  - (F) Appendix 3

- Scarlet fever (C) 24.0; 32.0

- Severe acute respiratory syndrome (SARS) (C) 25.0

- Sharps injuries See inoculation injuries

- Single-use devices (B) 8.0

- Shingles (C) 5.0; 32.0

- Slapped cheek disease (C) 26.0; 32.0

- Specimen collection (C) 2.0

- Spillage: Blood (B) 4.5;
  - (E) 1.0
  - (B) 4.6; 4.3

- Urine, faeces, vomit, low-risk body fluids

- Sterile instruments: Use (B) 5.5.9
  - Storage (B) 5.5.8

- Sterile Supplies Department See CSSD
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PART H

LOCAL POLICIES AND PROCEDURES