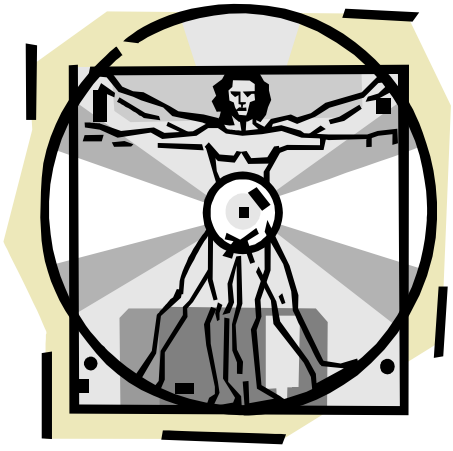
ESSEX HEALTH PROTECTION UNIT

Part of the

Health Protection Agency

COMMUNITY INFECTION CONTROL GUIDELINES



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SECTION A – INTRODUCTION AND CONTACTS

1. Introduction

These guidelines have been written for …….

Infection control is an important part of an effective risk management programme to improve the quality of patient care and the Occupational Health (OH) of staff.

This guidance should assist organisations and individuals to adhere to the Health Act 2006: Code of Practice for the Prevention and Control of Healthcare Associated Infections.

2. Scope

The manual includes guidance on care given in General Medical Practices, individual homes, clinics, day care facilities, and covers all areas of health and social care provision as provided by the organisation. The manual is available in its entirety, or in individual sections on our website.

For chiropody and dental, refer to specific Essex Health Protection Unit (EHPU) guidance available on the EHPU website www.hpa.org.uk/Essex.

It is acknowledged that some users of these guidelines work in premises over which they have little or no control (e.g. clients' own homes). Therefore in some instances users will have to use their own judgement in the interpretation of the guidelines.

However further advice is available from the Essex Health Protection Unit.

3. Responsibility

The purpose of this manual is to encourage individual responsibility by **every** member of staff. All should participate in the prevention and control of infection ensuring a seamless infection control service between hospitals and the community.

The Chief Executive/owner of the organisation is responsible for ensuring that there are effective arrangements in place for the control of infections.

4. Contacts

Infection Control advice can be obtained from the Essex Health Protection Unit, 8 Collingwood Road, Witham, Essex CM8 2TT.

The main office telephone number is: 0845 1550069. Please note that this is a new telephone number. The CsCDC and Communicable Disease Control Nurses are contactable via this number.

Advice is also available on the Essex Health Protection Unit website: www.hpa.org.uk/essex.

Users are encouraged to ensure they have access to this site as it has advice and information on a wide range of local communicable disease issues, and during incidents will be updated at least daily with the current state of affairs.

Out of working hours – for **URGENT** communicable disease enquiries:

Contact 01245 444417, and ask them to page the on-call Public Health Person.

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SECTION B – INFECTION, ITS CAUSES AND SPREAD

1. The Causes of Infection

Micro-organisms are integral to infections, and a basic insight into the characteristics of commonly encountered micro-organisms is essential for good infection control practice. Micro-organisms that cause disease are referred to as pathogenic organisms. They may be classified as follows:

Bacteria are minute organisms about one-thousandth to five-thousandth of a millimetre in diameter. They are susceptible to a greater or lesser extent to antibiotics.

Viruses are much smaller than bacteria and although they may survive outside the body for a time they can only grow inside cells of the body. Viruses are not susceptible to antibiotics, but there are a few anti-viral drugs available which are active against a limited number of viruses.

Pathogenic Fungi can be either moulds or yeasts. For example, a mould which causes infections in humans is *Trichophtyon rubrum* which is one cause of ringworm and which can also infect nails. A common yeast infection is thrush caused by *Candida albicans*.

Protozoa are microscopic organisms, but larger than bacteria. Free-living and non-pathogenic protozoa include amoebae and paramecium. Examples of medical importance include *Giardia lamblia,* which causes an enteritis (symptoms of diarrhoea).

Worms are not always microscopic in size but pathogenic worms do cause infection and some can spread from person to person. Examples include threadworm and tapeworm.

Prions are infectious protein particles. For example the prion causing (New) Variant Creutzfeldt-Jakob Disease (vCJD).

2. The Spread of Infection

There are various means by which micro-organisms can be transferred from their place of reservoir to susceptible individuals. These are:

Direct Contact. Direct spread of infection occurs when one person infects the next by direct person-to-person contact (e.g. chickenpox, tuberculosis, sexually transmitted infections etc.).

Indirect. Indirect spread of infection is said to occur when an intermediate carrier is involved in the spread of pathogens e.g. fomite or vector.

> A **fomite** is defined as an object, which becomes contaminated with infected organisms and which subsequently transmits those organisms to another person. Examples of potential fomites are instruments, impression trays and suction tips or practically any inanimate article.
>
> Crawling and flying insects are obvious examples of **vectors** and need to be controlled. Insect bites may cause infections such as malaria in areas where malaria carrying mosquitoes live.

Hands. The hands of healthcare workers are probably the most important vehicles of cross-infection. The hands of patients can also carry microbes to other body sites, equipment and staff.

Inhalation. Inhalation spread occurs when pathogens exhaled or discharged into the atmosphere by an infected person are inhaled by and infect another person. The common cold and influenza are often cited as examples, but it is likely that hands and fomites (inanimate objects) are also important in the spread of respiratory viruses.

Ingestion. Infection can occur when organisms capable of infecting the gastro-intestinal tract are ingested. When these organisms are excreted faecally by an infected person, faecal-oral spread is said to occur. Organisms may be carried on fomites, hands or in food and drink e.g. Hepatitis A, *Salmonella, Campylobacter*.

Inoculation. Inoculation infection can occur following a “sharps” injury when blood contaminated with, for example, Hepatitis B virus is directly inoculated into the blood stream of the victim, thereby causing an infection. Bites from humans can also spread infection by the inoculation mode.

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SECTION C – STANDARD PRINCIPLES OF INFECTION CONTROL

1. Standard Principles of Infection Control

It is not always possible to identify people who may spread infection to others, therefore precautions to prevent the spread of infection must be followed at all times. These routine procedures are called **Standard Principles of Infection Control (or Universal Precautions).**

The recommendations on standard principles provide guidance on infection control precautions that should be applied by all healthcare personnel, and other carers, to the care of patients in community and primary care settings.

Standard Principles of Infection Control include:

Hand Hygiene and Skin Care
Protective Clothing
Safe Handling of Sharps (including Sharps Injury Management).

All blood and body fluids are potentially infectious and precautions are necessary to prevent exposure to them.

Everyone involved in providing health and social care should know, and have a duty to apply the standard principles of hand decontamination, the use of protective clothing and the safe disposal of sharps. Each member of staff is accountable for his/her actions and must follow safe practices.

2. Hand Hygiene and Skin Care

There are two methods of hand decontamination which are handwashing and handrubs, both alcohol and non-alcohol based.

Hand decontamination is recognised as the single most effective method of controlling infection.

Hands must be decontaminated:

- Before and after each work shift or work break. Remove jewellery (rings)
- Before and after physical contact with each client
- After handling contaminated items such as dressings, bedpans, urinals and urine drainage bags
- Before putting on, and after removing protective clothing, including gloves
- After using the toilet, blowing your nose or covering a sneeze
- Whenever hands become visibly soiled
- Before preparing or serving food
- Before eating, drinking or handling food and before and after smoking.

How to Wash Your Hands

Hands that are visibly soiled, or potentially grossly contaminated with dirt or organic material, must be washed with liquid soap and water.

	Method	**Solution**	**Task**
1	Social (15-30 seconds)	Liquid soap	For all routine tasks
2	Hygienic hand disinfection (15-30 seconds)	Antiseptics, e.g. chlorhexidine, povidone-iodine or alcohol handrub after social clean	In high-risk areas and during outbreaks
3	Surgical scrub (3 minutes)	Antiseptics, e.g. chlorhexidine, povidone-iodine, thorough and careful. Dry on sterile towels	Prior to surgical and other invasive procedures. Bars of soap not recommended

An effective handwashing technique involves four stages:

(a) Preparation

Before washing hands, all wrist and, ideally, hand jewellery should be removed. Cuts and abrasions must be covered with waterproof dressings. Fingernails should be kept short, clear and free from nail polish. Hands should be wet under tepid running water before applying liquid soap or an antimicrobial preparation.

(b) Washing and Rinsing

The handwash solution must come into contact with all of the surfaces of the hand. The hands must be rubbed together vigorously for a minimum of 15-30 seconds, paying particular attention to the tips of the fingers, the thumbs and the areas between the fingers. Hands should be rinsed thoroughly.

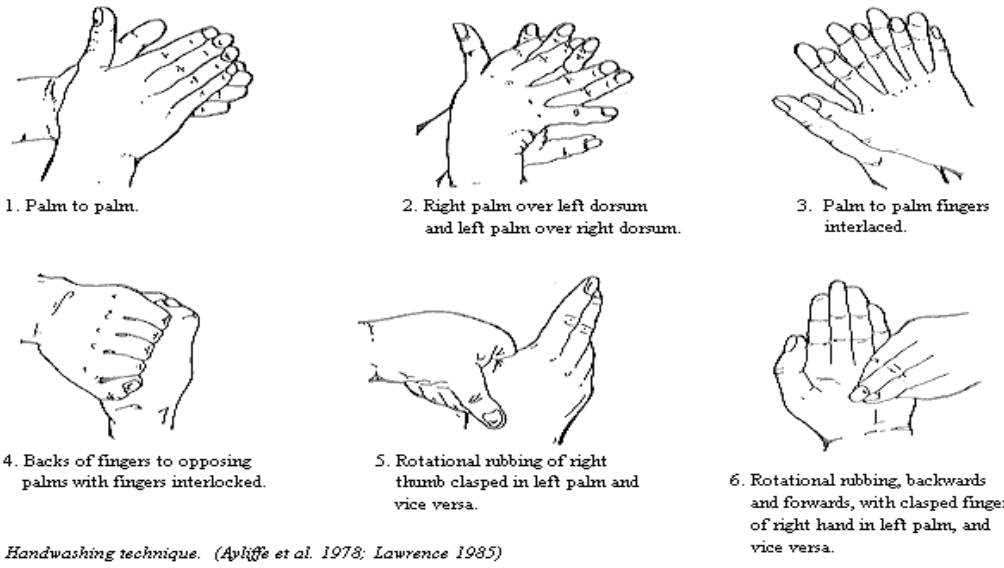
Hygienic Hand Disinfection for Outbreak Control

This can either be achieved by using antiseptic liquid soap, or by routine handwashing, followed by 5mls of an alcohol handrub.

Surgical Handwashing

Surgical handwashing destroys transient organisms and reduces resident flora before surgical or invasive procedures. An aqueous antiseptic solution is applied for two minutes. Preparations currently available are 4% chlorhexidine-detergent and 0.75% povidone/iodine solution-detergent.

This is required before minor surgery and invasive procedures.



Handwashing technique. (Ayliffe et al. 1978; Lawrence 1985)

(c) Drying

This is an essential part of hand hygiene. Dry hands thoroughly using good quality paper towels. In clinical settings, disposable paper towels are the method of choice because communal towels are a source of cross-contamination. Store paper towels in a wall-mounted dispenser next to the washbasin, and throw them away in a pedal operated fire-retardant domestic waste bin. Do not use your hands to lift the lid or they will become re-contaminated.

Hot air dryers are not recommended in clinical settings. However if they are used in other areas, they must be regularly serviced and users must dry hands completely before moving away.

(d) Handrubs/Alcohol Gels

Hands should be free from dirt and organic material. The handrub solution must come into contact with all surfaces of the hand. The hands must be rubbed together vigorously, paying particular attention to the tips of the fingers, the thumbs and the areas between the fingers, until the solution has evaporated and the hands are dry.

Hand Creams

An emollient hand cream should be applied regularly to protect skin from the drying effects of regular hand decontamination. If a particular soap, antimicrobial handwash or alcohol product causes skin irritation, an Occupational Health (OH) team should be consulted.

Hand Decontamination Facilities

Handwashing

Facilities should be adequate and conveniently located. Hand washbasins must be placed in areas where needed and where client consultations take place. They should have elbow- or foot-operated mixer taps. A separate sink should be available for other cleaning purposes - such as cleaning instruments.

- Use wall-mounted liquid soap dispensers with disposable soap cartridges - keep them clean and replenished
- Dispensers should be dismantled and washed regularly with particular attention to the nozzle
- Place disposable paper towels next to the basins - soft towels will help to avoid skin abrasions
- Position foot-operated pedal bins near the hand washbasin - make sure they are the right size.

Handwashing in Individuals Homes

Hands should be washed prior to any procedure in the patient's home and before departure. If handwashing facilities are inadequate (e.g. no warm water, no soap, no hand towel), the healthcare worker should carry either liquid soap and paper hand towels, baby/detergent wipes or alcohol handrub. However alcohol handrub should only be used if the hands are visibly clean.

3. Protective Clothing

Selection of protective equipment must be based on an assessment of the risk of transmission of infection between the patient and the risk of contamination of the healthcare workers' clothing and skin by patient blood and body fluids.

Assessment of Risk

What to Wear When

No exposure to blood/ body fluids anticipated	Exposure to blood/body fluids anticipated, but low risk of splashing	Exposure to blood/body fluids anticipated - high-risk of splashing to face
↓	↓	↓
No protective clothing	Wear gloves and a plastic apron	Wear gloves, plastic apron and eye/mouth/nose protection

Types of Protective Clothing

Disposable Gloves

Gloves must be worn for invasive procedures, contact with sterile sites and non-intact skin or mucous membranes, and all activities that have been assessed as carrying a risk of exposure to blood, body fluids, secretions or excretions, or to sharp or contaminated instruments.

Gloves that are acceptable to healthcare personnel and that conform to European Community (CE) standards must be available.

DO NOT USE powdered gloves or polythene gloves in healthcare activities.

Gloves must be worn as single-use items. They must be put on immediately before an episode of patient contact or treatment and removed as soon as the activity is completed. Gloves must be changed between caring for different patients, and between different care or treatment activities for the same patient. Gloves do not substitute for handwashing.

Following risk assessment for infectious hazard, gloves should be disposed of via the offensive, non hazard route, or infectious hazard route, (**Refer Waste Management Section I -12**) and hands must be decontaminated after the gloves have been removed.

Sensitivity to natural rubber latex must be documented and alternatives to natural rubber latex gloves must be available.

To prevent transmission of infection, gloves must be discarded after each procedure. Gloves should **not** be washed between patients as the gloves may be damaged by the soap solution and, if punctured unknowingly, may cause body fluid to remain in direct contact with skin for prolonged periods.

1. Non Sterile Gloves

Should be used when hands may come into contact with blood and body fluids, or equipment contaminated with blood and body fluids.

2. Sterile Gloves

Should be used when the hand is likely to come into contact with normally sterile areas or during any surgical procedure**.**

3. General-purpose Utility Gloves

General-purpose utility gloves e.g. rubber household gloves should be used when coming into contact with possible contaminated surfaces or items. Colour-coding of such gloves should be used e.g. green for the kitchen, blue for general environmental cleaning, and red for 'dirty' clinical duties. This will help prevent cross-infection from one area of work to another. The gloves should be washed with GPD and hot water, and dried between uses. They should be discarded weekly, or more frequently if the gloves become damaged.

4. Polyurethane/polythene Gloves (Non Sterile and Sterile)

Polyurethane/polythene gloves do not act as a barrier to infection. They do not meet the Health and Safety Commission regulations and they do not have a place in clinical application. **DO NOT USE.**

Disposable Plastic Aprons

Should be worn when there is a risk that clothing may be exposed to blood, body fluids, secretions or excretions, with the exception of sweat.

Plastic aprons should be worn as single-use items, for one procedure or episode of patient care, and then discarded and disposed of by the appropriate waste route (**Refer Waste Management Section I -12**).

Face Masks and Eye Protection

Must be worn where there is a risk of blood, body fluids, secretions or excretions splashing into the face, mouth and eyes. Full face visors are appropriate for protection against splashes into the face and eyes.

Respiratory Protective Equipment

For example, a particulate filter mask, must be used when clinically indicated for pulmonary tuberculosis.

4. Safe Handling of Sharps

All staff should be fully immunised according to national policy. In addition, all those handling sharps should have had a course of Hepatitis B vaccine. A record of Hepatitis B antibody response should be kept for all clinical staff involved in 'exposure prone procedures' or where regular exposure to blood/blood-stained body fluids occurs.

Care should be taken to avoid accidental needlestick injury, as exposure to contaminated blood may be associated with transmission of blood-borne viruses (BBVs).

Sharps include needles, scalpels, stitch cutters, glass ampoules, sharp instruments and broken crockery and glass. Sharps must be handled and disposed of safely to reduce the risk of exposure to blood-borne viruses. Always take extreme care when using and disposing of sharps. Avoid using sharps whenever possible.

- Clinical sharps should be single-use only
- Do not re-sheath a used needle - if this is necessary a safe method, i.e. a re-sheathing device, must be used
- Discard sharps directly into a sharps container immediately after use and at the point of use
- Sharps containers should be available at each location where sharps are used
- Sharps containers must comply with UN 3921 and BS7320 standards
- Close the aperture to the sharps container when carrying or if left unsupervised to prevent spillage or tampering
- Place sharps containers on a level stable surface
- Do not place sharps containers on the floor, window sills or above shoulder height - use wall or trolley brackets
- Assemble sharps containers by following the manufacturer's instructions
- Carry sharps containers by the handle - do not hold them close to the body
- Never leave sharps lying around

- Do not try to retrieve items from a sharps container
- Do not try to press sharps down to make more room
- Lock the container when it is three-quarters full using the closure mechanism
- Label sharps containers with the source details prior to disposal
- Place damaged sharps containers inside a larger container - lock and label prior to disposal. Do **not** place inside waste bag.

Giving Injections

Always wash hands thoroughly prior to giving an injection.

If the patient's skin is visibly dirty, it should be cleaned with an individually packed swab soaked in 70% isopropyl alcohol and left to dry. If skin is clean, this step is not necessary.

Venepuncture and injections should be carried out only by staff who are adequately trained and experienced.

For occupationally acquired sharps injuries refer to Section E.

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SECTION D – NOTIFICATION OF INFECTIOUS DISEASES

1. Introduction

This guideline sets out the procedures for staff to follow in respect of communicable disease control. It includes the reporting, documentation and notification procedures.

2. Accountability

Operational Directors

Should ensure the application of recommendations within their Directorates.

Managers

To support the Operation Directors in the implementation of the guidelines within their directorate. Managers of residential establishments owned by the PCTs should report outbreaks to the PCT infection control team. Managers of independent residential establishment to report outbreaks to the EHPU.

Clinical and Support Staff

- All staff have an important role in the prevention and control of infection which is an integral quality issue in the care and management of patients/residents and the health and safety of staff
- All staff need to follow all guidelines
- All staff need to bring infection control issues to the attention of Senior Managers
- All staff need to maintain a high standard of infection prevention and control as a matter of good practice.

3. Notification Procedures

Explanatory note

Any registered medical practitioner who becomes aware or suspects that a patient/resident (s)he is attending is suffering from a notifiable disease is required by law (Public Health Control of Disease Act 1984) to send a notification form to the local authority Proper Officer forthwith.

It is not necessary to wait for laboratory/microbiological confirmation of a diagnosis.

While laboratories may report, this does not absolve clinicians from their responsibility to do so.

Which diseases are notifiable?

List of Notifiable Diseases

Anthrax	Paratyphoid Fever
Cholera	Plague
Diphtheria	Poliomyelitis
Dysentery (Amoebic or Bacillary)	Rabies
Encephalitis	Relapsing Fever
Food Poisoning*	Rubella
Leprosy	Scarlet Fever
Leptospirosis	Smallpox
Malaria	Tuberculosis
Measles	Typhoid Fever
Meningitis (all types)	Typhus
Meningococcal Septicaemia (without meningitis)	Viral Haemorrhagic Fever
	Viral Hepatitis
Mumps	Whooping Cough
Ophthalmia Neonatorum	Yellow Fever

*** This category includes any infection which could be food or water-borne e.g. *campylobacter*, *salmonella*, cryptosporidiosis, giardia.**

How quickly should I notify?

The law specifies that notification should be "forthwith" i.e. without any delay. Please send out notification forms on the same day the patient is seen and make sure they are not being "batched".

The aim of notification is to ensure public health action is taken promptly. The EHPU should be telephoned on the day of diagnosis on Tel: **0845 1550069** on strong clinical suspicion for **all** except:

- Isolated cases and household contacts with dysentery
- Isolated cases and household contacts with food poisoning (we would like to be telephoned about any *E coli 0157,* Listeria and Hepatitis A)
- Chronic Hepatitis B and C

- Leptospirosis
- Malaria
- Ophthalmia neonatorum
- Scarlet fever
- Cases of tuberculosis already under the care of a chest physician.

These may be notified by post utilising the usual notification forms.

Where do I obtain notification forms?

These are available on application to the EHPU, who supply them on behalf of the Essex Local Authorities; we can post or email a blank template.

We would also like to know about cases of:

- Legionella
- Suspected outbreaks of any infection i.e. D&V
- One or more cases of scabies in a residential setting
- Sudden increase of chest infections in care homes.

4. Reporting & Documentation of Illness for a Suspected/Confirmed Outbreak

Recognising Outbreaks of Infection

Any suspicion of an outbreak of communicable disease in the community should be reported to the EHPU immediately for further investigation, and management as appropriate.

The EHPU should be contacted if:

- There are two or more individuals with vomiting and/or diarrhoea (amongst patients/residents or staff)
- There are two or more individuals suffering from the same infectious illness i.e. chest infections
- There is a high sickness rate amongst staff, who appear to be suffering from the same infectious disease.

If a residential establishment is affected (whether the member of staff is directly employed by the establishment or not) the following guidance should be followed:

- Care home managers should contact the EHPU without delay if they suspect there may be an outbreak of infection in a home (PCT owned establishments should report directly to the PCT Infection Control Team)
- They must also inform their local Environmental Health Department if food poisoning is suspected and the Commission for Social Care Inspection (CSCI)
- Senior management must be informed and requested to ensure adequate staffing to cope with the extra demands of managing an outbreak. Staff working in the home should not work in other care establishments until the outbreak is declared over by the Essex Health Protection Unit
- List all residents and staff affected, including age, area/unit where resident/ working, onset of symptoms, symptoms suffered, duration of illness, GP and whether a sample has been taken (blank forms on following pages).

THE BRISTOL STOOL FORM SCALE

Type 1		Separate hard lumps, like nuts (hard to pass)
Type 2		Sausage-shaped but lumpy
Type 3		Like a sausage but with cracks on its surface
Type 4		Like a sausage or snake, smooth and soft
Type 5		Soft blobs with clear-cut edges (passed easily)
Type 6		Fluffy pieces with ragged edges, a mushy stool
Type 7		Watery, no solid pieces ENTIRELY LIQUID

Please use the Bristol stool chart to indicate the frequency and type of stool during an outbreak of D&V, diarrhoea is defined as watery or liquefied stools comparable with types 6 and 7.

Specific Guidance for Outbreaks of Diarrhoea and/or Vomiting

- Isolate symptomatic residents in their own rooms with their own toilet facilities, or a designated commode if en-suite facilities are not available
- Environmental cleaning to be increased. Particular attention should be paid to the toilets, bathrooms, door handles, support hand rails and kitchen units. For the duration of the outbreak, environmental cleaning should be performed using detergent and hot water followed by a 1 in 1000 parts per million available chlorine-releasing solution that is 0.1% hypochlorite solution, 1 part household bleach in 10 parts of water or Sodium Dichloroisocyanurate (NaDCC) e.g. Precept, Haztabs diluted as per manufacturer's guidance, or a proprietary brand that combines detergent and chlorine agent i.e. Antichlor Plus
  NB Alcohol Gel alone will not destroy Norovirus or *Cl. Difficile.*
- All staff handwashing areas and the rooms of symptomatic residents should have an antibacterial liquid dispensed soap (or an alcohol handrub following handwashing with a regular liquid soap) for the duration of the outbreak, then normal liquid dispensed soap should be used
- Residents should be encouraged to wash their hands after using the toilet and before eating
- Staff should pay attention to all infection control practices, particularly the washing of hands and wearing protective clothing. A new pair of disposable gloves and a plastic apron should be worn for each resident
- Faecal samples should be obtained from residents and staff if they have symptoms. The microbiology form accompanying the sample should clearly state it is part of an outbreak, and additionally please request virology screening. as these will determine which specific tests are carried out in the laboratory (samples of vomit are not required)
- The home should be closed to admissions until 48 hours after the last symptomatic patient has recovered
- Symptomatic staff must go off duty, a faecal sample must be taken and they must remain off work until 48 hours symptom free
- Visitors should be informed of the outbreak and unnecessary visits should be discouraged. Those who choose to visit should wash their hands as they enter and leave the home and comply with all other hygiene practices in place
- Residents should only be discharged 48 hours after their last symptom and with the full consent of anyone who may be required to care for them in the community.

RECORD OF OUTBREAK (Residents) **Type: Diarrhoea/Vomiting/Chest Infection/……..**

Name of Home: _____ **Record started by:** _____ **Date:**

Address _____ **Reported to: EHPU/EHO/CSCI/PCT**

_____ **Total number of residents in home:** _____

Tel: _____ **Total number of residents affected:** _____

Name of Resident	DOB	Area/Unit where resident	Date symptoms started	Symptoms	Duration of symptoms	GP Name	GP Seen	Faecal Sample Sent	Faecal Sample Result

RECORD OF OUTBREAK (Staff) **Type: Diarrhoea/Vomiting/Chest Infection/……..**

Name of Home: _____ **Record started by:** _____ **Date:**

Address _____ **Reported to: EHPU/EHO/CSCI/PCT**

_____ **Total number of staff in home:** _____

Tel: _____ **Total number of staff affected:** _____

Name of Staff	DOB	Area/Unit where resident	Date Symptoms started	Symptoms	Duration of symptoms	GP Name	GP Date Seen	Faecal Sample Sent	Faecal Sample Result

RECORD OF OUTBREAK OF SCABIES (Residents)

Name of Home: _____ **Record started by:** _____ **Date:** _____

Address _____ **Reported to: EHPU/EHO/CSCI/PCT**

_____ **Total number of residents in home:** _____

Tel: _____ **Total number of residents affected:** _____

Name of Resident	DOB	Area/Unit where resident	Date Symptoms started	Diagnosed by		Treatment Date	
				GP	EHPU	1st	2nd

RECORD OF OUTBREAK OF SCABIES (Staff)

Name of Home: _____ **Record started by:** _____ **Date:**_____

Address _____ **Reported to: EHPU/EHO/CSCI/PCT**

_____ **Total number of members of staff in home:** _____

Tel: _____ **Total number of members of staff affected:** _____

Name of Staff Member	DOB	Area/Unit where resident	Date Symptoms started	Diagnosed by		Treatment Date	
				GP	EHPU	1st	2nd

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SECTION E – MANAGEMENT OF SHARPS INJURIES

1. Occupational Injuries

In the event of a sharp injury/contamination incident these guidelines should be followed:

A sharp injury/contamination incident includes:

- Inoculation of blood by a needle or other 'sharp'
- Contamination of broken skin with blood
- Blood splashes to mucous membrane e.g. eyes or mouth
- Swallowing a person's blood e.g. after mouth-to-mouth resuscitation
- Contamination where the individual has an open wound, and clothes have been soaked by blood
- Bites (where the skin is broken).

When a sharp injury/contamination incident occurs:

1. Encourage bleeding from the wound
2. Wash the wound in soap and warm running water (do not scrub)
3. Cover the wound with a dressing
4. Skin, eyes or mouth, wash in plenty of water
5. Ensure the sharp is disposed of safely i.e. using a non-touch method into a sharps container
6. Report the incident to immediate supervisor. An incident form should be completed as soon as the recipient of the injury is able
7. The incident should be reported to the Occupational Health department and GP (**Refer to Sharps Injury poster**)
8. Attempt to identify source of the needle/sharp. Depending on the degree of exposure and the knowledge of the source patient/client it may be necessary to take further immediate action, see below.

2. Control Measures

Any staff working in a healthcare facility who handle sharps or hazard infectious waste should receive a full course of Hepatitis B vaccine and have their antibody level checked to establish immunity.

New staff or any existing staff who know they are not already protected should contact their occupational health department to arrange vaccination without delay.

Generally staff in the community do not perform Exposure Prone Procedures (EPPs) with the exception of dental and some podiatrist practices. EPPs are invasive procedures where there is a risk that injury to the worker may result in the exposure of the patient's open tissues to the blood of the healthcare worker.

However, all staff who do perform EPPs need to be aware of their obligations (see statements by the General Medical Council in Serious Communicable Diseases, 1997; [General Dental Council in Maintaining Standards Guidance 1997;] United Kingdom Central Council for Nursing, Midwifery and Health Visiting Registrar's letter 4/1994 Annex 1) i.e. to declare it if they know themselves to have been at risk of exposure to a blood-borne virus infection (Hepatitis B, C or HIV).

Screening

Existing staff that undertake EPPs should be screened for Hepatitis B.

New employees must be screened for both Hepatitis B and Hepatitis C prior to commencing work.

POST-EXPOSURE PROPHYLAXIS FOR THE RECIPIENT

Testing the Source Patient

In some instances it will not be possible to identify the source patient. However, if the source is identifiable and available for testing, a blood specimen should be obtained (with counselling and consent) and sent to the microbiology laboratory (an appropriately trained person should discuss the implication of the blood test and results, prior to obtaining consent from the source patient). This can be done on an urgent basis, in consultation with the laboratory. All donors should be tested for Hepatitis B and C, and HIV if appropriate. Additional advice on risk assessment can be obtained from your occupational health department.

Investigation of the Person Receiving the Injury

Baseline serum should be obtained from the exposed person and stored in a secure archive at 20°c or below for at least two years.

HEPATITIS B PROPHYLAXIS

The following table summarises the action to be taken following any sharp injury/contamination incident in relation to protection against Hepatitis B.

If the source is unknown, follow the advice in table 1 (Immunisation Against infectious Disease, 2006 – The Green Book).

	Significant exposure			**Non-significant exposure**	
HBV status of person exposed	HBsAg positive source	Unknown source	HBsAg negative source	Continued risk	No further risk
≤1 dose HB vaccine pre-exposure	Accelerated course of HB vaccine* HBIG x 1	Accelerated course of HB vaccine	Initiate course of HB vaccine	Initiate course of HB vaccine	No HBV prophylaxis Reassure
≥ 2 doses HB vaccine pre-exposure (anti-HBs not known)	One dose of HB vaccine followed by second dose one month later	One dose of HB vaccine	Finish course of HB vaccine	Finish course of HB vaccine	No HBV prophylaxis Reassure
Known responder to HB vaccine (anti-HBs> 10mlU/ml)	Consider booster dose of HB vaccine	Consider booster dose of HB vaccine	Consider booster dose of HB vaccine	Consider booster dose of HB vaccine	No HBV prophylaxis Reassure
Known non-responder to HB vaccine (anti-HBs < 10mlU/ml 2-4 months post-immunisation)	HBIG x 1 Consider booster dose of HB vaccine A second dose of HBIG should be given at one month	HBIG x 1 Consider booster dose of HB vaccine A second dose of HBIG should be given at one month	No HBIG Consider booster dose of HB vaccine	No HBIG Consider booster dose of HB vaccine	No HBV prophylaxis Reassure

* An accelerated course of vaccine consists of doses spaced at zero, one and two months. A booster dose may be given at 12 months to those at continuing risk of exposure to HBV.

Source PHLS Hepatitis Subcommittee (1992)

HEPATITIS C VIRUS

There is no post exposure prophylaxis for Hepatitis C.

In the event that the source patient cannot be tested, management of the healthcare worker should be based upon a risk assessment. Clinical information about the incident and/or the source patient should be reviewed. If the source patient is considered to be 'high-risk' then the healthcare worker may be managed as if exposed to a source known to be positive. (Such exposures would normally be limited to sharps injuries contaminated with fresh blood from a known high-risk population such as IV drug users.)

Summary of Investigation and Follow-up of Healthcare Workers

Known HCV infected source

- Obtain serum/EDTA for genome detection at 6 and 12 weeks
- Obtain serum for anti-HCV at 12 and 24 weeks.

Source not known to be infected with HCV

- Obtain follow up serum if symptoms or signs of liver disease develop.

HCV status of source unknown

- Perform risk assessment.

Source Considered High-risk

- Manage as known infected source.

Source Considered Low Risk

- Obtain serum for anti-HCV at 24 weeks.

Genotyping of source and healthcare worker will help to confirm whether transmission from patient to the worker has occurred**.**

HUMAN IMMUNODEFICIENCY VIRUS

- The risk of acquiring HIV from a single percutaneous exposure is small and on average is estimated to be 0.3%.
- The risk of acquiring HIV through mucous membranes exposure is less than 0.1%.

WHEN TO CONSIDER POST-EXPOSURE PROPHYLAXIS (PEP)

Post exposure prophylaxis should be considered **only** when there has been exposure to blood or other high-risk body fluids **known to be** or **strongly suspected** to be infected with HIV. (These fluids include: amniotic fluid, vaginal secretions, semen, human breast milk, CSF, peritoneal fluid, pericardial fluid, pleural fluid, synovial fluid, saliva in association with dentistry, unfixed organs and tissues.)

"**Strongly suspected" includes individuals with clinical symptoms highly suggestive of HIV disease or individuals from countries where HIV is highly prevalent who may not yet have had a blood test.**

Strongly suspected does not include an injury from an unknown source i.e. an inappropriately discarded needle in the healthcare setting or in a public place, nor an individual with a single lifestyle factor e.g. intravenous drug abuser.

Post-exposure prophylaxis should **not** be considered following contact through any route with **low risk** materials e.g. urine, vomit, saliva, faeces, unless they are visibly blood-stained.

If post-exposure prophylaxis is indicated it should be started **as soon as possible** after the incident and ideally **within the hour**. (However Department of Health recommends it may be worth considering PEP even if 1-2 weeks have elapsed since the incident.)

The individual should attend the nearest A&E department without delay.

3. Sharps Injuries in Members of the Public

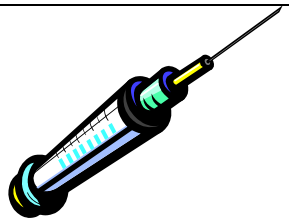
Assess whether a significant injury has occurred. If not, reassure.

The source is rarely known (i.e. discarded needle) and members of the public are usually managed as for an unknown source.

A rapid course of Hepatitis B vaccine should be offered and serum taken for a serum save.

Testing for Hepatitis B antibodies should be undertaken at 6 months, and if the patient requests it, Hepatitis C and HIV as well.

What to do after a……



SHARPS INJURY

Directions for the management of needlestick injuries, and penetrating wounds, contaminated with blood or blood-stained body fluids

Wash cuts thoroughly with soap and warm water,
then gently encourage to bleed.
Apply a dressing if necessary.

Splashes to the eyes or mouth
should be thoroughly rinsed with running water

Report incident to your manager immediately (if applicable)

Your medical advisor should: -

a) Take a history and make a risk assessment
b) Review your Hepatitis B vaccine status
c) Take 10ml clotted blood from the recipient and,
if possible, the 'source' (with informed consent)
d) Send the samples to the microbiology department marked
'needlestick Injury'
e) Ensure appropriate follow-up

Complete an accident form

Insert your local arrangements

Please Note

If the source is known or a risk of having HIV the injured person should contact Accident & Emergency, and attend if possible within the hour

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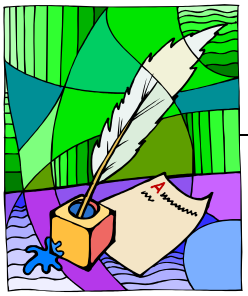
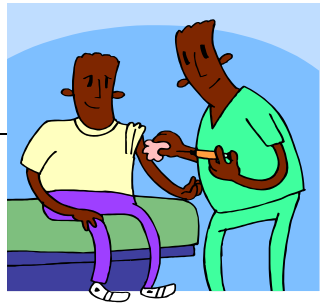


Remember
Be prepared – If you are at risk of exposure –
get immunised against Hepatitis B Virus



Tel: In hours:- Your GP or Occupational Health Dept

Tel: Out of Hours:- Your local A&E Department

ESSEX HEALTH PROTECTION UNIT
COMMUNITY INFECTION CONTROL GUIDELINES

SECTION F – SPILLAGE MANAGEMENT

1. Spillage Management

Deal with blood and body fluid spills quickly and effectively.

Commercial spillage kits are available to deal with blood and body fluid spillages, and should be used.

The kits should be kept in a designated place (depending on the size of the establishment more than one kit should be available).

Ensure that kits remain in date and that kits are replaced immediately after use.

For staff working in a private household the following guidance should be adhered to as closely as possible:

For spillage of high-risk body fluids such as blood, method 1 is recommended. For spillage of low-risk body fluids (non-blood containing excreta) such as faeces, vomit etc., use method 2.

1. **Hypochlorite/Sodium Dichloroisocyanurates (NaDCC) Method**

- Prevent access to the area containing the spillage until it has been safely dealt with
- Open the windows to ventilate the room if possible
- Wear protective clothing
- Soak up excess fluid using disposable paper towels and/or absorbent powder e.g. vernagel
- Cover area with NaDCC granules (e.g. Presept, Sanichlor)

or

- Cover area with towels soaked in 10,000 parts per million of available chlorine (1% hypochlorite solution = 1 part household bleach to 10 parts water) e.g. household bleach, Milton, and leave for at least two minutes
- Remove organic matter using the towels and discard as hazardous infectious waste
- Clean area with detergent and hot water, and dry thoroughly
- Clean the bucket/bowl in fresh soapy water and dry
- Discard protective clothing as hazardous infectious waste

- Wash hands.

This method is suitable for carpets, and spills of low-risk body fluids.

2. **Detergent and Water Method**

- Prevent access to the area until spillage has been safely dealt with
- Wear protective clothing
- Mop up organic matter with paper towels or disposable cloths and/or absorbent powder e.g. vernagel
- Clean area with cold water
- Clean surface thoroughly using a solution of detergent and hot water and paper towels or disposable cloths
- Rinse the surface and dry thoroughly
- Dispose of materials as clinical waste
- Clean the bucket/bowl in fresh hot, soapy water and dry
- Discard protective clothing in the appropriate waste bag
- Wash hands
- Ideally, once dry, go over area with a mechanical cleaner
- Wash hands again

ESSEX HEALTH PROTECTION UNIT
COMMUNITY INFECTION CONTROL GUIDELINES

SECTION G – MANAGEMENT OF INFECTIOUS DISEASES

1. Introduction

The EHPU produce a series of factsheets, which are available from the EHPU website, www.hpa.org.uk/essex, or the main HPA website www.hpa.org, under Topics A-Z, factsheets.

The factsheets include information on incubation periods, method of spread, period of infectivity, exclusion periods and where appropriate the management of contacts.

The factsheets can be photocopied and passed to members of the public.

In addition, there is extended text in this document on Meningococcal Disease, MRSA and PVL, Clostridium Difficile and CJD. (**Refer to Section H - Infestations, for further information on Scabies and Headlice.)**

2. Factsheets

Blood-Borne Viruses	Measles
Bugs, Fleas and Ticks	Meningitis
Chickenpox	MMR and Immunisations
Conjunctivitis	Molluscum Contagiosum
Diarrhoea and Vomiting	MRSA
ESBLs	Mumps
Glandular Fever	Parvovirus (Slapped Cheek)
Group A Streptococci	Pertussis (Whooping Cough)
Hand, Foot and Mouth	Polio
Headlice	Rabies
Hepatitis A	Rashes in Childhood
Hepatitis B	Ringworm
Hepatitis C	Rubella (German Measles)
Herpes	Scabies
Immunisation – General Information	Shingles
Impetigo	Tuberculosis
Influenza	Verrucas (Warts)
Lyme Disease	

3. Meningococcal and Hib Disease

Patients showing symptoms suggestive of meningococcal disease should be immediately referred to hospital. Usually the admitting hospital will notify the EHPU or Public Health doctor on call at the time of the case.

Prophylaxis will be arranged for contacts identified by the EHPU. Giving antibiotics inappropriately may do more harm than good as it can result in eliminating carriage of non-pathogenic organisms, such as *Neisseria lactamica,* which boost immunity. It also undermines efforts to give consistent advice to the public.

The working definition of a 'contact' according to national guidelines is:

> ***Those who have had close personal and prolonged contact with a confirmed or probable case during the seven days before the onset of illness.***

This includes:

- Household or household equivalent contacts:
  - Those sleeping in the same household/overnight stays
  - Close social contacts
  - Intimate 'kissing contacts' i.e. girlfriends/boyfriends
  - It does not include casual contacts such as:
    - Cheek kissing
    - Attendance at birthday parties and other social events
    - Presence in same office or classroom
    - Sharing cans of drink or cigarettes.
- Healthcare Workers (HCWs) who have been in contact during resuscitation. In general this applies to staff who:
  - Have inserted an endotracheal tube
  - Have given mouth-to-mouth resuscitation.

PROPHYLAXIS

Rationale for Prophylaxis

People who live in the same household are at a higher risk of developing disease than other members of the community – the attack rate is increased by about 500-1200 times. The risk is highest in the first seven days after a case and falls rapidly thereafter.

The aim of chemoprophylaxis is to eliminate carriage from the network of close contacts. Although there is evidence that chemoprophylaxis at least delays the onset of further cases in a family, it is not known whether the total number of further cases is reduced due to a lack of comparative studies.

Choice of Antibiotic

The drug of choice is Rifampicin and, in the absence of contraindications, may be used in all age groups.

- Adults and Children over 12 years of age should be prescribed 600 mg bd for 48 hours
- Children 1-12 years 10 mg/kg bd for 48 hours
- Infants (under 12 months of age) 5 mg/kg bd for 48 hours.

Approximate doses in children based on average weight for age are:

- 0-2 months 20 mg (1 ml syrup))
- 3-11 months 40 mg (2 ml syrup)) bd for 48 hours
- 1-5 years 150 mg (7.5 ml syrup)
- 6-12 years 300 mg (one tablet))

N.B. Information on dosage should also be checked in the BNF prior to administration.

Pregnancy

Current guidelines suggest that prophylaxis is recommended for pregnant women, Rifampicin 600mgs, every 12 hours for 2days, or intramuscular ceftriaxone 250mg.

Drug Interactions Should Be Considered

Patients **must** be informed of possible side effects of rifampicin including:

- Orange staining of urine and other body fluids
- Orange staining of soft contact lenses
- Possible interaction with oral contraceptives. Women should be advised to take additional contraceptive precautions for at least four weeks post-prophylaxis.

PATIENT INFORMATION (factsheet available on EHPU website)

Contacts receiving prophylaxis should be advised:

- The purpose of prophylaxis is to eliminate carriage of organism from the close social network
- It will not prevent infection in someone currently incubating the disease
- 98% of cases of meningococcal disease are sporadic i.e. not linked to any other case
- The risk to contacts is actually very low – one in several thousand
- The risk is greatest in the first seven days post exposure
- They will only be offered vaccine if the strain is confirmed as either C, A, Y or W135. The protective effect of antibiotic prophylaxis lasts for several weeks and so the vaccine can be given later e.g. up to a month post antibiotics and sometimes longer
- The most important thing is to have a high index of suspicion for any unusual symptoms and to contact a doctor without delay
- How to recognise the early symptoms and signs of meningococcal disease
- Contacts of 'contacts' are not at risk.

Numbers of helplines for further information:

- Meningitis Trust – Telephone: 01453 768000
  24 hour helpline: 0800 028 1828
  Website: www.meningitis-trust.org.uk

- Meningitis Research Foundation – 24 hour helpline: 0808 800 3344
  Website: www.meningitis.org

4. Guidelines for the Management of MRSA in the Community

What is MRSA?

MRSA stands for ***Meticillin Resistant Staphylococcus aureus*.**

It occurs when some strains of the common bacterium of Staphylococcus aureus become resistant to treatment with meticillin. This is not used for treatment, but a very similar antibiotic, Flucloxacillin.

The most common scenario for an individual with MRSA in the community environment is that they have an infection in a wound, which is then slow to heal.

Why is it known as a hospital-acquired disease?

MRSA will spread more readily in the acute hospital setting, owing to the increased vulnerability that patients with an acute illness will have to infection.

When an individual suffers an acute illness, their immunity may be greatly reduced (making them vulnerable to infection). As that individual recovers, so will their immunity.

If an individual makes a complete recovery, their immune system generally makes a full recovery.

If an individual goes on to develop a chronic illness, their immune system may not make a complete recovery. However this deficit in their immune system will be far less than if they were still suffering from an acute illness.

This is why patients who were hospitalised with an acute illness, and then acquire MRSA, are discharged as soon as they have recovered from their acute episode - meaning they do not stay in a vulnerable environment for longer than necessary.

What is the difference between colonisation and infection?

***Colonisation* -** means the MRSA is living on the skin (usually nose, throat, axilla or groin), causing no problem to the individual.

Infection - means that the MRSA is causing an active infection i.e. the wound is red, hot, inflamed, there may be a discharge and pain.

What precautions do you need to take in the residential care/intermediate care setting?

No special precautions are necessary.

Standard principles of infection control (especially handwashing) are all that are necessary.

However MRSA does act as an opportunity to remind us of the good practices that should ***already*** be in place.

Resident/patients are ***not*** barrier nursed in the residential case/intermediate care community setting. Ideally they are in a single room, or share a room with someone who does not have an open wound or invasive device e.g. urinary catheter, intravenous device.

They can mix with other patients socially and at mealtimes.

Laundry or china and cutlery does ***NOT*** need to be handled separately. Again, as long as they have good practices already in place, there is no need for additional precautions.

Waste should be handled as with any other patient - if the patient is known to have an infection, **and** that infection is producing a discharge, then arrangements should be made for a clinical waste collection. Otherwise the waste should be ***well*** wrapped and placed in the household waste. (**Refer to Waste Management Section I -12**).

Maintaining a clean environment will help to reduce the transmission of the bacteria. The daily removal of dust and body substances is crucial. Cleaning protocols should also include regular cleaning of high surfaces, curtains, carpets, extractor fans and the removal of radiator covers to clean radiators.

Protocol for Treatment and Screening

Do not screen unless there is clinical evidence to do so.

The state of the wound should be assessed and documented:

- Size, depth
- Condition of wound
- Does it look infected (is it red, hot, inflamed or has a discharge?).

The wound should be monitored to assess if it is healing:

- If the wound is healing - do not swab
- If the wound does not appear to be healing, re-swab after 4 weeks and at 4 weekly intervals thereafter until there is evidence of healing, to check whether antibiotic treatment is indicated.

If the patient is colonised with MRSA of the nose, throat, axilla or groin, do not routinely swab. Should such a patient then develop any wounds:

- Observe for signs of infection
- Swab if there is any sign of infection in a new wound.

The screening of staff is ***very*** rarely required - and should only take place in consultation with the CDCN/ICN.

Admission and care to Residential/Nursing Home

No home is allowed to refuse admission of a patient/resident because they happen to have MRSA. However, if a resident does have MRSA (either colonisation or infection) that resident should:

- Be in a single room, or
- Be in a shared room, but the other resident must *not* have an open wound or a urinary catheter, or any other invasive device.

In addition to the precautions on previous page:

a) Environmental cleaning should be reinforced to help prevent further spread
b) After patient is discharged the room should be thoroughly cleaned and curtains removed for laundering.

Suggested Treatment Protocol for Patients with MRSA infected wounds

General Information on this organism can be found on the factsheet available at www.hpa.org.uk/essex.

Please refer to PCT Wound Management Policy, or consult with Tissue Viability Specialist where access to the above is not available the protocol below can be followed.

- Clean infected sit with sterile water for 4 weeks
- If there is no improvement, seek further advice from the Tissue Viability nurse.

Environmental Decontamination Post-Infectious Patient in Clinical Premises e.g. GP Surgeries, Health Centres clinical rooms

Treatment rooms should be kept clean and dust-free with items stored in cupboards and as little equipment on surfaces as possible. Clutter will attract dust and prevent appropriate cleaning. Unnecessary equipment should be removed from the room prior to the procedure.

In addition to changing of paper roll from couch, the couch and all horizontal surfaces should be decontaminated by wiping with a solution of detergent and hot water, or detergent/hard surface wipes.

The use of linen is not advised in clinical rooms. If used, all linen must be changed daily and washed in a machine that will thermally disinfect linen.

The use of body fluid spillage kits should be dealt with as described in **Section F – Spillage Management.**

Pre-Hospital Screening/Treatment of Colonisation prior to Hospital Admission

If this is required the admitting hospital's infection control team/hospital microbiologist should provide guidance for their requirements.

Additional advice:

Please seek further advice from the EHPU or Infection Control team, if required.

Newly identified MRSA in clinical specimens should be managed as above. No routine MRSA screening should be undertaken.

5. Specific Guidance for Residents with *Clostridium difficile*

What is *Clostridium difficile?*

Clostridium difficile is a bacterium of the intestine, which can be found in both healthy and ill people. There are millions of different types of bacteria in the body which are important for health. These protective bacteria help to break down and digest food and also help to ward off many harmful or foreign bacteria. In a healthy person all the bacteria live in a state of balance with one another.

What is *Clostridium difficile* colitis?

When there is an imbalance of bacteria and *Clostridium difficile* takes over, it produces two toxins that affect the body and give the symptoms of the disease. The symptoms may include diarrhoea and cramping pain at first, and, in the later stages, flu-like symptoms, nausea, vomiting and blood in the stool/faeces.

How is *Clostridium difficile* colitis diagnosed?

The disease is suspected if a person has been taking, or is currently taking, antibiotics and is suffering with abdominal cramps and diarrhoea. A diagnosis is made by a laboratory test using a stool sample to confirm whether or not the toxin is present in the intestine. The results are usually available within 24 hours. Some patients may have *Clostridium difficile* in their stool but without the symptoms of diarrhoea. It is unlikely that they have *Clostridium difficile* colitis.

Hospital Transfer

- Symptomatic patients (with diarrhoea) should not be accepted from Acute hospitals. Ideally they should be 48 hours free from symptoms. Seek advice from an EHPU nurse

- Patient should be isolated in their own room for a further 48 hours until bowel habit is established – if diarrhoea returns inform the doctors. The patient must remain in isolation until 48 hours free from symptoms, and normal bowel action has been established

- Faecal samples are not required for clearance

- If symptoms persist, seek advice from GP – further antibiotic treatment may be required.

Newly diagnosed cases

- Isolate patient

- On lab confirmation of a case of *Clostridium difficile* inform the GP – if the patient is still symptomatic commence antibiotics

- Ensure completion of antibiotics

- If symptoms cease – no further treatment is required. Once diarrhoeal symptoms have ceased for 48 hours the room and toilet facilities should be thoroughly cleaned using the guidance in ' **Specific Guidance for Outbreaks of Diarrhoea and/or Vomiting'**

- If symptoms persist, seek advice from GP.

ESSEX HEALTH PROTECTION UNIT
COMMUNITY INFECTION CONTROL GUIDELINES

SECTION H – INFESTATIONS

1. Prevention and Control of Headlice in the Community

Introduction

These guidelines are written to enable healthcare staff and staff working in schools, nurseries, pharmacies and care homes to promote a co-ordinated approach to the prevention and treatment of headlice.

Headlice are found on adults and children. They are transferred from person to person wherever head-to-head contact occurs. This is generally at social gatherings or within a household environment.

Parent/carer are encouraged to check their child's head regularly, and to treat when headlice are found. The School Health Advisor, Health Visitor, Practice Nurse, Pharmacist or GP should offer advice and assistance to parents/carers when required.

Information on headlice can be found on the HPA website.

www.hpa.org.uk/infections/topics_az/wfhfactsheets/WFHheadlice.htm

2. Some Facts about Headlice and Nits (Pediculus humanus capitis)

Headlice can be more efficiently found by combing through (preferably wet) hair with a detection comb. Divide the hair into sections and hold the comb at angle of 45^0. If lice are found, that person should be treated. Weekly combing to detect headlice is advised for households with primary age children.

When one member of the household has been found to have headlice, all other members of the household must be carefully checked using the detection comb.

Headlice lotions (or shampoos) should not be used as a preventative measure.

3. Treatment - for when Lice are Found

Only treat those with a **proven** headlice infection.

There are three options for the treatment of headlice:

1. Wet Combing

This method does require perseverance but some parents may find it more preferable than using a chemical product on their child's head. However, if this treatment appears to continually fail, treatment with insecticides may still be required.

- Wash the hair in the normal way with an ordinary shampoo
- Make sure the teeth of the comb slot into the hair at the roots with every stroke. This should be done over a pale surface, such as a paper towel or the bath
- Clear the comb of lice between each stroke
- Wet lice find it difficult to escape, so removal with the comb is easier
- This routine should be repeated every day for 2 weeks, so that any lice emerging from the eggs are removed before they can mature, mate and lay more eggs.

2. Insecticides (pesticides)

There are three chemical insecticides available. However, there is evidence that some headlice have become resistant to particular insecticides. This may lead to problems of eradicating headlice from an individual's head.

Insecticides should *ONLY* be used if live lice are found.

The insecticides are Malathion, Pyrethroids (Phenothrin and Permethrin) and Carbaryl. Carbaryl can only be prescribed by a healthcare professional (e.g. GP and some nurses), the other two chemicals can be purchased from a pharmacy.

All products must be used according to manufacturer's guidance. Insecticides are not effective on eggs therefore a second application is required a week later to kill the newly hatched lice. Fine comb the hair every 3-4 days between applications and for at least a further 2 weeks after the final application is recommended

Insecticides are available in alcohol and aqueous-based preparations. Individuals that suffer from asthma, eczema etc should avoid alcohol based products. Please check the suitability of the product with the pharmacist.

Babies under the age of 6 months should only be treated under medical supervision.

Insecticides must not be used more than once a week, and not for more than 3 consecutive weeks.

Chlorine may weaken the effect of insecticides. It is recommended that if the person has been swimming in a chlorinated pool in the 72 hours before treatment, their hair

should be washed and dried before the lotion is applied. The patient should not swim in a chlorinated pool for 48 hours after application.
There is no reason to keep children away from school.

3. Non-pesticide Lotion

Non pesticide lotion – Dimeticone compound (proprietary name Hedrin)- coats headlice and smothers them. There is no resistance to this lotion. However careful application is required for effective killing of the lice. It is important to follow the instructions on the pack, ensuring that the lotion is applied evenly and is combed throughout the length of the hair.

Two applications, one week apart, is required to kill hatching lice. To check effectiveness use a detector comb 24 hours after the second treatment. Further applications can be used if headlice remain present after the 2nd course of treatment.

Contact Tracing

Contact tracing is an important part of the control of headlice infestation.
Contacts will be other individuals who have had head-to-head contact lasting approximately one minute or more in the past month.

These social contacts outside of the household may include grandparents, friends from playgroup, school and other social groups.

A contact list should be formulated by each person with headlice. This list will be fairly short. Every person on the list should then be told that they have been in contact with a person who has had headlice and that they should have their own hair checked**.**

Alternative Therapies - Aromatherapy/Essential Oils

Many products are now available on the market. Advice from the Insect Research Centre is that these products should not be recommended as a method of treatment and/or prevention of headlice as:

1. There is no scientific evidence to support its effectiveness against headlice

2. Misuse in the application of such oils can easily occur and there have been reports of children acquiring superficial burns as a result of oils not being correctly diluted

3. Some of the oils used in “headlice preparations” may aggravate medical conditions, for example eucalyptus oil should be avoided by people who suffer from epilepsy and asthma. To date no such warnings have appeared on these preparations

4. It is the physical act of combing that actually removes lice from the hair.

Non-Compliant Public

In the event of an individual failing to treat themselves or their child, a multi-disciplinary approach may be required. The attached checklist can be used to assist.

Documentation

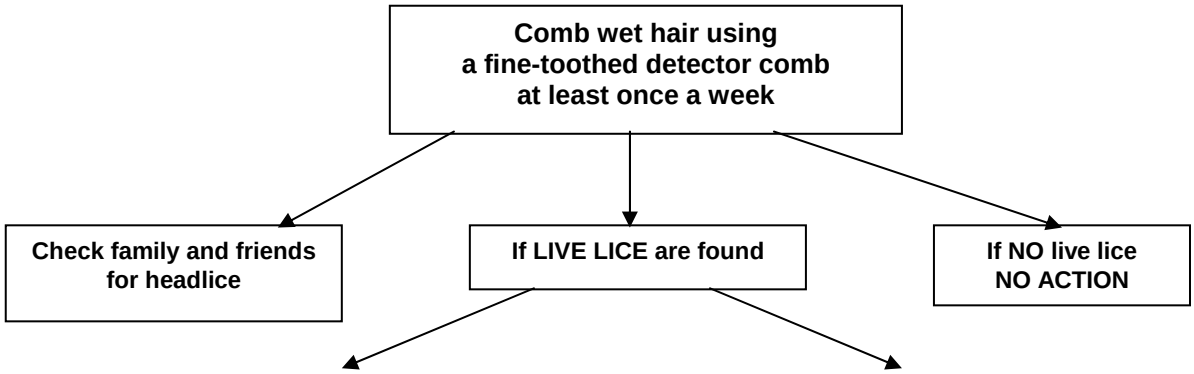
The aim of the checklist is to guide you through the process and to aid documentation.

It is not intended that details of all potential and actual cases of headlice should be documented in the checklist format.

It is anticipated that the checklist will ***rarely*** need to be completed. It will act as an aide-memoire to assist health and education professionals to direct the individual to the most appropriate place for assistance e.g. if the parent did not receive an information leaflet ***any*** professional could photocopy one for them and ensure they understand what they need to do.

Any health or education professional can start using the checklist as the basis for their documentation, and it can be passed on to the next professional group as an onward referral is made.

HEADLICE MANAGEMENT CHART



Treatment Option One:
WET COMBING

- **Wash the hair in the normal way with an ordinary shampoo**
- **While the hair is very wet, comb through the hair from the roots with a fine-toothed comb**
- **Make sure the teeth of the comb slot into the hair at the roots with every stroke.**

  This should be done over a pale surface, such as a paper towel or the bath
- **Repeat this routine every day for two weeks, so that any lice emerging from the eggs are removed they can be spread**

Treatment Option Two/Three:
INSECTICIDES

- **Check with your pharmacist, GP or School Nurse which preparations are recommended**
- **Follow the manufacturer's instructions carefully**
- **After treatment and whilst the hair is still wet, a fine-toothed comb may be used to remove dead lice**
- **It could take up to 24 hours for lice to die, so do not assume the treatment has not worked**
- **To ensure treatment has been successful, detection combing on wet hair should be carried out on all treated persons three times over the next seven days**
- **REPEAT treatment on the SEVENTH DAY whether or not lice are found**
- **Small lice means that the eggs were not affected by the first treatment. A repeat treatment will kill the baby lice before they can lay more eggs**
- **Large lice means that the head has been re-infested – so contact tracing and the treatment cycle will have to be restarted**

AFTER SUCCESSFUL TREATMENT:

Comb wet hair using a
FOUND: fine-toothed comb at least
Once a week

IF TREATMENT NOT SUCCESSFULFUL

IF LARGE LICE FOUND:
Check family and friends
for Headlice

IF SMALL LICE
Use Treatment
Option 1/3

ACTION: Repeat treatments

If treatment Option 1 used previously, use Treatment Option 2 or 3

If treatment Option 2 used previously, use Treatment Option 1 or 3

If treatment Option 3 used previously, use Treatment Option 3 again or 1

HEADLICE INFESTATION CHECKLIST
for HEALTHCARE AND EDUCATION PROFESSIONALS

Name of child:				
1.	Did parent receive the headlice information leaflet?			Yes ☐ No ☐
	From whom:		Date:	
2.	Has child attended child targeted education programme?			Yes ☐ No ☐
	Run By:		Date:	
	If attended, did parent also attend?			Yes ☐ No ☐
3.	Has parent attended a parents meeting?			Yes ☐ No ☐
	Run By:		Date:	
4.	If parent is having persistent problems check the following:			
	• do they have instructions? • do they understand the instructions? • have they followed the instructions? • have they done any contact tracing? • have they approached their identified contacts? • has the school consulted the LEA?			Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐
	Do they require further intervention from the school nurse?			Yes ☐ No ☐
	Name of school nurse:		Date contacted:	
	Action taken:			
5.	***If a parent expresses concerns of another family's failure to control headlice, check the following:***			
	• are you already aware of persistent problems? • is the school nurse already involved?			Yes ☐ No ☐ Yes ☐ No ☐
	Name of school nurse:			
	Has the school approached the relevant family to confirm other parents concerns?			Yes ☐ No ☐
	By whom:		Date:	
	Has a date been set with school nurse and family to meet?			Yes ☐ No ☐

	Action taken:	Telephone ☐ Home visit ☐ Letter ☐	Date:	
	Outcome:			
	Have other agencies been involved?			Yes ☐ No ☐
	Who:		Date:	
	Action taken:			
	Outcome:			
	Has a referral been made to social services if there is a suspicion of greater 'social' problems?			Yes ☐ No ☐
	Name of social services worker:		Date:	
	Action taken:			
	Outcome:			
6.	Has problem been reported to LEA?			Yes ☐ No ☐

6. Prevention and Control of Scabies in the Community

Introduction

Scabies is an allergic response to an infestation of the skin by the mite ***Sarcoptes scabiei*.** The mites penetrate through the skin and excavate burrows at the epidermal/dermal junction. The female mite lays eggs which hatch after 3-4 days. Newly hatched larvae exit the burrows and appear on the surface of the skin before forming their own tunnels. The burden of mites can range from 10-20 to several thousand in people who are severely immuno-compromised (Norwegian Scabies). Scabies is distributed worldwide and is endemic in many developing countries.

Recognition of Symptoms

The most frequent symptom is itching which may affect all parts of the body and is particularly severe at night. There may be no sign of infection for 2-6 weeks after exposure.

Occasionally small vesicles may be visible along the areas where the mites have burrowed. A papular rash may be visible in areas such as around the waist, inside the thighs, lower buttocks, lower legs, ankles and wrists. Firm nodules may develop on the front folds of the axillae and around the naval and in males around the groin. Pale burrows described as a “greyish line resembling a pencil mark” may be present in the skin between the fingers, but are less commonly seen than textbooks suggest.

Failure to find burrows does ***not*** exclude scabies as a diagnosis.

It should be emphasised that scabies may be difficult to recognise particularly if scratching, inflammation or infection have obscured the presentation. Also scabies can look atypical in anyone with immature or impaired immunity such as very young children, those with Down’s Syndrome, alcoholics or the very elderly. In immunosuppressed people, such as those with AIDS or those on immunosuppressive therapy, a more severe hyperkeratotic form may develop (Norwegian Scabies).

Mode of Transmission

Scabies mites are generally not capable of surviving off the host long enough to establish a new infection as they quickly become too dehydrated and weak.

Mites are passed directly from the skin of one person to another with prolonged contact. The likelihood of transmission increases with the duration and frequency of skin to skin contact.

Fomites and animals are not implicated in transmission.

Incubation

The incubation period is 2–6 weeks before onset of symptoms in those infected for the first time. Symptoms may occur 1–4 days after re-exposure.

Outbreaks

Outbreaks occur particularly in residential/nursing homes, mental healthcare establishments, long-stay hospital wards and pre-school nurseries.

Advice will be given on the need to treat and the treatment programme by the EHPU.

Treatment in a Residential Establishment (Care Home) (Intermediate Care)

When a single suspected case of Scabies occurs in a residential establishment the EHPU (or Infection Control Team if the residential setting is owned by the PCT) should be alerted promptly to investigate. It may be necessary to treat all residents and anyone with whom they have had close contact.

If this action is required, it is important that all staff who have come into direct contact with residents also treat themselves because they may be incubating the disease without showing any symptoms. Family members of symptomatic staff will require one application of treatment. If family members are symptomatic they will require 2 applications of treatment. Family members of asymptomatic staff need not be treated routinely but asked to report any later symptoms.

As far as possible all staff members should receive the treatment on the same day that their unit is treated. Staff should not work in any other area until treatments have been completed throughout the home.

Symptomatic people should be treated using 2 applications of insecticidal cream at 7-day intervals. The EHPU will make an individual assessment and advice.

Following Treatment

It is not uncommon for a person to have itching for up to 4 weeks after successful treatment. Antihistamines may be helpful. In residents with dry skin conditions emollient cream will moisturise the skin.

Treatment in a Household

Scabies is easily treated but the treatment must be done thoroughly and conscientiously otherwise failure will occur.

Symptomatic cases in the community should be treated using 2 applications of scabicidal cream at 7-day intervals. Their ***asymptomatic household contacts*** should be given a single course of treatment at the same time as the index case's initial application of cream.

People should be regarded as infectious until one application of scabicidal cream has been applied.

Once treatment has commenced the person cannot transmit the mite.

Children need not be excluded from school or nursery having commenced treatment.

Infected staff do not need to be excluded from work.

If Scabies is left untreated for a long period of time it can have an immunodepressive effect and cause a more severe form to develop.

NB: Treatment of babies, young children under 2 years and pregnant women should be supervised by a GP. The recommended treatment is Lyclear dermal cream for which there are no contraindications in these groups.

LYCLEAR DERMAL CREAM IS THE TREATMENT OF CHOICE

Lyclear dermal cream is suitable for use by adults, including the elderly and children over 2 months old. Children between 2 months and 2 years should be treated under medical supervision. Pregnant women should seek medical advice.

- Ensure that the entire surface of the body is covered from the hairline on the head to the soles of the feet. **This should include the area behind the ears and the face, avoiding the area around the eyes, otherwise the treatment may not be effective**. If the person to be treated has little or no hair the scalp should also be included

- Areas of skin normally covered by extensive dressings should be exposed, and Lyclear cream applied onto the intact skin up to and around the wound. The dressing may then be replaced

- Apply the cream to clean, dry and cool skin. Do not apply following a bath or shower

- Pay particular attention to the areas behind the ears, between the fingers and toes, wrists, under the arms, external genitalia, buttocks and under finger and toe nails

- The whole body should be washed thoroughly 8 - 12 hours after treatment, with warm water

- Be sure to reapply any lotion washed off during the treatment period e.g. after handwashing, or cleaning of the skin

- Directly after treatment, change bed linen and wear freshly laundered clothes

- Lyclear Dermal Cream disappears when rubbed gently into the skin. It is not necessary to apply the cream until it remains detectable on the surface

- Where possible, the cream is best applied by someone other than the person receiving treatment. This makes it easier to get to difficult to reach parts of the body.

It may be necessary to prescribe two tubes of cream to ensure all areas of the body are covered thoroughly bearing in mind very dry areas of skin will absorb more of the cream.

The following table shows the approximate amount of cream to be used as a **single** application:

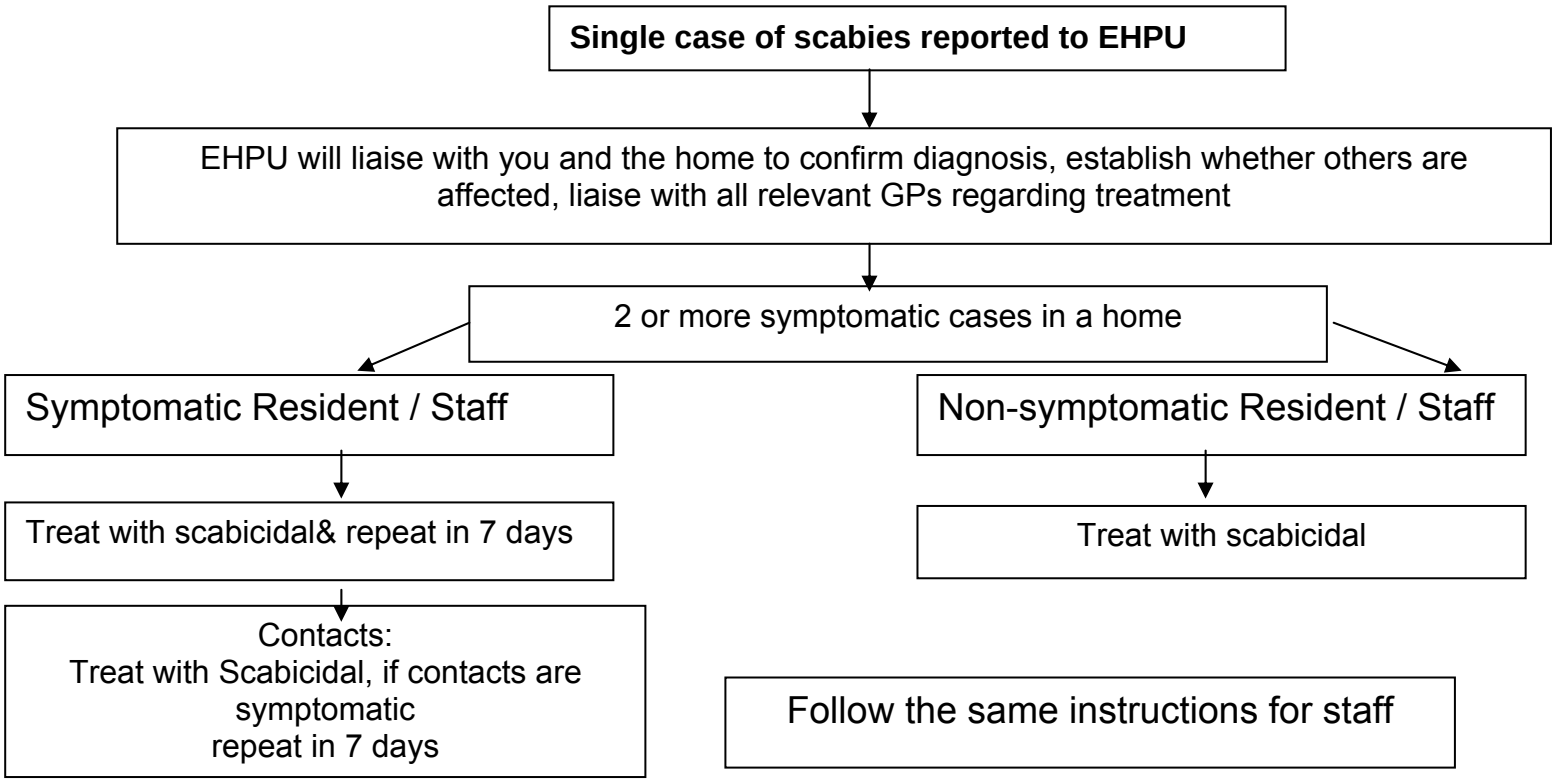
Adults and children over 12 years	1 tube, but large people may require up to 2 tubes but no more than 2 tubes
Children aged 5 to 12 years	Up to half a tube
Children aged 1 to 5 years	Up to one quarter of a tube
Children aged 2 months to 1 year	Up to one eighth of a tube

NB Following discussions with the Medical Entomology in Cambridge, it is now recommended to apply scabicidal lotions/creams to the face avoiding the area around the eyes.

This may conflict with some manufacturers' guidance. However, there is increasing evidence that scabies may also affect the face and failure to treat this area could result in an incomplete and therefore unsuccessful treatment.

Benzyl Benzoate has been shown to have reduced effectivity compared to other scabicides. BNF caution that it is an irritant to skin therefore not recommended for elderly and sensitive skins.

ACTION TO TAKE WHEN A SINGLE CASE OF SCABIES OCCURS IN A RESIDENTIAL CARE SETTING



Action for Essex Health Protection Unit

- Plan treatment programme
- Inform residents' GPs and request treatments
- Inform staff members' GPs
- Arrange staff education sessions on treatment and management
- Provide printed information
- Establish surveillance procedure post mass treatment

RECORD OF OUTBREAK OF SCABIES (Residents)

Name of Home: _____ **Record started by:** _____ **Date:** _____

Address _____ **Reported to: EHPU/EHO/CSCI/PCT**

_____ **Total number of residents in home:** _____

Tel: _____ **Total number of residents affected:** _____

Name of Resident	DOB	Area/Unit where resident	Date Symptoms started	Diagnosed by		Treatment Date	
				GP	EHPU	1st	2nd

RECORD OF OUTBREAK OF SCABIES (Staff)

Name of Home: _____ **Record started by:** _____ **Date:**_____

Address _____ **Reported to: EHPU/EHO/CSCI/PCT**

_____ **Total number of members of staff in home:** _____

Tel: _____ **Total number of members of staff affected:** _____

Name of Staff Member	DOB	Area/Unit where resident	Date Symptoms started	Diagnosed by		Treatment Date	
				GP	EHPU	1st	2nd

ESSEX HEALTH PROTECTION UNIT
COMMUNITY INFECTION CONTROL GUIDELINES

SECTION I – CLINICAL PRACTICE

The Clinical Practices included in the section are**:**

- Aseptic Technique
- Care of Patients with known Infectious Disease - Source Isolation (Barrier Nursing)
- Decontamination
- Enteral Feeding
- Intravenous Therapy
- Laundry Management
- Management of Non-Infectious and Infectious Deceased Clients
- Guidelines for Community Sector Performing Minor Surgery
- Prevention and Control of Infection Associated with Urinary Catheter Care
- Safe Handling of Specimens
- Vaccine Control
- Waste Management

1. Aseptic Technique

Aseptic technique is the term used to describe the methods used to prevent contamination of wounds and other susceptible sites by organisms that could cause infection (Marsden Manual of Clinical Nursing Procedures).

The aims of aseptic technique are:

- To prevent the introduction of pathogens to the site
- To prevent the transfer of pathogens from the patient to staff or other patients.

An aseptic technique should be implemented during any invasive procedure that bypasses the body's natural defences.

An aseptic technique should also be adopted when undertaking the following procedures (this list is not exhaustive):

- Dressing wounds
- Removal of sutures or clips
- Dressing peripheral or centrally sited intravenous lines
- Removal of drains
- Endotracheal suction
- Dressing tracheostomy site.

However the procedure is undertaken either with forceps or sterile gloved hands. The important principles are that the susceptible site should not come into contact with any item that is not sterile.

Any items that have been in contact with the wound will be contaminated and should be disposed of safely, or decontaminated.

Many aseptic techniques include a ritualistic practice of cleaning trolleys with alcohol between patients. It is now felt that this serves no useful purpose, and that an area cleaned by detergent and hot water is sufficient, as the sterile field will be created by the sterile towel contained within the dressing pack.

Bacteria acquired on the clothing during the procedure may be transferred into the wound of another patient, therefore a clean disposable apron should be used for each dressing procedure.

Management of Chronic Wounds

If dressings are removed by soaking, a plastic impermeable liner/bag should be placed in the bucket/bowl before filling with water.

After the wound has been washed then water should be disposed of in a sluice or a sink which is separate from the handwash sink.

The plastic liner should be disposed of and the bath or bowl should be thoroughly cleaned with detergent and hot water, and then dried to ensure that pathogens are removed.

This process should be undertaken after each separate patient episode.

Wound Swabbing

Swabbing should only be undertaken if wound/site of invasive device exhibits signs of infection. They should not be taken routinely, or if wound/site is healing.

2. Care of Patients with known Infectious Diseases – Source Isolation (Barrier Nursing)

In Residential Settings

Within the home setting, traditional barrier nursing is not often recommended. It is important for staff to appreciate that when they are caring for someone with a known, or suspected, infectious disease, there is the potential for cross-infection if basic infection control principles are not followed.

Diseases

More detailed information about diseases can be found in the relevant Section of these guidelines, and on the HPA website www.hpa.org.uk/essex.

The following communicable diseases may require isolation nursing precautions to be initiated.

DISEASE	**HOW LONG THE DISEASE REMAINS INFECTIOUS**
Beta-haemolytic streptococci Group A	Infectious until: (a) Clearance of organism is demonstrated or (b) 24 hours after the start of appropriate antibiotic therapy
Chickenpox	Infectious until vesicles are dry (usually about 5 days)
Clostridium difficile (Pseudomembranous colitis)	Infectious until diarrhoea has ceased for 48 hours
Gastro-enteritis	Infectious until symptom free for 48 hours
Hepatitis A	Infectious until 7 days after the onset of jaundice
Hepatitis B + C	Blood and body fluids should be assumed to be infectious
HIV	As above – Hepatitis B and C

Impetigo	Infectious until: a) lesions are crusted or healed b) however infectivity will be reduced following 24 hours of appropriate antibiotics
Meningococcal Meningitis	Infectious for 24 hours after start of appropriate antibiotic therapy
Mumps	Infectious for 9 days after onset of swelling in salivary glands
Rubella	Infectious for 4 days from onset of rash. Non-immune pregnant staff should not nurse these patients
Scabies	Infectious until one application of a scabicidal treatment has been completed
Shigella	Infectious until diarrhoea has ceased for 48 hours
Shingles	Infectious to a person who has not had chickenpox by direct contact with vesicles. The contact will develop chickenpox
Pulmonary Tuberculosis (Open)	Infectious until the first two weeks of appropriate antibiotic therapy have been given. The infectious period may be prolonged for Multi-Drug Resistant TB (MDRTB)

Precautions should also be taken with residents suffering from the following symptoms until a diagnosis is confirmed:

(a) Diarrhoea of unexplained origin
(b) Temperature of unknown origin
(c) Excessive bleeding
(d) Rashes of unknown aetiology
(e) Excessive vomiting.

Procedures

Standard Principles of Infection Control should be strictly adhered to at all times (Refer to Section C)

Once a diagnosis has been made, the patient (and family) must have their infectious disease carefully explained, the mode of spread and its significance, if any, for the patient's condition.

Hand Hygiene

Alcohol handrub should be used after normal handwashing, or an antibacterial soap should be used to wash hands.

Disposal of Potentially Infected Items

Contaminated dressings and all disposable items should be disposed of as hazardous waste **(Refer to Waste Management Section I – 12**).

Urinals and Bedpans

Automated washer/disinfectors are recommended, but are unlikely to be available in private individuals' homes.

In which case the following procedure should be followed:

The contents should be emptied down the toilet and flushed away. Care should be taken when cleaning the urinal or bedpan to avoid splashing. A plastic apron and non-sterile latex or vinyl gloves should be worn. The item should be cleaned with GPD and hot water prior to disinfection with a sodium hypochlorite solution (strength 1,000 p.p.m. (1 part household bleach to 100 parts water) and left for 10 minutes). The bedpan/urinal should be dried and stored inverted.

Linen

Should be washed on as hot a wash as the fabric will tolerate, as promptly as possible.

Crockery and Cutlery

Disposable items are not required. GPD and water as hot as can be tolerated is sufficient, to be washed in the usual kitchen sink or dishwasher.

Transporting Clients

Clients should only be sent to other department/premises (i.e. care homes, hospital Out-patient or In-patient departments) when it is essential. Staff involved in the direct care of the client should be informed of the risk, so that relevant control measures can be implemented. Ambulance control should be unformed when booking transport.

Deceased Clients

Standard Principles of Infection Control should be maintained when a patient dies. Body bags are not necessary in most cases (only used in highly infectious cases i.e. Viral Haemorrhagic Fever). However if there is excessive risk of body fluids from the body, body bags should be used.

Body bags are available from the stores centre from where all other care equipment is requested.

The mortuary/funeral director staff should be informed of the potential infectious risk.

For Community Hospitals and Intermediate Care Units

Barrier nursing is the term used to describe the methods used in the inpatient setting, to minimise the risk of transmission of a potential pathogen from one patient to another.

Barrier Nursing - Practice

The main diseases requiring isolation are diarrhoeal infections and untreated pulmonary tuberculosis. The Infection Control Team may also advise that patients identified as having an infection caused by any antibiotic resistant organism are barrier nursed (see management of patients with MRSA).

The patient requiring barrier nursing should be accommodated in a single room equipped with a handwash basin and, ideally, a separate en-suite cloakroom or shower room facility. If en-suite facilities are not available, precautions must be taken to prevent contact between patients using the ward facilities, and to ensure that shared facilities are appropriately cleaned and disinfected between uses.

The isolation room must not contain unnecessary furniture, and all surfaces must be easily cleaned.

The door of the room must be kept closed at all times.

The possibility of adverse psychological effects of isolation on the patient must be considered and addressed within the Care Plan.

Standard Principles of Infection Control should be adhered to at all times (Refer to Section C).

Once a diagnosis has been made, the patient (and family) must have their infectious disease carefully explained, the mode of spread and its significance if any, for the patient's condition.

Personal Protective Equipment (PPE)

A risk assessment must be made for each patient contact episode in order that the correct protective clothing is worn. If the staff member is not planning to have any direct contact with the patient or the immediate surroundings, protective clothing may not need to be worn.

Supplies of disposable gloves, aprons and masks (if necessary) should be accessible outside the isolation room and donned prior to entering the room. Hands must be sanitised prior to the wearing of protective clothing.

Hand Hygiene

Alcohol handrub should be used after normal handwashing, or an antibacterial soap should be used to wash hands.

Disposal of Potentially Infected Items

Contaminated dressings and all disposable items and protective clothing should be disposed of as infectious hazardous waste. The orange bag must be situated inside the isolation room, and hands must always be washed inside the room after protective clothing is removed. Hands should also be sanitised immediately after leaving the room.

Medical Equipment

Disposable equipment should be used whenever possible. Non-disposable equipment such as sphygmomanometers, stethoscopes etc. should remain in the room and be terminally cleaned once the patient is discharged.

Urinals and Bedpans

Contents should be emptied down the toilet and flushed away. In the community hospital setting an automated process achieving a temperature of at least 80^{o}C for 1 minute should be used for the decontamination of these items. A service contract for these machines must be in place, and provision made for the prompt replacement or repair in the event of malfunction.

If the automated system is temporarily unavailable the following process may be used:

- Care should be taken when cleaning the urinal or bedpan to avoid splashing.
- A plastic apron, and face protection should be worn
- The item should be cleaned with General Purpose Detergent (GPD) and hot water prior to disinfection with a sodium hypochlorite solution (strength 10,000 p.p.m. (1 part household bleach to 10 parts water) and left for 10 minutes).
- The bedpan/urinal should be dried and stored inverted.

Linen

Should be segregated into dissolvable laundry bags thereby minimising any risk to portering or laundry staff.

Crockery and Cutlery

Disposable items are not required. A dishwasher capable of achieving a temperature of at least 80^{o}C for at least 1 minute should be used. A service contract for these machines must be in place, and provision made for the prompt replacement or repair of the machine in the event of malfunction.

Transporting Clients

Clients should only be sent to other department/premises (i.e. care homes, hospital Out-patient or In-patient departments) when it is essential. Staff involved in the direct care of the client should be informed of the risk, so that relevant control measures can be implemented.

Daily Cleaning of Isolation Rooms

All rooms must be cleaned at least daily using freshly prepared GPD solution. Horizontal surfaces should be kept dust free and any spillages cleaned immediately. Isolation rooms should be cleaned after the other areas of the ward and all equipment such as cloths and mops should be disposable or laundered after each use.

Terminal Cleaning of Isolation Rooms

Disinfection is not generally required although the Infection Control Team for specific situations may recommend it.

It is unnecessary to wash walls and ceilings unless they are visibly contaminated.

All horizontal surfaces and equipment inside the room, including bedframes, mattresses, other furniture and equipment, must be cleaned using disposable cloths and freshly prepared GPD solution. All items and surfaces must then be dried.

Equipment, which is to be returned to a central equipment store, must be returned promptly and accompanied by a decontamination notice.

Please contact the Infection Control Team if further advice is required.

3. Decontamination

Although primary care minor surgery has a low incidence of complication, it is important that practices providing minor surgery operate to the highest possible standards.

Practices should be aware of current documents and legislation pertaining to design and build of facilities for surgery and decontamination of equipment.

Key features of Hospital Building note 13 (see below) should be used in any primary care centres.

- Washroom must be segregated from the clean area, with a pass-through hatch
- Automatic washer/disinfector, which complies with HTM 2030 and is fully validated, is desirable
- Dedicated handwash basin
- Clean area for packing/sterilising, with a controlled environment
- All staff involved in decontamination trained and training records kept
- Tracking and traceability systems implemented that are suitable for the level of procedures being undertaken, i.e. for invasive procedures, details of specific cycles on washer/disinfector and sterilisers must be kept
- Ongoing costs of maintaining a compliant decontamination service
- To fully comply with the National Decontamination Strategy, a 'mini' Sterile Services Department within the premises is to be used. All decontamination must be done away from the patient treatment areas.

The aim of decontaminating equipment is to prevent potentially pathogenic organisms reaching a susceptible host in sufficient numbers to cause infection.

Items that are classified as single-use only must never be re-used. If in doubt, refer to the manufacturer's recommendations.

After use these items should be disposed of as clinical waste. Where there is a choice of single-use or re-usable items, the single-use item is recommended. The single-use logo is usually displayed on the item.

Guidance from the NHS Estates and Medical and Healthcare Products Regulatory Agency (MHRA) strongly recommends that surgical instruments are single-use, or if reusable that decontamination takes place in a Sterile Services Department (SSD).

The Consumer Protection Act (1987) (6), in particular 'product liability', has implications for the reprocessing of devices used in patient care.

Re-usable equipment should be appropriately decontaminated between each patient using a risk assessment model. Use only the method advised by the manufacturer - using any other process may invalidate warranties and transfer liability from the manufacturer to the person using or authorising the process. If you have any doubts about the manufacturer's recommendations, seek further advice.

The Medical and Healthcare Products Regulatory Agency (MHRA) defines the following terms:

- **Cleaning** 'is a process which physically removes contamination but does not necessarily destroy microorganisms'. The reduction of microbial contamination cannot be defined and will depend upon many factors including the efficiency of the cleaning process and the initial bio-burden

  Cleaning is an essential prerequisite of equipment decontamination to ensure effective disinfection or sterilisation can subsequently be carried out

- **Disinfection** 'is a process used to reduce the number of viable microorganisms, which may not necessarily inactivate some viruses and bacterial spores'. Disinfection will not achieve the same reduction in microbial contamination levels as sterilisation.

- **Sterilisation** 'is a process used to render the object free from viable micro-organisms, including spores and viruses'.

HTM 2030 and HTM 2010 are to be replaced by HTM 01-01 Decontamination of Reusable Medical Devices, Part A, and Part B 2007-08.

Risk Assessment

Medical equipment is categorised according to the risk that particular procedures pose to patients - by assessing the microbial status of the body area being manipulated during the procedure. For example, items that come into contact with intact mucous membranes are classified as intermediate risk and require disinfection between each use as a minimum standard. Items that enter normally sterile body areas, or come into contact with broken skin or mucous membranes, are classified as high-risk and must be sterile before use.

Some high-risk devices cannot tolerate high temperatures, and must either be single-use or disinfected between each use - for example fibre-optic endoscopes. It is recommended that items used in the vagina or cervix must be single-use. (Vaginal speculae – MHRA recommend single-use disposable.) If reusable items are used sterilise between each use.

Classification of Infection Risk Associated with the Decontamination of Medical Devices

Risk	Application of Item	Minimum Standard
High	• In close contact with broken skin or broken skin or broken mucous membrane • Introduced into sterile body areas	Cleaning followed by sterlisation
Medium	• In contact with mucous membranes • Contaminated with particularly virulent or readily transmissible organisms • Before use on immunocompromised patients	Cleaning followed by sterilisation or disinfection NB: Where sterlisation will damage equipment, cleaning followed by high level disinfection may be used as an alternative
Low	• In contact with healthy skin • Not in contact with patient	Cleaning

MHRA DB2006 (05) November 2006

Cleaning Methods

Cleaning is the first step in the decontamination process. It must be carried out before disinfection and sterilisation to make these processes effective. Thorough cleaning is extremely important in reducing the possible transmission of all microorganisms, including the abnormal prion protein that causes vCJD.

Mechanical cleaning using a washer/disinfector is recommended as the process can be validated, and records kept. Certain items may also require additional cleaning in an ultrasonic bath.

Thorough cleaning with detergent and warm water - maximum temperature 35^0C - will remove many microorganisms. Hot water should not be used as it will coagulate protein making it more difficult to remove from the equipment.

Manual cleaning is not advised. Mechanical cleaning reduces the risk of infection to the healthcare worker.

Washer Disinfectors

Guidance from HTM 2030 should be followed:

- Use a detergent solution as recommended by manufacturer
- Operate and load as recommended by manufacturer
- Inspect instruments for residual debris after cleaning, and repeat process if necessary

- Ensure daily, weekly, quarterly and annul testing is undertaken and results recorded and retained.

Most instruments will be cleaned in the washer/disinfector, however there may be a few devices that are complex in design or excessively soiled that may require additional cleaning in an ultrasonic cleaning bath.

Ultrasonic cleaning baths:

- Use a detergent enzymatic solution as recommended by the manufacturer

- Empty at least twice daily before the solution becomes heavily contaminated depending on work load

- Empty, clean and dry at the end of the session/day

- Staff must record the results of periodic testing in accordance with HTM2030 and manufacturer's instructions

- Service frequently - include checking the power output of the transducer

- Inspect instruments for residual debris after cleaning, and repeat if necessary

- Document all servicing and repairs.

NB: Compatibility of all materials and items to be processed should be established by reference to the manufacturer's instructions.

DISINFECTION METHODS

Disinfection methods apply to handwashing, skin preparation and equipment. Disinfection of equipment should be limited and, where possible, disposable or autoclavable equipment used instead. If disinfection is required, use the method recommended by the manufacturer.

Chemical	Advantages	Disadvantages	Uses
Chlorine-based: Hypochlorites (e.g. Domestos, Milton) NB Undiluted commercial hypochlorite contains approx. 100,000ppm available chlorine	• wide range of bacterial, virucidal, sporicidal and fungicidal activity • rapid action • non-toxic in low concentrations • can be used in food preparation • cheap	• inactivated by organic matter • corrosive to metals • diluted solutions can be unstable • needs to be freshly prepared • does not penetrate organic matter • bleaches fabrics • need ventilation	• can be used on surfaces and for body fluid spills
Sodium Dichloroisocyanurates (NaDCC) e.g. Presept, Haz-Tab, Sanichlor	• slightly more resistant to inactivation by organic matter • slightly less corrosive • more convenient • long shelf-life	• as above	• as above
Alcohol 70% e.g. isopropanol	• good bactericidal, fungicidal and virucidal activity • rapid action • leaves surfaces dry • non-corrosive	• non-sporicidal • flammable • does not penetrate organic matter • requires evaporation time	• can be used on surfaces, or for skin and hand decontamination
Chlorhexidine e.g. hibiscrub, chlorhexidine wound cleaning sachets	• most useful as disinfectants for skin • good fungicidal activity • low toxicity and irritancy	• limited activity against viruses • no activity against bacterial spores • inactivated by organic matter	• For skin and hand decontamination

STERILISATION METHODS

You can obtain sterile instruments by:

- **Purchasing pre-sterilised single-use items**
  These avoid the need for re-sterilisation and are a practical and safe method. You must store items using a stock rotation system according to manufacturer's instructions

- **Using a sterile supplies department (SSD)**
  SSDs may provide a cost-effective and efficient service. There should be a contract specifying the responsibilities of both parties. Since June 1998 SSDs have been bound by the Medical Devices Directive 93/42/EEC, which requires the department to have a quality system of audit and to have been assessed and validated as CE compliant. The PCT or GP practice should seek legal and risk management advice if the contracted SSD has not been assessed as being CE compliant

- **Clinics may sterilise their own equipment using a benchtop steam steriliser/ vacuum steam steriliser**
  Increasingly healthcare providers are required to comply with a number of quality assurance standards, outlined in the following pages of this document.

3(a) DECONTAMINATION OF INSTRUMENTS

Sterilisation of Instruments – Responsibilities

If sterilisation is to be carried out, then management and other personnel are required to ensure that the sterilisers are operated safely and effectively and in compliance with legislation and standards. This is dependent on training and a sound general knowledge of the principles of sterilisation**.**

The key responsibilities of management can be summarised as follows:

- To ensure that sterilisation is carried out in compliance with the law and with the policy of the UK health departments

- To ensure all personnel connected with sterilisation, including any contractors, are suitably qualified and trained for their responsibilities

- To ensure that purchased sterilisers conform to legal requirements, the minimum specifications set out in British and European standards and any additional requirements of the UK health departments

- To ensure that sterilisers are installed correctly and safely with regard to proper functioning, safety of personnel and environmental protection

- To ensure that newly installed sterilisers are subject to a documented scheme of validation comprising installation checks and tests, commissioning and performance qualification tests before they are put into service

- To ensure that sterilisers are subject to a documented scheme of prevention maintenance

- To ensure that sterilisers are subject to a documented scheme of periodic tests at yearly, quarterly, weekly and daily intervals

- To ensure that procedures for production, quality control and safe working are documented and adhered to in the light of statutory requirements and accepted best practice

- To ensure that procedures for dealing with malfunctions, accidents and dangerous occurrences are documented and adhered to

- To ensure that there is a procedure for the de-commissioning of unsafe units and removing from service.

Installation and Validation

HTM 2010 contains detailed DoH advice on installation, maintenance and operation. After installation the steriliser must be validated prior to use.

Validation is a documented procedure for obtaining, recording and interpreting data required to show that a process will consistently comply with predetermined specifications. The process of validation consists of performance qualification. All records of the validation process should be retained by the owner for inspection.

Following validation a schedule for periodic testing and planned preventative maintenance should be drawn up.

Validation of the steriliser should be carried out by an appropriately qualified person. This will probably be the person who also conducts the required periodic testing and maintenance. The manufacturer's programme of planned maintenance should be used. If no manufacturer's programme is available then advice should be sought from an appropriately qualified maintenance engineer.

Periodic Testing of Benchtop High Temperature Steam Sterilisers

NB: Failure to carry out periodic tests and maintenance tasks could compromise safety and may have legal and insurance implications for the user or owner of the steriliser.

Sterilisation is a process whose efficiency cannot be verified retrospectively by inspection or testing of the product. Routine monitoring of the process, combined with periodic testing of the steriliser's performance is therefore needed to give assurance that sterilising conditions are consistently being achieved.

Appropriate training should be undertaken by staff undertaking testing of sterilisers.

A daily, weekly, quarterly and yearly testing schedule is required.

Each steriliser should have a log book in which details of maintenance, tests, faults and modifications are recorded. The log book should be stored in the same location as the steriliser, accessible for inspection.

Daily Testing

The owner/user is responsible for daily testing. These tests are designed to show that the operating cycle functions are correctly shown by the values of the cycle variables indicated and recorded by the instruments fitted to the steriliser**.**

Procedures for Daily Testing

- A normal cycle is operated with the chamber empty except for the usual chamber "furniture" (e.g. trays, shelves, etc.)

- A record should be made in the log book of the elapsed time and indicated temperature and pressure (the values shown on the dials or other visual displays fitted to the steriliser) at all significant points of the operating cycle – the beginning and end of each stage or sub-stage, and the maximum temperature and pressure values attained during the holding time

- If the steriliser is fitted with a temperature and pressure recorder, the printout should be compared with the records in the steriliser log book and retained for future inspection.

- The test can be considered satisfactory if all the following apply:

    - A visual display of "cycle complete" is indicated

    - The value of the cycle variables are within the limits established by the manufacturer as giving satisfactory results

    - The steriliser hold time is not less than that specified in Table 1

    - The temperatures during the hold time are within the appropriate temperature range specified in Table 1

    - The door cannot be opened until the cycle is complete

    - No mechanical or other anomaly is observed.

- If the steriliser is fitted with a temperature and pressure recorder, then during the plateau period:

    - the indicated and recorded chamber temperatures are within the appropriate sterilisation temperature range

    - the difference between the indicated and recorded temperatures does not exceed 2°C

    - the difference between the indicated and recorded pressure does not exceed 0.1 bar.

Table 1 Sterilisation temperature ranges, holding times and pressure for sterilisers with high temperature steam

Option	Sterilisation Temperature Range (°C)			Approx. Pressure (bar)	Minimum Hold (min)
	Normal	Minimum	Maximum		
A	136	134	137	2.25	3
B	127.5	126	129	1.50	10
C	122.5	121	124	1.15	15

Weekly Testing

- Examine the door seal, check security and performance of door safety devices

- Check that safety valves, or other pressure limiting devices are free to operate.

Quarterly and Annual Checks

These tests should be conducted by a suitably qualified person as they require the use of specialised equipment and will probably be conducted by the person who undertakes the maintenance. Guidance on these tests are contained in HTM 2010.

Examples of log book pages, and daily, weekly test sheets are available in HAD (2002) Benchtop Steam Steriliser – Guidance Purchase, Operation & Maintenance MDA DB 2002 (6).

These records should be kept for 11 years.

In the event of a malfunction notify the engineer at once

Technical Aspects and Safety Considerations

1. Steam sterilisation is dependent on direct contact between the load material and saturated steam under pressure, at one of the temperatures shown in Table 1, in the absence of air.

2. Benchtop steam sterilisers achieve the above conditions by electrically heating water (usually sterile water for irrigation, but manufacturers may recommend purified) within the chamber to produce steam at the required pressure and temperature, with air being passively displaced from the chamber by steam.

3. During the sterilising cycle the steriliser door must prevent access to the chamber whilst it is under pressure. The door should not be able to be opened until the “cycle complete” signal is indicated.

Maintenance of Sterilisers

Record sheet

Unwrapped Instrument Steriliser

Daily weekly record

Clinic:

Week Commencing:

Machine reference number:

Warm up cycle completed? YES/NO

Daily test results	Mon	Tues	Wed	Thurs	Fri	Sat
Cycle counter number						
Cycle start time						
Time to attain temp						
Pressure gauge reading						
Temp. gauge reading						
Time at 134°C (min 3mins)						
Total Cycle time						
Initial of authorised user						

Note: in the event of a malfunction notify the engineer at once

Comments:

Use of Displacement Bench-Top Steam Autoclaves

British Standard 3970

Autoclaves vary in sophistication, and it is essential that the displacement bench-top steriliser is to an acceptable standard, such as British Standard 3970. Autoclaves must comply with BS and EC standards. Check with MHRA prior to purchase.

Maintenance

Regular maintenance is advised to ensure the monitoring equipment is functioning correctly (refer to previous pages).

Temperatures and Pressures

Each autoclave should include temperature and pressure indicating equipment, a cycle stage indicator, and a fault and cycle complete indicator. Temperatures and pressures achieved should be observed each time it is used, and documented at least once for each day that it is used (refer to previous pages). Retain records for 11 years.

Protective Clothing

The use of protective clothing is recommended when handling or dealing with blood and/ or body fluids. As these instruments will have been contaminated with blood and body fluids, and whilst the action of cleaning such instruments may give rise to splashing with these fluids, disposable latex gloves, disposable aprons and eye protection should be worn**.**

Pre-cleaning

The physical cleaning of instruments is a pre-requisite to sterilisation, as this will ensure all surfaces are free of debris and able to be completely sterilised. It is recommended that an automated washer-disinfector is used. This process can be validated and prevents the need for manual cleaning of contaminated instruments.

Scrubbing Brushes

The use of an automated washer-disinfector will negate this process.

Inspection

Prior to sterilisation, items should be checked for both cleanliness and operation i.e. that forceps align, the handle grip is firm, joints move freely - but are not loose, instruments are not rusted, etc.

Loading the Autoclave

When loading instruments into the steriliser, ensure they are dry and not touching. Place bowls and receivers on edge and leave hinged instruments open. Do not overload machine.

Unwrapped Instruments

It is advised to use a downward displacement steam autoclave, for use with unwrapped instruments.

Lumen and Wrapped Instruments

These items should be processed in a vacuum steriliser.

If instruments are wrapped prior to sterilisation in the bench-top downward displacement steam autoclave, there is no guarantee that the instruments inside the wrapping will be sterilised. **(Hollow-lumen items will not be effectively sterilised in a downward displacement autoclave.)**

Use of Instruments

Instruments should be used immediately (up to 3 hours after the cycle is finished when the door remains shut) after sterilisation, as no adequate method exists to store and also maintain sterility when instruments have been sterilised unwrapped.

For non-invasive procedures store instruments in a clean, dry and dust-free place, preferably a drawer or covered box.

Training

Training of personnel to use the equipment correctly is an essential part of ensuring a safe procedure. No staff should be expected to use such equipment, or be involved in the sterilisation procedure unless a clear understanding is first ensured.

SINGLE-USE EQUIPMENT

Single-use means that the manufacturer:

- Intends the item to be used once, then thrown away
- Considers the item unsuitable for use on more than one occasion
- Has insufficient evidence to confirm that re-use would be safe.

Single patient use means that the item can be reused if re-processed using an appropriate method and is used on the ***same patient only***. The duration of use is dependent upon undertaking a risk assessment of individual risk factors.

The MDA (1995) guidance suggests that reprocessing and re-using such items may pose hazards for patients and staff, if the reprocessing method has not been validated. Therefore re-use of single-use products is not advisable unless the outcomes have been taken into account. The Consumer Protection Act 1987 will hold a person liable if a single-use item is reused against the manufacturer's recommendations.

3(b) DECONTAMINATION OF EQUIPMENT

A-Z OF EQUIPMENT AND THE DECONTAMINATION METHOD

Use	Available Chlorine (ppm)
Blood Spillages	10,000
Environmental disinfection	1,000

Ensure that manufacturers' instructions are followed to obtain correct concentration of solution.

EQUIPMENT	CLEANING METHOD
Babies feeding bottles and teats	Use single-use pre-sterilised bottles and teats
Baby changing mats	Cover with paper towel and change between each baby. Clean at end of session or when the mat is soiled, with GPD and water, or GPD wipes
Baths	To be cleaned between users. With gloved hand, clean bath surface, grab rails and taps with hot water, GPD and paper towels, or GPD wipes. Rinse
Bath water additives	Bath emollients should be added to the bath water. Dome preparations can be applied to wet skin and rinsed off. Follow manufacturers' instructions
Bedpans	Disposable pans are recommended and disposed off in a Macerator. Reusable Pans to be decontaminated in Washer Disinfector. Manual cleaning is not advised. Non-disposable bedpans in an individual's own home - wearing disposable plastic apron and gloves, empty urine into the toilet, clean thoroughly using paper towels, hot water and GPD. Rinse, dry and store inverted
Beds, backrests, bed cradles and mattresses	To be included in the regular cleaning regime, but to be cleaned between users with hot water and GPD, or GPD wipes. If soiling is evident then immediately clean as above and then wipe over with chlorine-releasing compound
Bidets	To be cleaned after each use. Clean surface of pan and taps with hot water and GPD, or GPD wipes, using disposable paper towels and gloved hand and then flush
Bowls - patient washing	Clean between each use with hot water and GPD, or GPD wipes, using disposal paper towels. Rinse and store dry on the shelf of a cupboard

Commode armrests and seats	If no soiling is evident, clean with hot water and GPD, and dry using paper disposable towels. If soiling is evident, or there is an outbreak of diarrhoea, or the previous user had a loose stool, clean with hot water and GPD, or GPD wipes. Wipe over with a chlorine-releasing compound (e.g. Presept, Chlortabs). **Use separate wipes for armrests and seats**
Dummies and feeding equipment	Single-use advised. Infants 12 months and over decontaminate in a dishwasher or wash in water and detergent Under 12 months decontaminate in a dishwasher or wash in water and detergent followed by total immersion in a Milton (or similar) solution
Ear pieces from auroscopes	Single-use recommended. Clean thoroughly with GPD and hot water, using thin brushes to clean inside. Rinse and dry thoroughly before storage
Ear syringe 'Propulse'	Single-use disposable equipment is preferred. Propulse tips are single-use Stage 1 – Each day before use, the Propulse must be disinfected using a solution of Sodium Dichloroisocyanurate 0.1% (NaDCC). This may be Presept, or similar, use according to manufacturer's instructions to get a solution which provides 1,000 parts (NaDCC) per million (0.1%). Fill the water tank with NaDCC solution. Run the Propulse for a few seconds to allow the solution to fill the pump and flexible tubing
ECG Equipment - Electrodes - Leads - Machine	- Use disposable - Wipe well with hot water and GPD, or general-purpose wipes - Wipe over with damp cloth, keep covered when not in use Follow manufacturers' guidance
Examination couches	Surface must be in intact and in good repair, clean with hot water and GPD, or general-purpose wipes, at start and finish of each session or if becomes soiled. Cover with disposable paper roll and change between each client use.
Family Planning Vaginal specula	**All reusable items entering the vagina must be adequately decontaminated between use. This can only be achieved by a heat method of sterilisation, not by disinfectant or boiling water.** Single-use recommended. For re-usable, either return to CSSD, or pre-clean and sterilise in a downward replacement autoclave

Trial size caps and IUCD instruments	Single-use recommended. Following Department of Health instructions, all articles inserted into the vagina should be sterilised
Hoists and slings	Residents/patients slings should be allocated to each individual, and kept at their side ready for use. On discharge, or if the sling becomes soiled, the sling should be washed in an industrial washing machine on as hot a wash as the fabric will tolerate as per manufacturers guidance. The slings should be dried and then stored in a designated area. Alternatively, single patient slings can be used and disposed of once the patient no longer requires it
Nail brushes	Single-use only
Nebulisers	Single patient use nebuliser and tubing recommended. Clients should have their own nebuliser units, which should be washed with hot water and GPD, or GPD wipes between use. Store dry. On completion of treatment, dispose of nebuliser. Follower manufacturer's instructions. Nebulisers which are used in the surgery or loaned to clients must be thoroughly decontaminated between patient uses. All tubing, mask, and filters should be disposed of after use, and replaced with new, disposable components before the item is used by another client. Staff must maintain a register of use (giving patient details and date of use) for each nebuliser including a record of the decontamination process detailing the date, time, cleaning method used, items replaced, and the signature and name of the member of staff responsible
Stethoscopes	Clean with GPD wipe after each use
Suction equipment	Disposable suction units are recommended. After each use (or 24 hours if in frequent use) the disposable components should be disposed of in the appropriate waste.(See waste Section I,12) Non-disposable bottles – recommend change to disposable. Tubing should be disposable. Filters - these should be replaced when wet and at appropriate intervals in keeping with the manufacturer's instructions
Thermometers	Single-use recommended

Trolleys (dressing trolleys)	Clean top and all surfaces with hot water and GPD, or GPD wipes daily. Dry thoroughly. If trolley becomes contaminated between patient use, wash with GPD and hot water again
Toys	Soft toys should be washable via an industrial washing machine. Plastic toys to be washed in hot water and GPD. Wooden toys are not suitable
Urinals	Single-use recommended. Non disposable urinals mechanically cleaned as described in bedpans. Non-disposable urinals an individual's own home -wear disposable plastic apron and gloves, empty urine into the toilet, clean thoroughly using paper towels, hot water and GPD. Rinse, dry and store inverted
Urine jugs	Single-use recommended. Reusable - Wearing gloves and apron, a separate clean jug should be used for each urine collection. Empty the contents into the toilet and rinse. Clean thoroughly with hot water and GPD using disposable paper towels. Rinse and dry. Store inverted. Allocate a jug per individual resident/patient
Walking frames, wheelchairs etc.	Clean with GPD and hot water, or GPD wipes and dry In residential environment clean weekly , daily during outbreaks and immediately after contamination with body fluids
Weighing scales	Line with disposable paper towel. Wash bowl of scales with GPD and hot water, or GPD wipes if they become soiled before next baby is weighed and at the end of each clinic session
Work surfaces	**General Cleaning** Use GPD and hot water, or GPD wipes. **Contaminated Surfaces** Clean with GPD and hot water, or GPD wipes, and then wipe with 1% sodium hypochlorite solution

3(c) DECONTAMINATION OF THE CLINICAL ENVIRONMENT

Environmental Cleaning

The environment plays a relatively minor role in transmitting infection, but dust, dirt and liquid residues will increase the risk. They should be kept to a minimum by regular cleaning and by good design features in buildings, fittings and fixtures.

National initiatives such as The Health Act 2006, Essential steps to Safe Clean Care (2006), Towards cleaner hospitals and lower rates of infection (2004), and NHS Estates Healthcare Facilities Cleaning Manual (2004) all promote the importance of cleanliness in the healthcare environment, to assist in tackling the problem of healthcare acquired infections.

- Work surfaces and floors should be smooth-finished, intact, durable of good quality, washable and should not allow pooling of liquids and be impervious to fluids. All surfaces should be kept clear of unnecessary equipment or clutter to ensure regular and thorough cleaning can occur. The most important component of an effective cleaning programme is the regular removal of dust from all horizontal surfaces.

- GPD and water should be used for all environmental cleaning – follow the manufacturer's instructions. Disinfectant such as a chlorine releasing solution, should only be used to decontaminate spills of body fluids, or for "terminal" cleaning of an area after a known case or outbreak of infection

- Carpets are not recommended in treatment rooms or areas where clinical procedures will take place because of the risk of body fluid spills. Where carpets are in place, should be cleaned with vacuum cleaner with filters daily or contracts for regular steam cleaning and dealing with spills (suggested frequency of steam cleaning in waiting rooms yearly)

- Walls require spot cleaning to remove splashes/marks

- Difficult to reach/clean areas should have contracts arranged for regular planned preventive maintenance and cleaning e.g. behind radiator guards, fans, ventilation units/grills etc

- All cleaning equipment should be colour-coded for different areas of use, as per National colour-coding guide (see below). E.g. buckets, mop handles, aprons, gloves and disposable cloths etc.

- The water used for cleaning, in buckets, must be changed frequently and disposed in a sluice sink/hopper. Clean the mop handle and bucket after use. Dry and store bucket inverted.

- Mop heads should be removed after each use for laundering in a hot wash and then stored dry but if heavily soiled to be discarded. Single-use mop heads should be used if industrial washing machine laundering facilities are not available.

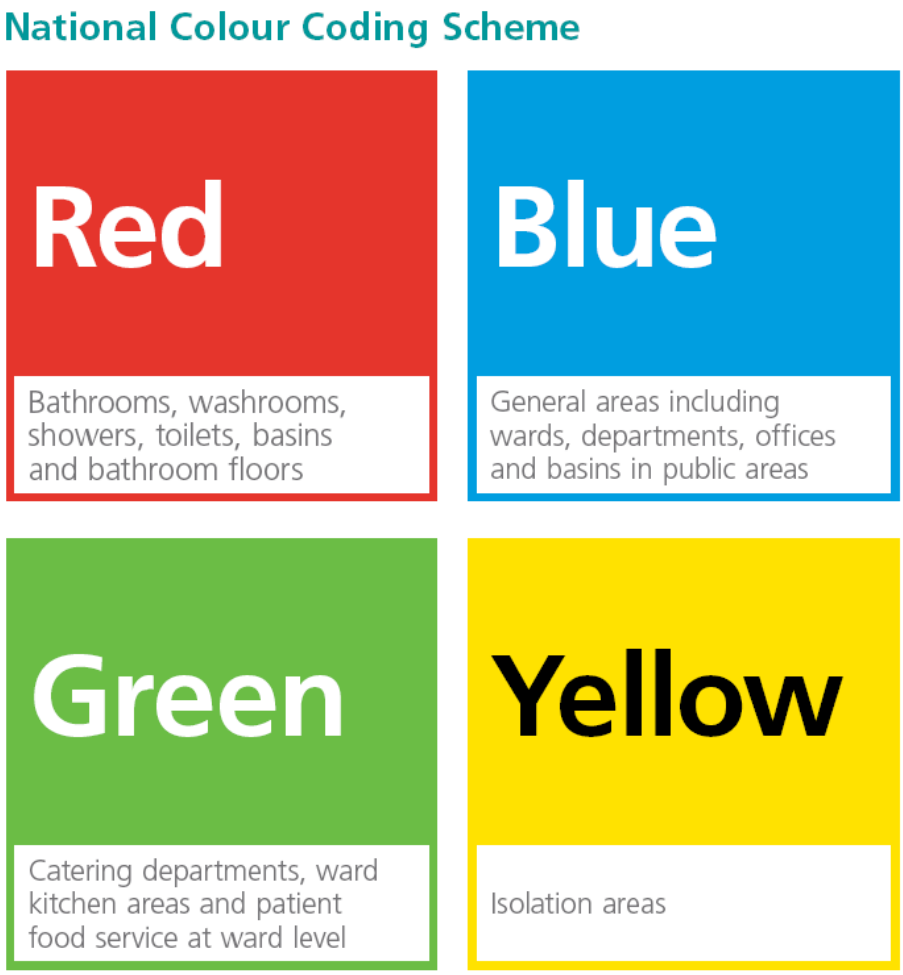
- Single-use, non-shedding cloths or paper roll should be used for cleaning and drying.

- Equipment and materials used for general cleaning should be kept separate from those used for dealing with body fluids.

- All equipment used for cleaning including vacuums and floor polishers should be clean and maintained properly

Colour-Code for Hygiene

Based on the Safer Practice Notice – Colour-coding hospital cleaning materials and equipment, published by the National Patient Safety Agency.



THE GOLDEN RULE: WORK FROM THE CLEANEST AREA TOWARD THE DIRTIEST AREA. THIS GREATLY REDUCES THE RISK OF CROSS-CONTAMINATION.

1. The aim of a colour-coding system is to prevent cross-contamination

2. It is vital that such a system forms part of any employee induction or continuous training programme

3. A minority of people are colour-blind in one or more colours. Some individuals may not know this and colour identification testing should form part of any induction training

4. Always use two colours within the washroom/sanitary area

5. The colour-coding system must relate to all cleaning equipment, cloths and gloves.

Monitoring of the system and control of colour-coded disposable items against new stock release is extremely important.

DOMESTIC	CLEANING
Bucket (plastic)	Empty contents down toilet or slop hopper. Wash with GPD and dry
Curtains	Launder 6 monthly or at once if visibly soiled or after an outbreak of infection as part of the terminal clean Disposable curtains are available and are recommended where a laundry service is not available
Mop (wet)	Disposable recommended. Dispose after single task or for periods not exceeding three hours. Reusable, heat disinfect in washing machine and dry thoroughly daily, or more frequently if necessary. Store dry
Mop (dry)	Single-use covers – dispose of after use
Lavatory brushes	Rinse in flushing water and store dry
Suggested colour - coding of cleaning equipment	Red: toilet bathroom/sluice Blue: General areas Green; kitchen/pantry Yellow: isolation
Floors	Dust control - dry mop. Wet cleaning - wet mop, wash with hot water and GPD. If known contamination - follow with hypochlorite 1000 ppm
Furniture and fittings	Damp dust with hot water and detergent. If known contamination - follow with hypochlorite 1000 ppm
Lavatory seat and handle	If soiling is evident, or there is an outbreak of diarrhoea, or the previous user had a loose stool, clean with hot water and GPD followed by chlorine-releasing compound (i.e. Presept, Chlortabs) 1000 ppm
Showers	Should be clean and maintained. Launder curtains 3 monthly. Shower heads should be de-scaled when necessary. If not in use – shower should be run for 5 mins weekly (potential Legionella risk)
Walls and ceilings	Not an infection problem. When visibly soiled use hot water and detergent. Splashes of blood, urine or known contaminated material should be cleaned promptly with hypochlorite solution of 1:1000 ppm

DECONTAMINATION OF EQUIPMENT PRIOR TO INSPECTION, SERVICE, REPAIR OR LOAN

Figure 3 Decontamination flow chart for devices being sent for investigation/repair or service

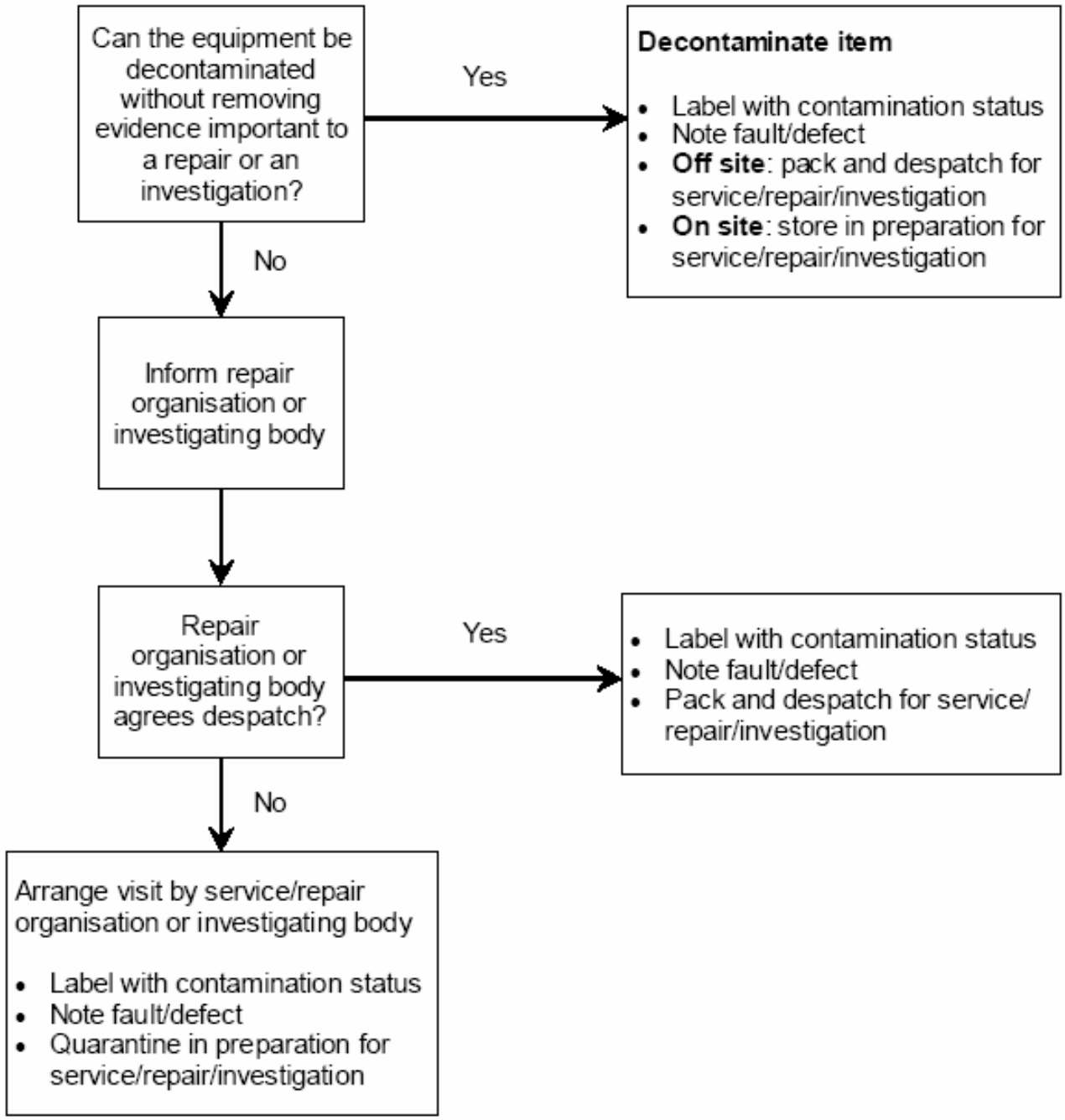


Figure 4 Sample form – declaration of contamination status

From (consignor): _____ **To** (consignee): _____

Address _____ Address _____

_____ _____

_____ _____

Reference _____ Reference _____

Emergency tel _____

Type of equipment _____ Manufacturer _____

Description of equipment _____

Other identifying marks _____

Model No. _____ Serial No. _____

Fault _____

Is the item contaminated? **Yes*** ☐ **No** ☐ **Don't know** ☐

* State type of contamination: blood, body fluids, respired gases, pathological samples, chemicals (including cytotoxic drugs), radioactive material or any other hazard _____

Has the item been decontaminated? **Yes†** ☐ **No‡** ☐ **Don't know** ☐

† What method of decontamination has been used? Please provide details

Cleaning _____

Disinfection _____

Sterilization _____

‡ Please explain why the item has **not** been decontaminated?

_____

_____

Contaminated items should not be returned without prior agreement of the recipient

This item has been prepared to ensure safe handling and transportation:

Name _____ Position _____

Signature _____

Date _____ Tel _____

4. Enteral Feeding

Preparation and Storage of Feeds

Effective hand hygiene must be carried out before starting feed preparation.

Wherever possible pre-packed, ready-to-use feeds should be used in preference to feeds requiring decanting, reconstitution or dilution.

The system selected should require minimal handling to assemble and be compatible to the enteral feeding tube.

When decanting, reconstituting or diluting feeds, a clean working area should be prepared and equipment dedicated for enteral feed use only should be used.

Where ready-to-use feeds are not available, feeds may be prepared in advance, stored in a refrigerator, and used within 24 hours.

The system selected should require minimal handling to assemble, and be compatible with the patient's enteral feeding tube.

Feeds should be mixed using cooled boiled water or freshly opened sterile water and a no-touch technique.

Feeds should be stored according to the manufacturer's instructions and, where applicable, food hygiene legislation.

Administration of Feeds

Minimal handling and an aseptic no-touch technique should be used to connect the administration system to the enteral feeding tube.

Ready-to-use feeds may be given for a whole administration session, up to a maximum of 24 hours. Reconstituted feeds should be administrated over a maximum 4 hour period.

Administration sets and feed containers are for single-use and must be discarded after each feeding session.

In some areas, single patient use syringes are used to administer drugs. Check the packaging to ensure it is **single patient** use, and, if it is, follow the manufacturer's instructions on decontamination between uses.

Care of Insertion Site and Enteral Feeding Tube

The stoma should be washed daily with water and dried thoroughly.

To prevent blockage, the enteral feeding tube should be flushed with fresh tap water before and after feeding or administering medications.

Enteral feeding tubes for patients who are immunosuppressed should be flushed with either cooled freshly boiled water or sterile water from a freshly opened container.

5. Intravenous Therapy

Community Control of Infection in Intravenous Therapy is of paramount importance. Catheter-related sepsis causes significant morbidity and mortality.

The incidence of Central Venous catheter related infections is 4-20%. Staphylococci is implicated in 50% of episodes. Other micro-organisms include:

a) Candida

b) E.coli

c) Klebsiella

d) Pseudomonas.

Intravenous therapy may be accessed via a peripheral vein or a central line. A central line catheter is inserted into the superior vena cava and is often tunnelled under the skin in the chest wall e.g. a 'Hickman' Line. Another access point into a central line is through an entry port in the arm or chest wall e.g. Porta Cath, Peripherally inserted long lines.

Different types of catheters are available, the correct type and insertion site is critical in reducing the risk of infection. Specialist advice must be sought and followed for each patient.

These various devices may be left in situ for different lengths of time. Individual instructions on care of specific lines can be obtained either from the healthcare premises that the patient attended, community nurses that specialise in intravenous therapy, or from the manufacturer.

Intravenous Cannulation and Therapy

Factors influencing development of sepsis include:

- Initial skin preparation
- Care of the insertion site
- Type of connector
- Skin microflora and type of dressing
- Care of entry port.

Type of connector – use single-lumen catheter unless multiple ports are essential for the management of the patient. When multi-lumen catheter is used, identify and designate one port to administer parental nutrition.

Recognising Catheter Associated Infections

Localised effects may occur at the insertion site or along the track of a tunnelled device. These include:

- Thrombophlebitis
- Exudate formation
- Heat at site
- Oedema
- Pain
- Irritation
- Erythema.

Systemic effects include:

- Pyrexia
- White cell count elevated.

Action To Take in the Event of an Infection Occurring

- Do not inject via the catheter or use the intravenous line
- Contact the Doctor in charge of the patient's care – and follow his/her guidance
- Take swab for Microbiology culture and sensitivity
- May need blood cultures whilst still in-situ from:
  a) Peripheral Line
  b) Central Line
- Mid-stream specimen of urine (MSU), chest X-ray, throat swabs.

Extravasation

Occurs when a cannula pulls out of a vein and the fluid accumulates around the cannula site in the surrounding tissues.

Possible signs are:

- Swelling
- Discomfort
- Burning
- Pain.

Action:

- Ensure line is turned off
- Do not use intravenous line
- Inform Doctor in charge of the patient's care
- Elevate the limb to promote venous drainage
- Monitor vital signs.

General Principles for the Control of Infection in Central Lines

- Insertion - sterile procedure, it is recommended that this is performed in a theatre environment
- Hand antisepsis
- A clean procedure for all manipulations
- Wear appropriate gloves
- Keep handling to a minimum

General principles for catheter management

The injection port or catheter hub should be decontaminated using either alcohol or a non-alcoholic solution of chlorhexidine gluconate before and after it has been used to access the system. Check with manufacturer for compatibility with catheter. Chlorhexidine 2% in 70% isopropyl alcohol is first choice of product.

In-line filters should not be used routinely for infection prevention.

Antibiotic lock solutions should not be used routinely to prevent catheter-related bloodstream infections (CRBSI).

Preferably, a sterile 0.9% sodium chloride injection should be used to flush and lock catheter lumens.

Systemic anticoagulants should not be used routinely to prevent CRBSI.

In general, administration sets in continuous use need not be replaced more frequently than at 72-hour intervals unless they become disconnected or a catheter-related infection is suspected or documented.

Administration sets for blood and blood components should be changed every 12 hours, or according to the manufacturer's recommendations.

Administration sets used for total parenteral nutrition infusions should generally be changed every 24 hours. If the solution contains only glucose and amino acids, administration sets in continuous use do not need to be replaced more frequently than every 72 hours.

Systemic antimicrobial prophylaxis should not be used routinely to prevent catheter colonisation or CRBSI either before insertion or during the use of a central venous catheter.

When recommended by the manufacturer, implanted ports or open-ended catheter lumens should be flushed and locked with heparin sodium flush solutions.

When needle-less devices are used, healthcare personnel should ensure that all components of the system are compatible and secured, to minimise leaks and breaks in the system.

Preferably, a single lumen catheter should be used to administer parenteral nutrition. If a multilumen catheter is used, one port must be used exclusively dedicated for total parental nutrition and all lumens must be handled with the same meticulous attention to aseptic technique.

When needle-less devices are used, the risk of contamination should be minimised by decontaminating the access port with either alcohol or an alcoholic solution of chlorhexidine gluconate before and after using it to access the system.

If needle-less devices are used, the manufacturer's recommendations for changing the needle-less components should be followed.

Catheter Site care

Preferably, a sterile transparent, semi-permeable polyurethane dressing should be used to cover the catheter site.

If a patient has profuse perspiration, or if the insertion site is bleeding or oozing, a sterile gauze dressing is preferable to a transparent, semi-permeable dressing.

Gauze dressings should be changed when they become damp, loosened or soiled, and the need for a gauze dressing should be assessed daily. A gauze dressing should be replaced by a transparent dressing as soon as possible.

Dressings used on tunnelled or implanted CVC sites should be replaced every 7 days until the insertion site has healed, unless there is an indication to change them sooner.

An alcoholic chlorhexidine gluconate solution should be used to clean the catheter site during dressing changes, and allowed to dry. An aqueous solution of chlorhexidine gluconate should be used if the manufacturer's recommendations prohibit the use of alcohol with the product.

Healthcare personnel should ensure that catheter-site care is compatible with catheter materials (tubing, hubs, injection ports, luer connectors and extensions) and carefully check compatibility with the manufacturer's recommendations.

Transparent dressings should be changed every 7 days, or sooner if they are no longer intact or moisture collects under the dressing.

Individual sachets of antiseptic solution or individual packages of antiseptic-impregnated swabs or wipes should be used to disinfect the dressing site.

Total Parental Nutrition

- Parenteral nutrition (PN) is the administration of nutrient solutions via a central or peripheral vein. It is most commonly administered through a peripherally inserted central venous catheter into the superior vena cava and it is only used when the patient's gastro-intestinal tract is not functional.
- Preferably a single lumen catheter should be used to administer parenteral nutrition.
- Strict asepsis is required when dealing with parenteral nutrition procedures.
- Administration sets should be changed every 24 hours.

- All clients are self-caring with advice and support from the Nutrition Support Team.
- The Nutrition Nurse Specialist team are available 24 hours a day via your local hospital.

6. Laundry Management

In Clinical Treatment Areas

It is strongly recommended that linen is kept to a minimum.

Couches

- The surface of all couches must be of a washable impermeable fabric
- The condition of the surface of all couches should be regularly checked (minimum once monthly) to ensure the fabric remains intact
- The couch should be covered with a disposable paper towel, which must be changed between patients
- If the paper towel becomes soiled and the soiling seeps through to the surface of the couch, the couch must be decontaminated before use by another patient. If contaminated with blood clean with detergent wipes, followed by a sodium dichloroisocyanurate compound (NaDCC) (e.g. Acti Chlor)
- If the contaminate is another body fluid, GPD and warm water, or detergent wipe is sufficient to decontaminate the surface of the couch
- Pillows are not considered essential as all couches should have head-tilts. However, if pillows are used, they should be sealed within a plastic impermeable cover. Disposable pillowcases should then be used. These should be discarded once weekly or more frequently if they become soiled. If standard pillow cases are used, they must be washed weekly or more frequently if they become soiled. Linen that is washed must be thermally disinfected in an industrial washing machine
- Blankets/sheets are not considered essential. For modesty, a length of disposable paper towel should be used to cover exposed parts of the body.

Curtains

- At windows, it is recommended that washable blinds are used. Obscured glazing is advised where this is not available
- Around couches, curtains should only be used if required to protect patient's modesty
- There should be an environmental cleaning schedule which should include blinds and bed curtains to be washed twice yearly, or when contaminated**.**

Terry Towels

- Terry towels should not be used in healthcare premises. Hands should be dried on disposable paper towels

- If used to protect the patient whilst performing ear syringing (instead of the correctly designed receptacle), each patient should be provided with a clean towel (or disposable paper towel)**.**

When Linen is Used:

- All linen must be changed at least weekly, or more frequently if soiled
- Place linen soiled with body fluids in a leak-proof, water-soluble bag and arrange prompt laundering
- Used linen must be laundered at 71^0C for 3 minutes or 65^0C for 10 minutes. For staff health reasons and quality control issues (as domestic washing machines are not generally designed to comply with this standard), it is not acceptable for general practice linen to be laundered by any member of staff using their own personal facilities i.e. at home.

In the Patient's Own Home

Staff caring for clients in their own homes may be involved in the laundering of client's clothes or linen. The following principles should be noted:

The germs in most soiled and fouled linen are unlikely to cause infection in healthy workers provided that care is taken. But to further minimise the risk:

- Wear a waterproof apron and gloves when dealing with used laundry
- Ensure that adequate handwashing facilities are available
- Remove any protective clothing and wash hands before returning to other duties
- Do not smoke or eat while dealing with laundry
- Cover cuts and abrasions with waterproof dressing.

In the client's own home, a domestic washing machine may be used. Soiled and foul linen should be pre-washed in the washing machine, and then washed at the highest temperature that the material will withstand. Healthcare workers are not advised to manually wash a patient's linen.

Sending Laundry to a Commercial Laundry

If clients' laundry is sent to a commercial laundry, by collection or delivery, it should be checked whether they have any <u>special instructions</u>, e.g. a colour-coding system.

Usually laundry bags are colour-coded in the following way:

Used linen - a white bag

Foul linen and/or

Infected linen – placed in a red water-soluble bag.

NB: If the foul or infected linen is excessively wet it may be necessary to place the soluble bag within a clear polythene/plastic bag within a blue or red bag.

Staff Uniforms or Work Clothes

Staff who are at risk of contaminating their clothes by body fluids should always change into ‘home’ clothes as soon as possible - preferably before leaving the work place or as soon as home is reached.

Under no circumstances should staff go out socialising in clothes that may have been in contact with body fluids.

Uniforms or work clothes should be washed as soon as possible on as hot a wash as the fabric will tolerate. Cardigans/jumpers should be washed at least weekly.

The majority of bacteria and viruses will not survive away from the host and would not present a high-risk of infection on clothing. However, within a mass of body fluid, organisms would survive longer.

Shoes should be cleaned immediately if contaminated with body fluids, using GPD and hot water - disposable gloves should be worn.

7. Management of Non-Infectious and Infectious Deceased Clients

This guideline sets out the procedures for staff to follow for the management of non-infectious and infectious deceased clients.

Management of Deceased Clients

The deceased should be treated with the due respect and dignity appropriate to their religious and cultural background. Last Offices which vary according to religious and cultural practices may be compromised by the need for specific measures if an infectious disease was associated with the death, or co-existed at the time of death. Any problems should be discussed with the Consultant in Communicable Disease Control who may wish to consult the appropriate priest or religious authority.

Most bodies are not infectious, however through the natural process of decomposition the body may become a source of potential infection whether previously infected or not, therefore sensible precautions should be taken routinely:

(a) Disposable gloves and aprons should be worn when washing and preparing the body

(b) Washing the body with soap and water is adequate

(c) Dressings, drainage tubes, etc. should be removed unless the death occurred within 24 hours of an operation or was unexpected in which cases a post-mortem is likely.

(d) Clean dressings should be applied to any wounds

(e) Profusely leaking orifices may be packed with gauze or cotton wool.

Additional Last Offices for a Known Infected Body

The body of a person who has been suffering from an infectious disease may remain infectious to those who handle it.

Body bags are available from either the undertaker or the stores centre from where all other care equipment is requested.

The mortuary/funeral director staff should be informed of the potential infectious risk.

If the deceased has died from one of the following infectious diseases listed below, the body will need to be placed in a cadaver bag:

- Anthrax
- Brucellosis
- Cholera
- Diphtheria
- Food Poisoning (if faecal matter is leaking)
- Hepatitis B
- Hepatitis C
- HIV/AIDS
- Leprosy
- Meningococcal Septicaemia (with or without meningitis)
- Plague
- Acute poliomyelitis
- Psittacosis
- Pyrexia of unknown origin
- Q fever
- Rabies
- Smallpox
- Tuberculosis (infective)
- Viral Haemorrhagic fever
- Yellow fever.

or if there are large quantities of body fluids present.

A 'Notification of Death' label and a 'Danger of Infection' label should be attached discreetly to the outside of the bag. Neither label should state the diagnosis which is confidential information. It is the responsibility of the certifying clinician to ensure the funeral directors have sufficient information about the level of risk of infection and stating the type of precautions required.

Once the body is sealed in the body bag, protective clothing will no longer be necessary.

Relatives and friends who wish to view the body should do so as soon after death as possible. The bag can be opened by a member of staff wearing gloves and plastic apron, but relatives should be told that there is a risk of infection and should be advised to refrain from kissing or hugging the body. In some rare instances the bag could not be opened e.g. if the patient suffered from Anthrax, Plague, Rabies, Smallpox or Viral Haemorrhagic Fever.

Further advice on specific infectious diseases can be found in the Infection Control Guidelines for Funeral Directors, or advice can be sought from the EHPU.

8. Guidelines for Community Sector Performing Minor Surgery

This specification describes the working practices, standards and procedures that Essex Health Protection Unit recommends Practitioners who have registered with the Healthcare Commission or Primary Care Trust to follow when performing minor surgery. For the purposes of this document minor surgical procedures are considered under three different groups so as to reflect the need for a higher standard of infection control as the procedures become more invasive.

Group One: Injections
Aspirations
Curette, cautery and cryocautery

These minor surgical procedures require a standard of good basic infection control procedures, and can be found in Appendix One.

Group Two: Incisions *
Excisions *
Endoscopy

Group Three: Lumps and bumps
HSG (96) 31 Vasectomy
Other services or procedures under HSG(96)31

*at the discretion of the practitioner, some incisions and excisions (e.g. warts and removal of toe nails) may fall into Group One, as they could be seen as very minor

Please note that there may be additional requirements for specialised procedures.

Introduction

Infection control is an important part of an effective risk management programme to improve the quality of patients' care and the occupational health of staff.

Patients undergoing invasive procedures such as minor surgery will have an increased susceptibility to infection. There is evidence that adherence to good infection control principles can significantly reduce the risk of infection post procedure.

The Primary Care Trust, as a purchaser of healthcare services for its population, and the Healthcare Commission have concerns for the general standards of quality of these services.

Aims and Objectives

- To ensure an adequate infection control programme is in place for the protection of patients undergoing minor surgical procedures within healthcare premises.

- To ensure practitioners involved in minor surgery are protected against infectious hazards by maximising occupational and procedural safety.

Action Required by Healthcare Practitioners Performing Minor Surgical Procedures that fall under <u>Groups Two and Three</u>

Each Practitioner should comply with the following:

1. Environment - Designated* room where minor surgery is performed

1.1 Ceiling and walls should have an intact, washable surface and be visibly clean. A suitable covering should be used i.e. washable emulsion paint.

1.2 Flooring should be intact, impervious, washable, and visibly clean.

1.3 Windows should be in a good condition and state of repair, and be visibly clean. Frosted glass should be used if the inside of the room is visible from the exterior unless blinds are always used. All window coverings should be blinds that are washable.

1.4 Cupboards must be structurally sound and in a good state of repair, washable and visibly clean. There should be sufficient storage space, to aid cleaning and prevent accumulation of dust. Open shelving is not recommended.

1.5 Work surfaces should be intact, seamless and easily washable. They should be kept clear of unnecessary items.

1.6 The lighting in the room should allow good visibility to perform the procedure. The light fitting should be easy to clean. All fluorescent tubes should be covered with a diffuser.

1.7 The couch material should be impervious to body fluids. Disposable paper towelling should be used for each individual patient, not linen.

1.8 Instruments are recommended to be processed by SSD or disposable. If not, a dirty utility area should be available for the decontamination of equipment and it should be within easy access to the procedure room. In the absence of such facilities, there should be a designated area, with a designated sink for the pre-cleaning of contaminated equipment, within the room itself. The workload should be managed in such a way to allow for decontamination of equipment to take place after each case, once the patient has left the room.

1.9 There should be a designated hand washbasin with elbow operated taps, which is not used for the decontamination of equipment. Access should be clear and sinks should be visibly clean.

* Designated room - these procedures should be performed in a controlled environment i.e. the fabric of the room should be intact and clean.

2. Equipment

2.1 Wall-mounted liquid soap dispensers should be available at all sinks in clinical/treatment areas. Bar soap should not be present in these areas.

2.2 The practitioner should ensure his/her hands are effectively cleaned to prevent cross-infection. Anti-bacterial soap (e.g. hibiscrub, betadine) should be available for minor surgical procedures.

2.3 Wall-mounted dispensers for paper towels for drying hands should be available at all sinks.

2.4 Single-use sterile surgeons gloves should be available and worn by the person/s performing minor surgical procedures.

2.5 Single-use unsterile, unpowdered and low protein, latex gloves should only be worn by those not directly involved in the minor surgical procedure, for all contact with body fluids.

2.6 Single-use disposable plastic aprons should be available. These must be worn by all personnel if they are likely to come into contact with body fluids.

2.7 Plastic goggles and masks/visors should be available for use if it is anticipated that there may be splashing of body fluids.

2.8 Single-use items must **never** be re-used.

2.9 Sterile products should be stored above floor level.

2.10 Where sterile equipment is obtained from Sterile Services Department (SSD):

a. the equipment should be rotated to ensure products are used within expiry times
b. clean equipment should be stored in cupboards
c. used equipment should be stored separately in a designated safe area prior to collection
d. equipment must be collected within a 7 day period.

2.11 Where practices sterilise their own equipment, a steam autoclave meeting BS and EC regulations should be used, and operated according to standards laid out in Health Technical Memorandum 2010 part 1 (HTM 2010).

2.12 A stainless steel, free-standing dressing trolley, designated for use in minor surgical procedures, should be structurally sound and in a good state of repair.

2.13 Sharps containers used should conform to BS 7320 and EC regulations. They should be correctly assembled and stored off the floor.

2.14 Orange clinical waste bags should be supported in a lidded, foot operated, rigid bin.

2.15 A spillage kit for body fluids should be available.

3. Procedures

3.1 The workload should be managed to assure adequate time for infection control procedures to be effectively carried out between patients. This may require varying intervals of time between cases to allow decontamination and re-sterilisation of equipment.

3.2 Protective clothing should be used whenever handling body fluids and changed between each patient.

3.3 Hands should be washed between each patient activity with liquid soap using the social handwashing method, and with anti-bacterial soap (e.g. Hibiscrub) before minor surgical procedures.

3.4 Only sterile, single-use nail-brushes should be used.

3.5 Staff must only operate autoclaves when they have been fully trained in their use.

3.6 Equipment for minor surgical procedures should be autoclaved and used directly from the autoclave within 3 hours. **It is essential that instruments are sterilised unwrapped (unless a specific porous load autoclave is used).**

3.7 Staff should be fully aware of the requirements of HTM 2010 with regard to checks and monitoring of the autoclave.

3.8 All staff must follow the protocol for removing spillages of body fluids.

3.9 Specimens should be collected using universal precautions. The specimen container should be clearly labelled and secured in a clear plastic bag.

3.10 Specimens should be stored in a designated safe area (refrigerators used for foods and vaccines must not be used). They should be transferred to the laboratory under controlled conditions.

3.11 All hazardous infected healthcare/household waste should be identified and segregated at source into colour-coded bags.

3.12 Waste bags should be no more than 3/4 full. The bag must be sealed and labelled to identify source once in transit. All waste should be collected on a regular basis, at least once weekly.

3.13 There should be a designated area to store all waste prior to collection. It should be kept secure from unauthorised persons, entry by animals and free from infestations.

3.14 Sharps containers should be positioned near to the operator and disposed of when ¾ full.

3.15 All staff must observe the sharps injury protocol.

3.16 If the couch becomes contaminated with body fluids it should be cleaned with detergent and hot water and the disposable sheet should be changed between each patient. If contaminated with blood, a sodium hypochlorite solution should be used.

3.17 Dressing trolleys must be washed down with detergent and hot water before each session commences, or if the trolley becomes contaminated with body fluids. The trolley should be wiped down with 70% alcohol between each patient.

3.18 There should be a programme for environmental cleaning that includes the walls, ceiling, lighting, flooring, cupboards and work surfaces.

3.19 The infection control policy should be readily accessible to all staff.

4. Occupational Health

4.1 All staff involved in minor surgical procedures should be vaccinated against Hepatitis B and have documented proof of immunity.

4.2 Staff carrying out Exposure Prone Procedures must follow current guidelines regarding testing for Hepatitis C and HIV. This should be monitored and supervised by the Occupational Health provider.

4.3 All staff should adhere to “Health and Safety at Work” - Guidance for GPs. General Medical Services Committee, BMA. April 1995.

Note: Guidance within HTM2010, 2030 and 2040 is under review. The Department of Health will be replacing the documents with Health Technical memorandum 01 Part A (Decontamination of reusable medical devices) and HTM 01 Part B, due to be published in Autumn 2007.

Appendix One

Action required by general practitioners performing minor surgical procedures that fall under Group One

1. Equipment

1.1 Liquid soap should be available at all sinks in clinical/treatment areas. Bar soap should not be present in these areas.

1.2 Paper towels for drying hands should be available at all sinks.

1.3 Single-use unsterile, unpowdered and low protein latex gloves should be worn.

1.4 Single-use disposable plastic aprons should be available. These must be worn by all personnel involved in the minor surgical procedure.

1.5 Single-use items must **never** be re-used.

1.6 Sterile products should be stored above floor level.

1.7 Where sterile equipment is obtained from Sterile Services Department (SSD):

- stock rotation must be implemented to ensure products are used within expiry times
- clean equipment should be stored in cupboards
- used equipment should be stored separately in a designated safe area prior to collection
- contaminated equipment must be collected within a 7 day period.

1.8 Where practices sterilise their own sterile equipment, a steam autoclave meeting BS3970 should be used and operated according to standards laid out in HTM 2010.

1.9 A stainless steel, free-standing dressing trolley, designated for use in minor surgical procedures, should be structurally sound and in a good state of repair.

1.10 Sharps containers used should conform to BS 7320. They should be correctly assembled and stored off the floor.

1.11 Orange clinical waste bags should be supported in a foot operated, rigid bin.

1.12 A spillage kit for body fluids should be available.

2. Procedures

2.1 Protective clothing should be used whenever handling body fluids and changed between each patient.

2.2 Hands should be washed between each patient activity with liquid soap using the social handwashing method.

2.3 For re-usable equipment such as curettes, these should be decontaminated after use as per specification 3.5 - 3.8.

2.4 All staff must follow the protocol for removing spillages of body fluids.

2.5 Specimens should be collected using universal precautions. The specimen container should be clearly labelled and secured in a clear plastic bag. Where a specimen carries a likely “Infectious Risk” this should be indicated on the container and request form.

2.6 Specimens should be stored in a designated safe area (refrigerators used for food or vaccines must not be used). They should be transferred to the laboratory under controlled conditions.

2.7 Waste should be handled as per specification 3.12 - 3.15.

2.8 All staff must observe the sharps injury protocol.

2.9 Dressing trolleys must be washed down with detergent and hot water before each session commences, or if the trolley becomes contaminated with body fluids. The trolley should be wiped down with 70% alcohol between each patient.

2.10 The infection control policy should be readily accessible to all staff.

9. Prevention and Control of Infection in Urinary Catheter Care

Routes of Entry for Infection

Urinary catheters are inserted to provide urinary drainage. They may be introduced via the urethra or into the bladder through a supra-pubic procedure.

Comprehensive information, advice and support is available from the continence advisors.

Bacteria may enter the bladder of the catheterised patient in one of four ways:

- Introduced with the catheter at the time of insertion
- Travel along the outside of the catheter
- Travel along the inside lumen of the catheter
- Through a break in the closed system.

Assessment for Catheter Equipment

Indwelling urinary catheters should be used only after alternative methods of management have been considered.

The patient's clinical need for catheterisation should be documented and reviewed regularly, and the urinary catheter to be removed as soon as possible.

Catheter insertion, changes and care should be documented.

Catheter drainage options

Following assessment, the best approach to catheterisation that takes account of the clinical need, anticipated duration of the catheterisation; patient preference and risk of infection should be selected.

Intermittent catheterisation should be used in preference to an indwelling catheter if it is clinically appropriate and a practical option for the patient.

For urethral and supra-pubic catheters, the choice of catheter material and gauge will depend on an assessment of the patient's individual characteristics, and predisposition to blockage.

In general, the catheter balloon should be inflated with 10ml of sterile water in adults and 3-5ml in children.

In patients for whom it is appropriate, a catheter valve may be used as an alternative to a drainage bag.

There are a variety of types of urinary catheters. When the assessment for the need for catheterisation is made the catheter material and expected usage should be recorded. In the community medium (up to 28 days) or long-term (up to 12 weeks) catheters are recommended.

The retaining balloon should be filled with sterile water to the volume indicated by the manufacturer (usually 10mls for adults).

Catheter Insertion

Catheterisation is an aseptic technique.

Ensure that healthcare workers are trained and competent to carry out catheter insertion.

Intermittent self-catheterisation is a clean procedure. A lubricant for single patient use is required for non-lubricated catheters.

The urethral meatus should be cleaned before insertion of the catheter, with sterile normal saline prior to insertion.

An appropriate lubricant from a single-use container should be used during catheter insertion to minimise urethral trauma and infection.

Documentation

The following details must be documented in the patient records e.g. amount of urine drained, problems encountered, patient discomfort, reason for catheterisation, date of insertion, catheter size, type, length, balloon size, batch number, expiry date.

Catheter Maintenance

Indwelling catheters should be connected to a sterile closed urinary drainage system or catheter valve.

Healthcare personnel must decontaminate their hands and wear a new pair of clean, non-sterile gloves before manipulating a patient's catheter, and must decontaminate their hands after removing their gloves.

Urine samples must be obtained from a sampling port using aseptic technique.

A link system should be used to facilitate overnight drainage, to keep the original system intact. Drainage bag should be **single-use**.

The meatus should be washed daily with soap and water.

Reusable intermittent catheters should be cleaned with water, and stored dry in accordance with the manufacturer's instructions.

Catheters should be changed only when clinically necessary or according to the manufacturer's current recommendations.

Healthcare personnel should ensure that the connection between the catheter and the urinary system is not broken except for good clinical reasons, (for example changing the bag in line with the manufacturer's recommendations).

Carers and patients managing their own catheters must wash their hands before and after manipulation of the catheter, in accordance with the recommendations in the standard principles of infection control.

Urinary drainage bags should be positioned below the level of the bladder, and should not be in contact with the floor.

The urinary drainage bag should be emptied frequently enough to maintain urine flow and prevent reflux, and should be changed when clinically indicated.

Each patient should have an individual care regimen designed to minimise the problems of blockage and encrustation. The tendency for catheter blockage should be documented in each newly catheterised patient.

Bladder instillations or washouts must not be used to prevent catheter-associated infections.

Antibiotic prophylaxis when changing catheters should only be used for patients with a history of catheter-associated urinary tract infection following catheter change, or for patients who have a heart valve lesion, septal defect, patent ductus or prosthetic valve.

10. Safe Handling of Specimens

Clinical specimens include any substance, solid or liquid, removed from the patient for the purpose of analysis.

Staff should be trained to handle specimens safely and receive regularly updated immunisation cover.

General Principles

- All specimens should be collected using **Standard Principles of Infection Control** (i.e. wearing of appropriate gloves, disposable plastic apron and washing and drying of hands before and after the procedure).
- When a patient is asked to provide a specimen, they should be provided with the appropriate container and given instructions as to how to collect the specimen.
- Should a patient bring a specimen in an inappropriate container (i.e. pickle jars, old medicine pots), they should be given the correct container and asked to take their incorrectly presented specimen back home for disposal, as the clinic is unlikely to have any safe means of disposal. It may be possible to provide the specimen at the clinic to save an extra journey.
- Laboratory approved containers must be labelled with patient identification details, date of specimen and specimen details. The lids should be screwed on tightly. The container with the specimen must be placed in an individual transparent plastic transport bag as soon as it has been labelled.
- The transport bag must be sealed. The request form must always accompany the specimen but should not be put inside the bag with the specimen. If a wound swab, state type of wound, where on the body, whether deep or superficial and if antibiotics have been used either topical or systemic.
- Specimens must be sent to the laboratory as soon as possible after collection. This will mean planning work load carefully. Whilst awaiting transport, specimens should be stored securely, for as short a time as possible i.e. not overnight and away from food and medicines.
- If specimens have to be stored awaiting transport for more than 4 hours, specimens should be stored in an air-tight container in a designated fridge - **not a food fridge or a drug fridge.**
- Sputum specimens must be received by the laboratory within 24 hours.
-

NB. In the event of a suspected outbreak of infection it is important for specimens to be collected promptly and for the request form to be marked as 'Possible Outbreak'. Stool specimens should be sent as soon as an outbreak is suspected e.g. the second loose stool.

11. Vaccine Control

Vaccines are biological products that need to be stored under controlled conditions to maintain their potency and efficacy. They should be stored under conditions recommended by the manufacturer in product literature.

Storage

- On arrival, vaccines should be checked to ensure the cold chain has not been broken and for signs of damage or leakage
- A nominated person, who has received specific training in this practice, should make sure vaccines are correctly stored and handled by staff
- Store vaccines in a fridge designed for vaccine storage
- Ensure strict stock rotation with new vaccines being placed behind older stock
- Discard expired vaccines safely
- Prevent overstocking and allow air to circulate around all stock
- Do not store in fridge door or in separate drawers in the bottom of the fridge as air cannot circulate
- Ensure systems are in place to prevent accidental disconnection of the electricity
- Do not store items other than vaccines in the same fridge
- Defrost and clean regularly, storing vaccines in an alternative fridge during the procedure.

Temperature Control

- Vaccines must be kept between 2^0C and 8^0C during transportation and delivery, and must not directly touch ice packs
- Store vaccines between 2^0C and 8^0C and not below freezing. Monitor fridge temperature using a minimum/ maximum thermometer, and record results daily.

Administration

- Use reconstituted vaccine according to the manufacturer's recommendations, usually within one to four hours

- Remove vaccines from the fridge for the minimum length of time before administration - discard any opened in error

- Vaccines which are liquid suspension, or are reconstituted before use should be adequately mixed to ensure uniformity of the material to be injected

- Do not prepare vaccine in advance of immunisation, as this increases the risk of administering the wrong vaccine and may affect the temperature. Prepare each vaccine for the individual who is to receive it

- Cleanse skin only when it is visibly dirty. If alcohol or other antiseptics are used, they must be completely dry otherwise the live vaccines may be inactivated

- Multi-dose vials may be used for **one** session only - discard any remaining at the end of the session

- Dispose by heat inactivation or incineration.

12. Waste Management

The management of Healthcare Waste has changed in line with the new Hazardous Waste Regulations.

The new document is entitled: **The Department of Health Environment and Sustainability – Health Technical Memorandum 07-01: Safe Management of Healthcare Waste** guidance has been produced to provide a framework for best practice in waste disposal. The guidance is designed to help healthcare organisations and other producers of waste to meet their legislative requirements.

HTM 07-01 is available from the Stationary Office or it may be electronically downloaded from DH website www.dh.gov.uk/publications or http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_063274

The following advice has been developed from the above publication. However it is strongly recommended that the organisation/healthcare business also consult the HTM 07-01 and discuss waste disposal with the management/advisors of the waste collection contractor.

All healthcare organisations should have a waste policy that provides clearly written instructions on the way waste should be managed. The roles and responsibility of the waste management chain from “cradle to grave” still applies. Producers of waste are advised to carry out regular audit of their waste management systems to ensure that they complying with best practice.

The new regulations encompass all waste produced in healthcare. Examples are illustrated in the following table

Examples of waste produced in the healthcare sector	
Hazardous waste	**Non-hazardous waste**
Infectious waste	Domestic waste (black-bag or municipal waste)
Fluorescent tubes	Food waste
Laboratory chemicals	Offensive/hygiene waste
Cleaning chemicals	Packaging wastes
Photo chemicals	Recyclates (paper, glass, aluminium etc)
Oils	Furniture
Batteries	Construction and demolition waste
Waste electronics	Grounds waste
Asbestos	
Paints	
Solvents	
Contaminated land	

Note: Adapted from Welsh Health Estates’ ‘Healthcare waste strategy for Wales’ guidance document

All healthcare organisations have a legal responsibility to dispose of waste safely, ensuring no harm is caused either to staff, members of the public or the environment. The healthcare organisations' responsibility begins when waste is generated and ends with its final disposal, even where properly authorised agents are used.

It is essential that persons handling waste exercise care to prevent injury or transmission of infection to themselves or others. This is to fulfil their responsibilities under the current legislation (for list see end of this Section).

1. DEFINITION OF CLINICAL WASTE

The definition of clinical waste remains the same.

Clinical waste is:

a) any waste which consists wholly or partly of human or animal tissue, blood or other body fluids, excretions, drugs or other pharmaceutical products, soiled swabs or dressings, or syringes, needles or other sharp instruments, being waste which, unless rendered safe, may prove to be hazardous to any person coming into contact with it; and

b) any other waste arising from medical, nursing, dental, veterinary, pharmaceutical or similar practice, investigation, treatment care, teaching or research, or the collection of blood for transfusion, being waste which may cause infection to any other person coming into contact with it.

(Controlled Waste Regulations 1992)

The regulations subdivide healthcare clinical waste into:

1. Waste that poses a risk of infection
2. Medicinal waste.

Infectious Waste

The Hazardous Waste Regulations define as:

H9 Infection: Substances containing viable micro-organisms or their toxins which are known or reliably believed to cause disease in man or other living organisms. (Traditionally known as "**clinical waste**".)

Medicinal Waste

Classified into two categories:

(a) Cytotoxic and cytostatic medicines (Classified as Hazardous Waste)

(b) Medicines other.

Failure to segregate cytotoxic and/or cytostatic medicines from other medicines will mean that the entire medicinal waste stream will need to be classified as hazardous. Cytotoxic and cytostatic classifications can be found in the NIOSH Alert or the BNF.

Offensive/Hygiene Waste

Non-infectious (human waste and sanpro (sanitary protection) waste such as nappies, incontinence pads etc), which does not require specialist treatment or disposal, but which may cause offence to those coming into contact with it.

2. SEGREGATION OF WASTE

The new regulations focus on the correct segregation at the point of generation, correct identification of the waste and the safe disposal via the appropriate route.

The European Waste Code (EWC) coding for correct labelling is illustrated in the following table

Table 1 EWC coding for the types of healthcare waste

EWC code	Description of waste
18 01 XX	**Waste from natal care, diagnosis, treatment or prevention of disease in humans**
18 01 01	Sharps except 18 01 03*
18 01 02	Body parts and organs including blood bags and blood preserves (except 18 01 03*)
18 01 03*	**Waste whose collection and disposal is subject to special requirements in order to prevent infection**
18 01 04	Waste whose collection and disposal is not subject to special requirements in order to prevent infection, eg dressings, plaster casts, linen, disposable clothing
18 01 06*	**Chemicals consisting of dangerous substances**
18 01 07	Chemicals other than those listed in 18 01 06*
18 01 08*	**Cytotoxic and cytostatic medicines**
18 01 09	Medicines other than those mentioned in 18 01 08*
18 01 10*	**Amalgam waste from dental care**

EWC code	Description of waste
18 02 XX	**Waste from research, diagnosis, treatment or prevention of disease involving animals**
18 02 01	Sharps except 18 02 02*
18 02 02*	**Waste whose collection and disposal is subject to special requirements in order to prevent infection**
18 02 03	Waste whose collection and disposal is not subject to special requirements in order to prevent infection
18 02 05*	**Chemicals consisting of dangerous substances**
18 02 06	Chemicals other than those listed in 18 02 05*
18 02 07*	**Cytotoxic and cytostatic medicines**
18 02 08	Medicines other than those mentioned in 18 02 07*

*Hazardous waste list entries

Hazardous wastes can be absolute entries (in which case they are always hazardous – highlighted red in the Table) or mirror entries (which can be either hazardous or non-hazardous depending on their properties – highlighted blue in the Table).

A national colour-coding system has been developed. Most infectious clinical waste generated in community settings will be disposed of in the orange package stream. Non-infectious waste and incontinence waste is considered to be offensive. It can be disposed of in yellow bags with black strips. Refer to figures 4 and 5 on the following pages).

The assessment for whether waste is hazardous because of infection will be made at the point of generation i.e. The site of healthcare provision.

An assessment is required to ascertain the correct type of packaging i.e. if there is a risk of an item piercing a waste bag a rigid container should be used.

Colour-coding key to segregation system

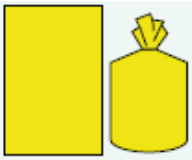
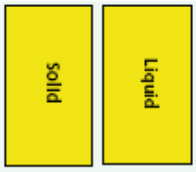
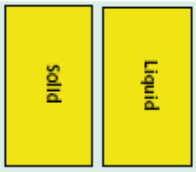
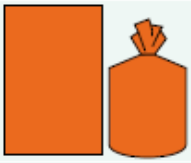
Figure 4 Colour coding key to segregation system

Colour	Description
	**Waste which requires disposal by incineration** Indicative treatment/disposal required is incineration in a suitably permitted or licensed facility.
	**Waste which may be "treated"** Indicative treatment/disposal required is to be "rendered safe" in a suitably permitted or licensed facility, **usually alternative treatment plants (ATPs)). However this waste may also be disposed of by incineration**.
	**Cytotoxic and cytostatic waste** Indicative treatment/disposal required is **incineration** in a suitably permitted or licensed facility.
	**Offensive/hygiene waste*** Indicative treatment/disposal required is **landfill** in a suitably permitted or licensed site. This waste should not be compacted in unlicensed/permitted facilities.
	**Domestic (municipal) waste** Minimum treatment/disposal required is **landfill** in a suitably permitted or licensed site. Recyclable components should be removed through segregation. Clear/opaque receptacles may also be used for domestic waste.
white	**Amalgam waste** For **recovery**

* The use of yellow/black for offensive/hygiene waste was chosen as these colours have historically been universally used for the sanitary/offensive/hygiene waste stream

Waste Packaging and Colour-coding

Figure 5 Waste packaging and colour-coding (continued)

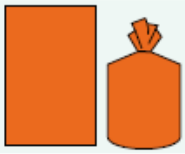
Waste receptacle	Waste types	Example contents	Indicative treatment/ disposal
	Sharps contaminated with cytotoxic and cytostatic medicinal products[1]	Sharps used to administer cytotoxic products	Incineration
	Infectious and other waste requiring incineration including anatomical waste, diagnostic specimens, reagent or test vials, and kits containing chemicals	Anatomical waste from theatres	Incineration
 Receptacle must be UN-approved for liquids	Partially discharged sharps not contaminated with cyto products[1]	Syringe body with residue medicinal product	Incineration
	Medicines in original packaging	Waste in original packaging with original closures	Incineration
	Medicines NOT in original packaging	Waste tablets not in foil pack or bottle	Hazardous waste incineration
	Infectious waste, potentially infectious waste and autoclaved laboratory waste	Soiled dressings	Licensed/permitted treatment facility
	(i) Sharps not contaminated with medicinal products[2] Or (ii) Fully discharged sharps contaminated with medicinal products other than cytotoxic and cytostatic medicines	Sharps from phlebotomy	Suitably authorised incineration or alternative treatment facility[1]
	Offensive/hygiene waste	Human hygiene waste and non-infectious disposable equipment, bedding and plaster casts	Deep landfill

Assessment of Hazard

Generally in primary healthcare the waste generated is less of an infectious hazard.

Infectious waste is waste that has been generated from a person with signs and symptoms of infection and will be considered infectious or potentially infectious and should be disposed of in orange waste streams. Non-infectious but offensive waste should be disposed off in yellow bag with black stripe. There will be occasions when offensive/hygiene waste is potentially infectious e.g. patients/residents with gastroenteritis, in which case the correct waste-stream is orange.

Healthcare workers working in the community and in the household environment need to assess the waste they are producing for the hazardous properties it may contain, most notably 'infectious'.

Waste receptacle	Waste types	EWC code(s)	Hazradous properties	Primary transport class	UN number(s)	Minimum treatment/ disposal required
	Infectious waste, potentially infectious waste and autoclaved laboratory waste	18 01 03*	H9	Class 6.2	UN 3291	Licensed/permitted treatment facility
	(i) Sharps not contaminated with medicinal products[2] Or (ii) Fully discharged sharps contaminated with medicinal products other than cytotoxic and cytostatic medicines	18 01 01 18 01 03	H9	Class 6.2	UN 3291	Suitably authorised incineration or alternative treatment facility
	Offensive/hygiene waste	18 01 04 or 20 01 99[1]	N/A	N/A	N/A	Deep landfill
 Black bag or clear bag is acceptable	Domestic waste	20 03 01	N/A	N/A	N/A	Landfill
	Amalgam waste	18 01 10	H6	Class 6.1	UN 2025s	Recovery

Notes:
* Seek guidance from DGSA
1. Human hygiene waste from non-healthcare sources

3. HANDLING OF WASTE

- Waste should be segregated at the point of origin
- Personal protective clothing should be worn when handling waste
- Waste should be:
  - correctly bagged in the appropriate coloured bag of 225 gauge to prevent spillage
  - double bagged where:
    - the exterior of the bag is contaminated
    - the original bag is split, damaged or leaking

- kept in a rigid-sided holder or container with a foot operated lid, and, so far as is reasonably practicable, out of the reach of children
- only filled to ¾ full
- securely sealed and labelled with coded tags at the point of use to identify their source.

- Waste should not :
  - Be decanted into other bags, regardless of volume
  - Be contaminated on the outside
  - Sharps must be disposed of into appropriate colour-coded sharps containers that meet BS7320/UN3291
  - Sharps container should **NEVER** be placed into a waste bag.

All staff handling waste should receive appropriate training to carry out the procedure safely.

4. DISPOSAL OF WASTE

The bag should be removed and securely fastened at least once a day or when ¾ full, labelled with its place of origin (e.g. surgery details) and placed in the designated waste collection point.

Disposal of Sharps

A risk assessment is required to identify the correct waste stream required.

Syringes, needles, razors, ampoules and other sharps should always be placed in the correct sharps container (See Waste-packaging and colour-coding). These items should never be placed in a waste bag of any kind.

Care should be taken to ensure that sharps containers are correctly assembled according to the manufacturer's instructions.

Use the appropriately sized sharps container to prevent used sharps being stored for long periods of time.

It is the responsibility of the person who uses a sharp to dispose of it safely.

Always place sharps in the sharps container as soon as possible.

Sharps containers must be sealed, labelled with the point of origin and placed in the designated clinical waste collection point when ¾ full.

Sharps containers should conform to BS 7230/UN 3291.

Sharps containers should be kept in a safe location (on a flat surface, below eye level but not on the floor). This will reduce the risk of injury to patients, visitors and staff.

For community staff carrying sharps boxes in their cars:

- Sharps should only be carried by staff if there is no alternative for safe disposal
- Sharps should be placed in the sharps container at the point of use
- The container should be carried in a secure area of the car, to prevent tipping over whilst driving
- The container carried should be out of sight

Diabetic Sharps

All diabetic sharps should go into a sharps container (this includes lancets).

General Practitioners/healthcare prescribers will prescribe sharps boxes on FP10. General Practitioners should ensure that the patient is aware of the correct method for disposal of the filled sharps bin. Disposal points may include: returning it to the General Practice, returning it to a local clinic, or returning it to a local pharmacy.

Disposal of Aerosol Cans/Glass/Bottles/Broken Crockery/Dry Cell Batteries

These must never be placed in any waste bag, especially a waste bag which is destined to be incinerated.

These items should always be placed in a designated cardboard box, lined with a plastic bag to render it leak-proof. The box should be labelled to indicate its contents and method of disposal.

Disposal of Pharmaceutical Waste - Medicinal Waste

Pharmaceutical waste includes all part-used and out of date medicines, cream and ointment tubes and aerosols. Other associated waste e.g. empty blister packs and alcohol wipe containers can be disposed of in the domestic waste stream (black bag).

All pharmaceutical waste should be placed directly into the pharmaceutical waste container, or returned to the local chemist for them to place into their pharmaceutical waste container.

Ensure that the container is clearly labelled, and that all associated documentation is signed off at the time of collection.

5. STORAGE OF HAZARDOUS/NON-HAZARDOUS HEALTHCARE WASTE

Infectious waste should be removed from the point of generation as frequently as circumstances demand, and at least weekly.

Between collections, waste should be:

- Stored in correctly coded bags, with bags of each colour-code kept separate
- Situated in a centrally designated area of adequate size related to the frequency of collection

- Sited on a well-drained, impervious, hard-standing floor, which is provided with wash-down facilities
- Kept secure from unauthorised persons, entry by animals and free from infestations
- Accessible to collection vehicles.

6. MANAGEMENT OF CLINICAL WASTE IN HEALTH AND SOCIAL CARE ESTABLISHMENTS

The above guidance should be followed in full.

Each health and social care employer is responsible for ensuring that contracts are in place to collect clinical waste from their premises. They are also responsible for monitoring the performance of their staff and waste contractors.

Community healthcare workers generating waste in health and social care establishments are responsible for ensuring the waste that they generate is managed correctly, this is part of their duty of care.

7. MANAGEMENT OF HEALTHCARE WASTE FROM A PRIVATE HOUSEHOLD

(this does **NOT** include private residential care establishments)

Although a householder has no legal duty of care to dispose of Healthcare waste in the way described above, any health or social care worker who provides care in a private household does, e.g. NHS Trust, Social services, care agency staff. This duty of care includes the safe storage of waste in the household whilst awaiting collection by the approved collection contractor.

The waste should be stored in a suitable place to which children, pets, pests etc. do not have access.

This 'cradle to grave' responsibility will include the correct storage of waste whilst awaiting collection by an authorised collector.

Risk Assessment for Care in Private Households

A risk assessment should be undertaken to determine whether the waste generated by the healthcare worker is a hazard because it has a known or potential risk of infection. This should be a professional assessment based on clinical signs and symptoms and prior knowledge of the patient.

Infectious Waste

The table below is based on the Delphi process for identifying wound infection (European Wound Management Association 2005) and can be used to assist in the risk assessment.

Signs and symptoms of infection	Probability of Wound being Infected
Is there presence of erythema/cellulitis?	High
Is there presence of pus/abscess?	High
Is the wound not healing as it should, or has healing been delayed?	Medium
Is the wound inflamed and has it changed appearance?	Medium
Is the wound producing a pungent smell?	High
Is the wound producing an increased purulent exudate?	Medium
Has the wound increased in pain?	High
Has there been an increase in skin temperature?	Medium /Low
Is the patient on antibiotics for an infection present in the wound?	High
Are you thinking of swabbing for infection?	Medium

However the healthcare worker may have further information that would indicate that the waste is potentially infectious. Infectious waste must be disposed of in an orange bag.

Non-infectious waste

Legally, non-infectious healthcare waste generated by a healthcare worker should not be disposed of in the black bag stream but be disposed of via the offensive waste stream (yellow with black strip waste bag). However it is recognised that household waste may contain plasters, dressings and incontinence waste. Where similar waste is generated by a healthcare worker, with the householder's permission, such waste when securely wrapped may be disposed of in the domestic refuse, provided the volume is low.

The following should be considered for disposal via the domestic route:

- Small dressings, dressing pad not larger than 130mm x 220mm
- Specialised antimicrobial types of dressings (however some medicinal dressings will require disposal via the medical waste route seek advice from pharmacy)
- The quantity should not exceed the amount that would be consistent with that likely to be found in a household waste stream.

The above waste should be wrapped in plastic sacks but those sacks must not be orange or yellow. It is suggested that plastic bags such as sandwich bags are appropriate.

Sharps Disposal

Sharps such as syringes, needles, lancets etc should be disposed of via the correct colour lidded sharps box.

HTM 07-01 advises that in order to reduce the quantity of waste streams in the community, sharps or medicinal residues that are contaminated with cytogenic medicines to be discarded in purple lidded boxes. Fully discharged or partially

discharged sharps with medicinal residues to be discarded in yellow lidded boxes. However a PCT should do its own risk assessment and may adopt the orange lidded sharps box for non-medicinally contaminated sharps. Leak-proof boxes should be considered where there is a likelihood of liquids escaping from boxes.

Waste Carriage regulations state that all healthcare hazardous waste must be contained in UN approved rigid packaging when transported on the road.
Additional Waste guidance:

Stoma and urinary catheter bags

1. The healthcare worker or the householder should carefully empty the contents down the toilet (taking care not to create a splash-back) and flush away. The empty bag should then be double wrapped in plastic bags before being placed in the household waste.
2. If large amounts of offensive/hygiene waste is generated, the yellow bag with black strip route of disposal must be used
3. If the person develops gastroenteritis or wound infection, waste must be disposed of via the infectious orange bag stream.

Wound vacuum drains

Treat as infectious waste and dispose via the orange bag stream.

Maggots

Dispose in a secure airtight rigid yellow container (UN3291). Do not use a yellow sharps box.

Incontinence sheets/pads

- If the contaminate is solid and can be easily and safely emptied down the toilet and flushed away, it should be
- The sheet should be double wrapped in plastic bags before being placed in the household waste. If incontinence pads are produced in bulk an offensive waste collection should be arranged.

Dialysis equipment

- When a programme of home dialysis is commenced it should include a collection service of used items. Usually as new equipment is delivered, used items are collected.

8. CURRENT LEGISLATION

- Health & Safety at Work etc Act 1974
- Control of Pollution Act 1974
- Collection and Disposal of Waste Regulations 1988
- Control of Pollution (Amendment) Act 1989
- Environmental Protection Act 1990
- Environmental Protection (Duty of Care) Regulations 1991
- Controlled Waste Regulations 1992
- The Special Waste Regulations 1996
- HTM Environment and Sustainability 07-01 Safe Management of Healthcare Waste Department of Health 2006
- Health Care Waste Management and Minimisation 2000.

ESSEX HEALTH PROTECTION UNIT
COMMUNITY INFECTION CONTROL GUIDELINES

SECTION J – VACCINATIONS

Where can I get Advice on Childhood Immunisations?

The Department of Health's reference manual on childhood immunisation is currently, "Immunisation Against Infectious Disease 2006" available from the HMSO Publications Centre 0207-873-9090.

The full text is also available on the web www.dh.gov.uk/en/Policyandguidance/Healthandsocialcaretopics/Greenbook/DH_4097254 , or search for 'The Green Book' where you can download the full document in pdf format.

If you have a specific issue or query not covered by the Green Book you can contact your District Immunisation Co-ordinator:

Brentwood

(covering the Brentwood area)
The Willows, St George's Hospital
117 Suttons Lane
Hornchurch, RM12 6RS

Dr F Fernandez

01708 465495

Mid Essex

Child Health Department
Unit 12, Atlantic Square
Station Road, Witham, CM8 2TL

vacant

01376 302612
Fax: 01376 302618

North East Essex

659-662 The Crescent
Severalls Business Park
Colchester
Essex
CO4 9YG

Dr A Dominquez

01206 286625
Fax: 01206 286600

Southend Child Health Dept

Harcourt House Harcourt Avenue Southend on Sea Essex SS2 6HE	Dr M Rahman	01702 224902

Thurrock

Child Development Centre Gifford House Thurrock Hospital Long Lane, Grays, RM15 2PX	Dr S Myint	01375 390044 Ext: 5544

West Essex

Child Development Centre Hamstel House, Hamstel Road Harlow, CM20 1QZ	Dr V Amadi	01279 827178 Fax: 01279 444298

You can also contact the Essex Health Protection Unit on 0845 1550069.

1. Where can I Refer Patients for Advice?

Useful websites for patients where they can obtain additional information on the vaccines are:

www.immunisation.nhs.uk and www.mmrthefacts.nhs.uk.

Each District Immunisation Co-ordinator runs a regular vaccine advice/contraindications clinic. If you are unfamiliar with the arrangements for booking appointments you can contact the relevant office number.

2. Where can I Obtain Advice on Travel Vaccinations?

The Department of Health has a reference manual "***Health Information for Overseas Travel***" 2001 edition HMSO which can be ordered on 0870-600-5522 or via www.thestationeryoffice.com.

'On-line' advice is available for health professionals via www.nathnac.org and www.travax.nhs.uk , and for the public on www.fitfortravel.scot.nhs.uk.

There are advice paylines available to the public:

Hospital for Tropical Diseases 09061-337733

and

MASTA Travellers Health Line 0906-8224100.

Further information

Copies of the current vaccination schedule and the algorithm "Vaccination of Individuals with Uncertain or Incomplete Immunisation Status" is available on www.hpa.org.uk. Select "Immunisation" in the A- Z of topics.

IMMUNISATION PROCEDURE FOR INDIVIDUALS FROM ABROAD WHERE IMMUNISATION HISTORY IS NOT CERTAIN AT PRESENTATION

1. Firstly check whether there is any single practical way of corroborating their prior vaccination history e.g:

- Can they check with a relative?
- Can they confirm with their previous doctor in their country of origin?
- Can you compare their history with the normal vaccination schedule for their country?

National vaccine schedules are available on the WHO website www.who.int/vaccines-documents/. Select the relevant document entitled "WHO vaccine preventable diseases: monitoring system". However bear in mind the national programme may have broken down in countries with political problems or civil unrest.

If it is a child who will be returning abroad within one year, it is best to keep to the schedule of that country (if possible) including vaccines such as Hib or Men C that may not be provided abroad.

2. If the vaccination history remains unknown you should start a complete vaccination programme according to age.

An algorithm for 'Vaccination of Individuals with Uncertain or Incomplete Immunisation Status' is available on the website www.hpa.org.uk, under the section Vaccination/ Vaccination guidelines.

Other Things to Consider

BCG Vaccine

Should be considered to children born to immigrants from countries with a high prevalence of tuberculosis if not already given. This also applies to children who will be returning to "high-risk" countries for stays longer than one month/visiting relatives etc.

Hepatitis B Vaccine

Hepatitis B screening and vaccine should be considered for families with a higher prevalence of Hepatitis B. (Refer to section Hepatitis B in the Green Book "Immunisation against Infectious Disease.)

Patients without a Functioning Spleen

After splenectomy patients are at major long-term risk of serious infections.

Splenic macrophages have an important filtering and phagocytic role in removing bacteria and parasitised red blood cells from the circulation. Though the liver can perform this function in the absence of a spleen higher levels of specific antibody and an intact complement system are probably required.

Other categories of patient may be functionally asplenic. These include patients with:

- Sickle cell anaemia
- Thalassaemia
- Thrombocytopaenia
- Some lympho proliferative diseases

3. Patients without a functioning spleen should be identified and should receive:-

- Pneumococcal vaccine (with a booster at 5 yearly intervals).
- Haemophilus influenzae type b vaccine.
- Influenza vaccine (yearly).
- Conjugated meningococcal C vaccine.

Antibiotic Prophylaxis

Adult dose: Penicillin V 500mg bd

This should be given lifelong but at least for 2 years post-splenectomy if patients refuse to take it long-term.

Where a patient is no longer taking antibiotic prophylaxis they should be given a short course of Amoxil to keep at home which they should start taking at the start of any febrile illness.

NB. Patients allergic to penicillin should receive erythromycin 500mg bd.

Travel

- Asplenic patients should be strongly advised of the increased risk of severe falciparum malaria and should be discouraged from travelling to areas where malaria is endemic. Where travel is undertaken patients should be advised

about chemoprophylaxis relevant to local patterns of resistance and measures to reduce exposure to malaria parasites.

- Tick bites - Babesiosis - is a rare tick-borne illness endemic in certain parts of the USA, China, Taiwan, South Africa and Egypt. Some species have caused human infections in Europe. Clinical presentation is with fever, fatigue and haemolytic anaemia. Patients (particularly those in contact with animals) should be warned about the danger of tick bites spreading the disease. Protective clothing may be beneficial.
- Quadrivalent ACYWVAX (SKB) is recommended for all those travelling to some sub-Saharan African countries and for pilgrims to Mecca. Consult the 'Yellow Book' - Health Information for Overseas Travel 1995 (now slightly out-of-date) or the WHO or CDC Altanta travel websites for up to date information (refer to travel health advice section).
- Patients who are not otherwise taking antibiotic prophylaxis should do so during periods of travel and should keep a therapeutic course of antibiotics with them for the duration of the holiday.

Animal Bites

Asplenic patients are especially vulnerable to invasive infection following dog and other animal bites from the organism *Capnocytophaga canimorsus*. They should receive a 5 day course of co-amoxiclav (erythromycin in allergic patients).

General

Patients should be encouraged to carry a Medic-Alert disc and carry a card with information about their lack of spleen.

'***I have no functioning spleen cards'*** are available from the Department of Health, PO Box 410, Wetherby LS23 7LL, fax 01937 845381. They are currently being updated to include new advice regarding Men C vaccine.

ESSEX HEALTH PROTECTION UNIT
COMMUNITY INFECTION CONTROL GUIDELINES

SECTION K – FOOD HYGIENE

1. Introduction

This guideline sets out the procedures for staff to follow for food hygiene in client's own homes.

2. Legislation

All individuals who handle food should follow basic food hygiene practices to ensure contamination and subsequent disease does not occur.

All staff involved in the handling of food should be aware of the legislation relevant to food management. The main legislation is the Food Safety Act 1990 (amended Regulations 2004) and its related regulations (General Food Hygiene Regulations (1995) and The Food Safety (Temperature Control) Regulations (1995).

3. Basic Requirements for Food Safety

It is recognised that when preparing food for clients in their own homes, adequate kitchen equipment, crockery and cutlery, facilities for the handling and distribution, preparation and storage of food may not be readily available.

However basic principles should be observed:

- It should be ensured that the food purchased is of good and wholesome quality and is subsequently stored, prepared, cooked and served in hygienic conditions
- Check "use by" dates. Use food within recommended times
- Do not eat food containing uncooked eggs. Keep eggs in the fridge
- **Food Preparation Areas***.* All food preparation surfaces should be cleaned before, and after use with hot water and GPD, and dried with disposable paper towels
- **Pets.** Keep pets away from food, dishes and worktops
- **Cross Contamination***.* Care is taken not to contaminate cooked foods with raw foods. There should be a separate chopping board and utensils for each type of food (e.g. raw meat, cooked meat and raw and cooked perishables)
- **Hands and Hand-washing***.* Hands **must** be washed thoroughly following any cleaning session, after toilet visits, before handling food and between handling different food types e.g. raw and cooked meats

- **Refrigerators.** All fridges should be defrosted and cleaned regularly. Should a spillage occur or food become stale the whole interior of the fridge should be cleaned with hot water and GPD and dried thoroughly
- **Food.** Food should be stored at the correct temperature. The fridge should be kept at 5°c or lower. The freezer should be kept at minus 18°c or below. Bacteria will grow in temperatures between 10-65°c. It is recommended that a record of daily temperature recordings is kept
- **Storage.** Store raw meat and fish at the bottom of the fridge ensuring juices do not drip on to salads and vegetables. Raw meat and defrosting foods should be stored in covered dishes, or boxes which can catch drips

Dry foods should be stored in sealed containers on shelves or in cupboards. Food should not be stored on the floor to inhibit the entry of animals. Open bottles, such as squash, sauces and jams may require storage in the refrigerator. Follow manufacturer's guidelines

- **Defrosting.** All foods should be defrosted in the fridge or microwave, not at room temperature (unless specified on the packaging). Do not re-freeze uncooked food. Cook before you freeze again
- **Cooking.** Always follow cooking times on the labels and in cook books. Cook food thoroughly so that the temperature reaches 70°c for at least 2 minutes. Ideally food should be eaten as soon as it is cooked or prepared. Never re-heat food more than once
- **Leftovers.** These should not be left out unnecessarily. Cold food should be covered and put directly into the fridge. Hot food should be cooled for one hour at room temperature and then placed in the fridge. All leftovers should be eaten within 2 days
- **Crockery and Cutlery.** If a dishwashing machine is not available, hot water and GPD should be used for washing. Dry with disposable heavy-duty paper towel
- **Dishcloths.** Disposable cloths should be used.

ESSEX HEALTH PROTECTION UNIT
COMMUNITY INFECTION CONTROL GUIDELINES

SECTION L – PETS and PESTS

1. Introduction

This guideline sets out the procedures for staff to follow for pets.

Whilst staff caring for clients in their own homes have no direct responsibility for clients' pets, there may be occasions when staff do become involved in their care.

However, with regard to the management of pets, staff may be the only individuals in a position to instigate the control and management of them, by referring the problem to the local Environmental Health Department.

2. Pets

Many types of animal are often kept as pets can be the source of human infection, including exotic species such as reptiles, fish or birds. Sensible precautions can reduce any infection risk to an acceptable level.

All animals should be regularly groomed and checked for signs of infection, flea infestation, or other illness. If pets become ill, diagnosis and treatment by a vet should be sought. All animals should have received relevant inoculations. Dogs and cats should be wormed regularly, as directed by a vet and be subject to a regular programme of flea prevention.

Hands should be washed following any contact with animals, their bedding or litter.

Pets should not be fed in the kitchen or other food preparation areas and their dishes and utensils should be washed separately from other household articles.

Once opened, pet food containers should be kept separate from food for human consumption.

Food not consumed in one hour should be taken away or covered to prevent attracting pests.

3. Litter Box Care

Never deal with a cat's litter box if you are pregnant.

Always wear a protective apron and gloves when cleaning the litter box.

Always wash hands immediately after removing protective clothing.

If possible, fit a disposable liner to the box for easy cleaning.

Soiled litter should be changed daily.

Litter should be sealed in a plastic bag and disposed of in household waste.

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

The litter box should be disinfected whenever the litter is changed by being filled with boiling water which is allowed to stand for at least 5 minutes in order to kill toxoplasmosis eggs and other organisms.

4. Pests

Pests may be found in any property but with sensible precautions will not present an infection risk to residents and staff.

These include:

Insects - ants, flies, cockroaches, fleas, silverfish
Rodents - rats and mice
Birds - pigeons, magpies, sparrows, etc.
Feral cats and foxes

Kitchen and food stores provide ideal conditions for pests. Not only do they eat the food but also they contaminate and spoil a lot more.

Control measures should include the following:

- Stop pests getting in by fly screens, well-fitting doors, covered drains and bird netting

- Look out for droppings, nests, chew-marks on wood or cables

- Discard any foodstuffs or other articles affected by pests, including milk from bottles, the tops of which have been pecked by birds

- Clean up any spillage and decaying food immediately. Carry out regular inspection and rotate any stock. Use rodent-proof containers with well-fitting lids. Store food off the ground.

If any pests are found the local Environmental Health Office or Pest Control Contractor should be contacted.

ESSEX HEALTH PROTECTION UNIT
COMMUNITY INFECTION CONTROL GUIDELINES

SECTION M – AUDIT TOOL

Refer to ICNA audit tools for the community, which are available from the ICNA. www.icna.co.uk. or contact the EHPU for advice and examples of audit tools.

ESSEX HEALTH PROTECTION UNIT
COMMUNITY INFECTION CONTROL GUIDELINES

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