

ESSEX HEALTH PROTECTION UNIT

in conjunction with the OHD of the Essex Ambulance Service NHS Trust



GUIDELINES FOR THE PREVENTION AND CONTROL OF INFECTION IN ESSEX AMBULANCE SERVICE



Issued March 2004
Reviewed August 2005

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ESSEX HEALTH PROTECTION UNIT GUIDELINES FOR THE PREVENTION AND CONTROL OF INFECTION IN ESSEX AMBULANCE SERVICE

SECTION A - INTRODUCTION

1. Introduction

This manual has been developed as part of the Essex Ambulance Service NHS Trust's ongoing commitment to promote optimal standards of Infection Control within the organisation. It aims to provide staff with an easy to use reference guide that integrates relevant background information into a comprehensive Essex Ambulance Service policy for everyday use.

The policy promotes the use of 'Standard Principles of Infection Control' with the principle that every patient is a potential risk of infection. This in itself minimises a large area of risk from infection, as the status of the majority of patients is unknown.

The policy encourages sterile single-use equipment, which will support staff in minimising the risk associated with the control of infection. Every member of staff has a responsibility to reduce such risks, and adherence to the procedures contained in this manual will help ensure a safer environment for all concerned.

Practices in this policy reflect current 'best practice' in today's health profession.

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

ESSEX HEALTH PROTECTION UNIT GUIDELINES FOR THE PREVENTION AND CONTROL OF INFECTION IN ESSEX AMBULANCE SERVICE

SECTION B - POLICY STANDARD

1. Scope

The procedures detailed in this policy apply to Ambulance staff of all grades and their managers.

2. Responsibility

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

In line with the organisational structure the Director of Infection, Prevention and Control (DIPC) has a responsibility to oversee local infection prevention and control procedures, and report to the Chief Executive.

All ambulance staff have a responsibility to protect themselves, as well as making all reasonable effort to safeguard the welfare of their clients and all other persons encountered in their duties. Adherence to the procedures contained in this manual will significantly assist staff in achieving this.

All managers with operational or support service links for infection control are responsible for monitoring compliance with the procedures.

3. Contacts

Infection Control advice can be obtained from the Essex Health Protection Unit.
Main office: 01376 302282.

The Consultants in Communicable Disease Control (CCDCs) and the Communicable Disease Control Nurses (CDCN) can all be contacted at the above number.

Out of Hours

A member of the team is available at all times. Contact is via Essex Ambulance Service 01245 444417. This is a paging system – ask for the on-call Public Health person to be paged.

Occupational Health Department may be contacted via Ambulance HQ reception.

ESSEX HEALTH PROTECTION UNIT GUIDELINES FOR THE PREVENTION AND CONTROL OF INFECTION IN ESSEX AMBULANCE SERVICE

SECTION C - BASIC MICROBIOLOGY

1. Micro-organisms and their Properties

The term micro-organisms, or microbe, is used to describe any organism which is too small to be seen with the naked eye. A microscope is required for them to become visible.

Many microbes normally live inside or on the surface of other organisms. Such organisms living on the human body are called commensals and are generally harmless.

Micro-organisms capable of causing infection and disease are known as pathogenic. Pathogenic organisms, or the toxins that they produce, destroy body tissues. The pathogenic process causes signs and symptoms of infection e.g. pain, swelling, fever.

2. Pathogenic Micro-organisms Causing Infection

Micro-organisms may be classified as follows.

Bacteria are minute organisms about one-thousandth to five-thousandth of a millimetre across. 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 *Trichophyton rubrum* which is one cause of ringworm and it can also infect nails. A common yeast infection is thrush caused by an organism called *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 (which can cause 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.

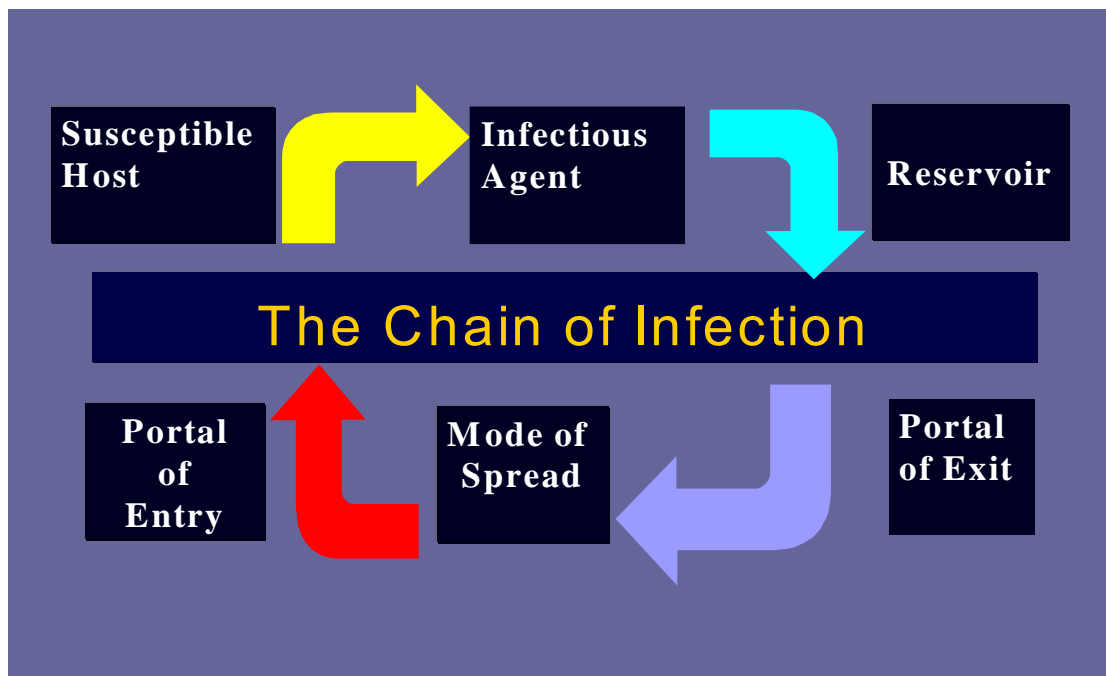
Prions are infectious protein particles. Example: Variant Creutzfeldt-Jakob Disease (vCJD).

ESSEX HEALTH PROTECTION UNIT GUIDELINES FOR THE PREVENTION AND CONTROL OF INFECTION IN ESSEX AMBULANCE SERVICE

SECTION D - THE MODES OF SPREAD OF INFECTION

1. Chain of Infection

This refers to the process by which infection can be spread from one susceptible host to another. If the chain is broken then infection will be prevented.



2. Infectious Agent/Source

Micro-organism

3. Reservoir

- Patients
- Staff
- Equipment
- Environment e.g. dust
- Animals/insects

4. Portals of Entry and Exit for Infection

In order to cause disease a pathogen must have a way to enter the body - a portal of entry. To transmit to another host it must be able to leave the body via a portal of exit. The route of entry and exit may be different, for example enteric infections enter the mouth and leave in the faeces, or they may be the same; for example respiratory tract infections.

Micro-organisms use a range of different routes to find new hosts and one microbe may be able to spread by using more than one method:

The Respiratory Tract	Through inhalation of organisms (e.g. Tuberculosis, Diphtheria and Mumps)
The Alimentary Tract	Through ingestion of contaminated food or water (e.g. Salmonellosis and Dysentery)
The Skin and Mucosa	Through damaged skin or by inoculation. (e.g. Hepatitis B via contaminated needles)
The Placenta	Via transfer of organisms from maternal circulation to the foetal circulation. (e.g. Rubella, Cytomegalovirus and Syphilis.)

5. The Modes of Spread of Infection

It is important to remember that the one feature that distinguishes infection from all other disease is that it can be spread, i.e. one person can 'catch' it from another or via a vector (a crawling or flying insect).

An infectious disease can be transmitted by:

Direct Contact

Direct spread of infection occurs when one person infects the next by direct person-to-person contact. Sexually transmitted diseases are obvious examples.

Indirect

Indirect spread of infection is said to occur when an intermediate carrier is involved in the spread of pathogenic microbes from the source of infection to another person e.g. hands.

- (a) **Fomite** 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 bedpans, urinals, thermometers, oxygen masks or practically any inanimate article.
- (b) **Hands** The hands of health and social care 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.

- (c) **Air** Aerosol spread of infection undoubtedly occurs causing inhalation spread e.g. Chickenpox, Mumps and Measles.
- (d) **Vectors** Crawling and flying insects are an obvious example of intermediate carriers and need to be controlled. Insect bites may cause infections such as malaria.

Inhalation

Inhalation spread occurs when microbes 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.

6. Susceptible Host/Person at Risk

- Elderly
- Very young
- Immunocompromised
- Chronic illness
- Receiving certain medications e.g. steroids
- Anyone with a breach in the body's defences e.g. surgical wounds, in-dwelling devices such as I.V.I and catheters.

ESSEX HEALTH PROTECTION UNIT GUIDELINES FOR THE PREVENTION AND CONTROL OF INFECTION IN ESSEX AMBULANCE SERVICE

SECTION E - 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**.

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 decontamination 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 care in the community should know and 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.

2.1 Hand Decontamination 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) prior to handwashing)
- 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	Liquid soap	For all routine tasks
2	Hygienic hand disinfection (15-30 secs)	Antiseptics, e.g. Chlorhexidine, povidone-iodine or alcohol handrub after social clean	In high-risk areas and during outbreaks
3	Surgical scrub (2 mins)	Antiseptics, e.g. Chlorhexidine, povidone-iodine. 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 warm 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 10-15 seconds, paying particular attention to the tips of the fingers, the thumbs and the areas between the fingers. Hands should be rinsed thoroughly.

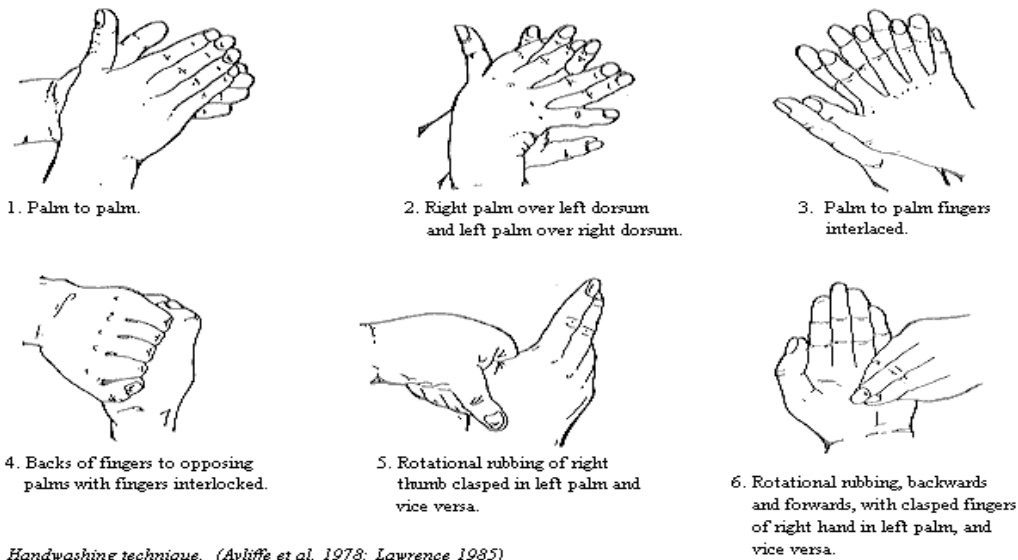
Hygienic Hand Disinfection for Outbreak Control

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.



(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 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.

Individual use alcohol gels or alcohol handrubs are available for all crew. To be used by motorcycle response unit, paramedic car crews and emergency practitioners.

Alcohol Gel - apply 5-10 ml of alcohol hand gel to visibly clean hands - rub until alcohol has evaporated and hands are dry. The same technique should be used as for handwashing to ensure all surfaces are covered. It is advised that only 3-4 applications of alcohol gel should be used before hands will need to be washed, as they will become “tacky”.

Alcohol gel will not penetrate through soil such as blood or dirt, so hands should be wiped with a moist wipe before gel is applied, unless hands are not soiled when gel alone can be used.

Emollient 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 team should be consulted.

Handwashing Facilities

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), detergent handwipes or alcohol handrub should be used. However alcohol handrub should only be used if the hands are visibly clean.

2.2 Other Hand Decontamination Methods

When staff are unable to access handwashing facilities it may be necessary to use other methods to decontaminate the hands - see handrubs.

Patient wipes – wipe hands with a moist wipe ensuring all areas are covered.

2.3 Skin Care

All cuts and abrasions should be covered with an impermeable waterproof dressing prior to and during any period of duty. The dressing's integrity must be checked regularly while on duty and replaced if necessary.

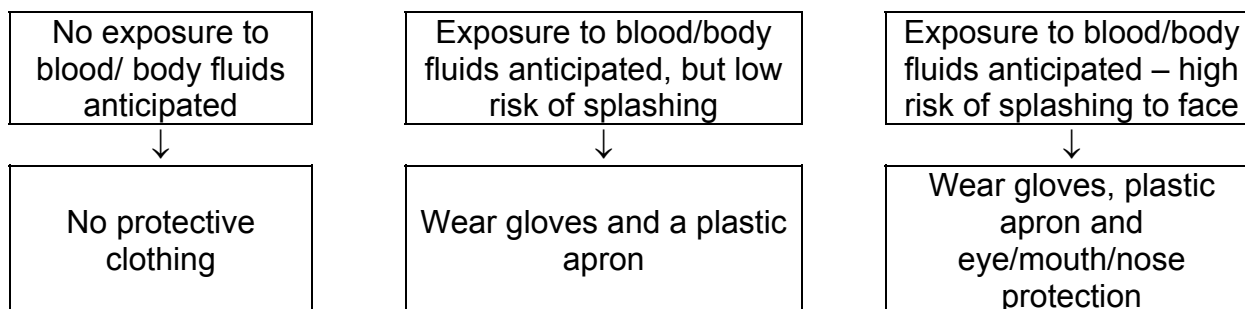
Any member of staff with extensive skin lesions must seek advice from the Occupational Health Department, e.g. eczema affecting exposed areas.

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



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, and do not substitute for handwashing.

Gloves must be disposed of as clinical waste, and hands decontaminated after the gloves have been removed.

Sensitivity to natural rubber latex in patients, carers and healthcare personnel must be documented. 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.

Hands **must** be washed on removal of gloves.

Non Sterile Gloves

Should be used when hands may come into contact with body fluids or equipment contaminated with body fluids. National evidence suggests that Nitrile gloves are better in stress conditions than latex and vinyl gloves.

Sterile Gloves

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

General-purpose Utility Gloves

General-purpose utility gloves e.g. rubber household gloves, can be used for cleaning instruments prior to sterilisation, or when coming into contact with possible contaminated surfaces or items. Ideally, colour coding of such gloves should be used e.g. blue for the kitchen, yellow 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 general-purpose detergent (GPD) and hot water, and dried between use. They should be discarded weekly, or more frequently if the gloves become damaged.

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 as clinical waste.

Full-body fluid-repellent gowns must be worn where there is a risk of extensive splashing of blood or body fluids onto the skin or clothing of healthcare practitioners.

Face Masks and Eye Protection

Must be worn where there is a risk of blood, body fluids, secretions or excretions splashing into the face and eyes. Face/eye protection should be worn if manual decontamination of equipment is undertaken.

Respiratory Protective Equipment

For example, a particulate filter-mask must be used when clinically indicated i.e. SARS, MDRTB.

Use of Chemical, Biological, Radiological and Nuclear Suits

Refer to the Resperyx users guide, which is issued to all CBRN team members.

4. Safe Handling of Sharps

Every member of staff should understand their individual responsibilities for the safe handling of sharps, and to prompt response to sharps injuries.

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, followed by a blood test. 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, and blood-stained body fluids, may be associated with transmission of Blood-borne Viruses.

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.

- Sharps must not be passed directly from hand-to-hand and handling should be kept to a minimum
- Needles must not be re-capped, bent, broken or disassembled before use or disposal
- Used sharps must be discarded into a sharps container (conforming to UN3291 and BS 7320 standards) at the point of use by the user. These must not be filled above the mark that indicates that they are full
- Containers in public areas must be located in a safe position, and must not be placed on the floor. They must be disposed of by the licensed route in accordance with local policy
- Needle safety devices must be used where there are clear indications that they will provide safer systems of working for healthcare personnel

- Clinical sharps should be single-use only
- Sharps containers should be available at each location where sharps are used
- Close the aperture to the sharps container when carrying or, if left unsupervised, to prevent spillage or tampering
- Stow sharps container in designated area within vehicle
- 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 i.e. vehicle/station code
- Place damaged sharps containers inside a larger container - lock and label prior to disposal. Do **not** place inside yellow clinical waste bag.

Giving Injections

Always wash hands thoroughly prior to giving an injection.

If visibly dirty, skin 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 see Section F – Management of Sharps Injuries.

4.1 Use of Sharps (cannulation, lancets, needles etc)

Cannulation and injections should be carried out only by staff that are adequately trained and experienced:

- Always decontaminate hands thoroughly prior to the procedure
- Use disposable gloves
- Extreme care must be taken when attempting invasive procedures on restless or aggressive patients

- Cannulation and other procedures involving sharps must only be attempted when the ambulance is stationary. The needle should only be removed from its sheath once the patient has been prepared.

Lancets for Blood Glucose Monitoring

- Single-use lancets – used for blood glucose monitoring – dispose of into sharps container after use
- If visibly dirty, skin 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.

Intramuscular/Intravenous/Subcutaneous Injections

- Clean skin with alcohol swab, allow to dry prior to injection. Dispose of into sharps container after use.

Intravenous Cannulation

- Clean skin with alcohol swab, allow to dry prior to cannulation. Dispose of into sharps container after use.

Intraosseous Cannulation

- Non touch sterile procedure
- Sterile gloves to be used
- Clean skin with alcohol swab, allow to dry prior to cannulation. Dispose of into sharps container after use.

ESSEX HEALTH PROTECTION UNIT GUIDELINES FOR THE PREVENTION AND CONTROL OF INFECTION IN ESSEX AMBULANCE SERVICE

SECTION F - 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 clothes have been soaked by blood
- Human bites e.g. bite where skin is broken and blood drawn.

When a sharp injury/contamination incident occurs:

- Encourage bleeding from the wound
- Wash the wound in soap and warm running water (do not scrub)
- Cover the wound with a dressing
- Skin, eyes or mouth, wash in plenty of water
- Ensure the sharp is disposed of safely i.e. using a non-touch method into a sharps container
- Report the incident to immediate supervisor. The Accident book/adverse incident form should be completed as soon as the recipient of the injury is able
- The incident should be reported to the Occupational Health department
- 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 following).

2. Control Measures

All staff working in a healthcare facility that handle sharps or clinical waste should receive a full course of Hepatitis B vaccine and have their antibody level checked.

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

Staff who do perform Exposure Prone Procedures (see below) 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).

Note: Exposure Prone Procedures are those 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 worker. These include procedures where the worker's gloved hands may be in contact with sharp instruments, needle tips and sharp bone/teeth inside a patient's open cavity, wound or confined anatomical space where the hands or fingertips may not be completely visible at all times.

3. 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 consent) and sent to the microbiology laboratory. 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.

Hepatitis B Virus

Staff should be aware of their own Hepatitis B immunity status. Prophylaxis is available. Contact Occupational Health Department or visit nearest A&E department.

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.)

Human Immunodeficiency Virus (HIV)

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%.

Drug therapy is available for post-exposure prophylaxis.

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.

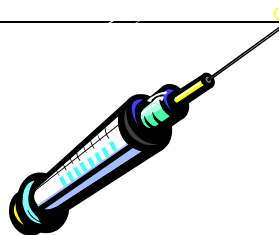
Post-exposure prophylaxis should not be considered following contact through any route with low-risk materials e.g. urine, vomit, saliva, faeces, unless they are visibly blood-stained.

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, or GUMedicine clinic without delay.

What to do after a.....

SHARPS INJURY



Directions for the management of needle-sticks, and cuts and penetrating wounds

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 you and,
if possible, the 'source' (with informed consent)
- d) Send the samples to the microbiology department marked
'needle-stick Injury'

Complete an accident form

Insert your local arrangements

Please Note

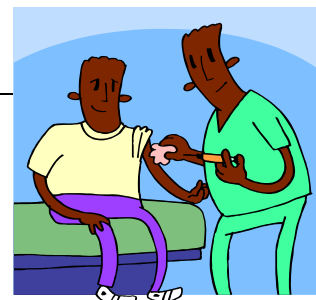
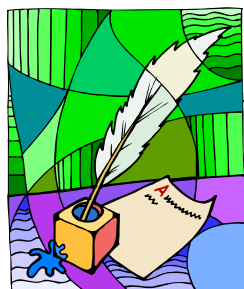
If the source is known or a risk of having HIV the injured person should contact either
Accident & Emergency or the Genito Urinary Medicine Clinic,
and attend if possible within the hour

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
01245 444437

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



ESSEX AMBULANCE SERVICE NHS TRUST

PROCEDURE FOR OCCUPATIONAL EXPOSURE INJURIES

THIS ADVICE APPLIES TO:

- inoculation with a dirty needle or other sharp;
- - contamination of broken skin with blood;
- - splashes into the eyes or mouth.

- *Stop what you are doing and attend to the injury.*
- All cuts and puncture wounds from contaminated objects must be washed at once with soap and warm water and encouraged to bleed.
- Apply a dressing if necessary.
- Splashes of body fluids into eyes etc. must be rinsed with copious amounts of water.
- Attend the nearest A&E Department as close to the incident as possible (preferably within the hour), so that a risk assessment can be carried out.
- All incidents of occupational exposure must be reported to the Line Manager and to Occupational Health as soon as possible.
- Details of the incident must be recorded through the accident/incident reporting system.
- A blood sample must be taken from the Recipient (usually a member of staff) to store for medico-legal reasons and may be taken from the Donor (usually patient) to test for HbsAg and HCV and HBV as indicated.
- The medical staff caring for the donor/patient will obtain this blood sample. This must only be with the patient's informed consent.
- Even if you have had immunisation against Hepatitis B you must still check with Occupational Health to see if further action is required.
- Advice may be obtained from:
 - Occupational Health Nurse Adviser – telephone 01245-444437
 - Out of hours/weekends from Hospital A&E Department.
- More information may be obtained from the Occupational Health and Safety policy documents.

Holly Parker SRN OHN Dip Occupational Health Nurse Adviser

Jan 2001 Reviewed May 2005

ESSEX HEALTH PROTECTION UNIT GUIDELINES FOR THE PREVENTION AND CONTROL OF INFECTION IN ESSEX AMBULANCE SERVICE

SECTION G - SPILLAGE MANAGEMENT

1. Spillage Management

Deal with blood and body fluid spills quickly and effectively.

Commercially available spillage kits should be readily available to deal with blood and body fluid spillages.

The kits should be kept in designated places, within the Ambulance station and on vehicles.

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

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

1. Sodium Hypochlorite or 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.

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 clinical 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 clinical waste
- Wash hands.

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 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 as clinical waste
- Wash hands.

N.B. – For spills on carpets and upholstery with or without visible blood i.e. within cars

- 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 area thoroughly with detergent and hot water
- Allow to dry
- Discard protective clothing
- Wash hands
- Ideally, once dry, go over area with a mechanical cleaner.

ESSEX HEALTH PROTECTION UNIT GUIDELINES FOR THE PREVENTION AND CONTROL OF INFECTION IN ESSEX AMBULANCE SERVICE

SECTION H - WASTE MANAGEMENT

The requirement for managing healthcare waste is due to change due to the new Hazardous Waste Regulations. Because of this, section H has not been updated.

1. Introduction

This guideline sets out the procedures for staff to follow for the management of waste.

2. Responsibility

All healthcare organisations including the ambulance service have a legal responsibility to dispose of all waste safely, ensuring no harm is caused either to staff, members of the public or the environment. The 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:

- 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
- The Safe Disposal of Clinical Waste 1999
- Health Care Waste Management and Minimisation 2000.

3. Definition of Clinical Waste

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)

Clinical waste is categorised by the Health and Safety Executive as follows:

GROUP A

Soiled surgical dressings, swabs and all other contaminated waste from treatment areas. Materials other than re-usable linen from cases of infectious disease. All human tissue from hospitals or laboratories, and all related swabs and dressings.

GROUP B

Discarded syringes, needles, cartridges, broken glass and any other contaminated disposable sharp instrument or items.

GROUP C

Microbiological cultures and potentially infected waste from Pathology Departments, Laboratories, post-mortem rooms and other Clinical or Research Laboratories.

GROUP D

Certain pharmaceutical and chemical wastes (*those falling within the definition of clinical waste*). Special care should be taken with any waste that contains mercury or its compounds. Mercury should be recovered whenever possible. In particular, laboratories should remove mercury from aqueous solutions, specimens and the like before these are discharged to sewers.

GROUP E

Items used to dispose of urine, faeces and other bodily secretions or excretions not found in Group A. This is to include used disposable bedpans or bedpan liners, incontinence pads, stoma bags and urine containers.

4. Segregation of Waste

The key to the safe disposal of waste is the requirement for all staff to conform to the system of segregation shown in the table below. This system enables clear identification of the different types of waste encountered and indicates the disposal procedures that apply to each category.

TYPE OF WASTE	RECEPTACLE
Clinical Waste Group A + E	Yellow Plastic Bags (225 gauge)
Sharps - Needles, Blades etc Group B	BS 7320/UN 3291 Approved Sharps Container
General (domestic type) Waste	Black Plastic Bags
Glass and Aerosol Cans	Plastic bag lined cardboard boxes that are clearly labelled ' Glass and aerosol cans: not to be incinerated '

5. Handling of Waste

When handling clinical waste all staff must use personal protective equipment (PPE), the minimum being gloves. Aprons should be considered if leakage is anticipated. All items of PPE become clinical waste once used.

Ensure that cuts or abrasions are covered with an impermeable waterproof dressing before handling clinical waste.

Any spillage or contamination resulting from the movement of clinical waste must be thoroughly cleaned at the earliest opportunity (**see Section G - Spillage Management**).

- Waste should be segregated at the point of origin
- Personal protective clothing should be worn when handling waste
- Clinical waste should be:
 - correctly bagged in yellow bags 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 reach of children
- only filled to $\frac{3}{4}$ full
- securely sealed and labelled with coded tags at the point of use to identify their source.
- Clinical Waste should not be:
 - decanted into other bags, regardless of volume
 - contaminated on the outside
 - re-used.
- Sharps must be disposed of into approved sharps containers that meet BS7320/UN3291
- Sharps containers should **NEVER** be placed into a yellow clinical waste bag.

6. Disposal of Waste

Clinical waste should be placed in a yellow bag (minimum gauge 225mm). The bag should be removed and securely fastened at least once a day or when $\frac{3}{4}$ full, labelled with its place of origin (source organisation, vehicle and station code) date and placed in the designated clinical waste collection point.

Syringes, lancets, needles, ampoules and other sharps should always be placed in a sharps container. 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 containers as soon as possible
- Sharps containers should conform to BS7230/UN 3291
- Sharps containers should be kept in a safe location i.e. wall mounted.

Prior to the crew's departure from an incident, they must make every effort to ensure that no items of clinical waste are left on the scene. Where sharps are used away from the vehicle, the sharps boxes carried in either the Paramedic or Primary Response Pack should be utilised as appropriate, along with clinical waste bags for any other contaminated items.

Under no circumstances should any item of clinical waste be placed in domestic waste bins, or abandoned outside designated containers e.g. in the rear of the ambulance.

7. Disposal of Pharmaceutical Waste - Special Waste

Pharmaceutical waste includes all part-used and out-of-date medicines, cream and ointment tubes and aerosols.

Within the Essex Ambulance Service pharmaceutical waste is returned to Colchester Hospital for disposal.

8. Storage and Collection of Clinical Waste

Clinical waste returned to ambulance stations must be stored in a locked container and placed in a secure designated area.

Clinical waste should be removed from designated storage area as frequently as circumstances demand, and at least weekly.

Whilst awaiting collection of bulk amounts, waste should be:

- 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.

ESSEX HEALTH PROTECTION UNIT GUIDELINES FOR THE PREVENTION AND CONTROL OF INFECTION IN ESSEX AMBULANCE SERVICE

SECTION I - MANAGEMENT OF LINEN

1. Introduction

This guideline sets out the procedures for staff to follow for the management of linen.

2. Risks to Staff from Infected Linen

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

- Maintain Standard principles of infection control
- Wear an apron and gloves when dealing with soiled/contaminated laundry
- Remove any protective clothing and wash hands before returning to other duties
- Cover cuts and abrasions with waterproof dressings.

3. Disposable Linen

Single patient-use Universal Disposable Ambulance Packs are recommended for use within all ambulances. Once used, items are placed into the yellow bag provided as clinical waste.

Contents:

- 1 Absorbent waterproof bottom sheet
- 1 Absorbent waterproof pillowcase
- 1 Absorbent mediwrap thermal blanket
- 1 Yellow clinical waste bag.

4. Re-usable Linen - Segregation

For laundry purposes linen must be segregated into one of the following groups:

Used Linen Linen which has become soiled by general use but has not been contaminated by blood or body fluids.

Items to be placed into a white plastic linen bag

Contaminated Linen Linen which has become contaminated by blood or body fluids or which has been used on a patient with a known infection or infestation. It is recommended that disposable linen is used.

Items to be placed into a soluble (alginate) bag then into a red plastic linen bag and sealed

Bags should not be filled in excess of $\frac{2}{3}$ of its capacity. Particular care should be exercised during handling of laundry, as clinical waste or sharps items may be concealed within.

5. Staff Uniforms

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.

In general, the responsibility for uniform laundering rests with the individual member of staff. Uniforms or work clothes should be washed as soon as possible on as hot a wash as the fabric will tolerate (see care label instructions). Cardigans/jumpers/fleeces/bodywarmers should be washed at least weekly and straight away if soiled.

Uniforms should not be washed with new-born baby, elderly persons or immuno-compromised persons clothing.

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/boots should be cleaned immediately if contaminated with body fluids, using general-purpose detergent and hot water/multi-surface wipes - disposable gloves should be worn.

Staff are required to provide a spare uniform whilst on duty for change of clothing purposes in case of soiling/contamination.

ESSEX HEALTH PROTECTION UNIT GUIDELINES FOR THE PREVENTION AND CONTROL OF INFECTION IN ESSEX AMBULANCE SERVICE

SECTION J - DECONTAMINATION - ENVIRONMENT AND EQUIPMENT

1. Introduction

This guideline sets out the procedures for staff to follow for decontamination of the environment and equipment.

2. Decontamination

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

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

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.

3. Medical Devices Agency Definitions of Decontamination Processes

The Medical Devices Agency (1996) defines the following terms:

- Cleaning 'is a process which physically removes contamination but does not necessarily destroy micro-organisms.' 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 micro-organisms, 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'.

4. 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 mucous membranes, are classified as high-risk and must be sterile before use.

Risk Assessment for Decontamination of Equipment

Risk	Application of Item	Minimum Standard
Low	<ul style="list-style-type: none">• In contact with healthy skin or• Not in contact with patient• e.g. furniture, mattresses, surfaces, commodes	Clean
Intermediate	<ul style="list-style-type: none">• In contact with intact mucous membranes or• Contaminated with virulent or readily transmissible organisms (body fluids) or• Prior to use on immuno-compromised patients• e.g. thermometers, auroscope earpieces• NB. Items used in the vagina or cervix must be sterilised	Disinfect, or single-use
High	<ul style="list-style-type: none">• In contact with a break in the skin or mucous membrane or• For introduction into sterile body areas for example uterine sounds, instruments used for surgical/ operative procedures	Sterilise, or single-use

5. 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 with detergent and warm water - maximum temperature 35⁰C - will remove many micro-organisms.

For cleaning by hand, a sink is needed which is deep enough to completely immerse the items to be cleaned. Precautions must be taken to prevent splash and injury. Scrubbing can generate aerosols which may convey infective agents.

If scrubbing is necessary it must be carried out with the brush and item beneath the surface of the water.

Cleaning equipment - such as brushes, cloths and mop heads - must be stored clean and dry between uses. Use single-use, non-shedding cloths rather than re-usable cloths. Do not store brushes in disinfectant solutions.

6. 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.

Available disinfectants include:

Chemical	Advantages	Disadvantages	Uses
Chlorine-based: Hypochlorites (e.g. Domestos, Milton) (see below re Hospital Chlorine Tablets)	<ul style="list-style-type: none"> • wide range of bacterial, virucidal, sporicidal and fungicidal activity • rapid action • non-toxic in low concentrations • can be used in food preparation • cheap 	<ul style="list-style-type: none"> • inactivated by organic matter • corrosive to metals • diluted solutions can be unstable • need to be freshly prepared • does not penetrate organic matter • bleaches fabrics • needs ventilation 	can be used on surfaces and for body fluid spills
Sodium Dichloroisocyanurates (NaDCC) e.g. Presept, Haz-Tab, Spillage kits	<ul style="list-style-type: none"> • slightly more resistant to inactivation by organic matter • slightly less corrosive • more convenient long shelf-life 	<ul style="list-style-type: none"> • as above 	as above
Alcohol 70% e.g. Isopropanol	<ul style="list-style-type: none"> • good bactericidal, fungicidal and virucidal activity • rapid action • leaves surfaces dry • non-corrosive 	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • most useful as disinfectants for skin • good fungicidal activity • low toxicity and irritancy 	<ul style="list-style-type: none"> • limited activity against viruses • no activity against bacterial spores • inactivated by organic matter 	for skin and hand decontamination
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Hospital Chlorine Tablets are used as standard within Essex Ambulance Service.

Hospital Chlorine Tablets			
Dilution Rates			
No of tablets	Litres of Water	ppm available Chlorine	Usage
1	1	1,000	Environmental disinfection
10	1	10,000	Blood-spillages

7. Sterilisation Methods

Sterile instruments can be obtained by:

- Purchasing pre-sterilised single-use items (these avoid the need for re-sterilisation and are a practical and safe method. They must be stored 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).

8. 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 dependant upon undertaking a risk assessment of individual risk factors.

The MHRA (MDA) (2000) 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 re-used against the manufacturer's recommendations.

9. A-Z of Equipment and the Decontamination Method

EQUIPMENT	CLEANING METHOD
Airways	Single-use – disposable
Bedpans	Single-use – disposable
Blood Glucose Monitor	Clean between each use. Refer to manufacturers instructions
Body Bags	Single-use
Bowls/Buckets	Clean between each use with hot water and general-purpose detergent (GPD), using disposable paper towels. Rinse and store dry
Defibrillator Paddles	After patient use thoroughly wipe over with damp cloth (GPD and hot water). Refer to manufacturer's instructions
ECG Equipment -Electrodes -Straps/wires -Machine	Use disposable electrodes Wipe over with damp cloth (GPD and hot water) Wipe over with damp cloth, keep covered when not in use Refer to manufacturer's instructions
Endotracheal tubes /Catheter mounts	Single-use disposable
Forceps, Magills, Spencer wells	Single-use disposable or Wash well with hot water and GPD, store dry Wipe with 70% alcohol wipe
Intravenous Cannulae	Single-use disposable
Lancet Devices	Wipe with 70% alcohol after each use
Laryngoscope	Single-use disposable unit/blades Handles – clean thoroughly with GPD and hot water and dry Wipe with 70% alcohol
Linen	Use disposable Re-useable - place in appropriate colour coded bags
Nebulisers and tubing	Single-use disposable May go with patient on admission to hospital

Oxygen Mask and tubing	Single-use disposable May go with patient on admission to hospital
Resuscitation bag and masks	Use disposable
Pillows	All pillows should be encased in an intact waterproof cover. Clean with GPD and hot water – dry If integrity of cover breached – dispose of pillow as clinical waste and replace
Pulse Oximeter	Re-usable probes – clean as manufacturers instructions Single-use disposable
Resuscitators	Ventilators without electrical parts may be wiped with GPD and hot water Use single-use disposable tubing and re-breathing bags
Splints/collars	Single-use disposable
Stethoscope and ear pieces	Clean thoroughly with GPD and hot water, using thin brushes to clean inside. Wipe with alcohol wipes
Stretchers	Surface must be in good repair, clean with hot water and GPD at start and finish of each session or if it becomes soiled. Cover with disposable paper roll and change between each client use
Suction equipment	Disposable suction liners are recommended Patient end-tubing single patient use Filters - these should be replaced when wet and at appropriate intervals in keeping with the manufacturer's instructions Dispose of used liner as one unit into clinical waste, ensuring caps are in-situ
Thermometers	Single-use disposable
Vomit bowls	Single-use disposable
Umbilical scissors/clamps	Single-use disposable
Urinals	The use of disposable urinals is advised Dispose of as clinical waste
Work surfaces	GENERAL CLEANING Use GPD and hot water CONTAMINATED SURFACES Decontaminate surfaces with a fresh solution of sodium hypochlorite (Hospital Chlorine Tablets – 10 tablets in 1 litre of water = 10,000ppm available chlorine = 1% solution). Followed by GPD and hot water

10. 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 fittings and fixtures.

A written cleaning schedule should be devised specifying the persons responsible for cleaning, the frequency of cleaning and methods to be used and the expected outcomes:

- 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
- Keep mops and buckets clean, dry and store inverted
- Mop head should be removable for frequent laundering, or single-use if this is not possible
- Provide single-use, non-shedding cloths or paper roll for cleaning
- Keep equipment and materials used for general cleaning separate from those used for cleaning up body fluids
- Colour-code cleaning equipment, such as mop heads, gloves and cloths for vehicles toilets and kitchens. Use different colours for each area
- Use GPD for all environmental cleaning - follow the manufacturer's instructions.

11. Decontamination of Equipment prior to Inspection, Service, Repair or Loan

Do not send contaminated equipment elsewhere without decontaminating first. Before dispatch, complete and attach a certificate, which states the method of decontamination used, or the reason why it was not possible (NHS Management Executive 1993).

Equipment that is impossible to decontaminate is likely to be complex, high-technology and heat-sensitive. Often it cannot be decontaminated without being dismantled by an engineer - in this case attach a bio-hazard label to the item. Complete the clearance certificate and advise staff on protective measures.

A sample of a decontamination certificate which may be used is provided at the end of Section J – Decontamination – Environment and Equipment.

12. Decontamination of Vehicle

It is import to maintain high standards of hygiene within the ambulance to prevent the spread of infection.

All staff have an individual responsibility to keep the ambulance clean and thus to reduce the risk of cross-infection to themselves, their colleagues and their patients. This can best be achieved by all crew participating in frequent and routine cleaning activities. The minimum requirements of which are

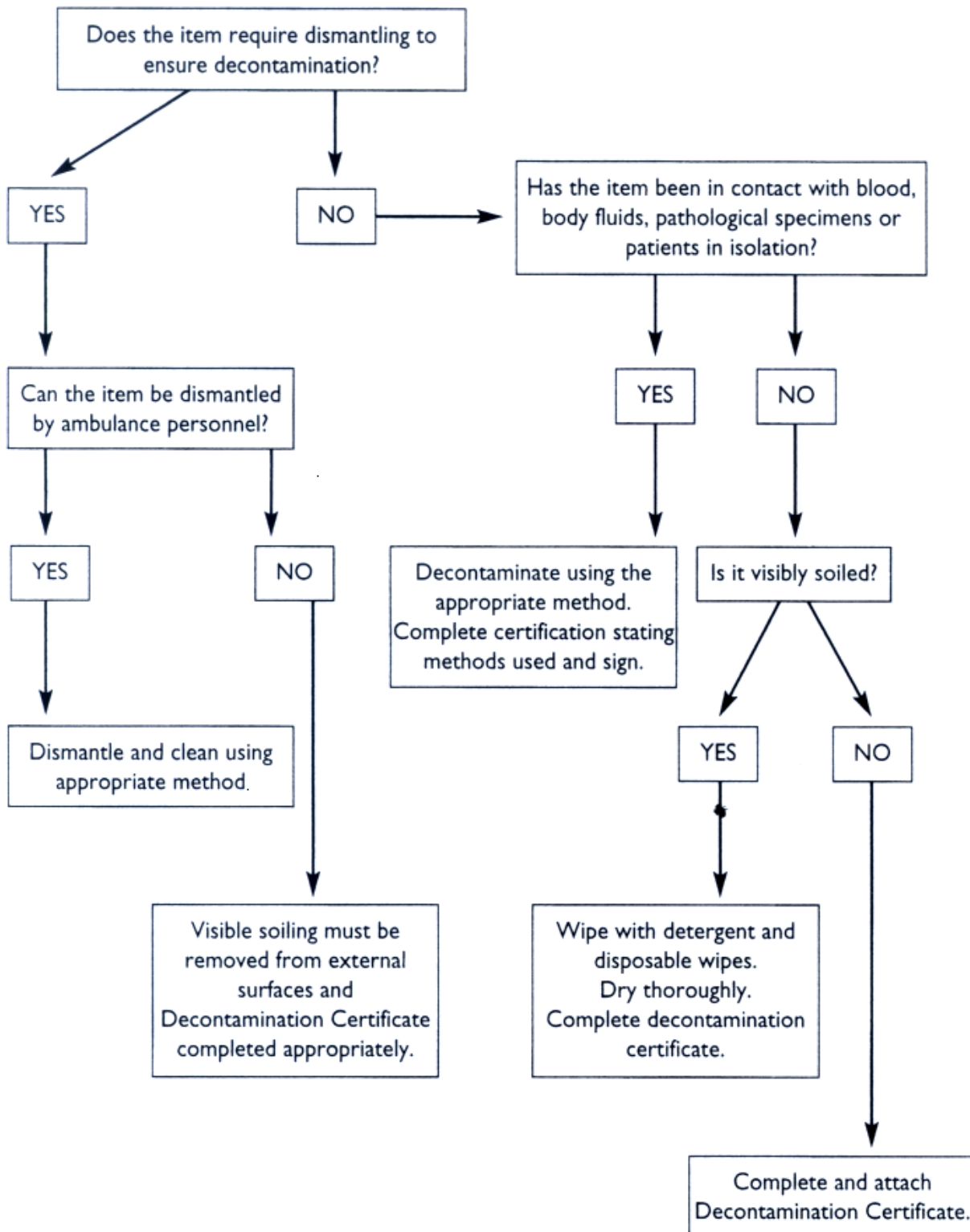
During Each Shift:

- All interior surfaces that become directly contaminated should be cleaned as soon as possible. GPD and hot water/multi-surface (detergent) wipes should be used. If contaminated with blood, deactivate first with disinfectant followed by a detergent wipe
- Use PPE as appropriate
- In addition, horizontal and vertical surfaces should be wiped down using the GPD and hot water/multi-surface wipes
- The floor should be mopped clean regularly. GPD and hot water should be used unless there has been a blood spill. In this event deactivate with a disinfectant followed by washing as above.

On a Weekly Basis:

- All ambulance interiors should be subjected to a comprehensive clean
- Either a GPD and hot water or general-purpose wipes should be used, unless there is evidence of blood or body fluid contamination. In this case the area should be wiped with a disinfectant before cleaning as above
- Detachable items should firstly be removed in order that all surfaces can be accessed for cleaning. Ensure that appropriate PPE is used. All walls, ceilings, fixtures, fittings, insides of cupboards and detached items can be wiped clean with GPD and hot water/multi-surface wipes. Ensure areas are dried with disposable paper towels
- A suitable cleaning schedule for each vehicle should be designed and maintained by staff and station-masters. This schedule should be monitored and reviewed as necessary
- An annual rotating schedule for deep cleaning of ambulance vehicles by external contractors ensures each ambulance has a thorough cleaning process.

Flow Chart for Decontamination of Equipment Prior to Inspection or Repair



DOCUMENTATION

A completed clearance certificate must be attached to the equipment prior to work being carried out. A suggested letter is:-

From: _____

To: _____

Make and description of equipment item: _____

Model/Serial/Batch Number: _____

Other distinguishing marks: _____

This equipment/ item has not been in contact with blood or other body fluids. It has been cleaned in preparation for inspection, servicing or repair.

This equipment has been decontaminated. The method used was _____

This equipment could not be decontaminated. The nature of risk, and safety precautions to be adopted are _____

Signed: _____ Date: _____

Position: _____

Address: _____

ESSEX HEALTH PROTECTION UNIT GUIDELINES FOR THE PREVENTION AND CONTROL OF INFECTION IN ESSEX AMBULANCE SERVICE

SECTION K - STAFF HEALTH

1. Introduction

This guideline sets out the procedures for staff to follow for staff health.

2. Immunisations

In association with the Occupational Health Department all staff should ensure that their immunisation status is up to-date in relation to:

- Hepatitis B
- Tuberculosis (BCG)
- Poliomyelitis
- Rubella (German Measles)
- Tetanus
- Varicella (Chickenpox).

Pregnant staff who do not know if they are immune and believe that they have been in contact with a case of Rubella, Parvovirus or Varicella should see their GP without delay and inform Occupational Health.

3. Staff Health

It is recommended that all staff who come into contact with blood/body fluids should receive a full course of immunisations against Hepatitis B and have their antibody level checked. This is a requirement for all staff involved in Exposure Prone Procedures (EPPs).

EPPs are those invasive procedures where there is a risk that injury to the worker may result in the exposure of the patient to the blood of the worker. These include procedures where the worker's gloved hand may be in contact with a sharp instrument inside a patient's open body cavity, wound or other confined anatomical space where the hands/fingertips may not be completely visible at all times.

Staff need to take appropriate action in the event of a sharps/splash injury (**see Section F- Management of Sharps Injuries**).

Staff that develop diarrhoea and/or vomiting of an unexplained, or of a potentially infectious nature, should report this to the line manager and Occupational Health department. The staff member should stay off work until they have been symptom free for 48 hours. Staff may be asked to submit stool specimens to their GP. Advice on returning to work should be sought from the Occupational Health Department in consultation with the microbiologist. If the staff member is a food handler then consultation with the Environmental Health Officer is also required.

Staff who develop an unexplained rash should report this to their line manager and Occupational Health Department. They should stay off work until advised by medical staff e.g. GP

ESSEX HEALTH PROTECTION UNIT GUIDELINES FOR THE PREVENTION AND CONTROL OF INFECTION IN ESSEX AMBULANCE SERVICE

SECTION L - SPECIFIC COMMUNICABLE DISEASES

1. Introduction

This guideline sets out the procedures for staff to follow for common infectious diseases.

2. Common Infectious Diseases

This procedure describes the most common infectious diseases and their:

- Incubation period
- Method of spread
- Period of infectivity
- Management of contacts.

If further information and/or advice is required, contact the Essex Health Protection Unit **(contact numbers can be found in the Section A - Introduction)**.

Advice on treatment should be sought from a medical practitioner.

3. Communicable Diseases

DISEASE	NORMAL INCUBATION PERIOD	METHOD OF SPREAD	PERIOD OF INFECTIVITY	GENERAL MANAGEMENT
ANTHRAX	1-7 days Usually within 48 hours	Direct contact Inhalation Ingestion	Person-to-person transmission is very rare	Standard principles of infection control
CHEST INFECTIONS: Bacterial	Variable	Droplet	Until organism is cleared	Standard principles of infection control
Viral	Variable	Droplet	Until organism is cleared	
Sudden Acute Respiratory Syndrome (SARS)	Estimated 7-10 days Subject to revision when more data available	Droplet	Unknown, max. 1 week after onset of symptoms	Standard principles of infection control Plus Respirator masks + eye protection
CHICKENPOX (Varicella)	2-3 weeks commonly 14-16 days	Inhalation Direct contact	1-2 days before rash appears until all lesions are crusted	Standard principles of infection control Pregnant staff seek advice from Occ. Health Dept.
CHOLERA	Few hours-5 days Commonly 2-3 days	Ingestion	Until 48 hours after symptoms cease	Standard principles of infection control

CREUTZFELD-JAKOB DISEASE (CJD)	1-20 years not known exactly	Iatrogenic Ingestion of infected tissues- lymphoreticular tissues, brain, nervous tissue	Unknown	Standard principles of infection control
CYTOMEGALOVIRUS	Uncertain	Saliva, blood, urine, breast milk, semen, vaginal secretions	May continue for long periods (years)	Standard principles of infection control
DIARRHOEA Campylobacter	2-5 days	Ingestion Faecal/oral	Until 48 hours after symptoms cease	Standard principles of infection control
Clostridium difficile	As spore-forming it can live in the environment for indefinite periods	Faecal/oral Usually predisposing factor of history of antibiotics	Until 48 hours after symptoms cease	Standard principles of infection control
Cryptosporidium	1-12 days average 7 days	Ingestion Faecal/oral	Until 48 hours after symptoms cease	Standard principles of infection control
Escherichia. Coli 0157	2-8 days, commonly 3-4 days	Ingestion Faecal/oral	Until 48 hours after symptoms cease	Standard principles of infection control
Giardia	3-25 days commonly 7-10 days	Ingestion Faecal/oral	Until 48 hours after symptoms cease	Standard principles of infection control

Salmonella	6-72 hours commonly 12-36 hours	Ingestion Faecal/oral	Until 48 hours after symptoms cease	Standard principles of infection control
Shigellosis (bacillary dysentery)	1-3 days	Ingestion Faecal/oral	Until 48 hours after symptoms cease	Standard principles of infection control
Norovirus	24-48 hours	Ingestion Faecal/oral	Until 48 hours after symptoms cease	Standard principles of infection control
GERMAN MEASLES (Rubella)	14-21 days	Direct contact Droplet	1 week before to 4 days after onset of rash	Standard principles of infection control Pregnant staff seek advice from Occ. Health Dept.
GLANDULAR FEVER	4-6 weeks	Person-to-person via saliva	Prolonged. May persist for a year after infection	Standard Principles of Infection Prevention & Control
HAND, FOOT & MOUTH (Coxsackievirus)	3-5 days	Direct contact with secretions Droplet	During acute stage of illness	Standard principles of infection control
HEADLICE	Eggs hatch and become mature in 1-2 weeks	Prolonged head-to- head contact	Whilst lice or viable eggs are present	Standard principles of infection control

HENDRA VIRUS	4-18 days possibly up to 3 months	Direct contact with contaminated tissues/body fluids from infected animals	Whilst organism remains present	High-risk Disease- see Section N
HEPATITIS A (infective jaundice)	15-50 days commonly 28-30 days	Ingestion Faecal/oral	A few days before to 7 days after onset of jaundice	Standard principles of infection control
HEPATITIS B	45-180 days commonly 60-90 days	Predominantly blood, but also found in other body fluids Sexual contact Mother-to-baby	Whilst virus is present in blood/body fluids	Standard principles of infection control
HEPATITIS C	2 weeks-6 months	Blood-borne High-risk with drug users who share equipment	From 1 week before onset of the first symptoms, through the acute clinical course of the disease and indefinitely in the chronic carrier stages	Standard principles of infection control

HIV	May be years, sero-conversion usually takes 3 months	Sexual contact Blood and blood associated body fluids	For life	Standard principles of infection control
IMPETIGO	4-10 days	Direct contact	Until at least 24 hours after start of treatment	Standard principles of infection control
LEGIONNAIRES'S DISEASE	2-10 days commonly 5-6 days	Airborne droplet	Person-to- person transmission does not occur	Standard principles of infection control
LEPTOSPIROSIS (Weil's Disease)	4-19 days commonly 10 days	Absorption via mucosa or broken skin with contaminated water	Person-to- person transmission is rare	Standard principles of infection control
LEPROSY	Few months – many years	Droplet	Until receiving treatment	Standard principles of infection control
INFLUENZA	1-3 days	Droplet Direct contact	3 days from clinical onset	Standard principles of infection control
MALARIA	Varies according to organism	Inoculation (mosquito)	Not communicable in UK	Standard principles of infection control

MEASLES	7-19 days commonly 10 days	Droplet, direct contact with respiratory droplets and secretions	From just before the beginning of the fever up to 4 days after the rash appears	Standard principles of infection control
MENINGOCOCCAL DISEASE (Meningitis and Septicaemia)	2-10 days commonly 3-4 days	Direct contact with respiratory droplet from nose and throat.	Until 24 hours after starting effective antibiotic therapy	Standard principles of infection control Prophylaxis only if mouth-to-mouth resuscitation has been performed
MENINGITIS Other bacterial Viral	2-4 days Variable	Droplet Droplet	Within 24-48 hours after starting effective antibiotic therapy	Standard principles of infection control Standard principles of infection control
MUMPS	12-25 days commonly 18 days	Droplet	6-7 days before to 9 days after onset	Standard principles of infection control

MRSA	Refer to the text following this table			Standard principles of infection control
NIPAH VIRUS	4-18 days	Via contact with contaminated tissue or body fluids from infected animals	Unknown	High-risk Disease – see Section N
PERTUSSIS (whooping cough)	7-20 days commonly 7-10 days	Droplets Direct contact	1 week before up to 3 weeks after onset of symptoms	Standard principles of infection control
PLAGUE Bubonic plague Pneumonic plague	1-6 days 10-15 hours	Via infected rat fleas Droplets	Whilst pustules are present Person-to-person	High-risk Disease – see Section N
PNEUMOCYSTIS CARINII PNEUMONIAE	Unknown	Endogenous infection in immunosuppressed patients	Unknown Person-to-person transmission unlikely	Standard principles of infection control
POLIOMYELITIS	7-14 days	Ingestion Faecal/oral	Faeces can remain infected for up to 6 weeks after effective treatment	Standard principles of infection control

PYREXIA (travel & non-travel)	Consider tropical disease – dependant on causative organism			Standard principles of infection control
RABIES	3-8 weeks	Via saliva of infected humans/animals	Throughout the course of the disease	High-risk Disease – see Section N
RINGWORM	10-14 days	Direct contact/Indirect contact	Whilst lesion is present	Standard principles of infection control
RUBELLA (German measles)	2-3 weeks	Droplet	1 week before and until 4 days after rash	Standard principles of infection control Pregnant staff seek advice from Occ. Health Dept.
SCABIES	Up to 8 weeks before onset of itching in persons not previously exposed	Direct contact	Until treatment is commenced	Standard principles of infection control
SCARLET FEVER and other streptococcal infections	1-3 days	Droplet Direct contact	Untreated cases 10-21 days Until 24 hours after starting effective treatment	Standard principles of infection control

SHINGLES	Risk to the non-immune person for chickenpox 13-21 days	Direct contact with lesions	Whilst 'wet' blisters remain	Standard principles of infection control Pregnant staff seek advice from Occ. Health Dept.
TETANUS	3-21 days	Via non-intact skin from soil	Person-to-person transmission does not occur	Standard principles of infection control
TUBERCULOSIS (pulmonary)	4-12 weeks	Droplet	Until 2 weeks of effective treatment	Standard principles of infection control MDRTB Filtration masks should be worn by patient on transfers & Staff attending
TYPHOID FEVER	3 days-3 weeks commonly 1-2 weeks	Ingestion Faecal oral	Whilst organism remains present in faeces or urine	Standard principles of infection control
PARATYPHOID FEVER	1-10 days	Ingestion Faecal oral	1-2 weeks	

VIRAL HAEMORRHAGIC FEVER Lassa, Ebola, Marbug, Crimean / Congo	6-21 days 2-21 days 3-9 days 1-12 days	Direct and indirect contact with infected body fluids including blood, urine, faeces and vomit	Whilst organism remains present in body fluids	High-risk Disease – see Section N
YELLOW FEVER	3-6 days	Mosquito-borne	Whilst organism remains present in body fluids	High-risk Disease – see Section N

Ref: James Chin. Control of Communicable Diseases Manual. 17th edition 2000

Health Protection Agency Contingency Plan for Severe Acute Respiratory Syndrome (SARS). July 2003

4. Guidelines for the Management of MRSA

What is MRSA?

MRSA stands for **Methicillin Resistant *Staphylococcus Aureus***.

Staphylococcus aureus lives harmlessly in the noses, throats and on the skin of about 30% of the population. However if it migrates to other areas e.g. a wound, it may cause infection.

MRSA is a strain of *Staphylococcus aureus* that has become resistant to most antibiotics. This reduces the choice of antibiotic available to treat infections caused by MRSA.

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 will be vastly 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.

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?

There is no evidence to suggest that MRSA is a risk to ambulance personnel or their families. It is possible for staff to become a risk to patients by cross-infection. MRSA is a transient organism that can be picked up on the hands of healthcare workers and transferred to vulnerable patients. It is for this reason that hospital staff barrier nurse patients and use Standard principles of infection control for MRSA patients in acute hospitals.

From the ambulance service perspective, staff need to ensure that they maintain Standard principles of infection control to prevent cross-infection.

Patients with MRSA do not normally require any special travel arrangements and therefore do not require a dedicated A&E or PTS vehicle for their journey.

MRSA patients may be conveyed with other patients in the vehicle providing that all wounds are covered. If unsure discuss with ward manager.

The only exception will generally involve those patients with open skin lesions that are unable to be covered by an impermeable dressing. For any such patients, the advice of the Hospital Infection Control Team should be sought. This will require the crew to provide details of the intended journey plan, together with an account of any other patients who are due to be conveyed during the same journey.

The crew should wear PPE as necessary, which will involve the use of gloves and aprons.

On completion of the journey, all horizontal surfaces should be cleaned (**see section J – 10 Environmental Cleaning**).

For further advice please contact your Communicable Disease Control Nurse.

5. Information Sheets

The following information sheets are available from Essex Health Protection Unit on www.ehpt.nhs.uk

- Blood-borne Viruses
- Biting Bugs
- Chickenpox
- Chlamydia
- Clostridium Difficile
- Conjunctivitis
- Cryptosporidiosis
- Cytomegalovirus (CMV)
- Diarrhoea And Vomiting
- ESBLs
- Farm & Zoo Visits
- Glandular Fever
- Hand Foot And Mouth
- Headlice
- Hepatitis A
- Hepatitis B
- Hepatitis C
- Herpes
- Impetigo
- Influenza
- Legionnaire's Disease
- Leptospirosis & Weils Disease
- Listeria
- Lyme Disease
- Measles
- Meningitis
- Molluscum Contagiosum
- MRSA
- Mumps
- Parvovirus (Slapped Cheek Syndrome)
- Pertussis (Whooping Cough)
- Polio
- Rabies
- Rashes in Childhood
- Ringworm
- Rubella (German Measles)
- Scabies
- Scarlet Fever (Group A Strep.)
- Shingles
- Threadworm
- Toxoplasmosis
- Travel Vaccinations
- Tuberculosis (TB)
- Verruca (Warts)

ESSEX HEALTH PROTECTION UNIT GUIDELINES FOR THE PREVENTION AND CONTROL OF INFECTION IN ESSEX AMBULANCE SERVICE

SECTION M - CONTROL OF INFESTATIONS

1. Introduction

This guideline sets out the procedures for staff to follow for care of patients with parasitic infestations.

2. General

An Ambulance crew may occasionally come into contact with patients who are infested with parasites. These parasites live on or in the skin.

3. Common Parasites

There are three types of ectoparasite which crews are likely to encounter:

- Scabies
- Lice (Head, Body/Clothing and Pubic)
- Fleas.

4. Scabies

Sarcoptes scabiei is a human mite, which penetrates the outer layer of the skin. The body's immune system reacts to the mite's droppings and saliva resulting in an immune reaction, which causes intense itching.

The incubation period is up to 8 weeks after contact with an infected person. It may take up to 2 weeks before symptoms present.

Lesions occur mainly on the hands, finger webs, wrists, inside of arms, abdomen/waist, groin and under buttocks.

Scabies is spread from person-to-person by prolonged (approx. 5-10 minutes) direct skin-to-skin contact. It can also be acquired during sexual contact.

Mites do not survive away from their host as it is too cold for them outside the skin.

Ambulance crew are at low risk of contracting scabies, providing Standard principles of infection control are observed, especially hand hygiene.

5. Lice

Lice are wingless insects, which are found worldwide as ectoparasites of mammals. They feed by sucking blood from their host.

6. Headlice

The female louse lives for 2 to 4 weeks and can lay 5 to 8 eggs per day. The eggs are enclosed in tiny sacs, which are attached to the base of the hair and hatch after 7 days. The empty egg cases are called "nits". The louse takes 10 days to become mature and in turn then able to lay eggs. These lice are found on the head only.

Transmission is via head-to-head contact (approx.1 minute). They cannot jump, fly or swim. Lice found on clothing or furniture are either dead or dying.

7. Clothing/Body Lice

These lice live in the seams of clothing rather than on the skin of the host.

They will live for 13-30 days if they are able to feed. If unable to feed they will die of starvation in 5 days. Infestations usually affect people with poor personal hygiene, who do not regularly change their clothing.

8. Pubic/Crab Lice

This louse will infest all coarse body hair. Living on pubic hair, axillary hair, beard, eyebrows and eyelashes. The eggs take 6-8 days to incubate and the life cycle is, from egg to mature adult able to lay eggs, about 3 weeks.

9. Fleas

Human fleas are rarely encountered. Animal fleas are host specific requiring a specific animal i.e. cat or dog, to breed and complete their life cycle. However animal fleas will feed from any warm-blooded animal.

In the UK, fleas are generally not responsible for the transmission of disease.

Cat and dog fleas account for 95% of flea problems in the UK. Although they will not remain on a human, the fleas have the ability to jump on to a person and bite, before jumping off again.

10. Protective Measures

Standard principles of infection control, if any suspicion of infestation, especially handwashing and the use of PPE such as gloves and aprons.

The use of disposable linen is recommended – dispose of as clinical waste.

If re-useable items are used then all blankets and items of linen should be red bagged and appropriately laundered.

In general, no specific cleaning of the vehicle is necessary, other than close attention to the area immediately occupied by the patient, when GPD and hot water/multi-surface surface wipes should be used on trolley, adjacent walls and floors.

In cases where there is visible infestation with fleas, crews may wish to request a return to station to change clothing.

Any member of staff who suspects that they have become infested should contact the Occupational Health Department or visit their GP for further advice.

ESSEX HEALTH PROTECTION UNIT GUIDELINES FOR THE PREVENTION AND CONTROL OF INFECTION IN ESSEX AMBULANCE SERVICE

SECTION N - HIGH-RISK DISEASES

1. Introduction

This guidance sets out the procedures for staff to follow for care of patients with high-risk Diseases who need additional special measures in addition to Standard principles of infection control.

2. General

Listed below are infectious diseases that require the application of special precautions and procedures:

- Rabies
- Plague
- Zoonotic Infections caused by Hendra and Nipah Viruses
- Viral Haemorrhagic Fever – Lassa, Ebola, Marburg and Crimean/Congo Fever
- Yellow Fever.

All of these diseases are extremely rare in the UK and cases are more likely to be of a 'suspected' nature, as opposed to those with a 'confirmed' diagnosis.

3. Procedure

The Essex Ambulance Service should not normally transport patients with the above diseases confirmed.

In the event of the need to convey a patient with the above diseases, the logistics will be co-ordinated by the Medical Advisor in consultation with the High Security Infectious Diseases Unit at Coppets Wood Hospital, London.

EOC (Emergency Operations Centre) will hold documents outlining the process for dealing with conveyance of confirmed cases.

If whilst in the process of dealing with a patient any suggestion is made of the above diseases it will be necessary for the crew to contact control for clarification of how to proceed.

4. Chain of Responsibility

- Medical Advisor
- Duty Manager

ESSEX HEALTH PROTECTION UNIT GUIDELINES FOR THE PREVENTION AND CONTROL OF INFECTION IN ESSEX AMBULANCE SERVICE

SECTION O - REFERENCES

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APPENDICES

i **Decontamination of Interior of the Helicopter**

The chemicals used to decontaminate the helicopter require to be approved by the aviation authorities. The items listed below have been deemed safe to be used within the helicopter.

It is important to maintain high standards of hygiene within the air ambulance to prevent the spread of infection.

All staff have an individual responsibility to keep the air ambulance clean and thus to reduce the risk of cross-infection to themselves, their colleagues and their patients. This can best be achieved by all crew participating in frequent and routine cleaning activities.

End of each shift

All interior surfaces that become directly contaminated should be cleaned as soon as possible. Multi Surface (detergent) wipes should be used. If contaminated with blood, deactivate first with disinfectant followed by a detergent wipe. Use PPE as appropriate.

In addition horizontal and vertical surfaces should be wiped down using the multi-surface Wipes.

The floor should be mopped clean on a regular basis through out the shift. General-purpose detergent and hot water should be used unless there has been a blood spill. In this event deactivate with a disinfectant followed by washing as above.

High Cleaning of Aircraft

The air ambulance interiors should be subjected to a comprehensive clean.

In conjunction with the aviation company (Bone Aviation) the aircraft interior is stripped down, cleaned and disinfected at 6 monthly intervals (at time of 400 hour servicing).

A suitable cleaning schedule for each vehicle should be designed and maintained by staff and station masters. This schedule should be monitored and reviewed as necessary.

Products for decontamination/cleaning within the aircraft that have been approved by the aviation company and the Essex Health Protection Unit are listed below.

Interior of Aircraft

Cleaning agents for interior of aircraft:

- Cutan Multi-surface Wipe
- Janitol Spray N Wipe (alcohol)
- Spillage Kit (spillage kits used on the helicopter should not contain hyperchlorite).

Exterior of Aircraft

Cleaning agents for exterior of aircraft:

- Janitol Ultra Sanitiser.

ii Decontamination of Flight Suits/Helmets

Flight Suits

Flight suits should be laundered when contaminated with body fluids and at regular intervals – weekly.

Disposable reinforced paper coveralls should be used for all potential trauma cases.

Flight Helmets

It is recommended that each crew member has their own helmet. Decontamination as below.

Inner Head Cap

It is recommended that each crew member has their own inner head cap.

This should be laundered regularly – weekly

Boots

If contaminated with body fluids – wipe with multi-surface wipe followed by alcohol wipe (Janitol Spray N Wipe).

iii Motorcycle Suits/Helmets

Regular cleaning of leather motorcycle outer garments should be in keeping with the manufactures recommendations. If contaminated with body fluids - wipe with multi-surface (detergent wipe) followed by alcohol wipe. The same procedure should be carried out for contamination to helmets.

Dealing with Significant Spillage of Body Fluids

Carry Out Risk Assessment



Select Appropriate Self Protection in all Cases: Gloves & Aprons (Goggles & Masks may be required if there is a Splash Risk)



Containment (if applicable): Absorbent pads/blue towel roll/absorbent granules until spillage completely absorbed



When fluid completely absorbed clean area using a detergent based wipe



Ensure thorough drying of the affected area



Discard all used wipes and equipment into a clinical waste bag