



Emergency Doctors Medical Services Organisational & Operational Policy (OOP)

Policy Title	Infection Prevention and Control
Policy Number	EDOOP/002/01/15/V3
Purpose	To ensure that clinical activities are performed with careful attention to the prevention of infection and that where EDMS are dealing with cases of infection risks of cross contamination are minimised or eliminated. In addition, to ensure that all staff are properly trained in the principles of infection prevention and control.
Author	Dr Aaron Pennell – Clinical Director Andrea Stead – Clinical Governance and Audit Manager
Responsible officer/s	Dr Aaron Pennell – Clinical Director
For use by	All staff with patient contact
This policy complies with or has been guided by	<ul style="list-style-type: none">Health and Social Care Act 2008 Code of Practice on the prevention and control of infections and related guidance
CQC outcome compliant	Outcome 8. Cleanliness and Infection Control
This document supersedes	EDOOP/002/01/12/V2
Approved and ratified by	Clinical Governance and Quality Group
Implementation date	January 2015
Review date	January 2017
Version and Document Control	Version 3 – reviewed and updated January 2015

Equal Opportunities, Health and Safety, Employment conduct and Professional Liabilities Assessment:

EDMS has ensured given every reasonable means and with the information available at this time that this policy will not discriminate either directly or indirectly in any way against employees, patients or customers on the grounds of race, religion, colour, age, gender or sexual orientation, disability, marital status or culture. EDMS has assessed this policy in terms of current health and safety guidance and has ensured that where requirements have been stipulated these are met. EDMS has ensured that it holds appropriate insurance for this policy to be fully endorsed. EDMS has assessed this policy for any impact it may have on corporate or individual professional requirements and conduct and has ensured any such impact meets with the approval of any professional bodies it may encounter. This policy can be made available in Braille or voice recording and can be translated into other languages

1. Executive summary

This policy sets out how EDMS complies with its responsibilities under the Health and Social Care Act 2008. It outlines how EDMS will conduct infection prevention and control procedures.

2. Policy or document itself

As the gold standard in the UK at present EDMS has adopted the guidance of the Department of Health publication: The Code of Practice for the prevention and control of infections and related guidance.

3. Audit and review mechanism

This policy will be kept under continuous review. Infection prevention and control measures will be routinely audited at all venues of care to ensure that standards continue to be met.

4. References

Health and Social Care Act 2008 Code of Practice on the prevention and control of infections and related guidance.

Guidance about Compliance, Essential Standards of Quality and Safety, Care Quality Commission, March 2010, HMSO

CONTENTS

- 1 Introduction**
- 2 Roles and Responsibilities**
- 3 Background Information**
- 4 Safe Working Practices**
- 5 Hand Hygiene**
- 6 Personal Protective Equipment (PPE)**
- 7 Introduction (PPE)**
- 8 Gloves**
- 9 Sleeve Protectors**
- 10 Aprons**
- 11 Disposable Facemasks**
- 12 Eye Protection**
- 13a Management of Waste**
- 13b Handling and Storage of Clinical Waste**
- 14 Clinical Waste Collection**
- 15 Blood/Body Fluid Spillage**
- 16 Management of Linen**
- 17 Segregation of Linen**
- 18 Collection of Used and Contaminated Linen**
- 19 Category Three Patients**
- 20 Operational Staff Uniform**
- 21 Handling the deceased**
- 22 Vehicles Cleaning and Disinfection**
- 23 Equipment Cleaning and Disinfection**
- 24 Refrigerator and Cleaning**
- 25 Non Clinical Areas (Office)**
- 26 Vascular Access procedures**
- 27 Urinary Catheter Insertion and Catheter Care**
- 28 Wound closure – glue, staples and suturing**
- 29 Appendices**

1. Introduction

1.1

In any situation where numbers of people are brought together as providers or receivers of health care the risks of both acquiring infection from others and of spreading infection can be high. All EDMS medical personnel have transitory contact with large numbers of people and provide a variety of services ranging from sports medicine, public health care, emergency care, crowd medicine and emergency response. Trained medical staff are often called upon to carry out invasive procedures, often in less than ideal conditions and many items of equipment are shared between patients. In such circumstances the risks of cross infection are high unless infection control measures are taken to reduce these risks.

1.2

For prevention and control of infection to be effective, infection prevention and control activities have to be embedded into everyday practice and applied consistently by everyone. The Department of Health is firmly committed to reducing healthcare associated infections (HCAI). It has produced a number of documents providing guidance on moving towards compliance with policies, best practice and evidence-based care, including: *Getting ahead of the curve; Winning ways: working together to reduce healthcare associated infection in England; Towards cleaner hospitals and lower rates of infection: a summary of action; Clean, safe care – reducing infections and saving lives; Saving Lives: reducing infection, delivering clean and safe care; and Essential steps to safe, clean care: reducing healthcare.*

1.3

The effective prevention of spread of infection is most reliably achieved by education and awareness. These guidelines are intended for all EDMS personnel and contain easy reference on all aspects of infection control and the basic hygiene requirements for the prevention and control of infection. Advice on the management of specific infections and information on common infectious diseases is also given. The information is by no means exhaustive but an attempt has been made to provide guidance that will enable our clinicians to deal with most of the day-to-day problems.

1.4

EDMS has a designated advisor for all Infection Prevention and Control (IPC) matters. This is Alan Broome; an HCPC registered Operating Department Practitioner. He can be contacted via the main office on 01206 755167

2.0 Roles and Responsibilities

2.1

The **EDMS Clinical Governance, Quality and Standards Group** is responsible for ensuring appropriate infection prevention and control policies and procedures are in place and for ensuring sufficient resources are available to support the implementation of these policies. A designated agenda time is included in all CGQS meetings for IPC.

2.2

The **EDMS Clinical Governance, Quality and Standards Group** are responsible for approving these procedures and ensuring the agreed process has been observed.

2.3

The **EDMS Clinical Governance, Quality and Standards Group** are responsible for receiving and reviewing the IPC minutes where the effectiveness of these procedures is monitored.

2.4

The **EDMS Clinical Governance, Quality and Standards group** are responsible for monitoring the effectiveness of policy and procedures and reporting. They will also review the training needs analysis annually and liaise with the IPC advisor to ensure adequate training is arranged on our core training day and at other specified times for IPC.

2.5

The **Medical Director** has overall responsibility for the prevention and control of infection throughout EDMS. This responsibility is delegated on a day to day basis to the lead nurse who will:

- Ensure effective implementation of the procedures across EDMS
- Ensure monitoring of the effectiveness of the procedures (see section 7)
- Ensure the procedures is reviewed at least biannually or sooner if changes in legislation or DH guidance occurs □ Ensure provision of relevant information for the CGQS group
- Advise on any investigations necessary

2.6

All **EDMS clinicians** are responsible for:

- Their own health and safety and that of others who may be affected by their acts or omissions at work
- Complying with all policies, procedures and guidelines □ Co-operating fully with any IPC breach incident investigator □ Reporting incidents in accordance with appendix 1 □ Attending training as required.

2.7

The aim of these guidelines are:

- To provide advice for EDMS personnel to help minimise the risk of spread of infection in the course of their work.
- To provide contact names and telephone numbers, should more detailed advice be needed on communicable disease or infection control matters.
- To provide easy reference on basic hygiene and the general standards of practice to prevent or limit the spread of infection.
- To provide specific information and guidance on the recognition and management of some common communicable infections

3.0 Background information

3.1

Basic Microbiology

3.1.1

Micro-organisms and their properties The term micro-organism, or microbe, is used to describe any organism, which is too small to be seen with the naked eye. Many micro-organism live independently of man and those that are dependent exist in a host- organism relationship that is generally harmless and may even be mutually beneficial. Of the vast array of organisms, only about 50 or so species do in fact cause harm to humans.

3.1.2

Micro-organisms capable of causing disease are referred to as Pathogens. Infection is a pathological process, which involves the damaging of body tissues by pathogens, or by the toxic substances produced by these pathogens. They generally thrive and multiply in darkness, warmth and moisture, and infection is usually accompanied by signs and symptoms in the patient, e.g. pain, swelling and/or fever. Pathogenic micro-organisms may be classified as follows:

3.1.3

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

3.1.4

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

3.1.5

Pathogenic fungi can be either moulds or yeasts. An example of a mould that causes infection in humans is ringworm, which can also infect nails. A common yeast infection is thrush, caused by an organism *Candida albicans*. Immunosuppressed individuals may develop systemic infections affecting the whole body; one example is *Aspergillum*, which is usually an opportunistic organism taking advantage of the persons lowered immune response.

3.1.6

Protozoa are microscopic organisms, but are larger than bacteria. Those that cause disease in humans include *Cryptosporidium parvum*, which causes diarrhoeal illness, and the malaria parasite.

3.1.7

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.

3.1.8

Prions are thought to be found in the central nervous system and also in other tissues such as the lymph glands particularly the tonsils. Intensive research into Prions continues: they are thought to be the cause of transmissible spongiform encephalopathy's (TSE). During the 1980's new types of Prions evolved in the UK, including bovine spongiform encephalopathy (BSE) in cattle and variant Creutzfeldt-Jakob disease (vCJD) in humans.

1. 3.2

The Transmission (chain) of Infection

3.2.1

The Chain of Infection: Transmission of infection occurs when the infectious agent leaves its reservoir or host through a portal of exit and is conveyed by some mode of transmission and enters through an appropriate portal of entry to infect a susceptible host. This is the chain of infection. For any given infection, understanding the chain of infection allows appropriate control measures to be recommended.

3.2.2

The Reservoir of Infection: The reservoir of an infectious agent is any person, animal, arthropod, plant, soil or substance (or combination of these) in which the infectious agent normally lives and multiplies. It is dependant on the reservoir for survival and it produces itself there in such a way that it can be transmitted to a susceptible host.

3.2.3

The Portal of Exit: The portal of exit is the path by which an agent leaves the source host, which usually corresponds with the site at which the agent is localized, for example, respiratory tract, genito-urinary system, gastrointestinal system, skin or blood.

3.2.4

The Portal of Entry: The portal of entry is the route by which an agent enters a susceptible host. This provides access to tissues in which the agent can multiply or a toxin can act.

The main portals of entry are:

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 Urinary Tract

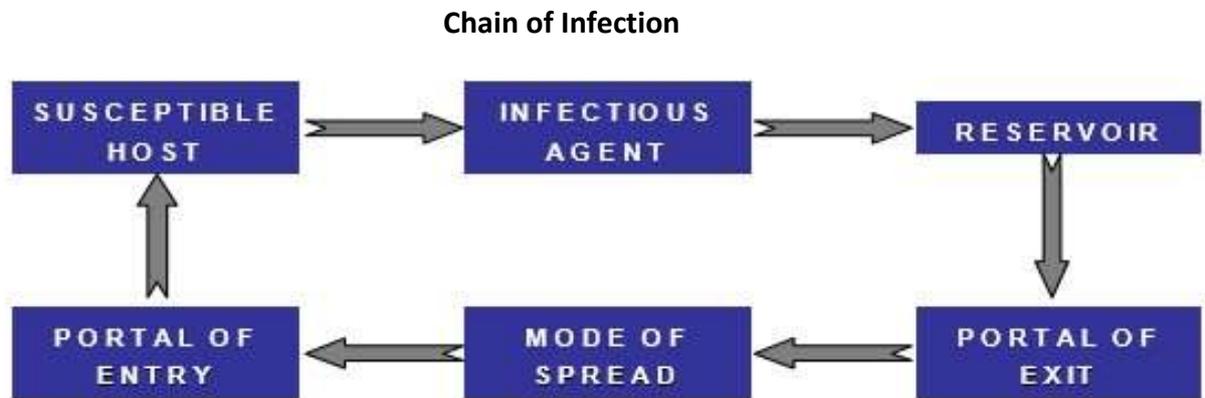
Through transfer of organisms via the urethra or by introduction of a medical device such as catheters

The Skin and Mucosa

Either by the passage of organisms through damaged skin, (infected wounds), or by the inoculation of organisms. (E.g. Hepatitis B transferred from contaminated needles)

The Placenta

Via transfer of organisms from the maternal circulation to the foetal circulation (E.g. rubella, cytomegalovirus and syphilis)



3.2.5

The Main Sources of infection are:

- Infected patients,
- Colonised patients (who may show no signs of infection),
- People incubating an infectious disease,
- Healthy carriers

3.2.6

Infection is spread:

- By contact E.g. with contaminated hands, instruments, fomites, (objects) food and water, ☐ Or through the via respiratory droplets, dust or skin scales carrying micro-organisms.

3.2.7

Infection can be acquired by:

- Inhalation,
- Ingestion,
- Percutaneous inoculation e.g. via wounds or injections, ☐ Sexual contact

2. 3.3

The risk of transmitting infection to patients or staff can be minimised by adopting simple infection control measures including

3.3.1

General Infection Control Considerations Many patients have an unknown medical history. It is therefore important that personal contact with patients be compatible with the Health & Safety of patients and staff. EDMS staff ascertain, wherever possible, from anyone requesting transport/clinical treatment whether the patient is considered an infection risk.

3.3.2

In the case of a known or a suspected infectious disease staff will, where possible, be forewarned and they must don appropriate protective clothing provided. In the case of an unknown diagnosis EDMS personnel must take appropriate precautionary measures as indicated by the patient's symptoms or clinical presentation these are known as „Universal or (Standard) Precautions“.

3.3.3

Traditionally, Health Services have classified infectious diseases into one of three categories, and operated protocols that have been category specific. However, in adopting the comprehensive use of Universal (Standard) Precautions, the need to retain the special measures of Categories 1 and 2 has now been negated. Specialists have advised that the routine use of Universal (Standard) Precautions is totally appropriate to the successful management of patients that previously fell within these two categories. Therefore, the old working practices associated with Categories 1 and 2 have been withdrawn, leaving only those patients with illnesses in Category 3 as requiring measures. In considering infection control and decontamination issues it is important that all personnel maintain a sense of proportion when considering risks to themselves.

3.4

Adherence to infection control practices at all times:

- Attention to simple hygiene.
- Observance of health care programs including immunization,
- Use of appropriate protective clothing whenever necessary,
- Regular cleaning and decontamination of vehicles and equipment,
- Keeping a stock of materials and facilities for dealing with clinical/infectious waste readily available, □
The safe disposal of sharp instruments and clinical infectious waste in line with the EDMS policies.
- Efficient laundry arrangements in line with current EDMS Laundry contracts

3.5

Control of infection is dependent upon the correct and conscientious application of all procedures. The basic methods of protecting Ambulance personnel from contracting an infection/infectious disease from a patient and for preventing cross infection between patients are:

4.0 Safe Working Practices

4.1

Standard (Universal) Infection Control Principles: Standard (previously known as universal) precautions are the practices adopted by all healthcare workers when potentially coming into contact with any patient's blood or body fluids. They are a set of principles designed to minimise exposure to and transmission of a wide variety of micro-organisms. Since every patient is a potential infection risk, it is essential that you apply standard precautions to all patients at all times.

4.1.1

As it is not always possible to identify people who are infectious to others from those who are not, Standard infection control principles and procedures must be adopted for each and every individual.

4.1.2

The aim of these Standard precautions“ is to protect both patients and staff from the transmission of infection during hazardous procedures where the risk is known and unknown. These precautions ensure maximum protection without the need to divulge information that may be confidential.

4.1.3

It must be emphasised that every member of staff has an individual responsibility to ensure that these guidelines are adhered to.

4.1.4

It is expected that Qualified EDMS clinicians will by patient assessment determine the level of Personal Protective Equipment and other precautions that may be required.

The following principles form the basis of these guidelines.

1. Apply good basic hygiene practices with appropriate hand washing
2. Cover existing wounds or skin lesions with an impermeable (waterproof) dressing
3. Staff that are presenting with chronic skin lesions on hands should be referred to Occupational Health for advice and/or treatment
4. Avoid contamination with body fluids (Blood, Faeces, Urine) by appropriate use of protective clothing (e.g. gloves, plastic aprons, sleeve protectors, masks, safety goggles or glasses)
5. Use approved procedures for the decontamination of equipment
6. Apply good basic environmental cleaning procedures
7. Clear up spills of blood and other body fluids promptly
8. Use approved procedures for the safe disposal of clinical waste
9. Use approved procedures for the safe use and disposal of sharp items
10. Deal with inoculation injuries immediately
11. Ensure all staff are aware of, understand and adhere to infection control policies, procedures and guidelines

Reference:

Guidance for Clinical Health Care Workers: Protection Against Infection with Blood-borne Viruses. Recommendations of the Expert Advisory Group on Hepatitis. (UK Health Departments 1998)
Health Protection Agency Centre for Infections, National Public Health Service for Wales, CDSC Northern Ireland and Health Protection Scotland. Eye of the Needle. United Kingdom Surveillance of Significant Occupational Exposures to Blood borne Viruses in Healthcare Workers. London: HPA, November 2006.

5.0 Hand Hygiene

5.1

Hand hygiene is the single most effective method of preventing cross infection (Ayliffe G. et al 2000). Hand washing is defined as the process for removal of soil and transient micro-organisms from the hands (Larson 1995). There are two populations of MicroOrganisms found on the skin. The resident Bacteria live in the deeper skin layers; they are not readily transferred and are usually not harmful. Transient Micro-Organisms do not normally live on the skin but are both readily acquired and transferred by touch.

5.2

In clinical settings hands can cause cross infection by transferring these transient Micro-Organisms between patients but are easily removed by simple hand decontamination procedures. **The wearing of Gloves is not an alternative to hand hygiene.**

5.3

Rationale

5.3.1

The aim of hand washing is to remove micro-organisms from the hands, preventing their potential transfer. It is known that organisms survive and multiply on human hands creating the opportunity to infect others or the host (Reybrouck 1983). Problematic microbes such as Methicillin resistant staphylococcus Aureus (MRSA) from infected patients may readily be detected on the skin of health workers for a considerable period following contact (Cookson et al 1989).

5.4

Frequency

5.4.1

The need for hand washing is dictated entirely on the intended actions or interventions undertaken with respect to the patient and there is, therefore, no set frequency for hand washing. The approach depends on the intensity of contact with the patient or equipment, the degree of contamination likely to occur with that contact, the susceptibility of the patient to infection and the procedure to be performed (Larson 1995)

5.4.2

EDMS follows the guidance as set out by the Infection Control Nurses Association (ICNA 2000), DOH 2003 winning ways action four, Hand Washing. May 2005, NPSA clean-your-hands campagne 2008.

5.4.3

Hands should be washed before;

- Taking a break / going home
- Undertaking a care procedure
- Putting on protective clothing
- Eating, drinking, handling food
- Smoking
- Before contact with any immunosuppressed patients (for example Renal, CA patients, the newborn)

5.4.4

- Hands should be washed after;
- Prolonged and intense contact with any patient
- Contact with blood or other bodily fluids
- Removal of gloves
- Using the toilet, blowing nose or covering a sneeze
- Handling contaminated items such as dressings
- Cleaning equipment or environment
- Handling dirty linen or waste
- Hands become visibly soiled
- Cleaning up spills
- Smoking

5.5

Methods

Where running water is available

5.5.1

Good hand washing routine and technique is essential. To ensure that hands are thoroughly washed the following prescribed technique should be used:

5.5.2

Jewellery and watches are removed (plain wedding bands are acceptable) the hands are wet and 3-5ml of soap (for routine hand washing) or antiseptic preparation (prior to invasive procedures or after contact with bodily fluids) is applied to cupped hands. The hands are then rubbed together 6 times as per the diagram below (**next page**). This should take 15- 30 seconds. The wrists and arms up to the elbow should be similarly rubbed and then thoroughly rinsed and dried. EDMS follows the NHS Ambulance Guidelines 2008, and adopts a bare below the elbows guidelines to allow washing of the arm as well as hands.

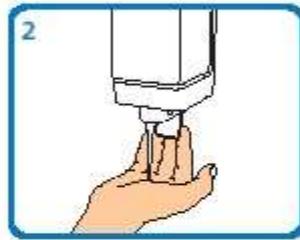
5.5.3

Hand drying is best achieved using disposable single use paper towels. Thorough drying is essential as it is known that wet hands transfer micro-organisms more effectively than dry hands (Marples and Towers 1979). Paper towels are the preferred option due to the friction created whilst hand drying using paper towels will further assist in the removal of micro-organisms and of dead skin cells. Warm dryers are also used. **Cloth towels are not to be used to dry hands.**

Hand-washing technique with soap and water



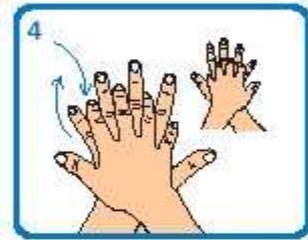
1 Wet hands with water



2 Apply enough soap to cover all hand surfaces



3 Rub hands palm to palm



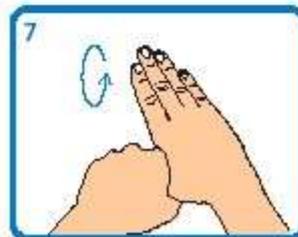
4 Rub back of each hand with palm of other hand with fingers interlaced



5 Rub palm to palm with fingers interlaced



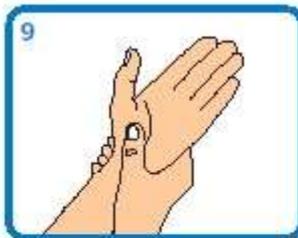
6 Rub with back of fingers to opposing palms with fingers interlocked



7 Rub each thumb clasped in opposite hand using a rotational movement



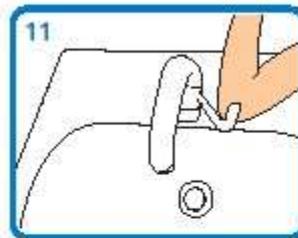
8 Rub tips of fingers in opposite palm in a circular motion



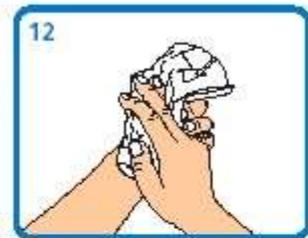
9 Rub each wrist with opposite hand



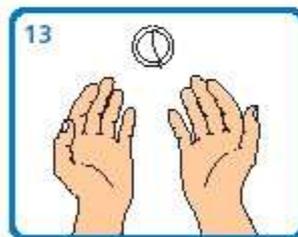
10 Rinse hands with water



11 Use elbow to turn off tap



12 Dry thoroughly with a single-use towel



13 Hand washing should take 15-30 seconds

Where running water is not available

5.5.4

Alcohol hand-rub, containing 70% isopropyl (Ethanol) alcohol, rapidly destroys micro-organisms on the skin surface and may be used as an alternative to hand washing on visibly clean hands. It is ideal for the community setting where hand-washing facilities are not readily available and saves time in emergency situations.

5.5.5

For alcohol to be effective it must be applied to the entire skin surface, which should be dry, using the prescribed technique, and allowed to evaporate completely on the skin (Ayliffe et al 1992).

5.5.6

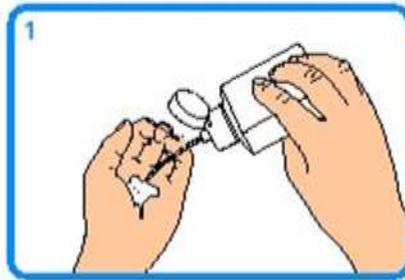
EDMS uses Guest Medical Alcohol Hand Rub (April 2012), also alcohol hand rub in road vehicles. In the absence of soap and water staff may use EDMS approved Disinfectant Wipes if hands are visibly soiled. Hands are to be dried using paper towels after which alcohol hand rub can then be applied.

5.5.7

Note Alcohol Gels are not effective against some microorganisms such as **Norovirus**, If used **Alcohol** hand rub must remain on the skin for **30 seconds**, EDMS approved disinfectant wipes should be used in conjunction with the Hand gels.

Guidelines on page as follows

Alcohol handrub hand hygiene technique – for visibly clean hands



1 Apply a small amount (about 3 ml) of the product in a cupped hand



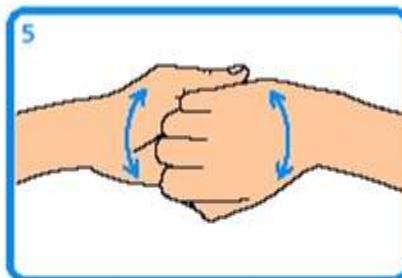
2 Rub hands together palm to palm, spreading the handrub over the hands



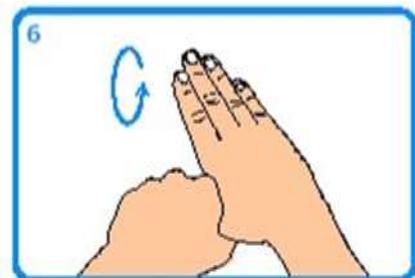
3 Rub back of each hand with palm of other hand with interlaced fingers



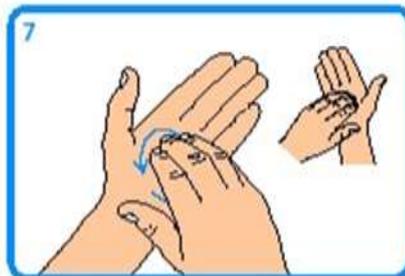
4 Rub palm to palm with fingers interlaced



5 Rub back of fingers to opposing palms with fingers interlocked



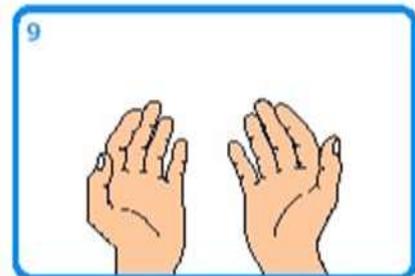
6 Rub each thumb clasped in opposite hand using a rotational movement



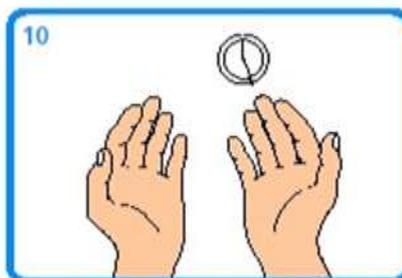
7 Rub tips of fingers in opposite palm in a circular motion



8 Rub each wrist in opposite hand



9 Wait until product has evaporated and hands are dry (do not use paper towels)



10 The process should take 15–30 seconds



© Crown copyright 2007 283373 1p 1k Sep07

Adapted from World Health Organization *Guidelines on Hand Hygiene in Health Care*



The WHO Five Moments for Hand Hygiene:



5.6

Hand Protection

All cuts and abrasions on hands must be covered with an impermeable (waterproof) dressing (sealed at all edges) to provide protection from the blood and body fluids of others. EDMS provides Moisturising cream (Deb Cutan) this should be applied after hand washing to keep skin healthy. Any member of staff with extensive skin lesions and or skin irritation caused by a particular soap or alcohol product must seek advice from their Occupational Health Department.

6.0 Personal Protective Equipment

6.1

Personal protective equipment (protective clothing) is worn to prevent the wearer from coming into direct contact with the blood and body fluids of others. These body substances may contain harmful infectious agents that could either be picked up by the person in contact with them or passed on to others.

7.0 Introduction

7.1

Whilst it is the responsibility of the employer to provide appropriate protective clothing to all staff it remains the responsibility of the staff to use that equipment appropriately.

7.2

With respect to the control of infection, EDMS provides the following items of Personal Protective Equipment (PPE) to its operational members of staff. This is supplied either on a personal basis, or as part of vehicle issue. **Disposable nitrile gloves**

- **Disposable nitrile gloves**
- **Disposable Plastic Aprons**
- **Personal Issue Alcohol Hand**
- **Rub Eye protection Goggles**
- ***Face Masks including FFP3 respirator mask**
- ***Tyvex suits**
- **Uniforms**
- **Infectious Kit bag – sealed**

*SPECIFIC TO REQUIREMENTS

8.0 Gloves

8.1

It is important to recognise that gloves do not always create a complete impermeable barrier but that they do, together with good hand hygiene, reduce the transfer of micro-organisms.

8.2

Gloves in a variety of sizes should be available on all vehicles and at all bases and other recognised facilities.

8.2.1

Gloves (4 pairs) should be carried by EDMS staff when operational, either in a dedicated pocket (combat type trousers or Uniform) or in a glove pouch supplied by EDMS.

8.3

Gloves – What Type?

8.3.1

Disposable, **Non-Latex**, Non powdered gloves are supplied by EDMS and **only** these gloves should to be worn by clinicians. Gloves should be seamless well-fitting and low in allergenicity. The choice of gloves recognised and used by EDMS are **approved nitrile** examination gloves. The gloves should comply with both the EN455 series of medical glove standards and the EN374 and EN388 series of PPE glove standards. This means that the gloves comply with both the Medical Devices Directive (93/42/EEC) and the Personal Protective Equipment Directive (89/686/EEC) 2009. Drs and others that have recognised training use **NonLatex** sterile gloves for suturing and Catheterisation (The choice of gloves used by EDMS should be Sterile and compliant to EN455 and EN556.)

8.3.2

Gloves for use by Domestic and non-clinical staff,

8.3.3

Coloured Vinyl gloves are to be available (Different colour than used by clinicians) for domestics. These must differ in colour and appearance in comparison to the Medical examination gloves worn by clinicians, such gloves are to be disposed of in the Black bag waste stream only.

8.4

Latex Allergy

8.4.1

EDMS recognises the need to protect patients and staff from Latex allergy. This includes any equipment containing natural protein residue, as this can cause mild reaction such as a rash, to anaphylaxis in extreme cases. EDMS recognises that in the Emergency care setting patients may not be able to inform staff of known allergies (unconscious or previously undiagnosed). Any equipment containing latex therefore must not be used; **Latex Gloves** therefore **must not** be worn. Any member of staff that has a reaction after contact with latex protein should contact Occupational health via HR.

8.4.2

Current European regulations are focused on medical gloves, where EN455 is the comprehensive Standard. Residual powder is under consideration and powdered gloves are looked on unfavourably because of surgical problems but more importantly because powder is a potential borne protein carrier leading to asthma. In the UK, borne latex protein is classed within the top 8 causes of this debilitating and sometimes fatal condition.

8.5

Who is most at risk?

- Healthcare workers (some studies have reporting that up to 17% are at risk of reactions to NRL) natural rubber latex
- Individuals undergoing multiple surgical procedures (some studies have reporting that up to 65% of Spina Bifida children are sensitised to NRL) natural rubber latex
- Individuals with a history of certain food allergies, such as banana, avocado, kiwi and chestnut

- Individuals with atopic allergic disease (estimated at some 30 - 40% of the UK population)
- Individuals exposed to natural rubber latex (NRL) on a regular basis e.g. workers in the car mechanics, catering and electronics trades

8.6

Around 1-6 % of the general population is thought to be potentially sensitised to natural rubber latex (NRL) although not all sensitised individuals develop symptoms.

8.7

References

- Latex Sensitivity in the Healthcare Setting (Use of Latex Gloves MDA 1996)
- Latex Medical Gloves (Surgeons and Examination)
- Powdered Latex Medical Gloves (Surgeons and Examination) Safety Action Bulletin 1998 MDA
- Guidance for Clinical Healthcare Workers: Protection against Infection and Blood-bore Viruses 1998 Department of Health
- Health and Safety at Work Act (1974)
- COSHH Regulations (2004)
- Policy of Latex and Other Glove Allergies (Staff) Great Ormond Street Hospital Trust 1998
- Guidelines for the Management and Identification of Sensitised Patients 1998 Derby City General Hospital NHS Trust
- The Health and Safety Executive published guidance "Latex and You" (INDG320) in April 2000
- SWORD'99: surveillance of work-related and occupational respiratory disease in the UK. Occup. Med. Vol. 51 No 3, 204208, 2001
- EPIDERM Data - The latest EPIDERM/OPRA data (Occup.Med.Vol.50, No.4, 265- 273)
- A Comprehensive Glove Choice, ICNA publication ISBN 0 9541962 048
- EUCOMED Position Paper: Natural Rubber Gloves and Latex Allergy, May 14th 2001

8.8

Gloves when not to wear

8.8.1

Gloves must not be worn whilst travelling to a call.

- Gloves MUST NOT be worn whilst driving or in the cabin of the ambulance whilst travelling to a patient.
- Gloves should not be worn as an alternative to hand washing.
- Many clinical activities involve no direct contact with body fluid and do not require the use of protective clothing, for example taking a pulse, blood pressure or temperature.

8.8.2

Gloves - When to wear:

- Gloves should be fitted **just prior** to contact with a patient **if** contact with blood or body fluids is anticipated. **(After visual patient assessment)**
- When an invasive technique is performed (for example Cannulation, Catheterisation).
- Gloves must be worn whenever contact with body fluids, mucous membranes or non-intact skin is anticipated. **(After visual patient assessment)**
- Gloves should be worn when dealing with contaminated equipment.
- Gloves can be worn to protect the wearer's hands from soiling if necessary, for example while working on a muddy football pitch, but gloves must be changed once contaminated.

8.8.3

Gloves - When to change

- When there are multiple patients" at one-location gloves must be changed between individual patient care where there is any risk of contamination from blood or body fluids.
- Gloves must be changed between different care treatments for the same patient (after cleaning patient that may be incontinent, then performing blood glucose test).
- After prolonged wearing (trapped patient).

8.8.4

Gloves - The correct disposal

- Gloves should be disposed of at the earliest opportunity after use i.e. immediately after the treatment that required gloves.
- The correct waste streams are further highlighted in the section titled Clinical Waste

8.8.5

Gloves and Chemicals

- Gloves should be used when handling chemicals; operators should refer to chemical use guide and COSHH information.

9.0 Sleeve Protectors

9.1

Sleeve Protectors should be worn. (Not supplied at present)

- To cover watches
- Protect the sleeves of PPE such as high visibility hazard jackets.
- There is a risk of contamination from blood or bodily fluids
- There is a risk that clothing is likely to become soiled
- Whenever necessary

9.2

Sleeve Protectors are to be disposed of immediately after single patient use. When there are multiple patients⁴ at one-location, Sleeve Protectors must be changed between individual patient care where there is any risk of contamination from blood or body fluids. Sleeve Protectors must be changed between different care treatments for the same patient (after cleaning patient that may be incontinent, then performing blood glucose test). The correct waste stream for sleeve protectors are further highlighted in the section titled Clinical Waste

10.0 Aprons

10.1

Disposable plastic aprons should be available on all vehicles and at all EDMS bases and other recognised facilities.

10.2

Aprons should be worn when:

- There is a risk of contamination from blood or bodily fluids When cleaning up spillages
- When cleaning equipment that may involve splashing / contamination
- There is a risk that clothing is likely to become soiled

10.3

The correct waste stream for used aprons are further highlighted in the section titled Clinical Waste

11.0 Disposable Facemasks

11.1

The use of disposable facemasks should not be required routinely, as they would normally only be worn for illnesses caused by the more hazardous organisms found in Category 3. However, they should be worn if there is a risk of blood or bodily fluid being splashed into the mouth or face.

11.2

The risk to EDMS staff being infected with Pulmonary Tuberculosis (TB) is minimal. As a health care workers will have been immunised with Bacilli-Calmette-Guerin (BCG), which provides protection against TB, staff wearing a mask is not required.

11.3

Even minimal ventilation in a vehicle will provide a very high rate of changes leading to effective infection control without the use of masks by EDMS staff. Minimal ventilation can be ensured by turning the ventilation fan on when the vehicle is stationary for longer than a few seconds (the minimum setting should be adequate).

Infectious patients with uncontrolled cough should wear a mask if able to tolerate, or cough into disposable tissues.

11.4

Disposable facemasks are for single use only, and should be discarded as clinical waste.

12.0 Eye Protection

12.1

Eye protection, usually in the form of safety goggles, or mask with built in eye protection are part of vehicle issue. Eye protection should be worn for any activity where there is as risk of blood or bodily fluid splashing onto the face or mucosal tissue including eyes (for example intubation, using suction and child birth).

12.2

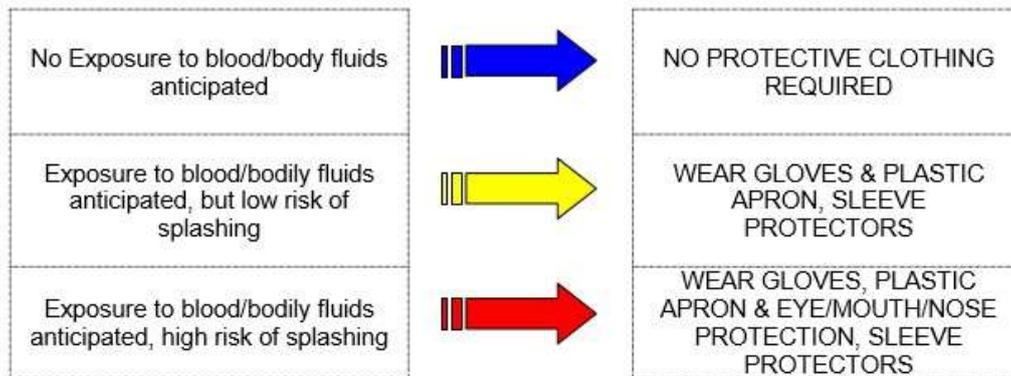
Eye Protection Usage: Note that this type of safety eyewear is not intended for major chemical incidents, or where physical impact damage could occur. In these circumstances, alternative safety equipment (**safety helmet, visors, goggles will be supplied by EDMS and must be utilised**).

12.3

Chemical Protection:

These guidelines deal solely with Personal Protective Equipment in the context of routine infection control, they do not cover emergency Planning for PPE relevant to chemical, biological, radiological or nuclear (CBRN) emergencies, whether accidental or intentional in nature.

What to wear when



12.4

Carrying and consumption of food in EDMS vehicles

It is a Health and Safety and Operational decision whether or not food can be carried, in the event permission is granted the advice below is to be followed.

12.4.1

It is the responsibility of EDMS staff to ensure any food transported is in an approved container fit for purpose. (Plastic and tight)

12.4.2

Food if carried in EDMS vehicles should be in a "cool bag" to ensure temperature control.

12.4.3

Food carried must be appropriate to the container rather than a fridge, for example seafood.

12.4.4

Food must be carried in designated "safe" areas.

12.4.5

Food must not be consumed in the rear of EDMS vehicles

12.4.6

Hand hygiene must take place before and after consumption of food

12.4.7

Discarded food and packaging must be disposed of using the Black bag waste stream.

12.4.8

Discarded food and packaging must not be put into clinical waste bags.

13a Management of Waste

13.1

The term '**Clinical Waste**' has been superseded by '**Hazardous**', which includes infectious waste and '**Non Hazardous**' for other waste types. The terminology is important as it defines what must be taken for incineration in the Yellow and Orange bag stream and what may be left „on scene“ this being a road-side or patients home.

13.2 General:

All EDMS staff have a legal responsibility for the safe and proper disposal of waste. This includes waste produced from EDMS establishments, and in particular, all items of waste generated from operational activities and patient care interventions.

13.3

It is crucial to recognise and understand the individual responsibilities in complying with EDMS waste disposal procedures, and seek advice and guidance from base managers if any area of uncertainty should arise. In this way, the health and safety of staff, patients and any other persons with whom we come into contact, can be suitably protected.

13.4

Types of Waste

13.4.1

Hazardous Infectious Waste – Yellow or Orange Bag Stream

Waste that possesses a hazardous property, that is substances containing viable microorganisms or their toxins, which are known, or reliably believed, to cause disease in man or living organisms.

Waste regulation requires the classification of waste on the basis of hazardous characteristics and point of production. The table below shows examples of the types of waste produced by the healthcare sector that are classified as hazardous and nonhazardous.

Examples of hazardous waste;

- Infectious waste
- Fluorescent tubes
- Laboratory chemicals
- Cleaning chemicals
- Batteries
- Contaminated land

Examples of non-hazardous waste;

- Domestic waste (black bag)
- Food waste
- Offensive hygiene waste
- Recyclates
- Furniture

13.4.2

Identification of Infectious Waste

Infectious waste is essentially a waste that poses a known or potential risk of infection, regardless of the level of infection posed. Even minor infections are included within the definition of infectious. Healthcare waste generated from healthcare practices, or produced by healthcare workers in the community, is considered to be infectious waste **unless assessment has taken place**. This assessment is based on item- and patient-specific clinical assessment by a healthcare practitioner.

13.4.3

Examples of Infectious Waste

Healthcare waste arising from a patient clinically assessed or known to have a disease caused by a microorganism or its toxin, where the causal pathogen or toxin is present in the waste. For example:

- Waste from infectious disease cases;
- Waste from wound infections and other healthcare associated infections;
- Hygiene products from patients with urinary tract infections;
- Waste from patients with diarrhoea and vomiting caused by infectious agents or toxins (for example Noroviruses and Clostridium difficile);
- Blood-contaminated dressings from a patient with HIV, hepatitis B, rubella, measles, mumps, influenza or other infection that may be present in the blood;
- Respiratory materials from patients with pulmonary tuberculosis, influenza, respiratory syncytial virus (RSV) or other respiratory infections;
- Contaminated waste from provision of general healthcare to patients with known or suspected underlying or secondary microbial diseases. Healthcare waste that may cause infection to any person (or other living organism) coming into contact with it.

13.4.4

Transportation of Infectious Waste

Particular attention should be paid to the carriage of small quantities of waste in EDMS vehicles, waste bags must be securely stowed whilst in transit.

13.4.5

Community nursing/care

Can take many forms and occurs in various environments. It includes EDMS staff who provide care and support to:

- patients in their own homes
- residents of care homes (without nursing care) □ householders who are self-medicating.

Mixed domestic waste does contain small amounts of plasters, small dressings and incontinence products. Where the healthcare worker produces the same or similar items, these –can be placed in the domestic refuse (with the householder’s permission).

13.4.6

Disposal of Infectious Waste

EDMS have a waste disposal contract with registered and licensed waste contractors to safely collect, transport and dispose of its waste appropriately. Any infectious waste must be double bagged in an appropriate bag, sealed and labelled correctly and safely transported back to the EDMS base. Infected waste must never be left on ambulances overnight or in an unsecured environment.

13.4

Non-Hazardous Waste (Non-Infectious) : General Domestic (Black Bag stream)

All household waste, including (glass, aerosols and batteries, see segregation of waste) but excluding any item generated from a clinically related activity.

Domestic waste is waste similar in nature and composition to waste generated in the home. Domestic waste should not contain any infectious materials, sharps or medicinal products. Domestic waste may be placed in black or clear bags for disposal. □ An example would be (Gloves used for domestic activities).

13.5

EDMS has separate policies to cover the handling and disposal of other forms of waste, e.g. confidential paper waste, date expired drugs etc

13.6 Segregation of waste

13.6.1

Different types of waste require different procedures to ensure their safe and appropriate disposal. It is therefore essential that waste is correctly identified and segregated at source, in order to remove all avoidable risk during subsequent handling, storage and transportation.

13.6.2

Similarly, care must be exercised in segregating items of non-disposable equipment and linen from clinical waste, prior to adopting the relevant cleaning and decontamination process. However, an alternative or specific course of action may be required in the case of a „Category 3“ patient, whereby EDMS staff should work under the guidance of the Department of Health authorised carrier.

13.6.3

Safe and effective waste segregation requires the use of colour coded storage bags and containers, appropriate to the waste type. These are listed in the table below: -

Receptacle	Waste type	Procedures
Black Plastic Bags	All domestic waste, but excluding glass, aerosols, batteries, and any item generated from a clinically related activity. (PTS would normally use a Black bag)	Ensure that bags are not overfilled prior to sealing securely. Handle bags by the neck only, and place in secure site according to local refuse collection arrangements.
Cardboard boxes (designated for purpose)	All glass bottles, broken domestic glass and crockery, used aerosol cans and batteries.	Care must be taken to prevent overfilling prior to disposal via local refuse/recycling collection.
Yellow or Orange Plastic Clinical Waste Bags	All NON-SHARP clinical waste, e.g. used gloves, aprons, masks, dressings, swabs, sanitary items, incontinence pads, guedal ways, empty IV infusion bags & giving sets, Laryngoscope handle and blades tissues/blue roll in contact with blood and body fluids, and any other „soft“ disposable item similarly contaminated.	Seal securely with a plastic tie, when max 2/3 full or after patient discharge. Consider double bagging if the integrity of bag is in doubt. Handle bags by the neck only. Stow safely in vehicle, prior to off- loading into clinical waste container at first opportunity. it is the responsibility of the EDMS staff to remove all clinical waste from the EDMS vehicle at the end of a shift
Yellow Plastic Sharps Boxes	All SHARP clinical waste, e.g. needles, syringes, cannula, drug ampoules, disposable razors, scalpel blades, sharp connectors from IV lines, small broken glass items, and any other used disposable „sharp“ item.	Please refer to Section– Safe Disposal of Sharps. It is essential that all staff are fully conversant with the procedures listed, and follow them implicitly.
Yellow Plastic Clinical Waste Containers IE, Wheelie bins	All SEALED clinical waste bins	A wheelie bin should be provided at the base to enable disposal of Clinical Waste bags and sharps boxes. The bins must be kept locked when not in use and placed at the bases designated storage area, which is inaccessible to unauthorised persons and pests.

13.6.4

All items of clinical waste must be placed in the appropriate receptacle at source, as soon as is practically possible. This should always be performed by the person immediately involved in the generation of the waste, particularly where the use of sharps is concerned.

13.6.5

Prior to departure, EDMS crews must make every effort to ensure that no items of clinical waste are left on scene. Where sharps are used away from the vehicle, the sharps boxes carried in the Primary Response Packs should be utilised as appropriate, along with clinical waste bags for any other contaminated item.

13.6.6

Under no circumstances should any item of clinical waste be placed in any domestic waste bin, or left abandoned outside designated containers, e.g. in the rear of EDMS vehicles, etc.

13b Handling and Storage of Clinical Waste

13.1

The importance of personal protection, and in particular hand care, is once again emphasised for all EDMS staff engaged in the handling of clinical waste. It is essential that an impermeable waterproof dressing is applied to any cuts or abrasions during any period of duty, in addition to wearing of protective equipment where necessary.

Section 2 – Personal Hygiene and Section 3– Personal Protective Equipment, provide comprehensive guidance in this respect.

13.2

- Bins for clinical waste bags must be;
- Accessible at all EDMS bases.
- Of a suitable size for the bag used.
- Labelled or colour coded to clearly identify contents.
- Have a close fitting lid.
- Be foot operated.

13.3

Disposable gloves must be worn as a minimum when handling clinical waste. This also applies to the handling of clinical waste bags, boxes or bins, where the use of additional protection, e.g. aprons, should be considered if leakage is suspected. Remember that all used disposable protective items should also be disposed of as clinical waste.

13.4

Any spillage or contamination resulting from the movement of clinical waste must be thoroughly cleaned and disinfected at the earliest opportunity. Full guidance is provided in Section – Cleaning and Disinfection Agents, and Section 1 – Blood/Body Fluid Spillage.

13.5

For incidents, which involve a needle stick or blood splash injury, refer to Section – Sharps/Blood Splash Injuries, and Section – Post Exposure Action.

13.6

Limbs, body parts and tissue retrieved from an accident site should accompany the patient to hospital. The limbs and tissue should be contained in an inverted (turned inside out) yellow bag, appropriately and clearly labelled to distinguish it from other infectious waste. Limbs, body parts and tissues that are clinically assessed to be beyond re- attachment or use should be contained in a yellow bag marked for incineration only, and sealed with a plastic tie/tag that identifies the EDMS sector and area.

14.0 Clinical Waste Collection

14.1

EDMS Registration allows for the carriage of full clinical waste bins and their replacements, between EDMS agreed collection sites.

14.2

To avoid accumulation clinical waste collection should take place by agreement with the agreed waste collector.

15.0 Blood/Body Fluid Spillage

15.1 General:

EDMS Staff dealing with spillages must have received training in this procedure and must protect themselves by wearing gloves and a plastic apron. The effective management of blood and body fluid spillage is a crucial factor in the successful control of infection. Exposure to any such fluid presents a risk to the health of all persons involved. However, these risks are easily minimised by following the principles of standard precautions, in addition to maintaining a routine approach to simple cleaning and disinfection procedures. It is of course essential that all blood and body fluid spillages are cleaned and disinfected as soon as is practicable.

15.2

Spill Kits:

All EDMS vehicles must carry the means to successfully manage blood and body fluid spills. Therefore, pre-prepared „spillage kits“ should be available on all EDMS vehicles. The design and purpose of these kits take account of the reduced frequency and risk of exposure to blood and body fluid spills on EDMS vehicles.

15.3

All EDMS RRVs and other vehicles should also carry spillage kits as an emergency backup to their normal supply of infection control provisions.

15.4

Spill kits should contain:

- Disposable gloves (1 p)
- Disposable apron
- Approved disinfectant
- 2x paper towels
- 1x container absorbent granules
- Scoop/scrapper
- Clinical waste bag

15.5

Management of a “spill” using EDMS approved cleaning and disinfecting products

15.6

1. Wear gloves and apron
2. Cover area of spillage using absorbent granules (not bleach based)
3. Remove granules once spillage absorbed and place in “Yellow” waste bag.
4. Clean area with EDMS approved cleaner/disinfectant
5. Disinfect area using EDMS approved disinfectant
6. Allow to dry
7. Vehicle is ready for re-deployment.

16.0 Management of Linen

16.1 General:

In EDMS, the term „linen“ refers to all materials that require laundering. As most linen has the potential to harbour microorganisms, it is important that all Service linen is appropriately managed in order to minimise any risk from cross infection.

16.2

Although the risks of cross infection from linen are small, particular attention should be directed at those items utilised in the direct care of patients. Any blankets used by EDMS are naturally the main items of linen used in this respect.

16.3

At receiving unit’s blankets and other laundry items used for the transported patient must only be exchange on a one for one basis, do not use hospitals etc to re-stock vehicles. EDMS will use mostly single use items dedicated for EDMS use.

17.0 Segregation of Linen

17.1

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

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

Contaminated Linen which has become contaminated by blood or bodily fluids, or which has been used in the care of a patient with a known infectious condition.

17.2

All due care must be exercised when preparing items for laundry. Disposable gloves and aprons must always be worn when handling contaminated linen. Items of linen should always be held away from the body to reduce the risks of contact with uniform.

17.3

Particular care should be exercised during the handling of laundry as incidents have been reported where items of clinical waste

- Wearing disposable gloves and apron as a minimum carefully extract the item and place directly into a sharps box or clinical waste bag as appropriate. Dispose of PPE as clinical waste, and thoroughly wash and dry hands.
- If the incident has resulted in a needle stick or splash injury, notify EDMS and the tasking EOC and report to the nearest A&E department, following the procedure detailed in the Inoculation policy appendices to the Infection Control Policy
- The EDMS Duty base manager, should be informed of the incident as soon as possible and an EDMS Incident Reporting Form completed. Please remember that the incident must still be reported, even if no apparent harm or injury has occurred.

17.4

Safe and Affective linen segregation calls for the use of colour coded storage bags and containers, appropriate to the laundry type. All items requiring laundry must be bagged at source, after ensuring that any item of equipment etc. has firstly been removed.

17.5

All EDMS vehicles must carry an adequate supply of white plastic, and red alginate bags to allow compliance with the following procedures.

18.0 Collection of Used and Contaminated Linen (Information only for EDMS)

18.1

Contractors deliver and collect linen. The (base) has a dedicated order form for the ordering of linen.

18.2

All movement of linen between bases and contractor collection sites will involve the use of colour coded linen laundry bags, i.e.

- White Laundry Bags – for all used linen.
- Red Laundry Bags - for infected/soiled linen.

18.3

Used and contaminated linen must always be kept separate from clean linen. Clean linen once delivered must be put into linen stores at the earliest opportunity.

18.4

Clean linen should be stored in a closed cupboard to prevent the entry of dust. The internal storage area must be dry and at least 15cms above the floor. The cupboard should be inspected and cleaned when required.

18.5

Contaminated Linen

(Visible contamination such as Blood, Vomit and faeces fluid stains that may be infectious) Contaminated linen must be placed in a RED alginate bag which in turn must be placed in a white laundry bag. Pedal operated plastic linen holders are provided for use on EDMS premises.

- One for used linen.
- One for contaminated linen

All bags must be tied when no more than $\frac{3}{4}$ full and put for collection. **This is everyone's responsibility**

19.0 Category Three Patients

19.1

Any linen used during the removal of a „Category 3“case may prove to be the subject of special procedures for its disposal. Crews must always act under the guidance of hospital staff in such circumstances.

20.0 Operational Staff Uniforms

20.1

In general, the responsibility for uniform laundering rests with individual. As with other items of clothing, uniforms should be laundered on a regular basis in accordance with the care label instructions attached to each garment. Any clarification required should be sought via the uniform manufacturer.

20.2

In the majority of cases, uniform falls under the category of „used linen“, and should therefore be included as part of the general domestic washing arrangements undertaken by each member of staff.

20.3

On occasions, however, uniforms are exposed to splashes with blood and body fluids. This should naturally be avoided wherever possible, so every effort must be made to protect both the individual and their uniform. EDMS provides a comprehensive range of Personal Protective Equipment to support staff in this aim, so items such as aprons must be fully utilised whenever necessary.

20.4

For cases where the soiling or contamination of uniform is clearly inevitable, an overall suit may be worn, when issued. If heavily contaminated the suit should be disposed of as clinical waste, and the uniform checked to ensure that its cleanliness has been maintained.

20.5

If, despite all efforts, contamination of the uniform occurs with either blood or body fluids, then EDMS Duty base manager must be contacted and arrangements made for the crew to return to base for a uniform change. All staff should have at least one complete spare uniform.

20.6

If the contamination is to a small area of the uniform EDMS approved cleaning product can be used to remove the stain, (this should take place as soon as is practicable) EDMS approved disinfectant should then be used to make the area safe. A plastic bag suitable for purpose should be used to convey contaminated uniform.

20.7

The contaminated item of uniform should initially be treated in the same manner as „contaminated linen“, It should be inspected and if deemed necessary (Cannot be cleaned by conventional means) a replacement ordered. If the uniform is deemed non serviceable it should be treated as clinical waste.

20.8

It is important to note that soiled uniform should be cleaned individually and not with routine washing items.

20.9

If you have to wash your clothing at home all contaminated clothing should be washed with detergent using the hot wash cycle of a domestic washing machine at 60 degrees centigrade (Refer to machine handbook or the manufacturer to confirm operating temperature). Once washed if appropriate press with a steam iron to garment manufacturer's instructions.

20.10

The risk of disease transmission from uniform items is negligible. Expert advice has highlighted that any risks are minimised even further by strict adherence to the principles of Standard Precautions. This includes ensuring that all cuts and lesions are covered with impermeable waterproof dressings, in addition to the wearing of Person Protective Equipment.

21.0 Handling of Deceased Patient

21.1

On the occasions where it is required to remove, or handle deceased patients, it is imperative that Standard Precautions remain an integral element of the crew's actions. The presence of blood or body fluids should particularly alert staff to wear disposable gloves, along with other protective equipment as required. Similarly, on completion of the assignment, all items of disposable PPE must be disposed of as clinical waste. Disposable body bags should be used within EDMS.

22.0 Vehicles Cleaning and Disinfection

EDMS has adopted the Clean and Disinfect method to ensure all areas and surfaces are free from transmissible organisms and to ensure staff and patient safety.

Cleaning - Cleaning is the removal of unwanted soil or contaminants. "Cleaning removes soil, which is the food source for bacteria and pathogenic microorganisms. If bacteria don't have a food source, they cannot live."

Disinfecting - Disinfecting is the elimination of most pathogenic organisms from surfaces. Disinfecting provides a higher level of germ killing than cleaning or sanitizing. Disinfectants require the removal of soils from surfaces before they can be effective.

22.1

General

In adopting the principles of Standard Precautions, all patients who enter an EDMS vehicle should be regarded as a potential biohazard. This recognises the fact that it is impossible to determine which patients are carriers of infection, from the multitude of those who are conveyed on a daily basis.

22.2

However, as the key source for the spread of infection emanates from contact with blood and body fluids, it follows that the potential risks from such contact can be successfully minimised by paying specific attention to the actual areas that have become contaminated.

22.3

This means that other than general day-to-day cleaning activities, the only areas that will require definitive cleaning and disinfection procedures are those where blood or body fluid contamination has occurred.

22.4

Although infection can be spread by borne (droplet) mechanisms, the pathogenic microorganisms that emerge from this route can only survive for short periods outside the body of the host. Therefore, with the routine use of Standard Procedures will minimise the risks.

22.5

Vehicle Exterior

The exterior surfaces of all EDMS vehicles should be maintained in a consistently clean and hygienic condition. Wash facilities are available on the base, and these should be utilised as necessary. Careful attention should be given to all aspects of safety, Such as the cleaning of reflective surfaces including adherence to any locally applied instructions. **NOTE high pressure Jet washes are not to be used** if vehicles have 3m reflective signage. (Battenberg)

22.6

Attention should be given to door handles and other surfaces that hands come into contact frequently throughout a shift

22.7

The use of PPE should also be considered whenever it is deemed necessary. Hand protection is always of particular importance, so gloves, may be worn. Any injuries sustained must receive immediate attention, and be cleaned and dressed with an impermeable waterproof covering.

22.8

No emergency or urgent call should ever be delayed as a result of a vehicle being washed. Judgement must be used in determining the most appropriate time to attend to vehicle cleaning, in order to avoid any operational disruption in the vehicle's deployment. If pressures of work prevent a thorough cleaning of the vehicle exterior, then attention should be prioritised to the relevant safety and legal requirements, i.e. windscreen, windows, lights, indicators, reflectors, mirrors, reflective surfaces and number plates. In addition, particular attention should be paid to the areas where dirt is likely to be transferred to the crew's hands and thus create a route for cross infection, e.g. door handles.

22.9

EDMS uses a quaternary (having 4 atom bonds) based cleaning solution this is an Orange based water soluble concentrated safety solvent cleaner and de greaser which is satisfactory for general exterior vehicle cleaning. However, on the occasions where an exterior surface becomes contaminated with blood or body fluids, the area should be first cleaned followed by EDMS approved disinfectant to eradicate the potential source of infection. The use of PPE (disposable gloves and apron as a minimum) should be worn throughout. Once the procedure has been completed, the items of disposable PPE, along with any used cleaning materials etc., must be disposed of into a yellow clinical waste bag.

22.10

Vehicle Interior

The relevance of maintaining high standards of hygiene and cleanliness has an even greater significance to the interiors of EDMS vehicles. The very nature of EDMS work determines that all interior surfaces are prone to becoming dirty and dusty during normal everyday use. This can lead to a rapid build-up of contamination, which if left unchallenged, potentially creates an ideal breeding ground for infectious organisms to grow and multiply.

22.11

It is therefore imperative that all staff meet their individual responsibilities in keeping the EDMS vehicles clean, and thus help to reduce the risks of cross infection to themselves, their colleagues, and their patients. This can best be accomplished by all participating in frequent and routine cleaning activities, thereby enabling this requirement to be achieved in an easier and more effective manner.

22.12

Before commencement of a shift all surfaces should be inspected for Damage that may harbour microorganisms, for example ripped or torn vinyl seat covers. These should be temporarily repaired using the appropriate coloured Duct tape, Fleet servicing should be informed so a permanent repair can be booked.

22.13

During each shift, all interior surfaces that become directly contaminated should be cleaned as soon as possible. This process must always include the use of a Disinfectant as the primary cleaning agent, (EDMS approved Disinfectant wipes). If the contamination is likely to contain either blood or body fluids, then the 2 part cleaning process should follow, EDMS approved cleaner to remove organic matter followed by EDMS approved disinfectant. Use PPE as appropriate, and discard any disposable items that have been in contact with blood or body fluids as clinical waste. Provide ventilation during cleaning activities, vehicle doors and windows should be opened accordingly.

22.14

In addition, regular „damp dusting“ should be undertaken throughout the shift. This simply involves cleaning the area with EDMS approved disinfectant wipes, paying particularly attention to the stretcher cot, mattress, and horizontal surfaces in the vehicle or as well as all fixtures and fittings that are regularly handled. This should take place after each patient discharge as well as when opportunity presents.

22.15

The vehicle floor must be mopped clean at least once during a shift. If this is not possible due to pressures during a shift it should be cleaned at the end of the shift. If the floor has not been cleaned at all during a shift this should be recorded. As the floor carries a comparatively low risk of cross infection, this can be undertaken satisfactorily using water and disinfectant (EDMS approved) However if blood or body fluids have been involved, then the 2nd part cleaning process should follow, EDMS approved cleaner to remove organic matter followed by EDMS approved disinfectant. Allow to dry.

22.16

On occasions where the floor can be mopped clean at hospitals staff should ensure that they have permission from the Hospital and use a mop suitable for EDMS vehicles cleaning purposes.

22.17

On a weekly basis, all vehicle interiors should be subjected to a comprehensive clean. This should be organised by the base Duty manager and team leaders. This again will involve the 2nd part cleaning process, EDMS approved cleaner to remove organic matter followed by EDMS approved disinfectant. Allow to dry. Especially for any areas where blood or body fluid contamination is evident.

22.18

Detachable items should firstly be removed if required (refer to provider training and manual) in order that all surfaces can be accessed for cleaning. Ensure that appropriate items of PPE are worn, and that doors and windows have been opened. All walls, ceilings and the inside of cupboards, in addition to all fixtures and fittings, can then be cleaned accordingly. Once cleaned simply wipe surfaces down using a cloth or wipes containing EDMS approved disinfectant. The same procedures should also be applied to the detachable items already removed. The process of drying is an important element of good infection control, so this should be aided wherever possible by leaving the vehicle in a well-ventilated position.

22.19

EDMS Supplies the following to aid in the correct cleaning the interior of vehicles.

- General purpose EDMS cleaner with an appropriate cloth is suitable for most cleaning tasks.
- EDMS Disinfectants use for terminal clean and decontamination of equipment and vehicles.
- EDMS Disinfectant wipes, General cleaning and wiping of surfaces and equipment.

22.20

It is accepted that operational demands are likely to restrict opportunities for the weekly clean to be undertaken as a singular activity at a designated time. Vehicle cleaning arrangements must be devised and agreed at base station level by the base station manager.

22.21

Use of Cloths, Mops and Buckets With different areas requiring cleaning, it must be important to ensure that cross contamination is reduced as much as practicable. To assist this Cloths, mops and buckets of different colours are provided. It is important to note that these are used appropriately within the designated areas:



Correct use of Disposable mops heads within EDMS

EDMS uses colour coded mop heads.

Mop heads come out of the same box so it is their usage that determines whether they are single use or reusable and disposable. All of the following is detailed in the procedures and follows the Hygiene Code and DH Toolkit.

- Single use is defined by using only once and then disposing of as clinical waste as it has been used for mopping and disinfecting the rear of a vehicle due to blood or other body fluids.
- Reusable and disposable refers to mop heads having a limited life cycle, used for non-clinical waste cleaning and disinfection e.g. mopping the floor of a vehicle with no bodily fluids. Mop heads must be rinsed and left to dry. As soon as mop head looks worn or loses efficiency it should be disposed of as domestic waste (black bag), typically only a few days but depends on usage.
- Colour coded posters as depicted show correct coding for Mop use. The different colours do not denote whether they are single use but locations for the same mop to be used in.

Example 1

A kitchen with a small surface area: Colour of mop head **Green**, the mop head should be rinsed and dried between uses. Dispose of when looks worn or loses efficiency. (Black bag waste stream)

Example 2

Toilet shower areas with a large surface area; Colour of mop head **Red**, the mop head should be rinsed and dried between uses. Dispose of when looks worn or loses efficiency. (Black bag waste stream)

Example 3

General areas such as corridors with variable surface area: Colour of mop head **Blue**, the mop head should be rinsed and dried between uses. Dispose of when looks worn or loses efficiency. (Black bag waste stream)

Example 4

EDMS vehicles and RRVs general cleans floor only; Colour of mop head **Yellow**, the mop head should be rinsed and dried between uses. Dispose of when looks worn or loses efficiency. (Black bag waste stream)

If used for cleaning and removing Blood, Faeces, Vomit or other body fluids **is it single use and must be treated as clinical waste**

(Clinical yellow bag waste stream)

22.22

EDMS has adopted this colour coding, following best practice in infection control. For further guidance follow this link:

<http://www.npsa.nhs.uk/patientsafety/alerts-and-directives/notices/cleaning-materials/>

22.23

To reduce the risk of cross-contamination mops and disposable cloths should not be used or transferred between different areas. Cleaning equipment must be stored clean and dry between uses. Do not leave or store brushes in disinfectant solution. **Mop heads are all disposable and used according to risk level.**

22.24

Vehicle Decontamination

All vehicles going for service or repair either to an external workshop or internally must be cleaned and decontaminated as required.

22.25

In case of breakdown or unexpected failure a EDMS vehicle must be checked and all clinical waste and sealed sharps boxes removed before it is transported or recovered.

22.26

Notes for the person or persons qualified to decontaminate vehicles prior to inspection service or repair. (Normally a clinically trained crew or individual). **See Appendix 8-9**

- Equipment requiring repair or servicing must be cleaned of all organic material, by clinically trained staff.
- All reusable medical devices must be decontaminated in accordance with the manufacturer's instructions as well as legislative and best practice requirements.
- All vehicles sent to workshops, or to an outside agency, must be sent in a state that is safe for non-clinically trained staff to work in.
- All clinical waste must be removed, including used sharps boxes. The interior and equipment should be checked for sharps and contamination, and cleaned if necessary. This to include the flight area. The ambulance stretcher cot must be stripped and checked for any contamination. If any contamination is found then the cot must be thoroughly cleaned using the appropriate cleaning solutions.

23.0 Equipment Cleaning and Disinfection General

23.1

As all items of EDMS equipment can potentially become a source of cross infection, it is of particular importance that close attention is given to their respective cleaning and disinfection procedures.

23.2

A series of guidelines have been produced which are specific to each individual item of non-disposable EDMS and general ambulance equipment. These list the necessary actions to help ensure that effective cleaning and disinfection measures are appropriately applied in each case.

23.3

To ensure compliance with the "Code of Practice", it is imperative that ambulance equipment is maintained in a clean and hygienic condition at all times. This highlights the need to regularly check and clean equipment, with any shortfalls being addressed as soon as operational demands allow. In particular, it is vital that any equipment contaminated with either blood or body fluids is cleaned and disinfected at the earliest opportunity.

23.4

Full use should be made of PPE while performing cleaning and disinfection procedures. In view of the nature of ambulance work, the majority of equipment cleaning activities will inevitably be performed at the base.

23.5

All decontamination and cleaning procedures should be carried out as soon as possible, once the patient has been placed in the care of the receiving unit. EDMS staff, leaving the attendant to finalise any outstanding matters of patient handover, including PRF completion, will ordinarily undertake these.

23.6

Cleaning System 1

Cleaning is the removal of unwanted soil or contaminants. "Cleaning removes soil, which is the food source for bacteria and pathogenic microorganisms. If bacteria don't have a food source, they cannot live."

23.7

Cleaning

An orange based cleaner and solvent is used as the primary cleaning agent in EDMS Citra clean is a cleaning agent that also maximises the effectiveness of the disinfection process. It should be made up into a solution with cold water according to manufacturer's directions. Staff should wear appropriate PPE if surfaces are visibly contaminated (gloves as a minimum). Surfaces should be vigorously cleaned using the solution; the cloth must be single use and disposed of following cleaning to prevent further contamination. Care should be taken when using near or around electrical items when the cloth should be moist, not dripping. Safety eyewear should be used for all occasions where there is any likelihood of a splash coming into contact with the face. After cleaning wipe dry with blue roll, which should be discarded as Clinical Waste if contaminated otherwise in the Black waste stream.

23.8

Cleaning System 2

23.9

Disinfectant (EDMS approved)

- Disinfecting is the elimination of most pathogenic organisms from surfaces. Disinfecting provides a higher level of germ killing than cleaning or sanitizing.
- Disinfectants require the removal of soils from surfaces before they can be effective.

EDMS approved Disinfectant is used as the secondary cleaning agent. Disinfectant must always follow the application of EDMS approved cleaner, ensuring that the bulk of the contamination has firstly been removed and the site made „visibly clean“ in order that maximum effect is derived from the application of the disinfectant. The disinfectant should be made up according to instructions and applied in a similar manner to Citra clean. However it is important to leave to dry in order for decontamination to take place.

23.10

EDMS approved Disinfectant is very safe but should not be applied to surfaces where Acid is present (e.g. Urine; which should be managed using System 1 prior to the application of System 2 on every occasion).

EDMS Approved use

EDMS non- approved use (not to be used)

CHEMICAL	ADVANTAGES	DISADVANTAGES	USES
EDMS approved General purpose cleaner and de- greaser	Very safe biodegradable product. Can be used to clean any surface	None known	Use to clean exterior, interior of vehicles, corridors, all other hard surfaces as well as soft furnishings
EDMS approved disinfectant wipes and fluid	Use on "All" surfaces including skin! Used to clean computer keyboards and screens Effective against many bacterial and viral organisms. Not easily inactivated by organic matter. Does not bleach is safe to use. Can be used on urine spills No down time	Efficient Disinfectant provided used secondary to Citra clean if there are blood or body fluids.	Initial clean as wipe where Disinfectant is required. As secondary Disinfectant following primary clean.
Sodium Dichloroisocyanurate s NaDCC) E.g. Precept, HazTab, Chlor-Clean Sanichlor	- Slightly more resistant to inactivation by organic matter - Slightly less corrosive - More convenient, long shelf-life and easy to make up	Corrosive Gives off chlorine gas Not approved for use on	Can be used on surfaces and for body fluid spills.
Alcohol 70% E.g. ethanol	- 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/hand decontamination
Chlorhexidine E.g. hibiscrub, Chlorhexidine wound cleaning sachets Sepps prior to cannulation	- Most useful as disinfectants for skin - Good fungicidal activity - Low toxicity and irritancy	- Limited against viruses - No activity against bacterial spores - Inactivated by organic matter	For skin / hand decontamination Prior to Cannulation

23.11

Index of Equipment Cleaning and Disinfection Procedures

The following tables have been included as an index to the Equipment Cleaning and Disinfection procedures, which form the remainder of this Section. This list is not exhaustive and the manufacturer's guidelines will need to be referred to. The procedures are subject to ongoing review, and will be amended to reflect future developments in ambulance equipment (May 2012)

23.12

Note EDMS approved Disinfectant wipes should be adequate unless there is gross contamination in which case either Cleaning should take place first or the item disposed of as clinical waste.

1, refers to cleaning first with EDMS approved cleaner

2, refers to disinfecting with EDMS approved disinfectant

ITEM	DESCRIPTION	INFORMATION	CLEANING AND DISINFECTING
	Peak Flow meter	Remove disposable mouthpiece	Mouthpiece – Single patient use Main Body – 2
	Stethoscope	Remove Diaphragm/bell unit from tubing Unscrew bezel to diaphragm Unscrew earpieces from headset	Diaphragm/Bell – 2 (Do not immerse) Diaphragm – 2 Headset – 2 Tubing – 1 & 2 (Do not immerse) Ear Pieces – 2
	Sphygmomanometer		Inflatable Cuff - 1 & 2 Pressure Gauge – 1 & 2 Carry Case – 1 & 2
	BM Kit	Remove from case	Body – 2 (Do not Immerse) Case – 1 & 2 Lancets – Single Patient Use (Discard as per sharps procedure)
	Thermometer + tympanic		2
	Mobile Phone	Do not immerse unit in water or any other solution, or allow liquid to penetrate the outer casing	2
	Hand held radio		2
	Vehicle Based Radio		2
	ECS tablet / laptop computer	Damp Disinfectant wipe only	Unit - 1 & 2
	Zoll Defibrillator	Damp Disinfectant wipe only Do not immerse unit in water or any other solution, or allow liquid to penetrate the outer casing	Cable & Leads – 1 & 2 Electrodes – Single Patient Use Defib pads – Single Patient Use
	Pulse Oximetry		Unit – 1 & 2 Cable & leads – 1 & 2
	K.E.D./ED 2000		Unit – 1 & 2 Straps- Any removable straps can be washed at 60° C if available at the time
	Trac-3/Sagar Splint		
	Spinal Board & Straps	Remove Head huggers/Straps	
	Cervical Collars	Single use only	
	Frac-Pacs		

Stretcher cot & straps		1 & 2
Carry ch & straps		1 & 2
Scoop Straps		1 & 2
Sliding board (banana)		1 & 2
Transfer belt		1 & 2
Soft transfer disc		1 & 2
Sliding sheet (small/large)		1 & 2
Blankets	If soiled, place in red alginate bag and then in a white laundry bag – label with what soiled by and place in dirty laundry at Hospital	Place in laundry at Hospital Or return to Thames
Canvas (incl. Carry Canvas)		Place in laundry at Hospital Or return to Thames
Draw sheet		
Pillow	Must have plastic casing	2
Pillow Case		Place in laundry at Hospital Or return to Thames
Space blanket		Single Patient Use
Towel	If used – Place in laundry at Hospital If soiled - Place in red alginate bag, label with what soiled by and place in dirty laundry at Hospital.	
Oxygen Flow meters	Remove from vehicle	1 & 2 – Ensure dry & clean of any disinfectant prior to replacing on vehicle
Uniform		Machine wash @ 60° C if soiled – If severely contaminated– Dispose & Replace
Footwear		1 & 2
Hard Hat/helmet		1 & 2
High Visibility Jacket H/W	Small stains 1 & 2 by hand	Machine wash according to instructions on Jacket
High Visibility Jacket L/W	Small stains 1 & 2 by hand	Machine wash according to instructions on Jacket
Vehicle based suction	Replaceable liners should be used in the vacuum bottle – (These are single use items).	Casing – 1 & 2 All other items = Single Patient Use
Hand held suction		Replace unit if contaminated
BLS bag	Remove items inside bag – If very soiled clean as required/place consumables in Clinical Waste (if contaminated)	Hand wash @ 40° C with disinfectant (light Soil)
ALS bag		
Head Block bag		
Cervical Collar bag		Machine wash @ 60° C (Heavy Soil) <i>Note: machine washing will reduce the overall life of the bags)</i>
Maternity bag		
Entonox bag	Remove items inside bag – If very soiled clean as required/place in Clinical waste (Consumables)	1 & 2 (Light soil/dirt)
Zoll monitor bag		Hand wash @ 40° C with detergent (light – Heavy Soil)

Daily, where necessary replenish vehicle stocks of:

- EDMS Disinfectant (Trigger spray)
- EDMS Hand/Surface Disinfectant wipes.
- Paper tissues.
- Roll of absorbent paper for dealing with spillages.
- Yellow plastic clinical waste disposal bags.
- Black domestic waste bags
- Plastic laundry bags for contaminated linen, Red and White.
- “Sharps” container.

- Spill kit containing absorbent granules/powder and EDMS disinfectant

23.13

Equipment General

Equipment that should be discarded or decontaminated after each use must be checked daily and stocks replenished where necessary.

23.14

Sterile Equipment

Sterile equipment is required for carrying out invasive procedures e.g. intravenous Cannulation and infusions, intubation, dressings and suction catheters. Before using sterilised items always check that the “use by” date has not expired and inspect the packaging, if it is not clean, dry and intact, the equipment may not be sterile and must not be used.

23.15

Non-Sterile Equipment

Non-sterile equipment, such as, oxygen face masks, ways, suction equipment, oxygen tubing, electrodes, laryngoscope blades, vomit bowls, Shears (Tuffcut) and bed pans are disposable and single use only.

23.16

Care of Equipment

All equipment must be handled and used in accordance with manufacturer guidelines and following training instruction procedures.

23.17

Disposable Equipment

Disposable equipment is usually marked by a 2 in a circle with a line through it Use once and dispose of in a yellow plastic clinical waste bag, seal and send for incineration. All sharps equipment must be put into a designated sharps container and disposed of as per EDMS policy.

23.18

Reusable Equipment

Decontamination methods must conform to local policies. In most instances equipment can be decontaminated by thorough cleaning followed by Disinfectant and water. Because many microorganisms thrive in a moist or wet environment, the most important part of the cleaning process is thorough drying.

23.19

Repairs and Servicing

23.19.1

Equipment requiring repair or servicing must be cleaned of all organic material, by the professional user or other appropriately trained staff, before it is sent away.

23.19.2

Decontamination certificate must be attached to the equipment on dispatch, which states the method of decontamination used, or the reason why it was not possible (Appendix 9).

23.19.3

All reusable medical devices must be decontaminated in accordance with manufacturer’s instructions as well as legislative and best practice requirements.

23.19.4

It is also important to ensure that vehicles going for maintenance or repair are sent to workshops, including external contractors, in a state which is safe for non-clinical staff to work in.

23.19.5

All clinical waste should be removed (**Clinical waste bags and Sharps boxes**)

23.19.6

The interior and equipment should be checked for sharps and contamination, and cleaned if necessary. If cleaning and checking of the vehicle has not been possible workshops should be notified of the risk and advised of any precautions to take.

24.0 Refrigerator and Cleaning

24.1

The refrigerator should be used as a place to store staff meals (ONE day at a time). Those who store additional days' worth of food make it difficult for others to find room in the refrigerator for their lunches. It is strongly advised staff label ALL ITEMS they put in the refrigerator.

24.2

When a refrigerator is filled with unsafe foods, there's a possibility an unsafe food will contaminate other foods, especially if foods are squeezed together to fit everything into the refrigerator.

24.3

There should be some type of marking pen/tape in the break room for people to use in labelling their food. This helps track down owners of unclaimed reusable food containers.

24.4

If staff put food out to be shared, they should use safe food procedures. For example, no perishable food (such as meat sandwiches) should be left at room temperature for over 2 hours. This includes the original time it was set out for serving. Refrigerate perishable food in SHALLOW containers. Perishable foods include: meat, poultry, fish, eggs, other products; cooked pasta, rice and vegetables; fresh, peeled and/or cut fruits and vegetables.

24.5

NOTE: Rather than leave perishable foods on the break room table or counter for extended periods, such as at buffets the food should be placed in the refrigerator and a note left in plain sight instead. The note might say: "Help yourself to the turkey and roast beef sandwiches in the refrigerator."

24.6

"For Staff" foods such as ice cream, ice cream toppings, condiments, etc. should be labelled with a date. They will be disposed of periodically, based on their "use by" date, a food safety storage chart or general appearance.

24.7

The fridge and freezer should be checked Daily using the EDMS "Refrigerator; Maintenance and Monitoring Record" check sheet. This duty would normally be carried out by the base cleaner / domestic. There may be occasions when other nominated staff complete checks, such as when annual leave or sickness prevents the person normally responsible carrying out this task.

24.8

The fridge/freezer should be defrosted as required and during this time cannot be used. The fridge/freezer maintenance sheet will be displayed to give notice to staff in advance.

25.0 EDMS Kitchen Areas

25.1

Kitchens should be kept clean and in good repair. Inappropriate items, such as linen or general supplies should not be stored in kitchens and all cleaning materials should be kept separately away from food in a dedicated area. All cooking equipment including Conventional and microwave ovens Toasters etc should be kept clean and maintained in good working order.

- Use EDMS approved general purpose cleaner followed by EDMS approved disinfectant for all environmental cleaning (following the manufacturers' instructions).
- When replacing paper hand towels, these must be put into the holder, and not placed on top. Paper towel and liquid soap dispensers of the cartridge type should be cleaned regularly.

- Crockery and cutlery should be washed immediately after use in hot water and general-purpose detergent. Wherever possible, dry with disposable paper towels.
- It is usually sufficient to clean floors by removing dust with a properly maintained filtered vacuum cleaner. They can then be cleaned by general purpose cleaner followed by a disinfectant using mops or suitable scrubbing machine.
- Vacuum cleaner bags must be changed as necessary and the brush cleaned of dirt and fluff before storage.
- Food preparation surfaces should be cleaned by general purpose cleaner followed by a disinfectant these areas should be kept in good repair to facilitate cleaning. Ovens and microwaves etc must be cleaned after use.
- Hands must be washed thoroughly following any cleaning session. Nailbrushes are single use only, Terry towels and tea towels must not be used.
- Refrigerators should be defrosted and cleaned regularly. Should a spillage occur or food become stale, the whole interior of the fridge should be cleaned by general purpose cleaner followed by a Disinfectant and dried thoroughly.

26.0 EDMS Office Areas

26.1

Office areas should be kept clean and in good repair.

26.2

The responsibility of the employee is to make sure that they are familiar with and follow, the Infection Control procedures for their own area.

26.3

In all areas of EDMS it is important to observe good basic hygiene procedures. Standard precautions is an approach to Infection that assumes anybody might be infectious, even if they do not fall into an obvious risk group.

26.4

Hands should be cleaned as per 2.1 Hand hygiene.

26.5

In addition to Soap and water, hand sanitizers should be used as supplied by EDMS. For application refer to 2.4.2

26.7

Desk areas, Computer key-boards and other equipment used and shared by staff should be cleaned as scheduled by EDMS using approved Disinfectant wipes.

- All visible surfaces wiped free of dust and visible dirt.
- Rooms tidied,
- Bins emptied.
- Fridge checked for temperature and out of date/unlabelled food items.
- Floors swept, mopped or vacuumed as appropriate.
- Sinks and showers cleaned and water ran for 5 minutes.
- Sanitary ware cleaned.

27.0 Cannulation Procedures (2008) Aseptic Technique

27.1

The hygiene code 2010 includes as a standard "Aseptic technique when performing Peripheral intravenous Cannulation". Aseptic technique is used to describe clinical procedures that have been developed to prevent the contamination of wounds and other susceptible body sites by using sterile equipment and fluids during evasive medical procedures and by avoiding contamination of the equipment by adopting a non-touch technique. The circumstances in which intravenous cannula should be used are set out in the Institute of health and care development (IHCD) training manual, that states "only patients who need immediate treatment with drugs or fluid should be cannulised before arrival at a hospital site.

27.2

The principles of aseptic technique are:

- Keeping the exposure of susceptible sites to a minimum;
- Ensuring appropriate hand decontamination prior to the procedure;
- Using Gloves (sterile or non-sterile, depending on the nature of the susceptible site);
- Ensuring that all fluids and materials are sterile;
- Checking that all packs used are sterile and show no evidence of damage;
- Ensuring the contaminated and non-sterile items are not placed in the sterile field;
- Not reusing single-use items;
- Reducing staff and/or bystander activity (wherever possible) in the immediate vicinity of the area in which the procedure is to be performed;

27.3

Cannulation should only be performed if;

- The patient condition is such that they require either immediately **or with a strong likelihood of deterioration on route** drugs or fluids.
- There are sound and specific clinical reasons for believing that intravenous access may be required before arrival at hospital such as in the case of an unstable Acute Aortic Aneurism.
- There must be a valid clinical indication for all Cannulation; those reasons including observations and assessments must be documented on the PRF. The PRF should also include a record confirming that the pre-hospital identifying label has been used with recorded date and time of insertion. (if supplied in pack)

27.4

All Cannulations must have a valid reason including, evidence, observations and assessments which must be documented.

Including the use of the pre-hospital identifying label with recorded date and time of insertion. (if supplied in pack)

27.5

Cannulation should not be performed if;

- If the patient condition is such that Cannulation can wait until hospital admission.
- For any "Prophylactic" reason such as Fractured Neck of Femur without dehydration or pain. ☐ It is un-safe to do so, such as in a moving vehicle.

27.6

The member of staff should insert the cannula aseptically whenever it is physically possible to do so. Good practice from "Saving Lives" high impact intervention No.2 on peripheral intravenous cannula care recommends:

- Decontaminate hands (personal hand sanitiser)
- Apply the tourniquet (single and disposable).
- Palpate the Vein
- Decontaminate your hands. (personal hand sanitiser)
- Make a sterile field – for example using the sterile cannula dressing pack.
- Clean the site for venepuncture using 2% Chlorhexadine gluconate in 70% isopropyl alcohol Sepp – **Do not re-palpate the vein.**
- Leave skin to dry for 30 seconds.
- Choose a cannula, open the pack and place the cannula aseptically in the sterile field. Decontaminate your hands and don gloves. Insert the cannula according to IHCD guidelines, ensuring that the insertion site is not touched. If the insertion attempted is not successful, the same cannula must not be used again.
- Use a sterile semi-permeable, transparent dressing to secure the cannula.
- Record the date and time of insertion on the "Ambulance" label.
- Place the label on the dressing at the furthest point from the insertion site.
- Dispose of any items used, in the appropriate waste receptacles.
- Decontaminate the hands.
- Record the date and time of insertion on the Patient report form.

27.6

If any of the above steps cannot be performed due to circumstances, for example life-threatening or environmental conditions, the inserted device must be classified as **EMERGENCY INSERTED** intravenous cannula, and must be

recorded on a patient report form and handed over to the hospital staff receiving the patient, so the cannula can be replaced aseptically as soon as it is possible to do so – this should be within 24 hours

27.7

Always ensure that the giving set and any syringes used for administering drugs through the cannula are handled aseptically. For certain procedures, for example administering Diazemuls slowly, titrated to response, retain the sterile field to hold the syringe(s) between doses.

28 Urinary Catheter Insertion and Catheter Care

28.1

Catheter associated infections are the most common hospital – acquired infection, possibly accounting for up to 45% of all HCAI (Winn 1996). A urinary catheter should be a closed drainage system preventing infection from entering but it is thought that there are 2 main routes of infection: from urine in the drainage bag or via the space between the urethral mucosa and the catheter (Gould 1994; Getliffe 1995).

28.2

Recommended are the Silastic Foley Catheter smooth, non-stick silicone exterior coating reduces calcification build-up. Firm, but flexible, latex-based construction with large drainage lumen.

28.3

Sterile packs, sterile gloves (**NOT LATEX**) and aprons should be available for use by staff trained to insert catheters. Aseptic technique should be applied throughout the procedure. To ensure that hand hygiene is maintained, liquid soap and paper towels need to be carried by staff for use in patient homes. All staff need to be aware of the risk of infection for the patient if catheter bags are not cared for correctly when transporting patients.

28.4

Urine drainage bags should only be changed according to clinical need or at times identified by the manufacturers' instruction (Wilson 1998; Pratt et al. 2001)

28.5

Urinary catheter drainage bags:

- Must not be placed on the floor.
- Must be kept below the bladder at all times to prevent backflow.

28.6

When emptying a catheter bag hands should be decontaminated and gloves worn. A clean separate container should be used for the discarded urine and care should be taken to avoid contact between the drainage tap and the container (Pratt et al 2001)

28 Part 2 Transportation of patients with an indwelling urinary catheter

28.7

Hands should be adequately decontaminated before any patient contact and if touching the patients' catheter or closed drainage system then non- sterile gloves should be worn.

28.8

Where possible, patients should be sat upright to prevent reflux of urine back into the bladder. This is appropriate for patients with long term catheters or leg bags who are being transported to and from hospital for routine appointments etc.

28.9

If appropriate the bag should be emptied prior to the journey using the technique described above.

28.10

Ensure that the catheter is securely connected to the bag and there is no risk that the system will become dislodged on moving the patient.

28.11

For patients with a night bag or requiring hourly urine measurement (inter hospital transfers of high dependency patients) then the bag should be secured to the trolley bed below the level of the patients bladder and visible to the escorting crew but above the level of the floor. A number of bag stands are available for this and some systems have an integral method of hanging the bag from a bed.

28.12

If unable to secure the catheter system below the patients" bladder then consideration should be given to clamping the system temporarily for the journey and this should be documented on the patient report form (PRF) and handed over to the receiving team after the journey.

28.13 References

1. Dougherty, L & Lister, S (2004) *The Royal Marsden Hospital Manual of Clinical Nursing Procedures*. 6th Edition. Blackwell Publishing, Oxford
2. Getliffe, K. (1995) Care of urinary catheters. *Nursing Standard*, 10 (1), 25 – 31
3. Gould, D. (1994) Keeping on tract. *Nursing Times*, 90 (40), 58 – 64
4. Kunin, C.M. (1997) *Urinary Tract Infections: Detection, Prevention and Management*, 5th Edition. Williams and Wilkins, Baltimore
5. Pratt, R.J., Pellowe, C., Loveday, H.P. & Robinson, N. (2001) Guidelines for preventing infections associated with the insertion and maintenance of short term indwelling catheters in acute care. *Journal of Hospital Infection*, 47 (Suppl.), S39 – 46
6. Wilson, M.(1998) Infection control. *Professional Nurse Study Supplement*, 13 (5), S10-13.
7. Winn, C. (1996) Catheterisation: extending the scope of practice. *Nursing Standard*, 10 (52), 49-56

29.0 Wounds–Suturing and Gluing

29.1

Sterile packs, sterile gloves (**NOT LATEX**) and aprons should be available for all staff qualified in suturing and gluing. Aseptic technique must be applied throughout these procedures. Hand hygiene must be maintained. If running water is not available, Disinfectant wipes EDMS approved must be used, then alcohol based hand sanitizer, before putting on gloves and after removing them.

Ref; CAN 2003 Asepsis: preventing Healthcare associated infection

29.2

Before suturing, irrigate the wound, and remove any foreign bodies and any non-viable or infected tissue (debridement). Debridement is particularly important as dead tissue will not heal and acts as a reservoir for infection. The wound edges must have a good blood supply and be free from infection to ensure healing. You must follow strict aseptic techniques. Systemic factors, such as malnutrition, diabetes mellitus, peripheral vascular disease, and corticosteroid therapy may delay wound healing.

29.3

Infection can be a problem if there are breaks in aseptic technique or from hospital acquired infection. Wounds must be adequately debrided to remove any contaminated tissue.

29.4

References

1. Hart J. Inflammation 1: its role in the healing of acute wounds. *J Wound Care* 2002;11:205-9.
2. Cotran RS, Kumar V, Collins T, eds. *Robbins pathologic basis of disease*. 6th ed. Philadelphia: WB Saunders, 1999.
3. Benbow M. The skin 2: skin and wound assessment. *Nurs Times* 2002;98:41-4.
4. Fildes J, Bannon MP. Soft-tissue infections after trauma. *Surg Clin North Am* 1991;71:371-84.

Appendix 1

SPECIFIC INFECTIONS

The precautions outlined in the guidelines are adequate for dealing with the transfer of patients who are either infected or are carriers of Hepatitis B virus, Human Immune- deficiency Virus (HIV), Methicillin Resistant Staphylococcus Aureus (MRSA) Acinetobacter, Meningococcal Meningitis or Norovirus The important infection control points are summarised as follows:

Hepatitis B Virus and HIV

Hepatitis B is a Viral inflammation of the liver (which can be fatal). 10% of those that do recover become carriers and may develop cirrhosis or cancer of the liver. Four out of five carriers have a very low infectivity, the remainder, and those suffering acute Hepatitis at the time, are highly infectious.

Exchange of blood and blood stained body fluids

The prime risk of infection for ambulance staff is by accidental self-inoculation, or the entry of infectious material through broken skin, or the mucous membranes of the eye, nose or mouth. Simple contact between blood and intact skin does not constitute a risk.

EDMS personnel must

Wash their hands after patient contact Cover cuts and skin lesions with waterproof dressings Use sharp instruments with care Deal with and report inoculation accidents promptly Wear appropriate protective clothing when dealing with blood and body fluid Carry out decontamination and disposal procedures as per the guidelines and policies.

Special measures are not required for the transfer of "risk" patients who are not bleeding or incontinent and on whom invasive procedures are not carried out. Staff are vaccinated by The Occupational Health Department.

The Human Immunodeficiency Virus (HIV)

Causes a deficiency in a person's immune system which may render it unable to provide protection against common infections. A person infected with HIV may go on to develop AIDS (Acquired Immune Deficiency Syndrome) over the following weeks, months or years.

An AIDS diagnosis is given when the immune system has been damaged by HIV causing a number of specific infections and/or cancers which may be fatal.

Exchange of blood and body fluids but not saliva or tears

The prime risk of infection for ambulance staff is by accidental self-inoculation, or the entry of infectious material through broken skin, or the mucous membranes of the eye, nose or mouth.

Simple contact between blood and intact skin does not constitute a risk.

Methicillin Resistant Staphylococcus Aureus (MRSA)

Staphylococcus Aureus (SA) is a common bacteria found on 30% of the population as part of their normal skin flora. Most strains of SA have acquired resistance to some antibiotics and MRSA has acquired resistance to the most commonly used antibiotics.

In normal healthy people MRSA does not pose a threat to health. Infections are rare but if one does occur the infection is trivial and affects the skin, resulting in infected cuts or boils which are easily treated.

In people that are unwell (and therefore already have a reduced resistance to infection) open wounds or invasive procedures such as Cannulation, airway intubation or surgery, cause breaks in the skin which can allow MRSA bacteria to enter deep into the body and cause more severe infections which can be difficult to treat.

MRSA has caused a number of serious outbreaks of hospitals associated infection in the UK over the past few years. All Staphylococcus Aureus, including MRSA, is commonly carried in the nasal passages and on the skin. Skin scales are dispersed into the environment during normal daily activities, forming dust where the organism can survive for long periods.

MRSA can colonise members of the population without causing symptoms of ill-affect, but sick patients are at some risk of infection. Treatment of serious infection can be difficult as the organism is resistant to many antibiotics, whilst those which are effective, are often toxic, difficult to administer and expensive.

Certain patients, who have been in direct contact with someone colonised/infected, should be treated in the same way as those known to be carrying the organism. The “sitting well” does not need special input from Ambulance staff. Stretcher cases with MRSA should be treated as potentially infectious unless told otherwise by hospital staff.

MRSA Positive and Direct Contact Patients.

Non-Ambulant patients.

- Ensure that any skin lesions on the patient have been covered with an occlusive dressing.
- EDMS staff must disinfect their hands by rubbing them vigorously with a 70% alcohol hand rub.
- Disposable gloves should be worn only when performing catheter care, handling or changing the resident’s dressing or performing aseptic procedures.
- (Aprons are only required for managing uncovered wounds).
- Masks are not required.
- Keep direct patient contact to a minimum.
- The stretcher mattress should be covered with a clean sheet, if appropriate cover the patient to minimise the dispersal of skin scales.

Following transfer of the patient:

- All linen should be treated as “infected” as per EDMS policy.
- Wipe the wheelchair/trolley with a detergent wipe as per EDMS policy.
- EDMS staff must adopt the “bare below elbow” and wash hands with soap and water.
- Clean the vehicle as per the guidelines after which it may be used immediately.

Ambulant patients.

- Ensure that any skin lesions on the patient have been covered with an occlusive dressing.
- Other precautions are not required.

Clostridium difficile (C. difficile)

The Health Act 2006 Code of Practice¹ states that NHS organisations must audit key policies and procedures for infection prevention and control. This high impact intervention helps Healthcare Providers achieve this aim by providing a focus for activity and a method for measuring the implementation of policies and procedures. Clostridium difficile is a specific alert organism highlighted in the Code of Practice, and NHS organisations must have a policy in place which makes provision for prompt diagnosis, isolation and cohort nursing of infected patients, infection control procedures, environmental decontamination and antibiotic prescribing. Clostridium difficile (C. difficile) is a spore-forming toxin producing bacterium. Clostridium difficile is transmitted by clostridial spores capable of surviving for long periods of time in the environment and which are shed in large numbers by infected patients. Those most at risk of Clostridium difficile are older patients and those who have had a recent course of antibiotics.

Compliance with good hand hygiene is an essential element of the care process to reduce the risk of cross-infection.

Although sporadic community-acquired cases occur, hospital acquired C. difficile infection may follow ingestion of spores after either contact with a contaminated environment e.g. locker top, medical equipment, bed linen or transmitted on the hands of staff. C. difficile disease is most frequently associated with the use of antibiotics (e.g. clindamycin and 3rd generation cephalosporins) or other conditions which may result in disruption of the „normal bowel flora“ and allow C. difficile to colonise e.g. chemotherapy or recent bowel surgery.

Infections are broadly classified as “community acquired” i.e. confirmed within 48 hours of admissions and “hospital acquired”, confirmed after 48 hours of admission.

The following procedures must be adhered to.

- The vehicle interior must be cleaned thoroughly using EDMS approved cleaner followed by EDMS approved Disinfectant this to include stretcher and mattress and all surfaces likely to have been in contact with the patient or equipment used or touched during treatment.
- Any equipment required for patient management/care should ideally be disposable or must be dedicated for that patient only. If non-disposable the item must be thoroughly cleaned after use or when no longer required using EDMS approved cleaner followed by EDMS approved Disinfectant This includes equipment such as BP cuffs, moving and handling equipment, etc.
- Following precautions must be implemented i.e. staff must wear disposable aprons and gloves for any direct contact with the patient or when exposure to faeces is anticipated.
- **All staff caring for the patient must wash their hands with soap and water after patient contact. This must be done following removal of protective clothing. The use of alcohol hand disinfectant is not advised, as these are not effective in killing C. difficile spores.**

References. c/diff

1. PL CNO (2005)5: Infection caused by Clostridium difficile. Professional letter – CMO. Dept of Health. PL CMO/2005/6; PLCNO2005/5
2. National Clostridium difficile Standards group: Report to Department of Health. (2004) JHI 56, 1-38
3. Clostridium difficile Infection, prevention and management. A report by a Department of Health/Public health laboratory Service Joint Working Group. (1994) PHLS
4. High Impact Intervention Number 6: reducing the risk of Infection from and the presence of Clostridium difficile. Dept of Health. May 2006.

Acinetobacter

Acinetobacter is a Gram-negative bacterium that is readily found throughout the environment including drinking and surface waters, soil, sewage and various types of foods. Acinetobacter is also commonly found as a harmless coloniser on the skin of healthy people and usually poses very few risks. Acinetobacter infections acquired in the community are very rare and most strains found outside hospitals are sensitive to antibiotics. While Acinetobacter poses few risks to healthy individuals, a few species, particularly Acinetobacter baumannii, can cause serious infections - mainly in very ill hospital patients. The most common Acinetobacter infections include pneumonia, bacteraemia (blood stream infection), wound infections, and urinary tract infections. 'Hospital-adapted' strains of Acinetobacter are sometimes resistant to antibiotics and are increasingly difficult to treat.

Acinetobacter Positive and Direct Contact Patients.

Non-Ambulant patients.

- Ensure that any skin lesions on the patient have been covered with an occlusive dressing.
- The attendant should wear disposable gloves and Aprons
- Masks are not required.
- Keep direct patient contact to a minimum.
- Cover the trolley or wheelchair with a clean sheet, similarly cover the patient to minimise the dispersal of skin scales.

Following transfer of the patient:

- All linen should be treated as "infected" as per EDMS policy.
- Wipe the wheelchair/trolley with an appropriate disinfectant as per EDMS policy.
- EDMS staff must disinfect their hands by rubbing them vigorously with a 70% alcohol hand rub.
- Clean the vehicle as per the guidelines after which it may be used immediately.

Ambulant patients.

- The attendant should wear disposable gloves and Aprons
- Ensure that any skin lesions on the patient have been covered with an occlusive dressing. □ Other precautions are not required.

References

1. Go J, Cunha BA. Acinetobacter baumannii: Infection control implications. Infect Dis Pract. 1999;23:65-68.
2. Abbo A, Carmeli Y, Navon-Venezia S, et al. Impact of multi-drug-resistant Acinetobacter baumannii on clinical outcomes. Eur J Clin Microbiol Infect Dis. Nov 2007;26(11):793-800. [Medline].

Meningococcal Disease (Meningitis/Meningococcal Septicaemia)

Meningococcal bacteria are very fragile and do not survive outside the nose and throat.

EDMS staff only require prophylaxis if their mouth or nose has been splattered (clearly felt) with large particle droplets/secretions from the respiratory tract of a patient with meningococcal disease, or if conjunctivitis develops within 10 days of exposure. This is unlikely to occur except when using suction during way management, inserting an oro/nasopharyngeal way, intubation, or if the patient coughs in your face. When a case of meningococcal disease is confirmed, the Public Health Doctor will ensure that antibiotics are offered to any contacts of the case whose exposure puts them at an increased risk of infection. Prophylaxis does not need to be taken immediately following exposure to a patient with suspected/confirmed meningococcal disease. This should only be taken following advice from the Public Health Doctor.

Signs and Symptoms: In older children & adults

Early Symptoms: <ul style="list-style-type: none">• Fever• Drowsiness• Back or joint pain• Headache• Neck stiffness• Photophobia (dislike of light)• Confusion• Red-purple rash anywhere on the body that does not go pale under pressure (glass test)	Late Symptoms: <ul style="list-style-type: none">• Unarousable i.e. coma• Pale/clammy i.e. shock• Widespread red-purple rash
--	---

Signs and Symptoms: In babies & toddlers

Early Symptoms: <ul style="list-style-type: none">• Fever Drowsiness• Refusing feeds/vomiting/diarrhoea• Fretfulness/irritability/distress on handling• Neck stiffness• Red-purple rash anywhere on the body that does not go pale under pressure (glass test)	Late Symptoms: <ul style="list-style-type: none">• Child is difficult to wake• High pitched moaning cry• Shocked – pale, blotchy skin, clammy• Widespread red-purple rash• Unarousable i.e. com
---	--

Public Health Response to a Notification of Meningitis

Confirm with the hospital that they are treating the patient as a case of meningitis (sometimes people are admitted to hospital with suspected meningitis and this turns out not to be the case).

Speak to the clinicians / microbiologist involved ascertaining what organism is the cause of the meningitis.

If viral meningitis is confirmed there is no follow up. Staff should be aware of the signs and symptoms of meningitis and remain vigilant.

If the meningitis is bacterial and suspected to be meningococcal then identification and a list of close contacts* will be obtained by the Health protection Team.

Only close contacts* (usually household contacts) should be given antibiotics. These should be prescribed following communication between the prescribing doctor and the Health Protection Team

The Health Protection Team will provide information leaflets for distribution as appropriate plus any further support and advice required.

* Close contacts are defined as those people who sleep under the same roof (i.e. household contacts), If a member of staff gives mouth-to-mouth resuscitation to the person with meningitis they should be offered prophylaxis.

References:

1. Chinn J. Control of Communicable Disease in Man, 2000, American Public Health Association.
2. PHLS Meningococcal Infections Working Group and Public Health Medicine Environmental Group. (1995) Control of Communicable Disease; Guidance for Consultants in Communicable Disease Control. Communicable Disease Report. 5 (13) R189R199.

Severe Acute Respiratory Syndrome

SARS is a severe respiratory disease caused by SARS coronavirus (SARS CoV). It was first recognised in Guangdong Province in China in November 2002, and spread worldwide before being contained by 5 July 2003. The possibility of re-emergence, however, remains and there is a need for continuing vigilance.

In general, the precautions to control the spread of SARS should be those general infection control measures taken against other respiratory infections that spread from person-to-person, of which tuberculosis and influenza are useful examples.

Guidance for the control of SARS is constantly being up-dated. Therefore it is essential that senior managers have ready access to this information, which can be found via the Health Protection Agency on www.hpa.co.uk. In the event of an outbreak, advice must be sought from the Infection Control Doctor.

The basic principles are as follows:

- Following assessment of the patient, if SARS is suspected (Refer to Health Protection Agency Guidance) and subject to the patient's condition, attempt to refer to a General Practitioner for a home visit.
- If the patient's condition is assessed as immediately life threatening, then the patient will be transported to the nearest receiving hospital. The Emergency Operations Centre (EOC) personnel will liaise with the hospital prior to the arrival of the patient to agree the admission point.
- Personal protective equipment, including, disposable gloves, disposable aprons and fluid shield are provided.
- Patients with suspect or probable SARS should wear a respirator conforming to at least EN149: 2001 FFP2 or the American approved N95 during close contact with uninfected persons to prevent spread of infectious droplets. When the patient is unable to wear a mask, ambulance staff should wear a mask when in close contact with the patient.
- Should a suspected case be transported to hospital, then the staff will comply with current infection control and decontamination procedures for themselves, the equipment and the vehicle used.

Creutzfeldt - Jakob disease (CJD)

There have been no confirmed cases of transmission of TSE to humans as a result of occupation. If TSEs could be transmitted in the occupational setting this would be most likely to occur from exposure to infected tissues or materials by direct inoculation (e.g. puncture wounds, „sharp“ injuries or contamination of broken skin), by splashing of the mucous membranes or, exceptionally, by swallowing. Known CJD patients should be managed with disposable equipment. I.e. Disposable bag- valvemask etc.

References 1.

- Lasmzas CI (2003) The transmissible spongiform encephalopathies. Rev Sci Tech 22 (1): 22-36. 2 . DeArmond SJ, Prusiner SB (2003) Perspectives on prion biology, prion disease pathogenesis, and pharmacologic approaches to treatment. Clin Lab Med 23 (1): 1-41

Norovirus

Noroviruses are a group of viruses that are the most common cause of gastroenteritis (stomach bugs) in England and Wales. In the past, Noroviruses have also been called „winter vomiting viruses“, „small round structured viruses“ or „Norwalk-like viruses“. It is estimated that the norovirus affects between 600,000 and one million people in the UK every year. Outbreaks of the illness are common, particularly within contained environments such as hospitals, nursing homes and schools. This is because the norovirus spreads very easily from person to person and it can survive for several days in a contaminated area. The norovirus can be spread through contact with an infected person, through contact with surfaces or objects that are contaminated with the virus, or by eating contaminated food or water. Only 10-100 virus particles are needed for you to catch Norovirus, in comparison with winter flu where you would need exposure to 10,000 virus particles. There are many types of norovirus, and it is possible for infection to occur several times. This is because after getting the illness immunity to the virus only lasts for 14 weeks.

Emergency Doctors Medical Services – EDOOP/002/01/13/V2 Infection Prevention and Control

The symptoms of norovirus infection will begin around 12 to 48 hours after becoming infected. The illness is self-limiting and the symptoms will last for 12 to 60 hours. They will start with the sudden onset of nausea followed by projectile vomiting and watery diarrhoea. Some people may have a raised temperature, headaches and aching limbs. Most people make a full recovery within 12 days, however some people (usually the very young or elderly) may become very dehydrated and require hospital treatment.

Reservoir

- Gastrointestinal tract of man.

Transmission

- Person to person by the faecal oral route; risk of infection from aerosols of projectile vomit.
- Environmental contamination, especially of toilets;
- Contaminated food and water.

Infectivity

- **Infectivity lasts for 48 hours after resolution of symptoms.**
- The infective dose is extremely low between 10-100 viral particles.

Evidence Based Control Measures (Norovirus)

EDMS Control Measures

- Cohort staff or isolate symptomatic individuals
- Wear gloves and apron for contact with an affected patient or environment
- Wash hands with soap and water after contact with an affected patient or environment, after removing gloves and apron.
- Alcohol based hand sanitizers are less effective against norovirus so other types may be considered.
- Exclude affected staff from the workplace immediately and until 48 hrs symptom-free
- Avoid movement of affected individuals to unaffected areas. The priority is to stop spread of the virus to other areas.
- Caution visitors and emphasise hand hygiene.
- Clean and disinfect vomit and faeces spillages promptly.
- Increase the frequency of routine and toilet cleaning.
- Use EDMS approved Disinfectant solution and or wipes to Disinfect all areas.
- Clean carpets and soft furnishings with EDMS approved Disinfectant solution and or wipes. Vacuum cleaning is not recommended. Vacuum cleaning carpets and buffing floors during an outbreak have the potential to re-circulate the virus and are not recommended
- Non-essential visitors should be discouraged or excluded from affected areas within EDMS premises.
- All visitors should be screened for gastrointestinal symptoms using simple questions and subsequently not allowed to enter if symptomatic.
- Active surveillance and case finding for symptomatic cases

Additional Notes

Cleaning

- Multiple studies indicate that where fingers come into contact with virus- contaminated toilet tissue, NV is consistently transferred via the fingers to a melamine surface and from there to other typical hand-contact surfaces such as taps, door handles and telephone receivers. It was found that contaminated fingers could transfer virus to up to seven clean surfaces touched sequentially. At least 14 persons could be contaminated one after another by touching a contaminated door handle. Within a comprehensive cleaning programme, particular attention should be given to cleaning objects that are frequently handled such as taps, door handles and toilet rails.
- Studies have found that detergent based cleaning with a cloth to produce a visibly clean surface was insufficient to eliminate NV contamination. Studies indicate that for surfaces where there is significant soiling with infected faecal or other material, cleaning must include removal and disposal of soil with EDMS approved cleaner before EDMS approved disinfectant. For other „secondary“ contact surfaces such as door and tap handles, use of EDMS approved cleaner or disinfectant is considered satisfactory.
- Use diluted EDMS approved Disinfectant in water with appropriate mop and or cloths for environmental cleansing.

Category Three Diseases

General

The national „Category Three“ classification incorporates those infectious diseases that require the routine application of special precautions and procedures, i.e.

- Rabies
- Plague
- Zoonotic Infections caused by the Hendra and Nipah Viruses
- Viral Haemorrhagic Fevers, including; Lassa, Ebola, Marburg and Crimean/Congo Fevers

All of these diseases are extremely rare in the UK, and even then cases are more likely to be of a „suspected“ nature, as opposed to those with a „confirmed“ diagnosis. However Category Three diseases are the subject of Department of Health (DoH) guidelines, and as such dictate strict compliance with nationally agreed policy.

There are two High Security Infectious Disease Units (HSIDU“s) currently in operation in this country: Coppetts Wood Hospital, London (With additional facilities at the HARTLANDS Hospital, Tel: 0121 424 2000 where most patients from the EDMS catchment area will initially be conveyed to) Newcastle General Hospital, Northumberland.

Staff should note that cases of suspected Rabies might be admitted to other hospitals with appropriate intensive care facilities.

Similarly, DoH guidelines determine that patients suspected of having Plague may also be conveyed to an alternative hospital destination.

National policy dictates that in cases of „suspected“ Viral Haemorrhagic Fever, the local Ambulance service will normally be required to convey the patient to their nearest HSIDU. Patients with a „confirmed“ diagnosis must only be transported by either the London Ambulance Services NHS Trust, or the North East Ambulance Service NHS Trust. (EOC to check first)

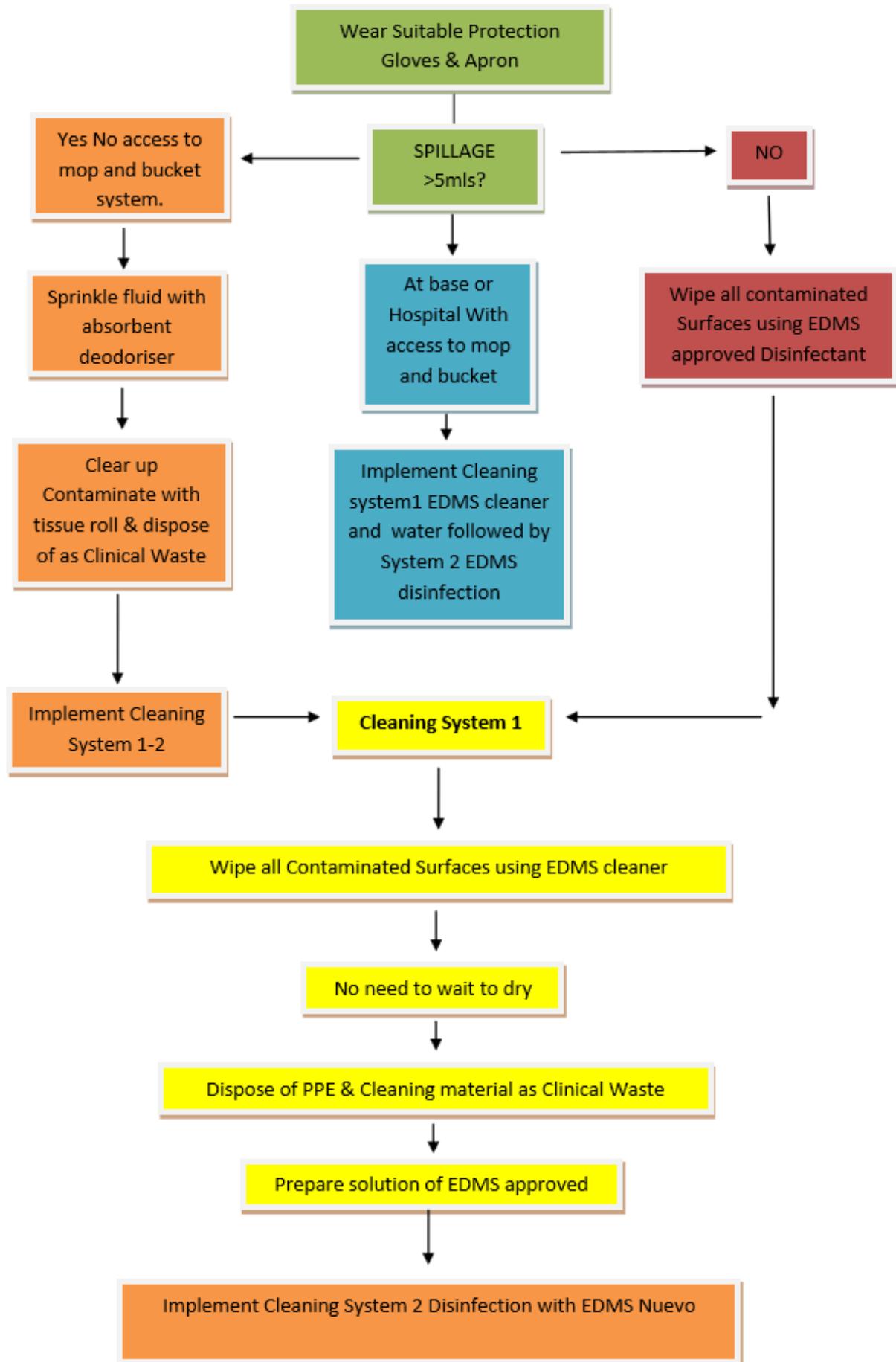
In extraordinary circumstances, the Consultant at the Royal Free may determine that the patient is transported in an isolator. Although this situation has never arisen before in the UK, the crew will receive special training and instructions at the time by members of the hospital staff.

The nearest available A&E crew will be deployed to undertake Category Three removals, although a female crew member can decline the call if she suspects that she may be pregnant

Any resuscitation regime must include the use of either the Bag and Mask, or resuscitation pack. Under no circumstances should any form of direct oral resuscitation be carried out. In the event of a crew being involved in the removal of a patient who is subsequently diagnosed as having a Category Three infection, they should follow the specific instructions provided by

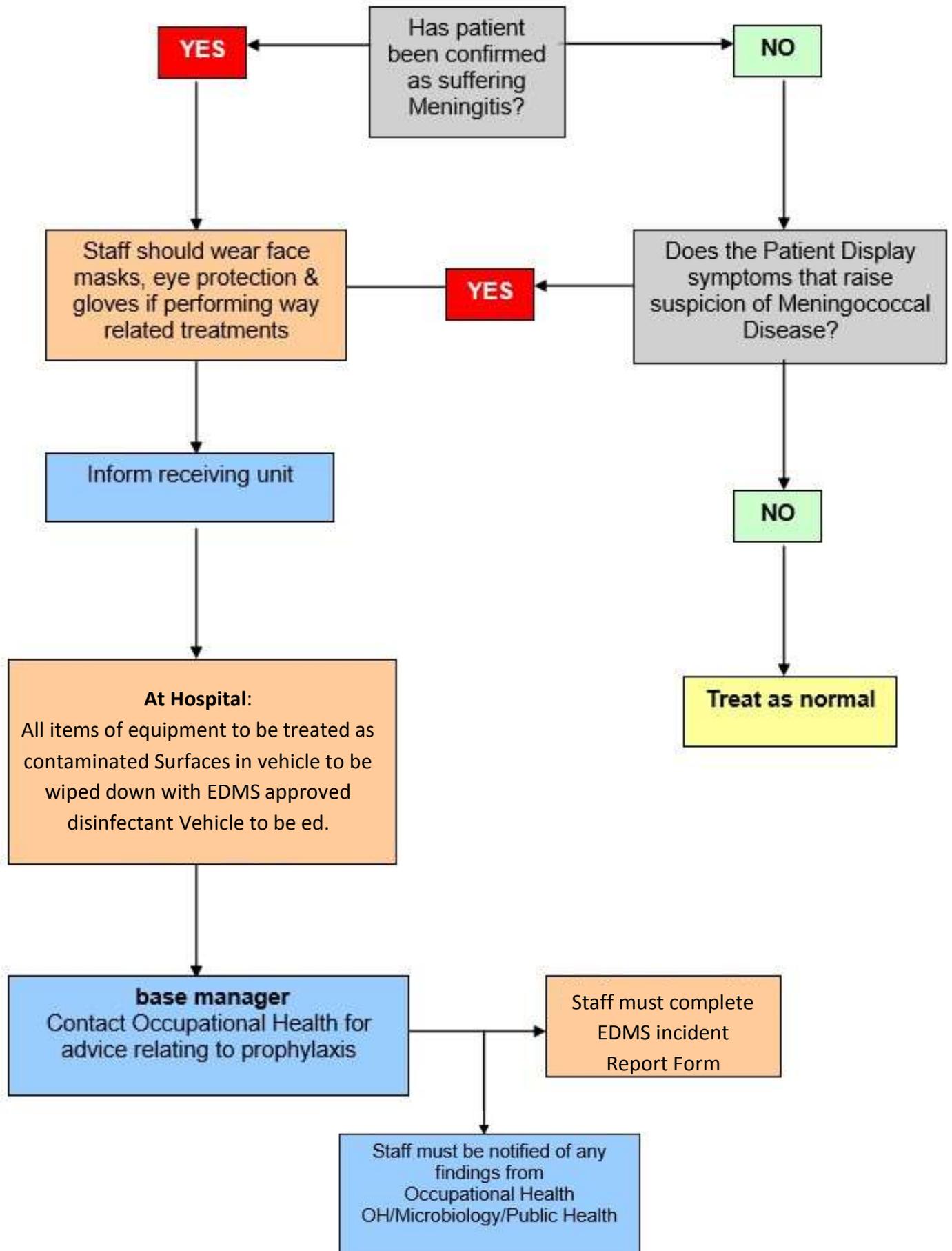
Ambulance Control. These are likely to involve proceeding with the vehicle to the Royal Free Hospital for further advice, together with guidance and support from the Occupational Health Department.....

Management of spillage of body fluids / blood



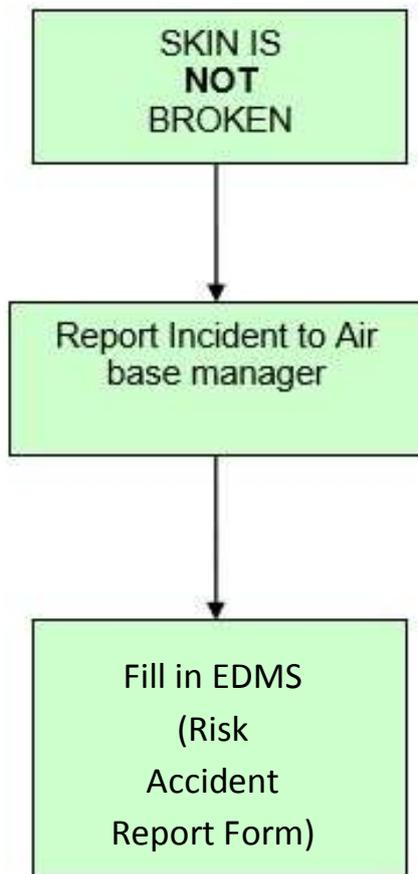
Appendix 4

Management of suspect/confirmed meningococcal disease

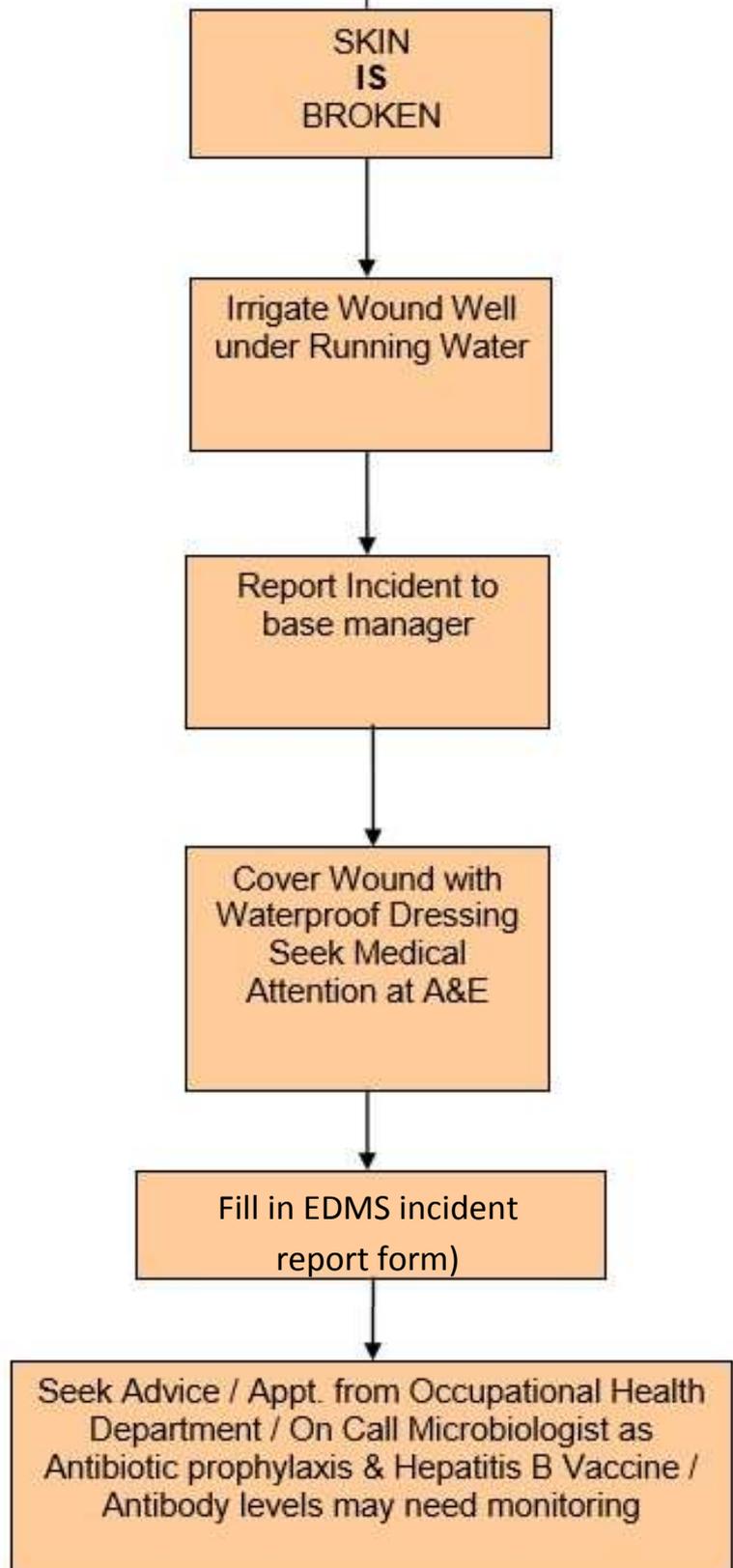


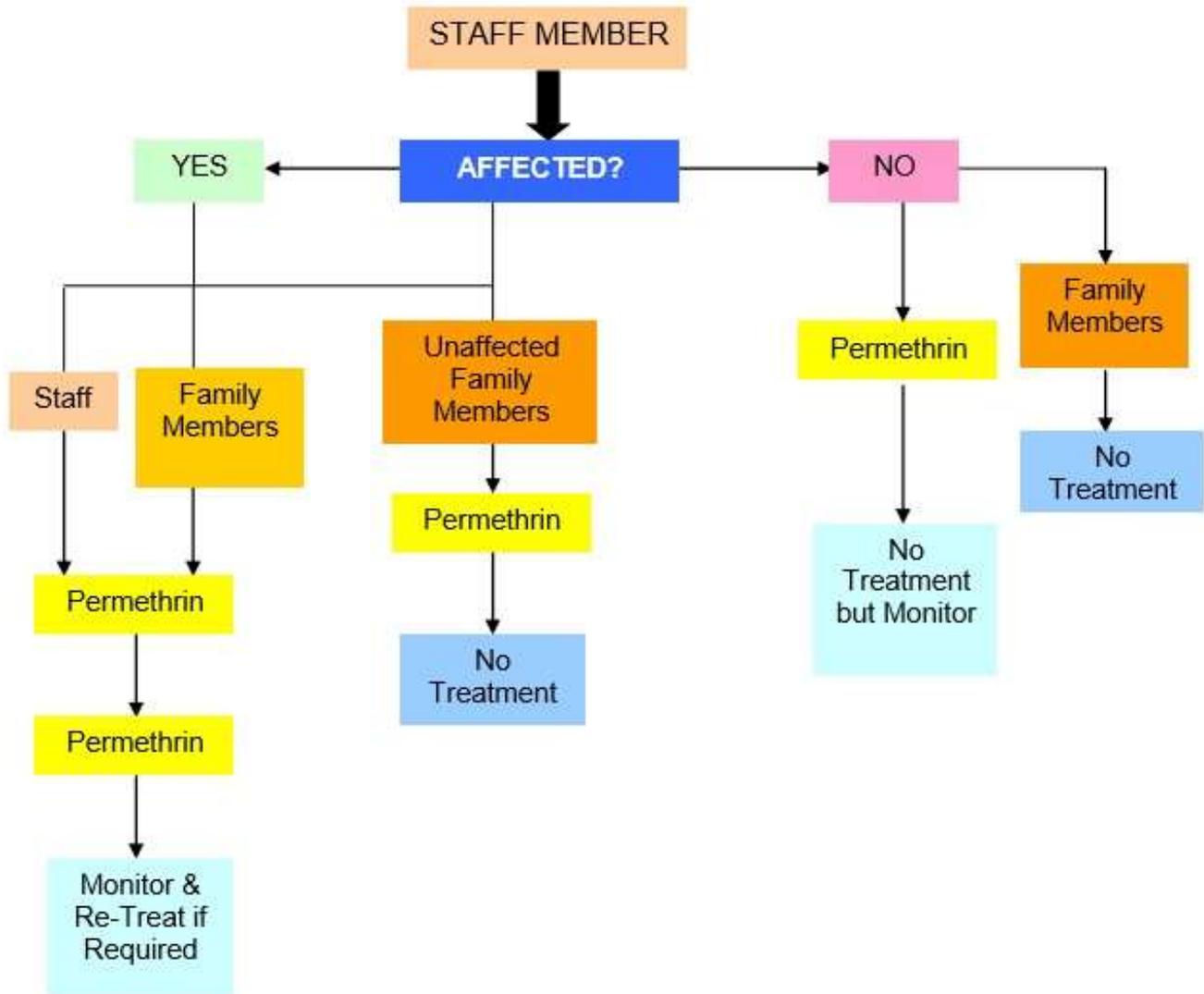
Appendix 5

Human bite incident



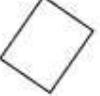
Immediate Action





The itch of scabies can continue for 2-3 weeks post treatment. This can be relieved with Eurax or Calamine lotion. In severe cases of crusting, using an emollient to help remove crusts will allow treatment to work more effectively. Health Protection Agency advice is that there is no need for staff to be off work whilst undergoing treatment. Note that the correct strength of Permethrin is important as 1% creams as used in head lice treatment have in certain circumstances been known to be ineffective (BMJ Clinical Evidence – BMJ 2000;320:37-38 1 January – BMJ.com)

EDMS Management of linen

	CATEGORY	DESCRIPTION	SPECIAL NOTES	COLOUR	PICTURE
A	Used linen	All linen except that which is infected or heavily soiled	Put in a white polythene bag and tie securely.	White Polythene Bags	
B	Heavily soiled or Infected linen	Linen which is heavily soiled and that is classified as infected linen as per infection control manual.	Put in a soluble bag and seal. <u>Then</u> into a white polythene bag and tie securely.	Soluble red alginate bag AND White Polythene Bag	

Important Notes:

Before fastening any bag, make sure it is no more than three quarters full; bags that are too heavy may not be collected. Dirty linen will not be collected if any of the above procedures are breached.

Appendix 8

EDMS CERTIFICATE OF VEHICLE DECONTAMINATION

VEHICLE BASE		
VEHICLE NUMBER (REGISTRATION)		
BASE WHERE DECONTAMINATION TOOK PLACE		
NAME AND ID NUMBER OF PERSON DECONTAMINATING VEHICLE (PRINT)		
REASON FOR VEHICLE ATTENDING WORKSHOP (SERVICE REPAIR OTHER)	S..... R..... O.....	
EDMS CLEANER USED	YES	NO
EDMS DISINFECTANT USED	YES	NO
SHARPS BOX REMOVED	YES	NO
CLINICAL WASTE BAG REMOVED	YES	NO
STRETCHER STRIPPED CHECKED AND CLEANED	YES	NO
SUCTION UNIT CHECKED AND CLEANED	YES	NO
VEHICLE FLIGHT AND ATTENDANT AREAS CHECKED AND CLEANED (LOOSE GLOVES ARE TO BE REMOVED)	YES	NO
PLEASE USE THIS SECTION FOR ANY OTHER COMMENTS	
SIGNATURE OF PERSON COMPLETING CERTIFICATE	
SIGNED CERTIFICATE TO ACCOMPANY VEHICLE PLEASE PLACE IN VEHICLE.		

Appendix 9

EDMS CERTIFICATE OF VEHICLE DECONTAMINATION

Notes for the person or persons qualified to decontaminate vehicles prior to inspection service or repair.

Equipment requiring repair or servicing must be cleaned of all organic material, by clinically trained staff. All reusable medical devices must be decontaminated in accordance with the manufacturer's instructions as well as legislative and best practice requirements. All vehicles sent to a workshop or to an outside agency must be sent in a state that is safe for non-clinically trained staff to work in. All clinical waste must be removed including used sharps boxes. The interior and equipment should be checked for sharps and contamination, and cleaned if necessary. This to include the cab area. The stretcher must be stripped and checked for any contamination. If any contamination is found then the cot must be thoroughly cleaned using the appropriate cleaning solutions. EDMS approved cleaner and disinfectants. A completed certificate showing that decontamination has taken place must accompany every vehicle, remember **workshop staff are not trained** to deal with infection control issues. Base managers must monitor these procedures to make sure the regulations are complied with.

EDMS Declaration of Contamination Status Form (Equipment)

To be completed prior to the inspection, servicing, repair, return or transportation of EDMS equipment.

To

a) I confirm that this equipment/item/vehicle has been cleaned and decontaminated.

Make

Serial Number

Indicate the methods and materials used

.....

.....

Contaminated Items for Transport/Handling

b) This equipment/item/vehicle has been exposed to hazardous materials, as indicated below:-

Blood: Yes / No

Respired Gases: Yes / No

Body Fluids: Yes / No

Other Biohazards: - Yes / No

.....

.....

c) This equipment/item/vehicle has not been cleaned and decontaminated.

WHY?

.....

Describe the areas of contamination:-

.....

d) I confirm that the equipment/items have been suitably prepared to ensure safe handling/transportation.

I declare that I have taken all reasonable steps to ensure the accuracy of the above information, in accordance with the Infection Control Policy Procedures.

Note: this should be completed by end user (staff member last to use) or informed base duty manager.

Signature.....

Name

Date

National colour coding scheme for ambulance cleaning materials and equipment

All ambulance trusts should adopt the colour code below for cleaning materials. All cleaning items, for example, cloths (re-usable and disposable), mops, buckets, aprons and gloves, should be colour coded. This also includes those items used to clean catering departments.

 <p>Red</p> <p>Toilets and showers (stations)</p>	 <p>Blue</p> <p>General areas (stations)</p>
 <p>Green</p> <p>Kitchen and dining areas (stations)</p>	 <p>Yellow</p> <p>Ambulances (interior – all parts)</p>

Trusts should decide locally on any colour code for cleaning the exterior of vehicles, however, this **should not** be any of the above colours.

Your local contact for ambulance cleaning is:

Note only white buckets are to be used for cleaning the exterior of vehicles

Appendix 12

References General guidance

1. Guidance for Clinical Health Care Workers: Protection Against Infection with Blood- borne Viruses. Recommendations of the Expert Advisory Group on Hepatitis. (UK Health Departments 1998)
2. The NHS Ambulance Guidelines "Reducing infection through effective practice in the pre-hospital environment" 2008
3. Health Protection Agency Centre for Infections, National Public Health Service for Wales, CDSC Northern Ireland and Health Protection Scotland. Eye of the Needle. United Kingdom Surveillance of Significant Occupational Exposures to Bloodborne Viruses in Healthcare Workers. London: HPA, November 2006. Available at: <http://www.hpa.org.uk/publications/2006/eye_needle/default.htm>.

Infection and Death

1. Emmerson, AM Enstone, JE Griffin, Kelsy MC, Smyth ETM 1996.
2. Ayliffe et al 2000
3. The EPIC project 2002 HMSO.

Gloves and uses.

1. ASA national Guidance and Procedures June 2004.
2. ICNA 1999 Glove usage guidelines. London.
3. ICNA 2001 Infection Control Practice for Ambulance Services.
4. NICE 2003 Prevention of health care associated infection in primary and community care.
5. DOH 2003 Winning ways action four, Gloves.

Latex

1. Latex Sensitivity in the Healthcare Setting (Use of Latex Gloves MDA 1996)
2. Latex Medical Gloves (Surgeons and Examination) Powdered Latex Medical Gloves (Surgeons and Examination) Safety Action Bulletin 1998 MDA
3. Guidance for Clinical Healthcare Workers: Protection against Infection and Blood-bore Viruses 1998 Department of Health
4. Health and Safety at Work Act (1974)
5. COSHH Regulations (2004)
6. Policy of Latex and Other Glove Allergies (Staff) Great Ormond Street Hospital Trust 1998
7. Guidelines for the Management and Identification of Sensitised Patients 1998 Derby City General Hospital NHS Trust
8. The Health and Safety Executive published guidance "Latex and You" (INDG320) in April 2000
9. SWORD'99: surveillance of work-related and occupational respiratory disease in the UK. Occup. Med. Vol. 51 No 3, 204-208, 2001
10. EPIDERM Data - The latest EPIDERM/OPRA data (Occup.Med.Vol.50, No.4, 265-273)
11. A Comprehensive Glove Choice, ICNA publication ISBN 0 9541962 048 12.EUCOMED Position Paper: Natural Rubber Gloves and Latex Allergy, May 14th 2001

Hand Hygiene

1. ASA national Guidance and Procedures June 2004.
2. ICNA 2001 Infection Control Practice for Ambulance Services.
3. NICE 2003 Infection control. Prevention of health care associated infection in primary and community care.
4. DOH 2003 Winning ways action four, Hand Washing.
5. Reybrouk G. 1986 Hand washing and Hand disinfection. Journal of hospital infection.
6. Jennie Wilson 2001 infection control in clinical practice.
7. Gould et al 2000 Improving hand hygiene in community health settings.
8. www.rcn.org.uk/ May 2005

9. ICNA 2002 hand decontamination guidelines.
10. WWW.clean-safe-care.nhs.uk
- 11.NPSA clean-your-hands champagne 2008

Meningitis

1. Chinn J. Control of Communicable Disease in Man, 2000, American Public Health Association.
2. PHLS Meningococcal Infections Working Group and Public Health Medicine Environmental Group. (1995) Control of Communicable Disease; Guidance for Consultants in Communicable Disease Control. Communicable Disease Report. 5 (13) R189R199.

Acinetobacter

1. Go J, Cunha BA. Acinetobacter baumannii: Infection control implications. Infect Dis Pract. 1999;23:65-68.
2. Abbo A, Carmeli Y, Navon-Venezia S, et al. Impact of multi-drug-resistant Acinetobacter baumannii on clinical outcomes. Eur J Clin Microbiol Infect Dis. Nov 2007;26(11):793- 800. [Medline].

MRSA

1. DOH 2005 A simple guide to MRSA
2. NICE 2003 Infection control. Prevention of health care associated infection in primary and community care.
3. NAO 2000 The management and control of hospital acquired infection.
4. NICE 2003 Prevention of health care associated infection in primary and community care.
5. British society for antimicrobial chemotherapy 1995 Guidelines on the control of methicillin resistant staphylococcus aureus, in the community.
6. RCN 2000 MRSA Guidance for nurses, London.

C/DIFF

1. PL CNO (2005)5: Infection caused by Clostridium difficile. Professional letter – CMO. Dept of Health. PL CMO/2005/6; PLCNO2005/5
2. National Clostridium difficile Standards group: Report to Department of Health. (2004) JHI 56, 1-38 Clostridium difficile Infection, prevention and management. A report by a Department of Health/Public health laboratory Service Joint Working Group. (1994) PHLS
3. High Impact Intervention Number 6: reducing the risk of Infection from and the presence of Clostridium difficile. Dept of Health. May 2006

Inoculation (Needle stick injury) refer to IPC policy for guidance

1. NHS Scotland 2001 Sharpen your awareness.
2. DOH 1998 Protection against infection with blood borne viruses.
3. ASA national Guidance and Procedures June 2004.
4. 1995 Reporting of injuries, diseases and dangerous occurrence regulations.
5. Ambulance today Dec 2004
6. Health Protection Agency Centre for Infections, National Public Health Service for Wales, CDSC Northern Ireland and Health Protection Scotland. Eye of the Needle. United Kingdom Surveillance of Significant Occupational Exposures to Bloodborne Viruses in Healthcare Workers. London: HPA, November 2006.
Available at: <http://www.hpa.org.uk/publications/2006/eye_needle/default.htm>.

COSHH

cosh regulations 2002 Linen

1. HSG (95)18 Hospital laundry arrangements for used and infected linen.
2. HC (91) 33 1991 Decontamination of equipment, linen and other surfaces contaminated with Hepatitis B and / or human immunodeficiency viruses.

Clinical Waste

1. ICNA 2001 Infection Control Practice for Ambulance Services.
2. Safe disposal of clinical waste` Health services advisory committee (HSAC) 1999.
3. Environmental protection act 1990.
4. Controlled waste regulations 1992.
5. cosh regulations 2002
6. IWM 2000 Healthcare waste management and minimisation. London.

Web Pages

<http://www.geocities.com/CapeCanaveral/3504/gallery.htm> April 2005 www.renalweb.com/may

<http://www.npsa.nhs.uk/patientsafety/alerts-and-directives/notices/cleaning-materials/>

DH ambulance HAI guidelines

http://www.clean-safe-care.nhs.uk/ArticleFiles/Files/Ambulance_Guidelines.pdf

Ambulance HAI self assessment tool

http://www.clean-safe-care.nhs.uk/toolfiles/91_Self-Assessment%20Tool-Ambulance%20service.pdf

DH delivering cleaner safer health care

<http://www.dh.gov.uk/en/Publichealth/Healthprotection/Healthcareacquiredinfection/Healthcareacquiredgeneralinformation/TheeliveryprogrammetoreducehealthcareassociatedinfectionsHCAIincludingMRSA/index.htm>

NHS e-learning on infection control

<http://www.infectioncontrol.nhs.uk/>

APPENDIX 13

Matrix of EDMS Policies and Procedures that cross reference to the Infection Control Procedures

Infection Prevention and Control Policy

Education and Personal Development Strategy

Medical Devices Policy

Procedure for Review and Implementation of National Guidance

Uniform Policy

Pandemic Influenza Plan Policy on the Prevention and Control of Adverse Allergic Reactions from Latex products Staff and Patients