HEALTH PROTECTION AGENCY NORTH WEST

The Infection Hazards Of Human Cadavers

Guidelines on Precautions to be taken with Cadavers of those who have died with a known or suspected infection

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There are other national guidelines available.
This is recommended for use in the North West.

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The Health Protection Agency is a new independent organisation dedicated to protecting people's health. It brings together the expertise formerly in a number of official organisations.

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Care Homes
General Practitioners

Local Authority:

Principal Environmental Health Officer

The Coroner

Local Crematoriums

Funeral Directors

Local Hospices

Ambulance Service

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1) Introduction

There are approximately 600,000 deaths per year in the United Kingdom and about two-thirds occur in hospital and less than 1% are associated with a known or suspected infection. Final disposal of the body is usually 7-10 days after death.

Opinion differs among healthcare workers on the management of a body associated with an infection and the measures taken or advised to control the perceived hazards are often insensitively applied. The indiscriminate use of body bags may cause needless anxiety for the bereaved family, friends and also among the hospital ward and portering staff. Funeral parlour staff should know about body bags and should be trained in handling them.

Grieving is essential for the healing process and in some religions and cultures it may require special rituals including washing the body and kissing. Not allowing the last rites to be performed before placing the body in a plastic body bag may cause deep resentment. Relatives should be asked about their wishes before body preparation is commenced.

The safety of all persons who may come in contact with a body associated with an infection must always be given high priority and this is covered in various Acts of Parliament and by Regulations made under these Acts. There should be a balance though between what is required for safety and the sensitivity and dignity of the bereaved.

Not all cases of infection will have been identified before death and for this reason, it is strongly recommended that high standards are adopted for the handling of all bodies.

All hospitals, primary care trusts, care homes and all undertakers' premises should have policy documents and codes of practice for their staff on the correct handling of bodies and especially those that have died with a known or suspected infection. These guidelines are not meant to replace such documents, but may be of help in ensuring that all aspects of the tasks are covered. Much detail has been omitted because it would vary considerably among units, e.g. choice of disinfectant recommended.

2) Legal Position (Legislation)

2.1 Health & Safety at Work Act 1974

Employers have a general duty under this Act to ensure, so far as is reasonably practicable, the health, safety and welfare at work of their employees.

Employers and the self-employed also have a duty to conduct their undertaking in such a way as to ensure, so far as is reasonably practicable, that persons not in their employment are not exposed to risks to their health or safety.

Employers with five or more employees must have a written statement of their general policy with respect to the health and safety of their employees and the organisation and arrangements for carrying out the policy.

2.2 The Control of Substance Hazardous to Health Regulations 2002 (COSHH)

Employers must carry out an assessment of the risks created by work which is liable to expose employees to any substance hazardous to health. This includes any micro organism which creates a hazard to the health of any person. Employers must also implement and maintain appropriate control measures (see Appendix 1).

2.3 The Management of Health & Safety at Work Regulations 1999 (risk assessment)

Employers and the self-employed are required to assess the risks to workers and any others who may be affected by their undertaking. Employers with five or more employees must record the significant findings of their assessment.

Employers and the self-employed also have a duty to provide comprehensive information, to people who work in or visit their premises, regarding relevant risks to their health or safety.

2.4 Public Health (Control of Diseases) Act 1984 & Regulations of 1988

Section 10 defines those diseases to which sections 43-45 of the Act applies when dealing with dead bodies. This also applies to HIV/AIDS and viral haemorrhagic fever which are not included in Section 10.

Section 43 empowers a registered medical practitioner not to allow a body having suffered from AIDS, anthrax, rabies and viral haemorrhagic fever to be removed from hospital except for the purpose of being taken direct to a mortuary or being forthwith buried or cremated.

Section 44 of the Act places a responsibility on the person in control of a premises where a deceased who has died from a notifiable disease is held to prevent other persons coming unnecessarily into contact with, or proximity to, the deceased. Section 44 thus places a specific responsibility on hospital authorities, nursing and residential homes and funeral directors. Section 44 requires appropriate steps to be taken to physically separate and control access to such a dead person. The law nevertheless recognises that the separation cannot be total.

The body needs to be washed and dressed for hygienic reasons and, if necessary, enclosed in a leak-proof bag.

Religious customs may dictate certain rites to be performed and relatives and friends to touch and kiss the face to complete the grieving process; there is no reason to discourage this in normal circumstances.

Section 45 of the Act considers it unlawful to hold a wake over such a body. The law thus requires us to balance the necessary with the unnecessary.

3) Spread of Infection

Organisms in a dead body are unlikely to infect healthy people with intact skin, but there are other ways they may be spread.

- Needlestick injuries with a contaminated instrument or sharp fragment of bone
- Intestinal pathogens from anal and oral orifices
- Through and from abrasions, wounds and sores on the skin
- Contaminated aerosols from body openings or wounds e.g. tubercule bacilli when condensation could possibly be forced out through the mouth
- Splashes or aerosols onto the eyes
- The risks of infection are not high (and no more than in life) and are usually prevented by the use of standard precautions appropriate protective clothing and the observance of COSHH regulations.

4) Communication

If a person has died with a known or suspected infection, it is essential and a legal responsibility that all persons who may be involved in handling the body are informed of the potential risk of infection. They should be advised of the risks of infection, but the specific diagnosis remains **confidential, even after death**. The persons who need to know include:

In Hospital - Ward staff, mortuary staff, the bereaved relatives and the undertakers.

At Home - The nurse laying out, bereaved relatives and the undertakers.

Elsewhere - Emergency services staff will usually take the same standard precautions for handling all bodies.

The undertaker's personnel should be informed in writing of the potential risk of infection and the degree of risk, and given the names of the Hospital Control of Infection Doctor (HCID) whom they can consult for further advice (see Appendix 2).

Health Services Advisory Committee publication **"Safe Working & the Prevention of Infection in the Mortuary and Post Mortem Room" (2003)** states that:

"All bodies must be identified and correctly labelled. Any that cannot be properly identified, and particularly those for whom there is no satisfactory medical record, must be labelled and treated as 'danger of infection'. All bodies so labelled should be totally enclosed in a leak proof body bag and marked in accordance with local rules."

Labels indicating a danger of infection must only be used for bodies which are suspected of containing hazard group 3 (or 4) pathogens. Warning labels should be conspicuously placed on the body but accompanying clinical information should not be available to anyone other than mortuary staff.

Local rules must ensure that the senior pathology technician is informed of all deaths where a high-risk infection is thought to exist, before a body is delivered to a mortuary. Funeral directors, relatives, porters, etc., should also be informed if the body is in the high-risk category.

The undertakers should be willing to liaise with the relatives concerning any potential risks.

It is important that good liaison is maintained between staff on the wards, microbiology and histopathology laboratories, portering and mortuary departments in the first instance, the undertaker and the bereaved next and the Consultant in Health Protection (CHP) at all levels. Communication between mortuary staff and undertakers is particularly important and every endeavour should be made to try and improve it. It means co-ordinating of viewing, hygienic and ritual body preparation and then bagging of the deceased in the ward, examination or storage in the mortuary and, finally, collection for disposal by the undertakers and any further hygienic preparation or embalming that is to be done.

5) Responsibility

The responsibility for co-ordinating the Control of Infection Policy is placed on the Hospital and Primary Care Trusts and other Community Trusts who assign the role for hospital premises to the Hospital Control of Infection Committees and the Community Infection Control Committees. The local Consultant in Health Protection and/or the Health Protection Nurse from the Health Protection Agency should be a member of each of these committees to ensure uniformity in the approach taken.

Written policies covering all aspects of the handling of human bodies should be in place and the HCIDs and the HPA clinical staff are available to give advice on the use of body bags and on viewing. Mortuaries and post mortem rooms must follow the advice given by the Health Services Advisory Committee "*Safe Working & the Prevention of Infection in the Mortuary & Post Mortem Room"* (HMSO 2003).

6) Laying Out

Hygienic preparation of bodies usually involves washing the face and hands, closing the eyes and mouth, tidying the hair and possibly shaving the face. It may also involve plugging orifices to prevent discharges. Any wounds should also be covered. **If the death is not to be referred to the Coroner, then all drains, catheters and intravenous lines need to be removed.**

In some cultures and religious groups, relatives expect to carry out the ritual preparation before burial and, in most cases, this can be permitted but where a risk of infection exists the hazard has to be assessed and appropriate advice given (see Appendix 3). This may mean only partial preparation and the use of gloves and protective clothing, and should be supervised.

When the hygienic preparation is not done by nursing staff, funeral staff will do as much as they can and this often includes at least partial embalming.

7) Body Bags

Body bags should only be reserved for cases where a risk assessment makes it necessary.

Plastic body bags are used for cadavers thought to be infective to handlers, or likely to leak in transit, or otherwise offensive bodies. The bags are in many cases used inappropriately for bodies that are of minimal or no risk, and this causes problems to the staff of funeral parlours and unnecessary distress to relatives.

Bodies cool more slowly inside a body bag, facilitating decomposition and making hygienic preparation more difficult. It may only be possible to display the head for viewing and this may cause additional distress to the bereaved. There are many types of body bag available, but it is recommended that **those made of polyvinyl chloride should not be used if the body is to be cremated** because of the risk of dangerous emissions of dioxins (alternatives are available).

Where there is judged to be an appreciable risk, the black and yellow Biohazard labels should be attached to the shroud and the bag, in addition to the identification labels (see
Appendix 7).

8) Hospital Ward Staff

The Consultant in charge of the case is responsible for issuing an appropriate warning when the death is associated with an infection. The ward doctor certifying death will, if necessary, consult with the HCID for advice on the use of a body bag and will advise the nursing staff.

Nursing staff performing the last offices should adopt the same standard routine protective precautions as when the patient was alive, including CE marked disposable gloves and a disposable plastic apron when handling the deceased. Any surface contamination should be removed by washing. Orifices may be packed and any wounds or leaking openings should be covered with occlusive dressings. Care must be taken to avoid contamination of any wounds or skin lesions on the workers skin, and hands must be washed thoroughly at the end of the procedure. If the death is **not** to be reported to the Coroner, then **all drains, catheters and intravenous lines should be removed.**

Where appropriate the ward nurse will inform the relatives on any restrictions, emphasising that the body may be enclosed in a bag once it leaves the ward.

Relatives may be ignorant of the true nature of the infection and an **individual's right to confidentiality continues after death** but, nevertheless, the bereaved relatives must be advised on how to avoid risk of infection themselves. The certifying doctor should discuss the precautions that are advised with the relatives.

If relatives wish to carry out ritual preparation of the body themselves, it should be done under supervision ensuring they observe the standard precautions advised. The ward nurse should then cover the body in a disposable shroud and cover with a sheet. If appropriate, the body should then be placed in a leak-proof cadaver bag and labelled with "Biohazard – danger of infection" tape and identification labels attached to the ankle, the shroud and the bag.

Porters transporting the deceased to the mortuary should conform to hospital policy when handling the body and the mortuary staff must be advised of the risk of infection.

9) Undertakers/Funeral Directors

(See Appendix 4: "Standard Precautions")

There is a general duty under the Health & Safety at Work Act 1974 to ensure the health, safety and welfare of employees, and members of the public have to be safeguarded by work activities that may affect them. The Control of Substances Hazardous to Health regulations (2002) require appropriate assessments of all substances that may be a risk and actions taken to minimise the hazards – this also applies to micro organisms that may be a hazard *(Appendix 1)*.

It is essential that undertakers are made aware immediately if a body they are to handle is either known or suspected to be infectious. The person responsible for safety in a mortuary must ensure that the undertakers and their staff are aware of the hazard and given the information in writing (see *Appendix 2*) and ensure biohazard tape is used to label the body and the body bag. For deaths at home the doctor certifying death has to ensure that the undertakers are informed. The nature of the infection should **not** be disclosed because this remains confidential even after death.

Because it is not possible to rule out an underlying infection in every case, it is advisable to use gloves and simple protective clothing in the handling of all bodies, but this should be tempered with due regard to the distress it may cause to grieving families. Body bags need not be used except when advised (see *Appendix 2*) and in all other cases when there is doubt about the need the HCID or the CHP can be consulted. Gloves and other protective clothing should be removed after handling and the hands washed thoroughly before meeting the family.

10) Embalming

Approximately 70% of bodies are treated with at least partial embalming. This reduces the post-mortem staining, improves skin colour, and slows down decomposition. Embalming involves the injection of solutions containing formaldehyde and should reduce the risks of infection, but blood has to be drained from the body and may be a risk to the embalmer from blood-borne infections, such as hepatitis B and C, HIV and septicaemias. In these cases, funeral staff should be informed that embalming is not advised except by well trained staff who have undertaken a formal risk assessment. Any radioactive implants would have to be removed if the body is intended for cremation i.e. cardiac pacemakers. In some other cases, the use of body bags is mandatory and embalming must not be attempted. (See Appendix 3).

The workrooms of funeral parlours must be of a standard acceptable to the Environmental Health Department of the Local Authority and COSHH regulations must be strictly adhered to. Staff with skin abrasions, cuts, severe eczema, etc., should report this fact to their supervisor and should use impermeable water-proof dressings over the lesions and staff with uncovered skin lesions or cuts should not work on any body where any infection is likely. Coffins and any body bags used must be leak-proof. Visitors should be subject to the same rules of hygiene and must be supervised if in the workroom.

Ritual preparation of the body by the bereaved family can often be allowed (see Appendix 3), but they should be advised to wear gloves and simple protective plastic aprons, also they should be supervised and wash their hands afterwards. When there is doubt about whether the family should be permitted to do the ritual preparation, the HCID or CHP should be consulted. Viewing, touching and kissing the face may also be permitted in most cases (see Appendix 3).

Embalming **must** be prohibited in those bodies that have died with one of a few rather rare infections (i.e. Group A, Appendix 3). It is not advisable in cases such as hepatitis B, C, E, HIV/AIDS and septicaemia due to invasive group A streptococci, though some embalmers are willing to work on these groups, but should be well trained, very experienced and work only at suitable premises.

Standard precautions must be adopted in all cases:

Body fluids or other contaminated liquids may be discharged into the drainage system, but as far as practical, this should be disinfected before discharge.

All non-liquid waste should be put into appropriate yellow clinical waste bags, transported and disposed of by incineration by a licensed company. Under the Environmental Protection Act, Controlled Waste Regulations 1992, the persons providing or handling clinical waste have a duty to take reasonable steps to handle and look after waste safely and ensure its legal disposal by others. The Environment Agency's "Technical Guidance on Waste Management Facilities 2001" contains the guidance on current requirements although its current status is draft out for consultation. There is also a Health Services Advisory Committee publication on the Safe Disposal of Clinical Waste 1999.

All instruments should be cleaned in warm (not hot) water and detergent and then disinfected by boiling for minimum of 5 minutes.

All spills of blood or other body fluids should be cleaned up promptly. Protective clothing should be worn (gloves and plastic apron). Blood spill should be soaked up by using hypochlorite granules* or disposable paper towels. The granules or towels should be scraped/soaked up and placed in a yellow clinical waste bag. The area should then be cleaned with a freshly made up solution of hypochlorite 1 in 1,000 ppm strength and dried (see Appendix 4 for full guidelines). For general cleaning of the environment, a good quality detergent and hot water is preferred.

***NB:** Chlorine is corrosive to metals and will react with formaldehyde. When chlorine releasing granules come into contact with urine – chlorine fumes may be released which may lead to respiratory problems. Chlorine releasing granules can only be used on small scale spillages of blood.

Any action that will bring a staff member's hands in contact with their face whilst undertaking an embalming procedure should be avoided and strict banning of eating, smoking or drinking must be enforced within work areas.

11) Vaccination of Staff

Although vaccines can give good protection against polio virus, diphtheria, tuberculosis and hepatitis B, the protection is **not** 100% effective and there are other infections against which there are no vaccines e.g. HIV/AIDS and hepatitis C. The use of standard infection control precautions are therefore crucial in preventing cross infection. (See Undertakers – Standard Precautions (*Appendix 4*))

It is recommended that embalmers and mortuary staff be fully vaccinated for Hepatitis B and shown to be immune. Those **not** immune should be counselled and advised of continuing risk of infection and to seek occupational health advice.

12) Mortuary and Post-Mortem Rooms

If guidelines contained in Health Services Advisory Committee “Safe Working and the Prevention of Infection in Mortuary and Post-mortem Rooms” (2003) are followed, spread of infections from cadavers is unlikely.

13) Exhumations

Refer to the current Health & Safety Executive (HSE) guidance for specific advice relating to exhumations.

14) Specific Infections

(Also see Appendix 3)

Very High Risk (Group A)

- Body bag must be used
- Viewing and touching prohibited*
- No embalming
- Hygienic preparation banned

Applies to:

- Anthrax
- Lassa, Ebola, Marburg and other viral haemorrhagic fevers
- Yellow fever
- Plague
- Rabies
- SARS* (For SARS 'WHO' guidance currently states that family may view the body if they wear personal protective equipment)
- Septicaemia due to invasive Group A streptococcal infection, if **not** had 24 hours of appropriate antibiotic therapy.
- Smallpox

With the exception of Group A streptococcal septicaemia, the above infections are rare in the UK and, if they were to occur, the case would almost certainly die in hospital.

High Risk (Group B)

- Body bag must be used for CJD and other transmissible spongiform encephalopathies (TSE's) and Typhus, and considered for the others if there is leakage of body fluids

- Advised that embalming should not be done

- The bereaved should be warned of the potential infection risk. If they wish to carry out ritual washing or preparation of the body this should be done under supervision with advice about the use of standard precautions.

Applies to:

- CJD and other transmissible spongiform encephalopathies (TSEs)
- Typhus

And for the following diseases only if there is seepage of body fluids:

- Hepatitis B
- Hepatitis C
- Other blood-borne Hepatitis' e.g. Hepatitis D
- HIV/AIDS

Bodies infected with HIV may be infected with other diseases, such as tuberculosis and cryptosporidiosis, that may be potentially more infectious than the HIV infection itself.

Medium Risk (Group C):

- Body bag is advised only if there is leakage of body fluids
- Hygienic preparation of the body is permitted
- Viewing and touching is allowed
- Embalming may be carried out
- Standard precautions still need to be taken

Applies to:

- Cholera
- Diphtheria
- Dysentery (amoebic or bacillary)
- Meningococcal disease (untreated)
- Typhoid and Paratyphoid fever
- Relapsing fever
- Scarlet fever
- Tuberculosis
- Brucellosis
- Salmonellosis

Low Risk (Group D):

- Body bag not required
- Hygienic preparation of the body is permitted
- Body can be handled – viewing and touching is allowed
- Embalming may be carried out
- As the presence of infectious agents is not suspected, notably hepatitis B and C, HIV/AIDS and tuberculosis, it is still important that the precautions specified in the Control of Substances Hazardous to Health should be followed for handling all bodies, but especially standard infection control procedures such as the use of appropriate protective clothing and the washing of hands is required.

Tuberculosis (Group C)

In patients with respiratory tuberculosis it is recommended that the face of the cadaver be covered with a disposable facemask when being handled to prevent any aerosol formation as air is expelled from the lungs.

The risk of infection to undertakers and embalmers is probably small, but BCG vaccination is advised. The risk to staff involved in post mortems is much greater because of the aerosols, particles and splashes that are generated, especially when power saws are used.

Septicaemia (Group D unless untreated Meningococcal or Group A Streptococcal)

Only the septicaemias caused by meningococcal or Group A streptococcal pose a risk, (unless they have been treated with appropriate antibiotic therapy) and these should be handled with care. The blood and other body fluids are infectious and can infect those who handle the body or clean up contaminated surfaces, even through apparently trivial injuries or other breaks in the skin surface. Any accidents or tears in gloves must therefore be reported to a senior supervisor at once and, if necessary, the Health Protection Unit staff or the HCID should be consulted.

Hepatitis B (Group B)

Hepatitis B is a blood-borne virus and is extremely infectious if it gains entry into the body through skin penetration such as Needlestick injuries. If there is leakage of body fluids, bodies suspected of being infected should be handled with great care by workers wearing full protective clothing and who are well trained in how to avoid infection. The bereaved should be warned of the potential risk of infection and advised on precautions that should be taken if they wish to touch the body. If they wish to carry out any ritual washing, they should be supervised and advised on the use of standard precautions.

Embalmers and mortuary staff should be vaccinated routinely against hepatitis B and shown to be immune. Those who are not immune should be counselled and advised of continuing risk of infection and to seek occupational health advice.

Hepatitis C, D and G (Group B)

Hepatitis C, D and G are transmitted by the same routes as hepatitis B. No vaccine is yet available. Full precautions should be taken as for hepatitis B. Hepatitis D does not occur without hepatitis B.

HIV/AIDS (Group B)

In undertaker's premises and in mortuaries, HIV/AIDS would be transmitted by similar routes as hepatitis B, but is considerably less infectious. Standard protection should be adequate to prevent transmission. Other infections may also be present in these bodies and, in particular, tuberculosis and cryptosporidiosis must be considered. (See Appendix 4 "Suggested Procedures").

Gastrointestinal Infections (Group C)

Leakage of faeces from bodies is common and all who handle them should use standard precautions. Cleaning up of all leakages and careful washing of hands is important. These infections include the dysenteries, salmonellosis and cryptosporidiosis.

MRSA (Group D)

This infection is **not** a problem, but can raise concern amongst embalmers and funeral directors. Standard precautions is all that is required.

Methicillin-Resistant Staphylococcus aureus (MRSA) are strains of the bacterium Staphylococcus aureus (SA) that are resistant to some (not all) commonly used antibiotics. About one-third of the population carry SA harmlessly on their skin or in the nose and throat (colonisation) but it can cause infections of various kinds that are usually not serious and can be treated easily.

However, certain vulnerable or debilitated individuals can get more serious infections that, although much less common, may cause life-threatening conditions. If the SA in these cases is also one of the MRSA strains, its significance is that it has restricted treatment options.

About 80% of people who acquire MRSA carry it harmlessly on their skin and MRSA does not normally prove a threat to healthy people. No special precautions are required for the laying out, handling or embalming of bodies that may be colonised or infected with MRSA. Normal hygienic measures are all that is necessary and there need be no restrictions on the bereaved family with regard to viewing, touching, kissing etc.

15) References

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Health Services Advisory Committee (HSAC), 1999. Safe Disposal of Clinical Waste. 2nd Edition, HSE Books, The Stationery Office.

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APPENDIX 1

CONTROL OF SUBSTANCES HAZARDOUS TO HEALTH REGULATIONS 2002

The main provisions of the COSHH Regulations are:

Assessment (Regulation 6)

An employer may not carry on any work which is liable to expose any employee to a substance hazardous to health unless a suitable and sufficient assessment has been made of the health risks created by that work and about measures necessary to control exposure to substances hazardous to health. It allows an employer to show that all factors pertinent to the work have been considered and that an informed judgement has been reached about the risks, the steps which need to be taken to achieve and maintain adequate control, the need for monitoring exposure at the workplace and for health surveillance.

Control (Regulation 7)

The employer must ensure that the exposure of employees to substances hazardous to health is either prevented or, where this is not reasonably practicable, adequately controlled. This applies whether the substance is hazardous through inhalation, ingestion, absorption through the skin or contact with the skin. In all cases, prevention or adequate control of exposure must be achieved by measures other than personal protective equipment as far as reasonably practicable – i.e. the use of process, engineering and procedural controls are the preferred method.

Use of Control Measures (Regulation 8)

Every employer who provides any control measure should ensure that it is properly used, and every employee should make full and proper use of the control measures provided.

Maintenance, Examination and Testing of Control Measures (Regulation 9)

Every employer who provides a control measure in pursuance of Regulation 7 (i.e. to control the exposure of employees) should ensure that it is maintained in an efficient working order and in good repair.

The employer should ensure that periodic thorough examinations and tests of engineering controls are carried out; in the case of local exhaust ventilation plant this should be done at least once every 14 months. Respiratory protective equipment has to be examined at suitable intervals and, for all control measures, a record of the result of the examinations must be kept for 5 years.

Routine Monitoring of Exposure (Regulation 10)

Monitoring of exposure should be carried out when it is necessary to ensure that exposure is adequately controlled or otherwise to protect the health of employees. It is required, for example, when failure or deterioration of the control measures could result in serious risk to health or where it is necessary to ensure that an assigned maximum exposure limit (MEL) or occupational exposure standard (OES) is not exceeded. A record should be kept showing when the monitoring was done, what monitoring procedures were adopted and what the results were.

Health Surveillance (Regulation 11)

Where the assessment shows that health surveillance is appropriate for the protection of employees, the employer should ensure that this is carried out. Health surveillance is appropriate where employees are exposed to one of the substances in Schedule 5 of the regulations, and also in other circumstances where the exposure of employees, there is a reasonable likelihood that the disease or effect may occur under the particular conditions of work and there are valid techniques for detecting signs of the disease or the effect.

Information, Instructions and Training for Persons who may be Exposed to Substances Hazardous to Health (Regulation 12)

Suitable and sufficient information, instruction and training must be given on risks to health and precautions to be taken. Where these procedures are carried out, there must also be information on the results of monitoring and collective results of health surveillance. Anyone carrying out any tasks for an employer under the Regulations must also have the necessary information, instruction and training to do the job properly.

In these Regulations, unless the context otherwise requires:

'Maximum exposure limit' (MEL) for a substance hazardous to health means the maximum exposure limit for that substance set out in Schedule 1 in relation to the reference period specified therein when calculated by a method approved by the Health & Safety Commission.

'Micro-organism' includes any microscopic biological entity which is capable of replication.

'Occupational exposure standard' (OES) for a substance hazardous to health means the standard approved by the Health & Safety Commission for that substance in relation to the specified reference period when calculated by a method approved by the Health & Safety Commission.

'Substance' means any natural or artificial substance whether in solid or liquid form or in the form of a gas or vapour (including micro-organisms).

Extract from "Safe Working and the Prevention of Infection in Mortuary & Post-Mortem Room", Health Services Advisory Committee, 1991.

APPENDIX 2

SUGGESTIONS FOR FORMS THAT CAN BE ADAPTED FOR USE

Advice to undertakers when there is a possibility of the deceased patient presenting a risk of infection.

CATEGORY 'A'

The tissue and body fluids of this patient may still be capable of transmitting infection. The body must be enclosed in a bag.

The following recommendations are made:

1) The body must not be removed from the bag

2) Embalming must not be carried out

3) If relatives ask to see the body, they should be told that there is a risk of infection and that, in their own interest, they may only view the face without any physical contact.

4) Relatives should be told in writing that the patient has, or may have, died with an infectious disease and referred to the hospital medical staff if the nature of the infection needs to be explained.

If further information is required, it may be obtained from:

CATERGORY 'B'

The tissue and body fluids of this patient may still be capable of transmitting infection. The body should be enclosed in a bag. However for HIV/AIDS, Hepatitis B/C and other blood borne Hepatitis this is only necessary if there is leakage of body fluids. Embalming is undesirable as it involves the extraction of infected material from the body as well as further exposure of infected tissue and cannot be guaranteed to eliminate the risk of infection from the body.

The following recommendations are made if a body bag is used:

1) The body should not be removed from the bag

2) If relatives ask to see the body, they should be told that there is a risk of infection and that, in their own interest, they may only view the face without physical contact.

3) Relatives should be told that the patient has, or may have, died with an infectious disease and referred to the hospital medical staff if the nature of the infection needs to be explained.

If further information is required, it may be obtained from:

CATEGORY 'C'

The tissue and body fluids of this patient may still be capable of transmitting infection and enclosure in a body bag may be advised in specific circumstances.

The following recommendations are advised:

1) The body may be removed from the bag for hygienic preparation and for viewing and touching by the bereaved.

2) Embalming may be carried out.

3) Relatives should be told that the patient has, or may have, died with an infectious disease and referred to the hospital medical staff if the nature of the infection needs to be explained.

If further information is required, it may be obtained from:

CATEGORY 'D'

The tissue and body fluids of this patient are of low infectivity and enclosure in a body bag is unnecessary.

The following recommendations are made:

1) Embalming may be carried out.

2) Relatives can be advised that the risk of infection is low and they may see and have contact with the body.

3) Relatives should be told that the patient has, or may have, died with an infectious disease and referred to the hospital medical staff if the nature of the infection needs to be explained.

If further information is required, it may be obtained from: The Community Infection Control Nurse at your Primary Care Trust or the local Health Protection Unit (see generic contact numbers list).

APPENDIX 3

Guidelines for Handling Bodies with Infections

a) Infections Notifiable in England & Wales

Infection	*Degree of Risk	Body Bags	Bereaved permitted to touch & spend time with body	Embalming	Hygiene Precautions (Cleaning & Tidying)
Acute Encephalitis	D	No	✓`	✓	✓
Acute Poliomyelitis	C	No*	✓	✓	✓
Anthrax	A	Yes	No	No	No
Cholera	C	No**	✓	✓ with special care	✓
Diphtheria	C	No*	✓	✓	✓
Dysentery (Amoebic or Bacillary)	C	No**	✓	✓	✓
Food Poisoning (or suspected)	C	No**	✓	✓	✓
Lassa Fever	A	Yes	No	No	No
Leprosy	D	No	✓	✓	✓
Leptospirosis (Weil's)	C	No	✓	✓	✓
Malaria	C	No	✓	✓ with special care	✓
Measles	D	No	✓	✓	✓
Meningitis (non-meningococcal)	D	No	✓	✓	✓
Meningococcal Disease	C	No*	✓	✓	✓
Mumps	D	No	✓	✓	✓
Ophthalmia Neonatorum	D	No	✓	✓	✓
Paratyphoid Fever	C	No**	✓	✓	✓
Plague	A	Yes	No	No	No
Rabies	A	Yes	No	No	No
Relapsing Fever	C	No*	✓	✓	✓
Rubella	D	No	✓	✓	✓
Scarlet Fever	C	No*	✓	✓	✓
Smallpox	A	Yes	No	No	No
Tetanus	D	No	✓	✓	✓
Tuberculosis	C	No*	✓	✓	✓
Typhoid Fever	C	No**	✓	✓	✓
Typhus	B	Yes	No	No	No
Viral Haemorrhagic Fever	A	Yes	No	No	No

Infection	*Degree of Risk	Body Bags	Bereaved permitted to touch & spend time with body	Embalming	Hygiene Precautions (Cleaning & Tidying)
Viral Hepatitis A	C	No*	✓	✓	✓
Viral Hepatitis B, C & Non A, non B Hepatitis	B	No**	✓	Not advised	Yes***
Whooping Cough	D	No	✓	✓	✓
Yellow Fever	A	Yes	No	No	No

No*: The 'Degrees of Risk' (A, B, C & D) are absolute and, in most cases, are not specified in law. The advice given in specific cases may be varied if the Clinician-in-Charge/Hospital Control of Infection Doctor/Consultant in Health Protection decide it is appropriate after assessing the risks.

No**: Means no unless there is a leakage of body fluids.

Yes***: Means yes unless there is a leakage of body fluids. Standard precautions always required and supervision of relatives.

b) Some Infections NOT Notifiable in England & Wales

Infection	*Degree of Risk	Body Bags	Bereaved permitted to touch & spend time with body	Embalming	Hygiene Precautions (Cleaning & Tidying)
Brucellosis	C	No*	✓	✓	✓
Chicken Pox / Shingles	D	No	✓	✓	✓
Cryptosporidiosis	D	No**	✓	✓	✓
Dermatophytosis	D	No	✓	✓	✓
HIV/AIDS	B	No**	✓	Not advised	Yes***
Influenza	D	No	✓	✓	✓
Legionellosis	D	No	✓	✓	✓
Lyme Disease	D	No	✓	✓	✓
MRSA	D	No	✓	✓	✓
ORF	D	No	✓	✓	✓
Pneumonia / Bronchitis	D	No	✓	✓	✓
Psittacosis	D	No	✓	✓	✓
Q fever	D	No	✓	✓	✓
Salmonellosis	C	No**	✓	✓	✓
Invasive Group A Streptococcal Infection	A	Yes	No	No	No
SARS	A	Yes	No but current WHO guidance states that relatives may view the body if they wear appropriate PPE.	No	No

Infection	*Degree of Risk	Body Bags	Bereaved permitted to touch & spend time with body	Embalming	Hygiene Precautions (Cleaning & Tidying)
Transmissible Spongiform Encephalopathies (Eg: Creutzfeldt-Jakob Disease)	B	Yes	✓	No	✓

No* means the 'Degrees of Risk' (A,B,C & D) are absolute and, in most cases, are not specified in law. The advice given in specific cases may be varied if the Clinician-in-Charge/Hospital Control of Infection Doctor/Consultant in Health Protection decide it is appropriate after assessing the risks.

No* means No unless there is a leakage of body fluids.

Yes*** means Yes unless there is a leakage of body fluids. Standard precautions always required and supervision of relatives.

Other conditions requiring body bag and with restriction of contact (except touching face) but should not be removed from bag, include:

- Death in Dialysis Units
- Known intravenous drug user
- Severe secondary infection
- Gangrenous limbs and infected amputation sites
- Large pressure sores
- Leakage and discharge of body fluids likely
- Post-mortem
- Incipient decomposition

APPENDIX 4

Standard Precautions for Undertakers and Embalmers' Work Rooms

- Employers should have written safety policies to be read by all staff who enter the workrooms.

- Employers should provide basic training in aseptic procedures and in methods of handling infected or potentially infected bodies.

- Employees are expected to follow guidelines and policies issued by their employers and to maintain high standards of personal hygiene.

- No eating, smoking or drinking should be permitted nor any other action that will bring the hands into contact with the face within the work areas that involve handling of cadavers, embalming, etc.

- Any member of staff with an illness which may create an infection hazard at work should report this to their supervisor e.g. diarrhoea and vomiting.

- Any cuts, abrasions or other breaks in the skin of the hands should be covered with an impermeable waterproof dressing before working in the workroom.

- All accidents in the workroom must be reported at once to the supervisor and recorded in the Accident Book. This is particularly important with sharps injuries. A First Aid Box must be provided.

- Staff members should be fully immunised against poliomyelitis, diphtheria, tuberculosis, tetanus and hepatitis B and should keep a record of details of this information.

- Protective clothing **must** be provided for use in the workroom and be used at all times. This includes water-proof aprons, gowns, gloves, overshoes or wellington boots and eye protection. Facilities must be provided for storage, cleaning and safe disposal after use. Work clothes must not be worn outside the premises.

- Spillages of blood or other body fluids that may be contaminated with blood should be covered with **freshly made** hypochlorite disinfectant (or the more convenient chlorine releasing granules or powder*) for at least five minutes. The spillages should then be mopped-up with absorbent paper towels and disposed of in yellow plastic clinical waste bags. Disposable gloves should be worn and placed in the yellow bag with the waste. The area should then be thoroughly cleaned with hot soapy water and dried.

* *When chlorine releasing granules come into contact with urine, chlorine fumes may be released which can lead to respiratory problems. The granules should only be used on small scale spillages of blood.*

- Hand washing is the most important single hygienic action in the reduction of risks of infection. Hands should be washed thoroughly before leaving a workroom.

- Liquid waste may be flushed down drains but, if possible, should be treated with a disinfectant first.

- Solid waste from the workroom should be treated as clinical waste, put into a yellow plastic clinical waste bag and disposed of by incineration by a licensed company. Under the Environmental Protection Act, Controlled Waste Regulations 1992, the persons providing or handling clinical waste have a duty to take reasonable steps to handle and look after waste safely and ensure its legal disposal by others.

- Instruments must be washed well in warm (not hot) water with a detergent and disinfected.

- Surfaces should be cleaned after use with a disinfectant (hypochlorite is corrosive and would react with any formaldehyde used).

- Embalmers are exposed to a much greater risk of contamination from body fluids than other employees in the workroom and must take particular care. Non-disposable leak-proof protective clothing should be worn throughout the procedure in addition to gloves, gowns, overshoes or wellington boots, eye protection, etc.

- If there is any doubt as to whether embalming should be done, consult the HCID or CHP.

For more information, refer to Health Services Advisory Committee (2003) “Safe Working and Prevention of Infection in the Mortuary and Post-Mortem Room (HMSO).

Appendix 5

Suggested Procedure following HIV Death at Home

There is, today, an increasing trend towards "care in the community" and, in addition to this, a preference is often expressed by those in the terminal stages of HIV infection to be treated and, when the time comes, to die at home. In view of this, *AIDSLINK* felt that it might be helpful for those likely to be involved after such a death, to have some guidance on the correct procedure to follow. The following guidelines were compiled after discussion with staff from the Department of Health, The Mildmay Mission in London and the National Association of Funeral Directors.

- Every patient who wants to die at home should be receiving care from a GP who knows their condition.

- Preferably, they should also be receiving care from a Community Nurse who also knows their condition.

- When the person dies, the GP should be informed as soon as possible.

- The body should be kept cool (this is especially important in cases where there is Cryptosporidium or other diarrhoea). The central heating radiators and any other fires or radiators in the room where the body is should be turned off and the windows opened.

- The person may be touched and kissed as they were in life.

- Any material which has leaked from the body should be removed wearing gloves and disposed of as in life.

- The GP will call and certify death and will arrange for a second doctor, if required, for cremation.

- The GP, or more commonly the nurse who was attending the deceased, will lay out the body (with the assistance of the bereaved if they wish) wearing disposable CE marked gloves.

- The GP or nurse should ascertain from the bereaved the name of the chosen Funeral Director and should inform them of a "risk of infection".

- It should be explained to the Funeral Directors (if they don't know already) that disposable CE marked gloves and plastic apron should not be put on until they are about to handle the body and should be removed before they emerge from the room where the body was put in the cadaver bag.

- The deceased person may be kept in cool conditions at home (after laying out before placing into the bag) for 8-l0 hours to allow the bereaved to say goodbye.

- Some Funeral Directors may charge an extra fee for collecting a body outside the usual 9.00am – 5.00pm working hours (irrespective of the cause of death).

- It is for those who have been bereaved to decide whether or not they wish to inform the Funeral Director of HIV infection but, remember, that they must be informed by the medical staff of "infection risk".

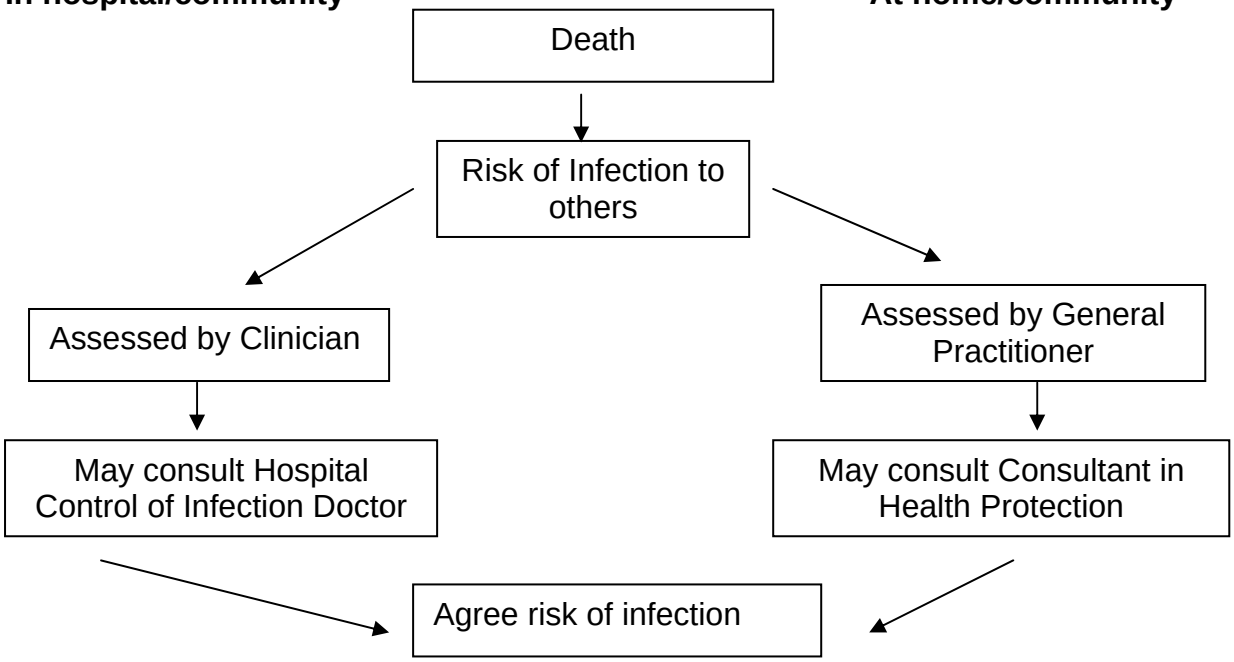
- Funeral Directors will **not** expect to be informed of HIV infection – they do expect though to be informed of an infection risk (this covers 30 diseases, ranging from the commonest food poisoning to Lassa fever). If, however, they are informed of HIV infection they will still undertake the funeral with care, understanding and confidentiality that is their norm.

Adapted from AIDSLINK, August/September 1990.

Appendix 6

Action to be taken when a death occurs and risk of infection is known or suspected

In hospital/community **At home/community**



	A Very High	B High	C Medium	D Low
Body Bag to be used	Yes	Yes*	Advised	No
Body may be removed from bag	No	No	Yes	-
Embalming permitted	No	Not advised	Yes	Yes
Viewing body by bereaved	Face only	Yes**	Yes	Yes
Touching body by bereaved	No	Yes**	Yes	Yes

Information to be passed on:

- Patient died with a known or suspected infection (not the diagnosis)
- Advice on precautions required
- Where they can get further information if required.

Specimen infection control notification sheet to accompany body

Mortuary Staff and Funeral Directors Staff

Yes* For HIV/AIDS, Hepatitis B & C and other blood borne hepatitis this is only necessary if there is leakage of body fluids.

Yes** Yes, except if the cause of death is Typhus or if there is leakage of fluids posing an infectious disease risk.

NB: More detailed information, in confidence, about the risk of infection may be necessary for nursing and mortuary staff.

Appendix 7

Specimen Infection Control Notification Sheet

Name of deceased: _____

Date and time of death: _____

Source hospital and ward: _____

The deceased's remains are a potential source of infection:

YES / NO / UNKNOWN (see Note 1 below) (*ring as appropriate)*

If **YES** (see Note 2 below) the remains present a potential infectious hazard of transmission by: (ring as appropriate)

Inoculation Aerosol Ingestion

Instructions for handling remains (if YES, tick as appropriate):

Can relatives view the body	☐
Body bagging required	☐
Embalming presents high risk	☐

Signed: (See Note 3) _____

Print Name: _____

On behalf of: _____(Hospital/Mortuary/General Practitioner)

Notes

Note 1: Not all infected patients display typical symptoms, therefore some infections may not have been identified at the time of death.

Note 2: In accordance with Health & Safety law and the information provided in the Health Services Advisory Committee Guidance, *Safe Working and the Prevention of Infection in the Mortuary and Post-Mortem Room* (Second Edition 2002)

Note 3:

- In hospital cases, the doctor certifying death, in consultation with ward nursing staff, is asked to sign this Notification Sheet.
- Where a post-mortem examination has been undertaken, the pathologist is asked to sign this Notification Sheet.
- In no-hospital situations, the doctor (e.g. the GP) certifying death is asked to sign this Notification Sheet.

Appendix 8

Appendix of Abbreviations

AIDS	Acquired Immunodeficiency Syndrome
CCDC	Consultant in Communicable Disease Control
CHP	Consultant in Health Protection
CICN	Community Infection Control Nurse
COSHH	Control of Substances Hazardous to Health
GP	General Practitioner
HCID	Hospital Control of Infection Doctor
HIV	Human Immunodeficiency Virus
HMSO	Her Majesty's Stationery Office
HPU	Health Protection Unit
ICN	Infection Control Nurse (Hospital)
PCT	Primary Care Trust
ppm	parts per million
SARS	Severe Acute Respiratory Syndrome

Appendix 9

Notifiable diseases

Under the Public Health (Control of Disease) Act 1984 and Public Health (Infectious Diseases) Regulations 1988, "If a registered medical practitioner becomes aware, or suspects, that a patient whom he is attending within the district of a local authority is suffering from a notifiable disease or from food poisoning, he shall ….. forthwith send to the proper officer of the local authority for that district a certificate….."

The following diseases are required to be notified.

Cholera
Plague
Relapsing fever
Smallpox
Typhus
Acute poliomyelitis
Anthrax
Diphtheria
Dysentery (amoebic or bacillary)
Leprosy
Leptospirosis
Malaria
Measles
Meningitis
Meningococcal septicaemia (without meningitis)
Mumps
Ophthalmia neonatorum
Paratyphoid fever
Rabies
Rubella
Scarlet fever
Tetanus
Tuberculosis
Typhoid fever
Viral haemorrhagic fever
Viral hepatitis
Whooping cough
Yellow fever

It should be noted that not all persons suffering from diseases requiring to be notified pose a risk to others who may come in contact with them, and there are other diseases which do not require to be notified which may pose a risk to contacts.

Generic Contact Numbers List

(Correct at time of publication of this document. See "Policies and Guidance" section of the HPA North West website for current list (http://www.hpa-nw.org.uk/))

HEALTH PROTECTION AGENCY	
Health Protection Agency North West	Tel: 0151 482 5688 Fax: 0151 482 5689 Out of hours: 0151 482 5688 (Answering machine with on-call Consultant's details)
Cheshire and Merseyside Health Protection Unit Cheshire (inc Wirral) – Merseyside (Liverpool, Sefton, St Helens & Knowsley) –	 Tel: 01244 366 766 Fax: 01244 366 782 Tel: 0151 290 8360 Fax: 0151 290 8366 Out of hours: 0151 264 6922 (Mersey Regional Ambulance HQ – ask for HPA Consultant on call)
Cumbria and Lancashire Health Protection Unit Preston – Accrington – Ormskirk – Carlisle –	 Tel: 01772 647 100 Fax: 01772 220 270 Tel: 01254 356 843 Fax: 01254 389 569 Tel: 01695 598 135 Fax: 01695 598 186 Tel: 01228 538 489 Fax: 01228 539 037 Out of hours: 01772 864 400 (Lancashire Ambulance HQ – ask for HPA Consultant on call)
Greater Manchester Health Protection Unit	Tel: 0161 786 6710 Fax: 0161 707 9686 Out of hours: 0161 331 6000 (Tameside General Hospital – ask for the Greater Manchester Health Protection Unit on-call rota)
Communicable Disease Surveillance Centre (CDSC)	0208 200 6868
Chemical Hazards & Poisons Division	0870 606 4444
HPA NW Laboratory Service Office Hours Manchester Royal Infirmary Out of hours	0161 276 8788/8854 0161 276 1234
HPA Collaborating Labs:	
National (Colindale)	0208 200 4400
Carlisle	01228 814 641
Chester	01244 366 770
Liverpool	0151 529 4900
Preston	01772 522 100

Liverpool School of Tropical Medicine	0151 708 9393

PRIMARY CARE TRUSTS: Infection Control Nurses and Directors of Public Health		
Cheshire & Merseyside	**Community Infection Control Nurse**	**Director of Public Health**
Bebington & West Wirral PCT	0151 678 7272	0151 643 5416
Birkenhead and Wallasey PCT	0151 651 3946	0151 651 0011
Central Cheshire PCT	01606 564 001	01270 415 300
Central Liverpool PCT	0151 300 8076 0151 300 8090	0151 285 2345
Cheshire West PCT	01244 364 858	01244 650 300
Eastern Cheshire PCT	01625 661 769	01625 508 300
Ellesmere Port & Neston PCT	01244 364 858	0151 373 4900
Halton PCT	01928 593 690	01928 593 663
Knowsley PCT	0151 292 3519	0151 443 4914
North Liverpool PCT	0151 300 8076 / 0151 300 8090	0151 293 1900
South Liverpool PCT	0151 300 8076 / 0151 300 8090	0151 234 1000
South Sefton PCT	0151 478 1239	0151 478 1249
Southport and Formby PCT	01704 553 543	01704 387 026
St Helens PCT	01744 620 377	01744 457 298
Warrington PCT	01925 664 000	01925 843 600
Cumbria & Lancashire	**Community Infection Control Nurse**	**Director of Public Health**
Blackburn with Darwen PCT	01254 263 611	01254 267 061
Blackpool PCT	01253 651 030	01253 651 026
Burnley, Pendle & Rossendale PCT	01282 607 014	01282 610 250
Carlisle & District PCT	01228 814 393	01228 603 608
Chorley & South Ribble	01772 644 479	01772 644 459
Eden Valley PCT	01228 814 393	01228 603 542
Fylde PCT	01253 306 483	01253 306 456
Hyndburn & Ribble Valley PCT	01254 263 555	01254 380 400
Morecambe Bay PCT	01539 583 769	01539 797 820
Preston PCT	01772 645 625	01772 645 587
West Cumbria PCT	01228 814 393	01900 324 220
West Lancashire PCT	01695 598 155	01695 598 180
Wyre PCT	01253 303 247	01253 306 311
Greater Manchester	**Community Infection Control Nurse**	**Director of Public Health**
Ashton, Wigan & Leigh PCT	01942 772 770	01942 772 842
Bolton PCT	01204 907 709	01204 907 725
Bury PCT	0161 762 3861	0161 762 3074
Central Manchester PCT	0161 861 2291	0161 958 4136
North Manchester PCT	0161 861 2291	0161 219 9428
South Manchester PCT	0161 861 2291	0161 611 4701
Heywood & Middleton and Rochdale PCT	01706 652 818	01706 652 876
Oldham PCT	0161 484 3839	0161 622 6500
Salford PCT	0161 212 4175	0161 212 4811
Stockport PCT	0161 419 4318	0161 426 5031
Tameside & Glossop PCT	0161 308 3171	0161 304 5341
Trafford PCT	0161 873 9650	0161 873 9595

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ENVIRONMENTAL HEALTH DEPARTMENTS AND LOCAL AUTHORITIES		
Cheshire & Merseyside	**Environmental Health Department**	**Local Authority (Chief Exec/switchboard)**
Chester CC	01244 402 310	01244 324 324
Congleton MBC	01270 769 480	01270 763 231
Crewe MBC	01270 537 404	01270 537 777
Ellesmere Port & Neston MBC	0151 356 6789/6654	0151 356 6789
Halton MBC	0151 424 2061	0151 424 2061
Knowsley MBC	0151 443 4737	0151 443 3772
Liverpool CC	0151 225 4028	0151 233 3000
Macclesfield MBC	01625 500 500	01625 500 500
Sefton MBC	0845 140 0845	0151 922 2057 (Chief Exec office)
St. Helens MBC	01744 456 347	01744 456101
Vale Royal MBC	01606 862 862	01606 867 804
Warrington BC	01925 442 575	01925 444 400
Wirral MBC	0151 666 4989	0151 606 2000
Cumbria & Lancashire	**Environmental Health Department**	**Local Authority (Chief Exec/switchboard)**
Allerdale Borough Council	01900 326 333	01900 326 333
Barrow Borough Council	01229 894 260	01229 894 900
Blackburn with Darwen Borough Council	01254 585 393	01254 585 585
Blackpool Borough Council – Emergency	01253 478 444 or 01253 478 456	01253 478 444
Burnley Borough Council	01282 664 533	01282 425 011
Carlisle City Council	01228 817 325	01228 817 000
Chorley Borough Council	01257 515 720	01257 515 151
Copeland Borough Council	01946 598 347	01946 852 585
Eden District Council	01768 864 671	01768 864 671
Fylde Borough Council	01253 658 658	01253 658 658
Hyndburn Borough Council	01254 380 644	01254 388 111
Lancaster City Council	01524 582 701	01524 582 000
Pendle (Borough of)	01282 661 199	01282 661 661
Preston City Council	01772 906 163	01772 906 000
Ribble Valley Borough Council	01200 425 111	01200 425 111
Rossendale Borough Council	01706 217 777	01706 217 777
South Lakeland District Council	01539 733 333	01539 733 333
South Ribble Borough Council	01772 421 491	01772 421 491
West Lancashire District Council	01695 577 177	01695 577 177
Wyre Borough Council	01253 891 000	01253 891 000
Greater Manchester	**Environmental Health Department**	**Local Authority (Chief Exec/switchboard)**
Bolton MBC	01204 336 500	01204 333 333
Bury MBC	0161 253 5566	0161 253 5000
High Peak MBC	0845 129 7777	0845 129 7777
Manchester CC	0161 234 4926	0161 234 5000
Oldham MBC	0161 911 4484	0161 911 3000
Rochdale MBC	01706 864 110	01706 647 474
Salford CC	0161 737 0551	0161 794 4711
Stockport MBC	0161 474 4284	0161 480 4949
Tameside MBC	0161 342 8355	0161 342 8355
Trafford MBC	0161 912 4694	0161 912 1212
Wigan & Leigh MBC	01942 827 100	01942 244 991

AMBULANCE NUMBERS		
Cheshire & Merseyside	**Cumbria & Lancashire**	**Greater Manchester**
Mersey Regional Ambulance Service Headquarters – 0151 260 5220	Cumbria – 01228 596 016 Lancashire – 01772 865 965 (main) 01772 773 093 (duty manager)	GMAS Headquarters: 0161 796 7222 (Greater Manchester Ambulance Service)

PUBLIC NUMBERS	
UNITED UTILITIES:	
Water	0845 746 2200
Electricity (no supply) in United Utilities area	0800 195 4141
Sewer / waste water problems (24 hrs)	08456 020 406
TRANSCO:	
Gas – Emergencies	0800 111 999

HOSPITAL NUMBERS		
Cheshire & Merseyside		
Aintree Hospital (University Hospital Aintree, also known as Fazakerley Hospital), Liverpool	Liverpool	0151 525 5980
Alder Hey Hospital (Royal Liverpool Children's NHS Trust), Liverpool	Liverpool	0151 228 4811
Arrowe Park Hospital, Wirral	Wirral	0151 678 5111
Ashworth Hospital, Liverpool	Liverpool	0151 473 0303
Broadgreen Hospital, Liverpool (Royal Liverpool & Broadgreen Hospital)	Liverpool	0151 282 6000
Cardiothoracic Centre, Liverpool	Liverpool	0151 228 1616
Clatterbridge Centre for Oncology, Wirral	Wirral	0151 334 1155
Clatterbridge Hospital, Wirral	Wirral	0151 334 4000
Congleton War Memorial Minor Injuries Unit, Congleton	Congleton	01260 272 227
Countess of Chester Hospital, Chester	Chester	01244 365 000
Ellesmere Port Hospital, Wirral	Ellesmere Port	01244 365000
Fazakerley Hospital, Liverpool (University Hospital Aintree, also known as Aintree Hospital)	Liverpool	0151 525 5980
Halton General Hospital, Runcorn	Runcorn	01928 714 567
Hollins Park Hospital, Warrington	Warrington	01925 664 000
Knutsford & District Community Hospital, Cheshire	Knutsford	01565 632 112
Leighton Hospital, Crewe	Crewe	01270 255 141
Liverpool Women's Hospital, Liverpool	Liverpool	0151 708 9988
Macclesfield District General Hospital, Macclesfield	Macclesfield	01625 421 000
Regional Infectious Diseases Unit, Royal Liverpool Hospital, Liverpool	Liverpool	0151 706 2432/2436 0151 706 2000
Royal Liverpool Hospital, Liverpool (Royal Liverpool & Broadgreen University Hospital)	Liverpool	0151 706 2000
Smithdown Road Paediatric Minor Injuries Unit, Liverpool	Liverpool	0151 733 4644
Southport Hospital, Southport, Merseyside	Southport	01704 547 471
St Catherine's Hospital, Wirral	Wirral	0151 678 7272
Victoria Central Hospital, Wallasey, Merseyside	Wallasey	0151 678 7272
Victoria Infirmary, Northwich, Cheshire	Northwich	01606 564 000
Walton Hospital, Liverpool	Liverpool	0151 525 3611
Warrington Hospital, Warrington	Warrington	01925 635 911
Whiston Hospital, St Helens & Knowsley	Liverpool	0151 426 1600
Cumbria & Lancashire		
Blackburn Royal Infirmary	Blackburn	01254 263 555
Burnley General Hospital	Burnley	01282 425 071
Cumberland Infirmary	Carlisle	01228 523 444

HOSPITAL NUMBERS		
Cumbria & Lancashire (cont.)		
Furness General Hospital	Barrow in Furness	01229 870 870
Ormskirk & District General Hospital	Ormskirk	01695 577 111
Royal Lancaster Infirmary	Lancaster	01524 65944
Royal Preston Hospital	Preston	01772 716 565
Victoria Hospital	Blackpool	01253 300 000
West Cumberland Hospital	Whitehaven	01946 693 181
Greater Manchester		
Birch Hill Hospital	Rochdale	01706 377 777
Booth Hall	Manchester	0161 795 7000
Central Manchester Trust Hospitals (MRI, St Mary's, Eye Hospital)	Manchester	0161 276 1234
Fairfield Hospital	Bury	0161 764 6081
Hope Hospital	Salford	0161 789 7373
North Manchester General Hospital	Manchester	0161 795 4567
Royal Albert Edward Infirmary	Wigan	01942 244 000
Royal Bolton Hospital	Bolton	01204 390 390
Royal Manchester Children's Hospital	Manchester	0161 794 4696
Royal Oldham Hospital	Oldham	0161 624 0420
Stepping Hill Hospital	Stockport	0161 483 1010
Tameside General Hospital	Tameside & Glossop	0161 331 6000
Trafford General Hospital	Trafford	0161 748 4022
Wythenshawe Hospital	Manchester	0161 998 7070