University Hospital of South Manchester NHS
NHS Foundation Trust

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1. Introduction

The University Hospital of South Manchester NHS Foundation Trust (UHSM) attaches the greatest importance to the management of healthcare waste and other household waste in a manner that is safe for its employees and all other persons likely to be affected by the production, storage, transportation and disposal of healthcare waste and other waste arising from the activities of the Trust. With this in mind, this Waste Disposal Operational Procedure has been prepared to provide a basis for doing all that is reasonably practical to achieve a service provision that is safe and without risk to health.

UHSM is committed to the effective management of healthcare waste and other household waste arising through the development of realistic and acceptable procedures, which meet the spirit, and letter of the law. Such procedures must be effectively carried out and acknowledged in all of the Trust's practices.

The Trust will, as far as is reasonably practicable, ensure that healthcare waste and other waste arising is properly and efficiently segregated, handled, stored, transported, treated and disposed of, in keeping with the Trust's Duty of Care as prescribed in the Hazardous Waste (England and Wales) Regulations 2005 and all other relevant waste management legislation and guidance.

In recognition of its responsibilities under the Health and Safety at Work etc Act: 1974, the Trust will provide its employees with sufficient information, training, supervision, equipment and safe systems of work to carry out their duties with regard to implementing this policy.

The Trust recognises and accepts their responsibility to ensure the safe management of healthcare waste and other waste arising. In order to achieve this, the highest priority will be accorded to the following aims and objectives:

1.1 Safeguard against the uncontrolled release or spillage of waste material;

1.2 Minimise the production and environmental impact of waste by reviewing materials used and practices employed;

1.3 Ensure that healthcare waste and other waste is properly and efficiently segregated, stored, transported and disposed of;

1.4 Ensure procedures for waste management are established, adopted, understood and implemented;

1.5 Provide information, instruction, training and supervision as necessary to ensure the implementation of waste management systems;

1.6 Regularly review all activities to ensure compliance with environmental and Health and Safety legislation;

1.7 Take cognisance of, and implement any actions necessary, to address relevant matters raised by Waste Management Group meetings.

The assistance and co-operation of Trust and Service provider employees is required in the pursuit of these aims and objectives.

Therefore it is the responsibility of all staff to familiarise themselves with the segregation procedures that are summarised in Appendix 3 and ensure the safe and correct disposal of healthcare and domestic waste. It is as important to correctly segregate non-healthcare waste (domestic waste in black bags) as well as the safe segregation of healthcare waste as there is a significant cost difference in the disposal route.

The allocation of duties for healthcare waste and other waste management and practical arrangements made to implement the Policy is set out in this Procedure. The Trust will monitor, review and revise this Procedure on an annual basis or as circumstances demand.

Chief Executive ……..…
University Hospital of South Manchester NHS Foundation Trust

2. Types of Waste

2.1 Healthcare Waste

The definition of clinical waste has historically been used to describe waste produced from healthcare and similar activities that pose a risk of infection or that may prove hazardous. Taken from the Controlled Waste Regulations (issued under the Environmental Protection Act, clinical waste is defined as:

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

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

Broadly, therefore, hazardous waste can be divided into two categories of materials:

1. waste which poses a risk of infection;
2. medicinal waste.

The Health and Safety Executive (HSE) has classified Healthcare Waste in the past using Groups A to E. This has been removed as it is felt that its continued use is inappropriate. The A to E classification system no longer reflects appropriate segregation for treatment or disposal and does not easily equate to the use of European Waste Catalogue (EWC) codes, which are now mandatory for all waste transfer documentation.

2.1.1 Transfer Notes/Waste Consignment Notes

The University Hospital of South Manchester NHS Foundation Trust, its employees and PFI service partner and Service Providers, has a duty of care to ensure all waste is being disposed of legally. A Duty of Care will be imposed on all those who import, produce, carry, keep, treat and dispose of Controlled Waste, or have control of such waste. All those to whom the Duty applies must:

- Prevent waste from escaping
- Ensure that transfer is only to an authorised person or to a person for authorised transport purposes.

- Transfer a written description with the inclusion of the relevant EWC code along with the waste, sufficient to enable others to avoid committing an offence.

Consignment Notes are required for waste produced within the Trust. Consignment notes must be issued for each collection of hazardous waste.

2.1.2 Infectious Clinical Waste

Infectious waste is essentially a waste that poses a known or potential risk of infection, regardless of the level of infection posed. For example, substances containing viable micro organisms or their toxins, which are known, or reliably believed, to cause disease in man or living organisms. Even minor infections are included within the definition of infectious.

2.1.3 Medicinal Waste

Medicinal waste includes expired, unused, spilt, and contaminated pharmaceutical products, drugs, vaccines, and sera that are no longer required and need to be disposed of appropriately. There are further divisions of medicines into three broad groups of Cytotoxic and cytostatic, pharmaceutically active, but not Cytotoxic and cytostatic and finally not pharmaceutically active and possessing no hazardous properties (e.g. saline and glucose).

2.1.4 Offensive/hygiene waste

The term offensive/hygiene waste describes waste which is non-infectious and which does not require specialist treatment or disposal, but which may cause offence to those coming into contact with it. Offensive/hygiene waste includes waste previously described as human hygiene waste and "sanpro" waste, and does not need to be classified for transport. Examples of offensive/hygiene waste include:

- incontinence and other waste produced from human hygiene;
- sanitary waste;
- nappies;
- medical/veterinary items and equipment which do not pose a risk of infection, including gowns, plaster casts etc;

2.1.5 Medical Devices

Medical devices are defined in the Medical Devices Regulations as:
An instrument, apparatus, appliance, material or other article, whether used alone or in combination, together with any software necessary for its proper application, which:

(a) is intended by the manufacturer to be used for human beings for the purpose of:

(i) diagnosis, prevention, monitoring, treatment or alleviation of disease,

(ii) diagnosis, monitoring, treatment, alleviation of or compensation for an injury or handicap,

(iii) investigation, replacement or modification of the anatomy or of a physiological process, or

(iv) control of conception;

and

(b) does not achieve its principal intended action in or on the human body by pharmacological, immunological or metabolic means, even if it is assisted in its function by such means, and includes devices intended to administer a medicinal product or which incorporate as an integral part a substance which, if used separately, would be a medicinal product and which is liable to act on the body with action ancillary to that of the device."

Where implanted medical devices have been in contact with infectious bodily fluids and have been assessed to be infectious, they should be classified and treated as infectious waste. If the device contains hazardous substances or components including nickel cadmium and mercury-containing batteries, the description of the waste on the consignment note must fully describe the waste and all its hazards. For example, an implanted device with a nickel cadmium battery should be classified as:

EWC Code 8 0 03* - Infectious waste containing Nickel Cadmium batteries [Hazards: Infectious (H9) and Corrosive (H8)]

The waste description should accurately describe the waste.

Disinfected medical devices should be classified as non-infectious healthcare waste. The description given of the waste must adequately describe the waste and any hazardous characteristics (even if the waste is not classed as hazardous waste). For example, a disinfected device containing a nickel cadmium battery should be classified as:

EWC Code 6 02 3 - Discarded equipment containing hazardous components other than those mentioned in 6 02 09 to 6 02 2. [Hazard: Corrosive (H8)]

The waste description should accurately describe the waste.

2.1.6 Anatomical Waste

For the purpose of this process document, the definition of anatomical waste includes body parts or other recognisable anatomical items, such as animal carcasses, which may be offensive to those who come into contact with such items. The EWC lists anatomical waste with blood bags and blood preserves as shown in below:

EWC coding for anatomical waste
18 01 02 Body parts and organs including blood bags and blood preserves (except 18 01 03*)

EWC Code 8 0 03* - Waste whose collection and disposal is subject to special requirements in order to prevent infection

2.1.7 Foetal Remains

Disposal of foetal remains should be in accordance with local guidance.

2.1.8 Radioactive Waste

This procedure covers the management of low-level radioactive infectious waste produced from healthcare activity. It does not cover the management and disposal of sealed radioactive sources. Radioactive waste generated from healthcare includes radionuclides used in therapeutic and diagnostic medicine. Generally, this waste is considered to be low-level radioactive waste, this waste is sub-divided into three categories:

- Long half-life: ^{3}H, 14C;
- Radioiodines: 123I, 125I, 131I (any mixed waste containing radioiodine will be in this category);
- Other Beta/Gamma emitters: 89Sr, 35S, 32P, 51Cr, 201TI, 111In, 67Ga, 99mTc, 57Co, 75Se, 65Zn, 59Fe, 22Na, 24Na, 45Ca.

The UK environmental regulatory agencies (EA, SEPA, and EHS) regulate the storage and use of radioactive material in hospitals. Small users of radioactive sources, (including hospitals) require authorisation to discharge. The Environment Protection Act 1990 gives the regulators authorisation to permit discharges, and discharge limits are set under the Radioactive Substances Act 1993.

Radioactive wastes are not included in the EWC. However, waste listed in the EWC contaminated with radioactive waste should be classified using the

most appropriate EWC code(s) and the written description of the waste should describe the type and level of radioactive contamination.

2.1.9 Mercury Waste

All waste materials containing or contaminated with mercury are classified as hazardous waste. See Section 2.3.

2.2 HSAC/EWC Waste Code Description

There is a requirement to use the EU Waste Catalogue (EWC) to categorise and describe waste rather than previously used HSAC groups A-E. There is no simple cross-reference exists since waste categorisation and description depends on individual circumstances and appropriate risk assessment. However, the information below attempts to present an indicative cross-reference.

EWC Code	Waste Description
18 01 01 (if there is no risk of infection)	Sharps except 18 01 03*
18 01 02	Body parts and organs including blood bags and blood preserves (except 18 01 03*)
18 01 03*	Waste whose collection and disposal is subject to special requirements in order to prevent infection.
18 01 04	Waste whose collection and disposal is not subject to special requirements in order to prevent infection, eg dressings, plaster casts, linen, disposable clothing.
18 01 06*	Chemicals consisting of dangerous substances.
18 01 07	Chemicals other than those listed in 18 01 06*
18 01 08*	Cytotoxic and cytostatic medicines and medicines other than those mentioned in 18 01 07
18 01 09	Medicines other than those mentioned in 18 01 08*
18 01 10*	Amalgam waste from dental care.

Hazardous waste list entries

2.3 Domestic (municipal) Waste

Domestic waste normally arising in the Trust consists of paper towels and wipes, uncontaminated and general waste such as waste paper and wrapping materials, flowers, broken crockery, broken glass, aerosols, drinks cans and bottles, plastic and polystyrene waste. The Trust has a recycling scheme for newspapers, drinks cans (plastic and aluminium, glass bottles and cardboard. It is planned to roll out the scheme wider within the Trust.

Examples:

Cardboard Salvage - Empty cardboard boxes and packaging excluding polystyrene inserts.

Catering Waste – Glass and food cans.

Office Waste - Confidential and non confidential paper waste.

Batteries - All single cell batteries used to power clocks, pagers, torches, instruments, toys, computers, dictaphones and tv/video hand sets. Ni-Cad batteries, etc from hearing aids and pagers disposed of as hazardous waste collected via battery boxes.

NOTE: Special care should be taken if a deceased person has an implant - decontaminated Ni-Cad batteries from patient inserts should be disposed of through the hazardous waste stream.

Mercury - arises from four main sources:

a. dental amalgam;
b. spillage from thermometers and sphygmomanometers;
c. fluorescent discharge lamps;
d. electrical switches and batteries.

NOTE: Contaminated Mercury and Dental Amalgam - treated as hazardous waste.

3. Waste Segregation

Segregation is a key element of waste management and has a major influence on the options for the treatment and disposal of waste.

Part II of the Environmental Protection Act and the Environmental Protection (Duty of Care) Act (1991) imposes a "duty of care" on everyone, who produces, carries, keeps and disposes of waste, to take all reasonable means to ensure that pollution to the environment and harm to human health are avoided. All "duty of care" legislation is subject to criminal law and civil law.

It is therefore vitally important that all members of staff handle, package, store and transport waste in a safe and secure manner and that the various types of waste detailed in Part 2 of this Operational Procedure are segregated at source. In addition to the environmental and legal aspects of incorrect segregation, all staff involved in waste production and disposal, should be made aware that healthcare waste disposal costs approximately five times more than that of general domestic waste.

Portering and other staff who are responsible for the removal of waste from wards and departments must ensure that household waste containers and healthcare waste containers are collected and transported separately and remain segregated at all times.

Part 4 of this procedure details the correct methods of disposing of waste and how waste should be packaged. Portering or other Estates and Facilities staff will not remove waste, which is not packaged in accordance with this policy. Details of the colour coding system of bags and containers are shown in Appendix 3 and 4.

4. Waste Packaging and Disposal Routes

4.1 Healthcare Waste

Healthcare waste as described in 2.1 shall be disposed of in one of the following ways:

Heat treatment and shredding before being sent for landfill. This is also referred to as HDS disinfection process (Heat Disinfection System);

Incineration;

Maceration and discharge into sewer.

IMPORTANT NOTE

NO Healthcare Waste shall be disposed of through the General Refuse (BLACK BAG) Stream using Green 'Sulo' bins. Domestic waste does not require further treatment.

YELLOW healthcare waste bags should NOT be used for anything other than the correct packaging of healthcare waste in accordance with this Policy.

SEE TRUST WASTE SEGREGATION CHART (Appendix 3 – 4)

4.1.1 Low Risk Healthcare Waste (HEAT TREATMENT STREAM)

Low risk healthcare waste consists of any of the following that may contain ACDP Hazard Group 1 – 3 pathogens, excluding TSEs; and the agents associated with Creutzfeldt-Jakob Disease (CJD) and the wastes arising from related research:

a. Soiled dressings, swabs, rubber gloves, tubing, etc, and any other contaminated items which may have been in contact with or used in the treatment of patients – normally placed in healthcare waste bags;

b. Soiled incontinence pads, nappies and bed pan disposables - normally placed in healthcare waste bags. In the community these should be treated as domestic waste;

c. Laboratory Hazard Group 1 – 3 pathogens waste (except microbiological culture and other pathogenic healthcare waste) - normally placed in healthcare waste bags following being autoclaved;

d. Used sharps - normally placed in sharps bin containers;

e. Pharmaceuticals and Other Pharmacy Chemicals - normally placed sharps bin containers;

f. Contaminated broken glass - normally placed in sharps bin containers;

g. Blood and contaminated liquids, including tubes, plasma bags and transfusion waste; - normally stabilised to prevent leakage and double bagged in smaller healthcare waste bags before placing in larger healthcare waste bags; Note: any items containing sharp items should be disposed of in a sharps bin.

h. **Unrecognisable** tissue - normally placed in healthcare waste bags;

i. Peritoneal dialysis and haemodialysis waste, or dialysis waste - normally placed in bin containers;

j. Autoclaved microbiological culture and other pathogenic laboratory/pathology waste – normally placed in yellow bags prior to autoclaving, thereafter in healthcare waste bags.

When Trust healthcare professionals (for example Midwives) administer care outwith NHS premises they must carry out a risk assessment to ensure that healthcare waste does not enter the household waste stream. All used sharps and any of the above wastes with a designated infection hazard will be returned to an operational NHS base, or be subject to special collection arrangements, for disposal as Low Risk Healthcare Waste in the **HEAT TREATMENT STREAM**.

4.1.2 Low Risk Healthcare Waste Bag Containers (HEAT TREATMENT STREAM)

Low risk healthcare waste for bag containers must be placed in **YELLOW – approved plastic bags.** The bags should be filled to no more than three-quarters full and securely sealed. Each bag must be tied and labelled with the identification of the Hospital and individual ward or department. Staples must not be used as they may cause injury to handlers.

Papier-Mache utensils for faeces, urine and vomit must be macerated for discharge into the sewer. If no macerator is available the contents must be flushed down the toilet and the empty container placed in a **YELLOW – approved plastic bag** and treated as low risk healthcare waste.

Urine bags and tubing, nappies and incontinence pads and stoma bags which cannot be macerated must also be placed in **YELLOW – approved plastic bags** and treated as low risk healthcare waste.

Sanitary items such as nappies should be disposed of in **YELLOW – approved plastic bags** and disposed of as low risk healthcare waste as detailed above. Sanitary towels, tampons, etc, should be disposed of in the designated bins.

4.1.3 Low Risk Healthcare Waste Sharps bin with red lid (INCINERATION STREAM)

For used sharps, which comprise syringes, needles, scalpels and similar metal parts, cartridges, contaminated broken glass and any other sharp instrument, must be discarded intact and placed in a **UN type approved sharps bin container** complying with British Standard 7320. Containers should only be filled to the three-quarters mark.

Quantities of liquid blood, dialysis fluid and other contaminated liquids must becontained in a flexible container and placed in a rigid leak proof **UN Type approved Bin container,** of suitable size, complying with British Standard 7320.

Other low risk healthcare waste for bin containers must be placed in a rigid leak proof **UN Type approved Bin container,** of suitable size complying with British Standard 7320.

The name of the ward or department generating the waste should be written clearly on the Sharps bin/Bin with the date of assembly. Sharps bins must also bear the name of the assembler and a date, as well as the name of the person who seals the container and the date sealed. The location must also be clearly marked on the container. These Sharps bin/Bin containers must **NOT** be filled above the "fill-to" line. Sharps bin/Bin containers must **NOT** be placed inside bags.

4.1.4 Low Risk Healthcare Waste General (HEAT TREATMENT STREAM)

Portering or Estates and Facilities staff are instructed **NOT** to remove bags, sharps bins or bin containers which have not been correctly sealed or are not marked with the ward or departments identity.

Healthcare waste containers shall be collected daily unless more frequent collections have been organised with healthcare staff.

4.1.5 High Risk Healthcare Waste (INCINERATION STREAM)

High-risk healthcare waste consists of any of the following:

a. Human Tissue - Recognisable Body Parts placed in special box containers;

b. Contaminated Metal Parts – Prosthesis and pins, etc – normally placed in bag containers or special box containers;

c. Highly Infectious Waste Hazard Group 4 (see Appendix 6) and CJD agents, etc which cannot be autoclaved – normally placed in bag containers or bin containers;

d. Infected Blood Waste Hazard Group 4 and CJD agents which cannot be autoclaved – normally stabilised to prevent leakage and placed in bin containers;

e. Foetal Tissue and Placenta - normally placed in special box containers.

When Trust healthcare professionals administer care outwith NHS premises they must carry out a risk assessment to ensure that healthcare waste does not enter the household waste stream. Foetal Tissue and Placenta and any of the above wastes with a designated high infection hazard will be returned to an operational NHS base, or be subject to special collection arrangements, for disposal as High Risk Healthcare Waste in the INCINERATION STREAM.

Care must be taken to ensure that aerosols and certain glass waste are not put into the INCINERATION STREAM for incineration due to the explosion damage within incinerators and the resulting risk of injury to incinerator attendants. Glass should be placed in the appropriate box and aerosols into domestic waste bags.

4.1.6 <u>High Risk Healthcare Waste - Pathological Waste Containers (INCINERATION STREAM)</u>

Anatomical parts, human tissue, and other pathological wastes shall be double bagged in **UN type approved YELLOW – for incineration 170 or 300 gauge plastic bags to suit care setting policy.** The bags should be filled to no more than three-quarters full and securely sealed. Each bag must be tied and labelled with the identification of the Hospital and individual ward or department. Staples must not be used as these may cause injury to handlers.

Wards and departments should arrange special collections of this waste by Portering or Estates and Facilities staff who are instructed NOT to remove bags or containers which are not marked as described above.

After collection of pathological waste, Portering or Estates and Facilities staff shall transport the waste directly to the secure compound.

4.1.7 <u>High Risk Healthcare Waste – Contaminated Metal Parts (Artificial Joints/Pins/Surgical Tools) Waste Containers (INCINERATION STREAM)</u>

All contaminated metal parts are to be incinerated. Two **approved YELLOW – for incineration - plastic bags to suit care setting policy,** should be used. The first bag should be used to wrap the metal part then sealed, and the second bag should have the first placed inside. The second bag should then be sealed, labelled Metal Parts for Incineration, and then sent to the waste disposal compound. This system will be used for all Disposable Metal Products. The name of the ward or department generating the waste should

be written clearly on the container along with the waste type printed INDELIBLY in BOLD e.g. – **CONTAMINATED METAL or PROSTHESIS.**

NOTE: Contaminated Metal Parts must not be placed in low risk sharps containers.

Departments should arrange special collections of this waste by Portering or Estates and Facilities staff who are instructed NOT to remove bags or containers which are not marked as described above.

After collection of contaminated metal or prosthesis waste, Portering or Estates and Facilities staff shall transport the waste to dedicated, secure storage.

4.1.8 High Risk Healthcare Waste – Foetal Tissue and Placenta Waste Containers (INCINERATION STREAM)

Products of Conception from Gynaecology should be placed in **approved YELLOW – for incineration - plastic bags** sealed and forwarded to the waste disposal compound.

Placenta not being submitted for pathological examination and embryo and foetal tissue from pregnancies under 24 weeks duration **NOT** going for autopsy should be contained in a plastic bag or container and placed in a **special UN type approved YELLOW – for incineration (placentapak) box container** Placentapak boxes have pre-printed labels attached to them, which require to be completed to indicate the contents are for separate incineration.

Departments should arrange special collection of this waste by Portering or Estates and Facilities staff who are instructed NOT to remove containers which are not marked as described above.

After collection of waste, Portering or Facilities staff shall transport the waste to the waste disposal compound

The boxes shall be stored separately from healthcare waste and finally disposed of by incineration. The guidelines provided in the Health Service guidelines (91)19 – *Disposal of Foetal Tissue*, 12 November 1991 on sensitive disposal of foetuses shall be followed at all times.

If patients prefer to make private funeral arrangements their wishes must be respected.

4.1.9 High Risk Healthcare Waste – Laboratory and Other Highly Infectious Waste Containers (INCINERATION STREAM)

Potentially hazardous microbiological culture and other pathogenic healthcare waste from pathology departments and other healthcare or research laboratories should be autoclaved or otherwise made safe near the site of production before final disposal. Wastes destined for autoclaving should be labelled and bagged in a yellow bag. Treated material should then be rebagged in **YELLOW – for HDS 300 gauge UN type approved plastic bags**.

If autoclaving is not possible the waste shall be placed in **approved YELLOW – for incineration - plastic bags**. Special arrangements for transportation of unautoclaved laboratory waste needs to be made.

Certain Laboratory and Other Highly Infectious Waste which can only be disposed by incineration waste shall be placed in **approved YELLOW – for incineration - plastic bags**. For example:

a. all healthcare waste from "highly infectious" cases i.e. patients in strict isolation with known or suspected infection with Hazard Group 4 pathogens (eg Lassa, Ebola and haemorrhagic fever viruses, etc);

b. all healthcare waste from the agent associated with Creutzfeldt-Jakob Disease (CJD) and the wastes arising from related research;

c. all unautoclaved microbiological culture and other pathogenic healthcare waste from healthcare or research Laboratories, with known or suspected infection with Hazard Groups 2 - 4 pathogens;

d. infected blood, stabilised to prevent leakage (including any bags or tubes, etc) with known or suspected infection with Hazard Group 4 pathogens.

Hazard Group classifications are given in Appendix 4.

Departments should arrange special collections of this waste by Facilities staff who are instructed **NOT** to remove bags or containers which are not marked as described above.

After special collection of any contaminated waste, Portering or Estates and Facilities staff shall transport the waste to dedicated, secure storage.

4.1.10 **High Risk Healthcare Waste – Special Waste (INCINERATION (SECURE) STREAM)**

High risk healthcare waste – Hazardous Waste consists of any of the following:

a. All Cytotoxic Waste – must be placed in purple top bin containers, marked "Cytotoxic";

b. Pharmaceuticals and Other Pharmacy Chemicals – must be placed in red top bin containers, marked “pharmaceuticals only”;

c. Radioactive Waste – under specific authorised procedures;

d. Contaminated Mercury, Dental Amalgam and other “Heavy” Metals e.g. Contaminated Ni-Cad batteries from patient inserts – normally placed in bag containers or bin containers, marked with type of substance contained.

When Trust healthcare professionals administer care outwith NHS premises they must carry out a risk assessment to ensure that healthcare waste does not enter the household waste stream. Unused pharmaceuticals and other unused pharmacy chemicals administered by the healthcare professional and any of the above designated special wastes will be returned to an operational NHS base, or be subject to special collection arrangements, for disposal as High Risk Healthcare Waste – Hazardous Waste in the INCINERATION (SECURE) STREAM. Any of the patient's own unused pharmaceuticals and other unused pharmacy chemicals, etc. should be returned by the patient or carer to the Dispensing GP or community pharmacy. Members of the Health Care profession can also return patient’s own medication but only after obtaining written permission of the patient or their representative.

Care must be taken to ensure that aerosols and certain glass waste are not put into the INCINERATION STREAM for incineration unless they are clearly marked as containing **AEROSOLS or GLASS WASTE**.

4.1.11 <u>High Risk Healthcare Waste – Hazardous Waste- Pharmaceuticals and Other Pharmacy Chemicals (INCINERATION (SECURE) STREAM)</u>

“Pharmaceuticals and Other Pharmacy Chemicals” is taken to mean:

a. any medicinal product, as defined by section 130 of the Medicines Act 1968 (or a component used in the manufacture of such a product), which becomes unsuitable for use on the grounds of safety, quality or efficacy; or
b. pharmaceutical residues arising from healthcare treatment.

These wastes are designated as Hazardous Wastes under the Hazardous Waste Regulations: 1996 and require a pre-notification consignment note to facilitate handling and disposal.

In the context of the Trust Waste Disposal Operational Policy, such pharmaceutical waste can arise from the supply, storage and use of pharmaceutical products within the Trust’s property or indeed the return for disposal of unwanted medicines collected from patients whose treatment has been amended.

c. **Medicinal/pharmaceutical products considered unsuitable for use MUST** be returned to the Pharmacy Department, for disposal. Every item in a consignment of waste products returned to the pharmacy must be listed;

   i. **products removed from ward/departmental storage** must be recorded in an appropriate manner. It is thereafter the responsibility of the Pharmacy Department to determine the appropriate disposal of the returned item(s).
   ii. **products removed from patients** with their authority for disposal must be recorded on an "Authorisation for destruction of Patients' medicines".
   iii. **controlled drugs** will be destroyed by the Pharmacist at Ward level witnessed by a senior member of the ward nursing staff. If the item cannot be made irretrievable then the item is returned to Pharmacy and stored until an 'Authorised Person' is able to visit and witness destruction.

d. Pharmaceutical residues from healthcare treatment are processed:

   i. **Used** ampoules/vials/syringes which may contain residual pharmaceutical waste must be discarded intact and placed in a **UN type approved RED top bin container**, complying with British Standard 7320 and disposed by the Incineration Stream. Containers should only be filled to the three quarters mark.
   ii. **Unused or large volume** residual pharmaceutical waste including all Undischarged Prescription Only Medicine (POM) must be retained in the original container and returned to pharmacy for disposal. (This does not apply to low concentration water-based infusion fluids, dialysis solutions, antiseptics or disinfectants that may be disposed of at ward level).

Advice on the disposal of pharmaceutical waste is available from the Pharmacy Department.

All Pharmaceuticals and Other Pharmacy Chemicals from Pharmacy Department are to be incinerated. Pre-notified wastes must be placed in a **UN type approved YELLOW – for incineration bin container**, of suitable size complying with British Standard 7320. The name of the pharmacy department generating the waste should be written clearly on the container along with the waste type printed INDELIBLY in BOLD e.g. – **PHARMACY WASTE.**

Pharmacy Departments should arrange special collections of this waste by Portering staff who are instructed **NOT** to remove containers which are not marked as described above.

After special collection of all Pharmaceuticals and Other Pharmacy Chemicals waste from Pharmacy Department, Portering staff shall transport the waste to dedicated, secure storage.

4.1.12 High Risk Healthcare Waste – Special - Cytotoxic and Cytostatic Waste (INCINERATION (SECURE) STREAM)

Cytotoxic and cytostatic wastes are designated as Hazardous Waste under the Hazardous Waste Regulations: and are required to be incinerated. They should be segregated separately from other Cytotoxic and cytostatic medicines when there is a risk of chemical incompatibility or the necessary treatment/disposal of the waste is affected.

Wastes must be placed in a **UN type approved Purple top – for incineration - sharps bin container**, of suitable size complying with British Standard 7320. Containers should only be filled to the three quarters mark.

The name of the ward or department generating the waste should be written clearly on the Sharps bin, along with the waste type printed INDELIBLY in BOLD e.g. – **PHARMACY CHEMO ASEPTICS 180108.** Sharps bin containers must also bear the name of the assembler and the date, as well as the name of the person who seals the container and the date. These Sharps bin containers must **NOT** be filled above the "fill-to" line. **Sharps bin containers must NOT be placed inside bags.**

Sharps bins must be stored separately from all other waste and shall be routinely collected by Portering or Estates and Facilities staff. Ensure the 'Sulo' bin has purple warning disk attached. Information about the 'Sulo' bin contents is recorded and passed to Portering or Estates and Facilities staff.

Wards or Departments should arrange special collections of this waste by Portering or Estates and Facilities staff who are instructed **NOT** to remove containers which are not marked as described above.

After special collection of all Cytotoxic and cytostatic wastes, Portering or Estates and Facilities staff shall transport the waste to a dedicated secure storage.

4.1.13 High Risk Healthcare Waste – Radioactive Waste

The waste generated is a by-product of Medical Diagnostic and Therapeutic Procedures using radionuclides. The accumulation and disposal of radioactive healthcare waste is regulated under the Radioactive Substances Act 1993, RSA93.

Radioactive isotope waste produced in the Trust is returned to the originator. No solid radioactive healthcare waste is produced and therefore accumulation, storage and disposal of solid radioactive waste does not need to be considered.

Liquid radioactive waste will be produced in the form of human excreta from nuclear medicine patients returning to the Hospital. The sum total of the radionuclides in human excreta in the liquid radioactive waste disposed of to the drains from the hospital does not exceed the exemption limits laid down in the Radioactive Substances (Hospitals) Exemption Order 1990. There is therefore no requirement for the Trust to hold a Certificate of Authorisation permitting the Disposal and Accumulation of Radioactive Waste under Radioactive Substances Act 1993.

The disposal of radioactive waste in the Hospital is managed by the Trust's Superintendent Radiographer and advised by Radiation Protection Adviser.

4.1.14 <u>High Risk Healthcare Waste – Hazardous Waste - Contaminated Mercury, Dental Amalgam and other "Heavy" Metals eg Contaminated Ni-Cad batteries from patient inserts (INCINERATION (SECURE) STREAM)</u>

Contaminated Mercury, Dental Amalgam and other "Heavy" Metal such as Ni-Cad batteries from patient inserts are designated as Hazardous Waste under the Hazardous Waste Regulations: and are required to be incinerated.

Wastes must be placed in a **UN type approved – for incineration - sharps bin container**, of suitable size complying with British Standard 7320. Containers should only be filled to the three quarters mark.

The name of the ward or department generating the waste should be written clearly on the Sharps bin, along with the waste type printed **INDELIBLY** in BOLD e.g. – **MERCURY/DENTAL AMALGAM, ETC. WASTE.** Sharps bin containers must also bear the name of the assembler, as well as the name of the person who seals the container. A seal must be attached to the handle of the Sharps bin so that the originating healthcare department and Hospital are identified. These Sharps bin containers must **NOT** be filled above the "fill-to" line. Sharps bin containers must **NOT** be placed inside bags.

Sharps bins must be stored separately from all other waste and shall be routinely collected by Portering or Estates and Facilities staff.

Wards or Departments should arrange special collections of this waste by Portering or Estates and Facilities staff who are instructed **NOT** to remove containers which are not marked as described above.

After special collection of all such Hazardous Wastes, Portering or Estates and Facilities staff shall transport the waste to dedicated, secure storage, for disposal.

4.2 Household Waste (General)

Trust household waste such as paper towels and wipes, uncontaminated and general waste such as waste paper and wrapping materials, flowers, aerosols, drinks cans and bottles, plastic and polystyrene waste should be placed in a **BLACK 170 or 300 gauge plastic bag** and securely sealed once the bag is no more than three quarters full.

Glass Bins are used for the disposal of non-contaminated glass waste. All glass for disposal should be placed in a glass box or bag and when three quarters full this should be sealed, and marked as domestic glass waste. Broken crockery must be placed in 'glass only' bins and sealed. It should be identified as broken crockery and it will be removed with the BLACK plastic bag by Portering staff on a daily basis.

The Trust does have a recycling scheme for newspapers, drinks cans and glass bottles, and cardboard

Confidential Waste - This must be **stored and disposed of** in confidential waste bags (white with blue lettering) in a secure area and await collection by the portering service via a Helpdesk request.

All household waste will be collected regularly by Portering staff and will be transported in green 'Sulo' bins. These are deposited in the compacting skips. There are regular collections of this waste from healthcare premises and transported to a licensed landfill site.

Returnable Pharmacy bottles should be disposed of through the appropriate waste stream depending on their material.

Plastic waste should be treated as household waste unless it has been contaminated. Contaminated plastic waste with the risk of infection should be treated as low risk healthcare waste (YELLOW STREAM).

Sanitary items such as nappies should be disposed of in BLACK domestic waste bags, unless the sanitary waste is a direct product of healthcare/patient activity, in which case it should be disposed of as low risk healthcare waste (YELLOW STREAM). Sanitary towels, tampons, etc, should be disposed of in the designated bins.

4.3 Cardboard Salvage

Boxes should be broken down and placed separately for collection, as cardboard is baled and sent for recycling.

4.4 Catering Waste

Food waste is discharged into the sewer through waste disposal units. Where such units are installed in wards, ward domestic staff arrange for its disposal. Otherwise, the waste is taken to the Main Kitchen for disposal

through the kitchen waste disposal machine. Food waste returned to the Main Kitchen must be double bagged in 300 gauge black bags. Any other catering waste arising should placed in 170 or 300 gauge BLACK plastic bags and disposed of as household waste.

4.5 Office Waste

Confidential paper and documents should be shredded whenever this is required. Shredded paper waste may be put into BLACK domestic waste bags. This should be double bagged and consideration of the weight of the waste must be made, as it is likely to tear or burst the bag OR cause musculoskeletal injury.

4.6 Batteries

The Trust uses battery boxes for the collection of batteries and these are disposed of through the hazardous waste stream. Alkaline batteries for example A, AA, AAA cells, must NOT be disposed of in the normal Domestic waste, by placing them in a black bag. Instead the battery boxes must be used. These are collected separately by the Portering Department.

Lead acid car batteries, sealed lead acid batteries, NiCad batteries and Mercury batteries must not be placed in the normal waste stream**.**

Contaminated Ni-Cad batteries from patient inserts, etc are High Risk Healthcare Waste – Hazardous Waste for the INCINERATION WASTE STREAM for disposal as described in 4.1 above.

4.7 Mercury

If a thermometer or other piece of equipment, which contains mercury, is broken, the mercury must be treated as Hazardous Waste and must **not** find its way into other streams **nor be** discharged into the sewer. Mercury should be retained and stored prior to correct disposal. A licensed special waste contractor is used to remove this at periodic intervals.

The following is the method of dealing with a mercury spillage/disposal (note that mercury spillage kits are available from the Portering Department.

a. Ventilate area.
b. Wear rubber gloves.
c. Collect mercury using Mercury Spillage kits – follow instructions on the kit in full.
d. Place sealed container and broken instrument in a plastic bag and tie securely.
e. Place inside a second plastic bag and tie.
f. Affix label to outside of package.
g. Contact Portering staff for removal to store.
h. Wash gloves, remove gloves, then wash hands and forearms.

Contaminated Mercury and Dental Amalgam, etc are High Risk Healthcare Waste – Hazardous Waste for the (INCINERATION WASTE STREAM) for disposal as described in 4.1 above.

4.8 IT Waste

All IT equipment must be returned to the Health Informatics department for correct disposal.

5. Transport and Storage Arrangements

The offensiveness, the packaging, the storage and frequency of collection should be assessed; the risks recorded and appropriate transport and storage arrangements put in place.

Bags used for waste disposal must not be filled to more than three quarters capacity. During filling the bags should be held in an appropriate wall mounted bracket, or floor standing holder. Bags holding incontinence waste should be no more than half full before sealing.

When the bag is ready for disposal, it should be removed from the holder and securely sealed. Each bag must be tied and identified with a label which bears the identification of the Hospital and individual ward or department. Cardboard should not be bagged before collection.

Portering will remove waste from wards and departments and transport the waste to designated collection areas. **Dedicated trolleys and bins must be used to transport waste.** It is a serious disciplinary offence not to follow this requirement.

The designated collection areas will be agreed locally and incorporated into a departmental policy.

All collectors and drivers must be aware of the nature and dangers of the waste carried. They must be familiar with the procedure to be taken in the event of accidental spillage.

a) A bulkhead should separate the driver's cabin from the body and be designed to retain the load if the vehicle is involved in a 20 mph collision. All drivers must be ADR accredited.

b) Service Provider vehicles that transport waste must have a separate compartment for the storage waste. It must have the same criteria as noted below regarding cleanliness, loading and security.

c) Surfaces of the storage area shall be smooth and impermeable, with all corners coved for easy cleaning. The standard of the internal finish must be suitable for steam cleaning. Particles of waste must not become lodged in the structure.

d) Waste must be easily loaded and unloaded.

e) Vehicles must not be left unlocked except for when loading and unloading. The vehicle must have a facility to secure the waste adequately.

f) Mixed loads of household and clinical waste shall not be carried at the same time.

g) A secure compartment should be provided to carry a supply of yellow clinical waste storage bags, protective clothing and cleaning materials for decontaminating spillages.

h) All vehicles used for this purpose must be cleaned daily.

5.1 Storage of containers in healthcare areas

Keep an adequate supply of healthcare waste bags, sharps bins and bin containers in a clean dry storage area to avoid contamination prior to use in the healthcare area;

a. Keep filled healthcare waste bags, sharps bins and bin containers in designated areas separate from other waste e.g. laundry prior to removal;

b. Never allow healthcare waste to accumulate in corridors, wards, treatment areas or other such unsuitable places;

c. Never place heavy or sharp objects on top of healthcare waste bags, sharps bins and bin containers;

d. Never throw or drop healthcare waste bags, sharps bins and bin containers.

5.2 Basic Safety Rules

Healthcare waste must be handled and transported safely and carefully at all times. Damaged containers create a risk of infection and/or injury to Trust staff and others;

Incorrectly packaged or inadequately sealed healthcare waste must not be handled or transported.

Always:

a. Examine healthcare waste containers carefully before handling or moving;

b. Wear suitable protective gloves;

c. Report all damage or incorrectly sealed containers to the person in charge of the designated collection point and supervisor;

d. Report injuries to Supervisor, A&E or Occupational Health as appropriate.

e. Carry healthcare waste bags by the neck and away from the body;
f. Carry sharps bins, bin and box containers by the handle provided;
g. Transport healthcare waste separately from all other items;
h. Ensure that a Spillage Kit is carried in the Collection Vehicle;
i. Ensure that the load is secure.

Never:

a. Remove healthcare waste containers unless they are properly sealed and labelled, showing type of the waste, origin and date sealed;
b. Remove damaged healthcare waste containers;
c. Compact or crush healthcare waste containers;
d. Throw or drop healthcare waste containers;
e. Leave healthcare waste unattended.

5.3 Minimum Standards for Healthcare Waste Stores

Healthcare Waste Stores shall:

a. Be secured (by lock) against unauthorised entry at all times;
b. Be suitably marked **HEALTHCARE WASTE – NO UNAUTHORISED ACCESS**;
c. Be exclusive for healthcare waste. If this is not possible, designated and delineated areas that pose no risk of infection or injury must be identified;
d. Be so arranged to ensure YELLOW bags and YELLOW containers of suitable sizes are stored separately with appropriate coloured lids;
e. Be clean, free from spillage and subject to periodic cleaning at regular appropriate intervals;
f. Have adequate access and egress whenever required;
g. Have a copy of the Trust's Written Spillage Procedure on display;
h. Be provided with a complete Healthcare Waste Spillage Kit;
i. Policy for action following sharps injury or exposure to blood and body fluid – taken from the Trust's Infection Control Policy Section 3
j. Have reasonable access to washing facilities;
k. Be free from visible signs of pest infestation;
l. Be adequately ventilated and illuminated;
m. Be fitted with a self-closing door with a means of opening from the inside.

5.4 Staff Protection

Staff handling healthcare waste shall be offered appropriate immunisation, including Hepatitis B and Tetanus. There are arrangements for dealing with staff who decline to accept the Trust immunisation service and for those who do not sero-convert, to include:

a. Advice about the risks;

b. Clear guidelines on the type of work conducted and the exposure prone procedures for patients and other staff.

Occupational Health can be contacted on ext. 2674.

6. Training Requirements

Suitable training must be given at regular frequencies in order to ensure the safety of all staff involved in the waste disposal process.

All staff that work in areas where waste arises must receive instruction in waste handling, segregation, storage, and disposal procedures, and the use of protective clothing as appropriate to their range of duties and other circumstances.

All staff that may be required to move healthcare waste by hand within a particular location must:

a. Ensure that the origin of the waste is marked on the bag/container;

b. Check the storage bags are securely sealed;

c. Handle bags by the neck only and carried away from the body;

d. Know the procedure in the case of accidental spillage (see Appendix 1);

e. Check that the seal on waste storage bag is unbroken when movement is complete;

f. Wear protective gloves at all times;

Segregate BLACK and YELLOW bags, cardboard and rigid sharps containers and ensure that they are stored separately and securely;

Training will be provided Service Providers and at induction, and on an annual basis through the Trust Induction Course Process to all groups of staff involved in the processing, transportation and storage of healthcare waste and other waste. Human Resource Department and Heads of Department will co-ordinate the maintenance of training records for all staff.

Additional ad-hoc training will be provided when there have been changes to legislation, Policy, or Trust operational needs.

7. Responsibilities

It is the responsibility of all line managers to ensure that staff at all levels effectively implement the Waste Disposal Operational Policy.

Responsibilities for specific aspects of waste disposal are as follows:

7.1 Trust Executive Directors

Responsibility for:

a. Ensuring that adequate resources are made available to ensure the effective application of this policy;

b. Ensuring that senior Trust management are actively supported in meeting their responsibilities with respect to waste disposal and control.

7.2 Divisional Directors or Equivalent

a. Is accountable for ensuring that the contents of this policy are followed and applied in full, within their sphere/area of responsibility;

b. Is responsible for ensuring that the Trust Health and Safety/Infection Control Committee is advised on all Healthcare waste and other waste matters affecting the Trust;

c. Is responsible for ensuring that the Trust Health and Safety Co-ordinator oversees the day to day operation of this policy, to include:

d. the investigation of all problems;

e. identification of training needs;

f. liaison with the Waste Management Officer;

g. Is responsible for ensuring that adequate risk assessments are carried out with respect to healthcare waste and other waste activities within the Trust.

7.3 The Line Manager/Nurse in Charge

Responsibility for:

a. Segregation and marking of waste to indicate source and content;

b. The storage and transfer of waste to a responsible person who is authorised for this purpose and will carry out duties in accordance with the 'Duty of Care';

c. Training, instruction and supervision of staff who produce, handle, store or transport waste;

d. Undertake local risk assessments.

e. Issue all appropriate Personal Protective Equipment to staff involved in the processing of healthcare waste and other wastes;

f. Completion of Incident Report Forms. Where an incident occurs which involves Healthcare Waste, the Incident Report must be copied without delay to the Waste Management Officer;

g. Ensure the undertaking of COSHH and Risk assessments of waste disposal materials and methods. Issuing copies (and updates) of these assessments to the Waste Management Officer.

7.4 Estates Operations Manager

Responsibility for:

a. Ensure through Service Providers waste received is properly packaged and deposited safely and securely in the correct containers to an agreed time schedule;

b. Ensure that waste is transported to the correct receiving/interim storage points by Service Providers and ensure measures are in place and ensure all waste is properly and safely secured at all times. Responsibility for waste safety and security remains with the Service Provider between the point of initial collection until final delivery to the Main Healthcare Waste Compound.

c. Ensure that Trust and Service Providers vehicles, trolleys, etc. used in the collection/delivery of healthcare waste are kept clean at all times, and are correctly and safely operated;

d. Draw to the attention of Department Heads/Directorate Managers/Nurse in Charge, any waste which has not been properly marked or segregated at Department or Ward level;

e. Ensure that Service Providers have provided adequate training, instruction, and supervision of their staff who produce, handle, store or transport waste;

f. Ensure that appropriate Personal Protective Equipment is available to Service Providers involved in the processing of healthcare waste and other wastes;

g. Ensure adequate and appropriate staff deputisation/assistance procedures are in place, bearing in mind the training and protective equipment needs as described above.

h. Undertake strategic risk assessments of the process and its impact through the whole of the waste stream from producer through to disposal point.

7.5 The Waste Management Officer

Responsibility for:

a. Ensuring that Trust policy and practice is in accordance with The Environmental Protection Act;

b. Provision of advice and support to the Waste Management Group and Infection Control Committee, the Trust Health and Safety Committee.

c. Annually review the Waste Disposal Operational Policy in conjunction with others;

d. Liaising with all Heads of Service to ensure compliance with approved procedures for the handling and disposal of all wastes;

e. Reviewing and proposing improvements to the healthcare waste and other waste handling and disposal arrangements;

f. Supporting the line manager in investigating and reviewing incidents reported involving the handling of healthcare waste;

g. Monitoring methods of handling transporting on and off site and disposing of healthcare waste;

h. Supporting the line manager in identifying training requirements for staff involved in waste handling and disposal;

i. Liaising with Risk Management Service, Infection Control, and other Health and Safety advisors to ensure that there are no shortcomings in the handling and disposal of waste;

j. Liaising with Local Authority, EA, Waste Disposal Carrier and Contractor, etc, to ensure the Trust is meeting its responsibilities under any environmental, waste and Health and Safety regulations.

k. Lead on the scheduling of audits on a regular basis and if required ad-hoc specific audits should circumstances dictate.

7.6 Special Purpose Vehicle and Service Providers

a. It should be noted that there are specific requirements to deliver this procedure which lie with the Service Providers.

b. There are joint responsibilities between Service Providers and the Trust which are discharged in conjunction with Service Providers and Trust individuals.

8.0 Security

During local ward or department storage of waste, **YELLOW bags and Sharps containers** must be held in an appropriate colour coded healthcare waste wheeled bin. The bins must be locked at all times, and should be held, where possible, in an area not normally accessible by patients or members of the public. Where colour coded bins are not available, then the waste should be stored securely, and separately from other waste streams (e.g.: yellow and black waste must be kept separate from each other at all times).

During collection of waste, **YELLOW bags and Sharps containers** must be transported in an appropriate separate colour coded collection run by Portering or Estates and Facilities staff. The collection trolleys must be secured before leaving the ward or department and remain secure at all points between ward/department, and the healthcare waste storage areas/loading bays as described in Part 5.

The healthcare waste should be held securely and separately within the storage area/loading bays prior to dispatch to the main Healthcare Waste Compound.

9.0 Review Arrangements

This Waste Disposal Operational Policy and Procedure document will be kept under review and may be amended in the light of service development or new legislation. Complaints, queries or suggestions concerning this policy should be forwarded to:

Waste Management Officer – Deputy Director of Estates and Facilities, International House or telephone ext. 5264.

10.0 References

NOTE:

Where there is a requirement to address a listed reference, care should be taken to ensure that all amendments following the date of issue are included.

A comprehensive list of Reference documents is contained in the Department of Health - Health Technical Memorandum – 07-01: Safe management of healthcare waste.

Appendix 1: Procedure for Accidental Spillage

A. Reporting of Incidents

IN ALL CASES, IMMEDIATE FIRST AID ACTION/PROCEDURES SHOULD BE FOLLOWED

All incidents or near misses involving spillage of healthcare or other hazardous waste, exposure to broken glass from potentially infected sources, and inappropriate exposure to needles and other sharps, whether causing injury or otherwise, should be reported. The Line Manager/Nurse in Charge should complete an Incident Report Form - HIRS. Where an incident has occurred involving a sharp or needlestick injury report to the Occupational Health Department immediately Wythenshawe 2674 (8:00am - 4:30pm Monday - Friday.) If closed attend the A & E Department at Wythenshawe Hospital and report to the Occupational Health Department as soon as possible.

The Line Manager/Nurse in Charge has responsibility for ensuring completion and processing of the Incident Report Form.

Full details of all reported incidents or near misses should be copied without delay to the Operations Manager. These will be copied without delay to the Waste Management Officer for evaluation and follow-up. This is in addition to normal incident reporting procedures.

B. General Precautions

Procedure for dealing with spillage varies with the nature of the spillage. If in doubt the individual creating/discovering the spillage must contact his/her line manager. The Line Manager/Nurse in Charge of the area in which the spillage has occurred has the responsibility of identifying from their staff, who is best suited to clear up any particular spillage. If required, additional advice may be obtained from the Control of Infection Nurse.

a. Always wear a plastic apron and household gloves

b. Always work in a ventilated area - disinfectants and spillage can react to give off noxious fumes. Open a door or window where practicable

c. Beware of any glass splinters or other sharps which may be present and never use your hands to remove any such object from the spillage. Use a piece of card as a disposable scoop and then discard it in a healthcare waste container.

When managing spillages always follow the steps identified in the Trust's Infection Control Manual – Section 4.7 Pages 17 to 21.

NOTE: SPILLAGES FROM YELLOW BAGS, YELLOW BAGS, SHARPS CONTAINERS OR LABORATORY WASTE BAGS SHOULD BE NOTIFIED TO THE APPROPRIATE MANAGER IMMEDIATELY.

Mercury Spillage

If a thermometer or other piece of equipment, which contains mercury, is broken, the mercury must be treated as Special Waste and must **not** find its way into other streams **nor be** discharged into the sewer. A licensed special waste contractor is used to remove this at periodic intervals.

The following is the method of dealing with a mercury spillage/disposal (note that mercury spillage kits are available from Stores or Reception):

a. Ventilate area.

b. Wear rubber gloves.

c. Collect mercury using Mercury Spillage kits – follow instructions on the kit in full.

d. Place sealed container and broken instrument in a plastic bag and tie securely.

e. Place inside a second plastic bag and tie.

f. Affix label to outside of package.

g. Contact Portering staff for removal to Central Store.

h. Wash gloves, remove gloves, then wash hands and forearms.

Appendix 2: Transport

Trolleys and carts used for the transportation of healthcare waste must be designed and constructed so that:

a. They do not offer harbourage to insects;

b. They can be easily cleaned and drained;

c. Particles of waste do not become lodged in the fabric of the conveyance;

d. The waste may be easily loaded, secured and unloaded.

In circumstances where due to lack of on site facilities, healthcare waste is transported over the public highway to another location:

a. Provision must be made for the storage of healthcare waste, separate from all other materials. Adequate steps must be taken to prevent contamination of other materials carried;

b. Measures must be taken to ensure the security of the waste and to avoid spillage.

Where waste is to be stored prior to collection, the area must be:

a. Situated in a separate area of adequate size relating to the frequency of collection, with bags of each coded colour kept apart;

b. Sited on a well drained, impervious hard standing which is provided with wash down facilities;

c. Washed down on a regular basis with a record kept of when undertaken:

d. Kept secure from unauthorised persons, particularly children, and entry by animals and free from infestations by rodents and insects;

e. Accessible to collection vehicle.

Appendix 3: Healthcare Waste Disposal

Waste Segregation

In the ward/department				
User/clinician	Is responsible for placing the waste into the appropriate container immediately after use or production			
Household Waste ***Black bags*** Papers, flowers, cans etcetera **LANDFILL**	**Clinical Waste** ***Yellow bags*** Bed pans, inco pads, microbiological cultures, pharmaceutical products **HEAT TREATMENT**	**Sharps** ***Red top bins*** Syringes, suture needles, cannulae etc. **INCINERATION**	**Body Parts** ***Yellow boxes*** Identifiable human or animal parts or tissues **INCINERATION**	**Cytotoxic Waste** ***Purple top bins*** Unused cytotoxic medicines **INCINERATION**
Ward staff and domestics	When containers are at most two thirds filled seal and remove to disposal point and apply identification label to all except black bags.			

At the disposal point	
Transport staff	Collect filled sulo bins from outlying departments and transport to waste disposal compound.
Porters	Place 'sulo bin' wheeled containers at agreed points within the hospital with appropriate coloured tags in place, collect when filled and transport to waste disposal compound.

Household Waste	**Clinical Waste**	**Sharps**	**Body Parts**	**Cytotoxic Waste**
Green sulo bin No tag	Yellow sulo bin No tag	Yellow sulo bin Green tag	Yellow sulo bin Blue tag	Yellow sulo bin Purple tag

At the waste disposal yard	
Waste disposal operative	• Dispose of household waste from green sulo bins to compactor for landfill disposal • Verify by visual check contents of yellow bins and ensure correct tags are in place • Compile transfer note stating number of each colour bins and assign appropriate waste codes to each. • Contact Trust staff to complete transfer of bins to disposal company.
Trust estates or security officer	• Liaise with waste disposal operative and disposal company driver to verify number and code of containers and sign transfer note. • Periodically audit compliance with waste disposal procedure.
Waste disposal company	• Transport waste to indicated disposal facility and dispose of by agreed technology. • Report weekly to Trust estates officer any exceptions found during disposal of waste.

IF IN DOUBT, CONSULT SUPERVISOR / INFECTION CONTROL NURSE

Appendix 4: Infectious Waste

Introduction

6.1 Assessments of whether or not a particular waste should be regarded as infectious should consider:

a. the protection of 'healthcare' and 'waste' management workers;

b. decision-making on the appropriate means of disposal;

c. possible designation as 'Hazardous Waste' or 'radioactive waste';

d. compliance with transport legislation (Carriage of Dangerous Goods Regulations).

There is need for assessment, in individual circumstances, within a framework which maintains a consistency of practice. This is achievable through the implementation of a Waste Management Policy, which specifies:

a. what may be regarded as 'highly infectious', 'infectious' and 'non-infectious' without reference to management or specialist advisers;

b. the circumstances in which advice should be sought.

In preparing a Waste Management Policy, management should take account of local circumstances and of the advice of their healthcare, infection control, health and safety and loss prevention specialists.

Guidance

6.2 Guidance which may assist with risk assessments and policy forming includes:

1. Categorisation of biological agents according to Hazard and Categories of Containment, Fourth Edition, HSE 1995 Advisory Committee on Dangerous Pathogens and subsequent amendments.

2. Microbiological Risk Assessment: An interim report - HMSO 1996 Advisory Committee on Dangerous Pathogens.

3. The Hazardous Waste (England and Wales) Regulations 2005: Environmental Protection Act 1990: Department of Health - Health Technical Memorandum – 07-01: Safe management of healthcare waste.

Also relevant are the Approved Methods, to be read with the Carriage of Dangerous Goods (Classification, Packaging and Labelling) and Use of Transportable Pressure Receptacles Regulations: 2004.

4. Report of the Advisory Committee on Dangerous Pathogens (ACDP) Directives and of the COSHH Regulations: 1999. Framework criteria used includes:

- is the biological agent pathogenic for humans?
- is it a hazard to employees?

- is it transmissible in the community?
- is effective prophylaxis or treatment available?

Using the above framework criteria, the report allocates biological hazards to four Hazard Groups:

Hazard Group 1: A biological agent unlikely to cause human disease.

Hazard Group 2: A biological agent which can cause human disease and may be a hazard to employees. It is unlikely to spread to the community and there is usually effective prophylaxis or effective treatment available.

Hazard Group 3: A biological agent which can cause severe human disease and presents a serious hazard to employees. It may present a risk of spreading in the community, but there is usually effective prophylaxis or treatment available.

Hazard Group 4: A biological agent which causes severe human disease and is a serious hazard to employees. It is likely to spread to the community and there is usually no effective prophylaxis or treatment available.

The ACDP report is of course addressed primarily to good working practice. It includes the categorisation of biological agents, which are on an Approved List under Section 15 of the Health and Safety at Work etc. Act: 1974.

The Control of Substances Hazardous to Health Regulations: 1999 impose legally binding requirements by reference to the Report. Its approach which, in common with that of the WHO Laboratory Biosafety Manual (Second edition 1993), allocates biological hazards to hazard (or risk) groups and advocates a reasoned approach to the assessment of risk. This is relevant to waste management.

Furthermore, substances in ACDP Hazard Groups 3 and 4 correspond to those in WHO Risk Groups 3 and 4 and can be taken to correspond to those present in wastes described by EWC Index Number 18 01 03* in Schedule 2 Part 1 of The Special Waste Regulations: 1996.

The Carriage of Dangerous Goods etc. Regulations 1996, classifies wastes containing micro-organisms other than those in WHO Risk Group 1 (Hazard Group 1 above) as 'infectious substances' for carriage. Thus:

a. all waste in WHO Risk Group 4 (Hazard Group 4 above) must be treated and consigned as Special Waste;

b. all healthcare waste from 'highly infectious' cases, i.e. patients in strict isolation with known or suspected infection with Hazard Group 4 pathogens (e.g. Lassa, Ebola and haemorrhagic fever viruses, etc) must be incinerated*;

c. all healthcare waste from the agent associated with Creutzfeldt-Jakob Disease (CJD) and the wastes arising from related research must be incinerated;

d. all animal carcasses from healthcare or research laboratories, with known or suspected infection with Hazard Groups 2 - 4 pathogens must be incinerated*;

e. all unautoclaved microbiological culture and other pathogenic healthcare waste from healthcare or research laboratories, with known or suspected infection with Hazard Groups 2 - 4 pathogens must be incinerated*;

f. any healthcare waste from healthcare or research laboratories, with known or suspected infection with Hazard Groups 1 - 3 pathogens which has been autoclaved* before leaving the laboratory (except microbiological culture and other pathogenic healthcare waste and any CJD and related agents) can be disposed of by the heat disinfection process.

** see details of specific guidance contained in the HSE, Advisory Committee on Dangerous Pathogens (ACDP) and Scottish Office Department of Health Advisory Group on Infection -*

Appendix 5: MODEL WALL CHARTS

UNIVERSITY OF SOUTH MANCHESTER NHS FOUNDATION TRUST

Model wall charts for waste management in Hospitals

The Healthcare Waste Control Officer for this department is:

.....

Advice is available from:

.....

If in doubt, ask.

Special arrangements exist for:

a. radioactive waste (see Radiation Protection Policy);
b. unused and part-used pharmaceuticals (return to pharmacy);
c. all other wastes must be streamed - yellow or black.

Correct streaming is environmentally friendly and saves money.

The Waste Management Policy explains this more fully.
A copy is available from:

.....

Date Developed: August 2007
Review Date: September 2008