

MINISTRY OF HEALTH AND SANITATION

SIERRA LEONE

DRAFT FINAL

**NATIONAL HEALTH-CARE WASTE MANAGEMENT
PROGRAMME POLICY (NHCWMP)**

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PART ONE - POLICY

Preface

This **Draft Final** National Health-Care Waste Management Policy (NHCWMP) document is prepared for the Ministry of Health and Sanitation (MOHS), Sierra Leone in collaboration with the Sierra Leone HIV/AIDS Response Project (SHARP) by a local consultant, Dr. Raymond G. Johnson, Fourah Bay College, University of Sierra Leone.

This policy is an addendum to the National Health Policy 2003 and is prepared as a guideline for all those involved in the healthcare delivery system within the country; this includes primarily the Ministry of Health and Sanitation (all public healthcare facilities), health related bilateral organizations, local and foreign NGOs and the Private Sector (all private healthcare facilities) operating within the national borders of Sierra Leone.

The Ministry of Health and Sanitation has the executive authority for waste management, inside all healthcare facilities in Sierra Leone. The Local Councils in collaboration with the Environmental Health Division of the ministry currently has the direct responsibility of waste management in the country.

The content of this document is subject to change during implementation depending on the implementation experience, problems faced and changes in strategies. However, amendments/additions to the document will be subject to the MOHS agreement.

INTRODUCTION

A safe means of disposing of clinical and other waste in all healthcare settings as well as domestic setting can prevent significant risks to the health and safety of staff, patients, the public and the environment. Such waste can pose potentially significant risk to any healthcare institution. All healthcare establishments need to ensure that procedures for disposing of waste are compliant with the extensive agenda of legislation and regulations governing safe practice.

Within the framework of The Sierra Leone Government National Development Plan, Ministry of Health and Sanitation, believes there is need for specialised training in hazardous materials handling and provision of medical supplies to health workers so as to prevent healthcare waste related disease transmission. Healthcare workers represent a particularly vulnerable group because of their routine contact with hazardous materials, where they are on the front line, and need to be confident their personal safety and well-being are taken into account so that they actively promote the duty of care in their duties. Related to the safety of both healthcare workers, the general population and the environment is the need for norms and standards for hazardous waste disposal, appropriate to Sierra Leone, and that these be taken into account in all healthcare facilities nationwide, along with training of facility personnel.

The National Medical Waste Management Programme within the Environmental Health Division of the Ministry of Health and Sanitation (MOHS) was mandated to assess and develop a plan of action for healthcare waste management for Sierra Leone.

The assessment revealed a complete absence of any organised system of Medical waste Management. W.H.O has established that the transmission of diseases such as HIV/AIDS, Viral Hepatitis B and C, Lassa fever, Cholera and other Water-borne diseases may have direct link with unsafe methods of medical waste handling or lack of standard or universal precautions. In Sierra Leone, cases of healthcare workers who have been infected with blood-borne diseases such as Lassa fever as a possible consequence of inadequate or lack of standard precautions are recorded.

The mission statement of the programme is to **‘establish a comprehensive system of safe management of healthcare waste to ensure safe working environment for all healthcare staff in Sierra Leone.**

Clinical waste risk assessment and waste management policy development requires extensive cross-agency knowledge. This includes not only knowledge of infectious agents and their propagation, but also the waste management regulatory framework.

Therefore this **policy** has a descriptive approach to waste management, which has been drawn up after field investigations and consultations, through questionnaire and responses with comments from the following officers/institutions:

- Ministry of Health and Sanitation's headquarter professional staff;
- The Environmental Health Division Staff;
- The National Medical Waste Management Programme;
- District Health Management Teams;
- Medical Superintendents of Hospitals;
- Local Councils;
- Department of the Environment;
- The National Commission for Environment and Forestry (NaCEF);
- Director of Drug and Medical Supplies;
- Health related NGOs;
- UNICEF;
- WHO.

Aims

- The aim of this policy is to provide a Standardised Operation Procedure as a safe means of disposing of the waste that is produced by healthcare interventions nationwide and includes healthcare associated waste generated within the patient's home. This will ensure that the duty of care, which all staff employed by healthcare institutions must adopt, is pursued.
- This policy provides prescriptive guidelines in the form of Standard Operating Procedures for safe handling, segregation, storage, collection, transportation and disposal of all waste generated within healthcare institutions in Sierra Leone.
- This policy will be reviewed yearly by multi-agency consultations and updated as appropriate.

Definition

- Waste disposal is the elimination of useless and discarded items and materials including those from bodily processes.

- All waste arising from a healthcare facility is broadly defined Healthcare Waste.

Policy statement

- All healthcare facilities nationwide, undertake to dispose of all waste material produced through its activities by appropriate and safe methods. The establishment will ensure that any waste management activities contracted out are managed and operated to the required standards of this policy document.

Lines of accountability nationwide

- **The Minister of Health and Sanitation** is ultimately responsible for adherence to waste legislation within the healthcare delivery system countrywide, and is accountable for the establishment and achievement of waste management policies. **The Top Management Team of the Ministry** is also responsible for establishing objectives, policy, priorities and allocation of funds.
- The Chief Medical Officer in the Ministry of Health and Sanitation has lead responsibility for healthcare waste management. He will obtain specialist advice.
- To assist the minister to fulfil this responsibility, specialist advice will be available from the Chief Medical Officer.

Responsibilities of the healthcare establishment

- Responsibility for implementing waste management policies rests with the proprietor and supervisors at all levels.
- Managers/Proprietors are required to produce, maintain and make available to employees this waste management policy and any relevant guidelines associated with waste management.

Duty of care

The duty of care requires that the establishment ensures all waste is stored and disposed of responsibly, that it is only handled or dealt with by individuals or institutions that are authorised to deal with it and that a record is kept of all waste transferred through a system of signed Waste Transfer Notes. The duty of care has no time limit, and extend until the waste has either been disposed of or fully recovered.

Therefore the following responsibilities need to be recognised and addressed:

- The **healthcare establishment/organisation** will appoint Infection Control Officer who will be the conduit for waste management advice from the Waste Control Officer. Thus both infection control and waste control personnel will be in a position to advise local organisations on waste issues.
- The **organisation** recognises the responsibility to implement in full their duties in respect of the legislation. It delegates the day-to-day management of all managers employed within the organisation.
- The **organisation** will appoint the role of **Waste Control Officer** (responsibility for the production and overall co-ordination of all the Waste Policy) to a **Senior Nurse/Environmental Health Officer (EHO)**.
- **Waste Control Officers** will advice on all waste issues so that a fully co-ordinated effort to control safely the disposal of waste across the Organisation's workplace is achieved.
- **Managers/Senior Officers will ensure that:**
 - Other policies are in place within the Organisation's in conjunction with this Waste Policy, for example, accidental exposure to blood or body fluids through percutaneous injury, exposure of broken skin, or of the mucous membrane, which also covers suitable arrangements for medical advice and counselling.
 - The institution carrying out the disposal has appropriate licence/certificate and that a copy of such is sent to the Medical Waste Management Programme of MOHS for central collation.
 - Adequate supplies of containers, appropriate to the nature of waste (i.e. yellow bags for blunt clinical waste, black bags for general waste and sharp boxes) are available.
 - Employees dispose of waste via the correct waste system.
 - Sharps are not discarded into yellow bags but placed into sharp boxes.
 - Different waste types are not stored or transported together – this applies from the point of generation onwards.
 - Waste containers are not filled more than two thirds full and are securely closed.
 - All waste containers are clearly labelled with the source.
 - Sharps boxes are not placed into bags (yellow or black) but are sealed securely when no more than two thirds full.

- Waste, in particular clinical and special/hazardous waste is stored safely in clearly identifiable containers out of reach of members of the public at all times throughout the disposal chain.

Officers/managers responsible for other employees, e.g. porters, cleaners, or caretakers, should ensure that:

- Before removing waste containers, porters/caretakers/cleaners should check that they are securely sealed and properly labelled – if not, the containers should not be removed and the Waste Control Officer should be notified immediately.
- Waste containers are taken directly to a secure holding unit to await collection for disposal off site or the waste disposal unit in the case of on-site disposal.
- Employees have the requisite training and the materials to deal safely with spillages and accidents when/immediately after they occur.

Responsibility of the employees

- All employees at work must take reasonable care to ensure the waste management policy is adhered to at all times.
- The handlers of waste should ensure that waste is prevented from escaping by:
 - Waste bags and sharps boxes being held in rigid lockable containers made of suitable material that will prevent penetration by sharp objects and which, when closed, will be leak proof, vermin proof and tamper resistant.
 - Security precautions to prevent theft, vandalism and scavenging of waste are in place.
- Employees will be aware of and conform to the attached **Standard Operating Procedures** on waste in **part three of this document**.

Vaccination of staff

- All staff that is likely to handle and/or dispose of items contaminated with blood or body fluids must be offered vaccination against Hepatitis B and their immunological response to vaccination recorded. If an individual has a poor or no response to a completed vaccine course, counselling and appropriate medical advice will be necessary. This will be part of the accidental exposure to blood or body fluids policy.

- All healthcare staff should be recommended to be up to date with the National Immunisation Schedule for healthcare staff.

Personal protection equipment

- All employees have a duty of care under this policy to ensure that items of personal protection equipment are provided, used and maintained.
- Employees should be provided with and uses the personal protective clothing appropriate to the waste handling tasks they are required to perform.

General precautions

- Basic personal hygiene is important when handling waste. Washing facilities should be convenient for people handling waste.
- There is a risk of skin contamination when clearing body fluids. Disposal gloves and disposable apron should be worn. If necessary eye/face protection should be worn.
- Staffs that regularly have to handle, transfer, and transport or incinerate filled clinical waste containers will require further protection.
- Heavy duty gloves should be worn when handling clinical waste containers, which should be packed up and carried by the handle provided. The other hand should not be used to support the bottom of the container.
- Sturdy shoes or industrial Wellington boots should be worn to protect the feet against the risk of the bin accidentally dropped. The soles of such shoes or boots will also offer some protection in the storage area as protection against the spillage of sharps and where floors may become slippery.
- An industrial apron or leg protectors may need to be worn if the means of handling presents a risk of bodily contact with waste sacks.

Training

- All staff required to handle and/or move waste should be adequately trained in safe procedures for dealing with all waste. The level of training will be dependent on the staff involvement with waste. Specific staff, e.g. nurses, doctors, porters, cleaners, caretakers, will require greater depths of training. Evidence of training, i.e. training records and attendance lists, need to be maintained as verification of training.

- All staff should receive training as part of their induction. As a minimum staff should be educated, informed and instructed in:
 - Procedures for segregation, handling, storage and transportation to secure collection points,
 - Procedure for dealing with spillages and accidents,
 - The use of protective clothing (where appropriate),
 - The extent of their responsibilities,
 - Personal hygiene,
 - Emergency procedures,
 - Effective sealing of storage containers,
 - Labelling requirement,
 - Reporting of waste incidents,
 - Safe cleaning and disinfecting procedures.

- The organisation has a responsibility to:
 - Review individual employee training needs on a regular basis,
 - Provide re-training as required, keeping a record,
 - Provide bullet point procedures in all areas.

Incident reporting

- The organisation should have a system in place for the recording, reporting and investigation of injuries, ill health and near misses associated with waste production, handling, storage and disposal.
- The employer should identify procedures to ensure that all incidents involving waste which may put employees or others at risk are reported.
- These procedures should include appropriate first aid measures and handling of spillages procedure.
- Certain incidents are reportable. A duty is placed on the employer as 'The Responsible Person' to notify report and record the events.

- The recording of incidents, the incident reporting procedure and the recording of the management of the incidence will be used as verification of the complete process.
- Employers at all points in the waste chain need written procedures for dealing with waste related incidents.

References:

- The National Health Policy 2003.
- The Public Health Ordinance 1960.
- The Environmental Protection Act 2000.
- The Local Government Act 2004.

PART TWO - TYPES OF WASTE

INTRODUCTION

- Section 23 of the Public Health Ordinance 1960 (PHO) imposes an accountability on everyone who produces or handles waste.
- The duty of care is a statutory responsibility on anyone who produces, carries, keeps, treat or dispose of controlled waste to take reasonable measures to:
 - Prevent any person dealing with waste illegally, in contravention of Section 23 of the Public Health Ordinance 1960.
 - Prevent escape of waste from his control or another person's control.
 - Transfer only to an authorised person, or to a person authorised for transport purposes.
 - Supply a description of the waste, which is adequate to enable others to comply with their duty of care.

Clinical waste

- Therefore, individuals have a legal responsibility to ensure that the waste they produce is handled and disposed of in a secure and correct manner, especially clinical waste.
- Clinical waste is defined as:

“Any waste which consists wholly or partly of human or animal tissue, blood, or other body fluid excretions, drugs or other pharmaceutical products, swabs, dressings or syringes, needles or other sharp instruments being waste which unless rendered safe may prove hazardous to any person coming into contact with it.

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.”

Group A - human tissue, blood and related swabs and dressings.

Storage and disposal – thick gauge (70 microns) yellow plastic bags overprinted ‘Potentially Hazardous Waste for Incineration Only’.

Group B - Contaminated syringes and sharps and contaminated sharp instruments.

Storage and disposal – Sharp boxes – for disposal by incineration only

Group C - Microbiological cultures and other potentially infected waste from laboratories.

Storage and disposal – thick gauge (70 microns) yellow plastic bags. Infected material may need to be autoclaved before going for incineration. See ‘Safe Working and the Prevention of Infection in Clinical Laboratories’ Health Services Advisory Committee

Group D - Pharmaceutical products and certain chemical wastes.

Storage and disposal – It is recommended that these products be left inside their packaging, cartons and containers. Storage should be in a locked container in a safe area. Transfer for incineration in appropriate sized burn bins.

Group E - **Inpatient areas**

Bodily secretions apart from those defined in Group A, incontinence appliances and related disposable items.

Storage and disposal – Normal gauge (40 microns) yellow plastic bags overprinted ‘Clinical Waste for Incineration Only’.

Domestic

- Normal domestic waste

Storage and disposal – Black bags.

Special/hazardous waste

- Some of these fall into the definition of clinical waste. Special/hazardous wastes require separate consignment notes and separation from normal clinical waste stream.

- Special/hazardous waste is classified as:
 - **Cytotoxic** – See Standard Operating Procedure 6.
 - **Radioactive** – prior to disposal of radioactive waste authorisation be obtained from the Environment Agency. As waste is transported by road it must also comply with the Radioactive Material (Road Transport) Regulations 2002. Waste must be properly contained and documented. Both of these sets of regulations specify maximum amounts of radioactivity and both require record keeping demonstrating control and compliance. All shipments of radioactive waste must comply with these requirements.
 - **Toxic** - See Standard Operating Procedure 7.
 - **Pharmaceutical** - See Standard Operating Procedure 8.

Other waste

- **Domestic/household** – this includes kitchen refuse, the contents of office paper bins; cardboard etc which should be placed in black polythene bags. These can be disposed of either by landfill or recycling.
- **Bulk** - See Standard Operating Procedure 9.

PART THREE
STANDARD OPERATING PROCEDURES (SOP)

FOR QUICK REFERENCE – WASTE DISPOSAL HANDLING GUIDE

CATEGORY DESCRIPTION	CONTAINER BAG/BOX	SOP No	FINAL DISPOSAL
Domestic Waste	Medium Black Bag	1	Landfill
Glass items and aerosols	Brown paper bag/Cardboard	1	Landfill
Infectious diseases waste	Medium yellow bag inside medium yellow bag	1	Incineration by registered contracted collector
Sharp needles and broken ampoules	Plastic sealable sharp containers	4	Incineration by registered contracted collector
Pharmaceutical waste	Rigid sealable yellow container Original packaging	8	Incineration by registered contracted collector Return to manufacturer or source of supply
Bulk waste disposal	See SOP	9	Appropriate Environmental disposal contact Support Services 225706
<u>Domestic setting</u> <ul style="list-style-type: none"> • Urine containers • Incontinence pads • Stoma bags • Peritoneal dialysis bags and tubing • Dressings 	After emptying contents in a toilet, double wrapped i.e. black bag in black bag (unless otherwise advised)	4	Landfill
Haematological Dialysis	Yellow plastic bags	4	Incineration by arrangement with HPA and LA
Toxic	See SOP	7	The services of a specialist waste disposal agency required, contact Support Services 225706
Cytotoxic waste Sharps	Sharp bins	6	Appropriate Environmental incineration – pre notification by contacting local authorities or Support Services Operations 225706
Non Sharps	Heavy duty yellow bag marked Cytotoxic waste		

STANDARD OPERATING PROCEDURE 1

Segregation of waste

Waste, which must be disposed of in a particular manner, should be segregated in to easily colour coded bags.

1. **Yellow Plastic Bags (with black writing)** – for clinical waste for incineration only.
2. **White Plastic Bags** – for waste for autoclaving.
3. **Brown Paper Bags** – for aerosol cans and glassware.
4. **Black Plastic Bags** – for normal household waste for incineration or landfill.

UNDER NO CIRCUMSTANCES ARE BAG TO BE USED FOR ANY OTHER PURPOSES THAN THOSE LISTED ABOVE

Note:

- In light of Public Health and Environmental Concerns – Healthcare Waste Management – segregation of waste in clinical areas, segregation and methods of disposal will be constantly reviewed and any alteration to the above segregation format will be advised by revision of the Policy Document.
- A vigorous, effective and properly monitored segregation procedure is necessary to ensure that no waste, which should have been incinerated, enters any other waste stream

Yellow bags	Yellow wheeled bin unit
White bags	Yellow wheeled bin unit
Brown bags	Container designed for the general waste
Black bags	Container designed for the general waste

- Colour coded charts showing the actual colour of the bag type of container appropriate to each type of waste must be located in every area where waste is put into bags.
- All bags must be filled to no more than two thirds capacity and tied in the approved manner using the swan necking method secured with numbered tag tie.
- Clinical waste must be placed in yellow clinical waste bags tied in the approved manner using the swan necking method with a number tag tie

identifying the year, department, location, and the bag placed inside a foot operated bag container.

Group A Waste (Inpatient only) - (soiled dressing and human tissue)

- These must be placed in yellow waste bags in bag holders or other appropriate containers at the point of generation.
- Bags must be replaced daily or when two thirds full.
- Containers must NOT be transferred loose from container to container.
- The bags must be tied in the approved manner and secured with a number tag tie identifying source location.
- At places where waste is held in small quantities daily, the interval between collection should be as short as reasonably practical and, in any case, no longer than 24 hours. Any place where waste is held prior to collection must be locked at all times.

STANDARD OPERATING PROCEDURE 2

Waste bags and containers

Waste bags and containers

- Adequate supplies of appropriate waste bags and containers must be provided where waste arises. Containers must be cleanable and foot operated.
- All waste containers must be capable of containing the waste without spillage or puncture, especially during transport and handling.
- Containers intended for incineration must be made of polyvinyl chloride (PVC).
- All clinical waste bags must be securely fastened when two thirds full and tie tagged for identification of source.
- Sharps containers must be correctly assembled prior to use and securely sealed when two thirds full and labelled for identification of source i.e. by completion of the information panel with location and date etc.

Clinical waste bags

- Clinical waste bags must conform to the appropriate MOHS performance specification or equivalent and be marked 'for incineration only'.
- Bags when used for **cytotoxic** waste must meet the specified standard for that purpose.
- Sharps (discarded syringe needles, cartridge, broken glass and any other contaminated disposable sharp instrument) must be discarded into Sharps Boxes. Needles and syringes should be discarded as single units where possible. It is the responsibility of the person using the sharp to dispose of it correctly.
- Containers must be sealed when two thirds full and labelled for identification of source before being securely stored for collection.

STANDARD OPERATING PROCEDURE 3

Storage of waste

- All waste containers must be placed in strategic location within the organisational areas with clinical waste containers away from patients and the public.
- All waste bags must be sealed and identified with source organisation when two thirds full and held in a safe area away from the general public. This area should be locked at all times.
- Waste **must not** be allowed to accumulate in **unsuitable places**.
- Bags **must** be collected as required and placed in appropriate wheel bins.
- Bulk waste containers (yellow wheeled bins) must be used for clinical waste only and should be secure and must be kept locked at all times.
- There must be enough storage capacity to allow for the proposed frequency of collection. Holidays should be taken into account and a margin provided for any interruption in the disposal system. Storage containers must be easily accessible. Only authorised persons should be able to gain entry to containers and they should be kept secure from entry by animals and free of infestation by rodents or insects.
- Siting of bulk waste containers must be away from food preparation, general storage areas and from routes used by the public. Buildings used must be well lit, well ventilated and clearly labelled.

STANDARD OPERATING PROCEDURE 4

Healthcare related waste generated in patients' homes

- The assessable health risk of most waste from patients' homes is very small. It is usual to class waste from treatment into three categories.

High risk

E.g. Haemodialysis waste, contaminated sharps

Handling and Disposal

- Normal gauge yellow bags for disposal by incineration.
- Yellow sharps containers for incineration.
- The Local Authority will collect yellow bags from patients' homes where arrangements have been made through MOHS, the hospital nephrology unit and the collecting authority.

Contact number for arrangements 225706

Offensive – high volume

E.g. Incontinence pads
Stoma bags

Handling and Disposal

- Normal household collection, double wrapped (ordinary carrier bags are suitable) and placed in the domestic bin.
- Occasionally this may result in the need for additional bags or collections. This will be provided by arrangement with the local authority through MOHS as above on 225706.
- The MOHS will be informed by the nephrology unit, where waste is generated by a patient with an infectious disease, and arrangements will be made with the local authority for yellow bag collections and disposal by incineration.

Offensive – low volume

- E.g. Peritoneal dialysis bags and tubing
The third bullet point in ‘Offensive – High Volume’ above applies here as described above if the patient is known to have infectious disease.

Handling and Disposal

- Waste should be double wrapped (ordinary carrier bags are suitable) and placed in the normal household collection.

Other clinical waste arrangements

Domestic

- The local council will collect will collect yellow bags from patient’s homes where arrangements have been made through the MOHS or Infection Control Unit at the appropriate healthcare facility.
- It is undesirable, on health and safety grounds, that clinical waste other than sharps boxes be carried in public transport/cars of community healthcare staff. In most instances used swabs and dressings can be double wrapped and placed in patient’s normal household collection.

Sharps boxes carried by outreach healthcare staff

- Healthcare staffs are encouraged to deposit sharps boxes at their base or other receiving site at the end of each working day.
- Where this is not practical due to the need to make extended return journeys, staffs have access to and use a range of sizes of bins which can be securely sealed at the end of each day.
- Bins are kept out of sight of the general public.

STANDARD OPERATING PROCEDURE 5

Spillage of clinical waste

In the event of waste being spilled or a bag being torn or the seal broken, the line manager must be informed. The origin of the waste must be determined before being dealt with. Responsibility for clearance of the spillage **must not** be delegated and only carried out by persons trained in the correct procedures, e.g. cleaning of blood, bodily fluids, and sharps. A safe system of work must be employed in dealing with waste spillage with the appropriate Incident Form completed.

Spillage of dry clinical waste

- Using a fresh yellow sack, the spillage should be re-bagged and labelled.
- Heavy duty gloves should be worn.
- Dust pan/shovel and brush should be used to minimise the contact.
- Dust pan/shovel and brush should be washed in warm detergent solution after use.

Spillage of sharps

- Never pick up sharps by hand.
- A fresh container must be used and heavy duty gloves and apron worn.
- A dust pan/shovel and brush may be used.
- Small quantities of sharps may be picked using disposable forceps.
- If equipment comes into contact with body fluid, then it must be appropriately decontaminated.

Spillage of blood

- Spillage of blood must be dealt with immediately.

On surfaces that can be cleaned

- Cover with paper towels and freshly prepared hypochlorite solution (10,000 ppm available chlorine) or hypochlorite capsules or hypochlorite granules.

- After a few minutes, collect the towels up and put carefully into a yellow clinical waste bag.
- Ensure that you wear disposal gloves, an apron and eye/face protection during this operation.
- Wash the surface with warm detergent solution and dry.

On surfaces that cannot be wiped

- E.g. carpets, contact your Infection Control Officer.

Spillage of other bodily fluids

- Spillage of bodily fluids other than blood can be dealt with by using hot water and detergent.
- Ensure you wear disposal gloves and apron during this operation.
- Eye and face protection will be necessary where large volumes are concerned or splash/spray into the face is possible.
- Normal low risk/low volume body fluids that are not contaminated by blood can be disposed of by flushing down the toilet or by double wrapping and going to landfill.

STANDARD OPERATING PROCEDURE 6

Special/hazardous waste – cytotoxic

Cytotoxic waste is material containing drugs themselves, which are used mainly in the treatment of cancer. They require incineration preferably at a minimum controlled temperature of 1000⁰C for the duration of burn.

STANDARD OPERATING PROCEDURE 7

Special/hazardous waste – toxic; including mercury

- Toxic substances are identified by their capacity to cause damage to health; physical or mental deficiencies or even death when ingested, inhaled or absorbed.

- The following material will be classified as toxic waste:
 - Heavy metals; including mercury.
 - Chemical and reagents including pharmaceutical raw material.
 - Water immiscible liquids and solvents including liquid anaesthetics.
 - All toxic waste must be disposed of in accordance with manufacturer's hazard data information.
- In most cases the services of a specialist disposal agency will be required.
- The toxic materials must be suitable and securely stored pending collection.
- Volatile anaesthetic liquids should be sealed in a bottle, labelled and returned to source for disposal.
- Separate records must be kept of any chemical materials awaiting disposal.
- Toxic waste must not be incinerated or disposed of via the drain/sewer.

Mercury spillage

- When mercury is spilt, quick and effective action is essential because of the high toxicity of mercury vapour.
- Personnel cleaning up mercury spillages should be aware of the potential hazards and should wear appropriate personal protection to avoid skin contact. Where a significant vapour hazard may exist, respiratory protection will be required.
- For the purposes of a small amount, disposable PVC or latex gloves may be sufficient. Care should be taken to avoid the contamination of clothing and it is essential to avoid mercury contact with precious metals, which may be damaged.
- Immediate measures should be taken to contain any spillage and avoid dispersal. Adequate ventilation of the area must be ensured.
- Spillages clean up kits are available. There are two types:
 - The mercury collector sponge for use with small quantities, and
 - The mercury clean up kit – with mercury absorbent granules for large quantities.

Instructions for use are contained on each kit and should be read before dealing with the spillage.

- If the above equipment is not available and for small spillages only, a flat piece of card or plastic can be used to gather droplets together. A syringe may be used for collection. Recovered mercury should be stored under water, in sealed container until it can be appropriately disposed of.
- Vacuum cleaners should not be used if absorbent or fibrous material is contaminated, it may be necessary for this to be removed and disposed of.

Disposal of materials relating to spillage

Glass not containing Mercury

- Glass, which does not contain mercury, should be disposed of in the normal way via a sharp bin.

Protective gloves and other protective clothing

- Rubber gloves or any other protective clothing used should be disposed of in the normal way as clinical waste.

Sphygmomanometers

- Damaged or leaking sphygmomanometers, where spillage is contained within the case should be placed inside two securely sealed polythene bags and labelled to indicate the nature of the defect hazard. Arrangements need to be made for appropriate collection. Contact 225706

STANDARD OPERATING PROCEDURE 8

Special/hazardous waste – pharmaceuticals

All pharmaceutical waste will be classed as special waste and treated as such.

- All pharmaceutical waste (excluding controlled drugs) should be safely stored in approved pharmaceutical waste containers.

Destruction of Controlled Drugs (CD)

Patient CD returns

- A member of staff within the dispensing practice community pharmacy should destroy all patient CD returns. As the quantity of controlled drugs being returned can often pose a storage problem, as well as an increased security risk, patient returns should be destroyed as soon as possible.
- The Pharmacy Board should be contacted for appropriate advice on destruction, so that CD is rendered irretrievable before disposal. Alternatively the following may be employed:

One:

- **Tablets** should be denatured either by grinding or standing in boiling water and adding washing up liquid. The resulting sludge should then be placed in the pharmaceutical waste container.
- **Ampoules** should be opened, unpeeled and folded in on the sticky side before placing in the pharmaceutical waste container. During disposal rubber gloves should be worn.

Two:

- **Liquid dose formulations** should be added to, and absorbed by an appropriate amount of cat litter, similar product.
- **Solid dose formulations** should be crushed and placed into a small amount of hot, soapy water. The resultant mixture should be stirred to ensure that the drug has been dissolved or dispersed.
- **Parenteral formulations** – ampoules should be crushed with a pestle inside an empty plastic container. After ensuring that all ampoules are broken, a small quantity of hot, soap water or cat litter should be added.
- **Fentanyl patches** – the active ingredients in the patches can be rendered irretrievable by removing the backing and folding the patch over upon itself. Once this procedure is carried out, the resultant mixture should be added to the general pharmaceutical waste. It is advisable therefore to keep the liquid content to a minimum.
- **Record Keeping** – although not a legal requirement, it is a good practice for the destruction of patient returned medication to be documented. Therefore all GP practices/pharmacies engaged in collection and disposal of patient returned CDs should keep a record (e.g. in an exercise book) of all returns received and disposed of. Any delegated member of the dispensary/pharmacy staff would be appropriate to take responsibility for this. Preferably a second member

of staff should act as a witness to the disposal and sign the record as such.

Non-Dispensing Practices

- Non-dispensing practices should not accept patient returns, as they do not have on the site access to a pharmaceutical waste container

CD Stock

- Out of date CD stock should be minimised by good stock control. Out of date CDs must be destroyed only in the presence of an authorised witness. Where disposal of stock becomes necessary, the Pharmacy Board should normally do this during the annual pharmacy/dispensing practice inspection.
- Further notice is available from Pharmacy Board.

STANDARD OPERATING PROCEDURE 9

Bulk waste storage and disposal

- Appropriate methods of disposal of bulk waste items will be identified taking into consideration the type of waste, e.g. furniture, scrap metal, to be disposed of and any risks associated with their storage prior to disposal. Cost associated with the removal of bulk waste need to be agreed prior to disposal together with ensuring the agency carrying out the disposal have the appropriate licence/certificate, a copy of which must be sent to the Medical Waste Management Programme on 225706, for central collation.
- Staff requiring advice on storage and disposal of bulk waste items should in the first instance contact their local councils.
- When determining an appropriate method of disposal, consideration should be given to the type of items requiring disposal and any possible risks associated with their storage prior to disposal.