


Health Authority – Abu Dhabi		هيئة الصحة - أبوظبي
Division/Department/Section: PPR/HCP Subject: Medical Waste Management in Health Care Facilities		Reference Number: PPR/HCP/P0002/07 Issue Date: May 2007 Revision Date: May 2009 Version: 1


1. PURPOSE

Health-care activities lead to production of medical waste that may lead to adverse health effects. Most of this waste is not more dangerous than regular household waste. However, some types of health-care waste represent a higher risk to health. These include infectious waste (15% to 25% of total health-care waste) among which are sharps waste (1%), body part waste (1%), chemical or pharmaceutical waste (3%), and radioactive and cytotoxic waste. Sharps waste, although produced in small quantities, is highly infectious. Poorly managed, they expose health-care workers, waste handlers and the community to infections.


The purpose of this policy is to provide direction and guidance to health care facilities (HCF's) to manage their medical waste appropriately as per the United Arab Emirate's (UAE) Federal law, Health Authority Abu Dhabi, and Municipality rules and regulations, and with minimum risk to their health care staff, patients, visitors and medical waste handlers.

2. POLICY STATEMENT

- 2.1. It is the Health Authority Abu Dhabi (HAAD) policy that all HCF's, in the Emirate of Abu Dhabi, follow the UAE Federal Law and local environmental and health regulations when planning and implementing treatment and disposal for the wastes they generate.
- 2.2. All HCFs have to abide by Federal Law No. 21 of 2005 for waste management in the Emirate of Abu Dhabi and Schedule 3, Amendment No. 31 (2001) for Federal Law No 24, 1999.
- 2.3. The management in each HCF shall be responsible for ensuring good waste management practices in their premises.

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- 2.4. Every HCF shall provide the required resources for proper waste management at its premises. The HCFs should recruit or designate staff that will be overall responsible for the waste management of the facility. The designated staff must have written responsibilities for proper waste management for the facility. (Please see appendix, for the assigned staff responsibilities).
- 2.5. Health care facilities management should provide adequate support to the designated person, providing him with the necessary equipment, material, and work space.
- 2.6. There must be demonstrated and continuous training provided to all HCF staff who are involved in this process especially to the house keeping staff and cleaners whether directly employed by the HCF or out sourced by the HCF. The record of their training must be maintained. This training must include the demonstration of the colour coded bags by the company for the purposes of familiarisation which will be helpful for the staff in the process of implementation. The management of clinical waste must be included in the mandatory annual training plan by each of the HCF.
- 2.7. Health care facilities should have a log book which has to be filled properly by the HCF for the purpose of tracking and maintaining a record of all disposed medical waste. The log book must include the following information such as the date and time the waste was collected, name of the waste, type of waste, the weight of the waste and the name and signature from both parties (the facility designated person and waste collection company designated person).
- 2.8. Specific clinical wastes must be disposed under the supervision of the HCF designated staff and a record has to be maintained. These clinical wastes include anatomic, pathological, pharmaceutical, genotoxic and radioactive waste.
- 2.9. Health care facilities should choose waste handling, collecting, transporting and disposal companies carefully, since the waste generator is directly held accountable for ensuring that all stages of transportation and disposal are carried out in a safe and legal manner.

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- 2.10.** Health care facilities should develop written policies and procedures for handling and disposal of wastes generated by their internal operations. These policies and procedures should aim at safeguarding all their internal and external customers, and ensure the contracting company which is responsible for waste collection, handling and disposal is licensed.
- 2.11.** There must be a bi-annual meeting with the out source contracting companies who are providing manpower resources to the HCF and also the outsource companies who are collecting, transporting and disposing the waste. All the issues or concerns which are observed during the inspection will be discussed with them and the ways for improvement will be identified and implemented.
- 2.12.** Each outsource company must have staff recruitment criteria and these criteria must be reviewed and discussed during the contract. The recruitment practices of the cleaners should be reviewed and the cleaners must communicate in English so the training can be provided to them.
- 2.13.** All HCFs' staff, including waste handlers, should be immunized for Hepatitis B.
- 2.14.** Waste generated by HCFs should be colour coded as per the procedure section below (developed according to UAE federal law, and municipality regulations).
- 2.15.** All packaged medical waste should be marked with a biohazard symbol
- 2.16.** Health Authority Abu Dhabi mandates that all HCFs in the Emirate of Abu Dhabi, abide by this policy, inspection will be conducted for this purpose and penalties will be applied accordingly.

3. SCOPE

This policy applies to all waste generated by health care facilities in the Emirate of Abu Dhabi.

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4. TARGET AUDIENCE

Health care facilities' management, health care staff, and all concerned staff handling medical waste.

5. RESPONSIBILITY

- 5.1.** It is the responsibility of the HCF's management to ensure proper implementation of this policy.
- 5.2.** It is the responsibility of all staff working in a HCF to abide by this policy, and the waste management policies and procedures of the HCF they work in.


6. PROCEDURE

6.1. General Considerations


- 6.1.1. Healthcare facilities shall assign staff for waste management (see appendix).
- 6.1.2. Healthcare staff shall be trained on the proper waste management practices and the
- 6.1.3. The HCF shall contract a licensed company to handle and dispose the waste it generates.

6.2. Waste Storage


- 6.2.1. General waste may be stored in a separate room at the facility, pending collection by the municipality or contractor.
- 6.2.2. All infectious waste (group A) must be stored in a designated area with access limited to authorized, personnel only.
- 6.2.3. Infectious waste should be disposed of within 24 hours.
- 6.2.4. Hazardous health-care waste should be stored in a separate location on an impermeable surface (no cracks or floor drains).

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- 6.2.5. All laboratory waste (group C) shall be stored in a refrigerated, lockable, closed storage pending disposal.
- 6.2.6. There must be enough space around stored waste containers/ bags to allow regular inspection for leakage or label deterioration.
- 6.2.7. Waste bags and containers should be sealed (such as with adhesive tape) and labelled with the address of the producer and the waste category, and marked with a biohazard sign for medical waste.
- 6.2.8. Waste should not be stored close to patients or where food is prepared.
- 6.3. Packaging and colour codes for medical waste (reference Schedule 3, Federal Regulation)**
- 6.3.1. **Group A waste:** (Anatomical, Pathological waste) Heavy duty polyethylene (gauge 400) **red colour bags** clearly marked with the phrase **“Contagious Wastes”**.
- 6.3.2. **Group B Waste:** (Sharp Objects) Heavy duty thick polyethylene **plastic boxes of yellow colour** internationally known as **“Sharp Object Boxes”** clearly marked with the phrase “Sharp Objects”. The boxes for preserving such waste shall be tightly sealed with a cap or lock or any other means so as not be opened and must not be stowed for more than 75% of their capacity.
- 6.3.3. **Group C Waste:** (Laboratory waste)
- 6.3.3.1. Waste to be sterilized before disposal: All laboratory waste such as bacterial plates, culture plates, gloves, contaminated clothes, sheets, covers and vessels used for handling organic tissues, contaminated blood etc. These wastes shall be placed in **blue transparent bags** of special material clearly marked up **“Medical Waste- to be autoclaved/ sterilized before Disposal”** After autoclaving it needs to be **packaged in Red bags**. These bags need to be tied and should not be packed for more than 65% of their capacity.
- 6.3.3.2. These groups include all other waste under Category C not included in 3.1. These wastes must be placed in medium duty (gauge 200) polyethylene bags of **yellow colour** clearly marked up **(Medical waste)**. These should not be filled more than 65% of their capacity and shall be tied, and stored waiting collection and disposal by incineration.

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- 6.3.4. **Group D waste:** (Pharmaceutical & Chemical waste)
- 6.3.4.1. **Pharmaceutical waste:** All packed pharmaceutical partially used or expired shall be returned to the pharmacy to their original containers, then stored in bags of polyethylene of medium duty (gauge 300) of **yellow colour** marked up (**Medical wastes**) . Bags should be tied in their neck and should not be filled more than the capacity and shall be stored until collection and disposal.
- 6.3.4.2. **Poisonous Waste:** All cellular or poisonous materials shall be returned to a predetermined point inside the pharmacy in which such materials are prepared or issued. All poisonous cellular medicines and other materials contaminated with cellular poisonous drugs and medicines (except for under skin needles and other sharp objects classified under Group B waste, shall be placed in heavy duty (gauge 400) polyethylene bags of **yellow colour** clearly marked up “**Poisonous (Cellular Cytotoxic) Waste-**” and such bags should not be filled more than 65% of their capacity and tied in the neck and properly stored until collection and disposal by incineration.
- 6.3.4.3. **Chemical waste:** All Chemical waste to which medical waste characteristics apply as industrial solvents and other liquid materials used in diagnostics tests in addition to all remaining chemical materials shall be returned to a predetermined point in the pharmacy or the central laboratory store where they shall be tagged according to their respective kinds and types either by using adhesive tags or cards attached. Tags and marks placed on each pack shall indicate its components and hazards. Containers then are put into **yellow bags** after that shall be stored awaiting collection and disposal.
- 6.3.5. **Group E waste:** All used materials receiving patient secretions and stomach waste and other waste (except patient suffering from contagious disease listed under Group A) shall be placed in medium duty (gauge 300) **yellow polyethylene bags**. These bags should not be filled more than 65% of their capacity, shall be tied, and tagged as **Medical waste of Group E**. These bags must be isolated in a separate place from other medical waste (usually cut into small pieces and disinfected before treatment).
- 6.3.6. **Group F waste (radio active waste):** Must be kept in special security areas allocated for storing this kind of waste until expiry of half of their expected

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lives **stored in special containers** , marked and labelled and sent back to the manufacturer.

7. Definitions and Abbreviations


Group A Medical Waste (Schedule 3)	Anatomical or pathological waste, waste contaminated with human blood or other body fluids, excreta, vomit, human tissue, wastes from contagious diseases, dirty bandages, bed sheets, animal remains and all other materials on which animal lay or cloth or used by animal whether contaminated or not and mortuary wastes.
Group B Medical Waste (Schedule 3)	Sharps, usually syringes and needles, surgical tools, different medicine and medical equipment vessels, broken glass and all other sharp equipments, tools and materials.
Group C Medical Waste (Schedule 3)	Blood, tissue and microbial cultures and microbiology laboratory waste, carcasses of inoculated lab animals, stools from cholera patient or body fluid of highly infectious diseases, and mortuary waste not specified under Group A.
Group D Medical Waste (Schedule 3)	Pharmaceutical and chemical waste to which medical specifications apply.
Group E Medical Waste (Schedule 3)	Deposable linings used for patient beds, caps of bottles for receiving and storing blood, urine, urine diapers, bags or vessels used for receiving stomach waste and similar wastes.
Group F Medical Waste (Schedule 3)	Waste resulting from treatment with radio active materials and wastes resulting from all operations related to radio active materials.
General Waste	Non Hazardous Waste; similar to Domestic waste
Anatomic /Pathological waste	Human tissues, fluids, body parts, blood and other body fluids
Microbiologic waste	Diagnostic specimens, laboratory cultures, vaccines
Sharps	Needles, infusion sets, scalpels, knives, saws, blades, broken glass, and nails.

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Isolation waste	Waste containing pathogens
Pharmaceutical waste	Pharmaceutical that are expired or no longer used or needed, items contaminated by or containing pharmaceuticals bottles, boxes.
Genotoxic waste	Waste containing cytotoxic properties (used in cancer), genotoxic chemicals
Chemical waste	Laboratory reagents, film developer, disinfectants that are expired or no longer needed, solvents
Heavy Metals	Batteries, broken thermometer, blood pressure gauges, etc.
Pressurized containers	Pressurized containers. Gas cartridges, aerosol cans
Radioactive waste	Unused liquids from radiotherapy or laboratory research, contaminated glassware, packages and absorbent paper, urine and excreta from patients, treated with unsealed radionuclide's, sealed sources.

8. CROSS REFERENCE

1. World Health Organization. Policy Paper on safe health care waste management (August2004). Available at http://www.who.int/water_sanitation_health/medicalwaste/en/hcwmpolicye.HCPf. Accessed 21 January, 2007.
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burn.org/action/IFCdraftHealthCare.HCPf. Accessed 21, January, 2007.

5. UAE Federal Law No. 24, 1999 for the Protection and Development of the Environment.
6. UAE Federal Law No. 21 of 2005, Waste management in the Emirate of Abu Dhabi.
7. UAE Law no. 31 for the year 2001, Schedule 3, Amendment of the UAE Law No 24, 1999.


9. APPENDIX I

Designated Staff Responsibilities:

Qualified designated person within the HCF should have overall responsibility for the waste management program.

The responsibilities include:

1. Ongoing initiatives for the supply with and use of environmental friendly products and procedures and to develop strategies for reduction, recycling and correct storage and disposal of all medical waste.
2. To consult the HCF management for all waste related issues.
3. To cooperate and communicate with infection control staff, safety & security staff and environmental & occupational health staff in management of the program.
4. To communicate to the management and employees about the hazards for humans and the environment related to medical waste and about the appropriate actions to avoid them. Communication/awareness should be organized through seminars, brochures, posters, and other standard communication tools.

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5. To control and optimize the procedure of wastes within the Health Care Facility, starting from the place where they are created until the final destination (all should be documented).
6. To report to the HCF management regularly, at least 1x/yr, about deficiencies, actions taken and recommendations

* The designated person must have proper qualifications to fulfill these tasks.