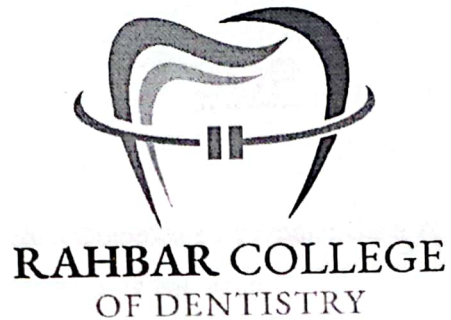


Health Care Waste Management Plan (RCoD)



PRINCIPAL
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To: Director Admin

Info: Medical Branch

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HEALTH CARE WASTE MANAGEMENT PLAN

RAHBAR COLLEGE OF DENTISTRY

SOP

- 1. Purpose:** To establish Guidelines for Health Care Waste Management Plan.
- 2. Scope:** Rahbar College of Dentistry
- 3. Responsibility:** All Staff on duty
- 4. Procedure:**

a. Introduction

1. The effective management of health care waste is essential to ensure the health and safety of patients, staff and the general public. Waste management is a complex issue that has financial, health and environment risk aspects.
2. It is required that waste is collected efficiently, transported properly and disposed of accordingly as per laid down procedures.
3. All efforts should be made to minimize waste production and guard against recycle and reuse of disposable items like syringes, needles etc.
4. In order to have a better waste management, following SOP will be followed at RCoD.

b. AIM

1. Minimize health risk to patients, staff, trainees and the general public.
2. Identity and segregate sharps/ toxic/ infectious and non-hazardous/non-infectious waste at the generation point.
3. Reduce the possible risk of transmission of infection/injury during handling, transportation and disposal of waste.

c. Waste management Committee (WMC)

A dedicated waste management team along with careful planning and full participation of all members of the team is required for effective waste management. Following team will be responsible for waste management:

- Admin Incharge
- Clinical housekeeping Incharge
- Clinical representative of waste management committee
- Basic science representative of waste management committee

Identification of Areas from Where Waste is generated: -

- College of Dentistry- all departments
- Offices/kitchens/washrooms
- All Hostels/Café

e. Categorization of Waste

1. Waste will be categorized into three categories:

- | | |
|-------------------------------|-------------------------------|
| a) Infectious and Toxic waste | RED BIN |
| b) Non -infectious waste | YELLOW BIN |
| c) Sharps waste | YELLOW (Disposable) CONTAINER |

2. Infectious waste is that waste which has any infectious element intends exposure to such waste could cause human disease or it may contain hazardous chemicals which can be toxic to the humans or environments.

f. Infectious waste:

Infectious waste Includes,

- Swabs, bandages and dressings stained with blood and body fluids.
- Contaminated personal protective equipment.
- IV tubing after cutting.
- Drips and Infusion bags after cutting
- Incontinence diapers.
- Urine bag
- Cultures

All the Infectious waste shall be collected in red container or any other color designated by hospital. Infectious waste bin bag shall be tied when 3/4 full and sent for Incineration after

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proper labelling Incinerator is being managed by waste management officer and station health organization representative.

g. Non-infectious waste

This Includes:

- Paper Cardboard, packaging, food waste

All the non-infectious waste will be collected in blue/black or any other solar: designated by hospital. Such waste should not be transported to incinerator site but is collected. in specially designated points in the hospital.

h. Sharps

Sharps Include: -

- Needles, syringes, ampules, broken glass, scalpels and blades, razors, staples, trocars, guide wires, other sharps
- All sharps shall be collected in puncture proof containers, easy to handle on dedicated trolley.
- Syringes and needles shall be cut with needle cutter and send needle cutter and sharp collector for Incineration when 3/4th filled after sealing and proper labelling.

4. Pharmaceutical Waste

This Includes:

- Expired medicine (Pills and antibiotics)
- Vaccines
- Contaminated drugs

All the Pharmaceutical waste shall be collected in separate container clearly labelled "Pharmaceutical Waste Only". Large quantity of pharmaceutical waste shall be returned to the supplier by pharmacy department and small quantities shall be crushed and placed in yellow bag.

5. Pathological Waste

Pathological waste Includes:

- Human tissue, fluids and organ

This waste shall be collected in doubled thick red bags and placed in red container containing proper labeling stating "Pathological Waste" and shall be buried. Such burial pits must be clearly sign posted. Bleaching powder should be copiously used at such places for disinfection. In some infections like viral hemorrhagic fevers, the pathological waste shall be disinfected before burial.

6. Segregation of waste

Segregation is the key to any waste management scheme. By segregation, different categories of waste are sorted out at the source. All doctors, nurses, lab tech and sweepers should have knowledge of identifying.

- Infectious waste shall be separated from non-risk waste at source that is at the clinic, operation theatre, laboratory, or any other room in the Institute where the waste is generated by the working doctor, technicians, or other person generating the waste.
- All disposal medical equipment and supplies including syringes, needles, plastic bottles, drips and infusion bags shall be cut or broken and rendered non-reusable at the point of use by the person using the same, or in case any such used equipment or supplies is found or comes to the possession of any person, by such person.
- All infectious waste other than sharps, large quantities of amalgams, or chemicals, waste with a high content of mercury or radioactive waste shall be placed in a suitable container made of metal or tough plastic, with a pedal type or swing lid, lined with a strong yellow plastic bag.
- The bags shall be removed when it is not more than three quarters full and sealed, preferably with self-locking plastic sealing tags and not by stapling. Each bag shall be labeled, indicating date, point of production/clinic, quantity and description of waste, and prominently displaying the biohazard symbol. When the container is ready for shipment, 1:10 solution of bleach to water will be added to cover the amalgam scrap. This ensures the scrap has been decontaminated according to OSHA guidelines. The bag removed should be immediately replaced with a new one of the same type.
- Sharps including the cut or broken syringes and needles shall be placed in metal or high-density plastic containers resistant to penetration and leakage, designed so that items can be dropped in using one hand, and no item can be removed. The containers shall be marked "DANGER! CONTAMINATED SHARPS". The sharps container shall be closed when three quarters full. If the sharp container is to be incinerated, it shall be placed in the yellow plastic bag with the other risk waste.
- Radioactive waste which has to be stored to allow decay to background level shall be placed in a plastic bag, in a large yellow container or drum. The container or drum shall be labeled, showing the radionuclide's activity on a given date, and the period of storage required, and marked 'RADIOACTIVE WASTE', with the radiation symbol.

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- Waste shall be collected in accordance with the schedules specified in the Waste Management Plan.
- Sanitary staff and sweepers shall, when handling waste, wear protective clothing at all times including face masks and disposable or heavy-duty gloves, as required.
- Bags and containers which are removed are immediately replaced with new ones of the same type and color.
- Where a waste bag is removed from a container, the container is properly cleaned before a new bag is fitted therein and in case of severe infection the container should also be discarded.

8. Waste Storage.

- A separate central storage facility shall be provided for yellow-bagged waste, with a sign prominently displaying the biohazard symbol and clearly mentioning that the facility stores risk waste.
- the designated central storage facility shall:
 - (1) Be located within the college premises close to the final transport disposal.
 - (2) Be easily accessible to collection vehicles and authorized staff, but totally enclosed and secure from unauthorized access, and especially inaccessible to animals, insects and birds.
- No materials other than yellow-bagged waste shall be stored in the central storage facility.
- Containers with radioactive waste shall be stored in a specifically marked area in a lead-shielded storage room.
- The central storage facility shall be thoroughly cleaned with procedures stipulated in the Waste Management Plan.

9. Waste Handling/Transportation

All waste handlers will ensure that they do not come in direct contact with the waste. They will ensure the following:

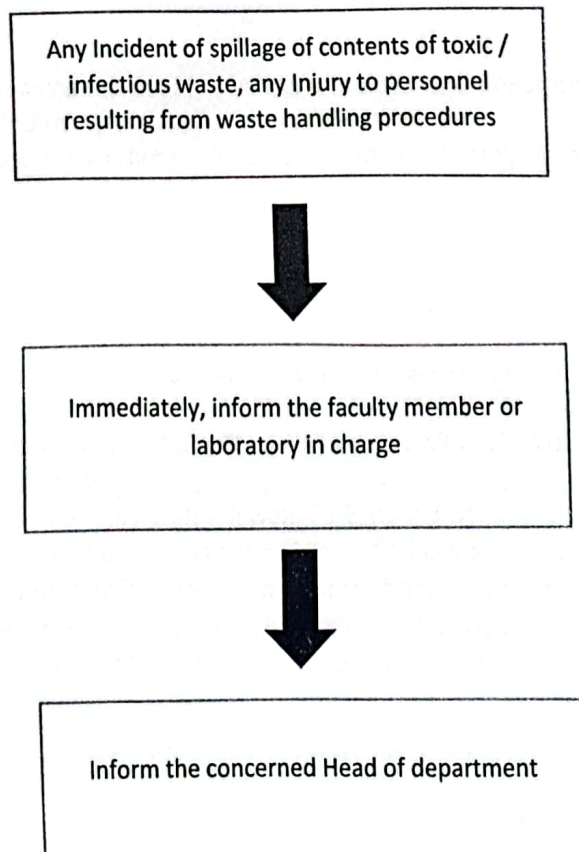
- Wear protective clothing i.e. gloves, gowns, face masks, long rubber boots as required while handling waste.
- All needles and syringes will be cut and de-shaped before disposal.
- Used syringes, needles and sharp-edged items be placed in puncture resistant containers (YELLOW BOX). These containers should be filled up to 3/4th only.

- Waste bags should never be thrown, kicked or dragged on the floor. They must be transported on a trolley.
- All bags should be properly sealed before transportation.
- Infectious waste will be stored in RED containers / Bags are stored at the site designated nearby RCoD and collected by contracted company SUNSHINE WASTE COMPANY.
- Non-infectious waste will be disposed off at Ratt Khera site.
- Waste container/storage areas should be regularly cleaned and disinfected.
- Transportation trolley should be cleaned and disinfected after each collection round.

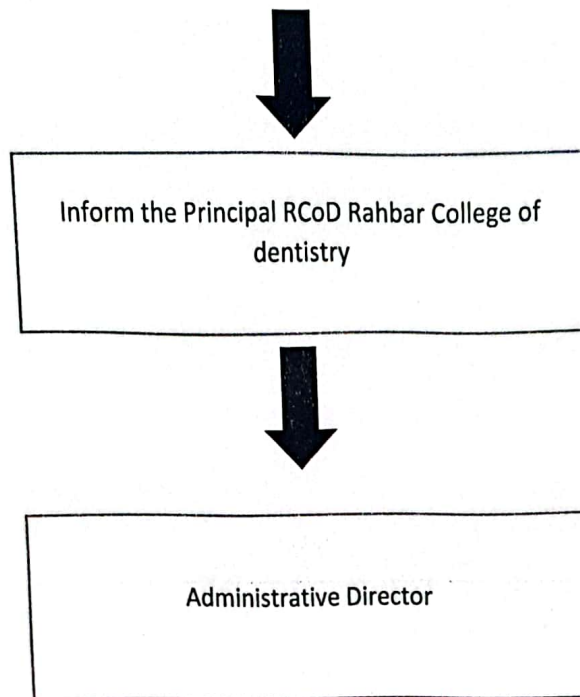
10. Incineration Centre:

All toxic /infectious/sharps will be incinerated by the contracted company SUNSHINE WASTE.

11. Incident Reporting:



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- All spillage will be thoroughly washed with water and detergent and the surface/ area will be disinfected using antiseptic / disinfectants.
- Blood products/ secretions will be decontaminated using hypo chloride solution.

11. Staff Safety:

- All doctors and axillary staff will be aware of the risks of bio-infectious / hazardous chemicals.
- All doctors and axillary staff will be well versed with SOPs of handling bio-infectious / hazardous chemicals.
- All doctors and axillary staff will wear PPE during operating procedures.
- Hand hygiene posters and isolation precaution signs are prominently displayed.
- Hand soap and Alcohol rubs are available at hand washing stations.
- Disposable latex gloves are readily available at designated counters.
- Adequate number of PPE are available in isolation areas.

12. Training Program

Quarterly lecture will be arranged by housekeeping incharge for training for designated demonstrators and sanitary workers.

13. Hepatitis B Vaccination:

All health care workers and sanitary workers will be vaccinated against Hepatitis 'B'.

ENVIRONMENTAL CLEANING AND DISINFECTION

Environment also plays Important role in transmitting infections and thus all environmental surfaces should be cleaned and disinfected properly.

1. Approved Disinfectants

- Hypochlorite (Bleach)
- Dimethyl ammonium chloride

2. Hypochlorite (Bleach)

- Use 0.5% hypochlorite or bleach tablet for environmental disinfection.
- Bleach 1 part and water 9 parts.
- Bleach tablet.
- Use according to recommendation label on the box.

3. Dimethyl ammonium chloride

- For general disinfection and cleaning
- Prepare disinfectant by diluting 1:100 with water (10 ml in 1L)
- For slightly soiled and dirty condition
- Prepare disinfectant by diluting 1:50 with water.

CATEGORIES & COLOR CODING OF BIO-MEDICAL

WASTE

Option	Waste Category	Treatment & Disposal	Color Coding
Category No. 1	Human Anatomical Waste (human tissues, organs, body parts)	Incineration @/deep burial*	Yellow colored non-chlorinated plastic bags
Category No. 2	Animal Waste (animal tissues, organs, body parts carcasses, bleeding parts, fluid, blood and experimental animals used in research, waste generated by veterinary hospitals colleges, discharge from hospitals, animal) houses)	Incineration @ / deep burial*	Yellow colored non-chlorinated plastic bags
Category No. 3	Microbiology & Biotechnology Waste (wastes from laboratory cultures, stocks or specimens of micro-organisms live or attenuated vaccines, human and animal cell culture used in research and infectious agents from research and industrial laboratories, wastes from production of biologicals, toxins, dishes and devices used for transfer of cultures)	local autoclaving / micro-waving / incineration@	Yellow colored non-chlorinated plastic bags
Category No. 4	Waste sharps (Needles, syringes, scalpels, blades, glass, etc. that may cause puncture and cuts. This includes both used and unused sharps)	disinfection (chemical treatment @ 01/autoclaving / micro-waving and mutilation/ shredding"	White Colored translucent, puncture proof, leak proof, Temper Proof containers Note: Glassware and metallic body implants collected in Cardboard boxes with blue colored marking or blue colored puncture proof, temper proof containers
Category No. 5	Discarded Medicines and Cytotoxic drugs (wastes comprising of outdated, contaminated and discarded medicines)	Incineration @/destruct ion and drugs disposal in secured landfills drugs disposal in secured	Yellow colored non-chlorinated plastic bags or containers
Category No. 6	Solid Waste (Items contaminated with blood, and body fluids including cotton dressings, soiled plaster casts, lines, beddings, other material contaminated with blood)	Incineration @ autoclaving / micro-waving	Red Colored Non Chlorinated Plastic Bags
Category No. 7	Solid Waste (Wastes generated from disposable items other than the waste sharps such as tubings, catheters, intravenous sets etc).	disinfection by chemical treatment @ @ autoclaving/micro-waving and mutilation/ s	Red Colored Non Chlorinated Plastic Bags
Category No. 8	Liquid Waste (waste generated from laboratory and washing, cleaning, house-keeping and disinfecting activities)	Disinfection by chemical treatment@ and discharge into drains.	Yellow colored Non Chlorinated Plastic Bags
Category No. 9	Incineration Ash (ash from incineration of any bio-medical waste)	disposal in municipal landfill	
Category No. 10	Chemical Waste (Chemicals used in production of biologicals, chemicals used in disinfection, as insecticides, etc.)	chemical treatment @ and discharge into drains for liquids and secured landfill for solids	Yellow colored containers or non-chlorinated plastic bags