HEALTH HOLDING

HAFER ALBATIN HEALTH CLUSTER
MATERNITY AND CHILDREN HOSPITAL

Department:	Infection Prevention and Control Department		
Document:	Multidisciplinary Policy and Procedure (MPP)		
Title:	Pest Control		
Applies To:	Public Health Department		
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1. PURPOSE:

1.1 To provide guidelines for coordinated efforts in addressing and controlling pest-related issues in the healthcare facility.

2. DEFINITONS:

2.1 Pest control is the process of managing and preventing pests, such as insects, rodents, and other animals, from causing damage to crops, buildings, and other areas.

2.2 Pest control program means measures to eradicate and contain common pests such as roaches, ants, mosquitoes, flies, rats, and mice.

3. POLICY:

3.1 The direct association of insects with disease transmission (apart from vector transmission) is small. However, prevention efforts are recommended.

3.2 It is important for staff responsible for overseeing environmental hygiene and safety in the hospital to regularly inspect all areas – including nonclinical areas – for any evidence of pests. This includes inspecting cracks, crevices, doors and windowsills where pests may access the building.

3.3 Pest Management Plan (PMP). This plan should include appropriate monitoring methods, a system for responding to infestations, proper notification of stakeholder groups, and preventive measures that are regularly practiced.

3.4 Appropriate training be given to all staff associated with hospital facilities regarding:Reporting signs of possible pest activity and Safely performing sanitation duties.

3.5 The type of chemical used for pest control in hospitals will depend on the type of pest and the severity of the infestation. Commonly used chemicals include insecticides, rodenticides, and insect growth regulators.

3.6 IP&C will monitor the staff working in Pest Control and those who are using pesticides for cholinesterase level. Should results be not satisfactory, then such cases will be subject for investigation and reporting by the IP&C Department.

4. PROCEDURE:

4.1 Maintain a Clean and Sanitary Environment

4.1.1 All areas where food and waste are handled or stored should be kept clean at all times. This includes kitchen surfaces, storage rooms for food, garbage cans and waste disposal areas.

4.1.2 Floors should also be swept regularly, as well as carefully mopped with a cleaning solution containing bleach or some other disinfectant.

4.1.3 Overall hospital premises should be kept clear of debris and clutter that can provide shelter for pests.

4.1.4 Regularly check the plumbing system on all levels of the hospital premises— each level poses a different degree of accessibility and vulnerability to pests.

4.1.5 Broken windows should also be addressed right away since they can act as openings into the facility for flying pests like mosquitoes and flies.

4.2 Implement Proper Waste Disposal
- 4.2.1 Store waste away from food sources and living areas.
- 4.2.2 Prevent leaking or spills of sugary liquids or other organic materials.
- 4.2.3 Provide secure trash receptacles with tight-fitting lids.
- 4.2.4 Ensure proper use of treated paper products (such as anti-microbial wipes).
- 4.2.5 Never dispose of food scraps into regular garbage bags or bins.
- 4.2.6 Securely store all trash outside in covered containers with tight-fitting lids on a regular basis until collection day.

4.3 Effective pest control management
- 4.3.1 Preventive measures
- 4.3.2 Proper sanitation for both patients and staff
- 4.3.3 Routine inspection of areas vulnerable to infestations
- 4.3.4 Prompt treatment when necessary
- 4.3.5 Ongoing maintenance activities

4.4 A Pest Control Committee may be organized composed of the Support Services Director, representative from IP&C, Pest Control Service supervisor, Housing Manager, Housekeeping Supervisor, and Pest Control subcontractor supervisor. The functions of this committee are as follow:
- 4.4.1 Discuss progress of pest control activities;
- 4.4.2 Monitor and evaluate pest control activities;
- 4.4.3 Solve problems facing pest control activities;
- 4.4.4 Point out deficiencies in pest control activities and recommends rectifications;
- 4.4.5 Discuss and rule on contractor's discrepancies.

4.5 Problem areas where pest control personnel must check frequently and spray under and behind to kill the pests effectively are:
- 4.5.1 Wall-side skirting is a possible breeding place for cockroaches.
- 4.5.2 Loose or missing door rubber gaskets are common hiding place for cockroaches.
- 4.5.3 Cabinets with closed base that are difficult to clean under where pests can hide.
- 4.5.4 Window ledges that help birds to nest and breed.

5. MATERIALS AND EQUIPMENT:

5.1 **Forms and Records:**
- 5.1.1 N/A

5.2 **Materials and Equipment**
- 5.2.1 N/A

6. RESPONSIBILITIES:

6.1 Pest Control Officer (PCO) shall schedule spraying upon receiving the information from the hospital areas.

6.2 Pest Control Officer shall submit the schedule of spraying to the Infection Control Department, Quality Department and Safety Department.

6.3 Pest Control Officer shall notify the area to be sprayed or give notice in advance for the scheduled spraying to give time for the hospital area to prepare before spraying is conducted.

7. APPENDICES:

7.1 Table 1 Pesticides

7.2 Table 2 Banned Pesticides

8. REFERENCES:

8.1 Best Practices for Pest Control in Hospitals. Mar 24, 2024. https://www.empirepestcontrol.my/blog/best-practices-for-pest-control-in-hospitals/

8.2 http://gdipc.org/wp-content/uploads/2018/07/The-GCC-Infection-Prevention-and-Control-Manual-3rd-Edition.pdf . 3rd Edition, 2018.

9. APPROVALS:

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7.1 Table 1 Pesticides

Organophosphate Pesticides		
Acephate	Ethyl parathion	Oxydemeton methyl
Azinphos-methyl	Eth ion	Phorate
Bensulide	Ethoprop	Phosalone
Cadusafos	Fenamiphos	Phosmet
Chlorethox os	Fenitrothion	Phosphamidon
Chlorpyrifos	Fenthion	Phostebupirim
Chlorpyrifos methyl	Fonofos	arathion
Chlorthiophos	Isazophos methyl	Profenofos
Coumaphos	Isofenphos	Propetamphos
Dialiflor	Malathion	Sulfotepp
Diazinon	Methamidophos	Sulprofos
Dichlorvos (DDVP)	Methidathion	Temephos
Dicrotophos	Meth I arathion	Terbufos
Dimethoate	Mevinphos	Tetrachlorvinphos
Dioxathion**	Monocrotophos	Tribufos (DEF)
Disulfoton	Naled	Trichlorfon

7.2 Table 2 Banned Pesticides

No.	Common Name of Active Ingredient	oral LD 50 (Rats)		Use	Reason for Banning
		Class	mg a.i/kg. Body wt		
1.	Aldrin	Class	38-67	Insecticide	High acute mammalian toxicity, persistence in the environment, possible human carcinogen.
2.	BHC, HCH (1,2,3,4,5,6-Hexachlorocyclohexane)	Class II		Insecticide	Carcinogenic to animals, persistence and bioaccumulation, adverse environmental effects.
3.	Camphochlor	Class	69	Insecticide	Risks for human and animal health and the environment, long persistence and bioaccumulation.
4.	Carbofuran	Class I, II	8	Soil Insecticide Nematicide	Acute inhalation toxicity, only liquid formulation to bebanned.
5.	Chlordane	Class	367-515	Termiticide	Carcinogenic to rodents, persistence and bioaccumulation in the environmental.
6.	Chlodrecone	Class	114-140	Insecticide	Carcinogenic to rodents, persistence and bioaccumulation in the environmental.
7.	DDT (Dichloro-Diphey trichloroethane)	Class I I I	113	Insecticide	Accumulation in humans, probably carcinogenic, persistence in the environment.
8	Demetion-0 + Demetion- S	Class I	2.5-6	Systemic Insecticide	High acute toxicityformanand animals.
9.	Demetion-S-methyl	Class i	30	Systemic Insecticide	High acute toxicityformanand animals
10.	Dichlorovos	Class	50	Insecticide	Not acceptable in public health formulations for use inside houses and other structures because of its probable carcinogenic and mutagenic effect, may only be used in small percentages in tablets or strips for insect pheromone traps.
11.	Dieldrin	CidSS	37-87	Insecticide	Persistence in the environmental.
12.	Disulfoton	ass	4	Sys. Insect/ Acaricide	High acute toxicity.
13.	Endosulfan	Class	22.7-160	Insecticide	High acute toxicity, high persistence and potential for bioaccumulation.
14.	Endrin	Class	7-15	Insecticide	High acute toxicity, Central Nervous System Depressant and hepatotoxin, no antidote.
15.	Ethyl Pyrophosphate (TEPP)	Class I	1.2-2	Insecticide	Very high acute toxicity to man ns animal, quickly absorbed through the skin, its vapors highly toxic.
16.	Flueythrinate	Class I	7	Insecticide	Causes damage to the eye, very toxic by oral route and absorption through the skin, harmful if inhaled, causes carcinogenic effects to humans.
17	Gamma HCH	Class	125	Insecticide	Persistence in the environment, Bioaccumulation in food and the human body, probably carcinogenic to man and there is evidence that it encourages the growth of tumors caused by other factors.

18.	Heptachlor	Class	147-220	ermiticide	Carcinogenic to rodents, persistence and environment contamination.
19	Kelevan			Insecticide	Superseded
20.	Leptophos	Class II	2.8	Insecticide	High acute toxicity, delayed meurotoxicity to humans and to laboratory animals.
21.	Methamidophos	Class		Insecticide	Highly toxic to mammals, there could always be health problems in misuse.
22.	Methomyl	Class	17-24	Insecticide	Highly toxic to man and animals, formulations to be banned.
23.	Methoxychlor	Class IV		Insecticide	Long residual action (long persistence), bioaccumulation.
24.	Mevinphos	Class I	-12	ystemic Insecticide	Poisonous if swallowed, inhaled or absorbed through the skin.
25.	Mirex	Class II	06	Insecticide	Persistence and bioaccumulation in food, superseded.
26.	Monocrotophos	Class	14	Systemic Insecticide	High acute toxicity by oral, dermal and inhalation routes causing life- threatening symptoms.
27.	Oxamyl	Class	.4	Oil Insecticide / Nematicide	Very high acute oral toxicity.
28.	Oxydemeton-methyl	Class	5-80	ystemic Insecticide	Highly toxic to man and animals.
29.	Oxydeprofos	Class il	1 00	ystemic Insecticide	Highly toxic to man and animals.
30.	Parathion	Class I		Insecticide	High acute toxicity by oral, dermal and inhalation routes causing life- threatening symptoms, classified as class C carcinogen.
31.	Parathion-methyl	Class I		Insecticide	Very high acute toxicity. STAMP
32.	Phosphamidon	Class I	17-30	Systemic Insecticide	Poisonous if swallowed, inhaled or absorbed through the skin.
33.	Schradan			Systemic Insecticide	Poisonous if swallowed, inhaled or absorbed through the skin superseded.
34.	Sodium Floride	Class	180	Insecticide	Very toxic to mammals and highly phytotoxic, used in insect baits and for timber reservation.
35.	Strobane	Class	220	Insecticide	Carcinogenic risk for humans, discontinued by manufacturing company.
36.	Telodrin	Class II		Insecticide	Superseded
37	Chlordimeform	Class	34	Acaricide	Probably human carcinogen.
38.	Chlorobenzilate	Class	2.784-3.880	Acaricide	A risk of cancer to human's males.
39.	Cyhexaine	Class	40	Acaricide	Tetratogenic effects in mammals.
40	Dicofol		s70-595	Acaricide	Potential bioaccumulation combined with persistence in the environment, may contain DDT as a contaminant (in the manufacturing process
41.	Benomyl	Class IV	10.000	Systemic fungicide Fungicide	Evidence of genetic disturbances and fetal defects, increase of tumor growth formed in laboratory mice by other factors. Probably carcinogenic to humans.
42.	Captafol	Class IV	50006000		
43.	Chlorothalonil	Class I, II	10.000	Fungicide	Chronic administration has been associated with tumor formation in the kidney and fore stomach of laboratory rats and mice.
44.	Hexachlorobenzene (HCB)	Class IV	40.000	Fungicide (seed dressing)	Carcinogenic to laboratory animals, persistence and bioaccumulation.
45.	Mancozeb	Class IV	5000	Fungicide	At high levels may cause birth defects in test animals, a trace contaminant and a degradation product (ethylenethiourea) causes thyroid effects, tumors and birth defects in laboratory animals, moreover, this fungicide has long withholding periods of about one month.
46.	Maneb	Class IV	7990	Fungicide	At high levels may cause birth defects in test animals, a trace contaminant and a degradation product (ethylenethiourea) causes thyrodeffects, tumors and birth defects in laboratorv animals
47.	Mercury Compounds (e.g. Phen I mercu acetate	CRoSSI	50-100	Fungicide & Herbicide	High acute toxicity, accumulation of residues in aquatic foods.
48.	Thiram	Class	1000	Fungicide	Combination of several severe chronic toxicity effects.