



10th February, 2020

To

The District Environmental Engineer,
Tamil Nadu Pollution Control Board
Kappalur
Madurai – 8


Dear Sir,

Sub: Annual report for Bio medical waste -Reg

We here with furnish the Annual report for Bio medical waste for the year 2019 in Form IV as per
BMW Rules-2016.

With warm regards,

for APOLLO SPECIALITY HOSPITALS – MADURAI,


Dr. ROHINI SRIDHAR
Chief Operating Officer



भारतीय डाक
RT757806053IN IVR:8284757806053
RL GANDHI NAGAR MA SO <625020>
Counter No:1,20/02/2020,13:39 India Post
To:DIST ENVIRONMENTAL POLLUTION CON
PIN:625008, Kappalur IndIestate SO
From:APOLLO,P.PALANIVEL GH-E
Wt:58gms
Amt:35.00(Cash)
(Track on www.indiapost.gov.in)

Apollo Speciality Hospitals, Lake View Road, K.K. Nagar, Madurai-625 020. Tele No. : (0452)2580892 - 94, 2581148 - 50
Fax : 91-452-2580199, Email : apollo_madurai@apollohospitals.com Emergency : (0452)2581111 / 1066

Registered Office : Apollo Hospitals Enterprise Limited, No. 19, Bishop Gardens, Raja Annamalaipuram, Chennai - 600 028.
Corporate Identity Number (CIN) : L85110TN1979PLC008035



**From -IV
(See rule 13)
Annual Report**

[To be submitted to the prescribed authority on or before 30th June every year for the period from January to December of the preceding year, by the Occupier of Health Care Facility (HCF) or common bio-medical waste treatment facility (CBWTF)]

Sl.No	Particulars																																																		
1.	Particulars of the Occupier																																																		
	(i) Name of the authorized person (occupier or operator of facility)		Dr. Rohini Sridhar, Chief Operating Officer																																																
	(ii) Name of HCF or CBMWTF		Apollo Speciality Hospitals, Madurai																																																
	(iii) Address for Correspondence		Lake View Road K.K. Nagar, Madurai - 625020																																																
	(i) Address of Facility		Lake View Road K.K. Nagar, Madurai - 625020																																																
	(ii) Tel. No. Fax. No.		9842981211																																																
	(V) E-mail ID		palanivel_p@apollohospitals.com																																																
	(i) URL of Website		www.apollohospitals.com																																																
	(ii) GPS coordinates of HCF of CBMWTF		----																																																
	(iii) Ownership of HCF of CBMWTF		M/s. Ramky Energy and Environment Ltd																																																
	(iv) Status of Authorization under the Bio-Medical Waste (Management and Handling) Rules.		AuthorizationNo.17BAC9587927Dated20/12/2017 Valid up to 31/03/2020																																																
	(v) Status of Consents under Water Act and Air Act.		Air & Water consent Order No: 1908122791075 Valid up to: 31/03/2020																																																
2.	Type of Health Care Facility		Speciality Hospitals																																																
	(i) Bedded Hospital		No. of Beds: 250																																																
	(ii) Non-Bedded Hospital (Clinic or Blood Bank or Clinical Laboratory or Research Institute or Veterinary Hospital or any other)		----																																																
	(iii) License number and its date of expiry.		AuthorizationNo.17BAC9587927Dated20/12/2017 Valid up to 31/03/2020																																																
3.	Details if CBMWTF		----																																																
	(i) Number healthcare facilities covered by CBMWTF		----																																																
	(ii) No. of beds covered by CBMWTF		----																																																
	(iii) Installed treatment and disposal capacity of CBMWTF		----																																																
	(iv) Quantity of biomedical waste treated or disposal by CBMWTF		----																																																
4.	Quantity of waste generated or disposed in Kg per annum (on monthly average basis)		Yellow category: 20787 KG Red Category: 27055 KG White: 1833 KG (Puncture proof container) Blue Category: 2929 KG General Solid Waste: ----																																																
5.	Details of the Storage, treatment, transportation, processing and Disposal Facility																																																		
	(i) Details of the on-site storage facility		Size : 8.75 feet x 6.00 feet Capacity: 50 sqft x 4 Rooms																																																
	(ii) Disposal Facilities		<table border="1"> <thead> <tr> <th>Type of treatment Equipment</th><th>No of Units</th><th>Capacity Kg/day</th><th>Quantity treated or disposed In Kg per Annum</th></tr> </thead> <tbody> <tr><td>Incinerators</td><td></td><td></td><td></td></tr> <tr><td>Plasma Paralysis</td><td></td><td></td><td></td></tr> <tr><td>Autoclaves</td><td></td><td></td><td></td></tr> <tr><td>Microwave</td><td></td><td></td><td></td></tr> <tr><td>Hydroclave</td><td></td><td></td><td></td></tr> <tr><td>Shredder</td><td></td><td></td><td></td></tr> <tr><td>Needle tip cutter or destroyer</td><td></td><td>----</td><td></td></tr> <tr><td>Sharps encapsulation or concrete pit</td><td></td><td>----</td><td></td></tr> <tr><td>Deep Burial pits:</td><td></td><td></td><td></td></tr> <tr><td>Chemical disinfection:</td><td></td><td>----</td><td></td></tr> <tr><td>Any other treatment equipment:</td><td></td><td></td><td></td></tr> </tbody> </table>	Type of treatment Equipment	No of Units	Capacity Kg/day	Quantity treated or disposed In Kg per Annum	Incinerators				Plasma Paralysis				Autoclaves				Microwave				Hydroclave				Shredder				Needle tip cutter or destroyer		----		Sharps encapsulation or concrete pit		----		Deep Burial pits:				Chemical disinfection:		----		Any other treatment equipment:			
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Chemical disinfection:		----																																																	
Any other treatment equipment:																																																			

	(iii) Quantity of recyclable wastes sold to authorized recyclers after treatment in kg per annum.	Red Category (like plastic, glass etc.)
	(iv) No of vehicles used for collection and transportation of biomedical waste.	----
	(v) Details of incineration ash and ETP sludge generated and disposal during the treatment of wastes in Kg per annum)	----
	(vi) Name of the Common Bio-Medical Waste Treatment Facility Operator through which wastes are disposed of	M/s. Ramky Energy and Environment Ltd.
	(vii) List of member HCF not handed over bio-medical waste.	----
6.	Do you have bio-medical waste management committee? If yes, attach minutes of the meetings held during the reporting period.	Yes Attached
7.	Detail trainings conducted on BMW	
	(i) Number of training conducted on BMW Management.	18
	(ii) Number of personnel trained	241
	(iii) Number of personnel trained at the time of induction	296
	(iv) Number of personnel not undergone any training so far.	----
	(v) Whether standard manual for training is available ?	Available
	(vi) Any other information)	----
8.	Details of the accident occurred during the year	Nil
	(i) Number of Accidents occurred	----
	(ii) Number of the persons affected	----
	(iii) Remedial Action taken (Please attach details if any)	----
	(iv) Any Fatality occurred, details.	----
9.	Are you meeting the standards of air Pollution from the incinerator?. How many times in last year could not met the standards?	----
	Details of Continuous online emission monitoring systems installed	----
10.	Liquid waste generated and treatment methods in place. How many times you have not met the standards in a year.	We have 100 KLD STP
11.	Is the disinfection method or sterilization meeting the log 4 standards? How many times you have not met the standards in a year?	----
12.	Any other relevant information	----

Certified that the above report is for the period from January/2019 to December/2019



Name and Signature of the Head of the Institution


Date: 10/02/2020


Place: Madurai

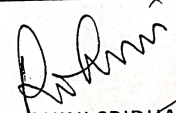


APOLLO SPECIALITY HOSPITALS, MADURAI
BIOMEDICAL WASTE - 2019
YEARLY STATEMENT

MONTH	RED	YELLOW	White (SHARP)	BLUE	TOTAL
JANUARY	2264.3	1674.3	145.5	252.5	4336.6
FEBRUARY	2062	1527	137.3	211.9	3938.2
MARCH	2245.9	1695.2	145.5	238.75	4325.35
APRIL	2180.8	1710.8	141.6	232.8	4266
MAY	2336.1	1794.8	153.5	247.9	4532.3
JUNE	2277.5	1774.1	155.8	241.1	4448.5
JULY	2331.04	1792.6	172.1	252.05	4547.79
AUGUST	2291.8	1711.9	158.5	249.5	4411.7
SEPTEMBER	2200.4	1719.5	15.1	237.8	4308.8
OCTOBER	2248.15	171.3	163.9	244.8	4428.15
NOVEMBER	2273	1757.2	145.2	256.8	4432.2
DECEMBER	2344.7	1859.1	163.7	263.7	4631.2
Total	27055.69	20787.8	1833.7	2929.6	52606.79
Per Month Avarage	2254.64	1732.32	153	244.13	4383.90
Per Day Avarage	75	57.74	5.09	8.14	146.13


G. Saranam Iyappa
Housekeeping - Officer


P. PALANIVEL
General Manager - Engineering


Dr. ROHINI SRIDHAR
Chief Operating Officer

MINUTES OF THE MEETING

Topic : Infection Control Committee Meeting
Date : 20th February 2019
Time : 03:30 to 4:30 p.m.
Venue : Mini Conference Hall @ Apollo Speciality Hospitals, Madurai

1. Microbiology

Points	Discussion	EDC	Responsibility
Diagnosis of invasive Fungal Infections	Send tissue samples for histopathology, to look for tissue morphology & angio invasion		Consultants

2. Infection Control

Points	Discussion	EDC	Responsibility
Does any Special precautions is required for handling seropositive patients?	To follow standard precautions for all patients whether positive or not.	w.i.e.	Consultants Nursing
Needle cutter change	To continue using the same needle cutter with the tray		Nursing
Fogging	<ul style="list-style-type: none"> Currently Microgen D125 stock is not available. Hence bacillocid is being used. Materials dept to arrange an alternative solution which will be tested before purchase 		ICN Housekeeping
Strengthening of Infection control Bundle monitoring	<p>No device associated infections have been reported in the past 6 months.</p> <p>Bundles have to be more closely monitored to help pick up missed infections.</p>	w.i.e.	Nursing supervisor In charges Staffs ICN's

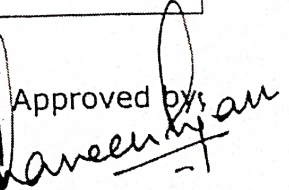
	Consultants to follow up device associated infections		
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3. Pharmacy

Points	Discussion	EDC	Responsibility
Data on antibiotic consumption	<ul style="list-style-type: none"> To present year wise comparative data of consumption of HEA. To present drug specific comparative data for the past 3 years. To use actual monthly figures instead of averages. Share data with the consultants 		Dr.Vinoth Mr.Ananth
RCA	<ul style="list-style-type: none"> For the increase of HEA usage in November 2018 As to why cultures were not done for some patients. Why patients who were not supposed to be given antibiotics were prescribed them. 		ICN
De-escalation	<ul style="list-style-type: none"> To look for more opportunities for de-escalation 		Mr.Anandh
Carbapenam resistant Klebsiella	<ul style="list-style-type: none"> Genotyping to be attempted to isolate the strain causing infections. 		Microbiology

Prepared by,



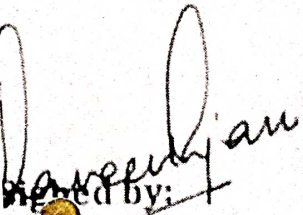
Approved by


Hospital name: Apollo Speciality Hospitals, Madurai

Hand Compliance		Monitoring has to be strengthened.	Ms. Emy & Ms. Suganthi	w.i.e.
Diphtheria Vaccination		All staff in Critical Care areas including emergency, Paediatric & Neonatal OPD and Paediatric OPD have to be vaccinated for Diphtheria	Dr. Praveen Rajan	w.i.e.
OT Instruments		All instruments that can be autoclaved should not be dipped in cidex for sterilization.	Mr. Marisamy	w.i.e.

General comments (if any):

VII


 Signed by:
 (Chairperson)

DRAFT

MINUTES OF THE MEETING

Topic : Infection Control Committee Meeting
 Date : 31st May 2019
 Time : 10.50 to 12.00 p.m.
 Venue : Mini Conference Hall @ Apollo Speciality Hospitals, Madurai

1. Microbiology

Points	Discussion	EDC	Responsibility
	Fosfomycin to be included in the antibiotic media in cases with multi drug resistant, Ecoli, Klebsiella		Dr. Meenachi
	Urine isolates to be intimated to all clinicians		Ms. Emy Ms. Suganthi Dr. Praveen

2. Infection Control

Points	Discussion	EDC	Responsibility
HAI	Detail of the infected patient RCA to be included in the presentation	w.i.e.	ICN
BLOOD CULTURE	Need to mention the site in the culture bottle -peripheral & central line		Nursing
SCREEN POLICY	Needs to be redefined		ICN Housekeeping
HAND HYGIENE AUDIT	5 moments data to be separately mentioned Moments to be increased	w.i.e.	ICN QUALITY

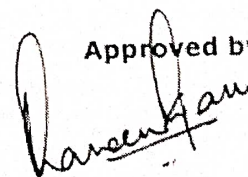
3. Pharmacy

Points	Discussion	EDC	Responsibility
Data on antibiotic consumption	Antibiotic sensitivity analysis pattern to be circulated to all consultants		Dr.Vinoth Mr.Ananth ✓

Prepared by,



Approved by,



Hospital name: Apollo Speciality Hospitals, Madurai



MEETING MINUTES

Committee Name:	Infection Control Committee		
Date of Meeting:	29.08.19	Time:	
Location:	Madurai	Start:	12.30 p.m.
Minutes Prepared By:	Kevin William – Quality	End:	01.30 p.m.
Presided by:	Dr. Senthur Nambi		

1. Attendance at Meeting (add rows as necessary)

Dr. Senthur Nambi, Infectious Diseases	Dr. Vinothkumar, Pharmacy
Dr. K. Praveen Rajan, ADMS	Mr. Anand, Pharmacy
Dr. Usha Rani, Lab Services	Ms. Joy, Nursing
Dr. Bennet, General Surgery	Ms. Emy, Infection Control
Dr. Ram Murugan, Microbiology	Ms. Suganthi, Infection Control
Dr. Padma Prakash, ICU	Ms. Krishnaveni, Lab Services
Dr. Muthu, CCU	Mr. Saranam Iyyappa, Housekeeping
Dr. Harikrishnan, Pulmonology	Dr. Kevin, Quality
Dr. Meenatchi, Microbiology	

2. Meeting Agenda

Infection Control Quality Indicators Review
Microbiology Data Review
Antibiotics Data Review

Previous meeting discussions/ follow ups (if any):

Curtains Policy

Hospital name: Apollo Speciality Hospitals, Madurai

4. Action Items/ Decision tracker (add rows as necessary)

Key Issues Discussed	Root Cause Identified	Agreed Action/ Decision	Assigned To/ Responsibility	Due Date	Follow up/ Status
To scrap Widal Testing		To discuss with Physicians	Dr. Praveen Rajan		
De-escalation of Antibiotics		To test the samples for lower end antibiotics	Dr. Ram Murugan	w.i.e.	
Refrigeration of Urine Samples		All urine samples have to be refrigerated as soon as they have been collected. Any delay will lead to inappropriate results	Mr. Robin	w.i.e.	
Creatinine Clearance Monitoring		To try and widen the scope of dose adjustment based on creatinine clearance to include non antibiotics	Dr. Vinothkumar		
Culture and Sensitivity		The current data has to be incorporated into the Culture and Sensitivity pattern chart	Dr. Vinothkumar	w.i.e.	
Antibiotic Chart / Susceptibility Pattern		All antibiotic charts, susceptibility patterns to be made available on all desktops for easy viewing	Dr. Kevin	w.i.e.	
Change of curtains		All curtains in critical care areas including emergency have to be changed at least once weekly	Mr. Saranam Iyyappa	w.i.e.	
Hand Hygiene Monitoring		Monitoring has to be improved	Ms. Emy & Ms. Suganthi	w.i.e.	

Hospital name: Apollo Speciality Hospitals, Madurai



Bundle Compliance	Monitoring has to be strengthened.	Ms. Emy & Ms. Suganthi	w.i.e.
Diphtheria Vaccination	All staff in Critical Care areas including emergency, Paediatric & Neonatal OPD and Paediatric OPD have to be vaccinated for Diphtheria	Dr. Praveen Rajan	w.i.e.
OT Instruments	All instruments that can be autoclaved should not be dipped in cidex for sterilization.	Mr. Marisamy	w.i.e.

General comments (if any):

Nil

Signed by:

(Chairperson)

Hospital name: Apollo Speciality Hospitals, Madurai



MEETING MINUTES

Committee Name:	Infection Control Committee		
Date of Meeting:	26.11.19	Time:	
Location:	Conference Hall	Start:	12.30 p.m.
Minutes Prepared By:	Kevin William - Quality	End:	01.30 p.m.
Presided by:	Dr. Senthur Nambi		

1. Attendance at Meeting (add rows as necessary)

Dr. Senthur Nambi, Infectious Diseases	Dr. Vinothkumar, Pharmacy
Dr. K. Praveen Rajan, ADMS	Mr. Anand, Pharmacy
Dr. Usha Rani, Lab Services	Ms. Joy, Nursing
Dr. Bennet, General Surgery	Ms. Emy, Infection Control
Dr. Ram Murugan, Microbiology	Ms. Suganthi, Infection Control
Dr. Padma Prakash, ICU	Ms. Krishnaveni, Lab Services
Dr. Muthu, CCU	Mr. Saranam Iyyappa, Housekeeping
Dr. Harikrishnan, Pulmonology	Dr. Kevin, Quality
Dr. Meenatchi, Microbiology	

2. Meeting Agenda

Infection Control Quality Indicators Review
Microbiology Data Review
Antibiotics Data Review

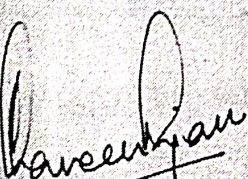
3. Previous meeting discussions/ follow ups (if any):

Curtains Policy

4. Action Items/ Decision tracker (add rows as necessary)

Key Issues Discussed	Root Cause Identified	Agreed Action/ Decision	Assigned To/ Responsibility	Due Date	Follow up/ Status
Cumulative report of Antibioqram	To know by the consultant	To be circulated once in every 3 months to the consultants. To be displayed in OT, Emergency, ICU, DMO's room, common notice board	Mr.Ananth	Next quatar	
Culture and Sensitivity		to be circulated to the Consultants.	Dr. Vinothkumar	Jan 2020	
Surgical site Infection	To reduce SSI	Betterment to decrease the SSI. To check with the devices for infection	ALL consultant & nurses	Dec-2019	
Hand Hygiene Monitoring	To improve the analysis	Analysis of non-compliance moments	Ms. Emy & Ms. Suganthi	w.i.e.	
Closed suction	To prevent aspiration	Policy – to be followed for all patients(no incident after 48 hrs)	Ms.Emy& Ms.Suganthi Critical care & Emergency team.	w.i.e	
Slide – To be more simplified.		. To pick the top 4 pathogenesis			

General comments (if any):

Nil


Signed by:

(Chairperson)