

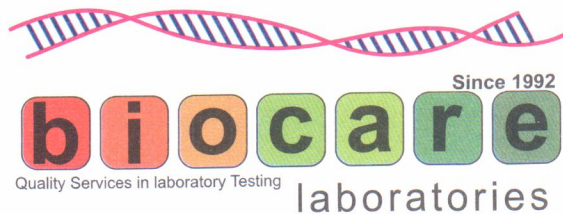


Biocare Research (India) Pvt. Ltd.

CIN : U73100GJ2001PTC39201

Accreditation : AN ISO 9001 : 2008 Laboratory
AN ISO/IEC 17025 : 2005 NABL
(Industrial Testing Laboratory)

Recognised by : Gujarat University, Ahmedabad.



Corporate Office :- Biocare Research (I) Pvt. Ltd., 1st Floor, Kanth Complex, Nr. Mahavir Jain Vidyalaya, Paldi Cross Road, Ahmedabad-380 007.
Telefax : (079) 26577901, 26577903. Email : info@biocareindia.com Website : www.biocareindia.com

Study Details

- Trial Date : 03/04/2018 at 5pm.
- Trial Venue : GCS Medical College, Hospital and Research Center, OPP BRM Office, Near Chamunda Bridge, Naroda Road, Ahmedabad.
- Study Site : GCS Medical College, Hospital and Research Center, OPP BRM Office, Near Chamunda Bridge, Naroda Road, Ahmedabad.Gujarat, India
- Trial method : Use of Airborne disinfection device YANTRA 05 and VIROSIL PHARMA Disinfectant
- Trial purpose : To study disinfection efficacy of airborne disinfection device **YANTRA 05 with VIROSIL PHARMA** in operation theatre environment for air and surface disinfection.
- OT Details : OT 07 , ENT OT Complex, ENT OT
- Equipment Used : **YANTRA 05**
AIR BORNE DISINFECTANT MACHINE
Nebulizes H₂O₂ + silver solution in vapor form
Make: Radiant Enterprise, India.
- Fogging Disinfectant Used : VIROSIL PHARMA, Product of SANOSIL BIOTECH, MUMBAI
Diluted solution of 10% H₂O₂ and silver.
- Total 800ML solution = 400ml VIROSIL PHARMA solution + 400ml of DM water
- Solution consumed per 1000cuft : 200ml / 1000cuft.
- Solution consumed per M³ : 7ml /M³
- Disinfection Treatment room size in CUFT : 4000 cuft (area size 400 sq ft x 10ft height)





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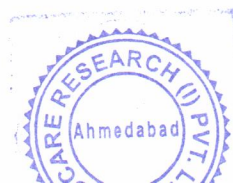
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Disinfection : 114 M3 (Area size 38M2 x 3 Meter Height)
Treatment room
size in M3

Yantra 05 duration : 13 minutes
of operation

Operation theatre was pre cleaned and mopped with hospital approved cleaning agents and disinfectants before the airborne disinfection trial was conducted.

- Observations :
1. AIR SAMPLING AND SWABBING WAS CARRIED OUT BEFORE TREATMENT STARTED.
 2. AIR SAMPLING WAS CARRIED OUT BY SETTLE PLATE METHOD
 3. SPECIFIED MEDIA PLATES PLACE IN CENTER OF THE AREA FOR 15 MINUTES. PUT THE LID TO PLATES AND SEND TO LABORATORY FOR FURTHER TESTING.
 4. SWAB SAMPLES WERE COLLECTED FROM VARIOUS SURFACES IN 5X5 cm² AREAS.
 5. TAKE STERILIZED SWABS AND DIP IN NON NUTRITIVE MEDIA.
 6. STREAK THE SWAB IN CLOSE PARALLEL AND PERPENDICULAR SWEEPS OVER DEFINED SAMPLING AREA.
 7. IN LABORATORY, VORTEX THE SWAB AND MAKE SERIAL DILUTION.
 8. INOCULATE DIFFERENT MEDIA ACCORDING TO TESTS.
 9. NO MEDICAL OR ELECTRONIC EQUIPMENT WAS REQUIRED TO COVER DURING THE TREATMENT.
 10. YANTRA 05: AN AIRBORNE DISINFECTION GENERATOR OF H₂O₂ VAPOR KEPT IN ONE FIXED LOCATION ENSURED UNIFORM SPREAD OF DRY VAPOR OG HUWASAN TR 25 ACROSS THE SPACE 4000 CUFT/114M3.
 11. 06 NOS H₂O₂ DETECTION STRIPS PLACED IN VARIOUS CORNERS, DIFFICULT TO ACCESS AREAS OF OT CHANGED ITS COLOR POST DISINFECTION TREATMENT CERTIFYING UNIFORM SPREAD OF H₂O₂ VAPOR ACROSS THE SPACE AND SURFACES.





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12. DISINFECTANT CONSUMED 7ML./M3 OR 200ML./1000CUFT COMPLIES TO INTERNATIONAL NORMS FOR AIRBORNE DISINFECTION DEVICES AND PROCESS.
13. AT END OF YANTRA 05 OPERATION, OT WAS SEALED AND CLOSED FOR 01 HOUR.
14. AT THE END OF PROCEDURE NO WETNESS OF ON FLOOR, WALLS, MEDICAL EQUIPMENTS, OT LIGHTS, ELECTRONIC EQUIPMENT WAS OBSERVED.
15. AIR SAMPLING AND SWABBING WAS CARRIED OUT 1 hour After Treatment was carried out.
AIR SAMPLING WAS CARRIED OUT BY SETTLE PLATE METHOD
SWAB SAMPLES WERE COLLECTED FROM VARIOUS SURFACES IN 5X5 cm² AREA.
16. SAMPLING WAS DONE AS PER OBSERVATION 2-8.

Conclusions

:

THE STUDY SHOWS FOLLOWING OUTCOMES.

1. The pre and post culture results show that there was decrease in microbial load.
2. The combination of airborne disinfection device YANTRA 05 and VIROSIL PHARMA were useful reducing microbial load on surfaces and air very effectively, when used after pre cleaning and mopping of surfaces.
3. Such method offers many additional benefits and safety which can not be achieved alone by manual mopping and wiping.





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TEST REPORT

Test Description : Air Microbial Monitoring
Method : Settled plate
Test site : GCS Medical College, Hospital and Research Center,
OPP BRM Office, Near Chamunda Bridge, Naroda Road,
Ahmedabad.
Test area : OT 7 (Pre Fumigation)
Ref. No. : Ind/18-19/003AA
Date of Testing : 03/04/2018
Date of Report : 09/04/2018
Report status : Final
Result :

S. No.	Test Parameter	Result Obtained CFU/ cm ³ /Plate	
		Pre Fumigation Count	Post Fumigation Count
01	Aerobic Microbial Count	01 cfu	<01 cfu
02	Yeast & Mould Count	01 cfu	<01 cfu
03	<i>E.coli</i>	<01 cfu	<01 cfu
04	<i>Pseudomonas spp.</i>	<01 cfu	<01 cfu
05	<i>S.aureus (Coag. +Ve)</i>	<01 cfu	<01 cfu
06	<i>Staphylococcus spp. (Coag. -Ve)</i>	<01 cfu	<01 cfu
07	<i>Bacillus spp.</i>	<01 cfu	<01 cfu

Remarks:




(Dr. Dilip Zaveri)
Consultant Clinical Microbiologist



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TEST REPORT

Test Description : Surface Hygiene Monitoring
Method : Swab from surface
Test site : GCS Medical College, Hospital and Research Center,
OPP BRM Office, Near Chamunda Bridge, Naroda Road,
Ahmedabad.
Swab Collection area : OT 7 (Pre Fumigation)
Swab Collection site : PATIENT'S TABLE
Size of sampling : 5 X 5 cm
Ref. No. : Ind/18-19/003AB1
Date of Testing : 03/04/2018
Date of Report : 09/04/2018
Report status : Final
Result :

S. No.	Test Parameter	Result Obtained CFU/ cm ³ /Swab	
		Pre Fumigation Count	Post Fumigation Count
01	Aerobic Microbial Count	01 cfu	<01 cfu
02	Yeast & Mould Count	<01 cfu	<01 cfu
03	<i>E.coli</i>	<01 cfu	<01 cfu
04	<i>Pseudomonas spp.</i>	<01 cfu	<01 cfu
05	<i>S.aureus</i> (Coag. +Ve)	<01 cfu	<01 cfu
06	<i>Staphylococcus spp.</i> (Coag. -Ve)	<01 cfu	<01 cfu
07	<i>Bacillus spp.</i>	01 cfu	<01 cfu

Remarks:



[Signature]

(Dr. Dimp Zaveri)
Consultant Clinical Microbiologist



TEST REPORT

Test Description : Surface Hygiene Monitoring
Method : Swab from surface
Test site : GCS Medical College, Hospital and Research Center,
OPP BRM Office, Near Chamunda Bridge, Naroda Road,
Ahmedabad.
Swab Collection area : OT 7 (Pre Fumigation)
Swab Collection site : OT LIGHTS
Size of sampling : 5 X 5 cm
Ref. No. : Ind/18-19/003AB2
Date of Testing : 03/04/2018
Date of Report : 09/04/2018
Report status : Final
Result :

S. No.	Test Parameter	Result Obtained CFU/ cm ³ /Swab	
		Pre Fumigation Count	Post Fumigation Count
01	Aerobic Microbial Count	<01 cfu	<01 cfu
02	Yeast & Mould Count	<01 cfu	<01 cfu
03	<i>E.coli</i>	<01 cfu	<01 cfu
04	<i>Pseudomonas spp.</i>	<01 cfu	<01 cfu
05	<i>S.aureus</i> (Coag. +Ve)	<01 cfu	<01 cfu
06	<i>Staphylococcus spp.</i> (Coag. -Ve)	<01 cfu	<01 cfu
07	<i>Bacillus spp.</i>	<01 cfu	<01 cfu

Remarks:



[Signature]
(Dr. Dilip Zaveri)
Consultant Clinical Microbiologist



TEST REPORT

Test Description : Surface Hygiene Monitoring
Method : Swab from surface
Test site : GCS Medical College, Hospital and Research Center,
OPP BRM Office, Near Chamunda Bridge, Naroda Road,
Ahmedabad.
Swab Collection area : OT 7 (Pre Fumigation)
Swab Collection site : SUCTION
Size of sampling : 5 X 5 cm
Ref. No. : Ind/18-19/003AB3
Date of Testing : 03/04/2018
Date of Report : 09/04/2018
Report status : Final
Result :

S. No.	Test Parameter	Result Obtained CFU/ cm ³ /Swab	
		Pre Fumigation Count	Post Fumigation Count
01	Aerobic Microbial Count	TNTC*	75 cfu
02	Yeast & Mould Count	50 cfu	25 cfu
03	<i>E.coli</i>	<01 cfu	50 cfu
04	<i>Pseudomonas spp.</i>	TNTC cfu*	<01 cfu
05	<i>S.aureus (Coag. +Ve)</i>	<01 cfu	<01 cfu
06	<i>Staphylococcus spp. (Coag. -Ve)</i>	TNTC cfu*	<01 cfu
07	<i>Bacillus spp.</i>	50 cfu	<01 cfu

*TNTC = Too Numerous To Count

Remarks:



(Dr. Dilip Zaveri)
Consultant Clinical Microbiologist



TEST REPORT

Test Description : Surface Hygiene Monitoring
Method : Swab from surface
Test site : GCS Medical College, Hospital and Research Center,
OPP BRM Office, Near Chamunda Bridge, Naroda Road,
Ahmedabad.
Swab Collection area : OT 7 (Pre Fumigation)
Swab Collection site : INSTRUMENT TROLLEY
Size of sampling : 5 X 5 cm
Ref. No. : Ind/18-19/003AB4
Date of Testing : 03/04/2018
Date of Report : 09/04/2018
Report status : Final

Result :

S. No.	Test Parameter	Result Obtained CFU/ cm ³ /Swab	
		Pre Fumigation Count	Post Fumigation Count
01	Aerobic Microbial Count	<01 cfu	<01 cfu
02	Yeast & Mould Count	<01 cfu	<01 cfu
03	<i>E.coli</i> & <i>Klebsiella</i>	<01 cfu	<01 cfu
04	<i>Pseudomonas spp.</i>	<01 cfu	<01 cfu
05	<i>S.aureus</i> (Coag. +Ve)	<01 cfu	<01 cfu
06	<i>Staphylococcus spp.</i> (Coag. -Ve)	<01 cfu	<01 cfu
07	<i>Bacillus spp.</i>	<01 cfu	<01 cfu

*TNTC=To numerous to count

Remarks:



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TEST REPORT

Test Description : Surface Hygiene Monitoring
Method : Swab from surface
Test site : GCS Medical College, Hospital and Research Center,
OPP BRM Office, Near Chamunda Bridge, Naroda Road,
Ahmedabad.
Swab Collection area : **OT 7**(Pre Fumigation)
Swab Collection site : FLOOR
Size of sampling : 5 X 5 cm
Ref. No. : Ind/18-19/003AB5
Date of Testing : 03/04/2018
Date of Report : 09/04/2018
Report status : Final
Result :

S. No.	Test Parameter	Result Obtained CFU/ cm ³ /Swab	
		Pre Fumigation Count	Post Fumigation Count
01	Aerobic Microbial Count	<01 cfu	<01 cfu
02	Yeast & Mould Count	<01 cfu	<01 cfu
03	<i>E.coli</i>	<01 cfu	<01 cfu
04	<i>Pseudomonas spp.</i>	<01 cfu	<01 cfu
05	<i>S.aureus</i> (Coag. +Ve)	<01 cfu	<01 cfu
06	<i>Staphylococcus spp.</i> (Coag. -Ve)	<01 cfu	<01 cfu
07	<i>Bacillus spp.</i>	<01 cfu	<01 cfu

Remarks:



(Dr. Dilip Zaveri)
Consultant Clinical Microbiologist