

Central Sterile Supply Department
TATA MEDICAL CENTER
KOLKATA

Last 10 years
Achievements and Performance

Separate Air Holding Unit

- Separate AHU only for CSSD
- The unit is 20 tons
- Filters are 5 and 10 microns
- No air mix
- Air exchange rate 20 per hour
- Air velocity above 3000 CFM



Electro de-ionized and double Reverse Osmosis system

- Separate Double R/O and EDI plant only for CSSD purposes
- Water TDS is always below 10 PPM.



Monthly water quality monitoring



Name of the places	Chlorine Level (ppm)	TDS (ppm)	Total aerobic colony count per 100 ml	Nature of Colony	Pseudomonas	Coliforms
CSSD Double RO	0.48	2	0 cfu	NA	Not Found	Not Found
CSSD Single RO	0.41	55	0 cfu	NA	Not Found	Not Found
CSSD Hand Hygiene	0.40	56	0 cfu	NA	Not Found	Not Found
Negative Control	--	--	0 cfu	--	Not Found	Not Found

Quarterly air quality monitoring



se were done on Blood Agar for bacterial counts & Sabouraud Dextrose Agar media for fungal counts
sently, report is satisfactory. We will do same again after 3 months (July, 2021).

Location	Bacterial Counts (Cfu)	Nature of Bacterial Colony	Fungal Counts (Cfu)		Fungal Counts (Cfu)		Fungal Lacto phenol Cotton Blue Staining Report	Remarks
	Day 2		Day 2		Day 5			
CSSD Pass box	17	GPC colonies are found.	25° C	37° C	25° C	37° C	Not Applicable	Satisfactory
			0	0	0	0		
CSSD Sterile shelf	25			0	0	0		0

- Cfu: colony forming unit
- Testing area: CSSD Sterile shelf near & in front of pass box
- Time of settle plate exposure: 4 hours
- Incubation Time: 48 hours for bacteria & 120 hours for fungus.
- Temp of incubation: 37° C for Blood Agar media ; 37° C & 25° C for SDA media
- Standard: <50 cfu
- Date & time of test: 9th April, 2021 (11.30 am to 3.30 pm)
- Final Reporting Date :14th April, 2021
- Tests done and reported by : Satyam Mukherjee
- Reported to: Dr. Sanjay Bhattacharya: Microbiology Consultant

Sterility testing in Microbiology

(Sample report)

Lab no	CSSD/13/190
Sample received on	06/12/21
Specimen type	STEEL CUP
Department	CSSD
Media used	Blood Agar plate
Date of collection	NA
Date of expiry	NA
Incubation type and temperature	Aerobic and 37°C
Result after 5 days of incubation	No growth
Report	No growth after 72 hrs. of aerobic incubation.
Status	Final
Reporting Date	09/12/21



Computerized instrument count sheet

(Check list)

CENTRAL STERILE SUPPLY DEPARTMENT				
BREAST SET - 5/6 [AESCULAP BOX]				
SL NO	CAT NO	DESCRIPTION	Qty	REMARKS
1	SISCO	RAMPLEYS SPONGE HOLDER	2	
2	SISCO	ROUND BOWL	2	
3	SISCO	KIDNEY TRAY	1	
4	AS15-801-13	TOWEL CLIP	6	
5	EA031R	BABCOCK	2	
6	AS15-766-19	ALLIS FORCEPS	2	
7	AS13-152-15	GILLIS TISSUE FORCEPS	2	
8	AS13-208-20	DEBAKEY FORCEPS	1	
9	AS13-208-16	DEBAKEY FORCEPS	1	
10	AS13-204-20	DEBAKEY FORCEPS	1	
11	BC277R	METZENBAUM SCISSORS	1	
12	AS12-211-18	TC METZENBAUM SCISSORS (FINE TIP)	1	
13	AS12-733-23	SUTURE SCISSORS	1	
14	SISCO	MAYO SCISSORS	1	
15	AS15-069-14	MOSQUITO CVD	2	
16	BH207R	HEISS DELICATE ARTERY FORCEPS	5	
17	BJ102R	GEMINI CLAMP RIGHT ANGLE	1	
18	AS18-002-16	NEEDLE HOLDER	1	
19	BM077R	TC HEGAR NEEDLE HOLDER	1	
20	AS-16-063-18	CZERNIES RETRACTOR 2	2	
21	AS-16-025-01	LANGENBACK RETRACTOR	2	
22	AS16-139-01	CATS PAW	2	
23	AS35-078-01	LANDEN RETRACTOR	1	
24	AS16-253-26	MASTOID RETRACTOR	1	
25	AS16-253-20	MASTOID RETRACTOR	1	
26	SISCO	BP-HANDLE NO 3	2	
27	BB084	BP HANDLE NO 4	1	
28	BHF10C	MOSQUITO	4	
29		KIDNEY DISH	1	
TOTAL			51	
COMMENTS:				

- Count sheet is required for surgical instruments counting
- Individual instrument category number helps for easy finding of instruments

Software for surgical set tracking

CSSD software in HMS

Set master

Item master

Set item link

Sterilizer master

Set sterilization

Set issue

Set receipt

Breakage loss details

Set sterilization list report

Set issue list report

Set recall list report



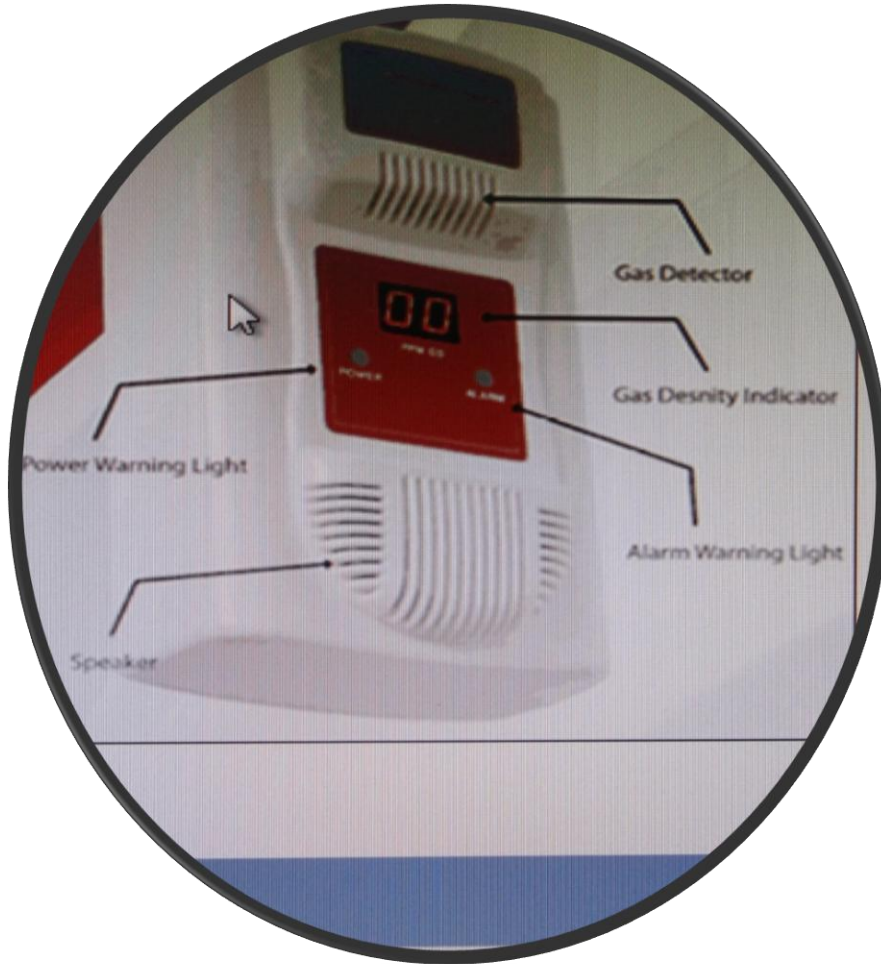
Ultrasonic cleaner testing and ATP monitoring system



- Special apparatus for measuring vibration in Ultrasonic cleaner

- Luminometer: ATP test for cleaning monitoring purposes

Ethylene oxide gas detector



- EO is a poisonous, carcinogenic and mutagenic gas
- Required gas detector for safety to HCW and patients
- Alarm starts from ≥ 1 ppm

Daily equipment monitoring system

Process ↓ Monitors →	PHYSICAL (Frequency)	CHEMICAL (Frequency)	BIOLOGICAL (Frequency)	HPCD/ OTHERS (Frequency)
Decontamination With Ultrasonic Cleaner	Frequency tester	N/A	N/A	Aluminum Foil Testing
Decontamination With Washer Disinfector	Manual System (Each Cycle)	One indicator in every cycle	N/A	N/A
Steam Sterilization	Automatic Printouts (Every Cycle) Leak test: Every week	Class I :Every Pack Class II :Once a day Class IV :Each pack Class V :Each Pack	<u>Geo bacillus</u> <u>stearothermophilus</u> Once in a day. (For implant every cycle)	Every Cycle
EO Sterilization	Automatic Printouts (Every Cycle)	Class I :Every Pack Class IV :Each Pack	<u>Bacillus atrophaeus</u> Every Cycle	Every Cycle
N/A	Automatic Printouts (Every Cycle)	Class I :Every Pack Class IV : Each Pack	<u>Geo bacillus</u> <u>stearothermophilus</u> Once in a day.	N/A
Sealing	N/A	Seal Check Methylene Blue test (weekly)	N/A	N/A

Develop policy

Serial number	Name of different records
1	Record retention policy
2	Single Used Device policy
3	Re-call policy
4	Surgical instruments handover policy
5	Separate instruments handover policy
6	Policy for OT-CSSD in different floor (for new 2 OTs)

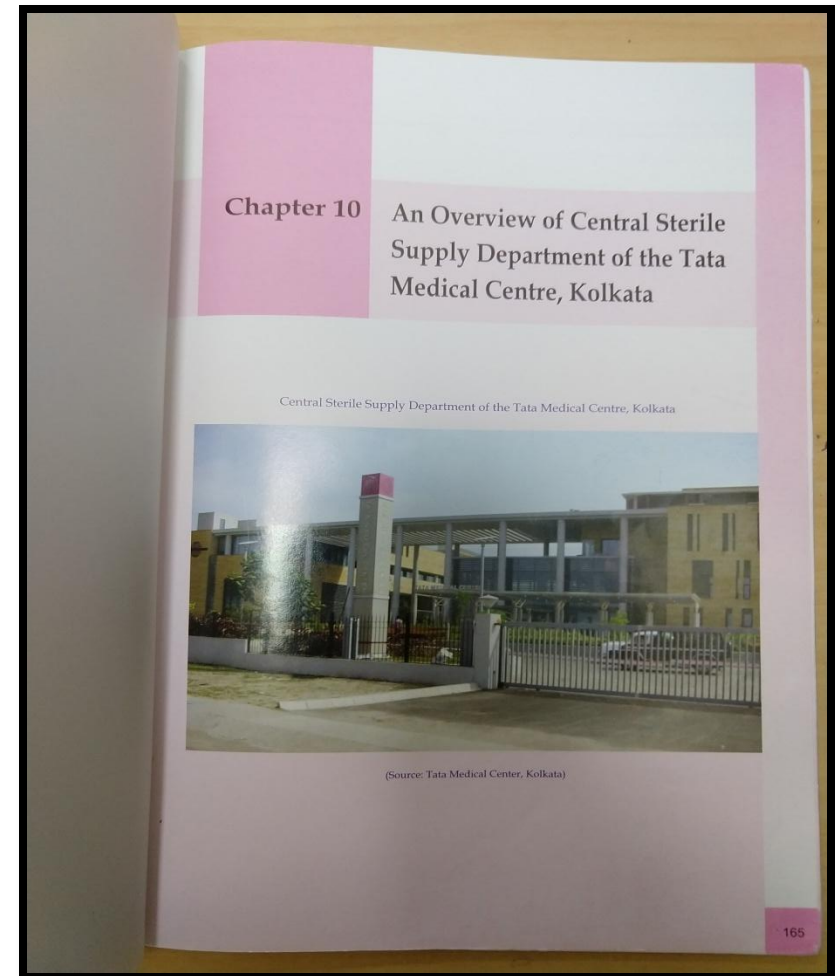
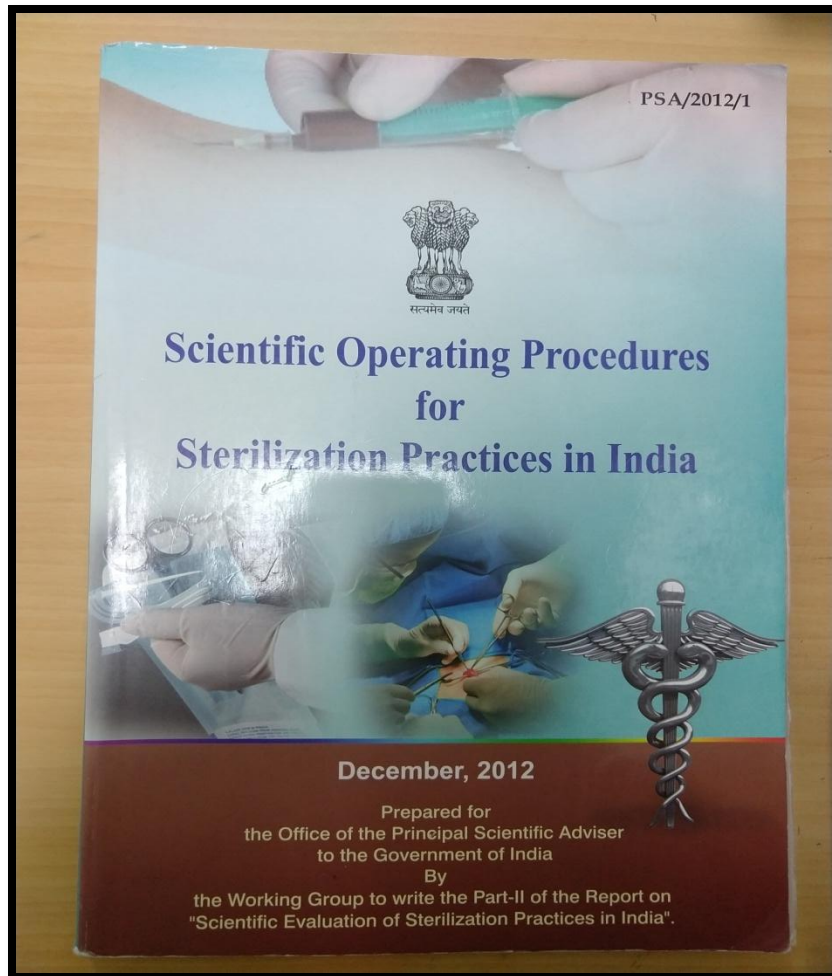
Quality indicators

- | | |
|---|--|
| 1) Air microbiology testing (Quarterly) | 7) Number of Re-call items (Monthly) |
| 2) Water chlorine and microbiology testing (Monthly) | 8) Number of wet pack occurrences (Monthly) |
| 3) Water total dissolve solids (Daily) | 9) Number of instruments damage and broken |
| 4) CSSD product sterility testing (Yearly 4 to 5 times) | 10) Total load sterilized per day |
| 5) Equipment monitoring system (Washer & Sterilizer) | 11) Total cycle run per day (washer and sterilizer) |
| 6) Adenosine tri-phosphate testing (Daily) | 12) Sterilizer preventive maintenance, calibration, leak test and breakdown report |

External audits

- NABH nursing excellence audit
- c-Green OT audit
- NABH Safe-I audit
- CAHO audit
- NABH audit

Received one of the best CSSD award from Government of India



Training and Publications

- Organized 8 seminars and 2 workshops
- Published 20 national and international publication
- Published 2 newsletter publication in Indian Sterilization Hospital Association
- TMC-CSSD webpage :
<https://tmckolkata.com/in/vision-tmc/infection-control/>

Involve in various courses

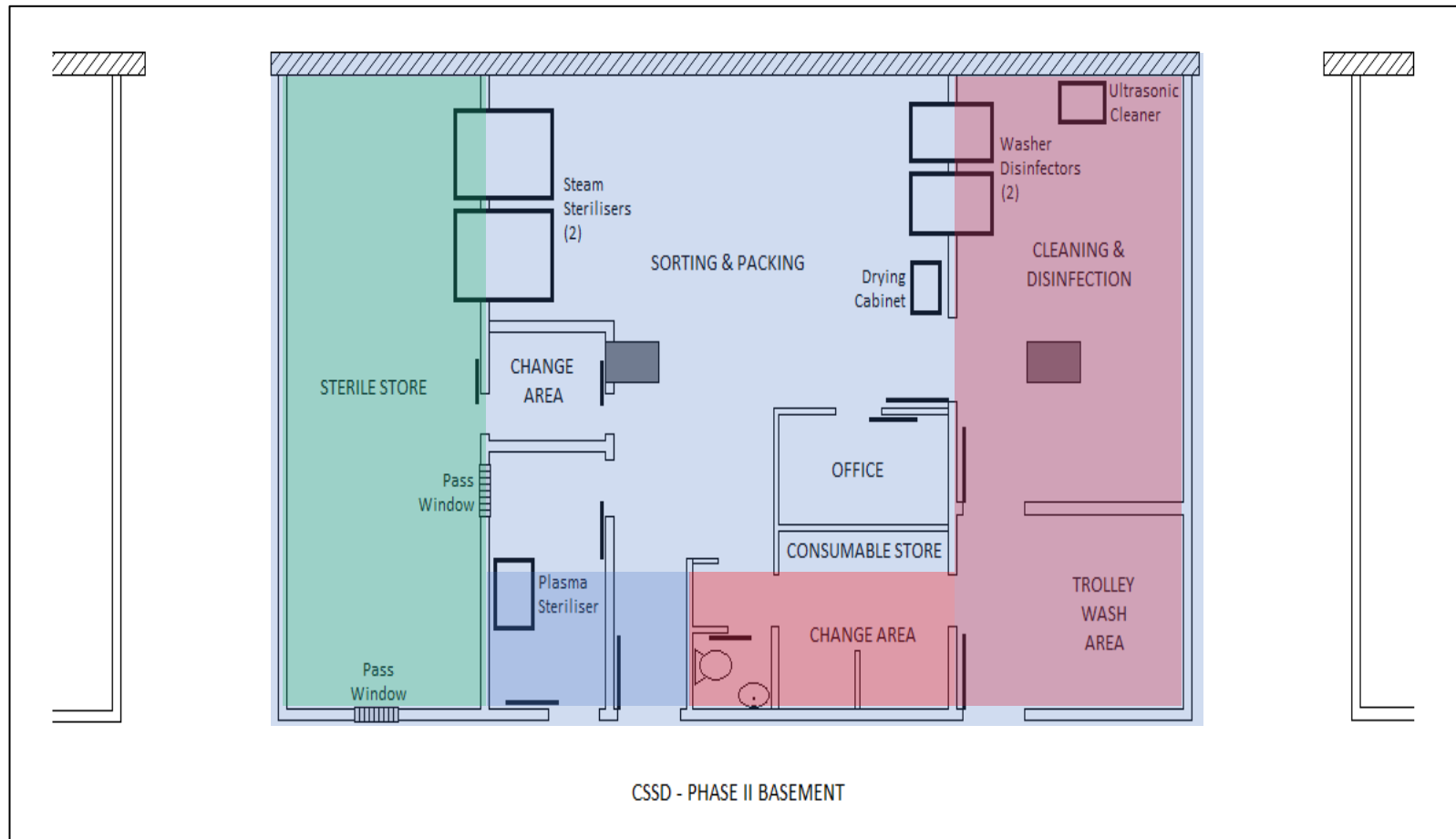
Courses description:

- 1) Diploma in Operation Theatre courses organized by Tata Medical Center and West Bengal State Medical Faculty
- 2) Molecular Medical Microbiology organized by Tata Medical Center and Kharagpur, IIT

Support other hospitals for training and project

- 1) Vedanta Hospital, Raipur
- 2) Command hospital, Kolkata
- 3) ABV regional cancer center, Tripura
- 4) Army hospital, Dhaka, Bangladesh

CSSD in Phase-II (opening shortly)



Sterile Zone



Clean Zone



Dirty Zone

Thank you

