NABH GUIDELINES FOR OPERATION THEATERS

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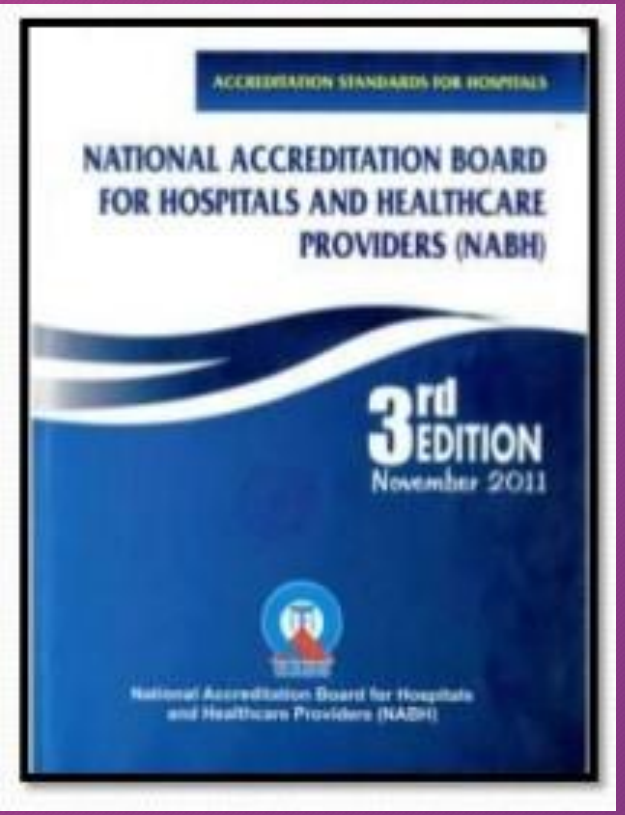

- Chapter COP 14 of NABH standards 3rd edition
- Revised guidelines for air conditioning in operation theatres (Published in Apr-2015)

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TYPES OF OTs

GENERAL OTs

- Ophthalmology
- District hospital OTs,
- FRU (First Referral Unit) OTs
- All other basic surgical disciplines

SPECIALTY OTs

- Orthopaedics (Joint Replacement)
- Cardiothoracic Surgery
- Transplant Surgery (Renal, Liver etc)

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DESIGN CONSIDERATIONS

- OT Size:

  Standard OT size of 20’ x 20’ x 10’ feet.

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DESIGN CONSIDERATIONS

- The flooring, walls and ceiling should be non porous, smooth, seamless without corners (coving) and should be easily cleanable repeatedly.

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OPTIONS FOR FLOORING

- *Poly Vinyl Chloride and Epoxy are the two options.*
- *Provision of safety against static charge.*

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OPTIONS FOR WALL AND CEILING

- Galvanized Iron
- Stainless steel
- Aluminum
- Corion (DuPont)

- Paint- antibacterial, anti-fungal

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DOORs

- Hermetically sealed doors
- Non touch technique sensor operated are preferred.

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AIR CONDITIONING

- Window & split A/c should not be used in any type of OT because they are pure re circulating units and have convenient pockets for microbial growth which cannot be sealed.

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BASIC ASSUMPTIONS FOR AHU

- Occupancy: Standard occupancy of 5-8 persons
- Equipment Load: Standard equipment load of 5-7 kW is considered per OT.
- Ambient temperature & humidity at each location to be considered while designing the system.

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AIR HANDLING UNITS

The AHUs of each OT should be separate.

AIR CHANGES

- Minimum total air changes should be 30.
- The fresh air component of the air change is required to be minimum 5 air changes out of total minimum 30 air changes.

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AIR FLOW & VELOCITY

- The airflow needs to be unidirectional and downwards on the OT table.
- The air velocity recommended is 90-120 **feet per minute** at the Grille/Diffuser level.

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HEPA FILTERS

- Terminal HEPA filters The minimum size of the filtration area should be 8’ x 6’

- The exhaust grille should be located near the floor level (approx 6 inches above the floor level)

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AIR QUALITY

GENERAL OTs

- Class 1000 air quality is accepted

SPECIALTY OTs

- Class 100/ ISO Class 5

- The air quality at the supply i.e. at grille level
- Class denotes the number of particles of size 0.5 µm or larger permitted per cubic foot of air.

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TEMPARATURE AND HUMIDITY

GENERAL OTs

- 21 +/- 3 Deg C

SPECIALTY OTs

- 18 deg C +0 -2 deg C.

Relative humidity between 40 to 60%.

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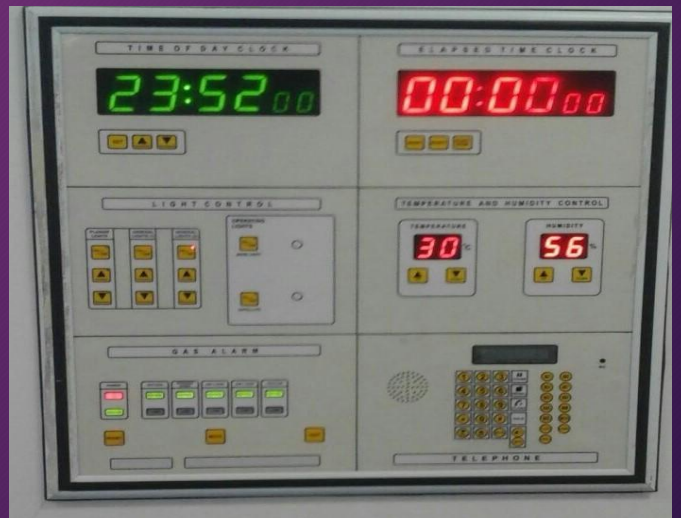
AHU CONTROL PANEL

During the non functional hours AHU blower should be operational round the clock (may be without temperature control).



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DATA LOGGER

- For capturing the data of Temperature and humidity
- This cross checks the functioning of AHU for temperature and humidity.
- Stores data for longer length e.g,1-2 month
- Should be analyzed on fortnightly basis.

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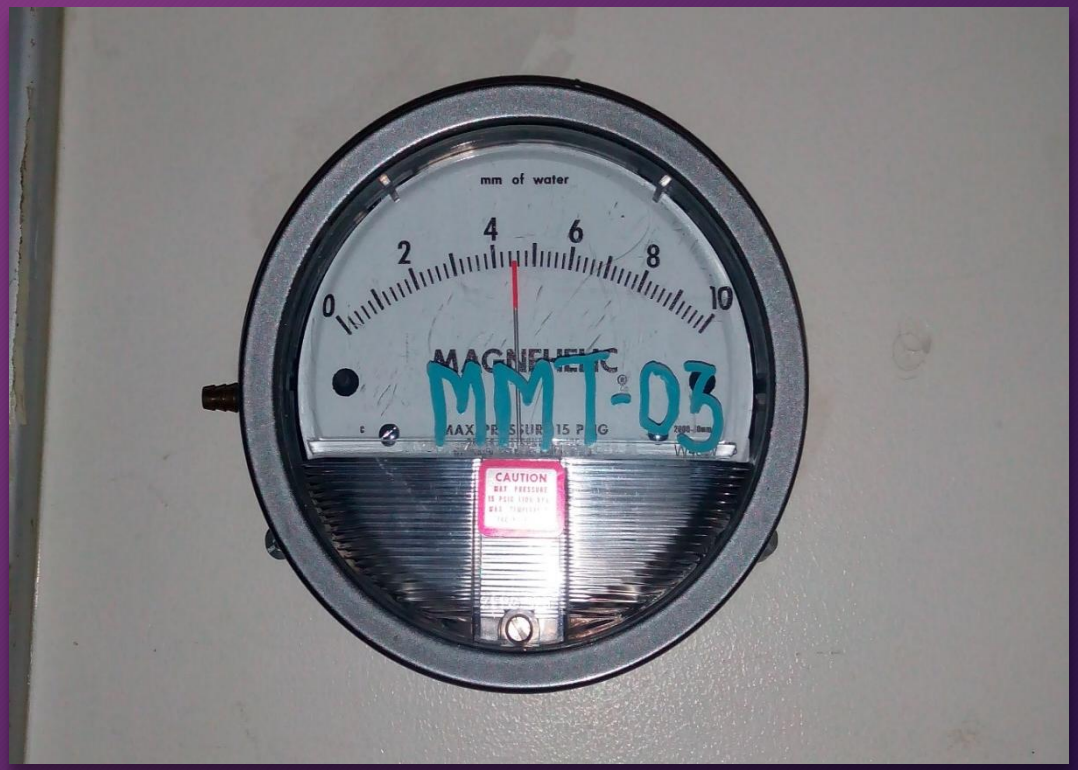
POSITIVE PRESSURE

Positive pressure differential between OT and adjoining areas is recommended to be 15 Pascal (minimum 0.05 inches of water).



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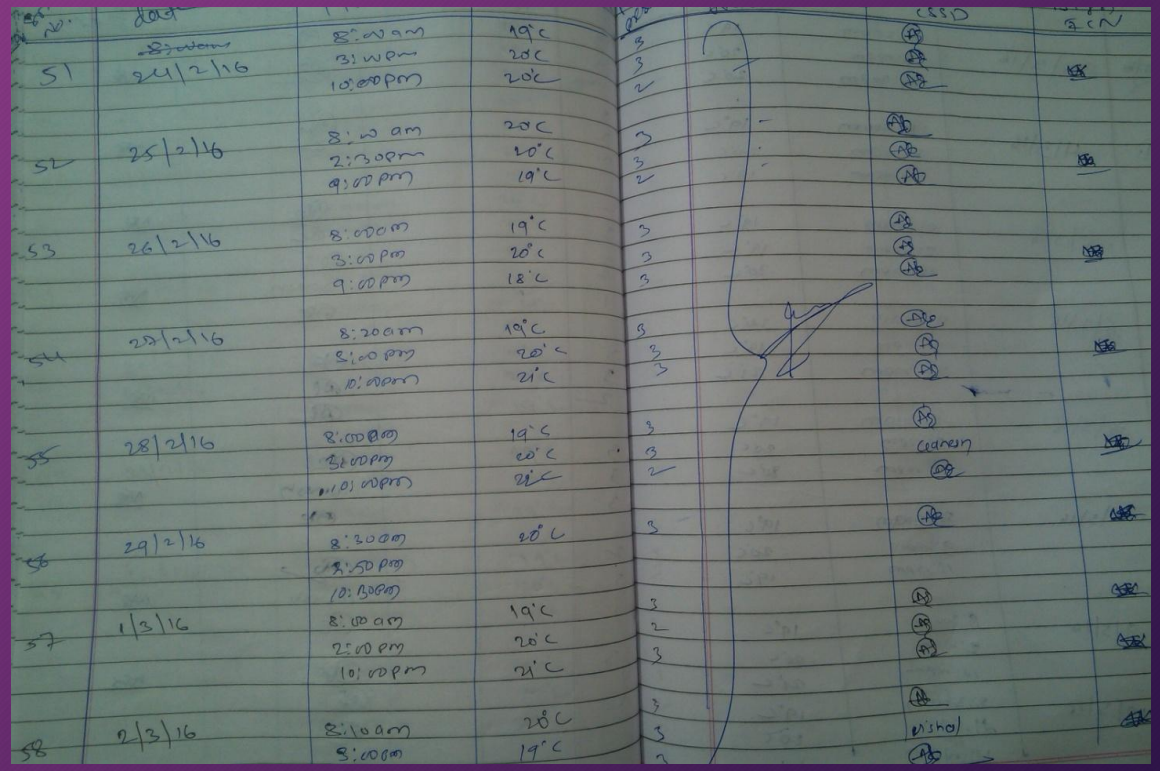
MONITORING OF PARAMETERS

- 8 HOURLY MONITORED
- RECORD SHOULD BE COUNTERCHECKED BY MAINTAINANCE PERSON AND ICN



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Daily checklists

- All autoclave / Sterilization records
- Temp & Humidity records before starting OT.
- Validation reports of Sterilization.
- Refrigerator Temp record.
- Daily check point for critical biomedical equipment.

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Weekly checklist

- Validation reports of weekly class 4 indicators (Biological indicators)
- Cleaning & sterilization records for all OTs
- Status of all Bio medical equipments by in house Bio medical engineer
- Consumption records of different cleaning materials / solutions

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FORTNIGHTLY / MONTHLY

- Pre filter cleaning every fortnightly
- Monthly stocks of all medicines, instruments
- Monthly surveillance samples for environmental surveillance of all OTs.
- Calibration status for all Measuring and monitoring equipment.
- Air flow rate to ensure required number of air cycle.

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STERILE STORAGE

- Separate air handling unit.
- Daily record of Temperature and positive pressure differential.
- Flow of sterile material should be such that cris cross movements does not occur.
- Pass box directly opening into OT from sterile storage area is preferred.

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Surgical time out

- There should be a documented procedure to prevent adverse events like Wrong Site, Wrong patient, Wrong surgery.
- This is done by implementing surgical time out procedure, which is to be called before each surgery/ procedure by OT Nurse.

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Sant Nagar, Sector No. 4, Moshi Pradhikaran, Pune-Nashik Highway, Pune-412 105. • Phone : 020-67313000

Page No. 1 of 1 — PATIENT SAFETY TIME - OUT PROCEDUR — Doc. No.: COP-F-14.1-00

Date : 17/11/19 | Time : 7:45 am | PRN :
Time out called by : Dr Santosh Sir | Name of the Patient :
OT No.: 3 | Name of the procedure : D.H.S Plating
Name of the Surgeon : Dr. S. Kamble Sir | Name of the Anaesthesia : SAT EN

Before Induction of anesthesia (With at least nurse and anesthetist)
- How is the patient identified ? Wrist Band ☑Y ☐N; Asking Name ☑Y ☐N; Asking Attendant ☑Y ☐N
- It the site marked ? ☑ Yes ☐ Not applicable
- Is the anaesthesia machine medication check complete ? ☑ Yes
- Is the pulse oximeter on the patient and functioning ? ☑ Yes
- Does the Patient have a : know allergy ? ☐ Yes ☑ No
- Physician's Fitness ☑ Available ☐ Not Available
- Pre - Anaesthesia check up & plan ☑ Available ☐ Not Available
- Informed consent for Anaesthesia ☑ Yes ☐ No
- Informed consent for Blood transfusion ☑ Yes ☐ No
- Blood, if required, kept available after grouping & cross matching ☑ Yes ☐ No
- Risk of >500 ml blood loss (7ml in children ? ☑ No ☐ Yes, and two I/Vs, central access and fluids planned

Before skin incision (With nurse, anesthetist and surgeon)
- Which Body Part
- Which Site ☑ Left ☐ Right ☐ Central
- Informed consent for Surgery
- Time Gap between the antibiotic time & incision / tourniquet time is minimum 45 min & not more than 4 hour. ☑ Yes; Which anti - biotic IV 2cm; Dose 1.5 gm; Time 7:45 am ☐ Not applicable
- To Nursing Team : ☑ Has sterility (including indicator results) been confirmed ? ☐ Are there equipment issues of any concerns ?
- Required Image reports available ☑ Yes ☐ No
- Required lab reports available ☑ Yes ☐ No
- Implant / Prosthetic available, If required ☑ Yes ☐ No ☐ Not Applicable

Before patient leaves operating room (With nurse, anaesthetist surgeon)
- Nurse Verbally Confirms : ☑ Count of instrument, sponge and needle counts ☐ Specimen labeling (read specimen labels aloud, including patient name) ☐ Whether there are any equipment problems to be addressed
- To Surgeon, Anaesthetist and Nurse. Are the key concern for recovery & management of this patient identified & accordingly. Order are given in post - Operative Notes - ☑ Yes ☐ No
- Post surgical bed in ward / ICU booked as per requirement ☑ Yes ☐ No

DR. SEEMA SURYAWANSHI M.D.(Anes... CONSULTI... 2021

Name & Sign of Anaesthesiologist | Name & Sign of / Surgeon | Name & Sign of OT Nurse

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BIO MEDICAL WASTE

- PREVENTION OF INFECTION
- For protection of your colleagues and co workers.

THANKS A LOT FOR YOUR PATIENCE